EPA/540/2-89/029

SUPERFUND TREATABILITY CLEARINGHOUSE

Document Reference:

Canonie Environmental Services Corp. "Soil Remediation and Site Closure McKin Superfund Site", Gray, Maine. Technical report of approximately 250 pp. prepared for U.S. EPA. July 1987.

EPA LIBRARY NUMBER:

Superfund Treatability Clearinghouse - EXPE

Revised Report

MCKIN
702286 LP-1840
PAGE 2

Pyrene	ND	330	ug/Kg
Butylbenzylphthalate	ND	330	ug/Kg
3,3'-Dichlorobenzidine	ND	660	ug/Kg
Benzo(a)Anthracene	ND	330	ug/Kg
bis-(2-Ethylhexyl)Phthalate	ND	330	ug/Kg
Chrysene	ND	330	ug/Kg
Di-N-Octyl Phthalate	ND	330	ug/Kg
Benzo(b)Fluoranthene	ND	330	ug/Kg
Benzo(k)Fluoranthene	ND	330	ug/Kg
Benzo(a)Pyrene	ND	330	ug/Kg
Indeno(1,2,3-cd)Pyrene	ND	330	ug/Kg
Dibenzo(a,h)Anthracene	ND	330	ug/Kg
Benzo(g,h,i)Perylene	ND	330	ug/Kg

Analyst

Checked By

Revised Report
Client ID: MCKIN
Sample ID: 84-130-1840 SAMPLE-3-17-4
Matrix : SOIL

Data File:>B2289
3988 702289

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	330 ug/Kg
Phenol	ND	330 ug/Kg
bis(-2-Chloroethyl)Ether	ND	330 ug/Kg
2-Chlorophenol	ND	330 ug/Kg
1,3-Dichlorobenzene	ND	330 ug/Kg
1,4-Dichlorobenzene	ND	330 ug/Kg
1,2-Dichlorobenzene	ND	330 ug/Kg
bis(2-chloroisopropyl)Ether	ND	330 ug/Kg
N-Nitroso-Di-Propylamine	ND	330 ug/Kg
Hexachloroethane	ND	330 ug/Kg
Nitrobenzene	ND	330 ug/Kg
Isophorone	ND	330 ug/Kg
2-Nitrophenol	ND	330 ug/Kg
2,4-Dimethylphenol	ND	330 ug/Kg
bis(-2-Chloroethoxy)Methane	ND	330 ug/Kg
2,4-Dichlorophenol	ND	330 ug/Kg
1,2,4-Trichlorobenzene	ND	330 ug/Kg
Naphthalene	ND	330 ug/Kg
Hexachlorobutadiene	ND	330 ug/Kg
4-Chloro-3-Methylphenol	ND	330 ug/Kg
Hexachlorocyclopentadiene	ND	330 ug/Kg
2,4,6-Trichlorophenol	ND	330 ug/Kg
2-Chloronaphthalene	ND	330 ug/Kg
Dimethyl Phthalate	ND	330 ug/Kg
Acenaphthylene	ND	330 ug/Kg
2,6-Dinitrotoluene	ND	330 ug/Kg
Acenaphthene	ND	330 ug/Kg
2,4-Dinitrophenol	ND	1650 ug/Kg
4-Nitrophenol	ND	330 ug/Kg
2,4-Dinitrotoluene	ND	330 ug/Kg
Diethylphthalate	ND	330 ug/Kg
4-Chlorophenyl-phenylether	ND	330 ug/Kg
Fluorene	ND	330 ug/Kg
Benzidine	ND	330 ug/Kg
4,6-Dinitro-2-Methylphenol	ND	1650 ug/Kg
N-Nitrosodiphenylamine	ND	330 ug/Kg
4-Bromophenyl-phenylether	ND	330 ug/Kg
Hexachlorobenzene	ND	330 ug/Kg
Pentachlorophenol	ND	1650 ug/Kg
Phenanthrene	640.	330 ug/Kg
Anthracene	ND	330 ug/Kg
Di-N-Butylphthalate	ND	330 ug/Kg
Fluoranthene	ND	330 ug/Kg

Revised Report
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702289 LP-1840
PAGE 2

Pyrene	840.	330	ug/Kg
Butylbenzylphthalate	ND	330	ug/Kg
3,3'-Dichlorobenzidine	ND	660	ug/Kg
Benzo(a)Anthracene	ND	330	ug/Kg
bis-(2-Ethylhexyl)Phthalate	ND	330	ug/Kg
Chrysene	440.	330	ug/Kg
Di-N-Octyl Phthalate	ND	330	ug/Kg
Benzo(b)Fluoranthene	ND	330	ug/Kg
Benzo(k)Fluoranthene	ND	330	ug/Kg
Benzo(a)Pyrene	ND	330	ug/Kg
Indeno(1,2,3-cd)Pyrene	ND	330	ug/Kg
Dibenzo(a,h)Anthracene	ND	330	ug/Kg
Benzo(g,h,i)Perylene	ND	330	ug/Kg

Analyst

Checked By

Revised Report

Client ID: MCKIN Data File:>B2291
Sample ID: 84-130-1840 SAMPLE-3-17-8 3992 702291
Matrix : SOIL

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	330 ug/Kg
Phenol	ND	330 ug/Kg
bis(-2-Chloroethyl)Ether	ND	330 ug/Kg
2-Chlorophenol	ND	330 ug/Kg
1,3-Dichlorobenzene	ND	330 ug/Kg
1,4-Dichlorobenzene	ND	330 ug/Kg
1,2-Dichlorobenzene	1300.	330 ug/Kg
bis(2-chloroisopropyl)Ether	ND	330 ug/Kg
N-Nitroso-Di-Propylamine	ND	330 ug/Kg
Hexachloroethane	ND	330 ug/Kg
Nitrobenzene	ND	330 ug/Kg
Isophorone	ND	330 ug/Kg
2-Nitrophenol	ND	330 ug/Kg
2,4-Dimethylphenol	ND	330 ug/Kg
bis(-2-Chloroethoxy)Methane	ND	330 ug/Kg
2,4-Dichlorophenol	ND	330 ug/Kg
1,2,4-Trichlorobenzene	ND	330 ug/Kg
Naphthalene	690.	330 ug/Kg
Hexachlorobutadiene	ND	330 ug/Kg
4-Chloro-3-Methylphenol	ND	330 ug/Kg
Hexachlorocyclopentadiene	ND	330 ug/Kg
2,4,6-Trichlorophenol	ND	330 ug/Kg
2-Chloronaphthalene	ND	330 ug/Kg
Dimethyl Phthalate	ND	330 ug/Kg
Acenaphthylene	ND	330 ug/Kg
2,6-Dinitrotoluene	ND	330 ug/Kg
Acenaphthene	ND	330 ug/Kg
2,4-Dinitrophenol	ND	1650 ug/Kg
4-Nitrophenol	ND	330 ug/Kg
2,4-Dinitrotoluene	ND	330 ug/Kg
Diethylphthalate	ND	330 ug/Kg
4-Chlorophenyl-phenylether	ND	330 ug/Kg
Fluorene	ND	330 ug/Kg
Benzidine	ND	330 ug/Kg
4,6-Dinitro-2-Methylphenol	ND	1650 ug/Kg
N-Nitrosodiphenylamine	ND	330 ug/Kg
4-Bromophenyl-phenylether	ND	330 ug/Kg
Hexachlorobenzene	ND	330 ug/Kg
Pentachlorophenol	ND	1650 ug/Kg
Phenanthrene	640.	330 ug/Kg
Anthracene	ND	330 ug/Kg
Di-N-Butylphthalate	ND	330 ug/Kg
Fluoranthene	ND	330 ug/Kg

Revised Report
MCKIN
702291 LP-1840
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Pyrene	670.	330	ug/Kg
Butylbenzylphthalate	ND	330	ug/Kg
3,3'-Dichlorobenzidine	ND	660	ug/Kg
Benzo(a)Anthracene	ND	330	ug/Kg
bis-(2-Ethylhexyl)Phthalate	ND	330	ug/Kg
Chrysene	ND	330	ug/Kg
Di-N-Octyl Phthalate	ND	330	ug/Kg
Benzo(b)Fluoranthene	ND	330	ug/Kg
Benzo(k)Fluoranthene	ND	330	ug/Kg
Benzo(a)Pyrene	ND	330	ug/Kg
Indeno(1,2,3-cd)Pyrene	ND	330	ug/Kg
Dibenzo(a,h)Anthracene	ND	330	ug/Kg
Benzo(g,h,i)Perylene	ND	330	ug/Kg

Analyst

Checked By

Table 1. Semivolatile Organic Results

Canonie Sample ID

625 Compounds	3-18-3 ug/kg	3-19-3 ug/kg	3-19-15 ug/kg	method blank ug/kg
Phenol	<170	<170	<170	<33
bis(2-Chloroethyl)Ether	<170	<170	<170	<33
2-Chlorophenol	<170	<170	<170	<33
1,3-Dichlorobenzene	<170	<170	<170	<33
1,4-Dichlorobenzene	<170	<170	<170	<33
1,2-Dichlorobenzene	<330	<330	<330	<66
bis(2-Chloroisopropyl)Ether	<170	<170	<170	<33
N-Nitroso-Di-n-Propylamine	<660	<660	<660	<130
Hexachloroethane	<330	<330	<330	<66
Nitrobenzene	<500	<500	<500	<99
Isophorone	<330	<330	<330	<66
2-Nitrophenol	<660	<660	<660	<130
2,4-Dimethylphenol	<500	<500	<500	<99
bis(2-Chloroethoxy)Methane	<330	<330	<330	<66
2,4-Dichlorophenol	<500	<500	<500	<99
1,2,4-Trichlorobenzene	<170	<170	<170	<33
Naphthalene	<170	<170	<170	<33
Hexachlorobutadiene	<330	<330	<330	<66
4-Chloro-3-Methylphenol	<170	<170	<170	<33
Hexachlorocyclopentadiene	<3300	<3300	<3300	<660
2,4,6-Trichlorophenol	<330	<330	<330	<66
2-Chloronaphthalene	<170	<170	<170	<33
Dimethyl Phthalate	<170	<170	<170	<33
Acenaphthylene	<170	<170	<170	<33
Acenaphthene	<170	<170	<170	<33
2,4-Dinitrophenol	<3300	<3300	<3300	<660
4-Nitrophenol	<1300	<1300	<1300	<260
2,4-Dinitrotoluene	<330	<330	<330	<66
2,6-Dinitrotoluene	<500	<500	<500	<99
Diethylphthalate	<170	<170	<170	<33
4-Chlorophenyl-Phenylether	<170	<170	<170	<33
Fluorene	<170	<170	<170	<33
4,6-Dinitro-2-Methylphenol	<990	<990	<990	<200
N-Nitrosodiphenylamine	<660	<660	<660	<130
4-Bromophenyl-Phenylether	<170	<170	<170	<33
Hexachlorobenzene	<500	<500	<500	<99
Pentachlorophenol	<170	<170	<170	<33
Phenanthrene	590	810	350	<33
Anthracene	230	180	<170	<33
Di-n-Butylphthalate	<330	<330	<330	<66

Table 1. Semivolatile Organic Results (continued)

Canonie Sample ID

625 Compounds	3-18-3 ug/kg	3-19-3 ug/kg	3-19-15 ug/kg	method blank ug/kg
Fluoranthene	<500	<500	<500	<99
Pyrene	<330	410	<330	<66
Butylbenzylphthalate	<500	<500	<500	<99
3,3-Dichlorobenzidine	<3300	<3300	<3300	<660
Benzo(a)Anthracene	<170	210	<170	<33
bis(2-Ethylhexyl)Phthalate	<330	<330	<330	<66
Chrysene	300	280	210	<33
Di-n-Octyl Phthalate	<330	<330	<330	<66
Benzo(b)Fluoranthene	<660	<660	<660	<130
Benzo(k)Fluoranthene	<660	<660	<660	<130
Benzo(a)Pyrene	<170	<170	<170	<33
Indeno(1,2,3-cd)Pyrene	<170	<170	<170	<33
Dibenzo(a,h)Anthracene	<500	<500	<500	<99
Benzo(g,h,i)Perylene	<330	<330	<330	<66
Alpha-BHC	<1700	<1700	<1700	<330
Beta-BHC	<1700	<1700	<1700	<330
Gamma-BHC	<1700	<1700	<1700	<330
Delta-BHC	<1700	<1700	<1700	<330
Heptachlor	<1700	<1700	<1700	<330
Aldrin	<1700	<1700	<1700	<330
Heptachlor Epoxide	<1700	<1700	<1700	<330
Endosulfan I	<1700	<1700	<1700	<330
Dieldrin	<1700	<1700	<1700	<330
4,4'-DDE	<1700	<1700	<1700	<330
Endrin	<1700	<1700	<1700	<330
Endosulfan II	<1700	<1700	<1700	<330
4,4'-DDD	<1700	<1700	<1700	<330
Endrin Aldehyde	<1700	<1700	<1700	<330
Endosulfan Sulfate	<1700	<1700	<1700	<330
4,4'-DDT	<1700	<1700	<1700	<330
PCB's	<1700	<1700	<1700	<330

Surrogates	Percent Recovery (%)			
2-Fluorophenol	58	57	49	72
Phenol-d5	58	59	57	72
Nitrobenzene-d5	55	58	46	77
2-Fluorobiphenyl	71	75	68	85
2,4,6-Tribromophenol	63	66	64	67
p-Terphenyl-d14	59	62	58	76

Client ID: MCKIN
Sample ID: 84-139-1856 SAMPLE 3-20-12
Matrix : SOIL

Data File:>B2481
702481

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	330 ug/Kg
Phenol	ND	330 ug/Kg
bis(-2-Chloroethyl)Ether	ND	330 ug/Kg
2-Chlorophenol	ND	330 ug/Kg
1,3-Dichlorobenzene	ND	330 ug/Kg
1,4-Dichlorobenzene	ND	330 ug/Kg
1,2-Dichlorobenzene	ND	330 ug/Kg
bis(2-chloroisopropyl)Ether	ND	330 ug/Kg
N-Nitroso-Di-Propylamine	ND	330 ug/Kg
Hexachloroethane	ND	330 ug/Kg
Nitrobenzene	ND	330 ug/Kg
Isophorone	ND	330 ug/Kg
2-Nitrophenol	ND	330 ug/Kg
2,4-Dimethylphenol	ND	330 ug/Kg
bis(-2-Chloroethoxy)Methane	ND	330 ug/Kg
2,4-Dichlorophenol	ND	330 ug/Kg
1,2,4-Trichlorobenzene	ND	330 ug/Kg
Naphthalene	ND	330 ug/Kg
Hexachlorobutadiene	ND	330 ug/Kg
4-Chloro-3-Methylphenol	ND	330 ug/Kg
Hexachlorocyclopentadiene	ND	330 ug/Kg
2,4,6-Trichlorophenol	ND	330 ug/Kg
2-Chloronaphthalene	ND	330 ug/Kg
Dimethyl Phthalate	ND	330 ug/Kg
Acenaphthylene	ND	330 ug/Kg
2,6-Dinitrotoluene	ND	330 ug/Kg
Acenaphthene	ND	330 ug/Kg
2,4-Dinitrophenol	ND	1650 ug/Kg
4-Nitrophenol	ND	330 ug/Kg
2,4-Dinitrotoluene	ND	330 ug/Kg
Diethylphthalate	ND	330 ug/Kg
4-Chlorophenyl-phenylether	ND	330 ug/Kg
Fluorene	ND	330 ug/Kg
Benzidine	ND	330 ug/Kg
4,6-Dinitro-2-Methylphenol	ND	1650 ug/Kg
N-Nitrosodiphenylamine	ND	330 ug/Kg
4-Bromophenyl-phenylether	ND	330 ug/Kg
Hexachlorobenzene	ND	330 ug/Kg
Pentachlorophenol	ND	1650 ug/Kg
Phenanthrene	ND	330 ug/Kg
Anthracene	ND	330 ug/Kg
Di-N-Butylphthalate	ND	330 ug/Kg
Fluoranthene	ND	330 ug/Kg

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PAGE 2

Pyrene	ND	330	ug/Kg
Butylbenzylphthalate	ND	330	ug/Kg
3,3'-Dichlorobenzidine	ND	660	ug/Kg
Benzo(a)Anthracene	ND	330	ug/Kg
bis-(2-Ethylhexyl)Phthalate	ND	330	ug/Kg
Chrysene	ND	330	ug/Kg
Di-N-Octyl Phthalate	ND	330	ug/Kg
Benzo(b)Fluoranthene	ND	330	ug/Kg
Benzo(k)Fluoranthene	ND	330	ug/Kg
Benzo(a)Pyrene	ND	330	ug/Kg
Indeno(1,2,3-cd)Pyrene	ND	330	ug/Kg
Dibenzo(a,h)Anthracene	ND	330	ug/Kg
Benzo(g,h,i)Perylene	ND	330	ug/Kg

JM
Analyst

AGN
Checked By

Table 2. Semivolatile Organic Results

Canonie Sample ID

625 Compounds	3-23-3 ug/kg	3-23-11 ug/kg
Phenol	<170	<170
bis(2-Chloroethyl)Ether	<170	<170
2-Chlorophenol	<170	<170
1,3-Dichlorobenzene	<170	<170
1,4-Dichlorobenzene	<170	<170
1,2-Dichlorobenzene	<330	<330
bis(2-Chloroisopropyl)Ether	<170	<170
N-Nitroso-Di-n-Propylamine	<660	<660
Hexachloroethane	<330	<330
Nitrobenzene	<500	<500
Isophorone	<330	<330
2-Nitrophenol	<660	<660
2,4-Dimethylphenol	<500	<500
bis(2-Chloroethoxy)Methane	<330	<330
2,4-Dichlorophenol	<500	<500
1,2,4-Trichlorobenzene	<170	<170
Naphthalene	<170	<170
Hexachlorobutadiene	<330	<330
4-Chloro-3-Methylphenol	<170	<170
Hexachlorocyclopentadiene	<3300	<3300
2,4,6-Trichlorophenol	<330	<330
2-Chloronaphthalene	<170	<170
Dimethyl Phthalate	<170	<170
Acenaphthylene	<170	<170
Acenaphthene	<170	<170
2,4-Dinitrophenol	<3300	<3300
4-Nitrophenol	<1300	<1300
2,4-Dinitrotoluene	<330	<330
2,6-Dinitrotoluene	<500	<500
Diethylphthalate	<170	<170
4-Chlorophenyl-Phenylether	<170	<170
Fluorene	<170	<170
4,6-Dinitro-2-Methylphenol	<990	<990
N-Nitrosodiphenylamine	<660	<660
4-Bromophenyl-Phenylether	<170	<170
Hexachlorobenzene	<500	<500
Pentachlorophenol	<170	<170
Phenanthrene	560	310
Anthracene	280	<170
Di-n-Butylphthalate	<330	<330

Table 2. Semivolatile Organic Results (continued)

Canonie Sample ID

625 Compounds	3-23-3 ug/kg	3-23-11 ug/kg
Fluoranthene	<500	<500
Pyrene	360	<330
Butylbenzylphthalate	<500	<500
3,3-Dichlorobenzidine	<3300	<3300
Benzo(a)Anthracene	210	210
bis(2-Ethylhexyl)Phthalate	<330	<330
Chrysene	310	210
Di-n-Octyl Phthalate	<330	<330
Benzo(b)Fluoranthene	<660	<660
Benzo(k)Fluoranthene	<660	<660
Benzo(a)Pyrene	180	<170
Indeno(1,2,3-cd)Pyrene	<170	<170
Dibenzo(a,h)Anthracene	<500	<500
Benzo(g,h,i)Perylene	<330	<330
Alpha-BHC	<1700	<1700
Beta-BHC	<1700	<1700
Gamma-BHC	<1700	<1700
Delta-BHC	<1700	<1700
Heptachlor	<1700	<1700
Aldrin	<1700	<1700
Heptachlor Epoxide	<1700	<1700
Endosulfan I	<1700	<1700
Dieldrin	<1700	<1700
4,4'-DDE	<1700	<1700
Endrin	<1700	<1700
Endosulfan II	<1700	<1700
4,4'-DDD	<1700	<1700
Endrin Aldehyde	<1700	<1700
Endosulfan Sulfate	<1700	<1700
4,4'-DDT	<1700	<1700
PCB's	<1700	<1700

Surrogates	Percent Recovery (%)	
2-Fluorophenol	53	53
Phenol-d5	58	50
Nitrobenzene-d5	49	45
2-Fluorobiphenyl	62	53
2,4,6-Tribromophenol	20	10
p-Terphenyl-d14	46	34

Client ID: MCKIN
Sample ID: 84-130-1885 SAMPLE 3-24-11 3700 Data File:>B2763 702763
Matrix : SOIL

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	330 ug/Kg
Phenol	ND	330 ug/Kg
bis(-2-Chloroethyl)Ether	ND	330 ug/Kg
2-Chlorophenol	ND	330 ug/Kg
1,3-Dichlorobenzene	ND	330 ug/Kg
1,4-Dichlorobenzene	ND	330 ug/Kg
1,2-Dichlorobenzene	ND	330 ug/Kg
bis(2-chloroisopropyl)Ether	ND	330 ug/Kg
N-Nitroso-Di-Propylamine	ND	330 ug/Kg
Hexachloroethane	ND	330 ug/Kg
Nitrobenzene	ND	330 ug/Kg
Isophorone	ND	330 ug/Kg
2-Nitrophenol	ND	330 ug/Kg
2,4-Dimethylphenol	ND	330 ug/Kg
bis(-2-Chloroethoxy)Methane	ND	330 ug/Kg
2,4-Dichlorophenol	ND	330 ug/Kg
1,2,4-Trichlorobenzene	ND	330 ug/Kg
Naphthalene	ND	330 ug/Kg
Hexachlorobutadiene	ND	330 ug/Kg
4-Chloro-3-Methylphenol	ND	330 ug/Kg
Hexachlorocyclopentadiene	ND	330 ug/Kg
2,4,6-Trichlorophenol	ND	330 ug/Kg
2-Chloronaphthalene	ND	330 ug/Kg
Dimethyl Phthalate	ND	330 ug/Kg
Acenaphthylene	ND	330 ug/Kg
2,6-Dinitrotoluene	ND	330 ug/Kg
Acenaphthene	ND	330 ug/Kg
2,4-Dinitrophenol	ND	330 ug/Kg
4-Nitrophenol	ND	1650 ug/Kg
2,4-Dinitrotoluene	ND	330 ug/Kg
Diethylphthalate	ND	330 ug/Kg
4-Chlorophenyl-phenylether	ND	330 ug/Kg
Fluorene	ND	330 ug/Kg
Benzidine	ND	330 ug/Kg
4,6-Dinitro-2-Methylphenol	ND	330 ug/Kg
N-Nitrosodiphenylamine	ND	1650 ug/Kg
4-Bromophenyl-phenylether	ND	330 ug/Kg
Hexachlorobenzene	ND	330 ug/Kg
Pentachlorophenol	ND	330 ug/Kg
Phenanthrene	460.	1650 ug/Kg
Anthracene	ND	330 ug/Kg
Di-N-Butylphthalate	ND	330 ug/Kg
Fluoranthene	ND	330 ug/Kg

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Pyrene	510.	330	ug/Kg
Butylbenzylphthalate	ND	330	ug/Kg
3,3'-Dichlorobenzidine	ND	660	ug/Kg
Benzo(a)Anthracene	ND	330	ug/Kg
bis-(2-Ethylhexyl)Phthalate	ND	330	ug/Kg
Chrysene	ND	330	ug/Kg
Di-N-Octyl Phthalate	ND	330	ug/Kg
Benzo(b)Fluoranthene	ND	330	ug/Kg
Benzo(k)Fluoranthene	ND	330	ug/Kg
Benzo(a)Pyrene	ND	330	ug/Kg
Indeno(1,2,3-cd)Pyrene	ND	330	ug/Kg
Dibenzo(a,h)Anthracene	ND	330	ug/Kg
Benzo(g,h,i)Perylene	ND	330	ug/Kg

Analyst

Checked By

Client ID: MCKIN Data File:>B2764
Sample ID: 84-130-1885 SAMPLE 3-25-3 3206 702764
Matrix : SOIL

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	330 ug/Kg
Phenol	ND	330 ug/Kg
bis(-2-Chloroethyl)Ether	ND	330 ug/Kg
2-Chlorophenol	ND	330 ug/Kg
1,3-Dichlorobenzene	ND	330 ug/Kg
1,4-Dichlorobenzene	ND	330 ug/Kg
1,2-Dichlorobenzene	ND	330 ug/Kg
bis(2-chloroisopropyl)Ether	ND	330 ug/Kg
N-Nitroso-Di-Propylamine	ND	330 ug/Kg
Hexachloroethane	ND	330 ug/Kg
Nitrobenzene	ND	330 ug/Kg
Isophorone	ND	330 ug/Kg
2-Nitrophenol	ND	330 ug/Kg
2,4-Dimethylphenol	ND	330 ug/Kg
bis(-2-Chloroethoxy)Methane	ND	330 ug/Kg
2,4-Dichlorophenol	ND	330 ug/Kg
1,2,4-Trichlorobenzene	ND	330 ug/Kg
Naphthalene	ND	330 ug/Kg
Hexachlorobutadiene	ND	330 ug/Kg
4-Chloro-3-Methylphenol	ND	330 ug/Kg
Hexachlorocyclopentadiene	ND	330 ug/Kg
2,4,6-Trichlorophenol	ND	330 ug/Kg
2-Chloronaphthalene	ND	330 ug/Kg
Dimethyl Phthalate	ND	330 ug/Kg
Acenaphthylene	ND	330 ug/Kg
2,6-Dinitrotoluene	ND	330 ug/Kg
Acenaphthene	ND	330 ug/Kg
2,4-Dinitrophenol	ND	1650 ug/Kg
4-Nitrophenol	ND	330 ug/Kg
2,4-Dinitrotoluene	ND	330 ug/Kg
Diethylphthalate	ND	330 ug/Kg
4-Chlorophenyl-phenylether	ND	330 ug/Kg
Fluorene	ND	330 ug/Kg
Benzidine	ND	330 ug/Kg
4,6-Dinitro-2-Methylphenol	ND	1650 ug/Kg
N-Nitrosodiphenylamine	ND	330 ug/Kg
4-Bromophenyl-phenylether	ND	330 ug/Kg
Hexachlorobenzene	ND	330 ug/Kg
Pentachlorophenol	ND	1650 ug/Kg
Phenanthrene	570.	330 ug/Kg
Anthracene	ND	330 ug/Kg
Di-N-Butylphthalate	ND	330 ug/Kg
Fluoranthene	380.	330 ug/Kg

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Pyrene	650.	330	ug/Kg
Butylbenzylphthalate	ND	330	ug/Kg
3,3'-Dichlorobenzidine	ND	660	ug/Kg
Benzo(a)Anthracene	ND	330	ug/Kg
bis-(2-Ethylhexyl)Phthalate	ND	330	ug/Kg
Chrysene	ND	330	ug/Kg
Di-N-Octyl Phthalate	ND	330	ug/Kg
Benzo(b)Fluoranthene	ND	330	ug/Kg
Benzo(k)Fluoranthene	ND	330	ug/Kg
Benzo(a)Pyrene	ND	330	ug/Kg
Indeno(1,2,3-cd)Pyrene	ND	330	ug/Kg
Dibenzo(a,h)Anthracene	ND	330	ug/Kg
Benzo(g,h,i)Perylene	ND	330	ug/Kg

Analyst

Checked By

Client ID: MCKIN Data File:>B2765
Sample ID: 84-130-1885 SAMPLE 3-25-14 3219 702765
Matrix : SOIL

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	330 ug/Kg
Phenol	ND	330 ug/Kg
bis(-2-Chloroethyl)Ether	ND	330 ug/Kg
2-Chlorophenol	ND	330 ug/Kg
1,3-Dichlorobenzene	ND	330 ug/Kg
1,4-Dichlorobenzene	ND	330 ug/Kg
1,2-Dichlorobenzene	ND	330 ug/Kg
bis(2-chloroisopropyl)Ether	ND	330 ug/Kg
N-Nitroso-Di-Propylamine	ND	330 ug/Kg
Hexachloroethane	ND	330 ug/Kg
Nitrobenzene	ND	330 ug/Kg
Isophorone	ND	330 ug/Kg
2-Nitrophenol	ND	330 ug/Kg
2,4-Dimethylphenol	ND	330 ug/Kg
bis(-2-Chloroethoxy)Methane	ND	330 ug/Kg
2,4-Dichlorophenol	ND	330 ug/Kg
1,2,4-Trichlorobenzene	ND	330 ug/Kg
Naphthalene	ND	330 ug/Kg
Hexachlorobutadiene	ND	330 ug/Kg
4-Chloro-3-Methylphenol	ND	330 ug/Kg
Hexachlorocyclopentadiene	ND	330 ug/Kg
2,4,6-Trichlorophenol	ND	330 ug/Kg
2-Chloronaphthalene	ND	330 ug/Kg
Dimethyl Phthalate	ND	330 ug/Kg
Acenaphthylene	ND	330 ug/Kg
2,6-Dinitrotoluene	ND	330 ug/Kg
Acenaphthene	ND	330 ug/Kg
2,4-Dinitrophenol	ND	1650 ug/Kg
4-Nitrophenol	ND	330 ug/Kg
2,4-Dinitrotoluene	ND	330 ug/Kg
Diethylphthalate	ND	330 ug/Kg
4-Chlorophenyl-phenylether	ND	330 ug/Kg
Fluorene	ND	330 ug/Kg
Benzidine	ND	330 ug/Kg
4,6-Dinitro-2-Methylphenol	ND	1650 ug/Kg
N-Nitrosodiphenylamine	ND	330 ug/Kg
4-Bromophenyl-phenylether	ND	330 ug/Kg
Hexachlorobenzene	ND	330 ug/Kg
Pentachlorophenol	ND	1650 ug/Kg
Phenanthrene	600.	330 ug/Kg
Anthracene	ND	330 ug/Kg
Di-N-Butylphthalate	ND	330 ug/Kg
Fluoranthene	380.	330 ug/Kg

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PAGE 2

Pyrene	580.	330	ug/Kg
Butylbenzylphthalate	ND	330	ug/Kg
3,3'-Dichlorobenzidine	ND	660	ug/Kg
Benzo(a)Anthracene	ND	330	ug/Kg
bis-(2-Ethylhexyl)Phthalate	ND	330	ug/Kg
Chrysene	ND	330	ug/Kg
Di-N-Octyl Phthalate	ND	330	ug/Kg
Benzo(b)Fluoranthene	ND	330	ug/Kg
Benzo(k)Fluoranthene	ND	330	ug/Kg
Benzo(a)Pyrene	ND	330	ug/Kg
Indeno(1,2,3-cd)Pyrene	ND	330	ug/Kg
Dibenzo(a,h)Anthracene	ND	330	ug/Kg
Benzo(g,h,i)Perylene	ND	330	ug/Kg

Analyst

Checked By

Table 2. Semivolatile Organic Results

Canonie Sample ID

625 Compounds	3-17-6 ug/kg	3-17-10 ug/kg	3-17-14 ug/kg	3-26-2 ug/kg	3-26-5 ug/kg
Phenol	<170	<170	<170	<170	<170
bis(2-Chloroethyl)Ether	<170	<170	<170	<170	<170
2-Chlorophenol	<170	<170	<170	<170	<170
1,3-Dichlorobenzene	<170	<170	<170	<170	<170
1,4-Dichlorobenzene	<170	<170	<170	<170	<170
1,2-Dichlorobenzene	<330	<330	<330	<330	<330
bis(2-Chloroisopropyl)Ether	<170	<170	<170	<170	<170
N-Nitroso-Di-n-Propylamine	<660	<660	<660	<660	<660
Hexachloroethane	<330	<330	<330	<330	<330
Nitrobenzene	<500	<500	<500	<500	<500
Isophorone	<330	<330	<330	<330	<330
2-Nitrophenol	<660	<660	<660	<660	<660
2,4-Dimethylphenol	<500	<500	<500	<500	<500
bis(2-Chloroethoxy)Methane	<330	<330	<330	<330	<330
2,4-Dichlorophenol	<500	<500	<500	<500	<500
1,2,4-Trichlorobenzene	<170	<170	<170	<170	<170
Naphthalene	<170	<170	<170	<170	<170
Hexachlorobutadiene	<330	<330	<330	<330	<330
4-Chloro-3-Methylphenol	<170	<170	<170	<170	<170
Hexachlorocyclopentadiene	<3300	<3300	<3300	<3300	<3300
2,4,6-Trichlorophenol	<330	<330	<330	<330	<330
2-Chloronaphthalene	<170	<170	<170	<170	<170
Dimethyl Phthalate	<170	<170	<170	<170	<170
Acenaphthylene	<170	<170	<170	<170	<170
Acenaphthene	<170	<170	<170	<170	<170
2,4-Dinitrophenol	<3300	<3300	<3300	<3300	<3300
4-Nitrophenol	<1300	<1300	<1300	<1300	<1300
2,4-Dinitrotoluene	<330	<330	<330	<330	<330
2,6-Dinitrotoluene	<500	<500	<500	<500	<500
Diethylphthalate	<170	<170	<170	<170	<170
4-Chlorophenyl-Phenylether	<170	<170	<170	<170	<170
Fluorene	<170	<170	<170	<170	<170
4,6-Dinitro-2-Methylphenol	<990	<990	<990	<990	<990
N-Nitrosodiphenylamine	<660	<660	<660	<660	<660
4-Bromophenyl-Phenylether	<170	<170	<170	<170	<170
Hexachlorobenzene	<500	<500	<500	<500	<500
Pentachlorophenol	<170	<170	<170	<170	<170
Phenanthrene	280	<170	360	280	230
Anthracene	<170	<170	<170	300	250
Di-n-Butylphthalate	<330	<330	<330	<330	<330

Table 2. Semivolatile Organic Results (continued)

	Canonie Sample ID				
	3-17-6	3-17-10	3-17-14	3-26-2	3-26-5
625 Compounds	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Fluoranthene	<500	<500	<500	<500	<500
Pyrene	<330	<330	<330	<330	<330
Butylbenzylphthalate	<500	<500	<500	<500	<500
3,3-Dichlorobenzidine	<3300	<3300	<3300	<3300	<3300
Benzo(a)Anthracene	<170	<170	<170	<170	<170
bis(2-Ethylhexyl)Phthalate	860	580	640	960	360
Chrysene	<170	<170	<170	<170	<170
Di-n-Octyl Phthalate	<330	<330	<330	<330	<330
Benzo(b)Fluoranthene	<660	<660	<660	<660	<660
Benzo(k)Fluoranthene	<660	<660	<660	<660	<660
Benzo(a)Pyrene	<170	<170	<170	<170	<170
Indeno(1,2,3-cd)Pyrene	<170	<170	<170	<170	<170
Dibenzo(a,h)Anthracene	<500	<500	<500	<500	<500
Benzo(g,h,i)Perylene	<330	<330	<330	<330	<330
Alpha-BHC	<1700	<1700	<1700	<1700	<1700
Beta-BHC	<1700	<1700	<1700	<1700	<1700
Gamma-BHC	<1700	<1700	<1700	<1700	<1700
Delta-BHC	<1700	<1700	<1700	<1700	<1700
Heptachlor	<1700	<1700	<1700	<1700	<1700
Aldrin	<1700	<1700	<1700	<1700	<1700
Heptachlor Epoxide	<1700	<1700	<1700	<1700	<1700
Endosulfan I	<1700	<1700	<1700	<1700	<1700
Dieldrin	<1700	<1700	<1700	<1700	<1700
4,4'-DDE	<1700	<1700	<1700	<1700	<1700
Endrin	<1700	<1700	<1700	<1700	<1700
Endosulfan II	<1700	<1700	<1700	<1700	<1700
4,4'-DDD	<1700	<1700	<1700	<1700	<1700
Endrin Aldehyde	<1700	<1700	<1700	<1700	<1700
Endosulfan Sulfate	<1700	<1700	<1700	<1700	<1700
4,4'-DDT	<1700	<1700	<1700	<1700	<1700
PCB's	<1700	<1700	<1700	<1700	<1700

Surrogates	Percent Recovery (%)				
2-Fluorophenol	60	25	55	60	45
Phenol-d5	60	20	50	55	40
Nitrobenzene-d5	60	20	50	50	40
2-Fluorobiphenyl	60	30	50	60	50
2,4,6-Tribromophenol	50	5	40	30	35
p-Terphenyl-d14	60	30	90	50	40

*Surrogate recovery values are somewhat imprecise due to a five fold dilution of each extract. In addition, some of sample 3-17-10 was lost in the preparation step resulting in a lower recovery of all analytes as indicated by the lower surrogate recoveries.

