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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SCIENCE CENTER
701 MAPES ROAD
FORT MEADE, MD 20755-5350

DATE : October 18, 1999

SUBJECT: Region III Data ~~QA~~ Review

FROM : Fredrick Foreman
Region III ESAT ~~RPO~~ (3ES20)

TO : Mike Towle
Regional Project Manager (3HS31)

Attached is the organic data validation report for the 12th Street Landfill site (Case #: 27341; SDG#: CWW62, CWW89) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III ESD.

If you have any questions regarding this review, please call me at (410) 305-2629.

Attachment

cc: (b) (4) [redacted] (Weston)
WA #: 0399302 TDF: #0959

AR100047

OFFICE OF ANALYTICAL SERVICES AND QUALITY ASSURANCE

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US EPA Environmental Science Center
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LOCKHEED MARTIN

DATE: October 15, 1999

SUBJECT: Level M1 Organic Data Validation for Case 27341
SDGs CWW62 and CWW89
Site: 12th Street Landfill

FROM: (b) (4) [redacted] cy
Senior Organic Data Reviewer

(b) (4) [redacted] mm
Senior Oversight Chemist

TO: Fredrick Foreman
ESAT Regional Project Officer

OVERVIEW

Case 27341, Sample Delivery Groups (SDGs) CWW62 and CWW89, consisted of eleven (11) soil and four (4) aqueous samples submitted to Industrial Environmental Analyst, NJ (IEANJ) for volatile, semivolatile and/or pesticide/PCB analyses. The sample set included one (1) field blank, one (1) rinsate blank, one (1) trip blank and one (1) field duplicate pair. The trip blank was analyzed solely for volatile compounds. Samples were analyzed according to the EPA Contract Laboratory Program (CLP) Statement of Work (SOW) OLM03.2 through Routine Analytical Services (RAS) program.

SUMMARY

Data associated with this case were to be validated using Computer-Aided Data Review and Evaluation (CADRE) software; however, due to missing semivolatile calibration data in the electronic files as well as missing calibration data for several compounds on hardcopy, data were validated according to Innovative Approaches for Validation of Organic Data, Level M1.

Level M1 review includes the evaluation of action limits, laboratory and field blanks, sample paperwork, retention times, mass spectra, and chromatograms. Level M1 review excludes evaluation of quality control forms, calibration, and raw data. Although not required by M1 review, the reviewer observed a Minor Problem during the assessment of data quality. Data were qualified accordingly, based on Region 3 guidelines. All samples were successfully analyzed for all target compounds.

Aroclors 1254 and/or 1260 were reported in ten (10) of the eleven (11) soil samples. In pesticide/PCB analyses, where multi-component compounds are present, false positives for single component compounds are common. Caution should be exercised in interpreting positive pesticide results in samples containing PCBs.

MINOR PROBLEM

- The analysis of semivolatile sample CWW97 resulted in area counts for the internal standards 1,4-dichlorobenzene-d_4 and perylene-d_{12} outside the lower QC limits. The sample reanalysis resulted in area counts for the internal standard 1,4-dichlorobenzene-d_4 as well as three additional internal standards outside the lower QC limits; however, the area counts for the internal standard perylene-d_{12} were within QC criteria. Data reported on the Data Summary Forms (DSFs) are from the initial analysis with exception of the compounds quantitated using the internal standard perylene-d_{12} which is reported from the sample reanalysis. Quantitation limits are qualified "UJ" for compounds quantitated using the internal standard 1,4-dichlorobenzene-d_4.

NOTES

- The maximum concentrations of all target compounds found in the analyses of method, field and trip blanks are listed below.. Samples with concentrations of common laboratory contaminants less than ten times (<10X) highest blank concentration or with concentrations of other contaminants less than five times (<5X) blank concentration have been qualified "B".

Compound	Concentration		
acetone*	93		ug/L
2-butanone*	120		ug/L
methylene chloride*	3	J	ug/Kg
2-hexanone	14		ug/L
bis(2-ethylhexyl)phthalate*	33	J	ug/Kg
phenol	4	J	ug/L
diethylphthalate*	1	J	ug/L

* common laboratory contaminant

- The volatile analysis of sample CWW92 resulted in concentration of toluene outside the established calibration range. The sample was reanalyzed at a ten fold (10X) dilution and the toluene result from this analysis was reported on the DSF and annotated with a plus "+" symbol.

- The analysis of semivolatile sample CXJ67 resulted in area counts for all internal standards outside lower QC limits. The sample was reanalyzed and all internal standard area counts were within criteria. Analytical results are reported from the second analysis on DSFs.

- The semivolatile analysis of sample CWW92 resulted in concentration of bis(2-ethylhexyl)phthalate which exceeded the established calibration range. The sample was reanalyzed at a two fold (2X) dilution. The bis(2-ethylhexyl)phthalate result from the diluted analysis was reported on the DSF and annotated with a plus "+" symbol.

- The analysis of semivolatile sample CXJ68 resulted in area counts for internal standards 1,4-dichlorobenzene-d_4 and naphthalene-d_8 outside upper QC limits and the area count for internal standard chrysene-d_{12} outside the lower QC limits. In addition, the concentration of bis(2-ethylhexyl)phthalate exceeded the established calibration range. The sample was reanalyzed at a ten fold (10X) dilution and the area counts for all internal standards were within QC criteria. Analytical results are reported from the diluted analysis on the DSFs. Quantitation limits are elevated due to this dilution.

- The pesticide/PCB sample chromatograms were complex in nature. The laboratory performed both gel-permeation chromatography (GPC) and sulfur clean-up procedures on the pesticide/PCB soil samples. The complex chromatograms coupled with the chromatographic scaling factors used by the laboratory made visual PCB pattern recognition difficult for the reviewer.

- Compounds detected below Contract Required Quantitation Limits (CRQLs) were qualified "J" if not superseded by "B" on DSFs.

- Pesticide/PCB compounds with percent Difference (%D) greater than twenty five percent (>25%) between the two (2) analytical columns were qualified "J" on DSFs. See Forms 10A and/or 10B in Appendix C for comparison of compound concentrations between analytical columns.

- Volumes other than 1000 mL were extracted for the semivolatile sample analyses. In addition, masses other than 30.0 grams were extracted in both semivolatile and pesticide/PCB sample analyses. Dilution factors on DSFs were adjusted to reflect actual sample volume/mass used.

All data for Case 27341, SDGs CWW62 and CWW89, were reviewed in accordance with Innovative Approaches for Validation of Organic Data, Region III, June 1995, and the National Functional Guidelines for Evaluating Organic Analyses with modification for use within Region III, September 1994. The text of this report addresses only those problems affecting usability based upon the data provided.

ATTACHMENTS

Appendix A: Glossary of Data Qualifier Codes
Appendix B: Data Summary Forms
Appendix C: Support Documentation

DCN: 202B0959.NAR

Appendix A

Glossary of Data Qualifiers

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

Appendix B

Data Summary Forms

DATA SUMMARY FORM: VOLATILES

Case #: 27341 SDG : CWW82
Site : 12TH STREET LANDFILL
Lab. : IEANJ

Number of Soil Samples : 11
Number of Water Samples : 0

Sample Number :		CWW82		CWW84		CWW85		CWW86		CWW88	
Sampling Location :		TS-SED-01		TS-SS-03		TS-SS-04		TS-SS-05		TS-FD-01	
Field QC :								Fld. Dup. CWW88		Fld. Dup. CWW86	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		08/31/1999		08/31/1999		08/31/1999		08/31/1999		08/31/1999	
Time Sampled :		08:15		09:10		09:20		09:30		00:00	
%Moisture :		27		21		28		22		22	
pH :											
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	10										
BROMOMETHANE	10										
VINYL CHLORIDE	10										
CHLOROETHANE	10										
METHYLENE CHLORIDE	10	5	B	6	B	4	B			4	B
ACETONE	10										
CARBON DISULFIDE	10										
1,1-DICHLOROETHENE	10										
1,1-DICHLOROETHANE	10										
TOTAL 1,2-DICHLOROETHENE	10										
CHLOROFORM	10										
1,2-DICHLOROETHANE	10										
2-BUTANONE	10										
1,1,1-TRICHLOROETHANE	10										
CARBON TETRACHLORIDE	10										
BROMODICHLOROMETHANE	10										
1,2-DICHLOROPROPANE	10										
CIS-1,3-DICHLOROPROPENE	10										
TRICHLOROETHENE	10										
DIBROMOCHLOROMETHANE	10										
1,1,2-TRICHLOROETHANE	10										
BENZENE	10										
TRANS-1,3-DICHLOROPROPENE	10										
BROMOFORM	10										
4-METHYL-2-PENTANONE	10										
2-HEXANONE	10										
TETRACHLOROETHENE	10										
1,1,2,2-TETRACHLOROETHANE	10										
TOLUENE	10										
CHLOROBENZENE	10										
ETHYLBENZENE	10										
STYRENE	10										
XYLENE (TOTAL)	10										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)

Revised 09/99

DATA SUMMARY FORM: VOLATILES

Case #: 27341 SDG : CWW82
Site : 12TH STREET LANDFILL
Lab. : IEANJ

Sample Number :		CWW91		CWW92		CWW93		CXJ67		CXJ68	
Sampling Location :		TS-SB-01		TS-SB-02		TS-SB-03		TS-SED-02		TS-SS-01	
Field QC :											
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		08/31/1999		09/01/1999		09/01/1999		08/31/1999		08/31/1999	
Time Sampled :		13:40		08:50		13:40		08:35		08:55	
%Moisture :		38		33		2		27		27	
pH :											
Dilution Factor :		1.0		1.0 / 10.0		1.0		1.0		1.0	
Volatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	10										
BROMOMETHANE	10										
VINYL CHLORIDE	10										
CHLOROETHANE	10										
METHYLENE CHLORIDE	10	11	B	9	B	3	B	4	B	7	B
ACETONE	10										
CARBON DISULFIDE	10										
1,1-DICHLOROETHENE	10										
1,1-DICHLOROETHANE	10										
TOTAL 1,2-DICHLOROETHENE	10										
CHLOROFORM	10										
1,2-DICHLOROETHANE	10										
2-BUTANONE	10										
1,1,1-TRICHLOROETHANE	10										
CARBON TETRACHLORIDE	10										
BROMODICHLOROMETHANE	10										
1,2-DICHLOROPROPANE	10										
CIS-1,3-DICHLOROPROPENE	10										
TRICHLOROETHENE	10										
DIBROMOCHLOROMETHANE	10										
1,1,2-TRICHLOROETHANE	10										
BENZENE	10										
TRANS-1,3-DICHLOROPROPENE	10										
BROMOFORM	10										
4-METHYL-2-PENTANONE	10										
2-HEXANONE	10										
TETRACHLOROETHENE	10										
1,1,2,2-TETRACHLOROETHANE	10										
TOLUENE	10			1900 +							
CHLOROBENZENE	10										
ETHYLBENZENE	10										
STYRENE	10										
XYLENE (TOTAL)	10										

CRQL = Contract Required Quantitation Limit
To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)
+ = Result reported from diluted sample analysis.

SEE NARRATIVE FOR CODE DEFINITIONS
Revised 09/99

Case #: 27341 SDG : CWW62
Site : 12TH STREET LANDFILL
Lab. : IEANJ

Sample Number :		CXJ69									
Sampling Location :		TS-SS-02									
Field QC :											
Matrix :		Soil									
Units :		ug/Kg									
Date Sampled :		08/31/1999									
Time Sampled :		09:00									
%Moisture :		22									
pH :											
Dilution Factor :		1.0									
Volatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	10										
BROMOMETHANE	10										
VINYL CHLORIDE	10										
CHLOROETHANE	10										
METHYLENE CHLORIDE	10										
ACETONE	10										
CARBON DISULFIDE	10										
1,1-DICHLOROETHENE	10										
1,1-DICHLOROETHANE	10										
TOTAL 1,2-DICHLOROETHENE	10										
CHLOROFORM	10										
1,2-DICHLOROETHANE	10										
2-BUTANONE	10										
1,1,1-TRICHLOROETHANE	10										
CARBON TETRACHLORIDE	10										
BROMODICHLOROMETHANE	10										
1,2-DICHLOROPROPANE	10										
CIS-1,3-DICHLOROPROPENE	10										
TRICHLOROETHENE	10										
DIBROMOCHLOROMETHANE	10										
1,1,2-TRICHLOROETHANE	10										
BENZENE	10										
TRANS-1,3-DICHLOROPROPENE	10										
BROMOFORM	10										
4-METHYL-2-PENTANONE	10										
2-HEXANONE	10										
TETRACHLOROETHENE	10										
1,1,2,2-TETRACHLOROETHANE	10										
TOLUENE	10										
CHLOROBENZENE	10										
ETHYLBENZENE	10										
STYRENE	10										
XYLENE (TOTAL)	10										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)

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DATA SUMMARY FORM: VOLATILES

