START 9613490.0857 E1911-K25-053

MARTIN MARIETTA

0045388 1

MARTIN MARIETTA ENERGY SYSTEMS, INC.

POST OFFICE BOX 2003
OAK RIDGE, TENNESSEE 37831-7440

March 7, 1991

Ms. Joan Kessner
Westinghouse Hanford Company
Office of Sample Management
2344 Stevens Drive
Richland, Washington 99352

OCT 1996 RECEIVED LDMC

Dear Ms. Kessner:

Analytical Results Package on Project 90-034: Underground Storage Tanks Sample Analysis

Attached are the results on the Underground Storage Tanks samples, Project 90-034, received into the Analytical Chemistry Department (ACD) laboratories on September 21, 1990. Also attached are the Chain of Custody records for the samples, a list detailing the protocol utilized in performing these analyses (in accordance with agreements between the OSM and K-25 ACD) and sample identification information.

The results are reported on ACD's AnaLis report format per letter dated December 20, 1990. All data quality objectives were satisified on this project.

The arsenic, lead, and selenium analyses on samples E1911 and E1912, the semi-volatile analysis on sample E1911, and the pesticide analysis on sample E1912 are incomplete at this time. However, in order that the data deliverables package on the project not be delayed any longer, the remainder of the package is being released. Resolution of these analyses is pending.

ICP Metals

The Toxicity Characteristic Leaching Preocedure (TCLP) extraction was performed on the samples and the leachate was analyzed for TCLP metals by ICP in accordance with EPA-6010 protocol. All quality control criteria was applied to samles in the SDG. For this analysis, all instrument calibrations (SPCC and CCC) were within acceptable criteria. All internal matrix spike percent recoveries were within acceptable limits. Interference check samples results were within acceptable limits. Replicate analyses were conducted on samples in the SDG, and all relative percent deviations were within acceptable limits. All internal controls and check standards run during these analyses were well within the

acceptance limits. At present the ACD cannot report the ICP metals blank results through the AnaLis database; however, the calibration and reagent blanks for this run as generated by the ICP's data system are attached for your review.

Mercury

All the required quality control criteria was applied to the samples in the SDG. For this analysis all instrument calibrations (SPCC and CCC) were within acceptance criteria. The internal matrix spike percent recoveries for the TCLP analysis wre within acceptance limits. Interference check samples results were within acceptable limits. Replicate analyses were conducted on samples in the SDG and all relative percent deviations were within acceptance limits. All internal controls and check standards run during these analyses wre within the acceptance limits. At present the ACD cannot report the Mercury blank results through the AnaLis database, however it is required according to ACD QA/QC policy that no analysis result be reported for any element which is found in the prep blank above the data reporting limits. The raw data within the QA batch (SDG) for any particular analysis contains the prep blank data and is available upon request.

Semi-Volatiles: BNA

The samples were not extracted within the prescribed holding times; sample E1912 missing the holding time by forty-nine (49) days. Sample E1911 has not been analyzed for semi-volatiles. Once extracted the samples were subsequently analyzed within the prescribed holding times. All surrogate standards criteria were within percent recovery acceptance limits except those flagged on the AnaLis report in accordance with CLP protocol. All DFTPP tune criteria were within acceptance criteria. All "CCC" and "SPCC" components met acceptance criteria for both the initial and continuing calibration check samples. All internal standard areas were within acceptance criteria. All matrix spikes and matrix spike duplicates were within the acceptance requirements.

Volatiles: VOA

The samples were not analyzed within the prescribed holding times, missing the holding time by twenty-nine (29) days for sample E1912 and thirty-three (33) days for sample E1911. All surrogate
standards criteria were within percent recovery acceptance limits. All BFB tune criteria were within acceptance criteria. All CCC and SPCC components met acceptance criteria for both the initial and continuing calibration check sample. All internal standard areas were within acceptance criteria. All matrix spikes and matrix spike duplicates were within the acceptance requirements.

Pesticides

The Toxicity Characteristic Leaching Procedure (TCLP) extraction was performed on the samples and the leachate was analyzed for pesticides. All required quality control criteria were applied to these samples and were within acceptance limits.

PCBs

All required quality control criteria was applied to these samples and were within acceptance limits.

Wet Chemistry: TCLP extraction, Flashpoint, pH

The TCLP extraction was performed by Method 1311. The proximate analyses were conducted in accordance with EPA approved methodology. All instrument calibrations were within acceptable criteria. Matrix spike percent recoveries were within acceptance limits of 75% - 125%. All internal controls were within criteria.

I certify that this data package is in compliance with the terms and conditions of the OSM's revised Statement of Work and letter dated December 20, 1990, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Sincerely,

Deborah L. Amburgey

Deborah L. Amburgey
Program Manager
Hanford Support Program

Clarence R. Kirkpatrick

Clarence R. Kirkpatrick
Program Manager
Waste Management Analysis

Roy W. Morrow
Department Manager
Analytical Chemistry Department (K-25)

Attachments

cc/attach: D.L.Amburgey
S.R.Smith - RC

cc: N.P.Buddin
S.W.Goza
H.H.Sullivan

PROTOCOL UTILIZED FOR ANALYSES OF
UNDERGROUND STORAGE TANKS SAMPLES
AND SAMPLE IDENTIFICATION FOR
PROJECT 90-034

	Analysis	Protocol
A.	ICP Metals	EPA-6010
B.	Mercury	EPA-7470
C.	Semi-Volatiles	BNA (CLP) protocol
D.	Volatiles	VOA (CLP) protocol
E.	PCBs	EPA-8080
F.	Pesticides	EPA-8080
G.	Flashpoint	EPA-1010
H.	pH	EPA-9040
I.	TCLP Extraction	EPA-1311

Table 1.1 - Sample Identification Table for Project 90-034: Underground Storage Tanks Sample Analysis

Date Sam. Group Rec.	OSM Sample ID	Lab Sample ID	Matrix	Comments
9/21/90	E1911	900924-182	liquid	
	E1912	900924-183	solid	
		901004-038	blank	VOA blank for 900924-183
		901008-116	blank	VOA blank for 900924-182
		901010-117	blank	TCLP reagent blank for 900924-183 and 901015-087
	900924-183MS	901015-087	solid	Matrix spike for 900924-183
		901115-071	blank	BNA blank for 900924-183
		901120-177	blank	PCB blank for 900924-183
		901220-194	blank	PCB blank for 900924-182

Oak Ridge K-25 Site
Analytical Chemistry Department
Results of Analyses

AnaLIS ID: 900924-182 Project: G132 034L Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER Requisition Number:
Date Sampled: 9-AUG-1990 Date Sample Received: 21-SEP-1990
Sampled By: Date Sample Completed:
Material Description: LIQUID FROM ORPHAN DRUMS [] : Result has been Corrected for Spike

ctiv. mber	Procedure No.	Analysis	Result	Units	Analyst	QA File Number	Date Completed
	EPA-6010	Arsenic (TCLP)	———	mg/L			
	EPA-6010	Lead (TCLP)	———	mg/L			
	EPA-6010	Selenium (TCLP)	———	mg/L			
30708	EPA-6010	Barium (TCLP)	2.6	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Cadmium (TCLP)	<0.0030	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Chromium (TCLP)	<0.010	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Silver (TCLP)	<0.010	mg/L	ML BAIN	01226A	26-DEC-1990
03208	EPA-7470	Mercury (TCLP)	<0.0002	ug/L	SA BURGESS	01008E	8-OCT-1990
32508	EPA-3520	Prep (PCB- SW-846-Liq/liq)	C		MF MCMYLER	1840	20-DEC-1990
32608	EPA-3510	Prep (Pest- SW-846-Funnel)	C		MF MCMYLER	1840	20-DEC-1990
34007	EPA-3520	Prep (BNA- SW-846-Liq/liq)	N/A		MF MCMYLER	N/A	20-DEC-1990
71007	EPA-1311	TCLP Extraction	C		BD HARRIS	90-8	17-DEC-1990
82107	EPA-160.3	Total Solids	20560	mg/L	RM SALINAS	90-24	3-OCT-1990
82507	EPA-9040	pH	5.5		RM SALINAS	90-18	28-SEP-1990
86807	EPA-1010	Flash Point Closed Cup	R >145	degrees F	J GOODMAN JR	90-34	29-OCT-1990

rep (BNA- SW-846-Liq/liq)

nalyst = MF MCMYLER
ate Extracted = 19-DEC-1990

rep (PCB- SW-846-Liq/liq)

nalyst = MF MCMYLER
H = 7
ate Extracted = 20-DEC-1990
ample Volume Extracted (mL) = 92
xtraction Method = Separatory Funnel
xtraction Solvent = Methylene Chloride
xtraction Cleanup = Sodium Sulfate
inal Volume of Extract (mL) = 10.0
ssociated Blank = 901220-194

***** Comments from the Wet Chemistry Laboratory *****

Insufficient sample to complete the analysis for flash point.

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***** Comments from the Organic Mass Spectroscopy Laboratory *****

ample not received in GC/MS lab...