Table 2. Semivolatile Organic Results

Canonie Sample ID

625 Compounds	method blank ug/kg
Phenol	<33
bis(2-Chloroethyl)Ether	<33
2-Chlorophenol	<33
1,3-Dichlorobenzene	<33
1,4-Dichlorobenzene	<33
1,2-Dichlorobenzene	<66
bis(2-Chloroisopropyl)Ether	<33
N-Nitroso-Di-n-Propylamine	<130
Hexachloroethane	<66
Nitrobenzene	<99
Isophorone	<66
2-Nitrophenol	<130
2,4-Dimethylphenol	<99
bis(2-Chloroethoxy)Methane	<66
2,4-Dichlorophenol	<99
1,2,4-Trichlorobenzene	<33
Naphthalene	<33
Hexachlorobutadiene	<66
4-Chloro-3-Methylphenol	<33
Hexachlorocyclopentadiene	<660
2,4,6-Trichlorophenol	<66
2-Chloronaphthalene	<33
Dimethyl Phthalate	<33
Acenaphthylene	<33
Acenaphthene	<33
2,4-Dinitrophenol	<660
4-Nitrophenol	<260
2,4-Dinitrotoluene	<66
2,6-Dinitrotoluene	<99
Diethylphthalate	<33
4-Chlorophenyl-Phenylether	<33
Fluorene	<33
4,6-Dinitro-2-Methylphenol	<200
N-Nitrosodiphenylamine	<130
4-Bromophenyl-Phenylether	<33
Hexachlorobenzene	<99
Pentachlorophenol	<33
Phenanthrene	<33
Anthracene	<33
Di-n-Butylphthalate	<66

Table 2. Semivolatile Organic Results (continued)

Canonie Sample ID

625 Compounds	method blank ug/kg
Fluoranthene	<99
Pyrene	<66
Butylbenzylphthalate	<99
3,3-Dichlorobenzidine	<660
Benzo(a)Anthracene	<33
bis(2-Ethylhexyl)Phthalate	160
Chrysene	<33
Di-n-Octyl Phthalate	<66
Benzo(b)Fluoranthene	<130
Benzo(k)Fluoranthene	<130
Benzo(a)Pyrene	<33
Indeno(1,2,3-cd)Pyrene	<33
Dibenzo(a,h)Anthracene	<99
Benzo(g,h,i)Perylene	<66
Alpha-BHC	<330
Beta-BHC	<330
Gamma-BHC	<330
Delta-BHC	<330
Heptachlor	<330
Aldrin	<330
Heptachlor Epoxide	<330
Endosulfan I	<330
Dieldrin	<330
4,4'-DDE	<330
Endrin	<330
Endosulfan II	<330
4,4'-DDD	<330
Endrin Aldehyde	<330
Endosulfan Sulfate	<330
4,4'-DDT	<330
PCB's	<330

Surrogates	Percent Recovery (%)
2-Fluorophenol	61
Phenol-d5	53
Nitrobenzene-d5	62
2-Fluorobiphenyl	64
2,4,6-Tribromophenol	45
p-Terphenyl-d14	82

Form 1-2447

Client ID: MCKIN
Sample ID: 84-130-1912 SAMPLE 3-27-23 3279
Matrix : SOIL

Data File:>B3070
703070

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	330 ug/Kg
Phenol	ND	330 ug/Kg
bis(-2-Chloroethyl)Ether	ND	330 ug/Kg
2-Chlorophenol	ND	330 ug/Kg
1,3-Dichlorobenzene	ND	330 ug/Kg
1,4-Dichlorobenzene	ND	330 ug/Kg
1,2-Dichlorobenzene	ND	330 ug/Kg
bis(2-chloroisopropyl)Ether	ND	330 ug/Kg
N-Nitroso-Di-Propylamine	ND	330 ug/Kg
Hexachloroethane	ND	330 ug/Kg
Nitrobenzene	ND	330 ug/Kg
Isophorone	ND	330 ug/Kg
2-Nitrophenol	ND	330 ug/Kg
2,4-Dimethylphenol	ND	330 ug/Kg
bis(-2-Chloroethoxy)Methane	ND	330 ug/Kg
2,4-Dichlorophenol	ND	330 ug/Kg
1,2,4-Trichlorobenzene	ND	330 ug/Kg
Naphthalene	ND	330 ug/Kg
Hexachlorobutadiene	ND	330 ug/Kg
4-Chloro-3-Methylphenol	ND	330 ug/Kg
Hexachlorocyclopentadiene	ND	330 ug/Kg
2,4,6-Trichlorophenol	ND	330 ug/Kg
2-Chloronaphthalene	ND	330 ug/Kg
Dimethyl Phthalate	ND	330 ug/Kg
Acenaphthylene	ND	330 ug/Kg
2,6-Dinitrotoluene	ND	330 ug/Kg
Acenaphthene	ND	330 ug/Kg
2,4-Dinitrophenol	ND	1650 ug/Kg
4-Nitrophenol	ND	330 ug/Kg
2,4-Dinitrotoluene	ND	330 ug/Kg
Diethylphthalate	ND	330 ug/Kg
4-Chlorophenyl-phenylether	ND	330 ug/Kg
Fluorene	ND	330 ug/Kg
Benzidine	ND	330 ug/Kg
4,6-Dinitro-2-Methylphenol	ND	1650 ug/Kg
N-Nitrosodiphenylamine	ND	330 ug/Kg
4-Bromophenyl-phenylether	ND	330 ug/Kg
Hexachlorobenzene	ND	330 ug/Kg
Pentachlorophenol	ND	1650 ug/Kg
Phenanthrene	780.	330 ug/Kg
Anthracene	1600.	330 ug/Kg
Di-N-Butylphthalate	ND	330 ug/Kg
Fluoranthene	550.	330 ug/Kg

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Pyrene	690.	330	ug/Kg
Butylbenzylphthalate	ND	330	ug/Kg
3,3'-Dichlorobenzidine	ND	660	ug/Kg
Benzo(a)Anthracene	910.	330	ug/Kg
bis-(2-Ethylhexyl)Phthalate	ND	330	ug/Kg
Chrysene	860.	330	ug/Kg
Di-N-Octyl Phthalate	ND	330	ug/Kg
Benzo(b)Fluoranthene	ND	330	ug/Kg
Benzo(k)Fluoranthene	ND	330	ug/Kg
Benzo(a)Pyrene	ND	330	ug/Kg
Indeno(1,2,3-cd)Pyrene	ND	330	ug/Kg
Dibenzo(a,h)Anthracene	ND	330	ug/Kg
Benzo(g,h,i)Perylene	ND	330	ug/Kg

JAN
Analyst

AGN
Checked By

Client ID: MCKIN Data File:>B3156
Sample ID: 84-130-1926 SAMPLE 3-27-6 3244 703156
Matrix : SOIL

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	330 ug/Kg
Phenol	ND	330 ug/Kg
bis(-2-Chloroethyl)Ether	ND	330 ug/Kg
2-Chlorophenol	ND	330 ug/Kg
1,3-Dichlorobenzene	ND	330 ug/Kg
1,4-Dichlorobenzene	ND	330 ug/Kg
1,2-Dichlorobenzene	ND	330 ug/Kg
bis(2-chloroisopropyl)Ether	ND	330 ug/Kg
N-Nitroso-Di-Propylamine	ND	330 ug/Kg
Hexachloroethane	ND	330 ug/Kg
Nitrobenzene	ND	330 ug/Kg
Isophorone	ND	330 ug/Kg
2-Nitrophenol	ND	330 ug/Kg
2,4-Dimethylphenol	ND	330 ug/Kg
bis(-2-Chloroethoxy)Methane	ND	330 ug/Kg
2,4-Dichlorophenol	ND	330 ug/Kg
1,2,4-Trichlorobenzene	ND	330 ug/Kg
Naphthalene	ND	330 ug/Kg
Hexachlorobutadiene	ND	330 ug/Kg
4-Chloro-3-Methylphenol	ND	330 ug/Kg
Hexachlorocyclopentadiene	ND	330 ug/Kg
2,4,6-Trichlorophenol	ND	330 ug/Kg
2-Chloronaphthalene	ND	330 ug/Kg
Dimethyl Phthalate	ND	330 ug/Kg
Acenaphthylene	ND	330 ug/Kg
2,6-Dinitrotoluene	ND	330 ug/Kg
Acenaphthene	ND	330 ug/Kg
2,4-Dinitrophenol	ND	1650 ug/Kg
4-Nitrophenol	ND	330 ug/Kg
2,4-Dinitrotoluene	ND	330 ug/Kg
Diethylphthalate	ND	330 ug/Kg
4-Chlorophenyl-phenylether	ND	330 ug/Kg
Fluorene	ND	330 ug/Kg
Benzidine	ND	330 ug/Kg
4,6-Dinitro-2-Methylphenol	ND	1650 ug/Kg
N-Nitrosodiphenylamine	ND	330 ug/Kg
4-Bromophenyl-phenylether	ND	330 ug/Kg
Hexachlorobenzene	ND	330 ug/Kg
Pentachlorophenol	ND	1650 ug/Kg
Phenanthrene	ND	330 ug/Kg
Anthracene	350.	330 ug/Kg
Di-N-Butylphthalate	ND	330 ug/Kg
Fluoranthene	ND	330 ug/Kg

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PAGE 2

Pyrene	570.	330	ug/Kg
Butylbenzylphthalate	ND	330	ug/Kg
3,3'-Dichlorobenzidine	ND	660	ug/Kg
Benzo(a)Anthracene	ND	330	ug/Kg
bis-(2-Ethylhexyl)Phthalate	ND	330	ug/Kg
Chrysene	ND	330	ug/Kg
Di-N-Octyl Phthalate	ND	330	ug/Kg
Benzo(b)Fluoranthene	ND	330	ug/Kg
Benzo(k)Fluoranthene	ND	330	ug/Kg
Benzo(a)Pyrene	ND	330	ug/Kg
Indeno(1,2,3-cd)Pyrene	ND	330	ug/Kg
Dibenzo(a,h)Anthracene	ND	330	ug/Kg
Benzo(g,h,i)Perylene	ND	330	ug/Kg

YM
Analyst

AGN
Checked By

Client ID: MCKIN
Sample ID: 84-130-1926 SAMPLE 3-30-4 3297 703159
Matrix : SOIL
Data File:>B3159

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	330 ug/Kg
Phenol	ND	330 ug/Kg
bis(-2-Chloroethyl)Ether	ND	330 ug/Kg
2-Chlorophenol	ND	330 ug/Kg
1,3-Dichlorobenzene	ND	330 ug/Kg
1,4-Dichlorobenzene	ND	330 ug/Kg
1,2-Dichlorobenzene	ND	330 ug/Kg
bis(2-chloroisopropyl)Ether	ND	330 ug/Kg
N-Nitroso-Di-Propylamine	ND	330 ug/Kg
Hexachloroethane	ND	330 ug/Kg
Nitrobenzene	ND	330 ug/Kg
Isophorone	ND	330 ug/Kg
2-Nitrophenol	ND	330 ug/Kg
2,4-Dimethylphenol	ND	330 ug/Kg
bis(-2-Chloroethoxy)Methane	ND	330 ug/Kg
2,4-Dichlorophenol	ND	330 ug/Kg
1,2,4-Trichlorobenzene	ND	330 ug/Kg
Naphthalene	ND	330 ug/Kg
Hexachlorobutadiene	ND	330 ug/Kg
4-Chloro-3-Methylphenol	ND	330 ug/Kg
Hexachlorocyclopentadiene	ND	330 ug/Kg
2,4,6-Trichlorophenol	ND	330 ug/Kg
2-Chloronaphthalene	ND	330 ug/Kg
Dimethyl Phthalate	ND	330 ug/Kg
Acenaphthylene	ND	330 ug/Kg
2,6-Dinitrotoluene	ND	330 ug/Kg
Acenaphthene	ND	330 ug/Kg
2,4-Dinitrophenol	ND	1650 ug/Kg
4-Nitrophenol	ND	330 ug/Kg
2,4-Dinitrotoluene	ND	330 ug/Kg
Diethylphthalate	ND	330 ug/Kg
4-Chlorophenyl-phenylether	ND	330 ug/Kg
Fluorene	ND	330 ug/Kg
Benzidine	ND	330 ug/Kg
4,6-Dinitro-2-Methylphenol	ND	1650 ug/Kg
N-Nitrosodiphenylamine	ND	330 ug/Kg
4-Bromophenyl-phenylether	ND	330 ug/Kg
Hexachlorobenzene	ND	330 ug/Kg
Pentachlorophenol	ND	1650 ug/Kg
Phenanthrene	440.	330 ug/Kg
Anthracene	480.	330 ug/Kg
Di-N-Butylphthalate	ND	330 ug/Kg
Fluoranthene	ND	330 ug/Kg

SUPERFUND TREATABILITY CLEARINGHOUSE ABSTRACT

Treatment Process:	Physical/Chemical - Low Temperature Thermal Stripping
Media:	Soil/Generic
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Document Type:	Contractor/Vendor Treatability Study
Contact:	U.S. EPA - Region I John F. Kennedy Federal Bldg. Room 2203 Boston, MA 02203 617-565-3715
Site Name:	McKin Superfund Site, Gray, ME (NPL)
Location of Test:	Gray, ME

BACKGROUND: This treatability study report describes soil remediation and site closure activities conducted at the McKin Superfund site in Maine. The work described in this report involves the removal of volatile organic compounds and petroleum residues from contaminated soils by low temperature thermal aeration in an enclosed environment. The report discusses the enclosed aeration process, impact of the operation on ambient air quality, effectiveness of the system, cleanup costs, and disposal of accumulated on-site materials used in the project.

OPERATIONAL INFORMATION: The soil aeration system utilized during the site cleanup consisted of a thermal dryer, a baghouse for control of particulate matter, a scrubber to remove water soluble gases, and a vapor phase carbon treatment system to remove organics from the vapor phase. Soils were screened to remove boulders and debris, and fed through the system a number of times via a conveyer to ensure complete aeration. Soil temperatures were maintained at 250 - 400°F to facilitate volatilization of organics. Soil was solidified with concrete after treatment. 11,500 cubic yards of soil were processed at the site. Soil types are discussed in reports on previous studies conducted on the site. Organic vapor concentrations were monitored at the site boundaries, periodic air quality monitoring was conducted at 10 nearby residences and high volume particulate sampling was conducted at the site. Ambient hydrocarbon levels were well below (between 0.002 to 0.01 ppm) the level established as a health standard (2 ppm).

During the pilot study, ambient particulate standards were exceeded on three occasions. Changes in the material handling system reduced fugitive dust emissions and allowed for the processing of 10,000 cubic yards of soils without further exceedences of the air quality standard for total solid particles. Various references are made to QA/QC and to the EPA standard methods for VOC analysis.

NOTE: Quality assurance of data may not be appropriate for all uses.

PERFORMANCE: The excavated/aerated soils from the site satisfy the performance standard specified in the site Record of Decision (ROD)(0.1 ppm of TCE). Concentrations of VOCs and petroleum products before and after treatment of soils are shown in Table 1.

Significant reduction in the levels of various contaminants before and after treatment are noted. Groundwater modeling demonstrated that groundwater criteria specified in the ROD were met. A detailed cost breakdown of the use of aeration to remediate soils contaminated with VOC and petroleum hydrocarbons is provided. Based on this data, the average cost for treating the soils at this Superfund site is $252 per cubic yard. Aeration was utilized to remediate contaminated soil and not violate ambient air quality criteria at this site.

CONTAMINANTS:

Analytical data is provided in the treatability study report. The breakdown of the contaminants by treatability group is:

Treatability Group	CAS NUMBER	Contaminants
W01-Halogenated Aromatic Compounds	95-50-1	1,2-Dichlorobenzene
W04-Halogenated Aliphatic Solvents	71-55-6	1,1,1-Trichloroethane
	75-35-4	1,1-Dichloroethene
	127-18-4	Tetrachloroethene
	79-01-6	Trichloroethene
W07-Heterocyclics and Simple Aromatics	71-43-2	Benzene
	100-41-4	Ethylbenzene
	108-88-3	Toluene
	1330-20-7	Xylene
W08-Polynuclear Aromatics	120-12-7	Anthracene
	91-20-3	Naphthalene
	206-44-0	Fluoranthene
	85-01-8	Phenanthrene
W09-Other Polar Organic Compounds	85-68-7	Butylbenzylphthalate
	78-59-1	Isophorone
W13-Other Organics	TEH	Total Extractable Hydrocarbons

NOTE: Quality assurance of data may not be appropriate for all uses.

TABLE 1

Compound	Pretreatment Soil Concentration (mg/kg)	Post-treatment Soil Concentration (mg/kg)
trans 1.1,-dichloroethane	0.11	ND .02
trichloroethene (TCE)	7.3	ND .02
1,1,1,-trichloroethene	0.13	ND .02
Toluene	35	ND 1.0
Xylenes	84	ND 1.0

ND - None detected at 0.2 or 1.0 ppm

Note: This is a partial listing of data. Refer to the document for more information.

NOTE: Quality assurance of data may not be appropriate for all uses.

980-T31-RT-EXPE

Report

Soil Remediation and Site Closure McKin Superfund Site

Canonie Environmental

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REPORT
SOIL REMEDIATION AND SITE CLOSURE
MCKIN SUPERFUND SITE
GRAY, MAINE

1.0 INTRODUCTION AND CHRONOLOGY

This report by Canonie Environmental Services Corp. (Canonie) describes soil remediation and site closure activities conducted at the McKin Superfund Site in Gray, Maine. This report is submitted in response to the May 12, 1987 letter request of the United States Environmental Protection Agency (U.S. EPA) and in satisfaction of Paragraph 31(g) of the July 7, 1986, Administrative Order issued by U.S. EPA to the Potentially Responsible Parties (PRPs) for the McKin site.

The soil remediation described in this report involved the removal of volatile organic compounds (VOCs) and petroleum residues from soil through low temperature thermal aeration in an enclosed environment. Pursuant to a previous Administrative Order dated August 23, 1985, Canonie conducted a pilot study of the aeration technique, and demonstrated its effectiveness for the treatment of soils at the site without adverse impacts on the ambient air quality at the site. The methods and results of the full-scale aeration program are presented in this report.

Following the submittal of the soil aeration pilot study report in April, 1986, Canonie began full-scale aeration of soils on July 8, 1986, in accordance with U.S. EPA's 22 conditions for continuing aeration. The conditions were attached to the July 7, 1986, Administrative Order. Canonie submitted the excavation plan for VOC-impacted soils on July 11, 1986, with clarifications thereto following. Aeration of VOC-impacted soils was completed on February 3, 1987. The "Petroleum Area Soils Characterization and Remediation Analysis" was submitted in January, 1987, with subsequent approval to proceed with aeration of petroleum area soils received from U.S. EPA and MDEP on March 13, 1987. Aeration of petroleum area soils was completed on April 17, 1987. Site demobilization and final closure followed and was completed on June 23, 1987.

The balance of this report details the procedures used to successfully excavate and treat soils known to have been impacted by VOCs and petroleum residues, and summarizes the data which indicates that proper remediation has been attained.

2.0 ENCLOSED ENVIRONMENT AERATION SYSTEM

The aeration system assembled and utilized during the soil aeration pilot study is described in detail in the report entitled, "Soil Aeration Pilot Study", dated April, 1986. The components of the system are a thermal dryer, a baghouse for particulate control, a scrubber to remove water-soluble gases, and a vapor phase carbon treatment system to remove organics from the exhaust air stream. Soil is fed through the system numerous times for complete aeration.

During the pilot study, three conveyors were employed to feed newly excavated soil into the aeration system and to recirculate treated soils for further aeration. The use of the three conveyors resulted in the generation of fugitive dust each time the treated soil was discharged from one conveyor onto another conveyor. Additionally, the cycle time for treatment of the soil was dependent upon the time required to transport the soil and to minimize dust generation. Prior to commencement of full-scale operations in the treatment of soils at the McKin site, Canonie completed certain modifications to the material handling system, to increase the efficiency of the system, and reduce the generation of fugitive dust. Fugitive dust generation was significantly reduced by using a bucket elevator and chute arrangement. The bucket elevator was positioned adjacent to the discharge of the materials dryer and transported the treated soil from the discharge of the dryer up to an enclosed chute which sloped down to the inlet end of the dryer or to a system discharge location. A slurry box was mounted near the inlet end of the materials dryer. A small auger was mounted between the discharge of the baghouse dust auger and the slurry box to permit transport of treated baghouse fines directly to the slurry box. A bulk concrete trailer was located near the baghouse and a small auger was mounted between the slurry box and the cement trailer to permit direct feed of cement to the slurry box. Finally, a metered water line was installed to the slurry box and a flash mixer was

mounted inside the slurry box to permit complete mixing of water, baghouse dust, and cement.

With these modifications in place during the full-scale aeration, excavated soil was fed to one of three hoppers in a hopper trailer. The soil was fed onto a loading conveyor which transported the soil to the inlet end of the materials dryer. The soil was discharged from the dryer to the bucket elevator and then dropped through the recycle chute to the inlet end of the dryer. A control gate in the chute directed the treated soil into the materials dryer for further treatment or to an additional chute for discharge to the concrete mixer truck. Baghouse fines, recycled to the materials dryer during the pilot testing, were directed to the slurry box. For each three-cubic yard volume, or "run", of soil processed, cement and water were added to the fines in the slurry box and thoroughly mixed. Just prior to discharge of the treated soil into the concrete mixer truck, the gate on the bottom of the slurry box was opened and the slurry was discharged to the concrete mixer truck. Normally three runs were aggregated in the concrete mixer truck to form one batch, totaling approximately eight to nine cubic yards.

During pilot testing of the aeration of petroleum area soils, Canonie observed a bluish smoke emanating from the exhaust aeration stream. Canonie installed HEPA filters, to remove the fine, smoky particulate. Canonie's report of January, 1987, entitled "Petroleum Area Soils Characterization and Remediation Analysis", details the engineering design considerations in implementing the HEPA filter system.

3.0 AIR MONITORING

An extensive air monitoring network was developed to assess the impact of site activities on ambient air quality during the pilot study phase of the remediation at the McKin site. A full description of the elements included in the network is presented in the "Soil Aeration Pilot Study Report", dated April, 1986.

During the full-scale aeration of soils following the pilot study, Canonie continued to monitor ambient air quality using a network similar to that used in the pilot study. Organic vapor concentrations were monitored at the site boundary at five locations. Century Instruments organic vapor analyzers (OVAs) at those locations generated signals for transmission to a computer which stored the data and determined whether certain prescribed emission levels had been exceeded. High volume particulate monitors were located at several of the perimeter stations to monitor total suspended particulates. Organic vapor emissions near the excavation and the aeration equipment were monitored using an OVA connected to an electronic data logger. Meteorological data was also collected and stored on an electronic data logger. At the end of each day, the monitoring data was stored onto disks and a report of each week's air monitoring data was compiled for U.S. EPA. This data has been forwarded to U.S. EPA under separate cover, pursuant to U.S. EPA instructions.

Canonie also continued periodic air monitoring at ten nearby residences, using an OVA with attached electronic data logger. Data on the neighborhood air monitoring was presented to U.S. EPA and MDEP, together with information on the on-site air monitoring network. The standards were never exceeded.

Real-time particulate monitors were deleted from the air monitoring network after pilot testing because readings from those monitors failed to coincide with the results of high volume particulate sampling, conducted as part of

the U.S. EPA nationwide air quality particulate program. The elimination of the real-time particulate monitors in the network was approved by U.S. EPA.

At the conclusion of the pilot study, Canonie requested and received permission to change the method for analyzing the carbon and Tenax tubes used to assess ambient air quality at the site perimeter. Originally, Canonie proposed to utilize a system developed by Century Instruments, whereby special tubes used in the collection of the samples are thermally desorbed and the desorption gas is analyzed by a Century 128 GC OVA. Canonie discovered that the desorption method was unreliable, resulting in inaccurate values being reported for the test period. Canonie determined that the method of desorption accepted by the National Institute of Occupational Safety and Health involved carbon disulfide desorption. At Canonie's request, U.S. EPA approved the use of this method for ambient air monitoring at the McKin site. Results of the carbon and Tenax tube sampling indicated that TCE, the principle VOC of interest at the site, was present in the ambient air at levels ranging from less than 0.002 up to 0.01 parts per million (ppm), well below the 2 ppm established as a health-based standard for the site.

All changes to the air monitoring system were tested against benchmark conditions prior to implementation and determined to provide accurate reporting and analysis of ambient air conditions at the site. Air monitoring during the pilot study and the full-scale processing of nearly 11,500 cubic yards of soil at the McKin site demonstrated that the aeration system control equipment was fully capable of controlling emissions of VOCs. Indeed, volatile organic emission levels were met throughout the aeration program. The primary air quality standard for particulates, 150 micrograms per cubic meter, was exceeded three times during the pilot study portion of the project. However, the previously described changes to the materials handling system eliminated the source of emissions such that more than 10,000 cubic yards of soil were processed at the site without

further exceedances of the primary air quality standard for total suspended particulates.

When petroleum area soil aeration was underway, Canonie changed the analytical parameters for carbon tube analysis to benzene, toluene, xylene, and ethylbenzene. These constituents represent the pertinent analytical parameters in view of their presence in the oily soils being treated. All tube analyses for these parameters resulted in non-detectable concentrations.

At the direction of U.S. EPA and MDEP, Canonie conducted polycyclic aromatic hydrocarbon (PAH) analysis of the gas and vapor emanating from the carbon bed exhaust stream during the petroleum area soil aeration pilot study. The procedures used to analyze the vapor and gas in the exhaust stream were submitted to U.S. EPA and MDEP on February 23, 1987, and results of that analysis were transmitted by Canonie on March 11, April 6, and April 23, 1987. The PAH constituents were non-detectable in both the gaseous and vapor phases, utilizing the best available technology for sampling and identification of PAH constituents. The vapor condensate and scrubber mist eliminator analysis is presented in Appendix A.

This report does not contain the volumnious air monitoring data reports submitted on a weekly basis while any excavation and/or aeration activity was underway at the site. These weekly transmittals include all air quality data obtained with summary explanations and are complete reports. Charcoal tube QA/QC data is included in analytical reports which contain the charcoal tube analytical results. High-volume particulate sampling QA/QC data was included when a calibration or audit was performed on a high-volume sampler motor. Lastly, high-volume particulate sampler filter weight audits were presented on an interim basis. All QA/QC data indicate acceptable performance in the subject areas previously mentioned. All of this data is available in the offices of the U.S. EPA.

3.1 Contingency Actions

The air monitoring systems were employed at the site to assess whether predetermined action levels of VOCs were surpassed during site remedial activities. The action level recommended by the Centers for Disease Control permits the presence of total VOCs in concentrations not to exceed 2 ppm above background levels for a period not to exceed 15 minutes. Throughout the full-scale site remediation, this standard was met.

Contingency actions were developed and are explained in Canonie's "Soil Aeration Pilot Study Plan" and "Health and Safety Plan" of October, 1985. Because the VOC air quality standard was always met, contingency actions were never required.

4.0 EXCAVATION TECHNIQUES UTILIZED

Sections 4.1 and 4.2 below describe the excavation of soil containing VOCs and petroleum products, respectively.

4.1 Excavation of Soils Containing VOCs

Soils containing VOCs were located at Areas 1(b), 3, 4, 6, and 8 and the lagoon area of the site. These soils were excavated according to Canonie's July, 1986 excavation plan for soils containing VOCs and agency comments and clarifications thereto. A large track crane equipped with an enclosed caisson bucket was used to excavate most of the soils in Areas 3 and 6. A rubber-tired backhoe was used to excavate soils in selected locations in Areas 3 and 6, as well as all designated soils in Areas 1(b), 4, and 8, and the lagoon area. The soils in the latter group were designated for excavation by backhoe due to the presence of low concentrations of organic constituents in relatively shallow soils. The use of the backhoe to excavate these areas was approved by U.S. EPA and MDEP prior to implementation of the excavation program.

Approximately 15,000 cubic yards of clean soil in Area 3 and 1,000 cubic yards of clean soil in Area 6 were excavated and stockpiled on-site to access underlying soils requiring treatment. The three-stage removal of the clean soils from Area 3 provided even working surfaces for the excavation of Caisson Borings 1 through 158 at Elevation 290 mean sea level (MSL), the excavation of Caisson Borings 159 through 333 at Elevation 270 MSL, and the excavation of Caisson Borings 334 through 518 at Elevation 275 MSL. Removal of the clean soil excavated in Area 6 provided an even working surface at Elevation 287.5 MSL. Upon completion of the excavation and soil aeration in Areas 3 and 6, the clean, stockpiled soils were returned to these areas by bulldozer, and the soils were compacted in one-foot lifts to minimize long-term settlement.

Figure 1 (the site map), maps the areas of excavation at the site on a surveyed grid system. Figure 2 depicts the excavation and verification sampling locations for Area 1(b), Figures 3 and 4 indicate the excavation area and verification sampling locations, respectively, for Area 3, Figure 5 shows the area of excavation and verification sampling locations for Area 4, Figures 6 and 7 indicate the excavation area and verification sampling locations, respectively, for Area 6, and Figure 8 indicates the excavation area and verification sampling locations for Area 8. A summary of the excavation and treatment data for Areas 3 and 6 is presented in Table 1. The summary of the excavation and treatment data for Areas 1(b), 4, and 8 is listed in Table 2. Table 3 tabularizes excavation verification sample locations with the respective TCE concentrations, and Table 4 lists the results of the other analytes for these samples. The following highlights the excavation of Areas 1(b), 3, 4, 6, and 8. All excavation was based on site characterization conducted to determine the areas requiring soil treatment.

Area 1(b)

Canonie excavated with a backhoe and treated approximately 605 cubic yards of soil in this area. The excavation began at Elevation 298 MSL and ended at Elevation 282 MSL.

Area 3

Canonie excavated and treated approximately 5,290 cubic yards of soil in this area. Approximately 5,084 cubic yards of soil were excavated using the caisson bucket, the remaining 206 cubic yards of soil were excavated using a backhoe. The areas that were excavated using a backhoe are described as follows:

1. The area having a center at construction coordinates N10, SE120 was excavated from Elevation 285 MSL to Elevation 275 MSL.

2. The soil west of Caisson Borings 35 and 61 was excavated from Elevation 287 MSL to Elevation 277 MSL.

3. The soil located at construction coordinates N 109, E 124 was excavated from Elevation 285 MSL to Elevation 275 MSL.

4. The soil north of Caisson Borings 129 and 135 was excavated from Elevation 285 MSL to Elevation 275 MSL.

5. The area having a center at construction coordinates N 127, E 108 was excavated from Elevation 270 MSL to Elevation 260 MSL.

Area 4

Canonie excavated with a backhoe and treated approximately 530 cubic yards of material in this area. The depth of excavation, which began at Elevation 291 MSL, was approximately 11.0 feet, except for an area west of Soil Boring SB4-6 that extended to 5.0 feet west of Soil Boring SB4-1, which was excavated to a depth of 16.0 feet.

Area 6

Canonie excavated and treated approximately 1,731 cubic yards of soil in this area. The caisson bucket was used to excavate the soil with the exception of six cubic yards that were excavated using a backhoe. The soil that was excavated using a backhoe was excavated from Elevation 287.5 MSL to Elevation 277.5 MSL.

Area 8

Using a backhoe, Canonie excavated and treated approximately 1,250 cubic yards of soil in this area. The depth of excavation, which began at Elevation 290 MSL, varied from 15 feet to 18 feet, then sloped in toward original Soil Boring SB 8-20 to a depth of 21 feet.

Lagoon

Canonie excavated with a backhoe and treated approximately 150 cubic yards of soil in this area during the Soil Aeration Pilot Study. The actual dates of excavation were May 22, 1986 through May 29, 1986. The excavation began at Elevation 286.5 MSL and stopped at Elevation 276.5 MSL.

4.2 Excavation of Soils Containing Petroleum

Soils containing petroleum residues were located at Areas 1(a), 1(c), 2 and 9 of the site. Three of these areas (1a), 1(c), and 2 were characterized in a subsurface profile, drilling, sampling, and analytical program conducted in spring of 1986. The results of this program were summarized in the report entitled "Petroleum Area Soils Characterization and Remediation Analysis" dated January, 1987.

Canonie excavated Areas 1(a), 1(c), and 2 with a rubber-tired backhoe, in accordance with U.S. EPA's letter to Canonie of November 26, 1986. The excavation was initially conducted according to the visual extent of petroleum substances, both in the vertical and horizontal planes. Following a visual verification of the petroleum areas, a soil sampling and analytical protocol was implemented to verify both the horizontal and vertical perimeters of excavation. Based on these results, additional soils were excavated from Area 1, and the newly excavated perimeters were re-verified.

Canonie completed the excavation of Areas 1(a), 1(c), and 2 on December 12, 1986. Figures 9 and 10 indicate the areas of excavation for Petroleum Areas 1(a), 1(c), and 2, respectively, and also indicate sampling locations. Table 5 indicates sampling elevations and Table 6 summarizes the analytical results. The excavation, sampling, and analytical verification were summarized in detail in a Canonie transmittal to U.S. EPA and MDEP on March 16, 1987 entitled, "Excavation, Sampling, and Analytical Verification

- Petroleum Areas 1(a), 1(c), and 2". This transmittal is included as Appendix B.