Case #: 27341
Site : 12TH STREET LANDFILL
Lab. : IEANJ

SDG : CWW89

Number of Soil Samples : 0
Number of Water Samples : 4

Sample Number :		CWW89		CWW90		CWW96		CWW97			
Sampling Location :		TS-FB-01		TS-RB-01		TS-TB-01		TS-TP-03W			
Field QC :		Field Blank		Rinsate Blank		Trip Blank					
Matrix :		Water		Water		Water		Water			
Units :		ug/L		ug/L		ug/L		ug/L			
Date Sampled :		08/31/1999		08/31/1999		08/31/1999		09/01/1999			
Time Sampled :		15:30		17:15		08:00		11:20			
%Moisture :		N/A		N/A		N/A		N/A			
pH :											
Dilution Factor :		1.0		1.0		1.0		1.0			
Volatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
CHLOROMETHANE	10										
BROMOMETHANE	10										
*VINYL CHLORIDE	10										
CHLOROETHANE	10										
*METHYLENE CHLORIDE	10										
ACETONE	10	93		93		90					
CARBON DISULFIDE	10										
*1,1-DICHLOROETHENE	10										
1,1-DICHLOROETHANE	10										
*TOTAL 1,2-DICHLOROETHENE	10										
CHLOROFORM	10										
*1,2-DICHLOROETHANE	10										
*2-BUTANONE	10	110		110		120					
*1,1,1-TRICHLOROETHANE	10										
*CARBON TETRACHLORIDE	10										
BROMODICHLOROMETHANE	10										
*1,2-DICHLOROPROPANE	10										
CIS-1,3-DICHLOROPROPENE	10										
TRICHLOROETHENE	10										
DIBROMOCHLOROMETHANE	10										
1,1,2-TRICHLOROETHANE	10										
*BENZENE	10										
TRANS-1,3-DICHLOROPROPENE	10										
BROMOFORM	10										
4-METHYL-2-PENTANONE	10										
2-HEXANONE	10	14		9	J	14					
*TETRACHLOROETHENE	10										
1,1,2,2-TETRACHLOROETHANE	10										
*TOLUENE	10										
*CHLOROBENZENE	10										
*ETHYLBENZENE	10										
*STYRENE	10										
*XYLENE (TOTAL)	10										

CRQL = Contract Required Quantitation Limit
*Action Level Exists
SEE NARRATIVE FOR CODE DEFINITIONS
To calculate sample quantitation limits multiply the CRQL by the Dilution Factor
Revised 09/99

Case #: 27341 SDG : CWW82

Site : 12TH STREET LANDFILL

Lab. : IEANJ

Number of Soil Samples : 11

Number of Water Samples : 0

Sample Number :		CWW82		CWW84		CWW85		CWW86		CWW88	
Sampling Location :		TS-SED-01		TS-SS-03		TS-SS-04		TS-SS-05		TS-FD-01	
Field QC :								Fld. Dup. CWW88		Fld. Dup. CWW86	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		08/31/1999		08/31/1999		08/31/1999		08/31/1999		08/31/1999	
Time Sampled :		08:15		09:10		09:20		09:30		00:00	
%Moisture :		27		21		28		22		22	
pH :		7.3		8.0		7.5		7.6		7.7	
Dilution Factor :		2.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
PHENOL	330	49	B	60	B						
BIS(2-CHLOROETHYL)ETHER	330										
2-CHLOROPHENOL	330										
1,3-DICHLOROBENZENE	330										
1,4-DICHLOROBENZENE	330										
1,2-DICHLOROBENZENE	330										
2-METHYLPHENOL	330										
2,2'-OXYBIS(1-CHLOROPROPANE)	330										
4-METHYLPHENOL	330										
N-NITROSO-DI-N-PROPYLAMINE	330										
HEXACHLOROETHANE	330										
NITROBENZENE	330										
ISOPHORONE	330										
2-NITROPHENOL	330										
2,4-DIMETHYLPHENOL	330										
BIS(2-CHLOROETHOXY)METHANE	330										
2,4-DICHLOROPHENOL	330										
1,2,4-TRICHLOROBENZENE	330										
NAPHTHALENE	330			36	J					120	J
4-CHLOROANILINE	330										
HEXACHLOROBUTADIENE	330										
4-CHLORO-3-METHYLPHENOL	330										
2-METHYLNAPHTHALENE	330			55	J	31	J	46	J	62	J
HEXACHLOROCYCLOPENTADIENE	330										
2,4,6-TRICHLOROPHENOL	330										
2,4,5-TRICHLOROPHENOL	830										
2-CHLORONAPHTHALENE	330										
2-NITROANILINE	830										
DIMETHYLPHTHALATE	330					51	J				
ACENAPHTHYLENE	330			40	J	120	J	47	J	54	J
2,6-DINITROTOLUENE	330										
3-NITROANILINE	830										
ACENAPHTHENE	330							36	J	180	J
2,4-DINITROPHENOL	830										

CRQL = Contract Required Quantitation Limit

To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)

SEE NARRATIVE FOR CODE DEFINITIONS

Revised 09/99

Case #: 27341 SDG : CWW82

Site : 12TH STREET LANDFILL

Lab. : IEANJ

Sample Number :		CWW82		CWW84		CWW85		CWW86		CWW88	
Sampling Location :		TS-SED-01		TS-SS-03		TS-SS-04		TS-SS-05		TS-FD-01	
Field QC :								Fld. Dup. CWW88		Fld. Dup. CWW86	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		08/31/1999		08/31/1999		08/31/1999		08/31/1999		08/31/1999	
Time Sampled :		08:15		09:10		09:20		09:30		00:00	
%Moisture :		27		21		28		22		22	
pH :		7.3		8.0		7.5		7.8		7.7	
Dilution Factor :		2.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	CRQL	*Result*	*Flag*	*Result*	*Flag*	*Result*	*Flag*	*Result*	*Flag*	*Result*	*Flag*
4-NITROPHENOL	830										
DIBENZOFURAN	330	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2,4-DINITROTOLUENE	330										
DIETHYLPHTHALATE	330	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4-CHLOROPHENYL-PHENYLETHER	330										
FLUORENE	330	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4-NITROANILINE	830										
4,6-DINITRO-2-METHYLPHENOL	830	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
N-NITROSODIPHENYLAMINE	330										
4-BROMOPHENYL-PHENYLETHER	330	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
HEXACHLOROBENZENE	330										
PENTACHLOROPHENOL	830	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
PHENANTHRENE	330	81	J	250	J	200	J	470		980	
ANTHRACENE	330	35	J	66	J	140	J	100	J	230	J
CARBAZOLE	330					37	J	35	J	120	J
DI-N-BUTYLPHTHALATE	330	130	J	63	J	78	J	82	J	63	J
FLUORANTHENE	330	200	J	480		840		800		1200	
PYRENE	330	280	J	500		980		920		1400	
BUTYLBENZYLPHTHALATE	330	55	J	71	J	100	J	59	J	78	J
3,3'-DICHLOROBENZIDINE	330										
BENZO(A)ANTHRACENE	330	180	J	360	J	740		510		740	
CHRYSENE	330	160	J	300	J	900		420		630	
BIS(2-ETHYLHEXYL)PHTHALATE	330	1000		900		1400		890		980	
DI-N-OCTYLPHTHALATE	330	66	J	82	J	140	J	74	J	91	J
BENZO(B)FLUORANTHENE	330	200	J	540		2000		660		920	
BENZO(K)FLUORANTHENE	330	100	J	210	J	570		290	J	320	J
BENZO(A)PYRENE	330	170	J	370	J	1000		470		630	
INDENO(1,2,3-CD)PYRENE	330	79	J	250	J	530		270	J	290	J
DIBENZ(A,H)ANTHRACENE	330	29	J	78	J	170	J	80	J	88	J
BENZO(G,H,I)PERYLENE	330	92	J	280	J	530		270	J	320	J

CRQL = Contract Required Quantitation Limit

To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)

SEE NARRATIVE FOR CODE DEFINITIONS

Revised 09/99

Case #: 27341 SDG : CWW62
Site : 12TH STREET LANDFILL
Lab. : IEANJ

Sample Number :		CWW91		CWW92		CWW93		CXJ67RR		CXJ68DL	
Sampling Location :		TS-SB-01		TS-SB-02		TS-SB-03		TS-SED-02		TS-SS-01	
Field QC :											
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		08/31/1999		09/01/1999		09/01/1999		08/31/1999		08/31/1999	
Time Sampled :		13:40		08:50		13:40		08:35		08:55	
%Moisture :		36		33		2		21		12	
pH :		8.1		8.1		6.9		7.5		8.0	
Dilution Factor :		1.0		1.0 / 2.0		1.0		1.0		10.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
PHENOL	330	620	B							110	B
BIS(2-CHLOROETHYL)ETHER	330										
2-CHLOROPHENOL	330										
1,3-DICHLOROBENZENE	330										
1,4-DICHLOROBENZENE	330										
1,2-DICHLOROBENZENE	330										
2-METHYLPHENOL	330	46	J								
2,2'-OXYBIS(1-CHLOROPROPANE)	330										
4-METHYLPHENOL	330										
N-NITROSO-DI-N-PROPYLAMINE	330										
HEXACHLOROETHANE	330										
NITROBENZENE	330										
ISOPHORONE	330	57	J	65	J					24	J
2-NITROPHENOL	330										
2,4-DIMETHYLPHENOL	330										
BIS(2-CHLOROETHOXY)METHANE	330										
2,4-DICHLOROPHENOL	330										
1,2,4-TRICHLOROBENZENE	330										
NAPHTHALENE	330	50	J	84	J						
4-CHLOROANILINE	330										
HEXACHLOROBUTADIENE	330										
4-CHLORO-3-METHYLPHENOL	330										
2-METHYLNAPHTHALENE	330	130	J	1300						20	J
HEXACHLOROCYCLOPENTADIENE	330										
2,4,6-TRICHLOROPHENOL	330										
2,4,5-TRICHLOROPHENOL	830										
2-CHLORONAPHTHALENE	330										
2-NITROANILINE	830										
DIMETHYLPHTHALATE	330	54	J								
ACENAPHTHYLENE	330			92	J					45	J
2,6-DINITROTOLUENE	330										
3-NITROANILINE	830										
ACENAPHTHENE	330	69	J	65	J						
2,4-DINITROPHENOL	830										

CRQL = Contract Required Quantitation Limit

To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)

SEE NARRATIVE FOR CODE DEFINITIONS

Revised 09/99

Case #: 27341 SDG : CWW62

Site : 12TH STREET LANDFILL

Lab. : IEANJ

Sample Number :		CWW91		CWW92		CWW93		CXJ67RR		CXJ68DL	
Sampling Location :		TS-SB-01		TS-SB-02		TS-SB-03		TS-SED-02		TS-SS-01	
Field QC :											
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		08/31/1999		09/01/1999		09/01/1999		08/31/1999		08/31/1999	
Time Sampled :		13:40		08:50		13:40		08:35		08:55	
%Moisture :		36		33		2		21		12	
pH :		8.1		8.1		8.9		7.5		8.0	
Dilution Factor :		1.0		1.0 / 2.0		1.0		1.0		10.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
4-NITROPHENOL	830										
DIBENZOFURAN	330	68	J	50	J						
2,4-DINITROTOLUENE	330										
DIETHYLPHTHALATE	330										
4-CHLOROPHENYL-PHENYLETHER	330										
FLUORENE	330			30	J						
4-NITROANILINE	830										
4,6-DINITRO-2-METHYLPHENOL	830										
N-NITROSODIPHENYLAMINE	330										
4-BROMOPHENYL-PHENYLETHER	330										
HEXACHLOROBENZENE	330										
PENTACHLOROPHENOL	830										
PHENANTHRENE	330	57	J	440	J					220	J
ANTHRACENE	330			100	J					64	J
CARBAZOLE	330			50	J						
DI-N-BUTYLPHTHALATE	330	1100		68	J					42	J
FLUORANTHENE	330	71	J	910						450	J
PYRENE	330	110	J	1000		28	J			490	J
BUTYLBENZYLPHTHALATE	330	190	J	150	J						
3,3'-DICHLOROBENZIDINE	330										
BENZO(A)ANTHRACENE	330	50	J	640						250	J
CHRYSENE	330	62	J	610						360	J
BIS(2-ETHYLHEXYL)PHTHALATE	330	1100		3000 +		1100		28	B	22000	
DI-N-OCTYLPHTHALATE	330	290	J	190	J					68	J
BENZO(B)FLUORANTHENE	330	99	J	940						400	J
BENZO(K)FLUORANTHENE	330	42	J	320	J					210	J
BENZO(A)PYRENE	330	59	J	620						270	J
INDENO(1,2,3-CD)PYRENE	330	44	J	340	J					140	J
DIBENZ(A,H)ANTHRACENE	330			96	J						
BENZO(G,H,I)PERYLENE	330	78	J	310	J	38	J			120	J

CRQL = Contract Required Quantitation Limit

To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)

+ = Result reported from diluted sample analysis.