Program Manager: D. L. Amburgey
Date Approved:

ANALYSIS DATA REPORT

AnaLIS ID: 900924-182
Laboratory: Organic Mass Spectroscopy Laboratory
File ID:
Instrument ID:
Authorized By: D. C. Canada

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA Base/Neutral/Acid Organic Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 20-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: DC CANADA
QA File Number: NA

CAS		ug/L	CAS		ug/L
108-95-2	Phenol	NA	106-47-8	4-Chloroaniline	NA
111-44-4	bis(2-Chloroethyl)ether	NA	87-68-3	Hexachlorobutadiene	NA
95-57-8	2-Chlorophenol	NA	59-50-7	4-Chloro-3-methylphenol	NA
541-73-1	1,3-Dichlorobenzene	NA	91-57-6	2-Methylnaphthalene	NA
106-46-7	1,4-Dichlorobenzene	NA	77-47-4	Hexachlorocyclopentadiene	NA
100-51-6	Benzyl Alcohol	NA	88-06-2	2,4,6-Trichlorophenol	NA
95-50-1	1,2-Dichlorobenzene	NA	95-95-4	2,4,5-Trichlorophenol	NA
95-48-7	2-Methylphenol	NA	91-58-7	2-Chloronaphthalene	NA
108-60-1	bis(2-Chloroisopropyl)ether	NA	88-74-4	2-Nitroaniline	NA
106-44-5	4-Methylphenol	NA	131-11-3	Dimethylphthalate	NA
621-64-7	N-Nitroso-di-n-propylamine	NA	208-96-8	Acenaphthylene	NA
67-72-1	Hexachloroethane	NA	99-09-2	3-Nitroaniline	NA
98-95-3	Nitrobenzene	NA	83-32-9	Acenaphthene	NA
78-59-1	Isophorone	NA	51-28-5	2,4-Dinitrophenol	NA
88-75-5	2-Nitrophenol	NA	100-02-7	4-Nitrophenol	NA
105-67-9	2,4-Dimethylphenol	NA	132-64-9	Dibenzofuran	NA
65-85-0	Benzoic Acid	NA	121-14-2	2,4-Dinitrotoluene	NA
111-91-1	bis(2-Chloroethoxy)methane	NA	606-20-2	2,6-Dinitrotoluene	NA
120-83-2	2,4-Dichlorophenol	NA	84-66-2	Diethylphthalate	NA
120-82-1	1,2,4-Trichlorobenzene	NA	7005-72-3	4-Chlorophenyl-phenylether	NA
91-20-3	Naphthalene	NA	86-73-7	Fluorene	NA

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

AnaLIS ID: 900924-182
Laboratory: Organic Mass Spectroscopy Laboratory
File ID:
Instrument ID:
Authorized By: D. C. Canada

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA Base/Neutral/Acid Organic Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 20-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: DC CANADA
QA File Number: NA

CAS		ug/L	CAS		ug/L
100-01-6	4-Nitroaniline	NA	53-70-3	Dibenz(a,h)anthracene	NA
534-52-1	4,6-Dinitro-2-methylphenol	NA	191-24-2	Benzo(g,h,i)perylene	NA
86-30-6	N-Nitrosodiphenylamine	NA			
101-55-3	4-Bromophenyl-phenylether	NA			
118-74-1	Hexachlorobenzene	NA			
87-86-5	Pentachlorophenol	NA			
85-01-8	Phenanthrene	NA			
120-12-7	Anthracene	NA			
84-74-2	Di-n-butylphthalate	NA			
206-44-0	Fluoranthene	NA			
129-00-0	Pyrene	NA			
85-68-7	Butylbenzylphthalate	NA			
91-94-1	3,3'-Dichlorobenzidine	NA			
56-55-3	Benzo(a)anthracene	NA			
117-81-7	bis(2-Ethylhexyl)phthalate	NA			
218-01-9	Chrysene	NA			
117-84-0	Di-n-octylphthalate	NA			
205-99-2	Benzo(b)fluoranthene	NA			
207-08-9	Benzo(k)fluoranthene	NA			
50-32-8	Benzo(a)pyrene	NA			
193-39-5	Indeno(1,2,3-cd)pyrene	NA			

Data Reporting Qualifiers:

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B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

AnaLIS ID: 900924-182
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: >07119
Instrument ID: 70-2
Authorized By: D. C. Canada

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 21-SEP-1990

VOA - Volatile Organic Compounds (TCL)

Date Extracted/Prepared: 8-OCT-1990
Preparation Procedure Number:
Percent Moisture:
Percent Moisture (decanted):
Associated Blank: 901008-116
[] : Result has been Corrected for Spike

Date Analyzed: 8-OCT-1990
Analysis Procedure Number: VOA (CLP) NDP
Dilution Factor: 5
Analyst: GL HUDDLESTON
QA File Number: NA

CAS		ug/L	CAS		ug/L
74-87-3	Chloromethane	50U	79-00-5	1,1,2-Trichloroethane	25U
74-83-9	Bromomethane	50U	71-43-2	Benzene	25U
75-01-4	Vinyl Chloride	50U	10061-02-6	trans-1,3-Dichloropropene	25U
75-00-3	Chloroethane	50U	75-25-2	Bromoform	25U
75-09-2	Methylene Chloride	30 B	108-10-1	4-Methyl-2-pentanone	50U
67-64-1	Acetone	290	591-78-6	2-Hexanone	50U
75-15-0	Carbon Disulfide	25U	127-18-4	Tetrachloroethene	25U
75-35-4	1,1-Dichloroethene	25U	79-34-5	1,1,2,2-Tetrachloroethane	25U
75-34-3	1,1-Dichloroethane	25U	108-88-3	Toluene	55
540-59-0	1,2-Dichloroethene (total)	25U	108-90-7	Chlorobenzene	25U
67-66-3	Chloroform	25U	100-41-4	Ethylbenzene	25U
107-06-2	1,2-Dichloroethane	25U	100-42-5	Styrene	25U
78-93-3	2-Butanone	50U	1330-20-7	Xylene (total)	39 J
71-55-6	1,1,1-Trichloroethane	25U			
56-23-5	Carbon Tetrachloride	25U			
108-05-4	Vinyl Acetate	50U			
75-27-4	Bromodichloromethane	25U			
78-87-5	1,2-Dichloropropane	25U			
10061-01-5	cis-1,3-Dichloropropene	25U			
79-01-6	Trichloroethene	25U			
124-48-1	Dibromochloromethane	25U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

AnaLIS ID: 900924-182
Laboratory: Gas / Liquid Chromatography Laboratory
File ID:
Instrument ID:
Authorized By: D. S. ZINGG

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

PCB (TCL)

Date Extracted/Prepared: 28-DEC-1990
Preparation Procedure Number:
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:

Date Analyzed: 27-DEC-1990
Analysis Procedure Number: EPA-8080
Dilution Factor: 100.0
Analyst: RE HOWARD
QA File Number: GC 0383

[] : Result has been Corrected for Spike

CAS		ug/L	CAS		ug/L
12674-11-2	Aroclor-1016	500U			
11104-28-2	Aroclor-1221	500U			
11141-16-5	Aroclor-1232	500U			
53469-21-9	Aroclor-1242	500U			
12672-29-6	Aroclor-1248	500U			
11097-69-1	Aroclor-1254	1100U			
11096-82-5	Aroclor-1260	1100U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

AnaLIS ID: 900924-182
Laboratory: Gas / Liquid Chromatography Laboratory
File ID: GC 0383
Instrument ID:
Authorized By: D. S. ZINGG

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

PESTICIDES (EP-TOX)

Date Extracted/Prepared:
Preparation Procedure Number: EPA-3510
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 27-DEC-1990
Analysis Procedure Number: EPA-8080
Dilution Factor: 100
Analyst: DS ZINGG
QA File Number: GC 0383

CAS		ug/L	CAS		ug/L
72-20-8	Endrin	100U			
58-89-9	gamma-BHC(Lindane)	50U			
72-43-5	Methoxychlor	500U			
8001-35-2	Toxaphene	1000U			
5103-71-9	alpha-Chlordane	500U			
5103-74-2	gamma-Chlordane	500U			
76-44-8	Heptachlor	50U			
1024-57-3	Heptachlor Epoxide	50U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

Oak Ridge K-25 Site
Analytical Chemistry Department
Results of Analyses

AnaLIS ID: 900924-183 Project: G132 034S Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER Requisition Number:
Date Sampled: 9-AUG-1990 Date Sample Received: 21-SEP-1990
Sampled By: Date Sample Completed:
Material Description: ORPHAN DRUM SAMPLES SOLIDS [] : Result has been Corrected for Spike

ctiv. umber	Procedure No.	Analysis	Result	Units	Analyst	QA File Number	Date Completed
	EPA-6010	Arsenic (TCLP)	--------	mg/L			
	EPA-6010	Lead (TCLP)	--------	mg/L			
	EPA-3510	PESTICIDES (EP-TOX) SOIL	--------	ug/L			
	EPA-3510	Prep (Pest- SW-846-Funnel)	--------				
	EPA-6010	Selenium (TCLP)	--------	mg/L			
00207	EPA-6010	Barium (TCLP)	<0.10	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Cadmium (TCLP)	<0.0030	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Chromium (TCLP)	7.0	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Silver (TCLP)	<0.010	mg/L	ML BAIN	01023A	23-OCT-1990
03208	EPA-7470	Mercury (TCLP)	<0.002	ug/L	MC ROSS	01018A2	25-OCT-1990
31003	EPA-3540	Prep (PCB- SW-846-Sox)	C		JH KREIS	2243	24-NOV-1990
35003	EPA-3550	Prep (BNA- SW-846-Sox)	C		JH KREIS	2173	15-NOV-1990
73603	EPA-1311	TCLP Metals Extraction	C		JA ROUSE	XX	10-OCT-1990
32603	EPA-9045	pH	X		HH SULLIVAN	X	26-OCT-1990
36803	EPA-1010	Flash Point Closed Cup	X	degrees F	HH SULLIVAN	X	26-OCT-1990

rep (BNA- SW-846-Sox)
---

nalyst	= JH KREIS
ate Extracted	= 12-NOV-1990
ample Weight Extracted (g)	= 10.27
ercent Solids	= 94.5
alculated Dried Weight (g)	= 9.71
xtraction Method	= Soxhlet
xtraction Solvent	= Methlylene Chloride/Acetone
xtraction Cleanup	= Sodium Sulfate
inal Volume of Extract (mL)	= 1
ssociated Blank	= 901115-071

rep (PCB- SW-846-Sox)
---

nalyst	= JH KREIS
ate Extracted	= 20-NOV-1990
ample Weight Extracted (g)	= 13.00
ercent Solids	= 94.5
alculated Dried Weight (g)	= 12.28
xtraction Method	= Soxhlet
xtraction Solvent	= Hexane

:raction Cleanup = Sulfuric Acid, Sodium Sulfate
ıal Volume of Extract (mL) = 10
ociated Blank = 901120-177

***** Comments from the Wet Chemistry Laboratory *****

Insufficient sample to complete the analysis for flash point and pH.

***** Comments from the Organic Mass Spectroscopy Laboratory *****

ıple not received in GC/MS lab....