Excavated material was delivered by backhoe to a screening plant. At the screening plant, the soils and debris were separated on the screening deck, with debris traveling over the deck to a waiting loader bucket. The debris and separated soils were subsequently transported and stockpiled in two separate locations, with berms and polyethylene covering provided to secure the stockpiles.

Soils were also discovered and excavated from Area 9, which encompasses an area adjacent to the old block incinerator building. Approximately 200 cubic yards of soil were removed and stockpiled from this area. The petroleum residues present in these soils appeared to be relatively unweathered compared to the petroleum residues present in the soils at Areas 1(a), 1(c), and 2. Analysis of the petroleum residues from a representative sample of these soils indicates no significant deviation from the chemical characteristics of the residues found in Areas 1(a), 1(c), and 2. Figure 11 depicts the Area 9 excavation and four perimeter sampling locations, and Table 6 lists the analytical results of perimeter samples.

Analysis of samples from sampling Location A9-4 initially revealed a relatively high total extractable hydrocarbon concentration. Additional soils were excavated from this area for use in the staging of petroleum area soils required for processing. Figure 11 indicates the area of the additional excavation.

5.0 PROCESSING PARAMETERS

Sections 5.1 and 5.2 detail processing parameters required for the successful remediation of soils containing VOCs and petroleum, respectively.

5.1 Processing Parameters for Soils Containing VOCs

Soil containing VOCs in Areas 1(b), 3, 4, 6, and 8 were excavated by backhoe or by caisson auger and were placed into a rubber-tired front-end loader with covered bucket for transport from the excavation area to the aeration plant. The soils in the loader were discharged into one of three staging hoppers. As processing required, soil staged in the hoppers was released onto a conveyor belt, sifted through a coarse grate to remove large rocks and boulders, and then discharged onto a second conveyor that transported the soil to the feed hopper of the materials dryer. Aeration of the soil was accomplished by forcing heated air through the length of the dryer as the dryer rotated on its axis. As the soil traveled the length of the dryer, soil temperatures rose to approximately 300 to 400 degrees Fahrenheit prior to discharge. The soil was discharged at the burner end of the dryer onto a bucket elevator. The bucket elevator lifted the soil to an overhead chute, which directed the soil from the bucket elevator to the feed hopper of the materials dryer or the system discharge chute.

The soil was typically cycled through the dryer three times. Each treated, three-cubic-yard volume of soil constituted a "run". Three runs were aggregated to create a "batch", the volume of which equalled the capacity of the concrete truck used during full-scale soil processing. Soil temperatures were maintained at 250 to 400 degrees Fahrenheit to optimize volatilization. Air flow through the dryer was maintained at 15,000 actual cubic feet per minute (acfm) to prevent excessive baghouse temperatures

from developing. Stabilization was accomplished by adding cement and water to each three-cubic-yard volume of soil for deposition into excavated caisson holes.

5.2 Processing Parameters for Soils Containing Petroleum

When full aeration of soils containing petroleum was underway at Areas 1(a), 1(c), 2, and 9, the soils were transported to a staging area located west of the aeration plant. There, clean makeup soils were mixed with petroleum area soils, using a front-end loader. The ratios of mixed soil constituents were determined in the petroleum area pilot study primarily by visual and physical inspection. The ideal soil mix contained the minimum volume of clean soils required to produce a product that could be run through the aeration system without agglomerating or "balling up". If the soil mix were to agglomerate in the dryer, a flash fire could occur in the dryer, with the potential to destroy the baghouse and remaining portions of the aeration system. Table 7, which summarizes the processing of soils containing petroleum, lists the volumes of clean, makeup soils required for mixing.

Operational parameters used for processing the petroleum area soils were consistent with the procedures detailed in Section 5.1 The addition of the HEPA filter system required surveillance of the pressure drop across the filters. This monitoring of the pressure drop across the filters was accomplished using a manometer. New filters in the aeration system caused a pressure drop of 1.5 inches of water column. When the pressure drop across the filters increased to approximately 8.0 inches water column, a filter change was necessary because breakthrough would occur at pressures elevated above this level. During the first three weeks of petroleum area soil aeration, the filters were changed approximately every two days. However, during the final week of aeration, when unweathered Area 9 soils were processed, the filters required changing twice daily, as the Area 9 soils produced a significantly heavier smoke stream that loaded the filters more quickly.

6.0 ANALYTICAL VERIFICATION

The areas of the site requiring treatment were verified through sampling and analysis. Sections 6.1 and 6.2 discuss analytical methodologies to address treated soils from the VOC-impacted areas and petroleum areas, respectively. Section 6.3 describes the sampling and analytical methodologies to address the excavated perimeters, and Section 6.4 discusses QA/QC documentation.

6.1 Analytical Verification of Treated Soils from VOC Areas

Canonie retrieved a sample of treated soil from each batch processed through the aeration system originating from Areas 1(b), 3, 4, 6, and 8. Each sample was collected from the aerated soil mass as the soil was placed into an excavated caisson or area of excavation. In general, the sample was taken after half of the batch had been discharged. Under a verification protocol approved by U.S. EPA, Canonie was required to test half of the verification samples collected each day. When the average of the samples tested resulted in a mean residual concentration of less than 0.10 mg/kg TCE, as agreed with EPA, Canonie certified that soils processed during that day were appropriately treated. If the average of the samples tested exceeded 0.10 mg/kg TCE, the remaining half of the samples were analyzed, and the results of that analysis were included in the calculation of the mean residual concentration. If the revised average resulted in a mean residual concentration of less than 0.10 mg/kg TCE, the soils were certified as being appropriately treated for the day. If the average of the samples tested exceeded 0.10 mg/kg TCE, Canonie reprocessed the entire volume of soil processed on that day. This occurred only once, on January 9, 1987. Investigation of the processing plant on that day indicated that a portion of the baghouse dust transfer chute was plugged with roots and debris, thereby inhibiting the treatment of the dust at that location. Cleaning of the transfer chute eliminated the problem.

Canonie installed a fully configured gas chromatograph (GC) on-site in order to obtain analytical results quickly and minimize downtime due to delays in the return of analytical results. The GC was configured to permit analysis of soil samples in accordance with U.S. EPA Methods 8010 and 8020. However, Canonie was required to analyze for only a limited subset of constituents designated in the two methodologies. Canonie normally analyzed the treated samples for the following compounds: benzene; 1,2-dichlorobenzene; 1,3-dichlorobenzene; 1,4-dichlorobenzene; ethylbenzene; trans-1,2-dichloroethane; tetrachloroethylene; toluene; 1,1,1-trichloroethane; trichloroethylene; and xylenes. Approximately 10 percent of the samples analyzed on-site were sent to Canonie's Stockton laboratory for confirmatory analysis.

The analytical results of treated soil samples were attached to soils tracking logs assembled on a daily basis. The soils tracking logs, analytical tracking sheets, and sample chain-of-custody forms were transmitted to U.S. EPA and MDEP periodically. The soils tracking logs indicate the traffic flow of soils from excavation to treatment to redeposition. The daily average of TCE in treated soil samples is indicated on the soils tracking logs. A summary of this data is shown in Table 1, indicating location of caisson excavation, elevations excavated, date of excavation, post-treatment daily average TCE concentration, and the daily production volume with which the treatment criteria was applied. Table 2 indicates the pertinent data for excavation and treatment of areas excavated with a backhoe.

6.2 Analytical Verification of Treated Soils from Petroleum Areas

The treated petroleum area soils originating from Areas 1(a), 1(c), 2, and 9 were sampled in the same manner as the soils described in Section 6.1.

Fifty percent of the samples were analyzed on-site for U.S. EPA 8010/8020 and at least 10 percent of the samples were analyzed off-site for polycyclic aromatic hydrocarbons (PAHs) by U.S. EPA Method 8270 and total

extractable hydrocarbons (TEH). The 8010/8020 analytical results for treated soils (already transmitted to U.S. EPA and MDEP) do not indicate the presence of detectable levels of aromatic compounds that were originally present in the oily soils. The detection limit for these constituents is 1 ppm. The 8010/8020 analytical results are not tabulated in this report since the aromatic compounds are all non-detectable in post-treatment samples. The Method 8270 and TEH analytical reports are presented in Appendix C, with a daily summary of results given in Table 8.

The U.S. EPA and MDEP set certain treatment performance standards for the aeration of the petroleum area soils. The treatment criteria specified that not more than 1 ppm of each Method 8020 analyte (aromatic organics) exist in treated soils with a 50 percent analytical frequency. U.S. EPA and MDEP further specified that not more than 1 ppm of each PAH constituent and not more than 10 ppm total PAH constituents detected in Method 8270, exist in treated soils with a 10 percent analytical frequency. Based upon treatment of all petroleum area soils, these criteria have been satisfied as detailed in Section 7.2.

6.3 Analytical Verification of Excavated Areas

Canonie excavated all VOC-impacted soils according to the approved Excavation Plan of July, 1986. All soils containing a TCE concentration in excess of 1 ppm TCE were excavated and successfully aerated. In caisson excavated Areas 3 and 6, a soil sample from each borehole located on or outside of the 1 ppm TCE contour line was obtained at the elevation where the most prevalent loading of volatile organics occurred. The locations of these sampling verification points for Areas 3 and 6 are shown on Figures 4 and 7. Additional boreholes were excavated and treated beyond the 1.0 ppm TCE contour if a sample indicated a TCE concentration greater than 1.0 ppm. The additional boreholes were also analyzed to insure that any soil containing TCE in concentrations greater than 1.0 ppm was excavated and treated. The final perimeter samples with corresponding TCE concentrations are listed in Table 3.

The perimeter of Areas 1(b), 4, and 8 were excavated using a backhoe and were sampled in a manner stipulated by U.S. EPA and MDEP in a letter to Canonie dated October 8, 1986. A complete list of all constituents analyzed with their respective concentrations for VOC area excavation perimeter samples is presented in Table 4.

The perimeter of petroleum Areas 1(a), 1(c), 2, and 9 (the petroleum areas) were sampled in a manner specified by U.S. EPA and MDEP in a letter to Canonie dated November 26, 1986. A complete list of all constituents analyzed with their respective concentrations for petroleum area excavation perimeter samples is presented in Table 6.

6.4 QA/QC Documentation

Both Canonie's Stockton, CA analytical laboratory and the McKin on-site laboratory participated in U.S. EPA's national proficiency sample program. As part of additional QA/QC documentation, U.S. EPA required that Canonie ship the extract of samples on-site to be tested for a qualitative comparison in Canonie's Stockton, California analytical laboratory. The comparison is presented in Appendix D and indicates that the analytes of Methods 8010/8020 have been properly identified. In review of all existing QA/QC documentation, Canonie validates the analytical data presented herein as being accurate and precise.

7.0 REMEDIATION OF SOILS

This section discusses the attainment of performance criteria for the remedial activities conducted at the site. Section 7.1 discusses the remediation of VOC-impacted Areas 1(b), 3, 4, 6, and 8, and Section 7.2 discusses the successful remediation of Petroleum Areas 1(a), 1(c), 2, and 9. Section 7.3 reviews the ground water modeling support of the performance standards used in remediation.

7.1 Remediation of Soils Containing VOCs

Based on the review of perimeter samples of the excavation of Areas 1(b), 3, 4, 6 and 8, and the review of analytical results of treated soils excavated from these areas, Canonie certifies that the soils impacted by VOCs have been remediated to levels established by U.S. EPA and MDEP in the ROD and subsequent correspondence as protective of public health, welfare, and the environment.

The excavated and aerated soils from these areas satisfy the soil performance standards specified in the McKin Record of Decision. All soils that were excavated and aerated meet the 0.1 ppm TCE performance standard, based on daily production volumes. A comparison of pre-treatment and post-treatment samples indicating the successful removal of TCE as well as other constituents is presented in Appendix E. Based on extensive analytical data accumulated at the site, the TCE performance standard was demonstrated to be extremely conservative in satisfying the ground water performance standard applicable to water leaving the site perimeter as discussed in Section 7.3. Canonie demonstrated in the Excavation Plan response to comments of September, 1986, that a concentration of 1.0 ppm TCE can be left remaining in site soils and amply meet the ground water performance criteria.

A review to verify the removal of VOCs other than TCE revealed that these chemicals have been completely removed utilizing the low-temperature thermal aeration except for a minimal number of instances where other VOCs, such as dichlorobenzene or tetrachloroethene, were detected at concentrations barely over detection limits.

A review of excavation perimeter sampling analysis indicates a few instances where low residual concentrations of VOCs, such as xylene or ethylbenzene, have been left remaining at the excavation perimeter. However, at these concentrations, the remaining residual constituents will not adversely impact the ground water, since estimated ground water impact levels would be orders of magnitude below any established or recommended maximum contaminant limits for drinking water.

7.2 Remediation of Petroleum Areas

Based on the review of perimeter samples of the excavation of Areas 1(a), 1(c), 2, and 9, and the review of analytical results of treated soils excavated from these areas, Canonie certifies that the soils that have been impacted by petroleum products have been remediated to levels established by U.S. EPA and MDEP as protective of public health, welfare, and the environment.

As discussed in Section 6.2, U.S. EPA and MDEP set certain treatment performance standards for the removal of Method 8020 analytes from the petroleum area soils. The Method 8020 analytes were removed completely to non-detection during the petroleum area soil aeration.

Polycyclic Aromatic Hydrocarbon (PAH) constituents were removed to levels which meet the performance criteria specified by U.S. EPA and MDEP. The results of pre-treatment and post-treatment sampling of petroleum area soils for these and other constituents is included in Appendix F. The results of PAH and TEH analysis over the duration of petroleum area soil aeration are summarized in Table 8. The frequency of the sampling and

analysis of treated batches for PAH constituents was 10 percent. During the last two weeks of petroleum area soil aeration, one PAH constituent, phenanthrene, was detected in a number of treated samples above 1 ppm. However, for the duration of petroleum area soil aeration, the average concentration of phenanthrene was 0.92 ppm, below the performance standard. Canonie summarized the Method 8270 analytical results and transmitted the data to U.S. EPA and MDEP on April 27, 1987. Canonie demonstrated in that report that the performance criteria should be applied to the project duration, and U.S. EPA and MDEP accepted the results of petroleum area soil aeration and approved backfilling of treated soil on April 30, 1987. The location of the backfilled, treated soils is illustrated on Figure 12.

No TEH standard was imposed because all chemical constituents were being verified separately by U.S. EPA Methods 8010/8020 and 8270.

The final TEH average concentration for treated petroleum area soils is approximately 110 ppm. Since the volatile and aromatic organic criteria and PAH criteria have been satisfied, and the TEH residual concentrations are well within projected limits, the petroleum area soils have been remediated to levels established by U.S. EPA and MDEP. The system was able to effectively treat soils impacted by petroleum products with the proper mixing and staging of soils, as summarized in Table 7.

7.3 Hydrocarbon Fate and Ground Water Transport

The original remedial investigation and feasibility study for the McKin site indicated that an analysis, using the SOCEM Model, requires treatment of all soils excavated with a TCE concentration of 0.1 ppm. Upon conclusion of the soil sampling and analysis phase of the site characterization verification program, Canonie reviewed the input parameters utilized in the original SOCEM model analysis. In accordance with an engineering analysis of physical parameters of the site and its soils, and after a review of available information on partitioning coefficients for TCE in soils, Canonie issued a report on July 11, 1986 concluding that only excavation

and treatment of soils containing a TCE concentration greater than 1.0 ppm was required to meet the ground water remedial criteria developed for the project. Several additional letter reports issued after the July 11, 1986 report clarified the engineering analysis completed by Canonie and presented the technical reports on research conducted by Stanford University on partitioning coefficients.

Based upon review of the reports, U.S. EPA approved the Excavation Plan submitted by Canonie. The treated and stabilized soils will restrict ground water movement and prevent infiltration, and the regrading and landscaping of the site will reduce the amount of precipitation infiltrating the site.

Concurrent with excavation of soils at the 1.0 ppm TCE contour, Canonie sampled the soils to verify that the residual TCE level in the soil was below the 1.0 ppm TCE criteria. Analysis of boreholes on the final perimeter of each designated excavation area show that residual TCE levels in the soil do not exceed the 1.0 mg/kg excavation standard. However, analytical results from a few perimeter boreholes indicated the presence of detectable levels of xylene and/or ethylbenzene. These compounds, while present in some of the soils from Areas 1(b), 3, 4, and 8, were not designated as indicator organic constituents for the purpose of defining soils to be excavated and treated. Analysis of constituent fate and transport of the xylene and/or ethylbenzene residual in the perimeter borehole soils, using the SOCEM model and corresponding input parameters, confirms that the predicted impact of ground water quality from the residual will not exceed any mandated or recommended drinking water standard.

Upon completion of the aeration of soil from Areas 1(b), 3, 4, 6, and 8, Canonie excavated and stockpiled soils from Areas 1(a), 1(c), 2, and 9. Canonie developed an excavation and treatment plan for these soils based upon published data relating to the mobility and partitioning of xylenes. Canonie anticipated that a treatment level of 1 mg/kg could be achieved in the aeration system. Therefore, Canonie analyzed the predicted impact to

ground water from a residual xylene concentration of 1 mg/kg. Xylenes were selected as the indicator compounds since xylenes were the most prevalent compounds and were the most mobile of petroleum hydrocarbons present in the petroleum area soils.

Analysis using the SOCEM model and appropriate input parameters indicated that the presence of 1 mg/kg of any hydrocarbon constituent in the untreated petroleum area soils will not result in an impact which will exceed mandated or recommended drinking water criteria at any location on the site. Post excavation sampling of Areas 1(a), 1(c), 2, and 9 indicated residual xylene concentrations of less than 1.0 mg/kg. Post-aeration analysis routinely reported residual xylene concentrations of less than 1.0 mg/kg.

8.0 SUBSEQUENT ON-SITE ACTIONS FOR PROTECTION OF PUBLIC HEALTH, WELFARE, AND ENVIRONMENT

Canonie has considered whether subsequent on-site actions are necessary to protect public health, welfare, and the environment from any release or threat of a release of hazardous substances from soils at the site. Because all soils known to contain chemical constituents exceeding U.S. EPA and MDEP soil performance standards have been removed and treated to levels established by U.S. EPA and MDEP, further on-site actions are not required.

9.0 SITE DEMOBILIZATION AND CLOSURE

Upon authorization from U.S. EPA and MDEP, the aeration system and all associated equipment were dismantled and decontaminated according to Canonie's letters to U.S. EPA and MDEP titled "Demobilization and Site Closure Activities" and "Decontamination and Disposition of Equipment" dated April 17, and May 6, 1987, respectively. These activities were conducted in accordance with decontamination procedures specified in Canonie's Closure Action Work Plan (CAP) dated October, 1985 and approved by the agencies.

Generally, each item to be decontaminated was transported to the decontamination pad where the item was triple washed with a soapy hot water, high pressure solution. The item was then inspected based on the decontamination certification criteria listed in the CAP. These criteria include visual absence of foreign substances, films, or colors and an organic vapor analyzer (OVA) screen to ensure no sources of organic vapor evolution are present. All items were properly certified as decontaminated according to the procedures, under the direction of a licensed professional engineer in the state of Maine, Mr. Timothy J. Harrington. Mr. Harrington's signed certification of the proper decontamination of items is included in Appendix G.

The decontamination rinseate solution was collected in the sump and pumped to a holding tank. Approximately 1,500 gallons were collected. The rinseate was treated with the carbon unit on-site and then sampled and analyzed. Due to a phenol concentration of approximately 2 ppm in the analyzed rinseate, the solution was incinerated at Trade Waste Incineration (TWI) for final disposal. Any other accumulated solids or sludges from the decontamination process were placed in the oily debris stockpile for final disposal at Chemical Waste Management, Emelle, Alabama.

The final disposition of equipment was accomplished according to the documents previously referenced in this section. The aeration system was decontaminated and transported off-site on May 15, 1987. Items which were decontaminated, certified, and backfilled on-site were deposited in the area of the former lagoon. This area is shown on Figure 13.

Site grading was completed, using a D-7 bulldozer, on May 8, 1987. A topographic map illustrating site elevation contours was transmitted to U.S. EPA and MDEP on May 14, 1987, and is shown on Figure 14. A sample of loam material and list of constituents in the seed mixture to be used for loaming and seeding were submitted to U.S. EPA and MDEP and approval was received for their subsequent use at the end of May, 1987. The spreading of the sandy loam to a uniform depth of four inches was completed on June 12, 1987, and hydroseeding was completed on June 17, 1987. The relatively flat (4:1) slopes and the use of a stable loam mixture and proper grass seeding will ensure that erosion-resistant conditions exist.

The remaining site closure items were completed on June 23, 1986. At that time, all drums and bulk oily debris were transported for off-site disposal. Additionally, the site has been loamed and seeded, and the remaining site trailer and equipment have been removed. The remaining items inside the perimeter fence include the decontamination pad and the buried septic tank.

All items presented in the original CAP have been completed. The area of buried drums, which was excavated and drums subsequently disposed, was addressed in a letter and transmittal of analytical results on July 2, 1986. The underground fuel oil tank was properly decommissioned, excavated, decontaminated, and reburied in the old lagoon area. The analytical results indicating non-detection of PCBs in the soils underlying the fuel oil tank is included in Appendix A.

10.0 OFF-SITE DISPOSAL OF ACCUMULATED MATERIALS

During work conducted under the original Administrative Order, a number of different waste materials were accumulated for off-site disposal. These materials include the following:

1. Two hundred and eighty drums of oily sludge were incinerated at Trade Waste Incineration (TWI) of Sauget, Illinois, a subsidiary of Chemical Waste Management.

2. One hundred and twenty drums of cut rubber hose were incinerated at SCA Chemical Services (SCA) of Chicago, Illinois, a subsidiary of Chemical Waste Management.

3. Thirteen excavated drums with residual waste oil were incinerated at TWI.

4. Twelve drums of asbestos were disposed at Chemical Waste Management of Emelle, Alabama.

5. Six hundred and sixty gallons of waste fuel oil and tank rinseate were incinerated at SCA.

The completed manifest forms for these materials are included in Appendix H. The manifest forms for Items 1 and 5 were completed to Chemical Waste Management of Model City, New York, where they were temporarily stored before their ultimate disposal. Canonie will transmit the completed forms indicating the transfer from Model City, New York to the disposal facility.

During work conducted following the original Administrative Order, additional wastes were accumulated for off-site disposal. These materials are as follows:

1. Three hundred cubic yards of oily debris were disposed at Chemical Waste Management of Emelle, Alabama.

2. Thirty-eight drums of spent HEPA filters were incinerated at TWI.

3. Twenty-nine drums of spent baghouse bags were incinerated at TWI.

4. Forty-two drums of used Tyveks, etc. were incinerated at TWI.

5. Fourteen drums of cut rubber hose were incinerated at TWI.

6. One thousand five hundred gallons of waste oil/water were incinerated at TWI.

The signed manifests from the site are included in Appendix H. The completed forms signed from the disposal facility will be forwarded to U.S. EPA and MDEP upon receipt.

In addition to the materials previously mentioned, spent vapor phase carbon used in the aeration treatment system was regenerated at Calgon Carbon Corporation's (Calgon's) reactivation facilities in Neville Island, Pennsylvania, and Columbus, Ohio. In October, 1986, approximately 30,000 pounds of carbon were reactivated, and in April, 1987, approximately 15,000 pounds of carbon were transported for reactivation. Calgon's letter indicating receipt of the carbon is included in Appendix H. The carbon analysis for total chlorinated compounds has never revealed such compounds in concentrations exceeding 1.0 percent. The 1,000 pounds of carbon used in the treatment of scrubber liquid was reactivated in May, 1987, by Adsorption Systems, Inc., of Millburn, New Jersey.

11.0 COST BREAKDOWN FOR AERATION OF SOILS

A summary of costs incurred for the aeration of soils excavated from Areas 1(b), 3, 4, 6, and 8 is included in Table 9. A summary of costs incurred for the aeration of petroleum area soils excavated from Areas 1(a), 1(c), 2, and 9 is included in Table 10.

12.0 SUMMARY

In conclusion, the following actions have been completed in the remediation of the McKin Superfund site:

1. Complete characterization of site soils to determine the extent of soils impacted and extent of remediation required, as summarized in Table 11;

2. Development of a process to aerate impacted soils while meeting site-specific air quality standards;

3. Treatment of impacted soils to concentrations within specified performance limits;

4. Verification of remaining soils using a ground water model to demonstrate that ground water performance criteria are satisfied as specified in the Record of Decision;

5. Remediation of three petroleum areas on-site utilizing the developed technology;

6. Completion of site closure activities as required in the Record of Decision and approved work plans.

Respectfully submitted,

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REFERENCES

1. Canonie Engineers, Inc., "Soil Aeration Pilot Study", report submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, April, 1986.

2. Canonie Environmental Services Corp., "Petroleum Area Soils Characterization and Remediation Analysis", report submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, January, 1987.

3. Canonie Environmental Services Corp., "Air Monitoring Reports, Petroleum Area Soil Aeration Pilot Study", report submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, March 1', April 6, and April 23, 1987.

4. Canonie Engineers, Inc., "Excavation Plan", report submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, July 11, 1986.

5. Canonie Engineers, Inc., "Soil Aeration Pilot Study Plan", report submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, October, 1985.

6. Canonie Engineers, Inc., "Health and Safety Plan", report submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, October, 1985.

7. Canonie Engineers, Inc., "Excavation, Sampling, and Analytical Verification - Petroleum Areas 1(a), 1(c), and 2", submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, March 16, 1987.

8. Canonie Environmental Services Corp., "Excavation Plan Response to Comments", report submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, September, 1986.

9. Canonie Environmental Services Corp., "Summary of GC/MS Analytical Data, Aeration of Petroleum Area Soils", submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, April 27, 1987.

10. Canonie Environmental Services Corp., "Demobilization and Site Closure Activities", submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, April 17, 1987.

11. Canonie Environmental Services Corp., "Decontamination and Disposition of Equipment", submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, May 6, 1987.

REFERENCES
(Continued)

12. Canonie Engineers, Inc., "Closure Action Work Plan", submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, October, 1985.

13. Canonie Engineers, Inc., "Transmittal of Analytical Results, Drum Area Excavation and Analysis", submitted to U.S. Environmental Protection Agency and Maine Department of Environmental Protection, July 2, 1986.

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-1	N115	E126	290	258	02-17-86	*	19
3-2	N115	E130	290	258	02-25-86	ND 0.02	19
3-3	N115	E122	290	258	03-05-86	*	19
3-4	N115	E118	290	258	03-10-86	ND 0.02	19
3-5	N115	E124	290	258	03-17-86	ND 0.05	19
3-6	N115	E128	290	258	03-20-86	ND 0.05	19
3-7	N115	E132	290	248	03-21-86		
3-8	N115	E120	290	258	03-21-86		
3-9	N113	E130	290	258	03-21-86	< 0.052	62
3-10	N113	E118	290	258	03-22-86		
3-11	N114	E123	290	258	03-22-86	< 0.055	38
3-12	N114	E131	290	254	03-24-86	< 0.05	21
3-13	N114	E119	290	258	03-25-86		
3-14	N115	E116	290	258	03-25-86		
3-15	N114	E125	290	258	03-25-86	< 0.058	57
3-16	N115	E134	290	248	03-26-86		
3-17	N114	E129	290	258	03-26-86		
3-18	N114	E121	290	258	03-26-86	< 0.051	62
3-19	N113	E124	290	258	03-27-86	ND 0.05	19
3-20	N114	E133	290	248	03-28-86		
3-21	N113	E128	290	258	03-28-86		
3-22	N113	E120	290	258	03-28-86		
3-23	N115	E136	290	248	03-28-86	< 0.05	87
3-24	N114	E127	290	258	03-31-86		
3-25	N113	E132	290	252	03-31-86		
3-26	N113	E122	290	258	03-31-86	< 0.066	60
3-27	N113	E126	290	258	04-01-86	< 0.058	19
3-28	N112	E129	290	258	04-02-86		
3-29	N114	E117	290	258	04-02-86		
3-30	N112	E119	290	261	04-02-86	< 0.056	55
3-31	N112	E131	290	261	04-03-86		
3-32	N112	E123	290	261	04-03-86		
3-33	N112	E127	290	261	04-03-86		
3-34	N114	E135	290	261	04-03-86	ND 0.05	68
3-35	N112	E117	290	264	04-04-86		
3-36	N112	E125	290	261	04-04-86	ND 0.05	32
3-37	N112	E133	290	261	05-14-86	ND 0.05	17
3-38	N112	E121	290	261	05-15-86	ND 0.02	17
3-39	N111	E114	290	265	05-20-86	ND 0.02	15

*Soil was processed during the soil aeration pilot study.

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-40	N113	E134	290	258	07-08-86		
3-41	N111	E132	290	265	07-08-86		
3-42	N111	E128	290	265	07-08-86		
3-43	N111	E124	290	265	07-08-86	ND 0.02	63
3-44	N111	E120	290	265	07-09-86		
3-45	N111	E116	290	265	07-09-86	< 0.033	29
3-46	N112	E135	290	260	07-10-86		
3-47	N111	E130	290	265	07-10-86		
3-48	N111	E126	290	265	07-10-86		
3-49	N111	E122	290	265	07-10-86		
3-50	N111	E118	290	264	07-10-86	ND 0.02	77
3-51	N116	E117	290	265	07-11-86		
3-52	N116	E121	290	265	07-11-86		
3-53	N116	E125	290	265	07-11-86	< 0.03	44
3-54	N116	E129	290	260	07-14-86		
3-55	N116	E133	290	255	07-14-86		
3-56	N116	E115	290	265	07-14-86		
3-57	N116	E119	290	265	07-14-86	< 0.03	68
3-58	N116	E123	290	265	07-15-86		
3-59	N116	E127	290	265	07-15-86		
3-60	N116	E131	290	260	07-15-86		
3-61	N114	E115	290	280	07-15-86		
3-62	N117	E116	290	265	07-15-86		
3-63	N117	E120	290	265	07-15-86	< 0.025	82
3-64	N117	E124	290	265	07-16-86		
3-65	N117	E128	290	260	07-16-86		
3-66	N117	E132	290	255	07-16-86		
3-67	N117	E118	290	265	07-16-86	ND 0.02	68
3-68	N117	E122	290	265	07-17-86		
3-69	N117	E126	290	265	07-17-86	ND 0.02	29
3-70	N117	E130	290	260	07-18-86		
3-71	N117	E134	290	255	07-18-86	ND 0.02	38
3-72	N118	E117	290	265	07-21-86		
3-73	N118	E121	290	265	07-21-86		
3-74	N118	E125	290	265	07-21-86		
3-75	N118	E129	290	265	07-21-86		
3-76	N118	E133	290	255	07-21-86	ND 0.02	80
3-77	N118	E119	290	265	07-22-86		
3-78	N118	E123	290	265	07-22-86		
3-79	N118	E127	290	265	07-22-86		
3-80	N119	E118	290	265	07-22-86	ND 0.02	59

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-81	N119	E122	290	265	07-23-86		
3-82	N119	E126	290	265	07-23-86		
3-83	N119	E130	290	260	07-23-86	ND 0.02	47
3-84	N118	E131	290	255	07-25-86	ND 0.02	21
3-85	N119	E120	290	265	07-26-86		
3-86	N119	E124	290	265	07-26-86		
3-87	N119	E128	290	265	07-26-86		
3-88	N118	E135	290	255	07-26-86		
3-89	N119	E116	290	280	07-26-86		
3-90	N119	E122	290	265	07-26-86	ND 0.02	85
3-91	N119	E126	290	265	07-28-86		
3-92	N119	E130	290	260	07-28-86		
3-93	N119	E134	290	255	07-28-86		
3-94	N119	E120	290	265	07-28-86	< 0.041	68
3-95	N119	E124	290	265	07-29-86		
3-96	N119	E128	290	265	07-29-86		
3-97	N119	E132	290	260	07-29-86		
3-98	N119	E130	290	260	07-29-86		
3-99	N119	E136	290	255	07-29-86	ND 0.02	85
3-100	N119	E128	290	265	07-30-86		
3-101	N120	E117	290	280	07-30-86		
3-102	N120	E121	290	265	07-30-86		
3-103	N120	E125	290	265	07-30-86	ND 0.02	50
3-104	N119	E132	290	260	07-31-86		
3-105	N120	E119	290	260	07-31-86		
3-106	N120	E123	290	265	07-31-86		
3-107	N120	E127	290	265	07-31-86		
3-108	N120	E131	290	260	07-31-86		
3-109	N120	E135	290	260	07-31-86		
3-110	N121	E118	290	280	07-31-86	ND 0.02	103
3-111	N121	E122	290	265	08-01-86		
3-112	N121	E126	290	260	08-01-86		
3-113	N120	E129	290	260	08-01-86		
3-114	N120	E133	290	260	08-01-86		
3-115	N121	E120	290	280	08-01-86		
3-116	N121	E124	290	265	08-01-86	ND 0.02	88
3-117	N121	E128	290	260	08-04-86		
3-118	N121	E132	290	260	08-04-86		
3-119	N121	E136	290	260	08-04-86		
3-120	N122	E119	290	280	08-04-86		
3-121	N122	E123	290	280	08-04-86	ND 0.02	65

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-122	N122	E127	290	260	08-05-86		
3-123	N122	E131	290	260	08-05-86		
3-124	N122	E135	290	260	08-05-86		
3-125	N122	E125	290	265	08-05-86		
3-126	N122	E121	290	280	08-05-86		
3-127	N122	E129	290	260	08-05-86	ND 0.02	91
3-128	N122	E133	290	260	08-06-86		
3-129	N123	E122	290	280	08-06-86		
3-130	N118	E133	290	255	08-06-86		
3-131	N116	E135	290	255	08-06-86		
3-132	N123	E132	290	260	08-06-86		
3-133	N123	E128	290	260	08-06-86		
3-134	N123	E124	290	280	08-06-86	ND 0.02	106
3-135	N123	E126	290	280	08-07-86		
3-136	N123	E130	290	260	08-07-86		
3-137	N117	E134	290	255	08-07-86	ND 0.02	44
3-138	N121	E131	290	260	08-08-86		
3-139	N121	E130	290	260	08-08-86		
3-140	N110	E119	290	265	08-08-86		
3-141	N110	E123	290	265	08-08-86		
3-142	N110	E127	290	265	08-08-86		
3-143	N108	E125	290	265	08-08-86		
3-144	N108	E121	290	275	08-08-86		
3-145	N108	E117	290	275	08-08-86	ND 0.02	112
3-146	N110	E125	290	265	08-11-86		
3-147	N110	E121	290	265	08-11-86		
3-148	N110	E117	290	275	08-11-86		
3-149	N108	E123	290	265	08-11-86		
3-150	N108	E119	290	275	08-11-86		
3-151	N118	E135	290	255	08-11-86		
3-152	N116	E137	290	255	08-11-86		
3-153	N109	E116	290	275	08-11-86		
3-154	N109	E120	290	265	08-11-86	ND 0.02	127
3-155	N109	E118	290	275	08-12-86		
3-156	N109	E122	290	265	08-12-86		
3-157	N109	E126	290	265	08-12-86		
3-158	N117	E136	290	255	08-12-86		
6-1	N122	E124	287.5	261.5	08-12-86	ND 0.02	74