SEE NARRATIVE FOR CODE DEFINITIONS

Revised 09/99

Case #: 27341 SDG : CWW62
Site : 12TH STREET LANDFILL
Lab. : IEANJ

Sample Number :		CXJ69									
Sampling Location :		TS-SS-02									
Field QC :											
Matrix :		Soil									
Units :		ug/Kg									
Date Sampled :		08/31/1999									
Time Sampled :		09:00									
%Moisture :		22									
pH :		7.6									
Dilution Factor :		1.0									
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
PHENOL	330										
BIS(2-CHLOROETHYL)ETHER	330										
2-CHLOROPHENOL	330										
1,3-DICHLOROBENZENE	330										
1,4-DICHLOROBENZENE	330										
1,2-DICHLOROBENZENE	330										
2-METHYLPHENOL	330										
2,2'-OXYBIS(1-CHLOROPROPANE)	330										
4-METHYLPHENOL	330										
N-NITROSO-DI-N-PROPYLAMINE	330										
HEXACHLOROETHANE	330										
NITROBENZENE	330										
ISOPHORONE	330										
2-NITROPHENOL	330										
2,4-DIMETHYLPHENOL	330										
BIS(2-CHLOROETHOXY)METHANE	330										
2,4-DICHLOROPHENOL	330										
1,2,4-TRICHLOROBENZENE	330										
NAPHTHALENE	330										
4-CHLOROANILINE	330										
HEXACHLOROBUTADIENE	330										
4-CHLORO-3-METHYLPHENOL	330										
2-METHYLNAPHTHALENE	330	32	J								
HEXACHLOROCYCLOPENTADIENE	330										
2,4,6-TRICHLOROPHENOL	330										
2,4,5-TRICHLOROPHENOL	830										
2-CHLORONAPHTHALENE	330										
2-NITROANILINE	830										
DIMETHYLPHTHALATE	330										
ACENAPHTHYLENE	330	41	J								
2,6-DINITROTOLUENE	330										
3-NITROANILINE	830										
ACENAPHTHENE	330										
2,4-DINITROPHENOL	830										

CRQL = Contract Required Quantitation Limit

To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)

SEE NARRATIVE FOR CODE DEFINITIONS

Revised 09/99

Case #: 27341 SDG : CWW62
Site : 12TH STREET LANDFILL
Lab. : IEANJ

Sample Number :		CXJ69									
Sampling Location :		TS-SS-02									
Field QC :											
Matrix :		Soil									
Units :		ug/Kg									
Date Sampled :		08/31/1999									
Time Sampled :		09:00									
%Moisture :		22									
pH :		7.8									
Dilution Factor :		1.0									
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
4-NITROPHENOL	830										
DIBENZOFURAN	330										
2,4-DINITROTOLUENE	330										
DIETHYLPHTHALATE	330										
4-CHLOROPHENYL-PHENYLETHER	330										
FLUORENE	330										
4-NITROANILINE	830										
4,6-DINITRO-2-METHYLPHENOL	830										
N-NITROSODIPHENYLAMINE	330										
4-BROMOPHENYL-PHENYLETHER	330										
HEXACHLOROBENZENE	330										
PENTACHLOROPHENOL	830										
PHENANTHRENE	330	210	J								
ANTHRACENE	330	61	J								
CARBAZOLE	330										
DI-N-BUTYLPHTHALATE	330	49	J								
FLUORANTHENE	330	390	J								
PYRENE	330	490									
BUTYLBENZYLPHTHALATE	330	110	J								
3,3'-DICHLOROBENZIDINE	330										
BENZO(A)ANTHRACENE	330	330	J								
CHRYSENE	330	260	J								
BIS(2-ETHYLHEXYL)PHTHALATE	330	1400									
DI-N-OCTYLPHTHALATE	330	150	J								
BENZO(B)FLUORANTHENE	330	510									
BENZO(K)FLUORANTHENE	330	180	J								
BENZO(A)PYRENE	330	300	J								
INDENO(1,2,3-CD)PYRENE	330	200	J								
DIBENZ(A,H)ANTHRACENE	330	59	J								
BENZO(G,H,I)PERYLENE	330	180	J								

CRQL = Contract Required Quantitation Limit

To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)

SEE NARRATIVE FOR CODE DEFINITIONS

Revised 09/99

Case #: 27341 SDG : CWW89

Site : 12TH STREET LANDFILL

Lab. : IEANJ

Number of Soil Samples : 0

Number of Water Samples : 3

Sample Number :		CWW89		CWW90		CWW97					
Sampling Location :		TS-FB-01		TS-RB-01		TS-TP-03W					
Field QC :		Field Blank		Rinsate Blank							
Matrix :		Water		Water		Water					
Units :		ug/L		ug/L		ug/L					
Date Sampled :		08/31/1999		08/31/1999		09/01/1999					
Time Sampled :		15:30		17:15		11:20					
%Moisture :		N/A		N/A		N/A					
pH :											
Dilution Factor :		1.1		1.2		1.0					
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
PHENOL	10	4	J	3	J		U				
BIS(2-CHLOROETHYL)ETHER	10						U				
2-CHLOROPHENOL	10						U				
*1,3-DICHLOROBENZENE	10						U				
*1,4-DICHLOROBENZENE	10						U				
1,2-DICHLOROBENZENE	10						U				
2-METHYLPHENOL	10						U				
2,2'-OXYBIS(1-CHLOROPROPANE)	10						U				
4-METHYLPHENOL	10						U				
N-NITROSO-DI-N-PROPYLAMINE	10						U				
HEXACHLOROETHANE	10						U				
NITROBENZENE	10										
ISOPHORONE	10										
2-NITROPHENOL	10										
2,4-DIMETHYLPHENOL	10										
BIS(2-CHLOROETHOXY)METHANE	10										
2,4-DICHLOROPHENOL	10										
1,2,4-TRICHLOROBENZENE	10										
NAPHTHALENE	10										
4-CHLOROANILINE	10										
HEXACHLOROBUTADIENE	10										
4-CHLORO-3-METHYLPHENOL	10										
2-METHYLNAPHTHALENE	10										
HEXACHLOROCYCLOPENTADIENE	10										
2,4,6-TRICHLOROPHENOL	10										
2,4,5-TRICHLOROPHENOL	25										
2-CHLORONAPHTHALENE	10										
2-NITROANILINE	25										
DIMETHYLPHTHALATE	10										
ACENAPHTHYLENE	10										
2,6-DINITROTOLUENE	10										
3-NITROANILINE	25										
ACENAPHTHENE	10										
2,4-DINITROPHENOL	25										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits multiply the CRQL by the Dilution Factor

Revised 09/99

Case #: 27341 SDG : CWW89

Site : 12TH STREET LANDFILL

Lab. : IEANJ

Sample Number :		CWW89		CWW90		CWW97					
Sampling Location :		TS-FB-01		TS-RB-01		TS-TP-03W					
Field QC :		Field Blank		Rinsate Blank							
Matrix :		Water		Water		Water					
Units :		ug/L		ug/L		ug/L					
Date Sampled :		08/31/1999		08/31/1999		09/01/1999					
Time Sampled :		15:30		17:15		11:20					
%Moisture :		N/A		N/A		N/A					
pH :											
Dilution Factor :		1.1		1.2		1.0					
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
4-NITROPHENOL	25										
DIBENZOFURAN	10										
2,4-DINITROTOLUENE	10										
DIETHYLPHTHALATE	10										
4-CHLOROPHENYL-PHENYLETHER	10										
FLUORENE	10										
4-NITROANILINE	25										
4,6-DINITRO-2-METHYLPHENOL	25										
N-NITROSODIPHENYLAMINE	10										
4-BROMOPHENYL-PHENYLETHER	10										
*HEXACHLOROBENZENE	10										
*PENTACHLOROPHENOL	25										
PHENANTHRENE	10										
ANTHRACENE	10										
CARBAZOLE	10										
DI-N-BUTYLPHTHALATE	10										
FLUORANTHENE	10										
PYRENE	10										
BUTYLBENZYLPHTHALATE	10										
3,3'-DICHLOROBENZIDINE	10										
BENZO(A)ANTHRACENE	10										
CHRYSENE	10										
BIS(2-ETHYLHEXYL)PHTHALATE	10										
DI-N-OCTYLPHTHALATE	10										
BENZO(B)FLUORANTHENE	10										
BENZO(K)FLUORANTHENE	10										
BENZO(A)PYRENE	10										
INDENO(1,2,3-CD)PYRENE	10										
DIBENZ(A,H)ANTHRACENE	10										
BENZO(G,H,I)PERYLENE	10										

CRQL = Contract Required Quantitation Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits multiply the CRQL by the Dilution Factor Revised 09/99

DATA SUMMARY FORM: PESTICIDES AND PCBS

Case #: 27341 SDG : CWW82

Site : 12TH STREET LANDFILL

Lab. : IEANJ

Number of Soil Samples : 11

Number of Water Samples : 0

Sample Number :		CWW82		CWW84		CWW85		CWW86		CWW88	
Sampling Location :		TS-SED-01		TS-SS-03		TS-SS-04		TS-SS-05		TS-FD-01	
Field QC :								Fld. Dup. CWW88		Fld. Dup. CWW86	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		08/31/1999		08/31/1999		08/31/1999		08/31/1999		08/31/1999	
Time Sampled :		08:15		09:10		09:20		09:30		00:00	
%Moisture :		27		21		28		22		22	
pH :		7.3		8.0		7.5		7.6		7.7	
Dilution Factor :		0.99		1.0		1.0		1.0		1.0	
Pesticide/PCB Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	1.7										
BETA-BHC	1.7										
DELTA-BHC	1.7										
GAMMA-BHC (LINDANE)	1.7										
HEPTACHLOR	1.7										
ALDRIN	1.7										
HEPTACHLOR EPOXIDE	1.7	0.64	J								
ENDOSULFAN I	1.7			1.1	J	0.64	J	0.36	J	0.36	J
DIELDRIN	3.3			4.9	J	9.4	J				
4,4'-DDE	3.3	2.0	J	2.0	J	3.2	J	2.1	J	2.0	J
ENDRIN	3.3	3.2	J	2.6	J	4.2	J	4.1	J	2.7	J
ENDOSULFAN II	3.3	5.9	J	1.0	J	5.2	J	4.3	J	2.0	J
4,4'-DDD	3.3	11		4.5		9.6		9.1	J	6.5	J
ENDOSULFAN SULFATE	3.3	1.6	J								
4,4'-DDT	3.3	1.6	J	4.3	J	6.6	J	3.7	J	3.5	J
METHOXYCHLOR	17			4.1	J	33	J	10	J	6.4	J
ENDRIN KETONE	3.3										
ENDRIN ALDEHYDE	3.3	12	J	4.1	J	7.4	J	2.0	J	2.2	J
ALPHA-CHLORDANE	1.7	2.6	J					1.4	J		
GAMMA-CHLORDANE	1.7	1.9	J								
TOXAPHENE	170										
AROCLOR-1016	33										
AROCLOR-1221	67										
AROCLOR-1232	33										
AROCLOR-1242	33										
AROCLOR-1248	33										
AROCLOR-1254	33										
AROCLOR-1260	33	170	J	68	J	100	J	65		68	J

CRQL = Contract Required Quantitation Limit

To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)

SEE NARRATIVE FOR CODE DEFINITIONS

Revised 09/99

DATA SUMMARY FORM: PESTICIDES AND PCBS

Case #: 27341 SDG : CWW82
Site : 12TH STREET LANDFILL
Lab. : IEANJ

Sample Number :		CWW91		CWW92		CWW93		CXJ67		CXJ68	
Sampling Location :		TS-SB-01		TS-SB-02		TS-SB-03		TS-SED-02		TS-SS-01	
Field QC :											
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		08/31/1999		09/01/1999		09/01/1999		08/31/1999		08/31/1999	
Time Sampled :		13:40		08:50		13:40		08:35		08:55	
%Moisture :		38		33		2		21		12	
pH :		8.1		8.1		8.9		7.5		8.0	
Dilution Factor :		1.0		1.0		1.0		0.99		1.0	
Pesticide/PCB Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	1.7							0.13	J		
BETA-BHC	1.7										
DELTA-BHC	1.7										
GAMMA-BHC (LINDANE)	1.7										
HEPTACHLOR	1.7										
ALDRIN	1.7										
HEPTACHLOR EPOXIDE	1.7	0.83	J			0.55	J				
ENDOSULFAN I	1.7	0.39	J			0.28	J			0.22	J
DIELDRIN	3.3	1.4	J	2.1	J	0.35	J				
4,4'-DDE	3.3	2.0	J	11	J	1.9	J			2.2	J
ENDRIN	3.3	3.4	J	12	J	2.1	J			3.6	J
ENDOSULFAN II	3.3	2.0	J	5.3	J						
4,4'-DDD	3.3	4.4	J	10	J	12	J	0.81	J	13	
ENDOSULFAN SULFATE	3.3										
4,4'-DDT	3.3	1.8	J	9.8	J			0.66	J	8.4	J
METHOXYCHLOR	17	5.2	J	16	J					87	J
ENDRIN KETONE	3.3										
ENDRIN ALDEHYDE	3.3			5.4	J	1.0	J			13	J
ALPHA-CHLORDANE	1.7	0.94	J			1.7		0.15	J		
GAMMA-CHLORDANE	1.7					0.26	J			5.4	J
TOXAPHENE	170										
AROCLOR-1016	33										
AROCLOR-1221	67										
AROCLOR-1232	33										
AROCLOR-1242	33										
AROCLOR-1248	33										
AROCLOR-1254	33	37	J	150	J	27	J			130	J
AROCLOR-1260	33			71						200	

CRQL = Contract Required Quantitation Limit
To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)