Program Manager: D. L. Amburgey
Date Approved:

ANALYSIS DATA REPORT

AnaLIS ID: 900924-183
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: 14337
Instrument ID: HP-5985
Authorized By: D. C. Canada

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA - Base/Neutral/Acid Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture: 5
Percent Moisture (decanted):
Associated Blank: 901115-071
□ : Result has been Corrected for Spike

Date Analyzed: 27-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: AK HEADRICK
QA File Number: NA

CAS			ug/Kg	CAS			ug/Kg
108-95-2	Phenol	R	1000.UU	106-47-8	4-Chloroaniline	R	1000.UU
111-44-4	bis(2-Chloroethyl)ether	R	1000.UU	87-68-3	Hexachlorobutadiene	R	1000.UU
95-57-8	2-Chlorophenol	R	1000.UU	59-50-7	4-Chloro-3-methylphenol	R	1000.UU
541-73-1	1,3-Dichlorobenzene	R	1000.UU	91-57-6	2-Methylnaphthalene	R	1000.UU
106-46-7	1,4-Dichlorobenzene	R	1000.UU	77-47-4	Hexachlorocyclopentadiene	R	1000.UU
100-51-6	Benzyl Alcohol	R	1000.UU	88-06-2	2,4,6-Trichlorophenol	R	1000.UU
95-50-1	1,2-Dichlorobenzene	R	1000.UU	95-95-4	2,4,5-Trichlorophenol	R	5100.UU
95-48-7	2-Methylphenol	R	1000.UU	91-58-7	2-Chloronaphthalene	R	1000.UU
108-60-1	bis(2-Chloroisopropyl)ether	R	1000.UU	88-74-4	2-Nitroaniline	R	5100.UU
106-44-5	4-Methylphenol	R	1000.UU	131-11-3	Dimethylphthalate	R	1000.UU
621-64-7	N-Nitroso-di-n-propylamine	R	1000.UU	208-96-8	Acenaphthylene	R	1000.UU
67-72-1	Hexachloroethane	R	1000.UU	99-09-2	3-Nitroaniline	R	5100.UU
98-95-3	Nitrobenzene	R	1000.UU	83-32-9	Acenaphthene	R	1000.UU
78-59-1	Isophorone	R	1000.UU	51-28-5	2,4-Dinitrophenol	R	5100.UU
88-75-5	2-Nitrophenol	R	1000.UU	100-02-7	4-Nitrophenol	R	5100.UU
105-67-9	2,4-Dimethylphenol	R	1000.UU	132-64-9	Dibenzofuran	R	1000.UU
65-85-0	Benzoic Acid	R	5100.UU	121-14-2	2,4-Dinitrotoluene	R	1000.UU
111-91-1	bis(2-Chloroethoxy)methane	R	1000.UU	606-20-2	2,6-Dinitrotoluene	R	1000.UU
120-83-2	2,4-Dichlorophenol	R	1000.UU	84-66-2	Diethylphthalate	R	1000.UU
120-82-1	1,2,4-Trichlorobenzene	R	1000.UU	7005-72-3	4-Chlorophenyl-phenylether	R	1000.UU
91-20-3	Naphthalene	R	1000.UU	86-73-7	Fluorene	R	1000.UU

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

AnaLIS ID: 900924-183
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: 14337
Instrument ID: HP-5985
Authorized By: D. C. Canada

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA - Base/Neutral/Acid Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture: 5
Percent Moisture (decanted):
Associated Blank: 901115-071
[] : Result has been Corrected for Spike

Date Analyzed: 27-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: AK HEADRICK
QA File Number: NA

CAS			ug/Kg	CAS			ug/Kg
100-01-6	4-Nitroaniline	R	5100.UU	53-70-3	Dibenz(a,h)anthracene	R	1000.UU
534-52-1	4,6-Dinitro-2-methylphenol	R	5100.UU	191-24-2	Benzo(g,h,i)perylene	R	1000.UU
86-30-6	N-Nitrosodiphenylamine	R	1000.UU				
101-55-3	4-Bromophenyl-phenylether	R	1000.UU				
118-74-1	Hexachlorobenzene	R	1000.UU				
87-86-5	Pentachlorophenol	R	5100.UU				
85-01-8	Phenanthrene	R	1000.UU				
120-12-7	Anthracene	R	1000.UU				
84-74-2	Di-n-butylphthalate	R	1500B				
206-44-0	Fluoranthene	R	1000.UU				
129-00-0	Pyrene	R	1000.UU				
85-68-7	Butylbenzylphthalate	R	1000.UU				
91-94-1	3,3'-Dichlorobenzidine	R	2000.UU				
56-55-3	Benzo(a)anthracene	R	1000.UU				
117-81-7	bis(2-Ethylhexyl)phthalate	R	1000J				
218-01-9	Chrysene	R	1000.UU				
117-84-0	Di-n-octylphthalate	R	1000.UU				
205-99-2	Benzo(b)fluoranthene	R	1000.UU				
207-08-9	Benzo(k)fluoranthene	R	1000.UU				
50-32-8	Benzo(a)pyrene	R	1000.UU				
193-39-5	Indeno(1,2,3-cd)pyrene	R	1000.UU				

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

AnaLIS ID: 900924-183
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: >07084
Instrument ID: 70-2
Authorized By: D. C. Canada

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 21-SEP-1990

VOA - Volatile Organic Compounds (TCL)

Date Extracted/Prepared: 4-OCT-1990
Preparation Procedure Number:
Percent Moisture: 6
Percent Moisture (decanted):
Associated Blank: 901004-038
[] : Result has been Corrected for Spike

Date Analyzed: 4-OCT-1990
Analysis Procedure Number: VOA (CLP) NDP
Dilution Factor: 1.0
Analyst: GL HUDDLESTON
QA File Number: NA

CAS		ug/Kg	CAS		ug/Kg
74-87-3	Chloromethane	11U	79-00-5	1,1,2-Trichloroethane	5U
74-83-9	Bromomethane	11U	71-43-2	Benzene	5U
75-01-4	Vinyl Chloride	11U	10061-02-6	trans-1,3-Dichloropropene	5U
75-00-3	Chloroethane	11U	75-25-2	Bromoform	5U
75-09-2	Methylene Chloride	4 JB	108-10-1	4-Methyl-2-pentanone	11U
67-64-1	Acetone	97 B	591-78-6	2-Hexanone	78
75-15-0	Carbon Disulfide	5U	127-18-4	Tetrachloroethene	5U
75-35-4	1,1-Dichloroethene	5U	79-34-5	1,1,2,2-Tetrachloroethane	5U
75-34-3	1,1-Dichloroethane	5U	108-88-3	Toluene	5U
540-59-0	1,2-Dichloroethene (total)	5U	108-90-7	Chlorobenzene	5U
67-66-3	Chloroform	5U	100-41-4	Ethylbenzene	5U
107-06-2	1,2-Dichloroethane	5U	100-42-5	Styrene	5U
78-93-3	2-Butanone	11U	1330-20-7	Xylene (total)	5U
71-55-6	1,1,1-Trichloroethane	5U			
56-23-5	Carbon Tetrachloride	5U			
108-05-4	Vinyl Acetate	11U			
75-27-4	Bromodichloromethane	5U			
78-87-5	1,2-Dichloropropane	5U			
10061-01-5	cis-1,3-Dichloropropene	5U			
79-01-6	Trichloroethene	5U			
124-48-1	Dibromochloromethane	5U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

AnaLIS ID: 900924-183
Laboratory: Gas / Liquid Chromatography Laboratory
File ID:
Instrument ID:
Authorized By: D. S. ZINGG

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 24-SEP-1990

PCB (TCL) SOIL

Date Extracted/Prepared: 30-NOV-1990
Preparation Procedure Number:
Percent Moisture: 15.5
Percent Moisture (decanted): 0
Associated Blank:

Date Analyzed: 29-NOV-1990
Analysis Procedure Number: EPA-8080
Dilution Factor: 1.0
Analyst: EK BROWN
QA File Number: GC 338

□ : Result has been Corrected for Spike

CAS		ug/Kg	CAS		ug/Kg
12674-11-2	Aroclor-1016	110U			
11104-28-2	Aroclor-1221	110U			
11141-16-5	Aroclor-1232	110U			
53469-21-9	Aroclor-1242	110U			
12672-29-6	Aroclor-1248	110U			
11097-69-1	Aroclor-1254	220U			
11096-82-5	Aroclor-1260	220U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

5

MARTIN MARIETTA

MARTIN MARIETTA ENERGY SYSTEMS, INC.

ANALYTICAL CHEMISTRY DEPARTMENT

CHAIN OF CUSTODY RECORD

STA# 0016-90

ACD/COC NO.: 01408

PROJECT NUMBER: 90-034

PROJECT NAME: orphan Drum Analysis
Contact: D. Stocker

SAMPLERS (SIGNATURE):

CUSTOMER NUMBER	ACD NUMBER	SAMPLING DATE	SAMPLING TIME	SAMPLE TYPE	NO. OF CONTAINERS	PCB's - 8080	Flash Pt - 1010	PH - 9040	TCLP (metals, Pest) - 1311	VOA - 8240	SemiVOA - 8270	REMARKS
E1911		8-9	10:00AM	Liquid	1	X	X	X	X	X	X	6132-034L
E1912		8-9	10:00AM	Solid	1	X	X	X	X	X	X	6132-034S
												900924-182,183

RELINQUISHED BY (Signature)	Date	Time	RECEIVED BY (Signature)	Date	Time	RELINQUISHED BY (Signature)	Date	Time	RECEIVED BY (Signature)
Dennis O. Stocker	8/31	9:42AM	[illegible]	9-21-90	1300				
RELINQUISHED BY (Signature)	Date	Time	RECEIVED BY (Signature)	Date	Time	RELINQUISHED BY (Signature)	Date	Time	RECEIVED BY (Signature)

9613490-0074

Number: 2332, R-0
Analysis: Sample Receipt
Sample: DOE Site Survey
Method: Written Description
Page 3 of 3

TITLE: Receipt and Tracking of DOE Site Survey Samples

COOLER RECEIPT FORM

Date: 9-21-90 Shipper ID and Document No: FE 8556452936

Cooler ID if noted on outside of cooler: NONE

Project/Site: HANFORD

Custody Seal on Cooler?	(Yes)	No	Custody seals dated and signed?	(Yes)	No
Condition of cooler acceptable?	(Yes)	No	Prog. Mgr. notified of receipt of cooler?	(Yes)	No
Radioactive Labels?	(Yes)	No	Radioactivity recheck OK?	(Yes)	No
Hazardous Labels?	(Yes)	No	Samples properly Labeled	(Yes)	No
Custody form(s) inside cooler?	(Yes)	No	Custody form(s) properly completed and signed?	(Yes)	No
Was cooler required to be maintained at 4°C ?	(Yes)	No	Thermometer inside of cooler?	Yes	(No)
Sample containers intact?	(Yes)	No	Temperature of cooler: 4 C° (X.X)		
Are Containers those specified for requested parameters?	(Yes)	No	VOA containers free of bubbles?	Yes	No
Date of login: SEPT 24, 90			Additional infromation needed from Prog. Mgr.?	(Yes)	No
Lab assigned ID No: 900924-182					
Thru 900924-183					

NOTE: Nitrite-N, Nitrate-N, o-Phosphate-o-Phosphate-P have 48 hour holding time. LOGIN THESE FIRST - ASAP

THe lab numbers plus the project number are used for tracking purposes.