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
6-2	N122	E120	287.5	265.5	08-13-86		
6-3	N120	E128	287.5	267.5	08-13-86		
6-4	N120	E124	287.5	266.5	08-13-86	ND 0.02	37
6-5	N120	E118	287.5	267.5	08-15-86		
6-6	N122	E126	287.5	265.5	08-15-86		
6-7	N122	E122	287.5	262.5	08-15-86		
6-8	N120	E112	287.5	266.5	08-15-86	ND 0.02	52
6-9	N121	E127	287.5	268.5	08-18-86		
6-10	N121	E121	287.5	265.5	08-18-86		
6-11	N118	E128	287.5	269.5	08-18-86		
6-12	N118	E122	287.5	267.5	08-18-86		
6-13	N118	E118	287.5	266.5	08-18-86		
6-14	N118	E114	287.5	266.5	08-18-86	ND 0.02	71
6-15	N121	E125	287.5	264.5	08-20-86		
6-16	N121	E119	287.5	266.5	08-20-86		
6-17	N120	E114	287.5	266.5	08-20-86		
6-18	N118	E116	287.5	266.5	08-20-86		
6-19	N118	E120	287.5	266.5	08-20-86	ND 0.02	63
6-20	N121	E117	287.5	274.5	08-21-86		
6-21	N121	E123	287.5	261.5	08-21-86		
6-22	N119	E127	287.5	266.5	08-21-86		
6-23	N119	E113	287.5	266.5	08-21-86		
6-24	N119	E109	287.5	267.5	08-21-86		
6-25	N119	E119	287.5	266.5	08-21-86	ND 0.02	72
6-26	N119	E111	287.5	267.5	08-22-86		
6-27	N120	E126	287.5	265.5	08-22-86		
6-28	N120	E122	287.5	277.5	08-22-86		
6-29	N120	E116	287.5	276.5	08-22-86		
6-30	N117	E127	287.5	282.5	08-22-86		
6-31	N117	E123	287.5	281.5	08-22-86		
6-32	N117	E119	287.5	267.5	08-22-86		
6-33	N117	E115	287.5	267.5	08-22-86		
6-34	N117	E111	287.5	267.5	08-22-86		
6-35	N120	E120	287.5	269.5	08-22-86	ND 0.02	90
6-36	N119	E115	287.5	267.5	08-23-86		
6-37	N119	E121	287.5	269.5	08-23-86		
6-38	N119	E125	287.5	279.5	08-23-86		
6-39	N118	E106	287.5	274.5	08-23-86		
6-40	N117	E125	287.5	279.5	08-23-86		
6-41	N117	E121	287.5	267.5	08-23-86		
6-42	N117	E117	287.5	267.5	08-23-86		

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
6-43	N117	E113	287.5	266.5	08-23-86		
6-44	N117	E109	287.5	266.5	08-23-86	ND 0.07	87
6-45	N117	E105	287.5	267.5	08-25-86		
6-46	N119	E123	287.5	274.5	08-25-86		
6-47	N118	E126	287.5	279.5	08-25-86		
6-48	N119	E117	287.5	265.5	08-25-86		
6-49	N118	E124	287.5	279.5	08-25-86		
6-50	N118	E112	287.5	267.5	08-25-86	ND 0.02	54
6-51	N118	E108	287.5	267.5	08-27-86		
6-52	N116	E124	287.5	279.5	08-27-86	ND 0.02	17
6-53	N118	E110	287.5	267.5	08-28-86		
6-54	N116	E120	287.5	267.5	08-28-86		
6-55	N116	E116	287.5	267.5	08-28-86		
6-56	N116	E112	287.5	266.5	08-28-86		
6-57	N116	E108	287.5	265.5	08-28-86		
6-58	N114	E122	287.5	266.5	08-28-86		
6-59	N114	E118	287.5	267.5	08-28-86		
6-60	N116	E118	287.5	267.5	08-28-86	ND 0.02	97
6-61	N116	E106	287.5	266.5	08-29-86		
	N117	E107	287.5	266.5	08-29-86		
6-62	N116	E110	287.5	268.5	08-29-86		
6-63	N116	E114	287.5	266.5	08-29-86		
6-64	N116	E122	287.5	267.5	08-29-86		
6-65	N115	E126	287.5	267.5	08-29-86		
6-66	N115	E119	287.5	267.5	08-29-86		
6-67	N114	E106	287.5	266.5	08-29-86	ND 0.02	96
6-68	N115	E123	287.5	267.5	09-02-86		
6-69	N115	E115	287.5	267.5	09-02-86		
6-70	N115	E111	287.5	266.5	09-02-86		
6-71	N114	E120	287.5	267.5	09-02-86	ND 0.02	48
6-72	N115	E121	287.5	267.5	09-03-86		
6-73	N115	E117	287.5	267.5	09-03-86		
6-74	N115	E113	287.5	267.5	09-03-86		
6-75	N113	E121	287.5	267.5	09-03-86		
6-76	N115	E109	287.5	267.5	09-03-86		
6-77	N113	E117	287.5	267.5	09-03-86		
6-78	N113	E113	287.5	267.5	09-03-86	ND 0.02	82

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-159	N134	E161	260	250	09-04-86		
3-160	N134	E157	260	246	09-04-86		
3-161	N134	E153	260	246	09-04-86		
3-162	N134	E149	260	250	09-04-86		
3-163	N134	E145	260	250	09-04-86		
3-164	N132	E161	260	250	09-04-86		
3-165	N132	E157	260	250	09-04-86		
3-166	N132	E153	260	250	09-04-86	ND 0.02	52
3-167	N134	E159	260	245	09-05-86		
3-168	N134	E155	260	246	09-05-86		
3-169	N134	E151	260	250	09-05-86		
3-170	N134	E147	260	250	09-05-86		
3-171	N134	E143	260	250	09-05-86		
3-172	N132	E159	260	250	09-05-86		
3-173	N132	E155	260	250	09-05-86		
3-174	N132	E151	260	250	09-05-86		
3-175	N132	E147	260	250	09-05-86	ND 0.02	58
3-176	N133	E144	260	250	09-08-86		
3-177	N133	E148	260	250	09-08-86		
3-178	N133	E152	260	250	09-08-86		
3-179	N133	E156	260	245	09-08-86		
3-180	N133	E160	260	250	09-08-86		
3-181	N131	E162	260	250	09-08-86		
3-182	N131	E154	260	250	09-08-86		
3-183	N131	E150	260	250	09-08-86	ND 0.02	50
3-184	N133	E162	260	250	09-09-86		
3-185	N133	E158	260	250	09-09-86		
3-186	N133	E154	260	250	09-09-86		
3-187	N133	E150	260	250	09-09-86		
3-188	N133	E146	260	250	09-09-86	ND 0.02	29
3-189	N133	E142	260	250	09-10-86		
3-190	N131	E140	260	250	09-10-86		
3-191	N131	E144	260	250	09-10-86		
3-192	N131	E148	260	250	09-10-86	ND 0.02	24
3-193	N135	E148	260	250	09-11-86		
3-194	N135	E152	260	245	09-11-86		
3-195	N135	E156	260	245	09-11-86		
3-196	N135	E160	260	245	09-11-86		
3-197	N131	E160	260	250	09-11-86		
3-198	N131	E156	260	250	09-11-86		
3-199	N131	E152	260	250	09-11-86		
3-200	N131	E146	260	250	09-11-86		
3-201	N131	E142	260	250	09-11-86		

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-202	N129	E140	260	250	09-11-86		
3-203	N129	E144	265	250	09-11-86		
3-204	N129	E148	265	250	09-11-86		
3-205	N129	E152	265	250	09-11-86	ND 0.02	94
3-206	N135	E146	260	250	09-12-86		
3-207	N135	E150	260	250	09-12-86		
3-208	N135	E154	260	245	09-12-86		
3-209	N135	E158	260	245	09-12-86		
3-210	N130	E139	260	250	09-12-86		
3-211	N130	E143	260	250	09-12-86		
3-212	N130	E147	260	250	09-12-86		
3-213	N130	E151	260	250	09-12-86		
3-214	N130	E155	260	250	09-12-86		
3-215	N130	E159	260	250	09-12-86		
3-216	N132	E141	260	250	09-12-86		
3-217	N132	E145	260	250	09-12-86		
3-218	N132	E149	260	250	09-12-86	< 0.025	82
3-219	N130	E157	260	250	09-13-86		
3-220	N130	E153	260	250	09-13-86		
3-221	N132	E143	260	250	09-13-86		
3-222	N130	E141	260	250	09-13-86		
3-223	N130	E145	260	250	09-13-86		
3-224	N130	E149	260	250	09-13-86		
3-225	N128	E139	260	250	09-13-86		
3-226	N128	E143	265	250	09-13-86		
3-227	N128	E147	265	250	09-13-86		
3-228	N128	E151	265	250	09-13-86		
3-229	N128	E155	260	250	09-13-86	< 0.02	74
3-230	N131	E158	260	250	09-15-86		
3-231	N129	E138	260	250	09-15-86		
3-232	N129	E142	260	250	09-15-86		
3-233	N129	E146	265	250	09-15-86		
3-234	N129	E150	265	250	09-15-86		
3-235	N129	E156	260	250	09-15-86		
3-236	N127	E138	270	260	09-15-86		
3-237	N127	E142	270	250	09-15-86		
3-238	N127	E146	265	250	09-15-86		
3-239	N127	E150	265	250	09-15-86		
3-240	N127	E154	265	250	09-15-86		
3-241	N127	E134	270	260	09-15-86	< 0.022	91

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-242	N128	E141	260	250	09-16-86		
3-243	N128	E145	265	250	09-16-86		
3-244	N128	E149	265	250	09-16-86		
3-245	N128	E153	265	250	09-16-86		
3-246	N126	E153	265	255	09-16-86		
3-247	N126	E149	265	250	09-16-86		
3-248	N126	E141	270	255	09-16-86		
3-249	N126	E145	270	250	09-16-86	ND 0.02	68
3-250	N129	E154	260	250	09-17-86		
3-251	N126	E133	270	260	09-17-86		
3-252	N126	E137	270	260	09-17-86		
3-253	N127	E144	265	250	09-17-86		
3-254	N127	E148	265	250	09-17-86		
3-255	N127	E152	265	250	09-17-86		
3-256	N127	E140	270	250	09-17-86		
3-257	N125	E154	265	255	09-17-86		
3-258	N125	E150	265	255	09-17-86		
3-259	N125	E146	270	250	09-17-86		
3-260	N125	E142	270	255	09-17-86		
3-261	N125	E138	270	260	09-17-86		
3-262	N125	E134	270	260	09-17-86		
3-263	N125	E130	270	260	09-17-86	ND 0.02	106
3-264	N126	E151	265	250	09-18-86		
3-265	N126	E147	265	250	09-18-86		
3-266	N126	E143	270	250	09-18-86		
3-267	N126	E139	270	260	09-18-86		
3-268	N126	E135	270	260	09-18-86		
3-269	N126	E131	270	260	09-18-86		
3-270	N132	E163	260	250	09-18-86	ND 0.02	53
3-271	N125	E152	265	255	09-19-86		
3-272	N125	E148	265	250	09-19-86		
3-273	N125	E144	270	250	09-19-86		
3-274	N125	E140	270	260	09-19-86		
3-275	N125	E136	270	260	09-19-86		
3-276	N125	E132	270	260	09-19-86		
3-277	N127	E136	270	260	09-19-86	ND 0.02	50

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-278	N124	E131	270	260	10-20-86		
3-279	N124	E135	270	260	10-20-86		
3-280	N124	E139	270	260	10-20-86		
3-281	N124	E143	270	255	10-20-86		
3-282	N124	E147	270	255	10-20-86		
3-283	N124	E151	265	255	10-20-86		
3-284	N129	E158	270	250	10-20-86		
3-285	N122	E153	265	255	10-20-86		
3-286	N122	E137	270	260	10-20-86	ND 0.02	65
3-287	N122	E141	270	260	10-21-86		
3-288	N122	E145	270	255	10-21-86		
3-289	N122	E149	270	255	10-21-86		
3-290	N124	E133	270	260	10-21-86		
3-291	N124	E137	270	260	10-21-86		
3-292	N124	E141	270	260	10-21-86		
3-293	N124	E145	270	255	10-21-86		
3-294	N124	E149	270	255	10-21-86		
3-295	N124	E153	265	255	10-21-86		
3-296	N136	E159	260	245	10-21-86		
3-297	N136	E155	260	245	10-21-86	< 0.05	83
3-298	N136	E153	260	245	10-22-86		
3-299	N136	E149	260	250	10-22-86		
3-300	N123	E134	270	260	10-22-86		
3-301	N123	E138	270	260	10-22-86		
3-302	N123	E142	270	255	10-22-86		
3-303	N123	E146	270	255	10-22-86		
3-304	N123	E150	270	255	10-22-86		
3-305	N123	E154	270	255	10-22-86		
3-306	N121	E138	270	260	10-22-86		
3-307	N121	E142	270	255	10-22-86		
3-308	N121	E146	270	255	10-22-86	< 0.022	85
3-309	N122	E139	270	260	10-23-86		
3-310	N122	E143	270	255	10-23-86		
3-311	N122	E147	270	255	10-23-86		
3-312	N122	E151	270	255	10-23-86		
3-313	N136	E151	260	245	10-23-86		
3-314	N136	E157	260	245	10-23-86		
3-315	N130.5	E128	265	250	10-23-86	ND 0.02	59

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-316	N131.5	E130	260	250	10-24-86		
3-317	N123	E136	270	260	10-24-86		
3-318	N123	E140	270	260	10-24-86		
3-319	N123	E144	270	255	10-24-86		
3-320	N123	E148	270	255	10-24-86		
3-321	N123	E152	270	255	10-24-86		
3-322	N121	E140	270	260	10-24-86		
3-323	N121	E144	270	255	10-24-86		
3-324	N121	E148	270	255	10-24-86		
3-325	N121	E152	270	255	10-24-86		
3-326	N130.5	E130	260	250	10-24-86		
3-327	N131.5	E128	260	250	10-24-86	< 0.02	88
3-328	N121	E150	265	255	10-27-86		
3-329	N124	E129	270	260	10-27-86		
3-330	N130	E137	260	250	10-27-86		
6-79	N115	E105	287.5	262.5	10-27-86		
6-80	N114	E112	287.5	262.5	10-27-86		
6-81	N114	E116	287.5	262.5	10-27-86		
6-82	N114	E108	287.5	262.5	10-27-86	< 0.025	77
6-83	N114	E114	287.5	262.5	10-28-86		
6-84	N112	E112	287.5	262.5	10-28-86		
6-85	N112	E116	287.5	262.5	10-28-86		
6-86	N112	E120	287.5	262.5	10-28-86		
6-87	N112	E108	272.5	262.5	10-28-86		
6-88	N114	E110	287.5	262.5	10-28-86	ND 0.02	80
6-89	N115	E107	287.5	262.5	10-29-86		
6-90	N113	E119	287.5	262.5	10-29-86		
6-91	N113	E115	287.5	262.5	10-29-86		
6-92	N111	E113	287.5	262.5	10-29-86		
6-93	N111	E117	287.5	262.5	10-29-86		
6-94	N111	E121	287.5	262.5	10-29-86		
6-95	N113	E111	287.5	262.5	10-29-86		
6-96	N113	E107	272.5	262.5	10-29-86		
	N113	E109	287.5	262.5	10-29-86	ND 0.02	124
6-97	N111	E119	287.5	262.5	10-30-86	ND 0.02	15
6-98	N111	E115	287.5	262.5	10-31-86		
6-99	N111	E111	272.5	262.5	10-31-86		
6-100	N109	E117	287.5	262.5	10-31-86		
	N109	E119	287.5	262.5	10-31-86		
6-101	N109	E121	272.5	262.5	10-31-86		
6-102	N127	E118	287.5	277.5	10-31-86		

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
6-103	N126	E126	287.5	277.5	10-31-86		
6-104	N125	E118	287.5	277.5	10-31-86		
6-105	N127	E122	287.5	277.5	10-31-86		
6-106	N125	E126	287.5	277.5	10-31-86		
6-107	N125	E122	287.5	277.5	10-31-86	< 0.02	91
3-331	N132.5	E127	265	250	11-01-86		
3-332	N133.5	E129	265	250	11-01-86	ND 0.02	18
3-333	N132.5	E131	265	250	11-03-86		
6-108	N110	E120	287.5	262.5	11-03-86		
6-109	N110	E116	287.5	262.5	11-03-86		
6-110	N110	E112	272.5	262.5	11-03-86		
6-111	N127	E124	287.5	277.5	11-03-86		
	N126	E124	287.5	277.5	11-03-86		
	N126	E122	287.5	277.5	11-03-86		
	N126	E120	287.5	277.5	11-03-86		
6-112	N127	E120	287.5	277.5	11-03-86		
6-113	N123	E126	287.5	277.5	11-03-86		
6-114	N123	E122	287.5	277.5	11-03-86		
6-115	N123	E118	287.5	277.5	11-03-86		
6-116	N108	E138	287.5	277.5	11-03-86		
6-117	N108	E134	287.5	277.5	11-03-86		
6-118	N110	E138	287.5	277.5	11-03-86		
6-119	N110	E134	287.5	277.5	11-03-86	< 0.02	115
6-120	N128	E117	287.5	277.5	11-04-86		
6-121	N128	E121	287.5	277.5	11-04-86		
6-122	N128	E125	287.5	277.5	11-04-86		
	N128	E123	287.5	277.5	11-04-86		
6-123	N125	E116	287.5	277.5	11-04-86		
6-124	N125	E120	287.5	277.5	11-04-86		
6-125	N125	E124	287.5	277.5	11-04-86		
6-126	N125	E128	287.5	277.5	11-04-86		
6-127	N112	E118	287.5	262.5	11-04-86		
6-128	N112	E114	287.5	262.5	11-04-86		
6-129	N112	E110	272.5	262.5	11-04-86		
6-130	N108	E136	287.5	277.5	11-04-86		
6-131	N110	E136	287.5	277.5	11-04-86		
6-132	N114	E136	277.5	267.5	11-04-86		
6-133	N115	E133	277.5	267.5	11-04-86	ND 0.02	106
6-134	N116	E136	277.5	267.5	11-05-86		
6-135	N115	E139	277.5	267.5	11-05-86	ND 0.02	12

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
6-136	N128	E119	287.5	277.5	11-07-86		
6-137	N126	E117	287.5	277.5	11-07-86		
6-138	N126	E127	287.5	277.5	11-07-86		
6-139	N124	E127	287.5	277.5	11-07-86		
6-140	N124	E123	287.5	277.5	11-07-86		
	N124	E125	287.5	277.5	11-07-86		
6-141	N124	E119	287.5	277.5	11-07-86		
6-142	N124	E115	287.5	277.5	11-07-86		
6-143	N109	E115	272.5	262.5	11-07-86		
6-144	N104	E136	277.5	267.5	11-07-86		
	N104	E134	277.5	267.5	11-07-86		
6-145	N105	E133	277.5	267.5	11-07-86		
6-146	N109	E135	287.5	277.5	11-07-86		
6-147	N112	E136	287.5	277.5	11-07-86		
6-148	N114	E134	277.5	267.5	11-07-86	ND 0.02	94
6-149	N104	E138	277.5	267.5	11-10-86		
6-150	N106	E134	277.5	267.5	11-10-86		
6-151	N109	E137	287.5	277.5	11-10-86		
6-152	N111	E137	287.5	277.5	11-10-86		
6-153	N116	E134	277.5	267.5	11-10-86		
6-154	N116	E138	277.5	267.5	11-10-86		
6-155	N114	E138	277.5	267.5	11-10-86		
6-156	N129	E121	287.5	277.5	11-10-86		
6-157	N126	E129	287.5	277.5	11-10-86		
6-158	N123	E124	287.5	277.5	11-10-86		
6-159	N123	E120	287.5	277.5	11-10-86		
6-160	N123	E116	287.5	277.5	11-10-86		
6-161	N110	E122	272.5	262.5	11-10-86		
6-162	N110	E114	272.5	262.5	11-10-86	ND 0.02	83
6-163	N105	E137	277.5	267.5	11-11-86		
	N105	E135	277.5	267.5	11-11-86		
6-164	N115	E135	277.5	267.5	11-11-86		
6-165	N117	E135	277.5	267.5	11-11-86		
6-166	N111	E135	287.5	277.5	11-11-86		
6-167	N110	E118	287.5	262.5	11-11-86		
6-168	N124	E121	287.5	277.5	11-11-86		
6-169	N124	E117	287.5	277.5	11-11-86		
6-170	N125	E114	287.5	277.5	11-11-86	ND 0.02	62

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
6-171	N106	E136	277.5	267.5	11-12-86		
6-172	N115	E137	277.5	267.5	11-12-86		
3-334	N104	E145	275	265	11-12-86		
3-335	N104	E149	275	265	11-12-86		
3-336	N106	E145	275	265	11-12-86		
3-337	N106	E149	275	265	11-12-86		
3-338	N108	E143	275	265	11-12-86		
3-339	N108	E147	275	260	11-12-86		
3-340	N108	E151	270	260	11-12-86		
3-341	N108	E157	270	260	11-12-86		
3-342	N108	E161	270	260	11-12-86		
3-343	N108	E165	270	260	11-12-86		
3-344	N104	E147	275	265	11-12-86		
3-345	N106	E147	275	265	11-12-86		
3-346	N106	E151	275	265	11-12-86	ND 0.02	91
3-347	N105	E144	275	265	11-13-86		
3-348	N105	E148	275	265	11-13-86		
3-349	N107	E144	275	265	11-13-86		
3-350	N107	E148	275	260	11-13-86		
3-351	N108	E153	270	260	11-13-86		
3-352	N108	E159	270	260	11-13-86		
3-353	N108	E163	270	260	11-13-86		
3-354	N108	E167	270	260	11-13-86		
3-355	N108	E171	270	260	11-13-86		
3-356	N108	E175	270	260	11-13-86		
3-357	N105	E146	275	265	11-13-86		
3-358	N105	E150	275	265	11-13-86		
3-359	N107	E146	275	265	11-13-86		
3-360	N107	E150	275	260	11-13-86		
3-361	N110	E137	275	270	11-13-86		
3-362	N110	E141	270	260	11-13-86		
3-363	N110	E145	275	260	11-13-86	ND 0.02	106
3-364	N108	E145	275	260	11-14-86		
3-365	N108	E149	275	260	11-14-86		
3-366	N108	E173	270	260	11-14-86		
3-367	N108	E169	270	260	11-14-86		
3-368	N110	E139	275	270	11-14-86	ND 0.02	32

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-369	N110	E143	275	260	11-18-86		
3-370	N110	E147	275	260	11-18-86		
3-371	N110	E151	270	260	11-18-86		
3-372	N110	E155	270	260	11-18-86		
3-373	N110	E159	270	260	11-18-86		
3-374	N110	E171	270	260	11-18-86		
3-375	N110	E167	270	260	11-18-86		
3-376	N110	E163	270	260	11-18-86	ND 0.02	53
3-377	N110	E175	275	260	11-19-86		
3-378	N110	E179	275	270	11-19-86		
3-379	N109	E142	270	260	11-19-86	ND 0.02	18
3-380	N109	E146	275	260	11-20-86		
3-381	N109	E150	275	260	11-20-86		
3-382	N110	E165	270	260	11-20-86		
3-383	N110	E169	270	260	11-20-86		
3-384	N110	E153	270	260	11-20-86		
3-385	N112	E137	275	260	11-20-86		
3-386	N112	E141	275	260	11-20-86		
3-387	N112	E145	275	260	11-20-86		
3-388	N112	E149	270	260	11-20-86		
3-389	N112	E171	270	260	11-20-86		
3-390	N112	E167	270	260	11-20-86		
3-391	N112	E163	270	260	11-20-86		
3-392	N112	E159	270	260	11-20-86		
3-393	N114	E137	275	260	11-20-86		
3-394	N118	E137	275	260	11-20-86	< 0.02	109
3-395	N109	E144	275	260	11-24-86		
3-396	N109	E148	275	260	11-24-86		
3-397	N109	E152	270	260	11-24-86		
3-398	N109	E156	270	260	11-24-86		
3-399	N109	E160	270	260	11-24-86		
3-400	N109	E164	270	260	11-24-86		
3-401	N109	E168	270	260	11-24-86		
3-402	N109	E172	270	260	11-24-86		
3-403	N109	E176	275	260	11-24-86	ND 0.02	62

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-404	N112	E139	275	260	11-25-86		
3-405	N109	E178	275	270	11-25-86		
3-406	N109	E154	270	260	11-25-86		
3-407	N109	E174	275	260	11-25-86		
3-408	N109	E170	270	260	11-25-86		
3-409	N109	E166	270	260	11-25-86		
3-410	N109	E158	270	260	11-25-86		
3-411	N109	E162	270	260	11-25-86		
3-412	N112	E143	275	260	11-25-86		
3-413	N112	E147	275	260	11-25-86		
3-414	N111	E178	275	270	11-25-86		
3-415	N111	E174	275	260	11-25-86		
3-416	N111	E170	270	260	11-25-86		
3-417	N111	E166	270	260	11-25-86		
3-418	N111	E162	270	260	11-25-86		
3-419	N111	E158	270	260	11-25-86		
3-420	N112	E151	270	260	11-25-86	ND 0.02	109
3-421	N111	E136	275	265	11-26-86		
3-422	N111	E140	275	260	11-26-86		
3-423	N111	E144	275	260	11-26-86		
3-424	N111	E148	275	260	11-26-86		
3-425	N111	E172	275	260	11-26-86		
3-426	N111	E176	275	260	11-26-86		
3-427	N111	E180	275	270	11-26-86		
3-428	N111	E152	270	260	11-26-86		
3-429	N111	E168	270	260	11-26-86		
3-430	N113	E136	275	260	11-26-86		
3-431	N113	E140	275	260	11-26-86	ND 0.02	83
3-432	N110	E157	270	260	11-28-86		
3-433	N110	E161	270	260	11-28-86		
3-434	N110	E173	275	260	11-28-86		
3-435	N110	E177	275	260	11-28-86		
3-436	N110	E181	275	270	11-28-86		
3-437	N111	E138	275	260	11-28-86		
3-438	N111	E142	275	260	11-28-86		
3-439	N111	E146	275	260	11-28-86		
3-440	N111	E150	270	260	11-28-86		
3-441	N112	E169	270	260	11-28-86		
3-442	N112	E165	270	260	11-28-86	ND 0.02	77

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-443	N104	E143	275	265	12-01-86		
3-444	N103	E148	275	265	12-01-86		
3-445	N104	E151	275	265	12-01-86		
3-446	N112	E161	270	260	12-01-86		
3-447	N110	E149	275	260	12-01-86	ND 0.02	32
3-448	N103	E146	275	265	12-02-86		
3-449	N103	E150	275	265	12-02-86		
3-450	N111	E164	270	260	12-02-86		
3-451	N111	E160	270	260	12-02-86		
3-452	N112	E178	275	270	12-02-86		
3-453	N109	E140	275	260	12-02-86		
3-454	N113	E138	275	260	12-02-86		
3-455	N113	E142	275	260	12-02-86	ND 0.02	53
3-456	N114	E139	275	260	12-04-86		
3-457	N114	E143	275	255	12-04-86		
3-458	N114	E147	265	255	12-04-86		
3-459	N116	E147	265	255	12-04-86		
3-460	N116	E151	265	255	12-04-86		
3-461	N116	E139	275	255	12-04-86		
3-462	N116	E143	270	255	12-04-86		
3-463	N118	E139	275	255	12-04-86		
3-464	N120	E139	270	260	12-04-86	< 0.02	77
3-465	N102	E147	275	265	12-05-86		
3-466	N103	E144	275	265	12-05-86		
3-467	N120	E141	270	255	12-05-86		
3-468	N120	E149	265	255	12-05-86		
3-469	N120	E153	265	255	12-05-86		
3-470	N120	E145	270	255	12-05-86		
3-471	N118	E141	270	255	12-05-86		
3-472	N118	E153	265	255	12-05-86		
3-473	N118	E149	265	255	12-05-86		
3-474	N118	E145	270	255	12-05-86		
3-475	N107	E153	275	260	12-05-86	< 0.032	80
3-476	N120	E143	270	255	12-08-86		
3-477	N120	E147	265	255	12-08-86		
3-478	N120	E151	265	255	12-08-86		
3-479	N118	E143	270	255	12-08-86		
3-480	N118	E151	265	255	12-08-86		
3-481	N102	E145	275	265	12-08-86		
3-482	N118	E147	265	255	12-08-86		
3-483	N116	E141	275	255	12-08-86		
3-484	N116	E145	270	255	12-08-86		
3-485	N111	E134	275	265	12-08-86	ND 0.02	74

TABLE 1

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 3 AND 6
(Continued)

Area-Caisson Boring Number	Location		Treated Soil Beginning Elevation	Treated Soil Ending Elevation	Date Excavated	Post-Treatment Daily Avg. TCE Conc. (ppm)	Daily Treated Volume (cu. yds)
3-486	N102	E143	275	265	12-09-86		
3-487	N110	E135	275	270	12-09-86		
3-488	N119	E138	270	260	12-09-86		
3-489	N119	E142	270	255	12-09-86		
3-490	N119	E146	265	255	12-09-86		
3-491	N119	E150	265	255	12-09-86		
3-492	N117	E138	275	255	12-09-86		
3-493	N117	E142	270	255	12-09-86		
3-494	N117	E146	265	255	12-09-86		
3-495	N117	E150	265	255	12-09-86	ND 0.02	68
3-496	N103	E142	275	265	12-10-86		
3-497	N115	E146	265	255	12-10-86		
3-498	N115	E142	275	255	12-10-86		
3-499	N115	E138	275	260	12-10-86		
3-500	N115	E150	265	255	12-10-86		
3-501	N117	E144	270	255	12-10-86		
3-502	N117	E148	265	255	12-10-86		
3-503	N117	E152	265	255	12-10-86		
3-504	N117	E140	275	255	12-10-86	ND 0.02	71
3-505	N114	E141	275	260	12-11-86		
3-506	N114	E145	275	255	12-11-86		
3-507	N114	E149	265	255	12-11-86		
3-508	N116	E149	265	255	12-11-86		
3-509	N119	E152	265	255	12-11-86		
3-510	N119	E148	265	255	12-11-86		
3-511	N119	E144	270	255	12-11-86		
3-512	N119	E140	270	255	12-11-86		
3-513	N120	E137	270	260	12-11-86		
3-514	N113	E144	275	260	12-11-86	ND 0.02	77
3-515	N113	E146	275	260	12-12-86		
3-516	N115	E140	275	255	12-12-86		
3-517	N115	E144	270	255	12-12-86		
3-518	N115	E148	265	255	12-12-86	ND 0.02	35

TABLE 2

SUMMARY OF EXCAVATION AND TREATMENT DATA
AREAS 1(b), 4, and 8

Location	Date Excavated	TCE Concentration (ppm) Post-Treatment Daily Ave.	Daily Treated Volume (c.y.)
Area 4	12-12-86	ND 0.02	26
Area 4	12-15-86	<0.028	98
Areas 3 and 4	12-16-86	<0.08	107
Areas 3 and 4	12-17-86	<0.07	56
Area 4	12-18-86	<0.063	100
Area 3	12-19-86	<0.054	76
Area 4	12-29-86	ND 0.02	74
Area 4	12-30-86	ND 0.02	104
Area 1B	12-31-86	ND 0.02	110
Area 1B	01-02-87	<0.081	63
Area 1B	01-05-87	ND 0.02	84
Area 1B	01-06-87	ND 0.02	105
Area 1B	01-07-87	<0.047	133
Area 1B	01-08-87	ND 0.02	110
Area 8	01-09-87	<0.44	126
Area 8	01-12-87	<0.061	102
Area 8	01-13-87	ND 0.02	112
Area 8	01-14-87	ND 0.02	63
Area 8	01-15-87	ND 0.02	116
Rerun Material from 01-09-87	01-16-87	ND 0.02	77
Rerun Material from 01-09-87	01-19-87	ND 0.02	72
Area 8	01-20-87	<0.022	102
Area 8	01-21-87	ND 0.02	56
Area 8	01-22-87	<0.02	84
Area 8	01-23-87	<0.02	70
Area 8	01-26-87	ND 0.02	77
Area 8	01-27-87	<0.024	91
Area 8	01-28-87	<0.021	94
Area 8	01-29-87	ND 0.02	10
Area 8	01-30-87	<0.02	70
Area 8	02-02-87	<0.02	77
Areas 4, 6, and 8	02-03-87	ND 0.02	101

TABLE 3

SUMMARY OF TCE CONCENTRATIONS
EXCAVATION PERIMETER SAMPLES
AREA 1-B

Sample No.	Sample Depth (ft.)	Sample Elevation (Ft)	Perimeter	TCE Concentration (ppm)
1-8-1B-1	8.0	290.0	Lateral	ND 0.02
1-8-1B-2	8.0	290.0	Lateral	ND 0.02
1-8-1B-3	8.0	290.0	Lateral	ND 0.02
1-8-1B-4	8.0	290.0	Lateral	ND 0.02
1-8-1B-5	8.0	290.0	Lateral	ND 0.02
1-8-1B-6	8.0	290.0	Lateral	ND 0.02
1-8-1B-7	8.0	290.0	Lateral	ND 0.02
1-9-1B-8	8.0	290.0	Lateral	ND 0.02
1-9-1B-9	16.0	282.0	Vertical	ND 0.02
1-9-1B-10	16.0	282.0	Vertical	ND 0.02
1-9-1B-11	16.0	282.0	Vertical	ND 0.02
1-9-1B-12	16.0	282.0	Vertical	ND 0.02
1-9-1B-13	16.0	282.0	Vertical	ND 0.02
1-9-1B-14	16.0	282.0	Vertical	ND 0.02

TABLE 3

SUMMARY OF TCE CONCENTRATIONS
EXCAVATION PERIMETER SAMPLES
AREA 3
(Continued)

Hole No.	Location		TCE Concentration (ppm)	Sample Elevation
9-4-159	N 134	E 161	ND 0.02	256.0
9-5-171	N 134	E 143	ND 0.02	255.0
9-8-181	N 131	E 162	ND 0.02	255.0
9-9-184	N 133	N 162	ND 0.02	255.0
9-10-189	N 133	E 142	ND 0.02	255.0
9-10-190	N 131	E 140	ND 0.02	254.0
9-11-196	N 135	E 160	ND 0.02	255.0
9-12-206	N 135	E 146	ND 0.02	255.0
9-12-215	N 130	E 159	0.48	255.0
9-12-216	N 132	E 141	ND 0.02	255.0
9-13-225	N 128	E 139	0.13	255.0
9-13-229	N 128	E 155	ND 0.02	255.0
9-15-231	N 129	E 138	0.27	254.0
9-15-240	N 127	E 154	ND 0.02	258.0
9-15-241	N 127	E 134	0.04	265.0
9-16-246	N 126	E 153	0.04	260.0
9-17-257	N 125	E 154	0.08	260.0
9-17-263	N 125	E 130	0.82	264.0
9-18-269	N 126	E 131	ND 0.02	265.0
9-18-270	N 132	E 163	ND 0.02	255.0
10-20-284	N 129	E 158	0.03	255.0
10-20-285	N 122	E 153	0.11	260.0
10-21-295	N 124	E 153	0.06	260.0
10-21-296	N 136	E 159	ND 0.02	250.0
10-21-297	N 136	E 155	ND 0.02	250.0
10-22-298	N 136	E 153	ND 0.02	253.0
10-22-299	N 136	E 149	0.02	255.0