SEE NARRATIVE FOR CODE DEFINITIONS
Revised 09/99

DATA SUMMARY FORM: PESTICIDES AND PCBS

Case #: 27341 SDG : CWW62
Site : 12TH STREET LANDFILL
Lab. : IEANJ

Sample Number :		CXJ69									
Sampling Location :		TS-SS-02									
Field QC :											
Matrix :		Soil									
Units :		ug/Kg									
Date Sampled :		08/31/1999									
Time Sampled :		09:00									
%Moisture :		22									
pH :		7.8									
Dilution Factor :		1.0									
Pesticide/PCB Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	1.7										
BETA-BHC	1.7										
DELTA-BHC	1.7										
GAMMA-BHC (LINDANE)	1.7										
HEPTACHLOR	1.7										
ALDRIN	1.7	0.36	J								
HEPTACHLOR EPOXIDE	1.7										
ENDOSULFAN I	1.7										
DIELDRIN	3.3	4.5									
4,4'-DDE	3.3	1.0	J								
ENDRIN	3.3										
ENDOSULFAN II	3.3	1.0	J								
4,4'-DDD	3.3										
ENDOSULFAN SULFATE	3.3										
4,4'-DDT	3.3	2.9	J								
METHOXYCHLOR	17	9.0	J								
ENDRIN KETONE	3.3										
ENDRIN ALDEHYDE	3.3	2.3	J								
ALPHA-CHLORDANE	1.7										
GAMMA-CHLORDANE	1.7										
TOXAPHENE	170										
AROCLOR-1016	33										
AROCLOR-1221	67										
AROCLOR-1232	33										
AROCLOR-1242	33										
AROCLOR-1248	33										
AROCLOR-1254	33										
AROCLOR-1260	33	48									

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor/((100 - %Moisture)/100)

Revised 09/99

DATA SUMMARY FORM: PESTICIDES AND PCBS

Case #: 27341 SDG : CWW89 Number of Soil Samples : 0
Site : 12TH STREET LANDFILL Number of Water Samples : 3
Lab. : IEANJ

Sample Number :		CWW89		CWW90		CWW97					
Sampling Location :		TS-FB-01		TS-RB-01		TS-TP-03W					
Field QC :		Field Blank		Rinsate Blank							
Matrix :		Water		Water		Water					
Units :		ug/L		ug/L		ug/L					
Date Sampled :		08/31/1999		08/31/1999		09/01/1999					
Time Sampled :		15:30		17:15		11:20					
%Moisture :		0		0		0					
pH :											
Dilution Factor :		1.1		1.1		1.0					
Pesticide/PCB Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
ALPHA-BHC	0.050										
BETA-BHC	0.050										
DELTA-BHC	0.050										
*GAMMA-BHC (LINDANE)	0.050										
*HEPTACHLOR	0.050										
ALDRIN	0.050										
HEPTACHLOR EPOXIDE	0.050										
ENDOSULFAN I	0.050										
DIELDRIN	0.10										
4,4'-DDE	0.10										
*ENDRIN	0.10										
ENDOSULFAN II	0.10										
4,4'-DDD	0.10										
ENDOSULFAN SULFATE	0.10										
4,4'-DDT	0.10										
*METHOXYCHLOR	0.50										
ENDRIN KETONE	0.10										
ENDRIN ALDEHYDE	0.10										
ALPHA-CHLORDANE	0.050										
GAMMA-CHLORDANE	0.050										
*TOXAPHENE	5.0										
*AROCLOR-1016	1.0										
*AROCLOR-1221	2.0										
*AROCLOR-1232	1.0										
*AROCLOR-1242	1.0										
*AROCLOR-1248	1.0										
*AROCLOR-1254	1.0										
*AROCLOR-1260	1.0										

CRQL = Contract Required Quantitation Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS
To calculate sample quantitation limits multiply the CRQL by the Dilution Factor Revised 09/99

Appendix C

Support Documentation

EPA United States Environmental Protection Agency
Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

Case No. 27341

1. Project Code: 5472	Account Code:	2. Region No.: 3	Sampling Co.: SATA/ Weston	4. Date Shipped: 9-01-99	Carrier: Fed Ex
Regional Information		[redacted] (b)(4)		Airbill Number: 8132 3850 4272	
Non-Superfund Program		Sampler Signature: [signature]		5. Ship To: Severn Trent, 55 South Park Drive, Colchester, VT 05446	
Site Name: 12th St. Land Fill		3. Purpose*			
City, State: Wilmington, DE	Site Spill ID:			ATTN: Jim Madison	

3. Purpose*
- Lead: [X] SF, [ ] PRP, [ ] ST, [ ] FED
- Early Action: [ ] CLEM, [ ] PA, [X] REM, [ ] RI, [ ] SI, [ ] ESI
- Long-Term Action: [ ] FS, [ ] RD, [✓] RA, [ ] O&M, [ ] NPLD

6. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify in Column A)

7. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. Other (Specify in Column D)
N. Not preserved

CLP Sample Numbers (from labels)	A Matrix (from Box 6) / Other:	B Conc.: Low Med High	C Sample Type: Comp Grab	D Preservative (from Box 7) / Other:	E RAS Analysis: VOA	BNA	Pest/PCB	High only / ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Field QC Qualifier (B = Blank, S = Spike, D = Duplicate, R = Rinsate, PE = Performance Eval., — = Not a QC Sample)
CWW62	5	Low	Grab	5	X	X	X	MCB	3-85432 → 3-85433	TS-SED-01	8/31/99/0815	MCW448	MDG	
CXJ67	5	Low	Grab	5	X	X	X	PS	3-85435 → 3-85436	TS-SED-02	8/31/99/0835	[illegible]	[illegible]	
CXJ68	5	Low	Grab	5	X	X	X	49	3-85438 → 3-85439	TS-SS-01	8/31/99/0855	[illegible]	MDG	
CXJ69	5	Low	Grab	5	X	X	X	10-49	3-85441 → 3-85442	TS-SS-02	8/31/99/0900	MCY897	[illegible]	
CWW84	5	Low	Grab	5	X	X	X		3-85444 → 3-85445	TS-SS-03	8/31/99/0910	MCY898	[illegible]	
CWW85	5	Low	Grab	5	X	X	X		3-85447 → 3-85448	TS-SS-04	8/31/99/0920	MCY899	[illegible]	
CWW86	5	Low	Grab	5	X	X	X		3-85450, 3-85452	TS-SS-05	8/31/99/0930	MCYC00	[illegible]	
Dup of CWW86 CWW88	5	Low	Grab	5	X	X	X		3-2236438 → 3-2236439	TS-FD-01	8/31/99/0000	MCYC02	MDG	CWW86 D
CWW89	4	Low	Grab	1	X				3-2236441 → 3-2236443	TS-FB-01	8/31/99/1530	MCYC03	[illegible]	B
Field Blank CWW89	4	Low	Grab	5		X	X		3-2236444 → 3-2236447	TS-FB-01	8/31/99/1530	MCYC03	[illegible]	B

Shipment for Case Complete? (Y/N)	Page 1 of 2	Sample(s) to be Used for Laboratory QC	Additional Sampler Signatures: [signature]	Chain of Custody Seal Number(s)

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[redacted] (b)(4)	9-1-99 / 1730				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

DISTRIBUTION: Blue - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy; Yellow - Lab Copy for Return to CLASS

EPA Form 9110-2 (2/98)

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

A21-012-15 REV

386437

AR100071

EPA United States Environmental Protection Agency Contract Laboratory Program

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

Case No. 27341

1. Project Code: 5472	Account Code:	2. Region No.: 3	Sampling Co.: SAIC/Weston	4. Date Shipped: 9-01-99	Carrier: Fed Ex
Regional Information		S[redacted] (4) (b)		Airbill Number: 8132 3850 4272	
Non-Superfund Program		Sampler Signature: [signature]		5. Ship To: Severn Trent, 55 South Park Drive, Colchester, VT. 05446, ATTN: Jim Madison	
Site Name: 12th St. Landfill		3. Purpose*: Lead: [X] SF, [ ] PRP, [ ] ST, [ ] FED; Early Action: [ ] CLEM, [ ] PA, [X] REM, [ ] RI, [ ] SI, [ ] ESI; Long-Term Action: [ ] FS, [ ] RD, [ ] RA, [ ] O&M, [ ] NPLD			
City, State: Wilm., DE	Site Spill ID				

6. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify in Column A)

7. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Ice only 6. Other (Specify in Column D) N. Not preserved

	CLP Sample Numbers (from labels)	A Matrix (from Box 6) Other:	B Conc. Low Med High	C Sample Type: Comp. Grab	D Preservative (from Box 7) Other:	E RAS Analysis VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K Field QC Qualifier (B = Blank, S = Spike, D = Duplicate, R = Rinsate, PE = Performance Eval., — = Not a QC Sample)
Rinsate	CWW90	4	low	Grab	1	X				3-2240346 → 3-2240348	TS-RB-01	8/31/99/1715	MCYC04	WM/PMD	B
Blank	CWW90	4	low	Grab	5		X	X		3-2240349 → 3-2240352	TS-RB-01	8/31/99/1715	MCYC04	WM/PMD	B
Trip	CWW96	4	low	Grab	1	X				3-2240370 → 3-2240372	TS-TB-01	8/31/99/0800	-NA-	WM/PMD	B
	CWW91	5	low	Grab	5	[redacted]				3-2240355 → 3-2240356	TS-SB-01	8/31/99/1340	MCYC05	WM/PMD	
	CWW92	5	low	Grab	5	[redacted]				3-2240358 → 3-2240359	TS-SB-02	9/01/99/0850	MCYC06	WM/PMD	
	CWW97	2	low	Grab	1	X				3-2240373 → 3-2240375	TS-TP-03W	9/01/99/1120	MCYC10	WM/PMD	
	CWW97	2	low	Grab	5		X	X		3-2240376 → 3-2240379	TS-TP-03W	9/01/99/1120	MCYC10	WM/PMD	
	CWW93	5	low	Grab	5	[redacted]				3-2240361 → 3-2240362	TS-SB-03	9/01/99/1340	MCYC07	WM/PMD	
						JTS 10-1-99									
							CWW62								

Shipment for Case Complete? (Y/N)	Page	Sample(s) to be Used for Laboratory QC	[redacted] (4) (b)	Chain of Custody Seal Number(s)
	2 of 2	CWW91		

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[redacted] (4) (b)	9-1-99 / 1730				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? (Y/N/none)	

DISTRIBUTION: Blue - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy; Yellow - Lab Copy for Return to CLASS

EPA Form 9110-2 (2/98)

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

421-012-15 REV

AR100072

386448

"SDG NARRATIVE"

LABORATORY NAME: IEA NJ
CASE NUMBER: 27341
SDG NUMBER: SDG# CWW62
CONTRACT NUMBER: 68-D50011

EPA SAMPLE NO.	IEA NJ SAMPLE NO.	FRACTION
CWW62	93532001	VOA, BNA, P/PCB
CWW84	93532002	VOA, BNA, P/PCB
CWW85	93532003	VOA, BNA, P/PCB
CWW86	93532004	VOA, BNA, P/PCB
CWW88	93532005	VOA, BNA, P/PCB
CWW91	93532006	VOA, BNA, P/PCB
CWW91MS	93532007MS	VOA, BNA, P/PCB
CWW91MSD	93532008MSD	VOA, BNA, P/PCB
CWW92	93532009	VOA, BNA, P/PCB
CWW93	93532010	VOA, BNA, P/PCB
CXJ67	93532011	VOA, BNA, P/PCB
CXJ68	93532012	VOA, BNA, P/PCB
CXJ69	93532013	VOA, BNA, P/PCB

ANALYTICAL PROBLEMS

CSF:

All original copies of data pertaining to Initial Calibration, Continuing Calibration, Tunes and Blanks are on file in our office.

VOLATILES

Following is a description of all GC column (Instruments MSA, MSE and MSI) phases and dimensions:

RTX-624 60 meters, 0.53mm ID, 3.0um df

The following manual integrations were performed: VSTD050A1-1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane VSTD200A1-Carbon Disulfide. Sample 93532007MS (CWW91MS)-1,1-Dichloroethene.