Signed: Cynthia Morrow

List Comments:

AIRBORNE EXPRESS®

004071923 940

004071923 940

ZIP CODE 37831

SEQUENCE NO 0001

RECEIVER

C.R. Kirkpatrick drop point A20
US DOE/MARTIN MARIETTA
ENERGY SYSTEMS/OAK RIDGE
GASEOUS DIFUSSION PLANT/
BLAIR RD HIGHWAY 58
OAK RIDGE TN

M7420 W90-0-0436 CAR

SHIPMENT NO. 4071923 940

ORIGIN PSC

SHIPMENT NO. 4071923-940

SERVICES

WEIGHT(LBS) 5 lb

256 (5/88)

TYS 5R

Patricia J. Efird
9/14/90

96134900.0876

7

8

8556452936

FLAMMABLE LIQUID, NOS	FLAMMABLE LIQUID	UN-1993 LIMITED QUANTITY		3.3 liters TOTAL		

PASCO, WA

12RKW

OAK RIDGE, TN

[redacted]

[redacted]

THIS IS TO CERTIFY THAT THE CONTENTS OF THIS CONSIGNMENT ARE FULLY AND ACCURATELY DESCRIBED ABOVE BY PROPER SHIPPING NAME AND ARE CLASSIFIED, PACKED, MARKED, AND LABELED/MARKED AND ARE IN ALL RESPECTS IN PROPER CONDITION FOR TRANSPORT BY AIR ACCORDING TO THE APPLICABLE INTERNATIONAL AND NATIONAL GOVERNMENT REGULATIONS

J.E. MAXWELL, HAZ. MAT. SPEC.

(509)376-3800

John E. Maxwell

RICHLAND, WA 9-20-90

SEE WAYBILL ON BACK

9613190.0827

9613490.0878

MARTIN MARIETTA

1

MARTIN MARIETTA ENERGY SYSTEMS, INC.

POST OFFICE BOX 2003
OAK RIDGE, TENNESSEE 37831-7440

April 22, 1991

Ms. Joan Kessner
Westinghouse Hanford Company
2344 Stevens Drive
Richland, Washington 99352

Dear Ms. Kessner:

Analytical Results Supplemental Package on Project 90-034: Underground Storage Tanks Sample Analysis

Attached are the updated results on two (2) Underground Storage Tank Sample Analysis samples, Project 90-034, received into the Analytical Chemistry Department (ACD) laboratories on September 21, 1990. These results are a supplement to the previously submitted data package for Project 90-034. Copies of the Chain of Custody records were included in the original package and have, therefore, not been included in this supplement.

The results are reported on ACD's AnaLis report format per letter dated December 20, 1990. The results on these samples are unchanged from the previously submitted results except for the inclusion of the arsenic, lead, and selenium results. All data quality objectives were satisfied on this project.

The semi-volatile analysis on sample E1911 and the pesticide analysis on sample E1912 remain incomplete at this time. Resolution of these analyses is pending.

I certify that this data package is in compliance with the terms and conditions of the OSM's revised Statement of Work and letter dated December 20, 1990, both technically and for completeness, for other than the conditions stated above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Sincerely,

Deborah L. Amburgey
Program Manager
Hanford Support Program

Clarence R. Kirkpatrick
Program Manager
Waste Management Analysis

Roy W. Morrow
Department Manager
Analytical Chemistry Department (K-25)

dla

Attachments

cc/attach: D.L.Amburgey
S.R.Smith - RC

cc: N.P.Buddin
H.H.Sullivan

SAMPLE IDENTIFICATION FOR

SUPPLEMENTAL DATA PACKAGE

PROJECT 90-034

Table 1.1 - Sample Identification Table for Supplemental Data Package for Project 90-034: Underground Storage Tank Sample Analysis

Date Group Rec.	OSM Sample ID	Lab Sample ID	Matrix	Comments
9/21/90	E1911	900924-182	liquid	
	E1912	900924-183	solid	

Oak Ridge K-25 Site
Analytical Chemistry Department
Results of Analyses

Date Printed:
3-APR-1991 13:32

AnaLIS ID: 900924-182 Project: G132 034L Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER Requisition Number:
Date Sampled: 9-AUG-1990 Date Sample Received: 21-SEP-1990
Sampled By: Date Sample Completed: 26-MAR-1991
Material Description: LIQUID FROM ORPHAN DRUMS [] : Result has been Corrected for Spike

/. er	Procedure No.	Analysis		Result	Units	Analyst	QA File Number	Date Completed
)8	EPA-6010	Arsenic (TCLP)		<0.050	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Barium (TCLP)		2.6	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Cadmium (TCLP)		<0.0030	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Chromium (TCLP)		<0.010	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Lead (TCLP)		<0.050	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Selenium (TCLP)		<0.050	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Silver (TCLP)		<0.010	mg/L	ML BAIN	01226A	26-DEC-1990
)8	EPA-7470	Mercury (TCLP)		<0.0002	ug/L	SA BURGESS	01008E	8-OCT-1990
)8	EPA-3520	Prep (PCB- SW-846-Liq/liq)		C		MF MCMYLER	1840	20-DEC-1990
)8	EPA-3510	Prep (Pest- SW-846-Funnel)		C		MF MCMYLER	1840	20-DEC-1990
)7	EPA-3520	Prep (BNA- SW-846-Liq/liq)		N/A		MF MCMYLER	N/A	20-DEC-1990
)7	EPA-1311	TCLP Extraction		C		BD HARRIS	90-8	17-DEC-1990
)7	EPA-160.3	Total Solids		20560	mg/L	RM SALINAS	90-24	3-OCT-1990
)7	EPA-9040	pH		5.5		RM SALINAS	90-18	28-SEP-1990
)7	EPA-1010	Flash Point Closed Cup	R	>145	degrees F	J GOODMAN JR	90-34	29-OCT-1990

(BNA- SW-846-Liq/liq)

/st = MF MCMYLER
Extracted = 19-DEC-1990

(PCB- SW-846-Liq/liq)

/st = MF MCMYLER
= 7
Extracted = 20-DEC-1990
e Volume Extracted (mL) = 92
ıction Method = Separatory Funnel
ıction Solvent = Methylene Chloride
ıction Cleanup = Sodium Sulfate
Volume of Extract (mL) = 10.0
:iated Blank = 901220-194

***** Comments from the Wet Chemistry Laboratory *****

nsufficient sample to complete the analysis for flash point.

***** Comments from the Organic Mass Spectroscopy Laboratory *****

e not received in GC/MS lab...

9615490.0882

Program Manager: D. L. Amburgey
Date Approved: 26-MAR-1991

ANALYSIS DATA REPORT

Date Printed:
3-APR-1991 13:32

AnaLIS ID: 900924-182
Laboratory: Organic Mass Spectroscopy Laboratory
File ID:
Instrument ID:
Authorized By: D. C. Canada

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA Base/Neutral/Acid Organic Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 20-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: DC CANADA
QA File Number: NA

CAS		ug/L	CAS		ug/L
108-95-2	Phenol	NA	106-47-8	4-Chloroaniline	NA
111-44-4	bis(2-Chloroethyl)ether	NA	87-68-3	Hexachlorobutadiene	NA
95-57-8	2-Chlorophenol	NA	59-50-7	4-Chloro-3-methylphenol	NA
541-73-1	1,3-Dichlorobenzene	NA	91-57-6	2-Methylnaphthalene	NA
106-46-7	1,4-Dichlorobenzene	NA	77-47-4	Hexachlorocyclopentadiene	NA
100-51-6	Benzyl Alcohol	NA	88-06-2	2,4,6-Trichlorophenol	NA
95-50-1	1,2-Dichlorobenzene	NA	95-95-4	2,4,5-Trichlorophenol	NA
95-48-7	2-Methylphenol	NA	91-58-7	2-Chloronaphthalene	NA
108-60-1	bis(2-Chloroisopropyl)ether	NA	88-74-4	2-Nitroaniline	NA
106-44-5	4-Methylphenol	NA	131-11-3	Dimethylphthalate	NA
621-64-7	N-Nitroso-di-n-propylamine	NA	208-96-8	Acenaphthylene	NA
67-72-1	Hexachloroethane	NA	99-09-2	3-Nitroaniline	NA
98-95-3	Nitrobenzene	NA	83-32-9	Acenaphthene	NA
78-59-1	Isophorone	NA	51-28-5	2,4-Dinitrophenol	NA
88-75-5	2-Nitrophenol	NA	100-02-7	4-Nitrophenol	NA
105-67-9	2,4-Dimethylphenol	NA	132-64-9	Dibenzofuran	NA
65-85-0	Benzoic Acid	NA	121-14-2	2,4-Dinitrotoluene	NA
111-91-1	bis(2-Chloroethoxy)methane	NA	606-20-2	2,6-Dinitrotoluene	NA
120-83-2	2,4-Dichlorophenol	NA	84-66-2	Diethylphthalate	NA
120-82-1	1,2,4-Trichlorobenzene	NA	7005-72-3	4-Chlorophenyl-phenylether	NA
91-20-3	Naphthalene	NA	86-73-7	Fluorene	NA

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
3-APR-1991 13:32

AnaLIS ID: 900924-182
Laboratory: Organic Mass Spectroscopy Laboratory
File ID:
Instrument ID:
Authorized By: D. C. Canada

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA Base/Neutral/Acid Organic Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 20-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: DC CANADA
QA File Number: NA

CAS		ug/L	CAS		ug/L
100-01-6	4-Nitroaniline	NA	53-70-3	Dibenz(a,h)anthracene	NA
534-52-1	4,6-Dinitro-2-methylphenol	NA	191-24-2	Benzo(g,h,i)perylene	NA
86-30-6	N-Nitrosodiphenylamine	NA			
101-55-3	4-Bromophenyl-phenylether	NA			
118-74-1	Hexachlorobenzene	NA			
87-86-5	Pentachlorophenol	NA			
85-01-8	Phenanthrene	NA			
120-12-7	Anthracene	NA			
84-74-2	Di-n-butylphthalate	NA			
206-44-0	Fluoranthene	NA			
129-00-0	Pyrene	NA			
85-68-7	Butylbenzylphthalate	NA			
91-94-1	3,3'-Dichlorobenzidine	NA			
56-55-3	Benzo(a)anthracene	NA			
117-81-7	bis(2-Ethylhexyl)phthalate	NA			
218-01-9	Chrysene	NA			
117-84-0	Di-n-octylphthalate	NA			
205-99-2	Benzo(b)fluoranthene	NA			
207-08-9	Benzo(k)fluoranthene	NA			
50-32-8	Benzo(a)pyrene	NA			
193-39-5	Indeno(1,2,3-cd)pyrene	NA			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
3-APR-1991 13:32