TABLE 3

SUMMARY OF TCE CONCENTRATIONS
EXCAVATION PERIMETER SAMPLES
AREA 3
(Continued)

Hole No.	Location		TCE Concentration (ppm)	Sample Elevation
10-22-305	N 123	E 154	ND 0.02	262.0
10-23-313	N 136	E 151	ND 0.02	253.0
10-23-314	N 136	E 157	ND 0.02	253.0
10-27-325E	N 121	E 154	0.08	260.0
10-27-326E	N 131	E 132	0.02	255.0
10-27-326S	N 130	E 129	ND 0.02	255.0
10-27-327W	N 131	E 126	0.22	255.0
10-27-329	N 124	E 129	ND 0.02	265.0
10-27-330	N 130	E 137	ND 0.02	255.0
11-1-331W	N 132.5	E 125	ND 0.02	255.0
11-3-333E	N 132.5	E 133	0.04	255.0
11-12-336	N 106	E 145	0.4	269.0
11-12-338	N 108	E 143	ND 0.20	269.0
11-12-341	N 108	E 157	ND 0.20	265.0
11-12-342	N 108	E 161	ND 0.20	265.0
11-12-343	N 108	E 165	ND 0.20	265.0
11-12-346	N 106	E 151	ND 0.02	270.0
11-13-349	N 107	E 144	ND 0.02	270.0
11-13-352	N 108	E 159	ND 0.02	264.0
11-13-353	N 108	E 163	ND 0.02	265.0
11-13-354	N 108	E 167	ND 0.02	265.0
11-13-355	N 108	E 171	ND 0.02	265.0
11-13-356	N 108	E 175	ND 0.02	265.0
11-13-358	N 105	E 150	ND 0.02	270.0
11-13-360	N 107	E 150	ND 0.02	268.0
11-13-361	N 110	E 137	0.03	271.0
11-14-366	N 108	E 173	ND 0.02	265.0

TABLE 3

SUMMARY OF TCE CONCENTRATIONS
EXCAVATION PERIMETER SAMPLES
AREA 3
(Continued)

Hole No.	Location		TCE Concentration (ppm)	Sample Elevation
11-14-367	N 108	E 169	ND 0.02	265.0
11-14-368	N 110	E 139	ND 0.02	272.0
11-20-389	N 112	E 171	ND 0.02	265.0
11-20-390	N 112	E 167	ND 0.02	265.0
11-20-391	N 112	E 163	ND 0.02	265.0
11-20-392	N 112	E 159	ND 0.02	265.0
11-25-405	N 109	E 178	0.04	272.0
11-25-415	N 111	E 174	ND 0.02	265.0
11-25-419	N 111	E 158	ND 0.02	265.0
11-25-420	N 112	E 151	0.06	265.0
11-26-426	N 111	E 176	ND 0.02	265.0
11-26-427	N 111	E 180	ND 0.02	272.0
11-26-428	N 111	E 152	ND 0.02	265.0
11-28-436	N 110	E 181	0.35	272.0
11-28-441	N 112	E 169	ND 0.02	265.0
11-28-442	N 112	E 165	ND 0.02	265.0
12-1-145W	N 108	E 115	0.03	285.0
12-1-153W	N 109	E 114	ND 0.02	285.0
12-1-148W	N 110	E 115	ND 0.02	285.0
12-1-39W	N 111	E 114	0.70	285.0
12-1-14W	N 115	E 114	ND 0.02	270.0
12-1-56W	N 116	E 113	ND 0.02	285.0
12-1-62W	N 117	E 114	ND 0.02	285.0
12-1-72W	N 118	E 115	ND 0.02	285.0
12-1-89W	N 119	E 114	ND 0.02	285.0
12-1-101W	N 120	E 115	ND 0.02	285.0
12-1-110W	N 121	E 116	ND 0.02	285.0

TABLE 3

SUMMARY OF TCE CONCENTRATIONS
EXCAVATION PERIMETER SAMPLES
AREA 3
(Continued)

Hole No.	Location		TCE Concentration (ppm)	Sample Elevation
12-1-120W	N 122	E 117	ND 0.02	285.0
12-1-129NW	N 124	E 121	0.12	285.0
12-1-135N	N 124	E 126	ND 0.02	285.0
12-1-443	N 104	E 143	0.24	269.0
12-1-445	N 104	E 151	ND 0.02	270.0
12-1-446	N 112	E 161	ND 0.02	265.0
12-2-449	N 103	E 150	ND 0.02	270.0
12-2-452	N 112	E 178	ND 0.02	272.0
12-2-453	N 109	E 140	ND 0.02	265.0
12-4-460	N 116	E 151	ND 0.02	260.0
12-5-465	N 102	E 147	0.06	270.0
12-5-469	N 120	E 153	ND 0.02	260.0
12-5-472	N 118	E 153	ND 0.02	260.0
12-5-475	N 107	E 153	ND 0.02	265.0
12-8-481	N 102	E 145	ND 0.02	270.0
12-9-486	N 102	E 143	ND 0.02	270.0
12-9-487	N 110	E 135	ND 0.02	272.0
12-10-496	N 103	E 142	ND 0.02	270.0
12-10-500	N 115	E 150	ND 0.02	260.0
12-10-503	N 117	E 152	0.04	260.0
12-11-507	N 114	E 149	0.02	260.0
12-11-509	N 119	E 152	ND 0.02	260.0
12-11-N110 E132	N 110	E 132	ND 0.02	270.0
12-11-388NW	N 113	E 148	ND 0.02	265.0
12-11-372N	N 111	E 155	ND 0.02	267.0
12-11-351E	N 108	E 155	ND 0.02	265.0
12-12-347W	N 105	E 142	0.08	270.0

TABLE 3

SUMMARY OF TCE CONCENTRATIONS
EXCAVATION PERIMETER SAMPLES
AREA 3
(Continued)

Hole No.	Location		TCE Concentration (ppm)	Sample Elevation
12-16-N129 E108	N 129	E 108	ND 0.02	265.0
12-16-N127 E105	N 127	E 105	0.03	265.0
12-16-N127 E111	N 127	E 111	0.03	265.0
12-16-N125 E108	N 125	E 108	0.04	265.0
12-17-N115 E112	N 115	E 112	0.06	282.0
12-17-N114 E110	N 114	E 110	0.05	282.0
12-17-N113 E111	N 113	E 111	0.03	282.0
12-17-N112 E111	N 112	E 111	0.04	282.0
12-17-N111 E113	N 111	E 113	ND 0.02	282.0
12-17-N125 E125	N 125	E 125	ND 0.02	280.0
12-17-N125 E123	N 125	E 123	0.06	280.0
12-19-N107 E118	N 107	E 118	ND 0.02	280.0
12-19-N107 E122	N 107	E 122	ND 0.02	280.0
12-19-N106 E115	N 106	E 115	ND 0.02	280.0
12-19-N105 E125	N 105	E 125	ND 0.02	280.0
12-19-N104 E117	N 104	E 117	ND 0.02	280.0
12-19-N103 E122	N 103	E 122	ND 0.02	280.0
12-19-N108 E127	N 108	E 127	ND 0.02	285.0
12-19-N109 E128	N 109	E 128	ND 0.02	285.0
12-19-N110 E130	N 110	E 130	ND 0.02	285.0
1-19-N123 E119	N 123	E 119	ND 0.02	285.0
1-20-N134 E127	N 134	E 127	0.02	255.0
1-20-N134 E131	N 134	E 131	0.02	255.0
1-20-N128 E136	N 128	E 136	0.64	265.0
1-20-N135.5 E129	N 135.5	E 129	ND 0.02	255.0

TABLE 3

SUMMARY OF TCE CONCENTRATIONS
EXCAVATION PERIMETER SAMPLES
AREA 4
(Continued)

Sample No.	Sample Depth (ft.)	Sample Elevation (Ft)	Perimeter	TCE Concentration (ppm)
12-15-A4-1	10.5	280.5	Vertical	ND 0.02
12-15-A4-2	5.5	285.5	Lateral	ND 0.02
12-15-A4-4	5.5	285.5	Lateral	ND 0.02
12-15-A4-5	5.5	285.5	Lateral	0.02
12-18-A4-6	5.5	285.5	Lateral	0.09
12-18-A4-7	5.5	285.5	Lateral	0.10
12-18-A4-8	11.0	280.0	Vertical	0.11
12-18-A4-9	11.0	280.0	Vertical	0.11
12-18-A4-10	10.5	280.5	Vertical	0.14
12-30-A4-11	11.0	280.0	Vertical	ND 0.02
12-30-A4-12	16.0	275.0	Vertical	ND 0.02
12-30-A4-13	16.0	275.0	Vertical	ND 0.02
12-30-A4-14	8.0	283.0	Lateral	ND 0.02
12-30-A4-15	8.0	283.0	Lateral	ND 0.02
12-30-A4-16	8.0	283.0	Lateral	ND 0.02
12-30-A4-17	8.0	283.0	Lateral	ND 0.02
2-3-A4-18	10.5	280.5	Vertical	0.17
2-3-A4-19	10.5	280.5	Vertical	0.17
2-3-A4-20	5.5	285.5	Lateral	ND 0.02

TABLE 3

SUMMARY OF TCE CONCENTRATIONS
EXCAVATION PERIMETER SAMPLES
AREA 6
(Continued)

Hole No.	Location		TCE Concentration (ppm)	Sample Elevation
8-21-20	N 121	E 117	0.05	282.5
8-21-22	N 119	E 127	0.04	275.5
8-21-24	N 119	E 109	ND 0.02	272.5
8-22-30	N 117	E 127	0.05	283.5
8-25-45	N 117	E 105	ND 0.02	279.5
8-27-52	N 116	E 124	ND 0.02	283.5
9-2-68	N 115	E 123	0.04	270.5
9-3-75	N 113	E 121	0.05	270.5
9-22-67W	N 114	E 104	ND 0.02	279.5
9-22-45S	N 116	E 104	ND 0.02	279.5
9-22-39NW	N 119	E 105	ND 0.02	279.5
9-22-8W	N 120.5	E 110	ND 0.02	279.5
9-22-17N	N 121	E 114	0.04	279.5
9-22-2W	N 122	E 118	0.04	282.5
9-22-6N	N 123	E 126	0.17	283.5
9-22-6E	N 122	E 128	0.06	283.5
9-22-9E	N 121	E 129	ND 0.02	283.5
9-22-3E	N 120	E 130	0.02	283.5
9-22-11NE	N 118.5	E 130	ND 0.02	283.5
9-22-58E	N 114	E 124	ND 0.02	279.5
10-27-79	N 115	E 105	ND 0.02	282.5
10-28-86	N 112	E 120	0.03	280.5
10-28-87	N 112	E 108	ND 0.02	267.5
10-29-94	N 111	E 121	ND 0.02	280.5
10-29-96	N 113	E 107	ND 0.02	267.5
10-31-99	N 111	E 111	ND 0.02	267.5
10-31-100	N 109	E 117	ND 0.02	267.5

TABLE 3

SUMMARY OF TCE CONCENTRATIONS
EXCAVATION PERIMETER SAMPLES
AREA 6
(Continued)

Hole No.	Location		TCE Concentration (ppm)	Sample Elevation
10-31-101	N 109	E 121	ND 0.02	267.5
10-31-102	N 127	E 118	0.28	282.5
11-3-116	N 108	E 138	ND 0.02	280.0
11-3-117	N 108	E 134	ND 0.02	280.0
11-3-118	N 110	E 138	ND 0.02	280.0
11-3-119	N 110	E 134	0.04	280.0
11-4-130	N 108	E 136	ND 0.02	280.0
11-4-132	N 114	E 136	ND 0.02	270.0
11-5-135	N 115	E 139	ND 0.02	270.0
11-5-N123 E115	N 123	E 115	0.04	282.5
11-5-N124 E113	N 124	E 113	0.58	282.5
11-5-N125 E113	N 125	E 113	ND 0.02	282.5
11-5-N126 E115	N 126	E 115	ND 0.02	282.5
11-5-N129 E119	N 129	E 119	0.03	282.5
11-5-N129 E123	N 129	E 123	0.86	282.5
11-5-N129 E125	N 129	E 125	0.05	282.5
11-5-N128 E127	N 128	E 127	0.10	282.5
11-5-N127 E128	N 127	E 128	0.11	282.5
11-5-N125 E130	N 125	E 130	0.11	282.5
11-5-N124 E130	N 124	E 130	ND 0.02	282.5
11-7-143	N 109	E 115	0.04	267.5
11-7-144	N 104	E 136	ND 0.02	270.0
11-7-145	N 105	E 133	ND 0.02	270.0
11-7-146	N 109	E 135	ND 0.02	280.0
11-7-147	N 112	E 136	ND 0.02	280.0
11-7-148	N 114	E 134	ND 0.02	270.0
11-10-149	N 104	E 138	ND 0.02	270.0

TABLE 3

SUMMARY OF TCE CONCENTRATIONS
EXCAVATION PERIMETER SAMPLES
AREA 6
(Continued)

Hole No.	Location		TCE Concentration (ppm)	Sample Elevation
11-10-150	N 106	E 134	ND 0.02	270.0
11-10-151	N 109	E 137	ND 0.02	280.0
11-10-152	N 111	E 137	ND 0.02	280.0
11-10-153	N 116	E 134	ND 0.02	270.0
11-10-154	N 116	E 138	ND 0.02	270.0
11-10-155	N 114	E 138	ND 0.02	270.0
11-10-156N	N 130	E 121	0.16	282.5
11-10-157E	N 126	E 131	0.15	282.5
11-10-133W	N 115	E 131	0.04	270.0
11-10-161	N 110	E 122	0.08	265.0
11-11-163	N 105	E 137	ND 0.02	270.0
11-11-165	N 117	E 135	0.02	270.0
11-11-166	N 111	E 135	ND 0.02	280.0
11-11-170	N 125	E 114	0.02	277.5
11-12-171	N 106	E 136	ND 0.02	270.0
1-20-N110 E110	N 110	E 110	ND 0.02	265.0
2-5-N128 E 116	N 128	E 116	ND 0.02	282.5

TABLE 3

SUMMARY OF TCE CONCENTRATIONS
EXCAVATION PERIMETER SAMPLES
AREA 8
(Continued)

Sample No.	Sample Depth (ft.)	Sample Elevation (Ft)	Perimeter	TCE Concentration (ppm)
1-22-A8-1	8.0	282.0	Lateral	ND 0.02
1-22-A8-2	15.0	275.0	Vertical	ND 0.02
1-22-A8-3	15.0	275.0	Vertical	0.04
1-22-A8-4	8.0	282.0	Lateral	0.14
1-22-A8-5	8.0	282.0	Lateral	ND 0.02
1-27-A8-6	8.0	282.0	Lateral	0.05
1-27-A8-7	8.0	282.0	Lateral	0.02
1-27-A8-8	8.0	282.0	Lateral	0.02
1-27-A8-9	17.0	273.0	Vertical	0.03
1-27-A8-10	8.0	282.0	Lateral	ND 0.02
1-29-A8-11	8.0	282.0	Lateral	0.02
1-29-A8-12	8.0	282.0	Lateral	ND 0.02
1-30-A8-13	18.0	272.0	Vertical	0.04
1-30-A8-14	21.0	269.0	Vertical	0.04
1-30-A8-15	8.0	282.0	Lateral	ND 0.02
2-2-A8-16	21.0	269.0	Vertical	ND 0.02
2-2-A8-17	21.0	269.0	Vertical	0.02
2-2-A8-18	18.0	272.0	Vertical	0.03
2-2-A8-19	18.0	272.0	Vertical	0.05
2-2-A8-20	9.0	281.0	Lateral	0.28
2-3-A8-21	5.0	285.0	Lateral	0.02
2-3-A8-22	5.0	285.0	Lateral	0.02
2-3-A8-23	5.0	285.0	Lateral	0.02
2-3-A8-24	10.0	280.0	Vertical	ND 0.02

TABLE 4
AREAS 1B,3,4,6,AND 8 EXCAVATION VERIFICATION ANALYSIS
Results in mg/kg

Sample I.D.	Lab I.D.	1,2-DCB	1,3-DCB	1,4-DCB	TRANS 1,2-DCE	PCE	1,1,1-TCA	TCE	Benzene	Ethyl Benzene	Toluene	Xylenes
8-21 20 A6	A913	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.05	ND 1.0	ND 1.0	ND 1.0	ND 1.0
8-21 22 A6	A917	0.09	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
8-21 24 A6	A923	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
8-22 30 A6	A928	0.18	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.05	ND 1.0	ND 1.0	ND 1.0	ND 1.0
8-25 45 A6	A956	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
8-27 52 A6	A966	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-2 68 A6	A1000	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-3 75 A6	A1010	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.05	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-4 159 A3	A1024	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-5 171 A3	A1045	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-8 181 A3	A1062	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-9 184 A3	A1068	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-10 189 A3	A1073	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-10 190 A3	A1072	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-11 196 A3	A1083	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-12 206 A3	A1096	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-12 215 A3	A2009	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.48	ND 1.0	ND 1.0	ND 1.0	1.0
9-12 216 A3	A2008	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-13 225 A3	A2024	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.13	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-13 229 A3	A2023	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-15 231 A3	A2039	0.07	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.27	ND 2.0	ND 2.0	ND 2.0	ND 2.0
9-15 240 A3	A2043	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-15 241 A3	A2045	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 2.0	ND 2.0	ND 2.0	ND 2.0
9-16 246 A3	A2054	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 2.0	ND 2.0	ND 2.0	ND 2.0
9-17 257 A3	A2065	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.08	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-17 263 A3	A2072	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 0.04	ND 0.04	0.82	ND 2.0	ND 2.0	ND 2.0	ND 2.0
9-18 269 A3	A2081	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-18 270 A3	A2080	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 2N A6	A2097	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 17N A6	A2096	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 8W A6	A2095	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 39NW A6	A2094	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 45B A6	A2093	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 67W A6	A2092	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 11NE A6	A2105	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 3E A6	A2104	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 9E A6	A2103	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 6E A6	A2102	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.06	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 6N A6	A2101	0.34	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.17	ND 1.0	ND 1.0	ND 1.0	ND 1.0
9-22 58E A6	A2106	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-20 284 A3	A2120	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.03	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-20 285 A3	A2119	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.11	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-21 295 A3	A2135	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.06	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-21 296 A3	A2139	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-21 297 A3	A2138	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-22 298 A3	A2142	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-22 299 A3	A2143	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-22 305 A3	A2154	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0

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Note: ND X denotes none detected to a level of X.

TABLE 4
AREAS 1B,3,4,6,AND 8 EXCAVATION VERIFICATION ANALYSIS
Results in mg/kg
(Continued)

Sample I.D.	Lab I.D.	1,2-DCB	1,3-DCB	1,4-DCB	TRANS 1,2-DCE	PCE	1,1,1-TCA	TCE	Benzene	Ethyl Benzene	Toluene	Xylenes
10-23 313 A3	A2163	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-23 314 A3	A2164	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-27 79 A6	A2195	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-27 325E A3	A2191	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.08	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-27 326E A3	A2190	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-27 326B A3	A2192	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-27 327W A3	A2189	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.22	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-27 329 A3	A2183	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-27 330 A3	A2185	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-28 86 A6	A2207	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.03	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-28 87 A6	A2214	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-29 94 A6	A2226	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-29 96 A6	A2230	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-31 99 A6	A2241	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-31 100 A6	A2245	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-31 101 A6	A2250	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
10-31 102 A6	A2249	1.3	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.28	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-1 331W A3	A2261	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-3 333E A3	A2270	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-3 116 A6	A2282	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-3 117 A6	A2281	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-3 118 A6	A2288	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-3 119 A6	A2287	0.06	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-4 130 A6	A2302	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-4 132 A6	A2305	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 135 A6	A2313	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 N123 E115 A6	A2315	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 N124 E113 A6	A2316	2.1	ND 0.02	ND 0.02	ND 0.02	0.05	ND 0.02	0.58	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 N129 E123 A6	A2321	1.6	ND 0.02	ND 0.02	ND 0.02	0.07	ND 0.02	0.86	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 N125 E113 A6	A2317	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 N126 E115 A6	A2318	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 N129 E119 A6	A2319	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.03	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 N129 E125 A6	A2322	0.17	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.05	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 N128 E127 A6	A2323	0.19	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.1	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 N127 E128 A6	A2324	0.07	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.11	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 N125 E130 A6	A2326	0.04	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.11	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-5 N124 E130 A6	A2327	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-7 143 A6	A2337	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-7 144 A6	A2343	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-7 145 A6	A2342	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-7 146 A6	A2341	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-7 147 A6	A2340	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-7 148 A6	A2347	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-10 149 A6	A2353	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-10 150 A6	A2354	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-10 151 A6	A2355	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-10 152 A6	A2356	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-10 153 A6	A2361	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	N/A	N/A	N/A	N/A

Canonie Environmental

Note: ND X denotes none detected to a level of X.

TABLE 4
AREAS 1B,3,4,6,AND 8 EXCAVATION VERIFICATION ANALYSIS
Results in mg/kg
(Continued)

Sample I.D.	Lab I.D.	1,2-DCB	1,3-DCB	1,4-DCB	TRANS 1,2-DCE	PCE	1,1,1-TCA	TCE	Benzene	Ethyl Benzene	Toluene	Xylenes
11-10 154 A6	A2362	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	N/A	N/A	N/A	N/A
11-10 155 A6	A2363	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-10 156N A6	A2364	0.24	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.16	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-10 157E A6	A2371	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.15	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-10 133W A6	A2372	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-10 161 A6	A2373	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.08	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-11 163 A6	A2377	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-11 165 A6	A2378	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-11 166 A6	A2379	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-11 170 A6	A2384	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-12 171 A6	A2389	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-12 336 A3	A2394	ND 0.1	ND 0.1	ND 0.1	ND 0.1	ND 0.1	ND 0.1	0.4	ND 5.0	ND 5.0	ND 5.0	15.0
11-12 338 A3	A2398	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 10.0	ND 10.0	ND 10.0	ND 10.0
11-12 341 A3	A2401	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 10.0	ND 10.0	ND 10.0	ND 10.0
11-12 342 A3	A2402	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 10.0	ND 10.0	ND 10.0	ND 10.0
11-12 343 A3	A2403	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 10.0	ND 10.0	ND 10.0	ND 10.0
11-12 346 A3	A2409	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-13 349 A3	A2413	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-13 352 A3	A2418	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-13 353 A3	A2419	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-13 354 A3	A2420	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-13 355 A3	A2422	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-13 356 A3	A2424	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-13 358 A3	A2425	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-13 360 A3	A2428	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-13 361 A3	A2431	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.03	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-14 366 A3	A2439	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-14 367 A3	A2441	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-14 368 A3	A2442	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-20 389 A3	A2466	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-20 390 A3	A2468	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-20 391 A3	A2467	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-20 392 A3	A2471	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-25 405 A3	A2485	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-25 415 A3	A2494	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-25 419 A3	A2499	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-25 420 A3	A2497	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.06	ND 1.0	ND 1.0	ND 1.0	1.9
11-26 426 A3	A2509	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-26 427 A3	A2510	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-26 428 A3	A2511	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-28 436 A3	A2520	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.35	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-28 441 A3	A2525	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
11-28 442 A3	A2526	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 145W A3	A2545	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.03	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 153W A3	A2544	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	3.0
12-1 148W A3	A2543	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	3.0
12-1 39W A3	A2542	2.9	ND 0.02	ND 0.02	ND 0.02	0.1	ND 0.02	0.70	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 14W A3	A2538	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0

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Note: ND X denotes none detected to a level of X.

TABLE 4
AREAS 1B,3,4,6,AND 8 EXCAVATION VERIFICATION ANALYSIS
Results in mg/kg
(Continued)

Sample I.D.	Lab I.D.	1,2-DCB	1,3-DCB	1,4-DCB	TRANS 1,2-DCE	PCE	1,1,1-TCA	TCE	Benzene	Ethyl Benzene	Toluene	Xylenes
12-1 56W A3	A2537	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 62W A3	A2536	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 72W A3	A2535	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 89W A3	A2534	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 101W A3	A2533	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 110W A3	A2532	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 120W A3	A2531	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 129NW A3	A2530	0.23	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.12	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 135W A3	A2528	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 443 A3	A2548	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.24	ND 1.0	1.7	3.0	9.2
12-1 445 A3	A2550	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-1 446 A3	A2551	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-2 449 A3	A2556	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-2 452 A3	A2558	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-2 453 A3	A2560	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-4 460 A3	A2572	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-5 465 A3	A2582	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.06	ND 1.0	ND 1.0	ND 1.0	1.0
12-5 469 A3	A2588	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-5 472 A3	A2594	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-5 475 A3	A2598	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-8 481 A3	A2609	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-9 486 A3	A2616	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 10	ND 10	ND 10	ND 10
12-9 487 A3	A2617	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-10 496 A3	A2629	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-10 500 A3	A2633	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-10 503 A3	A2638	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-11 507 A3	A2645	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-11 509 A3	A2649	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-11 N110 E132 A3	A2655	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-11 380NW A3	A2656	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-11 372N A3	A2657	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-11 351E A3	A2658	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-12 347N A3	A2661	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.08	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-15 A4-1	A2675	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-15 A4-2	A2676	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-15 A4-4	A2689	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-15 A4-5	A2690	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-16 N129 E108 A3	A2699	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-16 N127 E105 A3	A2700	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.03	0.03	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-16 N127 E111 A3	A2701	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	0.03	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-16 N125 E108 A3	A2702	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.03	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-17 N115 E112 A3	A2713	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.06	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-17 N114 E110 A3	A2714	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.05	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-17 N113 E111 A3	A2715	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.03	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-17 N112 E111 A3	A2716	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-17 N111 E113 A3	A2717	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-17 N125 E125 A3	A2720	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-17 N125 E123 A3	A2721	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.03	0.06	ND 1.0	ND 1.0	ND 1.0	ND 1.0

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Note: ND X denotes none detected to a level of X.

TABLE 4
AREAS 1B,3,4,6,AND 8 EXCAVATION VERIFICATION ANALYSIS
Results in mg/kg
(Continued)

Sample I.D.	Lab I.D.	1,2-DCB	1,3-DCB	1,4-DCB	TRANS 1,2-DCE	PCE	1,1,1-TCA	TCE	Benzene	Ethyl Benzene	Toluene	Xylenes
12-18 A4-6	A2726	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	0.09	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-18 A4-7	A2727	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.05	0.10	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-18 A4-8	A2728	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.05	0.11	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-18 A4-9	A2729	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.05	0.11	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-18 A4-10	A2730	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.06	0.14	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-19 N107 E118 A3	A2753	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-19 N107 E122 A3	A2754	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-19 N106 E115 A3	A2755	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-19 N105 E125 A3	A2756	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-19 N104 E117 A3	A2757	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-19 N103 E122 A3	A2758	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-19 N108 E127 A3	A2759	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-19 N109 E128 A3	A2760	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-19 N110 E130 A3	A2761	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-30 A4-11	A2797	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-30 A4-12	A2798	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-30 A4-13	A2799	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-30 A4-14	A2800	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-30 A4-15	A2801	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-30 A4-16	A2802	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
12-30 A4-17	A2803	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-8 1B-1	B0057	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.05	0.18	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-8 1B-2	B0058	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-8 1B-3	B0059	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-8 1B-4	B0060	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-8 1B-5	B0061	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-8 1B-6	B0062	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-8 1B-7	B0063	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-9 1B-8	B0082	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-9 1B-9	B0083	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-9 1B-10	B0084	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-9 1B-11	B0086	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-9 1B-12	B0086	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-9 1B-13	B0087	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-9 1B-14	B0088	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-19 N123 E119 A3	B0197	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-20 N134 E127 A3	B0200	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-20 N134 E131 A3	B0208	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-20 N128 E136 A3	B0212	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.64	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-20 N135.5E129 A3	B0210	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-20 N110 E110 A6	B0225	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-22 A8-1	B0245	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-22 A8-2	B0246	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-22 A8-3	B0247	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-22 A8-4	B0248	0.38	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.14	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-22 A8-5	B0249	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-27 A8-6	B0277	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.05	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-27 A8-7	B0278	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0

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Note: ND X denotes none detected to a level of X.

TABLE 4
AREAS 1B,3,4,6,AND 8 EXCAVATION VERIFICATION ANALYSIS
Results in mg/kg
(Continued)

Sample I.D.	Lab I.D.	1,2-DCB	1,3-DCB	1,4-DCB	TRANS 1,2-DCE	PCE	1,1,1-TCA	TCE	Benzene	Ethyl Benzene	Toluene	Xylenes
1-27 A8-8	B0279	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-27 A8-9	B0280	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.03	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-27 A8-10	B0281	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-29 A8-11	B0311	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-29 A8-12	B0312	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-30 A8-13	B0317	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-30 A8-14	B0318	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.04	ND 1.0	ND 1.0	ND 1.0	ND 1.0
1-30 A8-15	B0319	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-2 A8-16	B0326	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-2 A8-17	B0327	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-2 A8-18	B0328	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.03	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-2 A8-19	B0329	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.05	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-2 A8-20	B0340	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.28	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-3 A8-21	B0348	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-3 A8-22	B0349	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-3 A8-23	B0350	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-3 A8-24	B0351	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-3 A4-18	B0356	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.17	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-3 A4-19	B0357	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.17	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-3 A4-20	B0358	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
2-5 N128 E116 A6	B0369	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0

Note: ND X denotes none detected to a level of X.

TABLE 5

EXCAVATION PERIMETER SAMPLE ELEVATIONS
AREA 1(a, c)

Sample No.	Sample Elevation (Ft)	Perimeter
A1-1	287.0	Vertical
A1-2	292.0	Lateral
A1-3	286.0	Vertical
A1-4	292.0	Lateral
A1-5	287.0	Vertical
A1-6	292.0	Lateral
A1-7	287.0	Vertical
A1-8	292.0	Lateral
A1-9	286.0	Vertical
A1-10	292.0	Lateral
A1-11	287.0	Vertical
A1-12	292.0	Lateral
A1-13	287.0	Vertical
A1-14	292.0	Lateral
A1-15	283.5	Lateral
A1-16	281.0	Vertical
A1-17	283.5	Vertical
A1-18	287.0	-
A1-19	287.0	-
A1-20	287.0	-

TABLE 5

EXCAVATION PERIMETER SAMPLE ELEVATIONS
AREA 2
(Continued)

Sample No.	Sample Elevation (Ft)	Perimeter
A2-1	285.5	(NT) Not Tested
*A2-2	289.5	Lateral and Vertical
A2-3	286.0	Vertical
A2-4	291.5	Lateral
A2-5	292.5	Vertical
A2-6	286.5	Vertical
A2-7	291.5	Lateral
A2-8	286.5	Vertical
A2-9	291.5	Lateral
A2-10	286.0	Vertical

* Sample taken on sloping ground representing both lateral and vertical limits of excavation.

TABLE 5

EXCAVATION PERIMETER SAMPLE ELEVATIONS
AREA 9
(Continued)

Sample No.	Sample Elevation (Ft)	Perimeter
A9-1	285.5	Lateral
A9-2	282.0	Vertical
A9-3	285.5	Lateral
A9-4	285.5	Lateral

TABLE 6
PETROLEUM AREAS EXCAVATION VERIFICATION ANALYSIS
Results in mg/kg

Sample I.D.	Lab I.D.	1,2-DCB	1,3-DCB	1,4-DCB	TRANS 1,2-DCE	PCE	1,1,1-TCA	TCE	Benzene	Ethyl Benzene	Toluene	Xylenes
A1-1	616602	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	0.2
A1-2	616603	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-3	616604	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-4	616605	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-5	616606	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-6	616607	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-7	616608	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-8	616609	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-9	616610	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	0.7	ND 0.2	4.1
A1-10	616611	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-11	616612	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-12	616613	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.10	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-13	618855	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-14	618855	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A1-15	B0363	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
A1-16	B0364	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
A1-17	B0365	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
A1-18	B0366	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
A1-19	B0367	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
A1-20	B0368	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 1.0	ND 1.0	ND 1.0	ND 1.0
A2-2	615881	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A2 3	615882	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A2-4	615883	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A2-5	615884	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A2-6	615885	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A2-7	615886	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A2-8	616331	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A2-9	616332	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A2-10	616333	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	0.2
A9-1	700956	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A9-2	700957	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A9-3	700958	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2
A9-4	700959	ND 0.02	0.03	0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.2	ND 0.2	ND 0.2

Note: ND X denotes none detected to a level of X.