"SDG NARRATIVE"

LABORATORY NAME: IEA NJ
CASE NUMBER: 27341
SDG NUMBER: SDG# CWW62
CONTRACT NUMBER: 68-D50011

ANALYTICAL PROBLEMS

SEMIVOLATILES

Following is a description of all GC column (Instruments MSD, MSG and MSH) phases and dimensions:

DB-5. 625- 30 meters, 0.25mm ID, 0.50um df

The following manual integrations were performed:
Initial Calibration:
SSTD020G3: Bis(2-Chloroethyl)ether, n-Nitoso-di-n-propylamine, Nitrobenzene, 2-Nitroanaline, 4-Nitrophenol and Indeno[1,2,3-cd]pyrene. SSTD050G3: Bis(2-Chloroethyl)ether, 2-Chlorophenol, n-Nitoso-di-n-propylamine, Nitrobenzene, 2-Nitroanaline, 3-Nitroanaline, 2,4-Dinitrophenol, 4-Nitrophenol, Benzo[b]fluoranthene and Benzo[k]fluoranthene. SSTD080G3: Bis(2-Chloroethyl)ether, 2-Chlorophenol, Hexachloroethane, Nitrobenzene, 2-Nitrophenol, 2-Nitroanaline, 3-Nitroanaline, 2,4-Dinitrophenol, 4-Nitrophenol, 4-Nitroanaline, Benzo[b]fluoranthene, Benzo[k]fluoranthene and Indeno[1,2,3-cd]pyrene. SSTD120G3: Bis(2-Chloroethyl)ether, 2-Chlorophenol, Nitrobenzene, 2-Nitroanaline, 3-Nitroanaline, 2,4-Dinitrophenol, 4-Nitrophenol, 4-Nitroanaline, Hexachlorobenzene, Benzo[b]fluoranthene, Benzo[k]fluoranthene and Indeno[1,2,3-cd]pyrene. SSTD160G3: Bis(2-Chloroethyl)ether, 2-Chlorophenol, n-Nitoso-di-n-propylamine, Nitrobenzene, 2-Nitrophenol, 2-Nitroanaline, 3-Nitroanaline, 2,4-Dinitrophenol, 4-Nitrophenol, 4-Nitroanaline, Benzo[b]fluoranthene and Benzo[k]fluoranthene.

Samples 93532009 (CWW92) and 93532012 (CXJ68) had an initial analysis and a dilution reported due to target compound concentrations exceeding the calibration range. These samples had several surrogate recoveries outside QC criteria which was confirmed by reanalysis of the dilution run. Sample 93532011 (CXJ67) had low internal standard recovery which was confirmed by rerun of the sample.

PESTICIDES/PCBs

Following is a description of all GC column phases and dimensions:

HP58904A DB-1701 30 meters, 0.53 mm ID, 1.0 um df
HP58904B DB-608 30 meters, 0.53 mm ID, 0.83 um df

No problems were encountered.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signatures."

Carl W. Armbruster
Director of Operations

9-29-99
Date

"SDG NARRATIVE"

LABORATORY NAME: IEA NJ
CASE NUMBER: 27341
SDG NUMBER: SDG# CWW89
CONTRACT NUMBER: 68-D50011

EPA SAMPLE NO.	IEA NJ SAMPLE NO.	FRACTION
CWW89	93533001	VOA, BNA, P/PCB
CWW90	93533002	VOA, BNA, P/PCB
CWW96	93533003	VOA
CWW97	93533004	VOA, BNA, P/PCB
CWW97MS	93533005MS	VOA, BNA, P/PCB
CWW97MSD	93533006MSD	VOA, BNA, P/PCB

ANALYTICAL PROBLEMS

CSF:

All original copies of data pertaining to Initial Calibration, Continuing Calibration, Tunes and Blanks are on file in our office.

VOLATILES

Following is a description of all GC column (Instruments MSA, MSE and MSI) phases and dimensions:

RTX-624 60 meters, 0.53mm ID, 3.0um df

The following manual integrations were performed:

No problems were encountered.

"SDG NARRATIVE"

LABORATORY NAME: IEA NJ
CASE NUMBER: 27341
SDG NUMBER: SDG# CWW89
CONTRACT NUMBER: 68-D50011

ANALYTICAL PROBLEMS

SEMIVOLATILES

Following is a description of all GC column (Instruments MSD, MSG and MSH) phases and dimensions:

DB-5. 625- 30 meters, 0.25mm ID, 0.50um df

The following manual integrations were performed:
Initial Calibration:
SSTD020G3: Bis(2-Chloroethyl)ether, n-Nitoso-di-n-propylamine, Nitrobenzene, 2-Nitroanaline, 4-Nitrophenol and Indeno[1,2,3-cd]pyrene. SSTD050G3: Bis(2-Chloroethyl)ether, 2-Chlorophenol, n-Nitoso-di-n-propylamine, Nitrobenzene, 2-Nitroanaline, 3-Nitroanaline, 2,4-Dinitrophenol, 4-Nitrophenol, Benzo[b]fluoranthene and Benzo[k]fluoranthene. SSTD080G3: Bis(2-Chloroethyl)ether, 2-Chlorophenol, Hexachloroethane, Nitrobenzene, 2-Nitrophenol, 2-Nitroanaline, 3-Nitroanaline, 2,4-Dinitrophenol, 4-Nitrophenol, 4-Nitroanaline, Benzo[b]fluoranthene, Benzo[k]fluoranthene and Indeno[1,2,3-cd]pyrene. SSTD120G3: Bis(2-Chloroethyl)ether, 2-Chlorophenol, Nitrobenzene, 2-Nitroanaline, 3-Nitroanaline, 2,4-Dinitrophenol, 4-Nitrophenol, 4-Nitroanaline, Hexachlorobenzene, Benzo[b]fluoranthene, Benzo[k]fluoranthene and Indeno[1,2,3-cd]pyrene. SSTD160G3: Bis(2-Chloroethyl)ether, 2-Chlorophenol, n-Nitoso-di-n-propylamine, Nitrobenzene, 2-Nitrophenol, 2-Nitroanaline, 3-Nitroanaline, 2,4-Dinitrophenol, 4-Nitrophenol, 4-Nitroanaline, Benzo[b]fluoranthene and Benzo[k]fluoranthene.

Samples 93533004 (CWW97), Sample 93533005MS (CWW97MS) and 93533006MSD (CWW97) had internal standards low due to matrix interference and that was confirmed by reanalysis of the sample.

PESTICIDES/PCBs

Following is a description of all GC column phases and dimensions:

HP58904A DB-1701 30 meters, 0.53 mm ID, 1.0 um df
HP58904B DB-608 30 meters, 0.53 mm ID, 0.83 um df

No problems were encountered.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signatures."

Carl W. Armbruster
Director of Operations

9-29-89
Date

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000083

Lab Name: ~~STL~~ IEA NJ 9-29-99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW89

Lab File ID: (Standard): G9403 Date Analyzed: 09/23/99

Instrument ID: MSG Time Analyzed: 04:34

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	1165987	10.24	4369213	13.46	2900244	18.07
	UPPER LIMIT	2331974	10.74	8738426	13.96	5800488	18.57
	LOWER LIMIT	582994	9.74	2184606	12.96	1450122	17.57
	EPA SAMPLE NO.						
01	SBLKG8	829424	10.23	3562842	13.44	2125886	18.06
02	CWW89	759871	10.23	3306500	13.44	2001999	18.06
03	CWW90	719499	10.23	3367581	13.44	1997058	18.06
04	CWW97	523609 *	10.23	2749193	13.44	1619968	18.06
05	CWW97MS	440815 *	10.23	2207114	13.44	1224057 *	18.06
06	CWW97MSD	372391 *	10.24	1902644 *	13.44	997551 *	18.05
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000084

Lab Name: ~~STL~~ IEA-NJ 9-29-99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW89

Lab File ID: (Standard): G9403 Date Analyzed: 09/23/99

Instrument ID: MSG Time Analyzed: 04:34

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	5323468	22.01	6633953	29.01	7249150	33.60
	UPPER LIMIT	10646936	22.51	13267906	29.51	14498300	34.10
	LOWER LIMIT	2661734	21.51	3316976	28.51	3624575	33.10
	EPA SAMPLE NO.						
01	SBLKG8	3960456	21.99	4580212	28.98	3878570	33.57
02	CWW89	3699157	22.00	4113524	28.98	4032634	33.57
03	CWW90	3618174	21.99	4110882	28.98	3997904	33.58
04	CWW97	2997518	22.00	3622563	28.99	3580108 *	33.58
05	CWW97MS	2266229 *	22.00	2789300 *	28.98	2731018 *	33.58
06	CWW97MSD	1801014 *	22.00	2204720 *	28.98	2061286 *	33.58
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII SV-2 OLM03.0

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000085

Lab Name: ~~STL-NJ~~ IEA 9-29-99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW89

Lab File ID: (Standard): G9414 Date Analyzed: 09/25/99

Instrument ID: MSG Time Analyzed: 03:39

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	339929	10.21	1894760	13.42	1047231	18.03
UPPER LIMIT	679858	10.71	3789520	13.92	2094462	18.53
LOWER LIMIT	169964	9.71	947380	12.92	5236[illegible]	17.53
EPA SAMPLE NO.						
CWW97RR	113866 *	10.19	568335 *	13.41	351960 *	18.02

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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FORM VIII SV-1

OLM03.0

AR100081

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

000086

Lab Name: ~~STL~~ IEA-NJ 9-29-99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: SDG No.: CWW89

Lab File ID: (Standard): G9414 Date Analyzed: 09/25/99

Instrument ID: MSG Time Analyzed: 03:39

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
12 HOUR STD	1913269	21.97	2762375	28.96	2480769	33.53
UPPER LIMIT	3826538	22.47	5524750	29.46	4961538	34.03
LOWER LIMIT	956634	21.47	1381188	28.46	1240384	33.03
EPA SAMPLE NO.						
CWW97RR	806111 *	21.96	1765122	28.95	1586232	33.51

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM VIII SV-2 OLM03.0

AR100082

TCL ORIGINAL SPREADSHEET

Case No: 27341
SDG No: CWW89

Site: 12TH STREET LANDFILL
Laboratory: IEA-NJ

EPA SAMPLE NUMBER:	CWW97		CWW97RR							
REGIONAL SAMPLE NUMBER:	CWW97		CWW97RR							
SAMPLE LOCATION:	TS-TP-03W		TS-TP-03W							
SAMPLE TYPE:	Routine Sample		Routine Sample							
MATRIX/ANALYSIS:	Water/Low		Water/Low							
DILUTION FACTOR:	1.0/ 1.0		1.0/ 1.0							
PERCENT MOISTURE:										
BNA										
Phenol	10	U	2	JB						
bis(2-Chloroethyl)ether	10	U	10	U						
2-Chlorophenol	10	U	10	U						
1,3-Dichlorobenzene	10	U	10	U						
1,4-Dichlorobenzene	10	U	10	U						
1,2-Dichlorobenzene	10	U	10	U						
2-Methylphenol	10	U	10	U						
2,2'-oxybis(1-Chloropropane)	10	U	10	U						
4-Methylphenol	10	U	10	U						
N-Nitroso-di-n-propylamine	10	U	10	U						
Hexachloroethane	10	U	10	U						
Nitrobenzene	10	U	10	U						
Isophorone	10	U	10	U						
2-Nitrophenol	10	U	10	U						
2,4-Dimethylphenol	10	U	10	U						
bis(2-Chloroethoxy)methane	10	U	10	U						
2,4-Dichlorophenol	10	U	10	U						
1,2,4-Trichlorobenzene	10	U	10	U						
Naphthalene	10	U	10	U						
4-Chloroaniline	10	U	10	U						
Hexachlorobutadiene	10	U	10	U						
4-Chloro-3-methylphenol	10	U	10	U						
2-Methylnaphthalene	10	U	10	U						
Hexachlorocyclopentadiene	10	U	10	U						
2,4,6-Trichlorophenol	10	U	10	U						
2,4,5-Trichlorophenol	25	U	25	U						
2-Chloronaphthalene	10	U	10	U						
2-Nitroaniline	25	U	25	U						
Dimethylphthalate	10	U	10	U						
Acenaphthylene	10	U	10	U						
2,6-Dinitrotoluene	10	U	10	U						
3-Nitroaniline	25	U	25	U						
Acenaphthene	10	U	10	U						
2,4-Dinitrophenol	25	U	25	U						
4-Nitrophenol	25	U	25	U						
Dibenzofuran	10	U	10	U						
2,4-Dinitrotoluene	10	U	10	U						
Diethylphthalate	10	U	10	U						
4-Chlorophenyl-phenylether	10	U	10	U						
Fluorene	10	U	10	U						
4-Nitroaniline	25	U	25	U						
4,6-Dinitro-2-methylphenol	25	U	25	U						
N-Nitrosodiphenylamine (1)	10	U	10	U						
4-Bromophenyl-phenylether	10	U	10	U						
Hexachlorobenzene	10	U	10	U						
Pentachlorophenol	25	U	25	U						
Phenanthrene	10	U	10	U						
Anthracene	10	U	10	U						
Carbazole	10	U	10	U						
Di-n-butylphthalate	10	U	10	U						
Fluoranthene	10	U	10	U						
Pyrene	10	U	10	U						
Butylbenzylphthalate	10	U	10	U						
3,3'-Dichlorobenzidine	10	U	10	U						
Benzo(a)anthracene	10	U	10	U						
Chrysene	10	U	10	U						
bis(2-Ethylhexyl)phthalate	10	U	10	U						
Di-n-octylphthalate	10	U	10	U						
Benzo(b)fluoranthene	10	U	10	U						
Benzo(k)fluoranthene	10	U	10	U						
Benzo(a)pyrene	10	U	10	U						
Indeno(1,2,3-cd)pyrene	10	U	10	U						
Dibenz(a,h)anthracene	10	U	10	U						
Benzo(g,h,i)perylene	10	U	10	U						

FILE NAME: CWW89 DATE: 10/12/99 TIME: 11:09 CADRE98

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ~~STL~~ IEA NJ 9/29/99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: ____ SDG No.: CWW62