AnaLIS ID: 900924-182
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: >07119
Instrument ID: 70-2
Authorized By: D. C. Canada

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 21-SEP-1990

VOA - Volatile Organic Compounds (TCL)

Date Extracted/Prepared: 8-OCT-1990
Preparation Procedure Number:
Percent Moisture:
Percent Moisture (decanted):
Associated Blank: 901008-116
[] : Result has been Corrected for Spike

Date Analyzed: 8-OCT-1990
Analysis Procedure Number: VOA (CLP) NDP
Dilution Factor: 5
Analyst: GL HUDDLESTON
QA File Number: NA

CAS		ug/L	CAS		ug/L
74-87-3	Chloromethane	50U	79-00-5	1,1,2-Trichloroethane	25U
74-83-9	Bromomethane	50U	71-43-2	Benzene	25U
75-01-4	Vinyl Chloride	50U	10061-02-6	trans-1,3-Dichloropropene	25U
75-00-3	Chloroethane	50U	75-25-2	Bromoform	25U
75-09-2	Methylene Chloride	30 B	108-10-1	4-Methyl-2-pentanone	50U
67-64-1	Acetone	290	591-78-6	2-Hexanone	50U
75-15-0	Carbon Disulfide	25U	127-18-4	Tetrachloroethene	25U
75-35-4	1,1-Dichloroethene	25U	79-34-5	1,1,2,2-Tetrachloroethane	25U
75-34-3	1,1-Dichloroethane	25U	108-88-3	Toluene	55
540-59-0	1,2-Dichloroethene (total)	25U	108-90-7	Chlorobenzene	25U
67-66-3	Chloroform	25U	100-41-4	Ethylbenzene	25U
107-06-2	1,2-Dichloroethane	25U	100-42-5	Styrene	25U
78-93-3	2-Butanone	50U	1330-20-7	Xylene (total)	39 J
71-55-6	1,1,1-Trichloroethane	25U			
56-23-5	Carbon Tetrachloride	25U			
108-05-4	Vinyl Acetate	50U			
75-27-4	Bromodichloromethane	25U			
78-87-5	1,2-Dichloropropane	25U			
10061-01-5	cis-1,3-Dichloropropene	25U			
79-01-6	Trichloroethene	25U			
124-48-1	Dibromochloromethane	25U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

11

ANALYSIS DATA REPORT

Date Printed:
3-APR-1991 13:32

AnaLIS ID: 900924-182
Laboratory: Gas / Liquid Chromatography Laboratory
File ID:
Instrument ID:
Authorized By: D. S. ZINGG

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

PCB (TCL)

Date Extracted/Prepared: 28-DEC-1990
Preparation Procedure Number:
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 27-DEC-1990
Analysis Procedure Number: EPA-8080
Dilution Factor: 100.0
Analyst: RE HOWARD
QA File Number: GC 0383

CAS		ug/L	CAS		ug/L
12674-11-2	Aroclor-1016	500U			
11104-28-2	Aroclor-1221	500U			
11141-16-5	Aroclor-1232	500U			
53469-21-9	Aroclor-1242	500U			
12672-29-6	Aroclor-1248	500U			
11097-69-1	Aroclor-1254	1100U			
11096-82-5	Aroclor-1260	1100U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
3-APR-1991 13:32

AnaLIS ID: 900924-182
Laboratory: Gas / Liquid Chromatography Laboratory
File ID: GC 0383
Instrument ID:
Authorized By: D. S. ZINGG

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

PESTICIDES (EP-TOX)

Date Extracted/Prepared:
Preparation Procedure Number: EPA-3510
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 27-DEC-1990
Analysis Procedure Number: EPA-8080
Dilution Factor: 100
Analyst: DS ZINGG
QA File Number: GC 0383

CAS		ug/L	CAS		ug/L
72-20-8	Endrin	100U			
58-89-9	gamma-BHC(Lindane)	50U			
72-43-5	Methoxychlor	500U			
8001-35-2	Toxaphene	1000U			
5103-71-9	alpha-Chlordane	500U			
5103-74-2	gamma-Chlordane	500U			
76-44-8	Heptachlor	50U			
1024-57-3	Heptachlor Epoxide	50U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

Oak Ridge K-25 Site
Analytical Chemistry Department
Results of Analyses

Date Printed:
3-APR-1991 13:36

AnaLIS ID: 900924-183 Project: G132 034S Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER Requisition Number:
Date Sampled: 9-AUG-1990 Date Sample Received: 21-SEP-1990
Sampled By: Date Sample Completed:
Material Description: ORPHAN DRUM SAMPLES SOLIDS [] : Result has been Corrected for Spike

/. er	Procedure No.	Analysis	Result	Units	Analyst	QA File Number	Date Completed
	EPA-3510	PESTICIDES (EP-TOX) SOIL	--------	ug/L			
	EPA-3510	Prep (Pest- SW-846-Funnel)	--------				
07	EPA-6010	Arsenic (TCLP)	4.4	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Barium (TCLP)	<0.10	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Cadmium (TCLP)	<0.0030	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Chromium (TCLP)	7.0	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Lead (TCLP)	0.062	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Selenium (TCLP)	0.060	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Silver (TCLP)	<0.010	mg/L	ML BAIN	01023A	23-OCT-1990
08	EPA-7470	Mercury (TCLP)	<0.002	ug/L	MC ROSS	01018A2	25-OCT-1990
03	EPA-3540	Prep (PCB- SW-846-Sox)	C		JH KREIS	2243	24-NOV-1990
03	EPA-3550	Prep (BNA- SW-846-Sox)	C		JH KREIS	2173	15-NOV-1990
03	EPA-1311	TCLP Metals Extraction	C		JA ROUSE	XX	10-OCT-1990
03	EPA-9045	pH	X		HH SULLIVAN	X	26-OCT-1990
03	EPA-1010	Flash Point Closed Cup	X	degrees F	HH SULLIVAN	X	26-OCT-1990

(BNA- SW-846-Sox)

'st = JH KREIS
Extracted = 12-NOV-1990
e Weight Extracted (g) = 10.27
ent Solids = 94.5
ulated Dried Weight (g) = 9.71
action Method = Soxhlet
action Solvent = Methlylene Chloride/Acetone
action Cleanup = Sodium Sulfate
Volume of Extract (mL) = 1
iated Blank = 901115-071

(PCB- SW-846-Sox)

'st = JH KREIS
Extracted = 20-NOV-1990
e Weight Extracted (g) = 13.00
ent Solids = 94.5
ulated Dried Weight (g) = 12.28
action Method = Soxhlet
action Solvent = Hexane
action Cleanup = Sulfuric Acid, Sodium Sulfate
Volume of Extract (mL) = 10
iated Blank = 901120-177

***** Comments from the Wet Chemistry Laboratory *****

insufficient sample to complete the analysis for flash point and pH.

9613190.1909

***** Comments from the Organic Mass Spectroscopy Laboratory *****

e not received in GC/MS lab....

Program Manager: D. L. Amburgey
Date Approved:

17

ANALYSIS DATA REPORT

Date Printed:
3-APR-1991 13:36

AnaLIS ID: 900924-183
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: 14337
Instrument ID: HP-5985
Authorized By: D. C. Canada

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA - Base/Neutral/Acid Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture: 5
Percent Moisture (decanted):
Associated Blank: 901115-071
[] : Result has been Corrected for Spike

Date Analyzed: 27-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: AK HEADRICK
QA File Number: NA

CAS			ug/Kg	CAS			ug/Kg
108-95-2	Phenol	R	1000.UU	106-47-8	4-Chloroaniline	R	1000.UU
111-44-4	bis(2-Chloroethyl)ether	R	1000.UU	87-68-3	Hexachlorobutadiene	R	1000.UU
95-57-8	2-Chlorophenol	R	1000.UU	59-50-7	4-Chloro-3-methylphenol	R	1000.UU
541-73-1	1,3-Dichlorobenzene	R	1000.UU	91-57-6	2-Methylnaphthalene	R	1000.UU
106-46-7	1,4-Dichlorobenzene	R	1000.UU	77-47-4	Hexachlorocyclopentadiene	R	1000.UU
100-51-6	Benzyl Alcohol	R	1000.UU	88-06-2	2,4,6-Trichlorophenol	R	1000.UU
95-50-1	1,2-Dichlorobenzene	R	1000.UU	95-95-4	2,4,5-Trichlorophenol	R	5100.UU
95-48-7	2-Methylphenol	R	1000.UU	91-58-7	2-Chloronaphthalene	R	1000.UU
108-60-1	bis(2-Chloroisopropyl)ether	R	1000.UU	88-74-4	2-Nitroaniline	R	5100.UU
106-44-5	4-Methylphenol	R	1000.UU	131-11-3	Dimethylphthalate	R	1000.UU
621-64-7	N-Nitroso-di-n-propylamine	R	1000.UU	208-96-8	Acenaphthylene	R	1000.UU
67-72-1	Hexachloroethane	R	1000.UU	99-09-2	3-Nitroaniline	R	5100.UU
98-95-3	Nitrobenzene	R	1000.UU	83-32-9	Acenaphthene	R	1000.UU
78-59-1	Isophorone	R	1000.UU	51-28-5	2,4-Dinitrophenol	R	5100.UU
88-75-5	2-Nitrophenol	R	1000.UU	100-02-7	4-Nitrophenol	R	5100.UU
105-67-9	2,4-Dimethylphenol	R	1000.UU	132-64-9	Dibenzofuran	R	1000.UU
65-85-0	Benzoic Acid	R	5100.UU	121-14-2	2,4-Dinitrotoluene	R	1000.UU
111-91-1	bis(2-Chloroethoxy)methane	R	1000.UU	606-20-2	2,6-Dinitrotoluene	R	1000.UU
120-83-2	2,4-Dichlorophenol	R	1000.UU	84-66-2	Diethylphthalate	R	1000.UU
120-82-1	1,2,4-Trichlorobenzene	R	1000.UU	7005-72-3	4-Chlorophenyl-phenylether	R	1000.UU
91-20-3	Naphthalene	R	1000.UU	86-73-7	Fluorene	R	1000.UU