TABLE 6
PETROLEUM AREAS EXCAVATION VERIFICATION ANALYSIS
Results in mg/kg
(Continued)

Sample I.D.	Lab I.D.	Trichloro-fluoromethane	Methylene Chloride	EP Toxic Metals	PCB 1242	PCB 1254	PCB 1260	TEH
A1-1	616602	0.04	ND 0.02	NT	NT	NT	NT	24.0
A1-2	616603	0.03	ND 0.02	ND	ND 0.1	ND 0.1	ND 0.1	93.0
A1-3	616604	0.05	ND 0.02	ND	NT	NT	NT	ND 10.0
A1-4	616605	0.03	ND 0.02	ND	ND 0.1	ND 0.1	ND 0.1	ND 10.0
A1-5	616606	ND 0.02	ND 0.02	NT	ND 0.1	ND 0.1	ND 0.1	ND 10.0
A1-6	616607	ND 0.02	ND 0.02	ND	ND 0.1	ND 0.1	ND 0.1	ND 10.0
A1-7	616608	0.04	ND 0.02	ND	NT	NT	NT	ND 10.0
A1-8	616609	ND 0.02	ND 0.02	ND	ND 0.1	ND 0.1	ND 0.1	ND 10.0
A1-9	616610	ND0.02	ND 0.02	NT	NT	NT	NT	610.0
A1-10	616611	0.06	ND 0.02	ND	ND 0.1	ND 0.1	ND 0.1	81.0
A1-11	616612	0.03	ND 0.02	ND	NT	NT	NT	21.0
A1-12	616613	ND 0.02	ND 0.02	ND	ND 0.1	ND 0.1	0.14	110.0
A1-13	618855	ND 0.02	ND 0.02	NT	NT	NT	NT	ND 10.0
A1-14	618855	ND 0.02	ND 0.02	NT	NT	NT	NT	ND 10.0
A1-15	B0363	NT	NT	NT	NT	NT	NT	NT
A1-16	619140	NT	NT	ND	ND 0.2	ND 0.1	ND 0.1	8.0
A1-17	B0365	NT	NT	NT	NT	NT	NT	NT
A1-18	619141	NT	NT	ND	ND 0.1	ND 0.1	ND 0.1	2800.0
A1-19	619142	NT	NT	ND	ND 0.1	ND 0.1	ND 0.1	170.0
A1-20	619143	NT	NT	ND	ND 0.1	ND 0.1	ND 0.1	36.0
A2-2	615881	0.29	0.04	ND	ND 0.1	ND 0.1	ND 0.1	NT
A2-3	615882	0.22	0.07	NT	NT	NT	NT	ND 10.0
A2-4	615883	0.03	ND 0.02	ND	ND 0.1	ND 0.1	ND 0.1	NT
A2-5	615884	ND 0.02	ND 0.02	NT	ND 0.1	ND 0.1	ND 0.2	NT
A2-6	615885	0.12	ND 0.02	NT	NT	NT	NT	ND 10.0
A2-7	615886	0.22	ND 0.02	ND	ND 0.1	ND 0.1	ND 0.1	NT
A2-8	616331	ND 0.02	ND 0.02	ND	NT	NT	NT	ND 75.0
A2-9	616332	ND 0.02	ND 0.02	ND	ND 0.1	ND 0.1	ND 0.1	ND 16.0
A2-10	616333	0.10	ND 0.02	ND	ND 0.1	ND 0.1	ND 0.1	ND 17.0
A9-1	700956	ND 0.02	ND 0.02	NT	ND 0.001	ND 0.001	ND 0.001	20.0
A9-2	700957	0.02	ND 0.02	ND	ND 0.001	ND 0.001	ND 0.001	11.0
A9-3	700958	0.25	ND 0.02	ND	ND 0.001	ND 0.001	ND 0.001	ND 10.0
A9-4	700959	0.14	ND 0.02	NT	ND 0.01	0.002	ND 0.001	970.0

Notes:

1. NT denotes "not tested".
2. ND X denotes none detected to a level of X.
3. The non-detectable limits for EP Toxicity Metals are listed below.

Arsenic	ND 0.5
Barium	ND 10.0
Cadmium	ND 0.10
Chromium (Total)	ND 0.5
Mercury	ND 0.02
Lead	ND 0.5
Selenium	ND 0.1
Silver	ND 0.5

TABLE 6

PETROLEUM AREA EXCAVATION VERIFICATION ANALYSIS
Results in ug/kg
(Continued)

	Nitrobenzene	Phenanthrene	Acenapthene	Fluoranthene	Pyrene	Fluorene	Anthracine	Methane bis (-2-Chloroethoxy)
*A1-2		1,900.0		460.0	1,000.0	460.0	1,000.0	
*A1-9		600.0						
A1-10	330.0	640.0						
*A1-12			580.0	1,100.0	710.0			
A1-18								720.0

Note: Samples A1-1 through A1-20, A2-2 through A2-10, and A9-1 through A9-4 analyzed for acid/base neutrals by U.S. EPA Method 8270 contained concentrations less than the detection limit for each chemical constituent analyzed, with the exception of these listed above. Samples A1-15 and A1-17 were not tested. The detection limits for all of the chemical constituents tested by Method 8270 are shown on the following two pages.

*Additional soils were excavated around these sampling points.

TABLE 6

PETROLEUM AREA EXCAVATION VERIFICATION ANALYSIS

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	330 ug/Kg
Phenol	ND	330 ug/Kg
bis(-2-Chloroethyl)Ether	ND	330 ug/Kg
2-Chlorophenol	ND	330 ug/Kg
1,3-Dichlorobenzene	ND	330 ug/Kg
1,4-Dichlorobenzene	ND	330 ug/Kg
1,2-Dichlorobenzene	ND	330 ug/Kg
bis(2-chloroisopropyl)Ether	ND	330 ug/Kg
N-Nitroso-Di-Propylamine	ND	330 ug/Kg
Hexachloroethane	ND	330 ug/Kg
Nitrobenzene	ND	330 ug/Kg
Isophorone	ND	330 ug/Kg
2-Nitrophenol	ND	330 ug/Kg
2,4-Dimethylphenol	ND	330 ug/Kg
bis(-2-Chloroethoxy)Methane	ND	330 ug/Kg
2,4-Dichlorophenol	ND	330 ug/Kg
1,2,4-Trichlorobenzene	ND	330 ug/Kg
Naphthalene	ND	330 ug/Kg
Hexachlorobutadiene	ND	330 ug/Kg
4-Chloro-3-Methylphenol	ND	330 ug/Kg
Hexachlorocyclopentadiene	ND	330 ug/Kg
2,4,6-Trichlorophenol	ND	330 ug/Kg
2-Chloronaphthalene	ND	330 ug/Kg
Dimethyl Phthalate	ND	330 ug/Kg
Acenaphthylene	ND	330 ug/Kg
2,6-Dinitrotoluene	ND	330 ug/Kg
Acenaphthene	ND	330 ug/Kg
2,4-Dinitrophenol	ND	1650 ug/Kg
4-Nitrophenol	ND	330 ug/Kg
2,4-Dinitrotoluene	ND	330 ug/Kg
Diethylphthalate	ND	330 ug/Kg
4-Chlorophenyl-phenylether	ND	330 ug/Kg
Fluorene	ND	330 ug/Kg
Benzidine	ND	330 ug/Kg
4,6-Dinitro-2-Methylphenol	ND	1650 ug/Kg
N-Nitrosodiphenylamine	ND	330 ug/Kg
4-Bromophenyl-phenylether	ND	330 ug/Kg
Hexachlorobenzene	ND	330 ug/Kg
Pentachlorophenol	ND	1650 ug/Kg
Phenanthrene	ND	330 ug/Kg
Anthracene	ND	330 ug/Kg
Di-N-Butylphthalate	ND	330 ug/Kg
Fluoranthene	ND	330 ug/Kg

TABLE 6

PETROLEUM AREA EXCAVATION VERIFICATION ANALYSIS
(CONTINUED)

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
Pyrene	ND	330 ug/Kg
Butylbenzylphthalate	ND	330 ug/Kg
3,3'-Dichlorobenzidine	ND	660 ug/Kg
Benzo(a)Anthracene	ND	330 ug/Kg
bis-(2-Ethylhexyl)Phthalate	ND	330 ug/Kg
Chrysene	ND	330 ug/Kg
Di-N-Octyl Phthalate	ND	330 ug/Kg
Benzo(b)Fluoranthene	ND	330 ug/Kg
Benzo(k)Fluoranthene	ND	330 ug/Kg
Benzo(a)Pyrene	ND	330 ug/Kg
Indeno(1,2,3-cd)Pyrene	ND	330 ug/Kg
Dibenzo(a,h)Anthracene	ND	330 ug/Kg
Benzo(g,h,i)Perylene	ND	330 ug/Kg

TABLE 7

SUMMARY OF PETROLEUM AREA SOILS AERATION

Date	No. of Mixer Loads	Original No. of GC/MS Samples Taken	Dilution "Oily" vs. "Clean"	Oily Soils Processed (Bulk Yd^3)	Make-up Soils Processed (Yd^3)
Pilot Study	30	6	5/3	150	79
3/16/87	3	1	5/3	15	8
3/17/87	15	2	5/3	75	39
3/18/87	16	1	2/1	85	37
3/19/87	17	2	7/3	95	36
3/20/87	15	1	7/3	84	32
3/23/87	15	2	2/1	80	35
3/24/87	16	1	2/1	85	37
3/25/87	18	2	2/1	95	42
3/26/87	15	2	3/2	72	42
3/27/87	18	2	3/2	86	50
3/30/87	15	1	3/2	72	42
3/31/87	0	0	0	0	0
4/01/87	0	0	0	0	0
4/02/87	17	2	3/2	82	48
4/03/87	18	2	3/2	86	50
4/06/87	0	0	0	0	0
4/07/87	12	1	3/2	58	34
4/08/87	14	2	3/2	67	39
4/09/87	14	2	3/2	67	39
4/10/87	16	1	3/2	77	45
4/13/87	16	2	3/2	77	45
4/14/87	15	2	3/2	72	42
4/15/87	16	2	3/2	77	45
4/16/87	18	2	3/2	86	50
4/17/87	16	1	3/2	77	45
TOTALS	365	42	-	1,820	961

TABLE 8

SUMMARY OF PETROLEUM AREA SOILS AERATION
POST-TREATMENT ANALYTICAL RESULTS

Analyte	Date of Aeration Average Concentration of Samples (ppb)									
	3/16	3/17	3/18	3/19	3/20	3/23	3/24	3/25	3/26	3/27
Naphthalene	<330	<306	<170	<170	<330	<170	<330	<330	<170	<330
Acenapthylene	<330	<234	<170	<170	<330	<170	<330	<330	<170	<330
Acenaphthene	<330	<234	<170	<170	<330	<170	<330	<330	<170	<330
Fluorene	<330	<234	<170	<170	<330	<170	<330	<330	<170	<330
Phenanthrene	400	<418	590	580	<330	435	460	585	255	<555
Anthracene	<330	<234	230	<175	<330	<225	<330	<330	275	975
Fluoranthene	<330	<432	<500	<500	<330	<500	<330	380	<500	<440
Pyrene	<330	<500	<330	<370	<330	<345	510	615	<330	630
Benzo(a) Anthracene	<330	<234	170	190	<330	210	<330	<330	<170	<620
Chrysene	<330	<256	300	245	<330	260	<330	<330	<170	<595
TEH	-	30	47	< 42	58	< 15	55	44	18	34

Note: PAH concentrations given in ppb
TEH concentrations given in ppm

TABLE 8

SUMMARY OF PETROLEUM AREA SOILS AERATION
POST-TREATMENT ANALYTICAL RESULTS
(Continued)

Analyte	Date of Aeration Average Concentration of Samples (ppb)											
	3/30	4/2	4/3	4/7	4/8	4/9	4/10	4/13	4/14	4/15	4/16	4/17
Naphthalene	<330	< 570	<330	<330	<330	<330	<170	<330	<170	<170	<170	<660
Acenapthylene	<330	< 497	<330	<330	<330	<330	<170	<330	<170	<170	<170	<660
Acenaphthene	<330	< 497	<330	<330	<330	<330	<170	<330	<170	<170	<170	<660
Fluorene	<330	< 497	<330	<330	<330	<330	<170	<330	<240	<300	<330	<660
Phenanthrene	440	<1355	810	830	1180	1650	810	1275	1600	1850	1800	2500
Anthracene	480	< 547	<380	500	<495	<330	<300	<330	<170	<260	<215	<660
Fluoranthene	<330	<1493	<990	<990	<990	<990	<500	<990	<500	<580	<500	<2000
Pyrene	624	<1012	<660	<660	<660	760	450	<660	525	705	610	<1300
Benzo(a) Anthracene	<330	< 497	<330	<330	<330	<330	<170	<330	360	420	390	<660
ırysene	<330	< 497	<330	<330	<330	<330	<170	<330	390	<170	495	<660
TEH	34	195	190	150	225	285	130	140	158	155	175	140

Note: PAH concentrations given in ppb
TEH concentrations given in ppm

TABLE 9

COST BREAKDOWN FOR AERATION OF
AREA 1(B), 3, 4, 6, AND 8

Item	Cost
Salaries and Wages	$405,450
Rental	596,250
Supplies	453,150
Subcontracts	620,100
Fuel	47,700
Other Professional Services	262,350
TOTAL	$2,385,000

Note: This cost does not include mobilization, site characterization, pilot study, site closure, disposal of waste materials, and demobilization.

TABLE 10

COST BREAKDOWN FOR AERATION OF
AREAS 1(a, c), 2, AND 9

Item	Cost
Salaries and Wages	$ 88,910
Rental	130,880
Supplies	93,370
Subcontracts	135,980
Fuel	10,460
Other Professional Services	57,530
TOTAL	$517,130

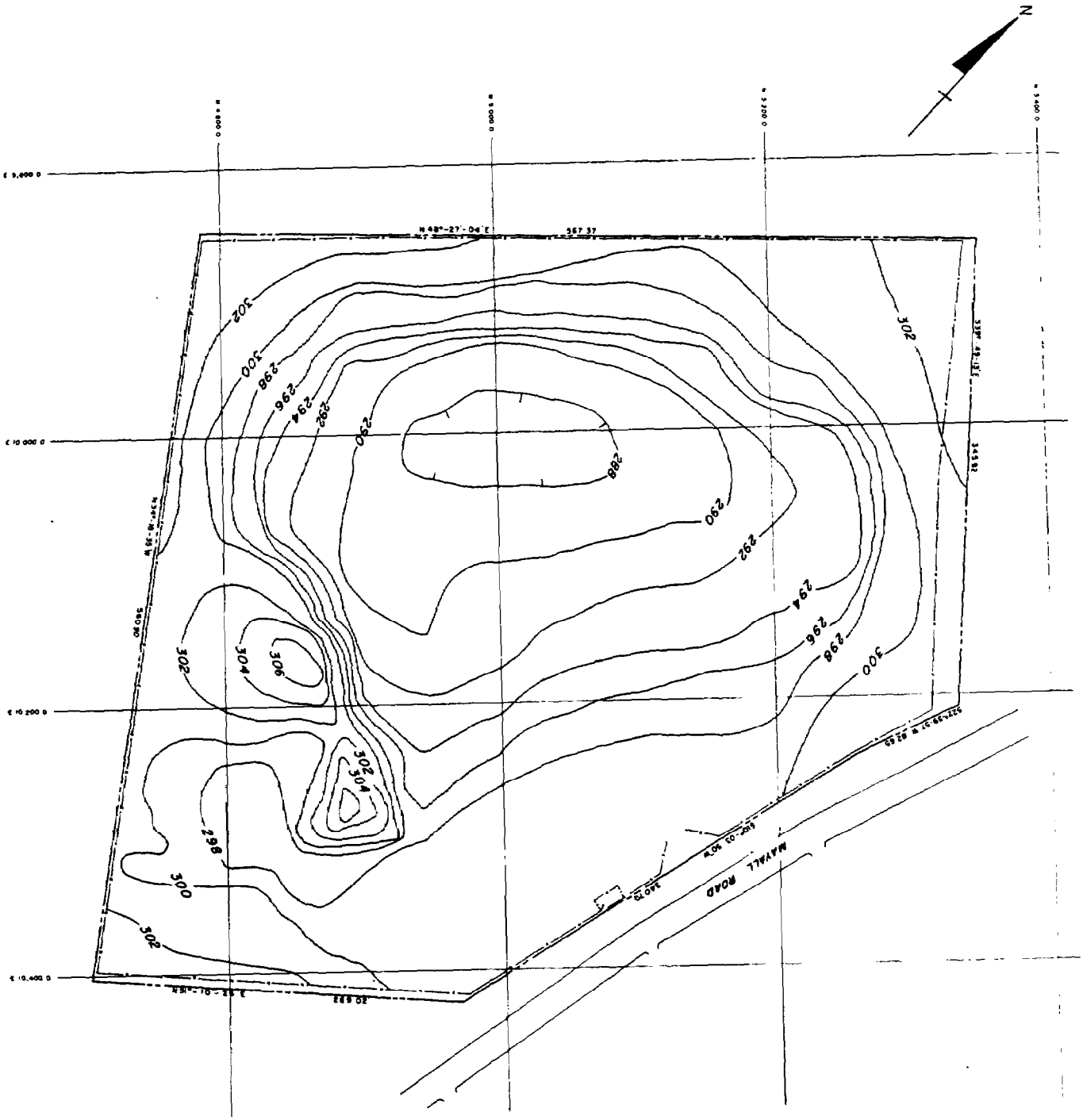
Note: This cost does not include site characterization, pilot study, or demobilization.

TABLE 11

SUMMARY OF SOIL VOLUMES EXCAVATED AND TREATED

Area	Cubic Yards
1(A,C)	900
1(B)	605
2	800
3	5,290
4	530
6	1,731
8	1,250
9	200
Lagoon	150

REVISIONS	NO		DRAWN BY	JVA	CHECKED BY	TDR	7-1-87	DRAWING NUMBER CH84-130-E
	DATE			5-14-87	APPROVED BY		7-2-87	



REFERENCES
- CLARK, DESSER & McGEE RENEWAL MEASURES REPORT 7-11
- E. C. JORDAN CO. SURVEY FILE No. 1431 PROJECT No. 4817-94

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DATE 5-14-87
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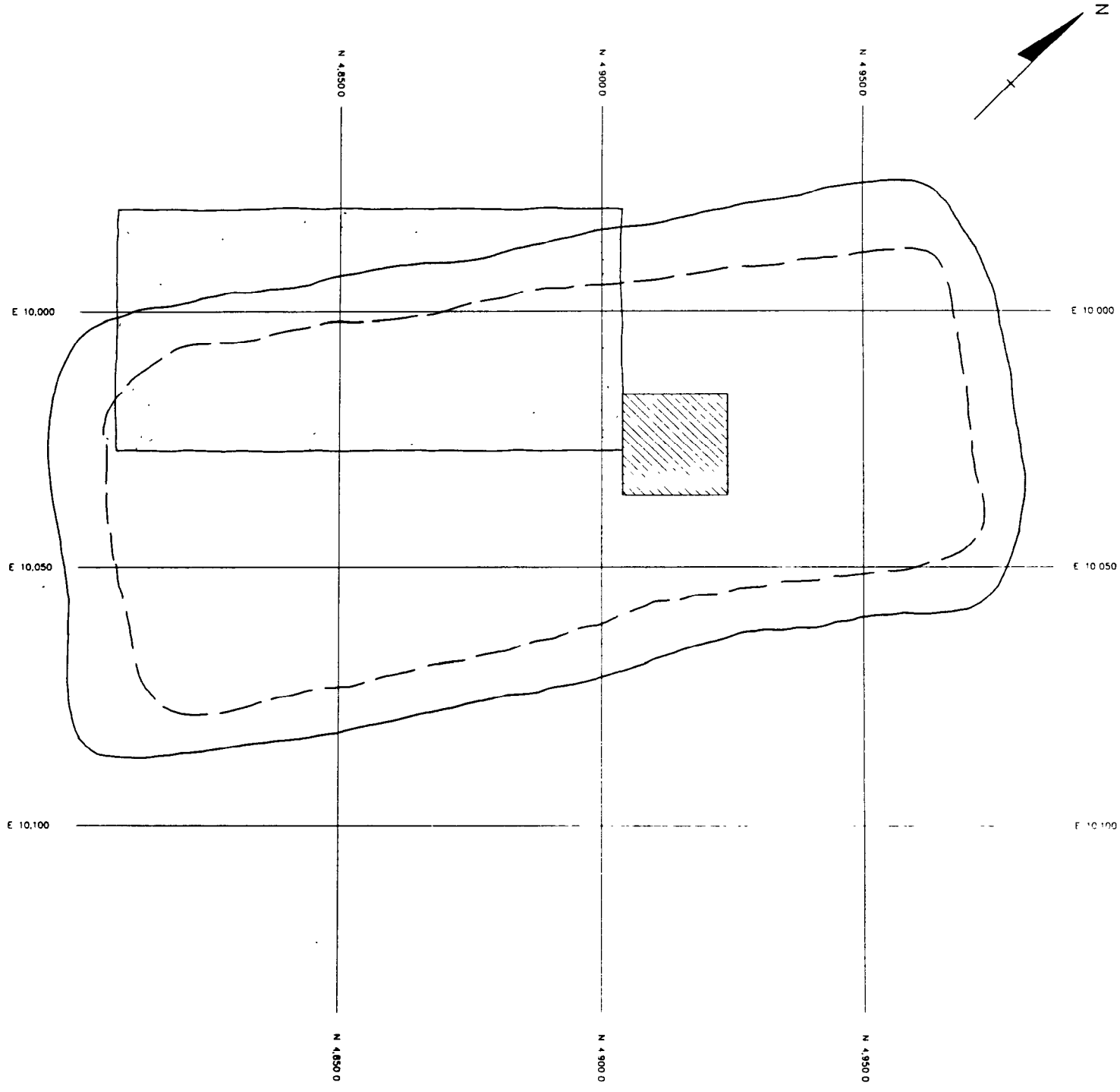
REVISIONS	NO.		DRAWN BY	JVA	CHECKED BY	TRK	7-1-87	DRAWING NUMBER	CH84-130-E86
	DATE			3-26-87	APPROVED BY	PMB	7 21 87		



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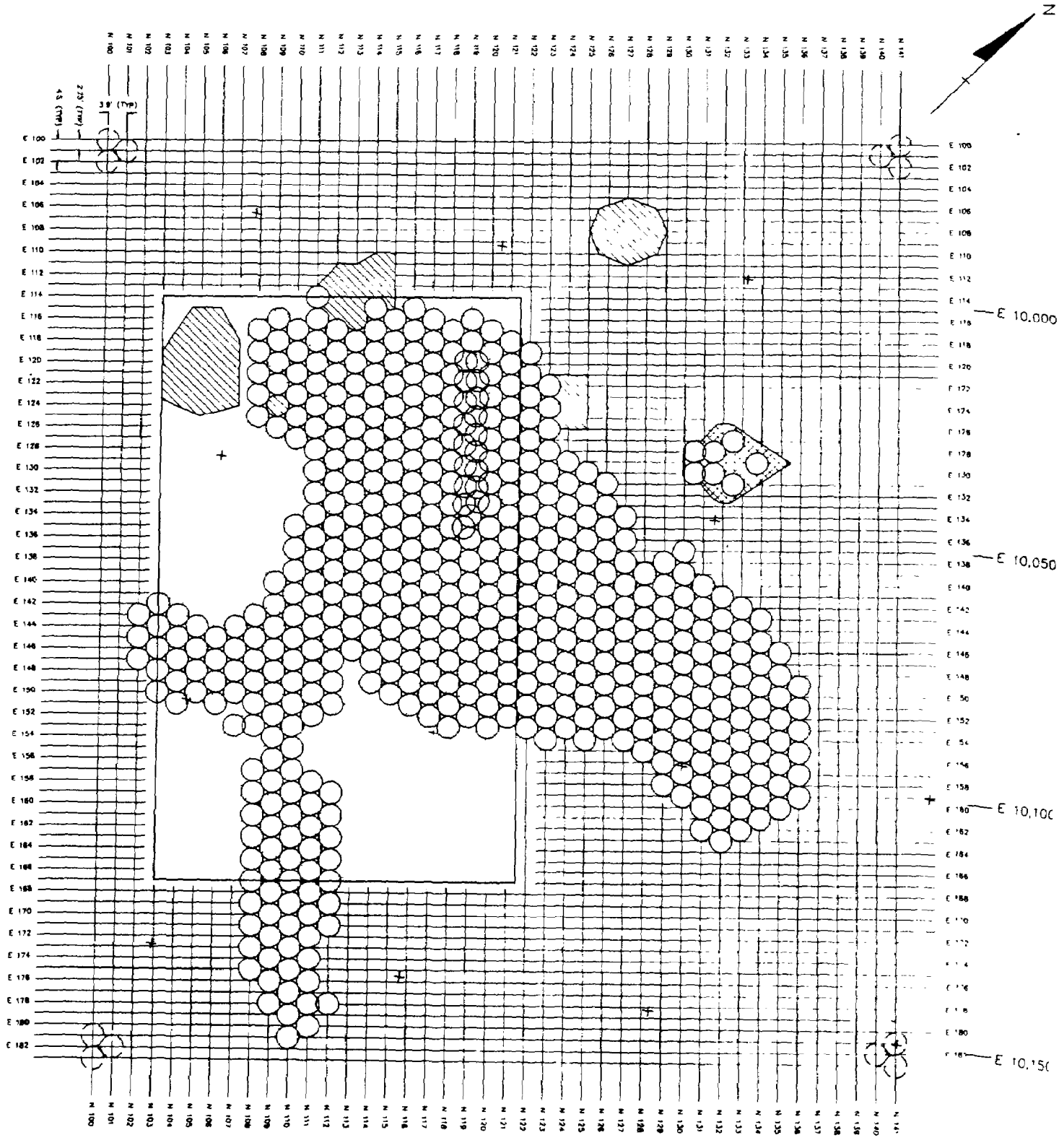
DATE: 3-26-87

REVISIONS	NO.		DRAWN BY	JVA	CHECKED BY	TWK	DRAWING NUMBER CH84-130-E93
	DATE			6-20-87	APPROVED BY	PWF	7/21/87



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TREATE

DATE 6-20-87
SCALE AS SHOWN

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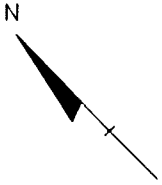

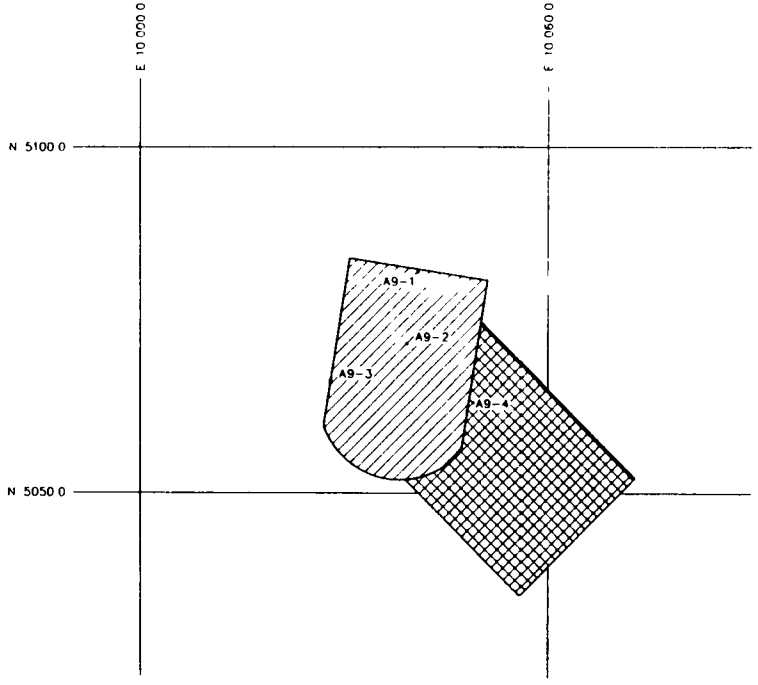

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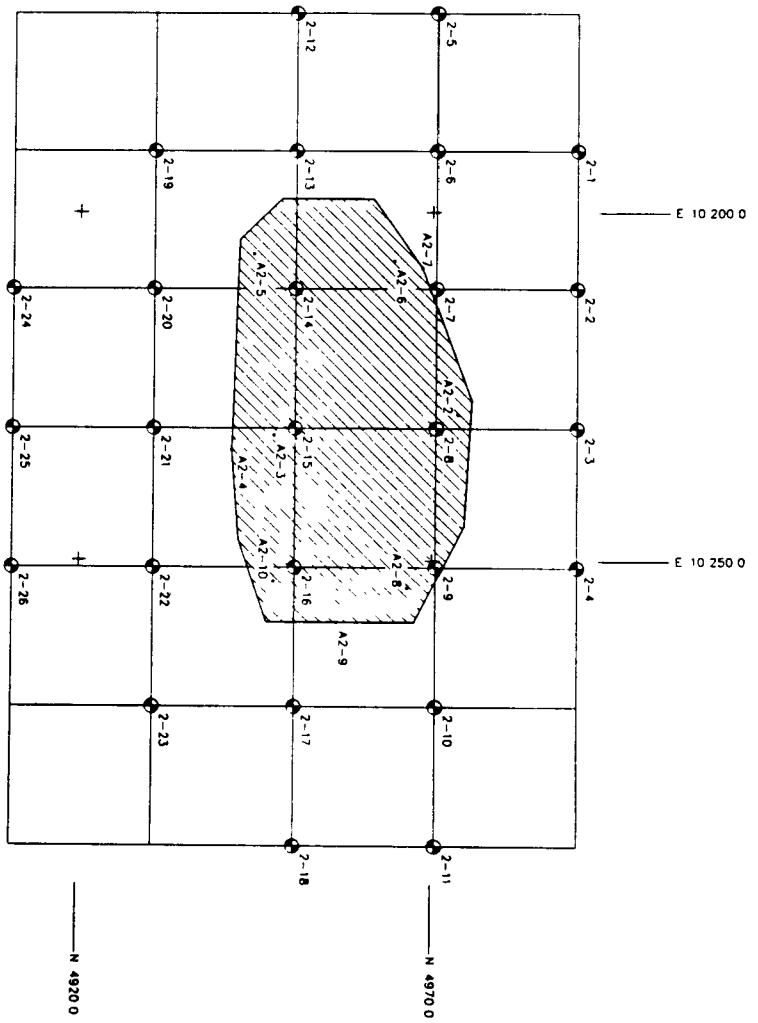
REVISIONS		DRAWN BY	JVA 6-7-87	CHECKED BY APPROVED BY	TSK RMB	7-21-87	DRAWING NUMBER CH84-130-E91
NO	DATE						

REVISIONS	NO		DRAWN BY	JVA	CHECKED BY	TMK	7-1-87	DRAWING NUMBER CH84-130-E90
	DATE			6-7-87	APPROVED BY	RMB	7 21 87	



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AREA
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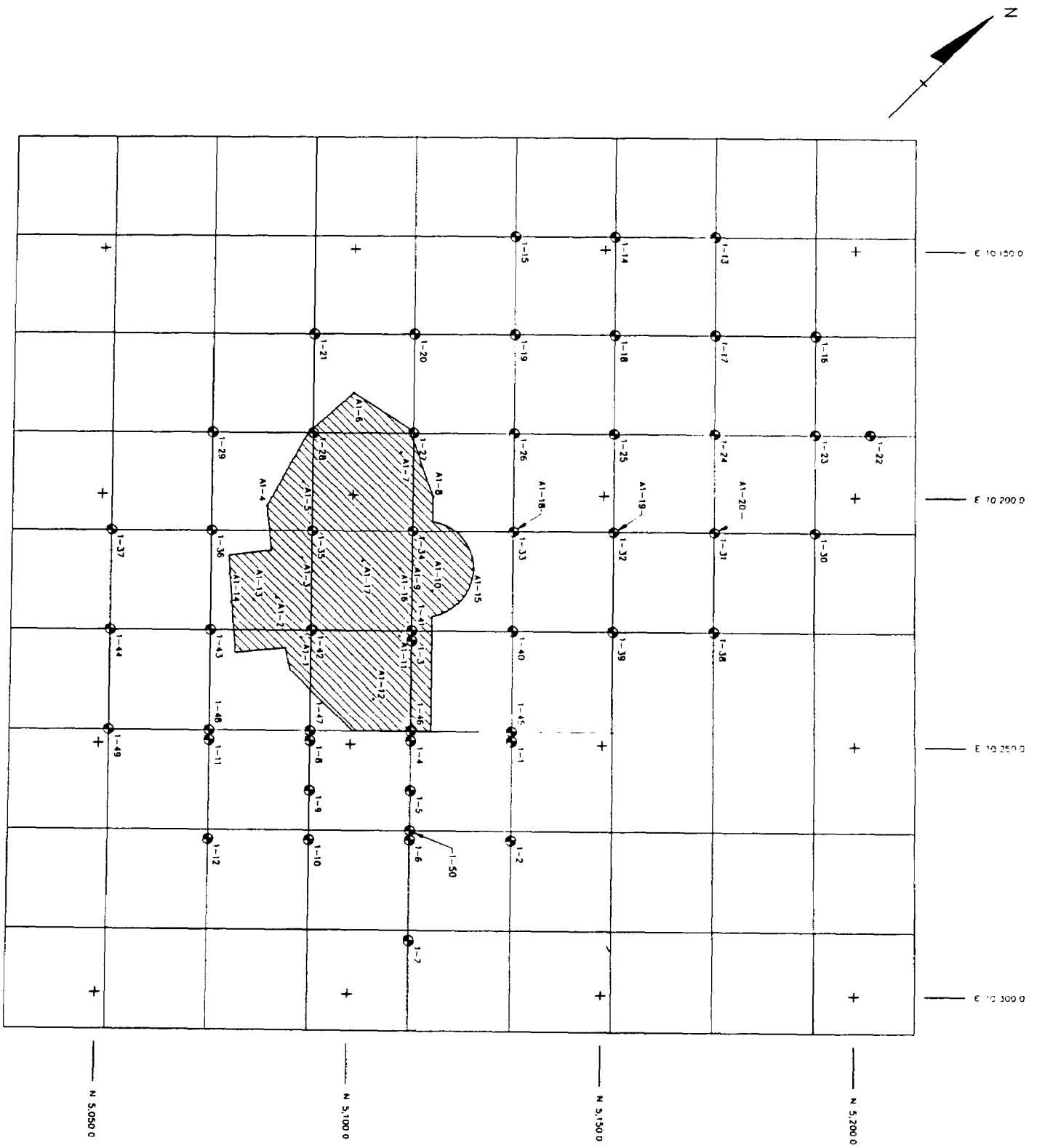
REVISIONS	NO.		DRAWN BY	JVA	CHECKED BY	THK	7/1/87	DRAWING NUMBER	CH84-130-E92
	DATE			6-20-87	APPROVED BY	EMF	7/1/87		