Lab File ID: (Standard): G9390 Date Analyzed: 09/22/99

Instrument ID: MSG Time Analyzed: 13:39

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	408767	10.28	1564821	13.50	1165054	18.12
UPPER LIMIT	817534	10.78	3129642	14.00	2330108	18.62
LOWER LIMIT	204384	9.78	782410	13.00	582527	17.62
EPA SAMPLE NO.						
CWW84	364839	10.29	1298650	13.50	947002	18.11
CWW85	421114	10.28	1579398	13.49	1184638	18.11
CWW86	494284	10.28	1840325	13.49	1277831	18.11
CWW88	535501	10.28	1908328	13.50	1314809	18.11
CWW91	514761	10.28	1904802	13.50	1290056	18.11
CWW91MS	565846	10.28	2051521	13.49	1437546	18.11
CWW91MSD	633634	10.28	2323172	13.49	1569123	18.11
CWW92	689695	10.28	2476150	13.49	1718862	18.10
CWW93	567384	10.28	2004320	13.49	1324991	18.11
CXJ67	75491 *	10.27	296820 *	13.49	228541 *	18.11
CXJ68	898684 *	10.28	3225661 *	13.49	2071889	18.10
CXJ69	783738	10.28	2828882	13.49	1896983	18.10

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ~~STL~~ IEN-NJ 9/29/99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab File ID: (Standard): G9390 Date Analyzed: 09/22/99

Instrument ID: MSG Time Analyzed: 13:39

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	2255680	22.05	3446827	29.04	3383212	33.66
UPPER LIMIT	4511360	22.55	6893654	29.54	6766424	34.16
LOWER LIMIT	1127840	21.55	1723414	28.54	1691606	33.16
EPA SAMPLE NO.						
CWW84	1971956	22.05	2670265	29.04	2136730	33.66
CWW85	2413715	22.05	3171697	29.04	2200978	33.67
CWW86	2622525	22.05	3169217	29.04	2479855	33.65
CWW88	2660742	22.05	3188221	29.04	2616081	33.66
CWW91	2627094	22.04	3259147	29.04	2119189	33.66
CWW91MS	2832075	22.05	3368413	29.03	2384634	33.65
CWW91MSD	3219640	22.04	3487893	29.03	2328056	33.66
CWW92	3305614	22.05	3757510	29.04	2886982	33.67
CWW93	2592337	22.05	3084595	29.03	2587854	33.64
CXJ67	602380 *	22.04	1263981 *	29.03	1304073 *	33.65
CXJ68	3979592	22.05	1535835 *	29.07	2373374	33.73
CXJ69	3772858	22.05	4018952	29.04	2951618	33.65

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ~~STL~~ IEA NJ 9/29/99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: SDG No.: CWW62

Lab File ID: (Standard): G9403 Date Analyzed: 09/23/99

Instrument ID: MSG Time Analyzed: 04:34

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	1165987	10.24	4369213	13.46	2900244	18.07
UPPER LIMIT	2331974	10.74	8738426	13.96	5800488	18.57
LOWER LIMIT	582994	9.74	2184606	12.96	1450122	17.57
EPA SAMPLE NO.						
CWW92DL	1075447	10.25	4241301	13.45	2707181	18.07
CXJ67RR	932581	10.24	3685748	13.44	2273155	18.06
CXJ68DL	1515938	10.23	6262256	13.44	3803925	18.07

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ~~STL~~ IEA-NJ 9/29/99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab File ID: (Standard): G9403 Date Analyzed: 09/23/99

Instrument ID: MSG Time Analyzed: 04:34

	IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
12 HOUR STD	5323468	22.01	6633953	29.01	7249150	33.60
UPPER LIMIT	10646936	22.51	13267906	29.51	14498300	34.10
LOWER LIMIT	2661734	21.51	3316976	28.51	3624575	33.10
EPA SAMPLE NO.						
CWW92DL	5253095	22.01	6401549	29.01	6657374	33.61
CXJ67RR	4431231	22.00	5122166	28.98	4717189	33.58
CXJ68DL	7051462	22.00	7705212	28.99	7884028	33.62

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

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FORM VIII SV-2 OLM03.0

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CC0510

CXJ67

Lab Name: ~~STL~~-NJ IEA 9-29-99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Matrix: (soil/water) Soil Lab Sample ID: 93532011

Sample wt/vol: 30 (g/mL) g Lab File ID: G9400

Level: (low/med) LOW Date Received: 09/03/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 09/13/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/22/99

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.49

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
108-95-2	Phenol	420	U
111-44-4	Bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitrosodi-N-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	Bis(2-Chloroethoxy) Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	420	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CXJ67

Lab Name: ~~STL~~ IEA-NJ 9-29-99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Matrix: (soil/water) Soil Lab Sample ID: 93532011

Sample wt/vol: 30 (g/mL) g Lab File ID: G9400

Level: (low/med) LOW Date Received: 09/03/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 09/13/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/22/99

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.49

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-Phenyl Ether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-Phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-N-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo(A)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	20	JB
117-84-0	Di-N-Octylphthalate	420	U
205-99-2	Benzo(B)Fluoranthene	420	U
207-08-9	Benzo(K)Fluoranthene	420	U
50-32-8	Benzo(A)Pyrene	420	U
193-39-5	Indeno(1,2,3-Cd)Pyrene	420	U
53-70-3	Dibenz(A,H)Anthracene	420	U
191-24-2	Benzo(G,H,I)Perylene	420	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CXJ67RR

Lab Name: ~~STL~~ IEA-NJ 9-29-99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: SDG No.: CWW62

Matrix: (soil/water) Soil Lab Sample ID: 93532011RR

Sample wt/vol: 30 (g/mL) g Lab File ID: G9405

Level: (low/med) LOW Date Received: 09/03/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 09/13/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/23/99

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.49

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg	Q
108-95-2	Phenol	420	U
111-44-4	Bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitrosodi-N-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	Bis(2-Chloroethoxy) Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	420	U

1C

000526

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CXJ67RR

Lab Name: ~~STL-NJ~~ IEA 9.29.99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Matrix: (soil/water) Soil Lab Sample ID: 93532011RR

Sample wt/vol: 30 (g/mL) g Lab File ID: G9405

Level: (low/med) LOW Date Received: 09/03/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 09/13/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/23/99

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.49

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-Phenyl Ether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-Methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-Phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-N-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo(A)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	28	JB
117-84-0	Di-N-Octylphthalate	420	U
205-99-2	Benzo(B)Fluoranthene	420	U
207-08-9	Benzo(K)Fluoranthene	420	U
50-32-8	Benzo(A)Pyrene	420	U
193-39-5	Indeno(1,2,3-Cd)Pyrene	420	U
53-70-3	Dibenz(A,H)Anthracene	420	U
191-24-2	Benzo(G,H,I)Perylene	420	U

000540

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CXJ68

Lab Name: ~~STL~~ IEA-NJ 9-29-99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: SDG No.: CWW62

Matrix: (soil/water) Soil Lab Sample ID: 93532012

Sample wt/vol: 30 (g/mL) g Lab File ID: G9401

Level: (low/med) LOW Date Received: 09/03/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/13/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/23/99

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.99

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
108-95-2	Phenol	88	J
111-44-4	Bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitrosodi-N-Propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	36	J
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	Bis(2-Chloroethoxy) Methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	23	J
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	29	J
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	940	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	940	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	70	J
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	940	U
83-32-9	Acenaphthene	380	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CXJ68

Lab Name: ~~STL~~ IEA NJ 9.29.99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Matrix: (soil/water) Soil Lab Sample ID: 93532012

Sample wt/vol: 30 (g/mL) g Lab File ID: G9401

Level: (low/med) LOW Date Received: 09/03/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/13/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/23/99

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.99

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
51-28-5	2,4-Dinitrophenol	940	U
100-02-7	4-Nitrophenol	940	U
132-64-9	Dibenzofuran	23	J
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	20	J
7005-72-3	4-Chlorophenyl-Phenyl Ether	380	U
86-73-7	Fluorene	26	J
100-01-6	4-Nitroaniline	940	U
534-52-1	4,6-Dinitro-2-Methylphenol	940	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-Phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	940	U
85-01-8	Phenanthrene	310	J
120-12-7	Anthracene	88	J
86-74-8	Carbazole	31	J
84-74-2	Di-N-Butylphthalate	62	J
206-44-0	Fluoranthene	490	
129-00-0	Pyrene	1800	
85-68-7	Butylbenzylphthalate	320	J
91-94-1	3;3'-Dichlorobenzidine	380	U
56-55-3	Benzo(A)Anthracene	250	J
218-01-9	Chrysene	830	
117-81-7	Bis(2-Ethylhexyl)Phthalate	34000	EB
117-84-0	Di-N-Octylphthalate	200	J
205-99-2	Benzo(B)Fluoranthene	710	
207-08-9	Benzo(K)Fluoranthene	210	J
50-32-8	Benzo(A)Pyrene	380	J
193-39-5	Indeno(1,2,3-Cd)Pyrene	230	J
53-70-3	Dibenz(A,H)Anthracene	71	J
191-24-2	Benzo(G,H,I)Perylene	220	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

000584
EPA SAMPLE NO.

CXJ68DL

Lab Name: ~~STL-NJ~~ IEA 9.29.99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Matrix: (soil/water) Soil Lab Sample ID: 93532012DL

Sample wt/vol: 30 (g/mL) g Lab File ID: G9406

Level: (low/med) LOW Date Received: 09/03/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/13/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/23/99

Injection Volume: 2 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 7.99

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
108-95-2	Phenol	110	JD
111-44-4	Bis(2-Chloroethyl)Ether	3800	U
95-57-8	2-Chlorophenol	3800	U
541-73-1	1,3-Dichlorobenzene	3800	U
106-46-7	1,4-Dichlorobenzene	3800	U
95-50-1	1,2-Dichlorobenzene	3800	U
95-48-7	2-Methylphenol	3800	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	3800	U
106-44-5	4-Methylphenol	3800	U
621-64-7	N-Nitrosodi-N-Propylamine	3800	U
67-72-1	Hexachloroethane	3800	U
98-95-3	Nitrobenzene	3800	U
78-59-1	Isophorone	24	JD
88-75-5	2-Nitrophenol	3800	U
105-67-9	2,4-Dimethylphenol	3800	U
111-91-1	Bis(2-Chloroethoxy) Methane	3800	U
120-83-2	2,4-Dichlorophenol	3800	U
120-82-1	1,2,4-Trichlorobenzene	3800	U
91-20-3	Naphthalene	3800	U
106-47-8	4-Chloroaniline	3800	U
87-68-3	Hexachlorobutadiene	3800	U
59-50-7	4-Chloro-3-Methylphenol	3800	U
91-57-6	2-Methylnaphthalene	20	JD
77-47-4	Hexachlorocyclopentadiene	3800	U
88-06-2	2,4,6-Trichlorophenol	3800	U
95-95-4	2,4,5-Trichlorophenol	9400	U
91-58-7	2-Chloronaphthalene	3800	U
88-74-4	2-Nitroaniline	9400	U
131-11-3	Dimethylphthalate	3800	U
208-96-8	Acenaphthylene	45	JD
606-20-2	2,6-Dinitrotoluene	3800	U
99-09-2	3-Nitroaniline	9400	U
83-32-9	Acenaphthene	3800	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CXJ68DL

Lab Name: ~~STL~~-NJ IEA 9-29-99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Matrix: (soil/water) Soil Lab Sample ID: 93532012DL

Sample wt/vol: 30 (g/mL) g Lab File ID: G9406

Level: (low/med) LOW Date Received: 09/03/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/13/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/23/99

Injection Volume: 2 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: 7.99

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
51-28-5	2,4-Dinitrophenol	9400	U
100-02-7	4-Nitrophenol	9400	U
132-64-9	Dibenzofuran	3800	U
121-14-2	2,4-Dinitrotoluene	3800	U
84-66-2	Diethylphthalate	3800	U
7005-72-3	4-Chlorophenyl-Phenyl Ether	3800	U
86-73-7	Fluorene	3800	U
100-01-6	4-Nitroaniline	9400	U
534-52-1	4,6-Dinitro-2-Methylphenol	9400	U
86-30-6	N-Nitrosodiphenylamine (1)	3800	U
101-55-3	4-Bromophenyl-Phenylether	3800	U
118-74-1	Hexachlorobenzene	3800	U
87-86-5	Pentachlorophenol	9400	U
85-01-8	Phenanthrene	220	JD
120-12-7	Anthracene	64	JD
86-74-8	Carbazole	3800	U
84-74-2	Di-N-Butylphthalate	42	JD
206-44-0	Fluoranthene	450	JD
129-00-0	Pyrene	490	JD
85-68-7	Butylbenzylphthalate	3800	U
91-94-1	3,3'-Dichlorobenzidine	3800	U
56-55-3	Benzo(A)Anthracene	250	JD
218-01-9	Chrysene	360	JD
117-81-7	Bis(2-Ethylhexyl)Phthalate	22000	BD
117-84-0	Di-N-Octylphthalate	86	JD
205-99-2	Benzo(B)Fluoranthene	400	JD
207-08-9	Benzo(K)Fluoranthene	210	JD
50-32-8	Benzo(A)Pyrene	270	JD
193-39-5	Indeno(1,2,3-Cd)Pyrene	140	JD
53-70-3	Dibenz(A,H)Anthracene	3800	U
191-24-2	Benzo(G,H,I)Perylene	120	JD

EPA SAMPLE NO.