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
3-APR-1991 13:36

AnaLIS ID: 900924-183
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: 14337
Instrument ID: HP-5985
Authorized By: D. C. Canada

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA - Base/Neutral/Acid Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture: 5
Percent Moisture (decanted):
Associated Blank: 901115-071
[] : Result has been Corrected for Spike

Date Analyzed: 27-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: AK HEADRICK
QA File Number: NA

CAS			ug/Kg	CAS			ug/Kg
100-01-6	4-Nitroaniline	R	5100.UU	53-70-3	Dibenz(a,h)anthracene	R	1000.UU
534-52-1	4,6-Dinitro-2-methylphenol	R	5100.UU	191-24-2	Benzo(g,h,i)perylene	R	1000.UU
86-30-6	N-Nitrosodiphenylamine	R	1000.UU				
101-55-3	4-Bromophenyl-phenylether	R	1000.UU				
118-74-1	Hexachlorobenzene	R	1000.UU				
87-86-5	Pentachlorophenol	R	5100.UU				
85-01-8	Phenanthrene	R	1000.UU				
120-12-7	Anthracene	R	1000.UU				
84-74-2	Di-n-butylphthalate	R	1500B				
206-44-0	Fluoranthene	R	1000.UU				
129-00-0	Pyrene	R	1000.UU				
85-68-7	Butylbenzylphthalate	R	1000.UU				
91-94-1	3,3'-Dichlorobenzidine	R	2000.UU				
56-55-3	Benzo(a)anthracene	R	1000.UU				
117-81-7	bis(2-Ethylhexyl)phthalate	R	1000J				
218-01-9	Chrysene	R	1000.UU				
117-84-0	Di-n-octylphthalate	R	1000.UU				
205-99-2	Benzo(b)fluoranthene	R	1000.UU				
207-08-9	Benzo(k)fluoranthene	R	1000.UU				
50-32-8	Benzo(a)pyrene	R	1000.UU				
193-39-5	Indeno(1,2,3-cd)pyrene	R	1000.UU				

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
3-APR-1991 13:36

AnaLIS ID: 900924-183
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: >07084
Instrument ID: 70-2
Authorized By: D. C. Canada

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 21-SEP-1990

VOA - Volatile Organic Compounds (TCL)

Date Extracted/Prepared: 4-OCT-1990
Preparation Procedure Number:
Percent Moisture: 6
Percent Moisture (decanted):
Associated Blank: 901004-038
[] : Result has been Corrected for Spike

Date Analyzed: 4-OCT-1990
Analysis Procedure Number: VOA (CLP) NDP
Dilution Factor: 1.0
Analyst: GL HUDDLESTON
QA File Number: NA

CAS		ug/Kg	CAS		ug/Kg
74-87-3	Chloromethane	11U	79-00-5	1,1,2-Trichloroethane	5U
74-83-9	Bromomethane	11U	71-43-2	Benzene	5U
75-01-4	Vinyl Chloride	11U	10061-02-6	trans-1,3-Dichloropropene	5U
75-00-3	Chloroethane	11U	75-25-2	Bromoform	5U
75-09-2	Methylene Chloride	4 JB	108-10-1	4-Methyl-2-pentanone	11U
67-64-1	Acetone	97 B	591-78-6	2-Hexanone	78
75-15-0	Carbon Disulfide	5U	127-18-4	Tetrachloroethene	5U
75-35-4	1,1-Dichloroethene	5U	79-34-5	1,1,2,2-Tetrachloroethane	5U
75-34-3	1,1-Dichloroethane	5U	108-88-3	Toluene	5U
540-59-0	1,2-Dichloroethene (total)	5U	108-90-7	Chlorobenzene	5U
67-66-3	Chloroform	5U	100-41-4	Ethylbenzene	5U
107-06-2	1,2-Dichloroethane	5U	100-42-5	Styrene	5U
78-93-3	2-Butanone	11U	1330-20-7	Xylene (total)	5U
71-55-6	1,1,1-Trichloroethane	5U			
56-23-5	Carbon Tetrachloride	5U			
108-05-4	Vinyl Acetate	11U			
75-27-4	Bromodichloromethane	5U			
78-87-5	1,2-Dichloropropane	5U			
10061-01-5	cis-1,3-Dichloropropene	5U			
79-01-6	Trichloroethene	5U			
124-48-1	Dibromochloromethane	5U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
3-APR-1991 13:36

AnaLIS ID: 900924-183
Laboratory: Gas / Liquid Chromatography Laboratory
File ID:
Instrument ID:
Authorized By: D. S. ZINGG

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 24-SEP-1990

PCB (TCL) SOIL

Date Extracted/Prepared: 30-NOV-1990
Preparation Procedure Number:
Percent Moisture: 15.5
Percent Moisture (decanted): 0
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 29-NOV-1990
Analysis Procedure Number: EPA-8080
Dilution Factor: 1.0
Analyst: EK BROWN
QA File Number: GC 338

CAS		ug/Kg	CAS		ug/Kg
12674-11-2	Aroclor-1016	110U			
11104-28-2	Aroclor-1221	110U			
11141-16-5	Aroclor-1232	110U			
53469-21-9	Aroclor-1242	110U			
12672-29-6	Aroclor-1248	110U			
11097-69-1	Aroclor-1254	220U			
11096-82-5	Aroclor-1260	220U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

9613490.0894

MARTIN MARIETTA

1

MARTIN MARIETTA ENERGY SYSTEMS, INC.

POST OFFICE BOX 2003
OAK RIDGE, TENNESSEE 37831-7440

June 19, 1991

Ms. Joan Kessner
Westinghouse Hanford Company
2355 Stevens Drive
Richland, Washington 99352

Dear Ms. Kessner:

Analytical Results Supplemental Package on Project 90-034: Underground Storage Tanks Sample Analysis

Attached are the final results on two (2) Underground Storage Tank Sample Analysis samples, Project 90-034, received into the Analytical Chemistry Department (ACD) laboratories on September 21, 1990. These results are a supplement to two previously submitted data packages for Project 90-034. Copies of the Chain of Custody records were included in the original package and have, therefore, not been included in this supplement.

The results are reported on ACD's AnaLis report format per letter dated December 20, 1990. There is not sufficient quantity of sample E1911 left to complete the semi-volatile organic analysis. The previous supplement stated that pesticide analysis was pending on sample E1912, however review of the Chain of Custody records reveals that pesticide analysis was not requested on this sample. The pesticide analysis request has been deleted from the AnaLis data base, and the results as requested are reflected in the attached AnaLis report. All other results are unchanged from the results previously reported. All data quality objectives were satisfied on this project. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signatures.

Sincerely,

Deborah L Amburgey

Deborah L. Amburgey
Program Manager
Hanford Support Program

Clarence R. Kirkpatrick

Clarence R. Kirkpatrick
Program Manager
Waste Management Analysis

L.W. Morrow

for Roy W. Morrow
Department Manager
K-25 Site, Analytical Chemistry Department

Attachments
cc/attach: D.L.Amburgey
S.R.Smith - RC

SAMPLE IDENTIFICATION FOR

SUPPLEMENTAL DATA PACKAGE

PROJECT 90-034

Table 1.1 - Sample Identification Table for Supplemental Data Package for Project 90-034: Underground Storage Tank Sample Analysis

Date Group Rec.	OSM Sample ID	Lab Sample ID	Matrix	Comments
9/21/90	E1911	900924-182	liquid	
	E1912	900924-183	solid	

Oak Ridge K-25 Site
Analytical Chemistry Department
Results of Analyses

Date Printed:
7-JUN-1991 12:00

AnaLIS ID: 900924-182 Project: G132 034L Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER Requisition Number:
Date Sampled: 9-AUG-1990 Date Sample Received: 21-SEP-1990
Sampled By: Date Sample Completed: 26-MAR-1991
Material Description: LIQUID FROM ORPHAN DRUMS [] : Result has been Corrected for Spike

ctiv. umber	Procedure No.	Analysis	Result	Units	Analyst	QA File Number	Date Completed
90708	EPA-6010	Arsenic (TCLP)	<0.050	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Barium (TCLP)	2.6	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Cadmium (TCLP)	<0.0030	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Chromium (TCLP)	<0.010	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Lead (TCLP)	<0.050	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Selenium (TCLP)	<0.050	mg/L	ML BAIN	01226A	26-DEC-1990
	EPA-6010	Silver (TCLP)	<0.010	mg/L	ML BAIN	01226A	26-DEC-1990
03208	EPA-7470	Mercury (TCLP)	<0.0002	ug/L	SA BURGESS	01008E	8-OCT-1990
32508	EPA-3520	Prep (PCB- SW-846-Liq/liq)	C		MF MCMYLER	1840	20-DEC-1990
32608	EPA-3510	Prep (Pest- SW-846-Funnel)	C		MF MCMYLER	1840	20-DEC-1990
34007	EPA-3520	Prep (BNA- SW-846-Liq/liq)	N/A		MF MCMYLER	N/A	20-DEC-1990
71007	EPA-1311	TCLP Extraction	C		BD HARRIS	90-8	17-DEC-1990
82107	EPA-160.3	Total Solids	20560	mg/L	RM SALINAS	90-24	3-OCT-1990
182507	EPA-9040	pH	5.5		RM SALINAS	90-18	28-SEP-1990
186807	EPA-1010	Flash Point Closed Cup	R >145	degrees F		90-34	29-OCT-1990

Prep (BNA- SW-846-Liq/liq)

Analyst = MF MCMYLER
Date Extracted = 19-DEC-1990

Prep (PCB- SW-846-Liq/liq)

Analyst = MF MCMYLER
pH = 7
Date Extracted = 20-DEC-1990
Sample Volume Extracted (mL) = 92
Extraction Method = Separatory Funnel
Extraction Solvent = Methylene Chloride
Extraction Cleanup = Sodium Sulfate
Final Volume of Extract (mL) = 10.0
Associated Blank = 901220-194

***** Comments from the Wet Chemistry Laboratory *****

Insufficient sample to complete the analysis for flash point.

IS

***** Comments from the Organic Mass Spectroscopy Laboratory *****

ample not received in GC/MS lab...