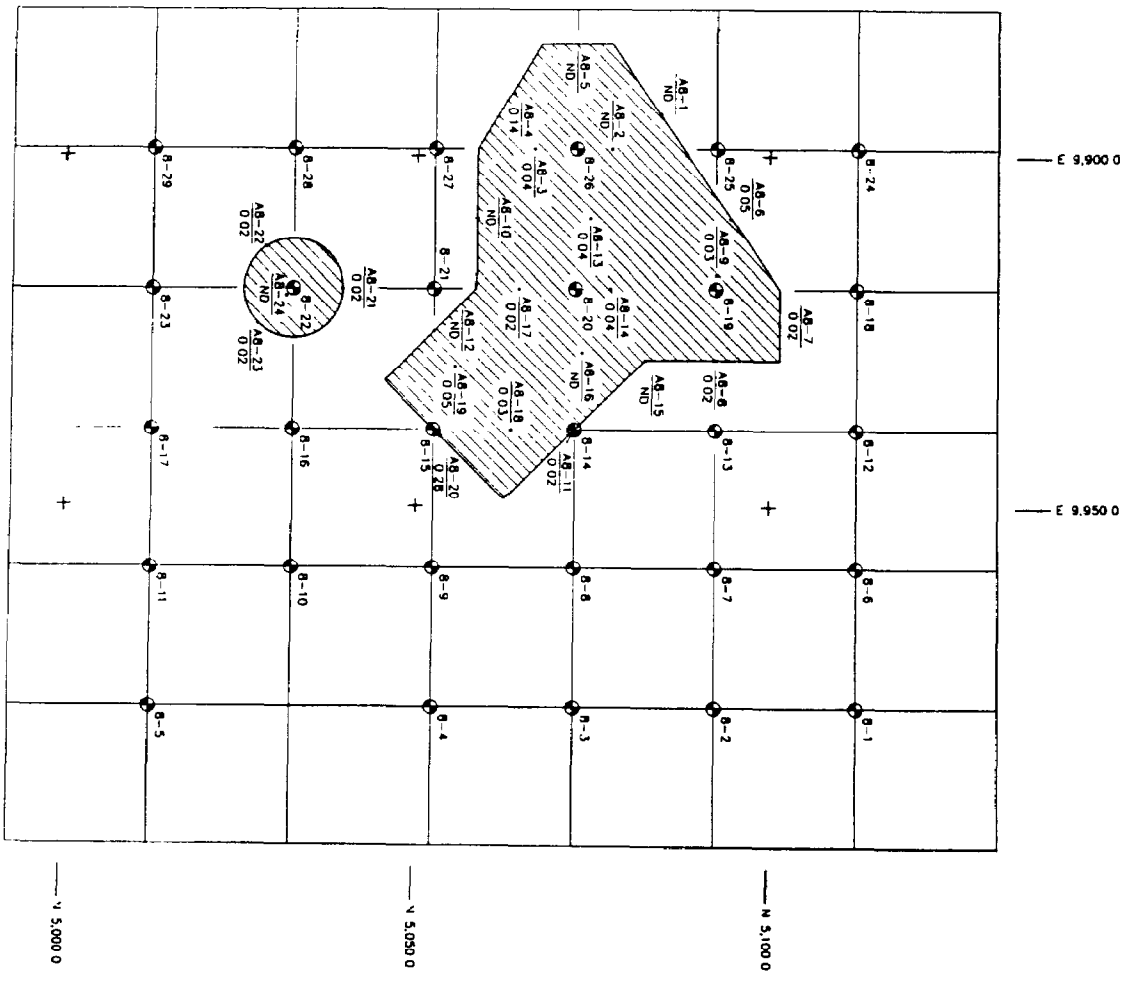


AREAS
PERIM

DATE: 6-20-87

Canon

REVISIONS	NO		DRAWN BY	JVA	CHECKED BY	THK	7-1-87	DRAWING NUMBER CH84-130-E85
	DATE			3-17-87	APPROVED BY	FMB	/ / 87	



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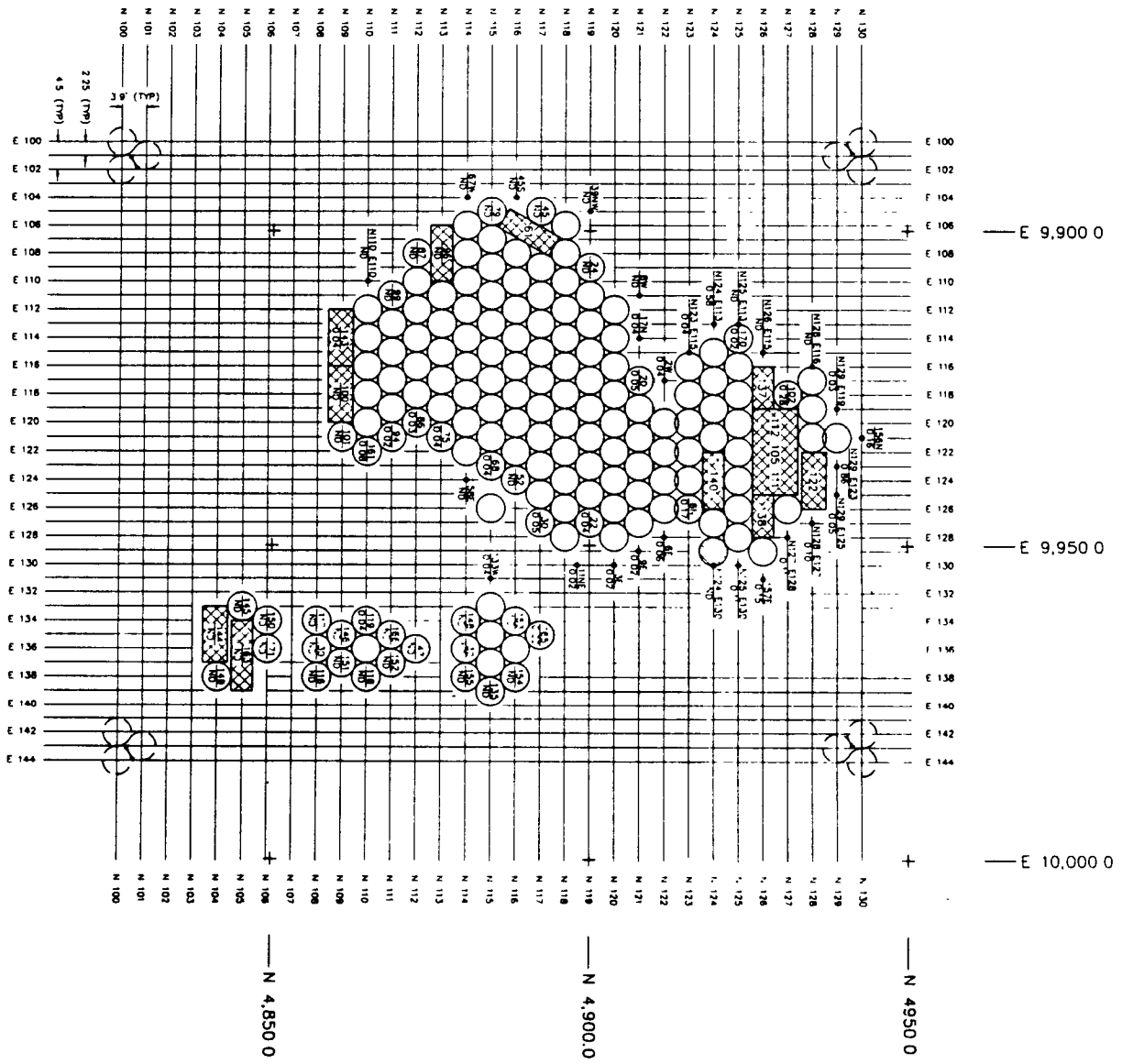
	DATE			3-17-87	APPROVED BY			



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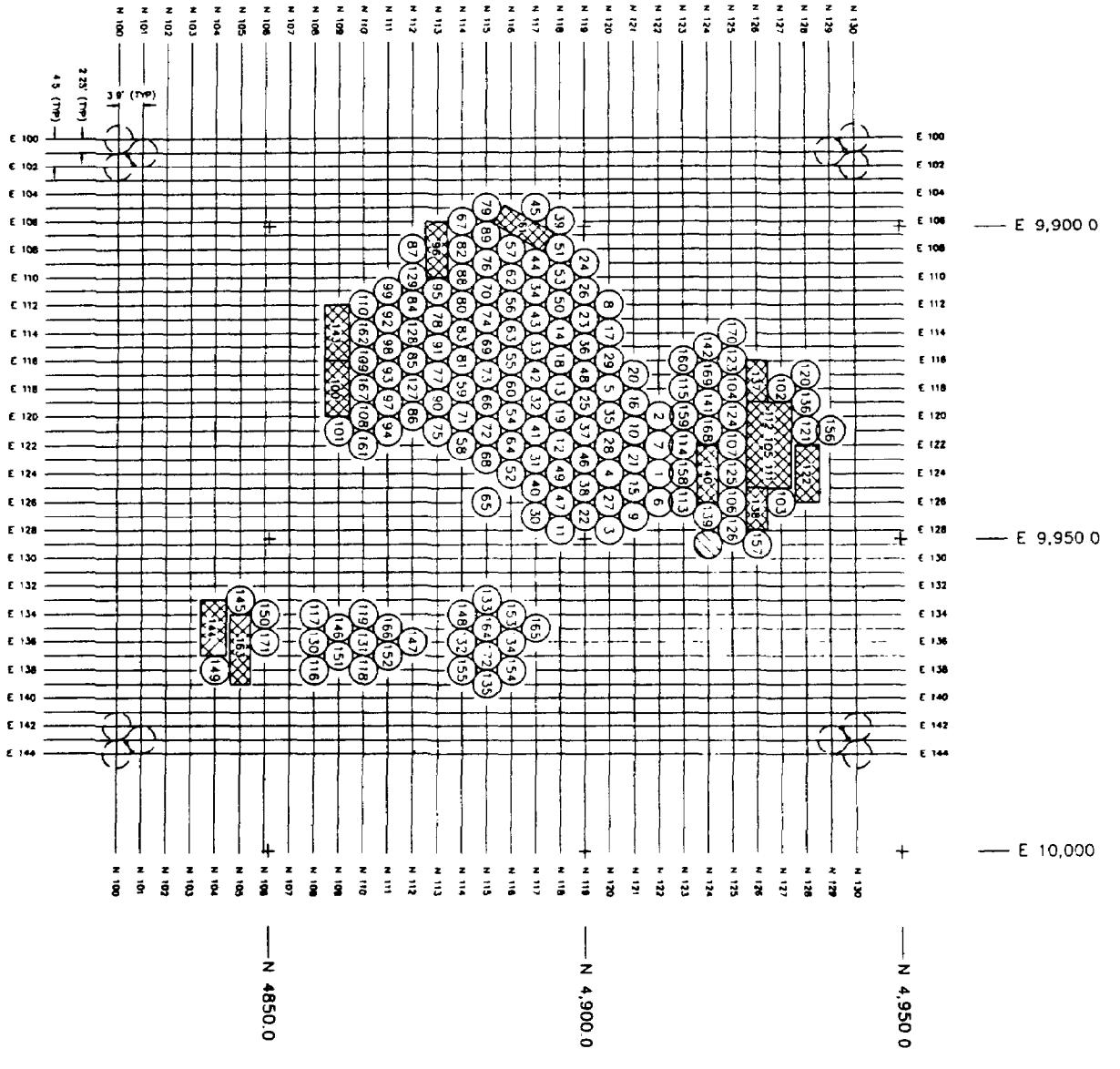
	DATE			3-17-87	APPROVED BY			



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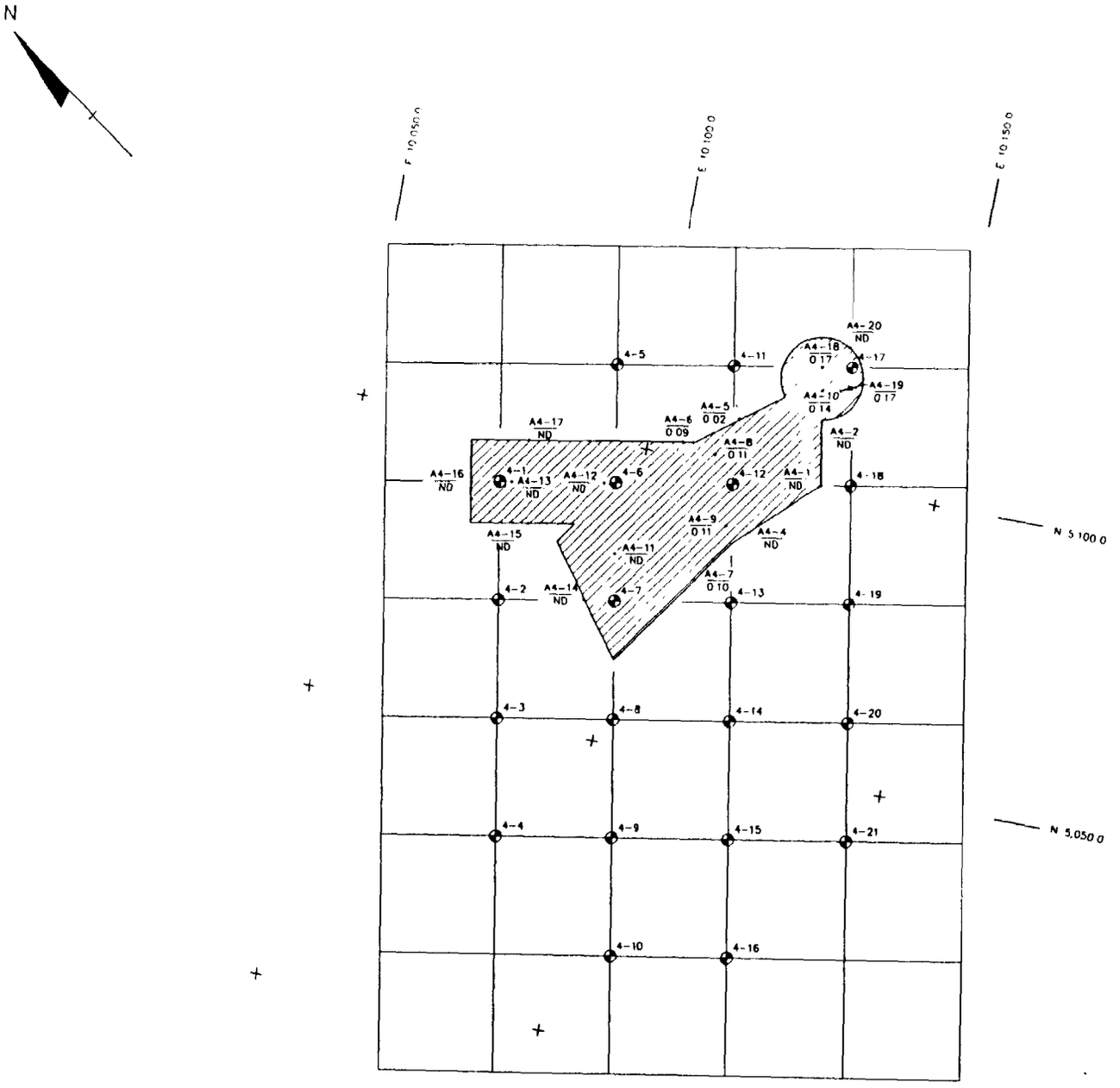
DATE 3-17-87



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AREA 4
PERIMETER

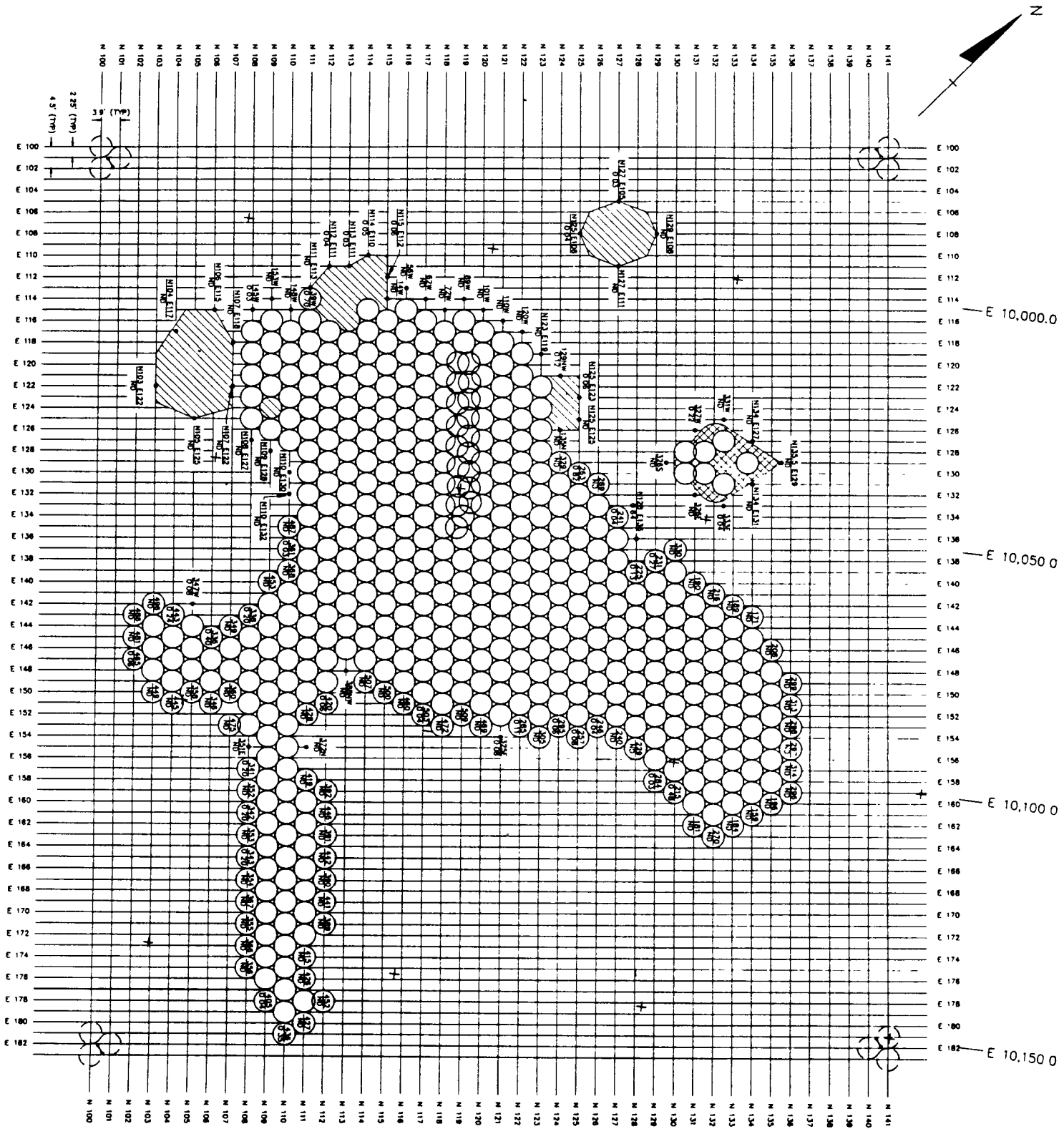
DRAWN BY	JVA 3-17-87	CHECKED BY	TGK	DRAWING NUMBER CH84-130-E84
		APPROVED BY		

REVISIONS	NO	DATE

Canonic

DATE: 3-17-87
SCALE AS SHOWN

REVISIONS	NO.		DRAWN BY	JVA	CHECKED BY			DRAWING NUMBER CH84-130-E80
	DATE			3-16-87	APPROVED BY	BMB	3-21-87	



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DATE: 3-16-87

APPENDIX C

LABORATORY ANALYTICAL REPORTS -

PETROLEUM AREA SOIL AERATION -

U.S. EPA METHOD 8270 AND
TOTAL EXTRACTABLE HYDROCARBONS

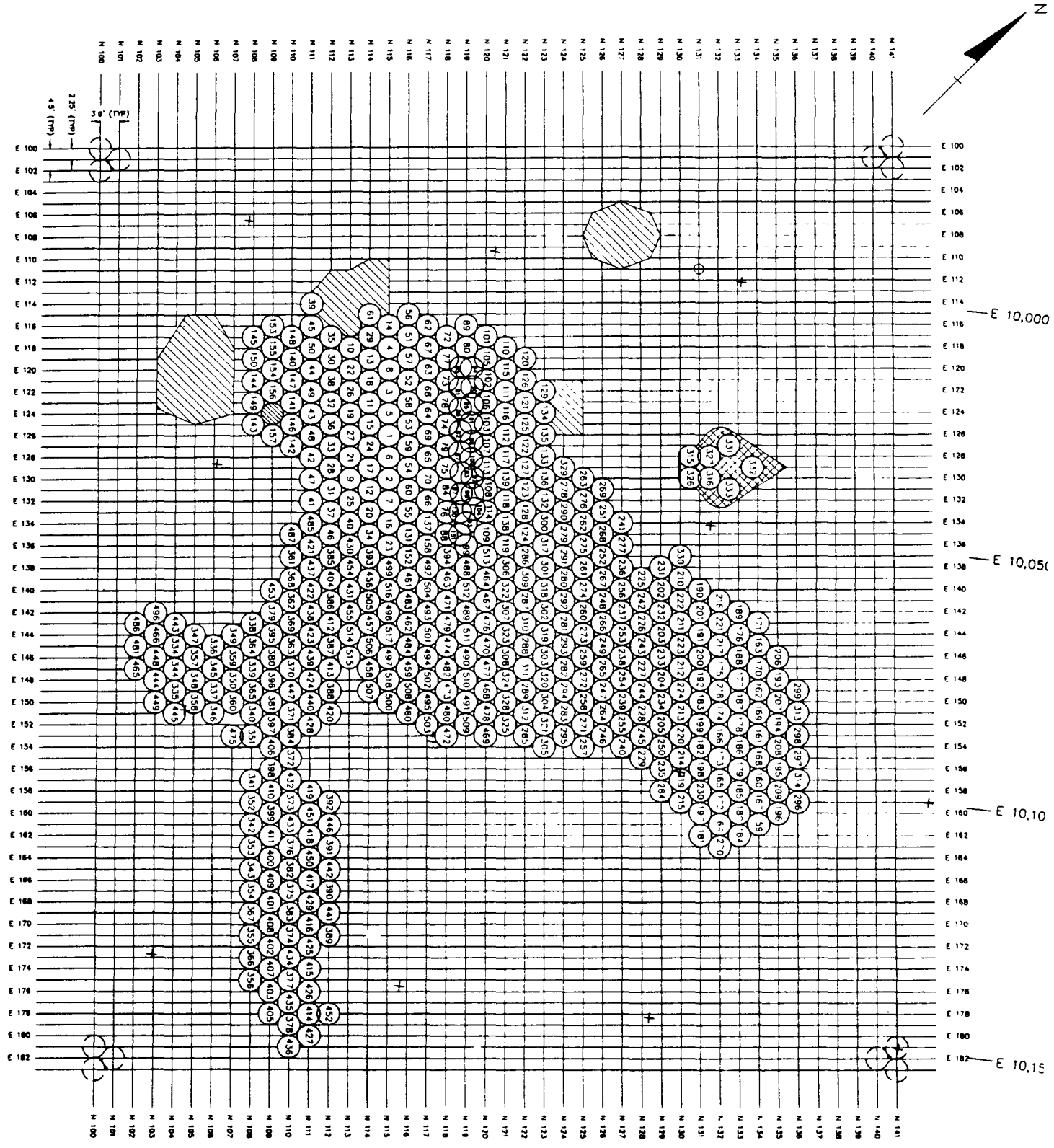
Revised Report

Client ID: MCKIN Data File:>B2286
Sample ID: 84-130-1840 SAMPLE 3-16-2 3981 702286
Matrix : SOIL

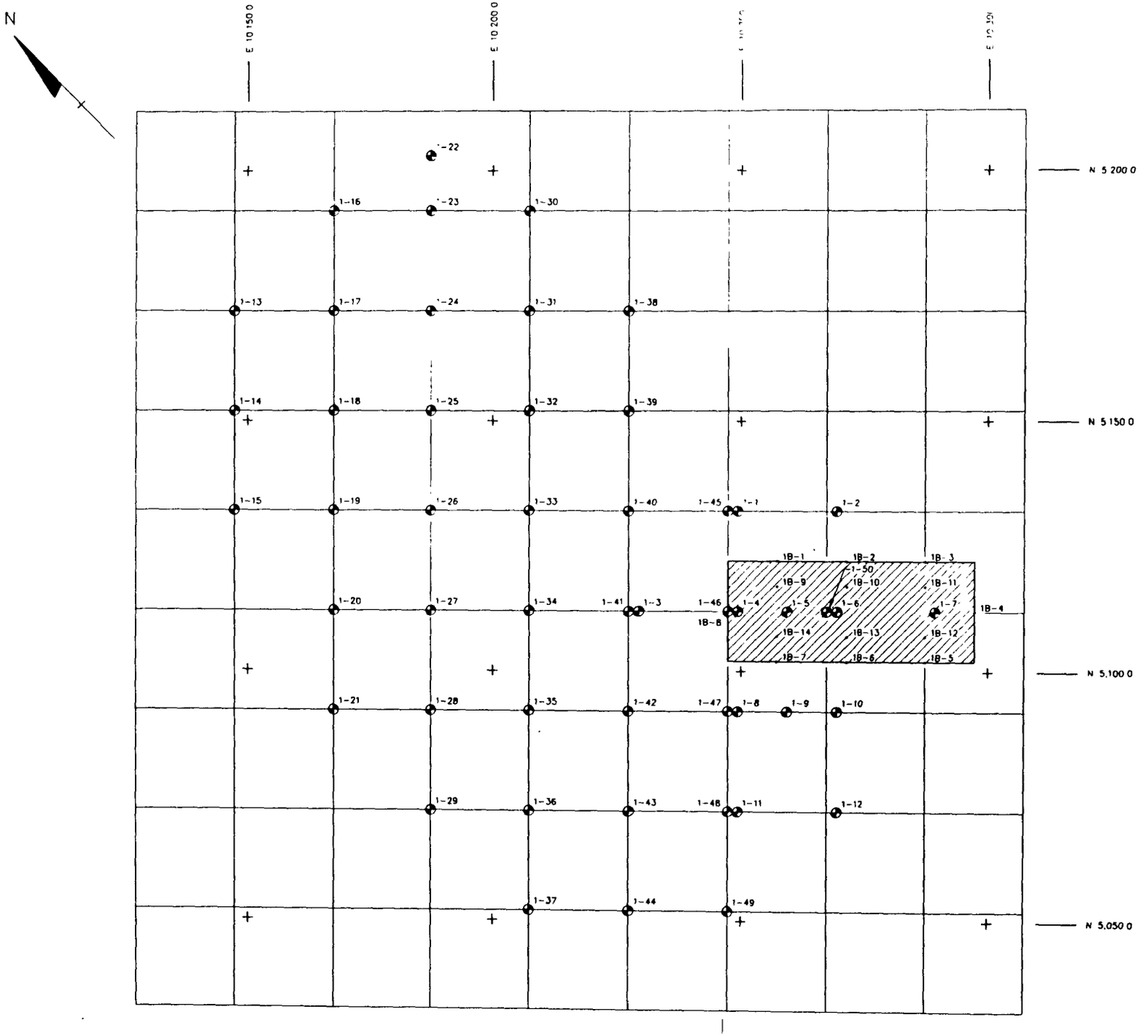
GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	330 ug/Kg
Phenol	ND	330 ug/Kg
bis(-2-Chloroethyl)Ether	ND	330 ug/Kg
2-Chlorophenol	ND	330 ug/Kg
1,3-Dichlorobenzene	ND	330 ug/Kg
1,4-Dichlorobenzene	ND	330 ug/Kg
1,2-Dichlorobenzene	ND	330 ug/Kg
bis(2-chloroisopropyl)Ether	ND	330 ug/Kg
N-Nitroso-Di-Propylamine	ND	330 ug/Kg
Hexachloroethane	ND	330 ug/Kg
Nitrobenzene	ND	330 ug/Kg
Isophorone	ND	330 ug/Kg
2-Nitrophenol	ND	330 ug/Kg
2,4-Dimethylphenol	ND	330 ug/Kg
bis(-2-Chloroethoxy)Methane	ND	330 ug/Kg
2,4-Dichlorophenol	ND	330 ug/Kg
1,2,4-Trichlorobenzene	ND	330 ug/Kg
Naphthalene	ND	330 ug/Kg
Hexachlorobutadiene	ND	330 ug/Kg
4-Chloro-3-Methylphenol	ND	330 ug/Kg
Hexachlorocyclopentadiene	ND	330 ug/Kg
2,4,6-Trichlorophenol	ND	330 ug/Kg
2-Chloronaphthalene	ND	330 ug/Kg
Dimethyl Phthalate	ND	330 ug/Kg
Acenaphthylene	ND	330 ug/Kg
2,6-Dinitrotoluene	ND	330 ug/Kg
Acenaphthene	ND	330 ug/Kg
2,4-Dinitrophenol	ND	1650 ug/Kg
4-Nitrophenol	ND	330 ug/Kg
2,4-Dinitrotoluene	ND	330 ug/Kg
Diethylphthalate	ND	330 ug/Kg
4-Chlorophenyl-phenylether	ND	330 ug/Kg
Fluorene	ND	330 ug/Kg
Benzidine	ND	330 ug/Kg
4,6-Dinitro-2-Methylphenol	ND	1650 ug/Kg
N-Nitrosodiphenylamine	ND	330 ug/Kg
4-Bromophenyl-phenylether	ND	330 ug/Kg
Hexachlorobenzene	ND	330 ug/Kg
Pentachlorophenol	ND	1650 ug/Kg
Phenanthrene	400.	330 ug/Kg
Anthracene	ND	330 ug/Kg
Di-N-Butylphthalate	ND	330 ug/Kg
Fluoranthene	ND	330 ug/Kg

REVISIONS	NO.		DRAWN BY	JVA	CHECKED BY			DRAWING NUMBER CH84-130-E87
	DATE			3-17-87	APPROVED BY	BMB	7-1-87	



DATE: 3-17-87
SCALE AS SHOWN



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NOTE

AREA 1B
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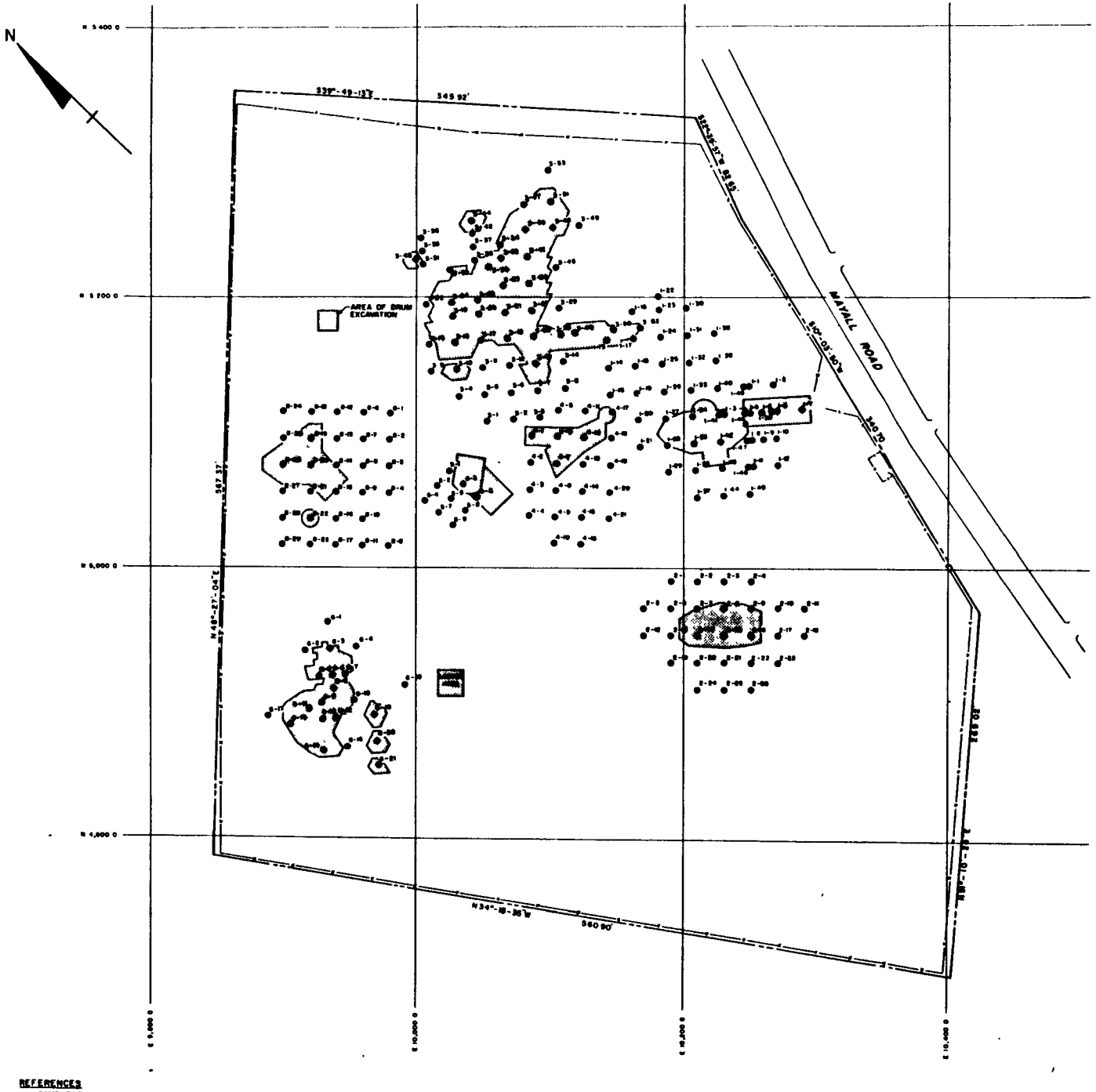
DATE 3-17-87
SCALE AS SHOWN

REVISIONS								
NO.	DATE	DRAWN BY	JVA 3-17-87	CHECKED BY APPROVED BY	RMR	7-21-87	DRAWING NUMBER	CH84-130-E83



REFERENCES
- CAMP DRESSER & McKEE REMEDIAL MEASURES REPORT 7-11
- E C JORDAN CO SURVEY FILE No 1431 PROJECT No 4647-94

REVISIONS		DRAWN BY	JVA	CHECKED BY		DRAWING NUMBER CH84-130-E88
NO	DATE		3-23-87	APPROVED BY		

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APPENDIX A

MISCELLANEOUS LABORATORY ANALYTICAL REPORTS

Table 1
Codes of Samples Received
From McKin
Project: 84-130

Sampler ID	Date Sampled	Date Received	Lab ID#	Sample Type	Container
Analysis: Purgeable Aromatics					
Decon Water	05-12-87	05-13-87	705934	Water	40 ml vial
			705935	Water	40 ml vial
			705936	Water	40 ml vial
Analysis: Purgeable Halocarbons					
Decon Water	05-12-87	05-13-87	705934	Water	40 ml vial
			705935	Water	40 ml vial
			705936	Water	40 ml vial

Table 2
Results of Purgeable Aromatics Analysis on Water
Samples Received From McKin
Results in mg/l

Sampler ID:	Decon Water
Lab ID#:	705934
Analyte(s)	
Benzene	ND 0.05
Chlorobenzene	ND 0.05
1,2-Dichlorobenzene	ND 0.05
1,3-Dichlorobenzene	ND 0.05
1,4-Dichlorobenzene	ND 0.05
Ethylbenzene	ND 0.05
Toluene	ND 0.05
Xylene	0.11

Analyst Checked by

Note:
ND X denotes none detected to a level of X.