CWW62

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: ____ SDG No.: CWW62

Lab Sample ID : 93532001 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53 (mm) GC Column(2): DB-1701 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Heptachlor Epoxide	1	20.92	20.78	20.92	0.64	
	2	17.15	17.12	17.26	2.2	243.8
Endrin Aldehyde	1	27.15	27.13	27.27	12	
	2	25.23	25.22	25.36	18	50.0
4,4'-DDE	1	24.08	24.04	24.18	2.0	
	2	19.66	19.62	19.76	5.2	160.0
Endrin	1	25.75	25.65	25.79	3.8	
	2	21.39	21.29	21.43	3.2	18.8
Endosulfan II	1	26.18	26.15	26.29	5.9	
	2	23.78	23.65	23.79	19	222.0
4,4'-DDD	1	26.02	25.96	26.10	11	
	2	23.52	23.49	23.63	11	0.0
Endosulfan Sulfate	1	27.60	27.52	27.66	1.6	
	2	26.07	25.95	26.09	4.5	181.2
4,4'-DDT	1	26.87	26.81	26.95	19	
	2	24.57	24.49	24.63	1.6	1088.0

FORM X PEST-1

OLM03.0

000960

EPA SAMPLE NO.

CWW62

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532001 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
alpha-Chlordane	1	22.60	22.55	22.69	2.6	
	2	19.08	19.00	19.14	5.3	103.8
gamma-Chlordane	1	21.72	21.66	21.80	7.2	
	2	18.74	18.71	18.85	1.9	278.9

FORM X PEST-1

OLM03.0

EPA SAMPLE NO.

CWW62

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532001 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53 (mm) GC Column(2): DB-1701 0.53 (mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
Aroclor-1260	1	28.12	28.06	28.20	200		
	2	28.57	28.50	28.64	230		
COLUMN 1	3	30.06	29.99	30.13	220		
	4	30.43	30.37	30.51	240		
	5	32.71	32.64	32.78	200	220	
	1	22.88	22.87	23.01	92		
	2	24.04	24.02	24.16	160		
	3	25.93	25.87	26.01	220		
COLUMN 2	4	26.82	26.75	26.89	200		
	5	28.61	28.56	28.70	160	170	29.4

FORM X PEST-2

OLM03.0

000961
EPA SAMPLE NO.

CWW84

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532002 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endrin Aldehyde	1	27.14	27.13	27.27	4.1	
	2	25.23	25.22	25.36	7.1	73.2
Dieldrin	1	24.52	24.45	24.59	8.9	
	2	20.33	20.26	20.40	4.9	81.6
4,4'-DDE	1	24.09	24.04	24.18	2.0	
	2	19.66	19.62	19.76	3.5	75.0
Endrin	1	25.75	25.65	25.79	6.5	
	2	21.38	21.29	21.43	2.6	150.0
Endosulfan II	1	26.22	26.15	26.29	1.9	
	2	23.78	23.65	23.79	11	478.9
4,4'-DDD	1	26.02	25.96	26.10	4.9	
	2	23.51	23.49	23.63	4.5	8.9
4,4'-DDT	1	26.87	26.81	26.95	17	
	2	24.53	24.49	24.63	4.3	295.3
Methoxychlor	1	30.01	29.89	30.03	25	
	2	26.22	26.14	26.28	4.1	509.8

FORM X PEST-1

OLM03.0

000962
EPA SAMPLE NO.

CWW84

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532002 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	TO	CONCENTRATION	%D
Endosulfan I	1	22.82	22.71	22.85	1.9	
	2	18.56	18.51	18.65	1.1	72.7

page 2 of 2

FORM X PEST-1

OLM03.0

AR100100

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

CWW84

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532002 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53 (mm) GC Column(2): DB-1701 0.53 (mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
Aroclor-1260 COLUMN 1	1	28.12	28.06	28.20	62		
	2	28.57	28.50	28.64	97		
	3	30.44	30.37	30.51	120		
	4	32.72	32.64	32.78	87		
	5					92	
COLUMN 2	1	22.88	22.87	23.01	20		
	2	24.04	24.02	24.16	76		
	3	25.92	25.87	26.01	88		
	4	26.82	26.75	26.89	89		
	5	28.61	28.56	28.70	68	68	35.3

FORM X PEST-2

OLM03.0

000963

EPA SAMPLE NO.

CWW85

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532003 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endrin Aldehyde	1	27.14	27.13	27.27	7.4	
	2	25.23	25.22	25.36	9.8	32.4
Dieldrin	1	24.53	24.45	24.59	13	
	2	20.28	20.26	20.40	9.4	38.3
4,4'-DDE	1	24.09	24.04	24.18	2.2	
	2	19.66	19.62	19.76	5.5	150.0
Endrin	1	25.75	25.65	25.79	11	
	2	21.38	21.29	21.43	4.2	161.9
Endosulfan II	1	26.21	26.15	26.29	5.2	
	2	23.79	23.65	23.79	8.7	67.3
4,4'-DDD	1	26.02	25.96	26.10	9.6	
	2	23.63	23.49	23.63	11	14.6
4,4'-DDT	1	26.86	26.81	26.95	22	
	2	24.54	24.49	24.63	6.6	233.3
Methoxychlor	1	30.01	29.89	30.03	33	
	2	26.25	26.14	26.28	39	18.2

FORM X PEST-1

OLM03.0

AR100102

000964

EPA SAMPLE NO.

CWW85

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532003 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53 (mm) GC Column(2): DB-1701 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endosulfan I	1	22.79	22.71	22.85	1.1	
	2	18.52	18.51	18.65	0.94	17.0

page 2 of 2

FORM X PEST-1

OLM03.0

AR100103

EPA SAMPLE NO.

CWW85

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532003 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
Aroclor-1260 COLUMN 1	1	28.12	28.06	28.20	98		
	2	28.57	28.50	28.64	130		
	3	30.44	30.37	30.51	170		
	4	32.73	32.64	32.78	150		
	5					140	
COLUMN 2	1	22.88	22.87	23.01	39		
	2	24.04	24.02	24.16	99		
	3	25.93	25.87	26.01	93		
	4	26.82	26.75	26.89	120		
	5	28.62	28.56	28.70	150	100	40.0

FORM X PEST-2

OLM03.0

000965
EPA SAMPLE NO.

CWW86

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532004 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53 (mm) GC Column(2): DB-1701 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endrin Aldehyde	1	27.15	27.13	27.27	2.0	
	2	25.25	25.22	25.36	2.4	20.0
4,4'-DDE	1	24.06	24.04	[illegible].18	1.1	
	2	19.66	19.62	19.76	4.2	281.8
Endrin	1	25.75	25.65	25.79	11	
	2	21.38	21.29	21.43	4.1	168.3
Endosulfan II	1	26.21	26.15	26.29	4.3	
	2	23.78	23.65	23.79	6.3	46.5
4,4'-DDD	1	26.01	25.96	26.10	9.1	
	2	23.55	23.49	23.63	13	42.8
4,4'-DDT	1	26.87	26.81	26.95	12	
	2	24.53	24.49	24.63	3.7	224.
Methoxychlor	1	30.01	29.89	30.03	20	
	2	26.23	26.14	26.28	10	100.0
Endosulfan I	1	22.79	22.71	22.85	1.3	
	2	18.52	18.51	18.65	0.38	242.1

FORM X PEST-1

OLM03.0

000966
EPA SAMPLE NO.

CWW86

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532004 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	TO	CONCENTRATION	%D
alpha-Chlordane	1	22.59	22.55	22.69	1.4	
	2	19.11	19.00	19.14	2.1	50.0

FORM X PEST-1

OLM03.0

AR100106

EPA SAMPLE NO.

CWW86

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532004 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
Aroclor-1260	1	28.12	28.06	28.20	62		
	2	28.57	28.50	28.64	82		
	3	30.44	30.37	30.51	52		
COLUMN 1	4						
	5					65	
	1	22.90	22.87	23.01	39		
	2	24.05	24.02	24.16	110		
	3	26.80	26.75	26.89	120		
COLUMN 2	4	28.59	28.56	28.70	56		
	5					81	24.6

FORM X PEST-2

OLM03.0

0C0967

EPA SAMPLE NO.

CWW88

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532005 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53 (mm) GC Column(2): DB-1701 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endrin Aldehyde	1	27.14	27.13	27.27	2.2	
	2	25.24	25.22	25.36	2.7	22.7
4,4'-DDE	1	24.09	24.04	24.18	2.0	
	2	19.66	19.62	19.76	3.0	50.0
Endrin	1	25.73	25.65	25.79	30	
	2	21.39	21.29	21.43	2.7	1011.0
Endosulfan II	1	26.17	26.15	26.29	2.0	
	2	23.79	23.65	23.79	5.8	190.0
4,4'-DDD	1	26.01	25.96	26.10	9.4	
	2	23.55	23.49	23.63	6.5	44.6
4,4'-DDT	1	26.86	26.81	26.95	11	
	2	24.53	24.49	24.63	3.5	214.3
Methoxychlor	1	30.00	29.89	30.03	11	
	2	26.24	26.14	26.28	6.4	71.9
Endosulfan I	1	22.80	22.71	22.85	0.99	
	2	18.53	18.51	18.65	0.36	175.0

FORM X PEST-1

OLM03.0

AR100108

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.
CWW88

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532005 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
Aroclor-1260	1	28.11	28.06	28.20	82		
	2	28.56	28.50	28.64	68		
COLUMN 1	3	30.43	30.37	30.51	75		
	4	32.72	32.64	32.78	51		
	5					69	
COLUMN 2	1	22.88	22.87	23.01	12		
	2	24.03	24.02	24.16	61		
	3	25.93	25.87	26.01	110		
	4	26.82	26.75	26.89	92		
	5	28.63	28.56	28.70	63	68	1.5

page 1 of 1

FORM X PEST-2

OLM03.0

000968
EPA SAMPLE NO.

CWW91

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532006 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53 (mm) GC Column(2): DB-1701 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Heptachlor Epoxide	1	20.91	20.78	20.92	0.96	
	2	17.14	17.12	17.26	0.83	15.7
Dieldrin	1	24.53	24.45	24.59	3.7	
	2	20.27	20.26	20.40	1.4	164.3
4,4'-DDE	1	24.08	24.04	24.18	2.0	
	2	19.66	19.62	19.76	2.3	15.0
Endrin	1	25.74	25.65	25.79	27	
	2	21.37	21.29	21.43	3.4	694.1
Endosulfan II	1	26.17	26.15	26.29	2.8	
	2	23.79	23.65	23.79	4.2	50.0
4,4'-DDD	1	26.02	25.96	26.10	9.3	
	2	23.54	23.49	23.63	4.4	111.4
4,4'-DDT	1	26.87	26.81	26.95	8.6	
	2	24.54	24.49	24.63	1.8	377.8
Methoxychlor	1	30.01	29.89	30.03	5.2	
	2	26.23	26.14	26.28	12	130.8

FORM X PEST-1

OLM03.0

AR100110

000969
EPA SAMPLE NO.

CWW91

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532006 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53 (mm) GC Column(2): DB-1701 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endosulfan I	1	22.78	22.71	22.85	0.70	
	2	18.57	18.51	18.65	0.39	79.5
alpha-Chlordane	1	22.58	22.55	22.69	2.0	
	2	19.11	19.00	19.14	0.94	112.8

page 2 of 2

FORM X PEST-1

OLM03.0

AR100111

EPA SAMPLE NO.

CWW91

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532006 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
Aroclor-1254	1	20.91	20.89	21.03	27		
	2	22.04	22.00	22.14	38		
COLUMN 1	3	24.38	24.33	24.47	13		
	4	24.87	24.81	24.95	60		
	5	28.27	28.21	28.35	49	37	
	1	16.97	16.92	17.06	78		
	2	20.06	20.04	20.18	40		
	3	22.03	22.00	22.14	82		
COLUMN 2	4	23.79	23.77	23.91	45		
	5					61	64.9

page 1 of 1

FORM X PEST-2

OLM03.0

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO.

CWW92

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532009 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endrin Aldehyde	1	27.16	27.13	27.27	5.4	
	2	25.22	25.22	25.36	10	85.2
Dieldrin	1	24.51	24.45	24.59	67	
	2	20.28	20.26	20.40	2.1	3090.0
4,4'-DDE	1	24.10	24.04	24.18	11	
	2	19.66	19.62	19.76	16	45.4
Endrin	1	25.74	25.65	25.79	25	
	2	21.36	21.29	21.43	12	108.3
Endosulfan II	1	26.18	26.15	26.29	5.3	
	2	23.79	23.65	23.79	21	296.2
4,4'-DDD	1	26.02	25.96	26.10	15	
	2	23.52	23.49	23.63	10	50.0
4,4'-DDT	1	26.88	26.81	26.95	39	
	2	24.53	24.49	24.63	9.8	298.0
Methoxychlor	1	30.01	29.89	30.03	16	
	2	26.22	26.14	26.28	29	81.2

FORM X PEST-1

OLM03.0

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.