Program Manager: D. L. Amburgey
Date Approved: 26-MAR-1991

ANALYSIS DATA REPORT

Date Printed:
7-JUN-1991 12:00

AnaLIS ID: 900924-182
Laboratory: Organic Mass Spectroscopy Laboratory
File ID:
Instrument ID:
Authorized By: D. C. Canada

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA Base/Neutral/Acid Organic Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 20-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: DC CANADA
QA File Number: NA

CAS		ug/L	CAS		ug/L
108-95-2	Phenol	NA	106-47-8	4-Chloroaniline	NA
111-44-4	bis(2-Chloroethyl)ether	NA	87-68-3	Hexachlorobutadiene	NA
95-57-8	2-Chlorophenol	NA	59-50-7	4-Chloro-3-methylphenol	NA
541-73-1	1,3-Dichlorobenzene	NA	91-57-6	2-Methylnaphthalene	NA
106-46-7	1,4-Dichlorobenzene	NA	77-47-4	Hexachlorocyclopentadiene	NA
100-51-6	Benzyl Alcohol	NA	88-06-2	2,4,6-Trichlorophenol	NA
95-50-1	1,2-Dichlorobenzene	NA	95-95-4	2,4,5-Trichlorophenol	NA
95-48-7	2-Methylphenol	NA	91-58-7	2-Chloronaphthalene	NA
108-60-1	bis(2-Chloroisopropyl)ether	NA	88-74-4	2-Nitroaniline	NA
106-44-5	4-Methylphenol	NA	131-11-3	Dimethylphthalate	NA
621-64-7	N-Nitroso-di-n-propylamine	NA	208-96-8	Acenaphthylene	NA
67-72-1	Hexachloroethane	NA	99-09-2	3-Nitroaniline	NA
98-95-3	Nitrobenzene	NA	83-32-9	Acenaphthene	NA
78-59-1	Isophorone	NA	51-28-5	2,4-Dinitrophenol	NA
88-75-5	2-Nitrophenol	NA	100-02-7	4-Nitrophenol	NA
105-67-9	2,4-Dimethylphenol	NA	132-64-9	Dibenzofuran	NA
65-85-0	Benzoic Acid	NA	121-14-2	2,4-Dinitrotoluene	NA
111-91-1	bis(2-Chloroethoxy)methane	NA	606-20-2	2,6-Dinitrotoluene	NA
120-83-2	2,4-Dichlorophenol	NA	84-66-2	Diethylphthalate	NA
120-82-1	1,2,4-Trichlorobenzene	NA	7005-72-3	4-Chlorophenyl-phenylether	NA
91-20-3	Naphthalene	NA	86-73-7	Fluorene	NA

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
7-JUN-1991 12:00

AnaLIS ID: 900924-182
Laboratory: Organic Mass Spectroscopy Laboratory
File ID:
Instrument ID:
Authorized By: D. C. Canada

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA Base/Neutral/Acid Organic Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 20-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: DC CANADA
QA File Number: NA

CAS		ug/L	CAS		ug/L
100-01-6	4-Nitroaniline	NA	53-70-3	Dibenz(a,h)anthracene	NA
534-52-1	4,6-Dinitro-2-methylphenol	NA	191-24-2	Benzo(g,h,i)perylene	NA
86-30-6	N-Nitrosodiphenylamine	NA			
101-55-3	4-Bromophenyl-phenylether	NA			
118-74-1	Hexachlorobenzene	NA			
87-86-5	Pentachlorophenol	NA			
85-01-8	Phenanthrene	NA			
120-12-7	Anthracene	NA			
84-74-2	Di-n-butylphthalate	NA			
206-44-0	Fluoranthene	NA			
129-00-0	Pyrene	NA			
85-68-7	Butylbenzylphthalate	NA			
91-94-1	3,3'-Dichlorobenzidine	NA			
56-55-3	Benzo(a)anthracene	NA			
117-81-7	bis(2-Ethylhexyl)phthalate	NA			
218-01-9	Chrysene	NA			
117-84-0	Di-n-octylphthalate	NA			
205-99-2	Benzo(b)fluoranthene	NA			
207-08-9	Benzo(k)fluoranthene	NA			
50-32-8	Benzo(a)pyrene	NA			
193-39-5	Indeno(1,2,3-cd)pyrene	NA			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
7-JUN-1991 12:00

AnaLIS ID: 900924-182
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: >07119
Instrument ID: 70-2
Authorized By: D. C. Canada

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 21-SEP-1990

VOA - Volatile Organic Compounds (TCL)

Date Extracted/Prepared: 8-OCT-1990
Preparation Procedure Number:
Percent Moisture:
Percent Moisture (decanted):
Associated Blank: 901008-116

Date Analyzed: 8-OCT-1990
Analysis Procedure Number: VOA (CLP) NDP
Dilution Factor: 5
Analyst: GL HUDDLESTON
QA File Number: NA

[] : Result has been Corrected for Spike

CAS		ug/L	CAS		ug/L
74-87-3	Chloromethane	50U	79-00-5	1,1,2-Trichloroethane	25U
74-83-9	Bromomethane	50U	71-43-2	Benzene	25U
75-01-4	Vinyl Chloride	50U	10061-02-6	trans-1,3-Dichloropropene	25U
75-00-3	Chloroethane	50U	75-25-2	Bromoform	25U
75-09-2	Methylene Chloride	30 B	108-10-1	4-Methyl-2-pentanone	50U
67-64-1	Acetone	290	591-78-6	2-Hexanone	50U
75-15-0	Carbon Disulfide	25U	127-18-4	Tetrachloroethene	25U
75-35-4	1,1-Dichloroethene	25U	79-34-5	1,1,2,2-Tetrachloroethane	25U
75-34-3	1,1-Dichloroethane	25U	108-88-3	Toluene	55
540-59-0	1,2-Dichloroethene (total)	25U	108-90-7	Chlorobenzene	25U
67-66-3	Chloroform	25U	100-41-4	Ethylbenzene	25U
107-06-2	1,2-Dichloroethane	25U	100-42-5	Styrene	25U
78-93-3	2-Butanone	50U	1330-20-7	Xylene (total)	39 J
71-55-6	1,1,1-Trichloroethane	25U			
56-23-5	Carbon Tetrachloride	25U			
108-05-4	Vinyl Acetate	50U			
75-27-4	Bromodichloromethane	25U			
78-87-5	1,2-Dichloropropane	25U			
10061-01-5	cis-1,3-Dichloropropene	25U			
79-01-6	Trichloroethene	25U			
124-48-1	Dibromochloromethane	25U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
7-JUN-1991 12:00

AnaLIS ID: 900924-182
Laboratory: Gas / Liquid Chromatography Laboratory
File ID:
Instrument ID:
Authorized By: D. S. ZINGG

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

PCB (TCL)

Date Extracted/Prepared: 28-DEC-1990
Preparation Procedure Number:
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:

Date Analyzed: 27-DEC-1990
Analysis Procedure Number: EPA-8080
Dilution Factor: 100.0
Analyst: RE HOWARD
QA File Number: GC 0383

[] : Result has been Corrected for Spike

CAS		ug/L	CAS		ug/L
12674-11-2	Aroclor-1016	500U			
11104-28-2	Aroclor-1221	500U			
11141-16-5	Aroclor-1232	500U			
53469-21-9	Aroclor-1242	500U			
12672-29-6	Aroclor-1248	500U			
11097-69-1	Aroclor-1254	1100U			
11096-82-5	Aroclor-1260	1100U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
7-JUN-1991 12:00

AnaLIS ID: 900924-182
Laboratory: Gas / Liquid Chromatography Laboratory
File ID: GC 0383
Instrument ID:
Authorized By: D. S. ZINGG

Customer Sample ID: E1911
Customer: J. KESSNER/D.STOCKER
Sample Matrix: WASTE
Requisition Number:
Date Sample Received: 24-SEP-1990

PESTICIDES (EP-TOX)

Date Extracted/Prepared:
Preparation Procedure Number: EPA-3510
Percent Moisture:
Percent Moisture (decanted):
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 27-DEC-1990
Analysis Procedure Number: EPA-8080
Dilution Factor: 100
Analyst: DS ZINGG
QA File Number: GC 0383

CAS		ug/L	CAS		ug/L
72-20-8	Endrin	100U			
58-89-9	gamma-BHC(Lindane)	50U			
72-43-5	Methoxychlor	500U			
8001-35-2	Toxaphene	1000U			
5103-71-9	alpha-Chlordane	500U			
5103-74-2	gamma-Chlordane	500U			
76-44-8	Heptachlor	50U			
1024-57-3	Heptachlor Epoxide	50U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

Oak Ridge K-25 Site
Analytical Chemistry Department
Results of Analyses

Date Printed:
13-JUN-1991 13:10

AnaLIS ID: 900924-183 Project: G132 034S Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER Requisition Number:
Date Sampled: 9-AUG-1990 Date Sample Received: 21-SEP-1990
Sampled By: Date Sample Completed: 13-JUN-1991
Material Description: ORPHAN DRUM SAMPLES SOLIDS [] : Result has been Corrected for Spike

ctiv. mber	Procedure No.	Analysis	Result	Units	Analyst	QA File Number	Date Completed
90207	EPA-6010	Arsenic (TCLP)	4.4	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Barium (TCLP)	<0.10	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Cadmium (TCLP)	<0.0030	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Chromium (TCLP)	7.0	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Lead (TCLP)	0.062	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Selenium (TCLP)	0.060	mg/L	ML BAIN	01023A	23-OCT-1990
	EPA-6010	Silver (TCLP)	<0.010	mg/L	ML BAIN	01023A	23-OCT-1990
13208	EPA-7470	Mercury (TCLP)	<0.002	ug/L	MC ROSS	01018A2	25-OCT-1990
51003	EPA-3540	Prep (PCB- SW-846-Sox)	C		JH KREIS	2243	24-NOV-1990
35003	EPA-3550	Prep (BNA- SW-846-Sox)	C		JH KREIS	2173	15-NOV-1990
73603	EPA-1311	TCLP Metals Extraction	C		JA ROUSE	XX	10-OCT-1990
32603	EPA-9045	pH	X		HH SULLIVAN	X	26-OCT-1990
36803	EPA-1010	Flash Point Closed Cup	X	degrees F	HH SULLIVAN	X	26-OCT-1990

ep (BNA- SW-846-Sox)
---

alyst	= JH KREIS
te Extracted	= 12-NOV-1990
mple Weight Extracted (g)	= 10.27
rcent Solids	= 94.5
lculated Dried Weight (g)	= 9.71
traction Method	= Soxhlet
traction Solvent	= Methlylene Chloride/Acetone
traction Cleanup	= Sodium Sulfate
nal Volume of Extract (mL)	= 1
sociated Blank	= 901115-071

ep (PCB- SW-846-Sox)
---

alyst	= JH KREIS
te Extracted	= 20-NOV-1990
mple Weight Extracted (g)	= 13.00
rcent Solids	= 94.5
lculated Dried Weight (g)	= 12.28
traction Method	= Soxhlet
traction Solvent	= Hexane
traction Cleanup	= Sulfuric Acid, Sodium Sulfate
nal Volume of Extract (mL)	= 10

ssociated Blank = 901120-177

***** Comments from the Wet Chemistry Laboratory *****

Insufficient sample to complete the analysis for flash point and pH.

HS

***** Comments from the Organic Mass Spectroscopy Laboratory *****

ample not received in GC/MS lab....

Program Manager: D. L. Amburgey
Date Approved: 13-JUN-1991

ANALYSIS DATA REPORT

Date Printed:
13-JUN-1991 13:10

AnaLIS ID: 900924-183
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: 14337
Instrument ID: HP-5985
Authorized By: D. C. Canada

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA - Base/Neutral/Acid Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture: 5
Percent Moisture (decanted):
Associated Blank: 901115-071

Date Analyzed: 27-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: AK HEADRICK
QA File Number: NA

[] : Result has been Corrected for Spike

CAS			ug/Kg	CAS			ug/Kg
108-95-2	Phenol	R	1000.UU	106-47-8	4-Chloroaniline	R	1000.UU
111-44-4	bis(2-Chloroethyl)ether	R	1000.UU	87-68-3	Hexachlorobutadiene	R	1000.UU
95-57-8	2-Chlorophenol	R	1000.UU	59-50-7	4-Chloro-3-methylphenol	R	1000.UU
541-73-1	1,3-Dichlorobenzene	R	1000.UU	91-57-6	2-Methylnaphthalene	R	1000.UU
106-46-7	1,4-Dichlorobenzene	R	1000.UU	77-47-4	Hexachlorocyclopentadiene	R	1000.UU
100-51-6	Benzyl Alcohol	R	1000.UU	88-06-2	2,4,6-Trichlorophenol	R	1000.UU
95-50-1	1,2-Dichlorobenzene	R	1000.UU	95-95-4	2,4,5-Trichlorophenol	R	5100.UU
95-48-7	2-Methylphenol	R	1000.UU	91-58-7	2-Chloronaphthalene	R	1000.UU
108-60-1	bis(2-Chloroisopropyl)ether	R	1000.UU	88-74-4	2-Nitroaniline	R	5100.UU
106-44-5	4-Methylphenol	R	1000.UU	131-11-3	Dimethylphthalate	R	1000.UU
621-64-7	N-Nitroso-di-n-propylamine	R	1000.UU	208-96-8	Acenaphthylene	R	1000.UU
67-72-1	Hexachloroethane	R	1000.UU	99-09-2	3-Nitroaniline	R	5100.UU
98-95-3	Nitrobenzene	R	1000.UU	83-32-9	Acenaphthene	R	1000.UU
78-59-1	Isophorone	R	1000.UU	51-28-5	2,4-Dinitrophenol	R	5100.UU
88-75-5	2-Nitrophenol	R	1000.UU	100-02-7	4-Nitrophenol	R	5100.UU
105-67-9	2,4-Dimethylphenol	R	1000.UU	132-64-9	Dibenzofuran	R	1000.UU
65-85-0	Benzoic Acid	R	5100.UU	121-14-2	2,4-Dinitrotoluene	R	1000.UU
111-91-1	bis(2-Chloroethoxy)methane	R	1000.UU	606-20-2	2,6-Dinitrotoluene	R	1000.UU
120-83-2	2,4-Dichlorophenol	R	1000.UU	84-66-2	Diethylphthalate	R	1000.UU
120-82-1	1,2,4-Trichlorobenzene	R	1000.UU	7005-72-3	4-Chlorophenyl-phenylether	R	1000.UU
91-20-3	Naphthalene	R	1000.UU	86-73-7	Fluorene	R	1000.UU

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
13-JUN-1991 13:10

AnaLIS ID: 900924-183
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: 14337
Instrument ID: HP-5985
Authorized By: D. C. Canada

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 24-SEP-1990

BNA - Base/Neutral/Acid Compounds (TCL)

Date Extracted/Prepared: 20-NOV-1990
Preparation Procedure Number: EPA-3520
Percent Moisture: 5
Percent Moisture (decanted):
Associated Blank: 901115-071
[] : Result has been Corrected for Spike

Date Analyzed: 27-NOV-1990
Analysis Procedure Number: BNA (CLP) NDP
Dilution Factor: 1.0
Analyst: AK HEADRICK
QA File Number: NA

CAS			ug/Kg	CAS			ug/Kg
100-01-6	4-Nitroaniline	R	5100.UU	53-70-3	Dibenz(a,h)anthracene	R	1000.UU
534-52-1	4,6-Dinitro-2-methylphenol	R	5100.UU	191-24-2	Benzo(g,h,i)perylene	R	1000.UU
86-30-6	N-Nitrosodiphenylamine	R	1000.UU				
101-55-3	4-Bromophenyl-phenylether	R	1000.UU				
118-74-1	Hexachlorobenzene	R	1000.UU				
87-86-5	Pentachlorophenol	R	5100.UU				
85-01-8	Phenanthrene	R	1000.UU				
120-12-7	Anthracene	R	1000.UU				
84-74-2	Di-n-butylphthalate	R	1500B				
206-44-0	Fluoranthene	R	1000.UU				
129-00-0	Pyrene	R	1000.UU				
85-68-7	Butylbenzylphthalate	R	1000.UU				
91-94-1	3,3'-Dichlorobenzidine	R	2000.UU				
56-55-3	Benzo(a)anthracene	R	1000.UU				
117-81-7	bis(2-Ethylhexyl)phthalate	R	1000J				
218-01-9	Chrysene	R	1000.UU				
117-84-0	Di-n-octylphthalate	R	1000.UU				
205-99-2	Benzo(b)fluoranthene	R	1000.UU				
207-08-9	Benzo(k)fluoranthene	R	1000.UU				
50-32-8	Benzo(a)pyrene	R	1000.UU				
193-39-5	Indeno(1,2,3-cd)pyrene	R	1000.UU				

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
13-JUN-1991 13:10

AnaLIS ID: 900924-183
Laboratory: Organic Mass Spectroscopy Laboratory
File ID: >07084
Instrument ID: 70-2
Authorized By: D. C. Canada

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 21-SEP-1990

VOA - Volatile Organic Compounds (TCL)

Date Extracted/Prepared: 4-OCT-1990
Preparation Procedure Number:
Percent Moisture: 6
Percent Moisture (decanted):
Associated Blank: 901004-038
[] : Result has been Corrected for Spike

Date Analyzed: 4-OCT-1990
Analysis Procedure Number: VOA (CLP) NDP
Dilution Factor: 1.0
Analyst: GL HUDDLESTON
QA File Number: NA

CAS		ug/Kg	CAS		ug/Kg
74-87-3	Chloromethane	11U	79-00-5	1,1,2-Trichloroethane	5U
74-83-9	Bromomethane	11U	71-43-2	Benzene	5U
75-01-4	Vinyl Chloride	11U	10061-02-6	trans-1,3-Dichloropropene	5U
75-00-3	Chloroethane	11U	75-25-2	Bromoform	5U
75-09-2	Methylene Chloride	4 JB	108-10-1	4-Methyl-2-pentanone	11U
67-64-1	Acetone	97 B	591-78-6	2-Hexanone	78
75-15-0	Carbon Disulfide	5U	127-18-4	Tetrachloroethene	5U
75-35-4	1,1-Dichloroethene	5U	79-34-5	1,1,2,2-Tetrachloroethane	5U
75-34-3	1,1-Dichloroethane	5U	108-88-3	Toluene	5U
540-59-0	1,2-Dichloroethene (total)	5U	108-90-7	Chlorobenzene	5U
67-66-3	Chloroform	5U	100-41-4	Ethylbenzene	5U
107-06-2	1,2-Dichloroethane	5U	100-42-5	Styrene	5U
78-93-3	2-Butanone	11U	1330-20-7	Xylene (total)	5U
71-55-6	1,1,1-Trichloroethane	5U			
56-23-5	Carbon Tetrachloride	5U			
108-05-4	Vinyl Acetate	11U			
75-27-4	Bromodichloromethane	5U			
78-87-5	1,2-Dichloropropane	5U			
10061-01-5	cis-1,3-Dichloropropene	5U			
79-01-6	Trichloroethene	5U			
124-48-1	Dibromochloromethane	5U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.

ANALYSIS DATA REPORT

Date Printed:
13-JUN-1991 13:10

AnaLIS ID: 900924-183
Laboratory: Gas / Liquid Chromatography Laboratory
File ID:
Instrument ID:
Authorized By: D. S. ZINGG

Customer Sample ID: E1912
Customer: J. KESSNER/D.STOCKER
Sample Matrix: SOIL
Requisition Number:
Date Sample Received: 24-SEP-1990

PCB (TCL) SOIL

Date Extracted/Prepared: 30-NOV-1990
Preparation Procedure Number:
Percent Moisture: 15.5
Percent Moisture (decanted): 0
Associated Blank:
[] : Result has been Corrected for Spike

Date Analyzed: 29-NOV-1990
Analysis Procedure Number: EPA-8080
Dilution Factor: 1.0
Analyst: EK BROWN
QA File Number: GC 338

CAS		ug/Kg	CAS		ug/Kg
12674-11-2	Aroclor-1016	110U			
11104-28-2	Aroclor-1221	110U			
11141-16-5	Aroclor-1232	110U			
53469-21-9	Aroclor-1242	110U			
12672-29-6	Aroclor-1248	110U			
11097-69-1	Aroclor-1254	220U			
11096-82-5	Aroclor-1260	220U			

Data Reporting Qualifiers:

U - Compound was analyzed for but not detected. The number is the attainable detection limit for the sample.
B - Analyte was found in the reagent blank as well as the sample.
J - Indicates an estimated value.
ND - Not detected.
A - Aldol condensation product.
D - Secondary dilution.
E - Exceeds initial calibration range.