CWW92

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532009 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53 (mm) GC Column(2): DB-1701 0.53 (mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
Aroclor-1254	1	20.93	20.89	21.03	64		
	2	22.03	22.00	22.14	210		
COLUMN 1	3	24.87	24.81	24.95	150		
	4	28.27	28.21	28.35	180		
	5					150	
COLUMN 2	1	16.94	16.92	17.06	220		
	2	20.05	20.04	20.18	240		
	3	22.03	22.00	22.14	250		
	4	23.79	23.77	23.91	230		
	5					240	60.0
Aroclor-1260	1	28.13	28.06	28.20	45		
	2	28.57	28.50	28.64	94		
COLUMN 1	3	30.44	30.37	30.51	130		
	4	32.73	32.64	32.78	80		
	5					87	
COLUMN 2	1	22.89	22.87	23.01	66		
	2	24.04	24.02	24.16	44		
	3	25.92	25.87	26.01	75		
	4	26.81	26.75	26.89	75		
	5	28.61	28.56	28.70	96	71	22.5

FORM X PEST-2

OLM03.0

000975
EPA SAMPLE NO.

CWW93

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532010 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Heptachlor Epoxide	1	20.92	20.78	20.92	0.55	
	2	17.14	17.12	17.26	0.62	12.7
Endrin Aldehyde	1	27.14	27.13	27.27	1.1	
	2	25.23	25.22	25.36	1.0	10.0
Dieldrin	1	24.54	24.45	24.59	0.67	
	2	20.30	20.26	20.40	0.35	91.4
4,4'-DDE	1	24.09	24.04	24.18	1.5	
	2	19.66	19.62	19.76	1.6	6.7
Endrin	1	25.76	25.65	25.79	3.6	
	2	21.38	21.29	21.43	2.1	71.4
4,4'-DDD	1	26.02	25.96	26.10	17	
	2	23.53	23.49	23.63	12	41.7
Endosulfan I	1	22.79	22.71	22.85	0.64	
	2	18.56	18.51	18.65	0.28	128.6
alpha-Chlordane	1	22.59	22.55	22.69	2.0	
	2	19.10	19.00	19.14	1.7	17.6

FORM X PEST-1

OLM03.0

AR100115

000976
EPA SAMPLE NO.

CWW93

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532010 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	TO	CONCENTRATION	%D
gamma-Chlordane	1	21.73	21.66	21.80	1.3	
	2	18.77	18.71	18.85	0.24	441.7

FORM X PEST-1

OLM03.0

AR100116

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

EPA SAMPLE NO.
CWW93

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: ____ SDG No.: CWW62

Lab Sample ID : 93532010 Date(s) Analyzed: 09/15/99 09/15/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
Aroclor-1254 COLUMN 1	1	20.92	20.89	21.03	16		
	2	22.03	22.00	22.14	31		
	3	24.87	24.81	24.95	27		
	4	28.27	28.21	28.35	34		
	5					27	
COLUMN 2	1	16.97	16.92	17.06	47		
	2	20.06	20.04	20.18	28		
	3	22.04	22.00	22.14	38		
	4	23.80	23.77	23.91	37		
	5					38	40.7

FORM X PEST-2

OLM03.0

000977
EPA SAMPLE NO.

CXJ67

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: SDG No.: CWW62

Lab Sample ID : 93532011 Date(s) Analyzed: 09/16/99 09/16/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
4,4'-DDD	1	26.05	25.96	26.10	24	
	2	23.56	23.49	23.63	0.81	2863.0
4,4'-DDT	1	26.88	26.81	26.95	1.3	
	2	24.54	24.49	24.63	0.66	97.0
alpha-Chlordane	1	22.62	22.55	22.69	1.9	
	2	19.07	19.00	19.14	0.15	1167.0
alpha-BHC	1	12.83	12.73	12.83	0.13	
	2	10.59	10.49	10.59	0.17	30.8

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FORM X PEST-1

OLM03.0

AR100118

000973
EPA SAMPLE NO.

CXJ68

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532012 Date(s) Analyzed: 09/16/99 09/16/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53 (mm) GC Column(2): DB-1701 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endrin Aldehyde	1	27.15	27.13	27.27	13	
	2	25.24	25.22	25.36	24	84.6
4,4'-DDE	1	24.09	24.04	24.18	2.7	
	2	19.69	19.62	19.76	5.4	100.0
Endrin	1	25.76	25.65	25.79	49	
	2	21.40	21.29	21.43	3.6	1261.0
4,4'-DDD	1	26.04	25.96	26.10	13	
	2	23.52	23.49	23.63	13	0.0
4,4'-DDT	1	26.87	26.81	26.95	54	
	2	24.56	24.49	24.63	8.4	542.8
Methoxychlor	1	30.02	29.89	30.03	87	
	2	26.22	26.14	26.28	230	164.4
Endosulfan I	1	22.75	22.71	22.85	1.4	
	2	18.53	18.51	18.65	0.62	125.8
gamma-Chlordane	1	21.74	21.66	21.80	5.4	
	2	18.76	18.71	18.85	62	1048.0

FORM X PEST-1

OLM03.0

000990

EPA SAMPLE NO.

CXJ68

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532012 Date(s) Analyzed: 09/16/99 09/16/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
Aroclor-1254	1	20.93	20.89	21.03	56		
	2	22.05	22.00	22.14	62		
COLUMN 1	3	24.88	24.81	24.95	120		
	4	28.28	28.21	28.35	280		
	5					130	
	1	20.09	20.04	20.18	540		
	2	22.06	22.00	22.14	290		
	3	23.11	23.09	23.23	80		
COLUMN 2	4	23.83	23.77	23.91	280		
	5					300	130.8
Aroclor-1260	1	28.13	28.06	28.20	80		
	2	28.58	28.50	28.64	190		
COLUMN 1	3	30.47	30.37	30.51	260		
	4	32.76	32.64	32.78	280		
	5					200	
	1	22.92	22.87	23.01	81		
	2	25.96	25.87	26.01	210		
	3	26.83	26.75	26.89	220		
COLUMN 2	4	28.62	28.56	28.70	280		
	5					200	0.0

FORM X PEST-2

OLM03.0

AR100120

10A
PESTICIDE IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

EPA SAMPLE NO. 000979

CXJ69

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532013 Date(s) Analyzed: 09/16/99 09/16/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53 (mm) GC Column(2): DB-1701 0.53 (mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%D
Endrin Aldehyde	1	27.14	27.13	27.27	2.3	
	2	25.24	25.22	25.36	4.9	113.0
Dieldrin	1	24.51	24.45	24.59	5.3	
	2	20.29	20.26	20.40	4.5	17.8
4,4'-DDE	1	24.09	24.04	24.18	1.0	
	2	19.68	19.62	19.76	2.3	130.0
Endosulfan II	1	26.18	26.15	26.29	1.6	
	2	23.66	23.65	23.79	4.0	150.0
4,4'-DDT	1	26.87	26.81	26.95	9.1	
	2	24.55	24.49	24.63	2.9	213.8
Methoxychlor	1	30.01	29.89	30.03	9.0	
	2	26.25	26.14	26.28	23	155.6
Aldrin	1	17.89	17.83	17.93	0.92	
	2	14.30	14.24	14.34	0.35	162.8

FORM X PEST-1

OLM03.0

AR100121

EPA SAMPLE NO.

CXJ69

10B
PESTICIDE IDENTIFICATION SUMMARY
FOR MULTICOMPONENT ANALYTES

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Lab Sample ID : 93532013 Date(s) Analyzed: 09/16/99 09/16/99

Instrument ID (1): HP58904B Instrument ID (2): HP58904A

GC Column(1): DB-608 0.53(mm) GC Column(2): DB-1701 0.53(mm)

ANALYTE	PEAK	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	MEAN CONCENTRATION	%D
Aroclor-1260	1	28.12	28.06	28.20	37		
	2	28.57	28.50	28.64	48		
COLUMN 1	3	30.44	30.37	30.51	68		
	4	32.72	32.64	32.78	42		
	5					49	
COLUMN 2	1	22.91	22.87	23.01	11		
	2	24.05	24.02	24.16	52		
	3	25.93	25.87	26.01	63		
	4	26.81	26.75	26.89	58		
	5					46	6.5

page 1 of 1

FORM X PEST-2

OLM03.0

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKA1

Lab Name: ~~STL~~ IEA NJ 9-29-99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Matrix: (soil/water) Soil Lab Sample ID: VBLKA1

Sample wt/vol: 5 (g/mL) g Lab File ID: A1143

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 09/08/99

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene(total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKA3

Lab Name: ~~STL~~ IEA-NJ 9.29.99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Matrix: (soil/water) Water Lab Sample ID: VBLKA3

Sample wt/vol: 5 (g/mL) ml Lab File ID: A1198

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/09/99

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene(total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLKA2

Lab Name: ~~STL~~-NJ TEA CO 9.29.99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Matrix: (soil/water) Water Lab Sample ID: VHBLKA2

Sample wt/vol: 5 (g/mL) ml Lab File ID: A1210

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/09/99

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene(total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

000062

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKA3

Lab Name: ~~STL-NJ~~ IEA 9.29.99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW89

Matrix: (soil/water) Water Lab Sample ID: VBLKA3

Sample wt/vol: 5 (g/mL) ml Lab File ID: A1198

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/09/99

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene(total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 000066

VHBLKA2

Lab Name: ~~STL-NJ~~ IEA CO 9.29.99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW89

Matrix: (soil/water) Water Lab Sample ID: VHBLKA2

Sample wt/vol: 5 (g/mL) ml Lab File ID: A1210

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 09/09/99

GC Column: RTX-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene(total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	Trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Total Xylenes	10	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKG7

Lab Name: ~~STL-NJ~~ IEA CC 9.29.99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Matrix: (soil/water) Soil Lab Sample ID: SBLKG7

Sample wt/vol: 30 (g/mL) g Lab File ID: G9384

Level: (low/med) LOW Date Received: _____

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/13/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/22/99

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
108-95-2	Phenol	330	U
111-44-4	Bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitrosodi-N-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	Bis(2-Chloroethoxy) Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	330	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKG7

Lab Name: ~~STL-NJ~~ IEA 99999 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW62

Matrix: (soil/water) Soil Lab Sample ID: SBLKG7

Sample wt/vol: 30 (g/mL) g Lab File ID: G9384

Level: (low/med) LOW Date Received: _____

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/13/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/22/99

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NO.	COMPOUND		Q
51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-Phenyl Ether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-Methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-Phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-N-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(A)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	33	J
117-84-0	Di-N-Octylphthalate	330	U
205-99-2	Benzo(B)Fluoranthene	330	U
207-08-9	Benzo(K)Fluoranthene	330	U
50-32-8	Benzo(A)Pyrene	330	U
193-39-5	Indeno(1,2,3-Cd)Pyrene	330	U
53-70-3	Dibenz(A,H)Anthracene	330	U
191-24-2	Benzo(G,H,I)Perylene	330	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKG8

Lab Name: ~~STL-NJ~~ IEA 9-29-99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: ____ SDG No.: CWW89

Matrix: (soil/water) Water Lab Sample ID: SBLKG8

Sample wt/vol: 1000 (g/mL) ml Lab File ID: G9407

Level: (low/med) LOW Date Received: ____

% Moisture: ____ decanted: (Y/N) ___ Date Extracted: 09/08/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l

CAS NO.	COMPOUND		Q
108-95-2	Phenol	3	J
111-44-4	Bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitrosodi-N-Propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	Bis(2-Chloroethoxy) Methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKG8

Lab Name: ~~STL NJ~~ IEA CO 9/29/99 Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW89

Matrix: (soil/water) Water Lab Sample ID: SBLKG8

Sample wt/vol: 1000 (g/mL) ml Lab File ID: G9407

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 09/08/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/l

CAS NO.	COMPOUND		Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	(1)	J
7005-72-3	4-Chlorophenyl-Phenyl Ether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-Methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-Phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-N-Butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(A)Anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	Bis(2-Ethylhexyl)Phthalate	10	U
117-84-0	Di-N-Octylphthalate	10	U
205-99-2	Benzo(B)Fluoranthene	10	U
207-08-9	Benzo(K)Fluoranthene	10	U
50-32-8	Benzo(A)Pyrene	10	U
193-39-5	Indeno(1,2,3-Cd)Pyrene	10	U
53-70-3	Dibenz(A,H)Anthracene	10	U
191-24-2	Benzo(G,H,I)Perylene	10	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PBLK58

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: ____ SDG No.: CWW62

Matrix: (soil/water): SOIL Lab Sample ID: PBLK58WG31222

Sample wt/vol: 30 (g/ml) g Lab File ID: D4BCLPA71C_055

Moisture: 0 decanted: __ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 09/09/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 09/15/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____ Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	Beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor Epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan Sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin Ketone	3.3	U
7421-93-4	Endrin Aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

FORM 1 PEST

OLM03.0

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
PBLK56

Lab Name: IEA-NJ Contract: 68D50011

Lab Code: IEANJ Case No.: 27341 SAS No.: _____ SDG No.: CWW89

Matrix: (soil/water): WATER Lab Sample ID: PBLK56WG31205

Sample wt/vol: 1000 (g/ml) ml Lab File ID: D4BCLPA71C_020

Moisture: _____ decanted: __ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 09/08/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 09/14/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
7421-93-4	Endrin Aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U