Table 3
Results of Purgeable Halocarbons Analysis on Water
Samples Received From McKin
Results in mg/l

Sampler ID:	Decon Water
Lab ID#:	705934
Analyte(s)	
Bromodichloromethane	ND 0.005
Bromoform	ND 0.005
Bromomethane	ND 0.005
Carbon tetrachloride	ND 0.005
Chlorobenzene	ND 0.005
Chloroethane	ND 0.005
2-Chloroethylvinyl ether	ND 0.005
Chloroform	ND 0.005
Chloromethane	ND 0.005
Dibromochloromethane	ND 0.005
1,2-Dichlorobenzene	0.011
1,3-Dichlorobenzene	ND 0.005
1,4-Dichlorobenzene	ND 0.005
Dichlorodifluoromethane	ND 0.005
1,1-Dichloroethane	ND 0.005
1,2-Dichloroethane	ND 0.005
1,1-Dichloroethene	ND 0.005
trans-1,2-Dichloroethene	ND 0.005
1,2-Dichloropropane	ND 0.005
cis-1,3-Dichloropropene	ND 0.005
trans-1,3-Dichloropropene	ND 0.005
1,1,2,2-Tetrachloroethane	ND 0.005
Tetrachloroethene	ND 0.005
1,1,1-Trichloroethane	ND 0.005
1,1,2-Trichloroethane	ND 0.005
Trichloroethene	0.015
Trichlorofluoromethane	ND 0.005
Vinyl chloride	ND 0.005
Methylene chloride	ND 0.005

Analyst Checked by

Canonie Environmental

Client ID: MCKIN Data File:>B5937
Sample ID: 84-130-2134 SAMPLE- DECON WATER 705937
Matrix : WATER

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT**
N-Nitrosodimethylamine	ND	100 ug/L
Phenol	1800.	100 ug/L
bis(-2-Chloroethyl)Ether	ND	100 ug/L
2-Chlorophenol	ND	100 ug/L
1,3-Dichlorobenzene	ND	100 ug/L
1,4-Dichlorobenzene	ND	100 ug/L
1,2-Dichlorobenzene	ND	100 ug/L
bis(2-chloroisopropyl)Ether	ND	100 ug/L
N-Nitroso-Di-Propylamine	ND	100 ug/L
Hexachloroethane	ND	100 ug/L
Nitrobenzene	ND	100 ug/L
Isophorone	ND	100 ug/L
2-Nitrophenol	ND	100 ug/L
2,4-Dimethylphenol	100.	100 ug/L
bis(-2-Chloroethoxy)Methane	ND	100 ug/L
2,4-Dichlorophenol	ND	100 ug/L
1,2,4-Trichlorobenzene	ND	100 ug/L
Naphthalene	ND	100 ug/L
Hexachlorobutadiene	ND	100 ug/L
4-Chloro-3-Methylphenol	ND	100 ug/L
Hexachlorocyclopentadiene	ND	100 ug/L
2,4,6-Trichlorophenol	ND	100 ug/L
2-Chloronaphthalene	ND	100 ug/L
Dimethyl Phthalate	ND	100 ug/L
Acenaphthylene	ND	100 ug/L
2,6-Dinitrotoluene	ND	100 ug/L
Acenaphthene	ND	100 ug/L
2,4-Dinitrophenol	ND	500 ug/L
4-Nitrophenol	ND	100 ug/L
2,4-Dinitrotoluene	ND	100 ug/L
Diethylphthalate	ND	100 ug/L
4-Chlorophenyl-phenylether	ND	100 ug/L
Fluorene	ND	100 ug/L
Benzidine	ND	100 ug/L
4,6-Dinitro-2-Methylphenol	ND	500 ug/L
N-Nitrosodiphenylamine	ND	100 ug/L
4-Bromophenyl-phenylether	ND	100 ug/L
Hexachlorobenzene	ND	100 ug/L
Pentachlorophenol	ND	500 ug/L
Phenanthrene	ND	100 ug/L
Anthracene	ND	100 ug/L
Di-N-Butylphthalate	ND	100 ug/L
Fluoranthene	ND	100 ug/L

MCKIN
705937 LP-2134
PAGE 2

Pyrene	ND	100 ug/L
Butylbenzylphthalate	ND	100 ug/L
3,3'-Dichlorobenzidine	ND	200 ug/L
Benzo(a)Anthracene	ND	100 ug/L
bis-(2-Ethylhexyl)Phthalate	ND	100 ug/L
Chrysene	ND	100 ug/L
Di-N-Octyl Phthalate	ND	100 ug/L
Benzo(b)Fluoranthene	ND	100 ug/L
Benzo(k)Fluoranthene	ND	100 ug/L
Benzo(a)Pyrene	ND	100 ug/L
Indeno(1,2,3-cd)Pyrene	ND	100 ug/L
Dibenzo(a,h)Anthracene	ND	100 ug/L
Benzo(g,h,i)Perylene	ND	100 ug/L

NOTE
The detection limit has been raised by a factor of ten (10) due to the high concentration of phenol. This is required to insure the phenol concentration is in linear range of the instrument.

Analyst

Checked By

Tab. 2
Results of Polynuclear Aromatics Analysis on Water
Samples Received From McKin
Results in mg/l

Sampler ID:	CarbonBed Condensate
Lab ID#:	702564
Analyte(s)	
Acenaphthene	ND 0.05
Acenaphthylene	ND 0.05
Anthracene	ND 0.05
Benzo (a) anthracene	ND 0.05
Benzo (a) pyrene	ND 0.05
Benzo (b) fluoranthene	ND 0.05
Benzo (ghi) perylene	ND 0.05
Benzo (k) fluroanthene	ND 0.05
Chrysene	ND 0.05
Dibenzo (a,h) anthracene	ND 0.05
Fluoranthene	ND 0.05
Fluorene	ND 0.05
Indeno (1,2,3-cd) pyrene	ND 0.05
Naphthalene	#ND 0.5
Phenanthrene	ND 0.05
Pyrene	ND 0.05

Analyst Checked by

Note:
ND X denotes none detected to a level of X.
#ND X denotes none detected to a level of X due to an interfering peak.

Canonie Environmental

Client ID: MCKIN
Sample ID: 84-130-1867 SAMPLE- CONDENSATE
Matrix : WATER

Data File:>B2564
702564

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	40 ug/L
Phenol	ND	40 ug/L
bis(-2-Chloroethyl)Ether	ND	40 ug/L
2-Chlorophenol	ND	40 ug/L
1,3-Dichlorobenzene	ND	40 ug/L
1,4-Dichlorobenzene	ND	40 ug/L
1,2-Dichlorobenzene	ND	40 ug/L
bis(2-chloroisopropyl)Ether	ND	40 ug/L
N-Nitroso-Di-Propylamine	ND	40 ug/L
Hexachloroethane	ND	40 ug/L
Nitrobenzene	ND	40 ug/L
Isophorone	ND	40 ug/L
2-Nitrophenol	ND	40 ug/L
2,4-Dimethylphenol	ND	40 ug/L
bis(-2-Chloroethoxy)Methane	ND	40 ug/L
2,4-Dichlorophenol	ND	40 ug/L
1,2,4-Trichlorobenzene	ND	40 ug/L
Naphthalene	ND	40 ug/L
Hexachlorobutadiene	ND	40 ug/L
4-Chloro-3-Methylphenol	ND	40 ug/L
Hexachlorocyclopentadiene	ND	40 ug/L
2,4,6-Trichlorophenol	ND	40 ug/L
2-Chloronaphthalene	ND	40 ug/L
Dimethyl Phthalate	ND	40 ug/L
Acenaphthylene	ND	40 ug/L
2,6-Dinitrotoluene	ND	40 ug/L
Acenaphthene	ND	40 ug/L
2,4-Dinitrophenol	ND	200 ug/L
4-Nitrophenol	ND	40 ug/L
2,4-Dinitrotoluene	ND	40 ug/L
Diethylphthalate	ND	40 ug/L
4-Chlorophenyl-phenylether	ND	40 ug/L
Fluorene	ND	40 ug/L
Benzidine	ND	40 ug/L
4,6-Dinitro-2-Methylphenol	ND	200 ug/L
N-Nitrosodiphenylamine	ND	40 ug/L
4-Bromophenyl-phenylether	ND	40 ug/L
Hexachlorobenzene	ND	40 ug/L
Pentachlorophenol	ND	200 ug/L
Phenanthrene	ND	40 ug/L
Anthracene	ND	40 ug/L
Di-N-Butylphthalate	ND	40 ug/L
Fluoranthene	ND	40 ug/L

MCKIN
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Pyrene	ND	40	ug/L
Butylbenzylphthalate	ND	40	ug/L
3,3'-Dichlorobenzidine	ND	80	ug/L
Benzo(a)Anthracene	ND	40	ug/L
bis-(2-Ethylhexyl)Phthalate	ND	40	ug/L
Chrysene	ND	40	ug/L
Di-N-Octyl Phthalate	ND	40	ug/L
Benzo(b)Fluoranthene	ND	40	ug/L
Benzo(k)Fluoranthene	ND	40	ug/L
Benzo(a)Pyrene	ND	40	ug/L
Indeno(1,2,3-cd)Pyrene	ND	40	ug/L
Dibenzo(a,h)Anthracene	ND	40	ug/L
Benzo(g,h,i)Perylene	ND	40	ug/L

bi
Analyst

ACN
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Table 2
Results of Polynuclear Aromatics Analysis on Water
Samples Received From McKin
Results in mg/l

03-11-1987
84-130-1743
Page 2

Sampler ID:	Well #8-A
Lab ID#:	701036
Analyte(s)	
Acenaphthene	ND 0.01
Acenaphthylene	ND 0.01
Anthracene	ND 0.01
Benzo (a) anthracene	ND 0.01
Benzo (a) pyrene	ND 0.01
Benzo (b) fluoranthene	ND 0.01
Benzo (ghi) perylene	ND 0.01
Benzo (k) fluroanthene	ND 0.01
Chrysene	ND 0.01
Dibenzo (a,h) anthracene	ND 0.01
Fluoranthene	ND 0.01
Fluorene	ND 0.01
Indeno (1,2,3-cd) pyrene	ND 0.01
Naphthalene	ND 0.01
Phenanthrene	ND 0.01
Pyrene	ND 0.01

JMH
Analyst

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Note:
ND X denotes none detected to a level of X.

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Table 3
Results of Purgeable Aromatics Analysis on Water
Samples Received From McKin
Results in mg/l

Sampler ID:	Well #8-A
Lab ID#:	701036
Analyte(s)	
Benzene	ND 0.05
Chlorobenzene	ND 0.05
1,2-Dichlorobenzene	ND 0.05
1,3-Dichlorobenzene	ND 0.05
1,4-Dichlorobenzene	ND 0.05
Ethylbenzene	ND 0.05
Toluene	ND 0.05
Xylene	ND 0.05

Analyst Checked by

Note:
ND X denotes none detected to a level of X.

Table 4
Results of Purgeable Halocarbons Analysis on Water
Samples Received From McKin
Results in mg/l

Sampler ID:	Well #8-A
Lab ID#:	701036
Analyte(s)	
Bromodichloromethane	ND 0.005
Bromoform	ND 0.005
Bromomethane	ND 0.005
Carbon tetrachloride	ND 0.005
Chlorobenzene	ND 0.005
Chloroethane	ND 0.005
2-Chloroethylvinyl ether	ND 0.005
Chloroform	ND 0.005
Chloromethane	ND 0.005
Dibromochloromethane	ND 0.005
1,2-Dichlorobenzene	ND 0.005
1,3-Dichlorobenzene	ND 0.005
1,4-Dichlorobenzene	ND 0.005
Dichlorodifluoromethane	ND 0.005
1,1-Dichloroethane	ND 0.005
1,2-Dichloroethane	ND 0.005
1,1-Dichloroethene	ND 0.005
trans-1,2-Dichloroethene	ND 0.005
1,2-Dichloropropane	ND 0.005
cis-1,3-Dichloropropene	ND 0.005
trans-1,3-Dichloropropene	ND 0.005
1,1,2,2-Tetrachloroethane	ND 0.005
Tetrachloroethene	ND 0.005
1,1,1-Trichloroethane	0.19
1,1,2-Trichloroethane	ND 0.005
Trichloroethene	ND 0.005
Trichlorofluoromethane	ND 0.005
Vinyl chloride	ND 0.005
Methylene chloride	ND 0.005

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Table 5
Results of Total Ext. Hydrocarbons Analysis on Water
Samples Received From McKin
Results in mg/l

03-11-1987
84-130-1743
Page 5

Sampler ID:	Well #8-A
Lab ID#:	701036
Analyte(s) Total Extractable Hydrocarbons	ND 1.0

JMH JM
Analyst Checked by

Note:
ND X denotes none detected to a level of X.

Client ID: MCKIN Data File:>B2292
Sample ID: 84-130-1840 SAMPLE- MIST ELIMINATOR 3201 702292
Matrix : WATER

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	40 ug/L
Phenol	ND	40 ug/L
bis(-2-Chloroethyl)Ether	ND	40 ug/L
2-Chlorophenol	ND	40 ug/L
1,3-Dichlorobenzene	ND	40 ug/L
1,4-Dichlorobenzene	ND	40 ug/L
1,2-Dichlorobenzene	ND	40 ug/L
bis(2-chloroisopropyl)Ether	ND	40 ug/L
N-Nitroso-Di-Propylamine	ND	40 ug/L
Hexachloroethane	ND	40 ug/L
Nitrobenzene	53.	40 ug/L
Isophorone	ND	40 ug/L
2-Nitrophenol	ND	40 ug/L
2,4-Dimethylphenol	140.	40 ug/L
bis(-2-Chloroethoxy)Methane	ND	40 ug/L
2,4-Dichlorophenol	ND	40 ug/L
1,2,4-Trichlorobenzene	ND	40 ug/L
Naphthalene	60.	40 ug/L
Hexachlorobutadiene	ND	40 ug/L
4-Chloro-3-Methylphenol	55.	40 ug/L
Hexachlorocyclopentadiene	ND	40 ug/L
2,4,6-Trichlorophenol	ND	40 ug/L
2-Chloronaphthalene	ND	40 ug/L
Dimethyl Phthalate	ND	40 ug/L
Acenaphthylene	50.	40 ug/L
2,6-Dinitrotoluene	ND	40 ug/L
Acenaphthene	71.	40 ug/L
2,4-Dinitrophenol	420.	200 ug/L
4-Nitrophenol	ND	40 ug/L
2,4-Dinitrotoluene	ND	40 ug/L
Diethylphthalate	ND	40 ug/L
4-Chlorophenyl-phenylether	ND	40 ug/L
Fluorene	ND	40 ug/L
Benzidine	ND	40 ug/L
4,6-Dinitro-2-Methylphenol	530.	200 ug/L
N-Nitrosodiphenylamine	310.	40 ug/L
4-Bromophenyl-phenylether	ND	40 ug/L
Hexachlorobenzene	ND	40 ug/L
Pentachlorophenol	ND	200 ug/L
Phenanthrene	620.	40 ug/L
Anthracene	170.	40 ug/L
Di-N-Butylphthalate	ND	40 ug/L
Fluoranthene	220.	40 ug/L

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PAGE 2

Pyrene	71.	40	ug/L
Butylbenzylphthalate	ND	40	ug/L
3,3'-Dichlorobenzidine	ND	80	ug/L
Benzo(a)Anthracene	ND	40	ug/L
bis-(2-Ethylhexyl)Phthalate	ND	40	ug/L
Chrysene	ND	40	ug/L
Di-N-Octyl Phthalate	ND	40	ug/L
Benzo(b)Fluoranthene	ND	40	ug/L
Benzo(k)Fluoranthene	ND	40	ug/L
Benzo(a)Pyrene	ND	40	ug/L
Indeno(1,2,3-cd)Pyrene	ND	40	ug/L
Dibenzo(a,h)Anthracene	ND	40	ug/L
Benzo(g,h,i)Perylene	ND	40	ug/L

Analyst

AGN
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Client ID: MCKIN Data File:>B4066
Sample ID: 84-130-1986 SAMPLE- SCRUBBER LIQUID 704066
Matrix : WATER

GC/MS
SEMI-VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
N-Nitrosodimethylamine	ND	30 ug/L
Phenol	ND	30 ug/L
bis(-2-Chloroethyl)Ether	ND	30 ug/L
2-Chlorophenol	ND	30 ug/L
1,3-Dichlorobenzene	ND	30 ug/L
1,4-Dichlorobenzene	ND	30 ug/L
1,2-Dichlorobenzene	ND	30 ug/L
bis(2-chloroisopropyl)Ether	ND	30 ug/L
N-Nitroso-Di-Propylamine	ND	30 ug/L
Hexachloroethane	ND	30 ug/L
Nitrobenzene	ND	30 ug/L
Isophorone	ND	30 ug/L
2-Nitrophenol	ND	30 ug/L
2,4-Dimethylphenol	ND	30 ug/L
bis(-2-Chloroethoxy)Methane	ND	30 ug/L
2,4-Dichlorophenol	ND	30 ug/L
1,2,4-Trichlorobenzene	ND	30 ug/L
Naphthalene	ND	30 ug/L
Hexachlorobutadiene	ND	30 ug/L
4-Chloro-3-Methylphenol	ND	30 ug/L
Hexachlorocyclopentadiene	ND	30 ug/L
2,4,6-Trichlorophenol	ND	30 ug/L
2-Chloronaphthalene	ND	30 ug/L
Dimethyl Phthalate	ND	30 ug/L
Acenaphthylene	ND	30 ug/L
2,6-Dinitrotoluene	ND	30 ug/L
Acenaphthene	ND	30 ug/L
2,4-Dinitrophenol	ND	150 ug/L
4-Nitrophenol	ND	30 ug/L
2,4-Dinitrotoluene	57.	30 ug/L
Diethylphthalate	ND	30 ug/L
4-Chlorophenyl-phenylether	ND	30 ug/L
Fluorene	64.	30 ug/L
Benzidine	ND	30 ug/L
4,6-Dinitro-2-Methylphenol	ND	150 ug/L
N-Nitrosodiphenylamine	ND	30 ug/L
4-Bromophenyl-phenylether	ND	30 ug/L
Hexachlorobenzene	ND	30 ug/L
Pentachlorophenol	ND	150 ug/L
Phenanthrene	92.	30 ug/L
Anthracene	ND	30 ug/L
Di-N-Butylphthalate	ND	30 ug/L
Fluoranthene	32.	30 ug/L

MCKIN
704066 LP-1986
PAGE 2

Pyrene	54.	30	ug/L
Butylbenzylphthalate	ND	30	ug/L
3,3'-Dichlorobenzidine	ND	60	ug/L
Benzo(a)Anthracene	ND	30	ug/L
bis-(2-Ethylhexyl)Phthalate	ND	30	ug/L
Chrysene	ND	30	ug/L
Di-N-Octyl Phthalate	ND	30	ug/L
Benzo(b)Fluoranthene	ND	30	ug/L
Benzo(k)Fluoranthene	ND	30	ug/L
Benzo(a)Pyrene	ND	30	ug/L
Indeno(1,2,3-cd)Pyrene	ND	30	ug/L
Dibenzo(a,h)Anthracene	ND	30	ug/L
Benzo(g,h,i)Perylene	ND	30	ug/L

Analyst

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Client ID:MCKIN
Sample ID:84-130-1986
Matrix : WATER

Data File: >X4066
SAMPLE:SCRUBBER LIQUID 704066

GC/MS
VOLATILE ANALYSIS

COMPOUND NAME	AMOUNT	DET. LIMIT
DICHLORODIFLUOROMETHANE	ND	50.0 ug/L
CHLOROMETHANE	ND	100.0 ug/L
BROMOMETHANE	ND	100.0 ug/L
VINYL CHLORIDE	ND	100.0 ug/L
CHLOROETHANE	ND	100.0 ug/L
METHYLENE CHLORIDE	91.	50.0 ug/L
TRICHLOROFLUOROMETHANE	ND	50.0 ug/L
1,1-DICHLOROETHENE	ND	50.0 ug/L
1,1-DICHLOROETHANE	ND	50.0 ug/L
TOTAL 1,2-DICHLOROETHENE	ND	50.0 ug/L
CHLOROFORM	ND	50.0 ug/L
1,2-DICHLOROETHANE	ND	50.0 ug/L
1,1,1-TRICHLOROETHANE	ND	50.0 ug/L
CARBON TETRACHLORIDE	ND	50.0 ug/L
BROMODICHLOROMETHANE	ND	50.0 ug/L
1,2-DICHLOROPROPANE	ND	50.0 ug/L
TRANS-1,3-DICHLOROPROPENE	ND	50.0 ug/L
TRICHLOROETHENE	ND	50.0 ug/L
BENZENE	ND	50.0 ug/L
DIBROMOCHLOROMETHANE	ND	50.0 ug/L
1,1,2-TRICHLOROETHANE	51.	50.0 ug/L
CIS-1,3-DICHLOROPROPENE	ND	50.0 ug/L
2-CHLOROETHYL VINYL ETHER	ND	100.0 ug/L
BROMOFORM	ND	50.0 ug/L
1,1,2,2-TETRACHLOROETHANE	81.	50.0 ug/L
TETRACHLOROETHENE	ND	50.0 ug/L
TOLUENE	ND	50.0 ug/L
CHLOROBENZENE	ND	50.0 ug/L
ETHYL BENZENE	ND	50.0 ug/L
1,3-DICHLOROBENZENE	ND	50.0 ug/L
1,2-DICHLOROBENZENE	ND	50.0 ug/L
1,4-DICHLOROBENZENE	ND	50.0 ug/L

SURROGATE STANDARD	%RECOVERY
D4-1,2-DICHLOROETHANE (SURR)	101.0
D8-TOLUENE (SURR)	107.4
4-BROMOFLUOROBENZENE (SURR)	70.2

SKP
Analyst

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Canonie Environmental

Table 3
Results of PCB's Analysis on Soil
Samples Received From Fairchild, McKin
Results in mg/kg

10-16-1986
84-130-1264
Page 3

Sampler ID:	Fuel Tank Composite
Lab ID#:	612268-9
Analyte(s)	
PCB's quantified as PCB 1242	ND 0.1
PCB's quantified as PCB 1254	ND 0.1
PCB's quantified as PCB 1260	ND 0.1

JAH JGF
Analyst Checked by

Note:
ND X denotes none detected to a level of X.

Canonie Environmental

APPENDIX B

EXCAVATION, SAMPLING AND ANALYTICAL VERIFICATION - PETROLEUM AREAS 1(a,c) AND 2

Canonie Environmental

Canonie Environmental Services Corp
800 Canonie Drive
Porter, Indiana 46304
Phone 219-926-8651

March 16, 1987

CH 84-130

Mr. Steven Serian
Superfund Branch
Waste Management Division
U.S. Environmental Protection Agency
JFK Federal Building HEM-1907
Boston, MA 02203

EXCAVATION, SAMPLING AND ANALYTICAL VERIFICATION
PETROLEUM AREAS 1(a,c) AND 2
McKIN SUPERFUND SITE
GRAY, MAINE

Dear Mr. Serian:

Canonie Environmental Services Corp. (Canonie), in accordance with U.S. EPA's letter to Canonie of November 26, 1986, has excavated the site petroleum areas 1(a,c) and 2, separated the oily soils from the oily debris, securely stockpiled the separated items, and sampled and analyzed the extent of excavation in each area. The excavation was completed on December 12, 1986. The following describes an explanation of the excavation, sampling and analytical results of each area.

AREA 1 EXCAVATION

The oily soils located in area 1 were excavated by a backhoe using visual inspection in determining the lateral and vertical limits of excavation. To verify the visual inspection, a sampling and laboratory analytical protocol, approved by USEPA and MDEP, was implemented. Six samples were taken to verify the lateral excavation perimeter and six samples were taken to confirm the vertical excavation perimeter. The samples taken for verification of the vertical perimeter were based on a 20-foot by 20-foot grid pattern. The sample locations are denoted on the enclosed figure.

The average depth of excavation in area 1 is approximately 11.5 feet. Approximately 900 bulk cubic yards of oily soils and 150 bulk cubic yards of oily debris were excavated from area 1(a,c). The debris was segregated from the oily soils by a screening process, with the separated materials securely stockpiled in a manner approved by USEPA and MDEP. The stockpiles have been secured with an impermeable cover placed over the stockpiles and a sand berm placed around the foot of the stockpiles will prevent any possible leaching of constituents.

The analytical results from the verification samples taken are enclosed in this transmittal. Lateral verification samples were analyzed for acid/base/neutral extractable organics (EPA method 8270), volatile and aromatic organics (EPA method 8010/8020), PCB's, total extractable hydrocarbons, and EP Toxic Metals. Vertical verification samples were analyzed for EPA method 8270, EPA method 8010/8020, total extractable hydrocarbons, and 10% for PCB's and 20% for EP Toxic Metals.

Sampling point A1-9 analysis resulted in a xylene concentration of 4.1 mg/kg and an ethylbenzene concentration of 0.7 mg/kg. Canonie excavated additional yardage around this sampling location because of the xylene concentration. A ten-foot radial excavation was centered on sampling point A1-9, five-feet deep resulting in approximately 60 cubic yards of soil. Additional samples were taken to verify this excavation, A1-15 and A1-17 on the north and south sides, and A1-16 on the bottom of the new excavation. A1-15 and A1-17 were analyzed for 8010/8020 and resulted in non-detectable concentrations. A1-16 was analyzed for 8010/8020, 8270, and TEH. A1-16 analysis resulted in non-detectable concentrations, and TEH resulted in a concentration of 8 mg/kg.

Sampling point A1-2 revealed a number of polycyclic aromatic hydrocarbons, with three PAH's detected at or above 1 mg/kg. Because of these concentrations, Canonie excavated additional yardage around this sampling point. An area was excavated that extended ten-feet east and west of this side slope sampling point, and 7.5 feet south. The depth of this additional excavation was eleven-feet, resulting in a total of 60 cubic yards of soil. Two additional samples were taken to verify the excavation; A1-13 was taken on the newly excavated south side, and A1-14 was taken on the newly excavated bottom. The two samples were composited in Canonie's Stockton, CA laboratory for PAH analysis. The composite analysis resulted in non-detectable PAH concentrations at 0.33 mg/kg.

Side slope verification sampling point A1-12 resulted in a number of positive PAH concentrations, with one analyte corresponding to a concentration greater than 1 mg/kg. However, these soils have already been excavated and aerated with "solvent" area 1(b) soils.

Test pits were dug through and 20 feet adjacent to each side of the original borehole sampling locations 1-31, 1-32, and 1-33, and extended 13 feet

deep. Very small pockets of visually discolored oily material, at a depth of approximately 11 feet were removed and stockpiled, amounting to approximately 10 cubic yards of material. It was observed that this thin line of oily-looking material represents the original ground surface, before 10 feet of fill material was placed over the original ground surface. This black, loamy layer is comprised of the original vegetation which had decayed when fill material was placed above. An abundance of plant and tree root systems unearthed at this depth supports this conclusion.

Samples were then taken at a depth of 11 feet. Samples A1-18, A1-19, and A1-20 were taken in the same location as original borehole sampling points 1-33, 1-32, and 1-31 respectively. Samples A1-18-20 were analyzed for 8010/8020, 8270, TEH, EP Toxic Metals, and PCB's. The only significant detectable analytical result was a positive TEH concentration at sampling location A1-18. As noted previously, the positive result is due to the natural organic fraction of the decayed vegetation. This statement can be justified based on the absence of volatile and aromatic organics and polycyclic aromatic compounds, which existed in the oily soils associated with off-site originated petroleum components. Therefore, Canonie proposes no additional action for the soils surrounding sampling location A1-18.

AREA 2 EXCAVATION

The oily soils located in area 2 were excavated by a backhoe using the same parameters in determining the limits of excavation as soils in area 1. The same sampling and laboratory analytical program described to verify the lateral and vertical extent of excavation in area 1 was used in area 2. Five samples were taken to verify the vertical excavation perimeter, three samples were taken to verify the lateral excavation perimeter, and one sample was taken to represent both the lateral and vertical excavation perimeter. Sample locations are denoted on the enclosed figure.

The depth of excavation was approximately 10.5 feet, with the exception of two ramped areas. One ramped area lies adjacent and perpendicular to the horizontal alignment of soil borings 2-7 and 2-14. The area west of this alignment slopes upward to the west until it reaches natural ground surface. The other ramped area is adjacent and north of the east-west alignment of soil borings 2-7 and 2-9. The area begins ten-feet to the east of soil boring 2-8 and continues ten-feet west of that location. This ramped area also slopes upward until the natural ground surface is encountered.

Approximately 800 cubic yards of oily soils and approximately 150 cubic yards of oily covered debris were excavated from area 2. The sample depths and laboratory analytical results are presented in the appropriate tables.

Samples A2-2, A2-4, A2-5, and A2-7 were not analyzed for TEH. The samples

were analyzed for EPA method 8270, 8010/8020, PCB's and EP Toxic Metals. The sample mass was not sufficient to perform all the analyses, and the choice between analysis of 8270 and TEH needed to be assessed. Canonie regarded the 8270 analysis as more indicative of the presence of priority pollutants. Therefore 8270 was performed in lieu of testing for TEH for these samples. Area 2 was backfilled before this issue needed to be addressed. Additionally, A2-1 was not analyzed at all because it was inadvertently lost to the routine "house-cleaning" of samples. This procedure involves the discarding of samples held for a duration greater than the alotted two weeks. Sample A2-1 was mistaken for another sample, and was discarded.

After review of the analytical results, Canonie asserts that the missing analyses reported previously do not impact the final interpretation of the data. It is clear that all petroleum substances have been removed, from review of 8010/8020 and 8270 analytical results.

Canonie has performed this sampling and analytical protocol in compliance with USEPA and MDEP's excavation verification criteria. Canonie certifies that the results of these procedures indicate that all petroleum originated substances from an off-site origin have been completey removed.

Canonie trusts this presentation of the sampling protocol followed by the support of analytical results verifies the complete removal of petroleum substances which existed in site areas 1(a,c) and 2. If you have any questions or comments, please call.

Very truly yours,

Brian M Bell

Brian M. Bell
Project Engineer
Operations Coordinator
McKin Superfund Site

Enclosure

BMB/ts

cc: John Kuruc, Amoco Corporation
E. F. Skoczen, Canonie Environmental Services Corp.
Central File, Canonie Environmental Services Corp.
Deborah Schmall, Landels, Ripley & Diamond
Rebecca Hewett, Maine Department of Environmental Protection

Table 2. Semivolatile Organic Results

Canonie Sample ID

8270 Compounds	4-2-16 3470 ug/kg	dupl 4-13-15 3329 ug/kg	method blank ug/kg
Phenol	<330	<660	<33
Bis(2-chloroethyl)ether	<330	<660	<33
2-Chlorophenol	<330	<660	<33
1,3-Dichlorobenzene	<330	<660	<33
1,4-Dichlorobenzene	<330	<660	<33
1,2-Dichlorobenzene	<660	<1300	<66
Bis(2-chloroisopropyl)ether	<330	<660	<33
N-Nitroso-di-n-propylamine	<1300	<2600	<130
Hexachloroethane	<660	<1300	<66
Nitrobenzene	<990	<2000	<99
Isophorone	<660	<1300	<66
2-Nitrophenol	<1300	<2600	<130
2,4-Dimethylphenol	<990	<2000	<99
Bis(2-chloroethoxy)methane	<660	<1300	<66
2,4-Dichlorophenol	<990	<2000	<99
1,2,4-Trichlorobenzene	<330	<660	<33
Naphthalene	<330	<660	<33
Hexachlorobutadiene	<660	<1300	<66
4-Chloro-3-methylphenol	<330	<660	<33
Hexachlorocyclopentadiene	<6600	<13000	<660
2,4,6-Trichlorophenol	<660	<1300	<66
2-Chloronaphthalene	<330	<660	<33
Dimethyl phthalate	<330	<660	<33
Acenaphthylene	<330	<660	<33
Acenaphthene	<330	<660	<33
2,4-Dinitrophenol	<6600	<13000	<660
4-Nitrophenol	<2600	<5300	<260
2,4-Dinitrotoluene	<660	<1300	<66
2,6-Dinitrotoluene	<990	<2000	<99
Diethyl phthalate	<330	<660	<33
4-Chlorophenyl-phenyl ether	<330	<660	<33
Fluorene	<330	<660	<33
4,6-Dinitro-2-methylphenol	<2000	<4000	<200
N-Nitrosodiphenylamine	<1300	<2600	<130
4-Bromophenyl-phenyl ether	<330	<660	<33
Hexachlorobenzene	<990	<2000	<99
Pentachlorophenol	<330	<660	<33
Phenanthrene	1300	1800	<33
Anthracene	630	<660	<33
Di-n-Butyl phthalate	<660	<1300	<66

Table 2. Semivolatile Organic Results (continued)

	Canonie Sample ID		
	4-2-16 3470	dupl 4-13-15 3329	method blank
8270 Compounds	ug/kg	ug/kg	ug/kg
Fluoranthene	<990	<2000	<99
Pyrene	<660	<1300	<66
Butyl benzyl phthalate	<990	<2000	<99
3,3-Dichlorobenzidine	<6600	<13000	<660
Benzo(a)anthracene	<330	<660	<33
Bis(2-ethylhexyl)phthalate	<660	<1300	<66
Chrysene	<330	<660	<33
Di-n-octyl phthalate	<660	<1300	<66
Benzo(b)fluoranthene	<1300	<2600	<130
Benzo(k)fluoranthene	<1300	<2600	<130
Benzo(a)pyrene	<330	<660	<33
Indeno(1,2,3-cd)pyrene	<330	<660	<33
Dibenzo(a,h)anthracene	<990	<2000	<99
Benzo(g,h,i)perylene	<660	<1300	<66
Alpha-BHC	<3300	<6600	<330
Beta-BHC	<3300	<6600	<330
Gamma-BHC	<3300	<6600	<330
Delta-BHC	<3300	<6600	<330
Heptachlor	<3300	<6600	<330
Aldrin	<3300	<6600	<330
Heptachlor epoxide	<3300	<6600	<330
Endosulfan I	<3300	<6600	<330
Dieldrin	<3300	<6600	<330
4,4'-DDE	<3300	<6600	<330
Endrin	<3300	<6600	<330
Endosulfan II	<3300	<6600	<330
4,4'-DDD	<3300	<6600	<330
Endrin aldehyde	<3300	<6600	<330
Endosulfan sulfate	<3300	<6600	<330
4,4'-DDT	<3300	<6600	<330
PCB's	<3300	<6600	<330

Surrogates	Percent Recovery (%)		
2-Fluorophenol	59	69	86
Phenol-d5	62	62	75
Nitrobenzene-d5	32	40	80
2-Fluorobiphenyl	78	82	92
2,4,6-Tribromophenol	@	@	63
p-Terphenyl-d14	46	68	81

@ - surrogate diluted below detection limit

Table 2. Semivolatile Organic Results

Canonie Sample ID

8270 Compounds	4-3-6 ug/kg	4-3-13 ug/kg
Phenol	<330	<330
bis(2-Chloroethyl)Ether	<330	<330
2-Chlorophenol	<330	<330
1,3-Dichlorobenzene	<330	<330
1,4-Dichlorobenzene	<330	<330
1,2-Dichlorobenzene	<660	<660
bis(2-Chloroisopropyl)Ether	<330	<330
N-Nitroso-Di-n-Propylamine	<1300	<1300
Hexachloroethane	<660	<660
Nitrobenzene	<990	<990
Isophorone	<660	<660
2-Nitrophenol	<1300	<1300
2,4-Dimethylphenol	<990	<990
bis(2-Chloroethoxy)Methane	<660	<660
2,4-Dichlorophenol	<990	<990
1,2,4-Trichlorobenzene	<330	<330
Naphthalene	<330	<330
Hexachlorobutadiene	<660	<660
4-Chloro-3-Methylphenol	<330	<330
Hexachlorocyclopentadiene	<6600	<6500
2,4,6-Trichlorophenol	<660	<660
2-Chloronaphthalene	<330	<330
Dimethyl Phthalate	<330	<330
Acenaphthylene	<330	<330
Acenaphthene	<330	<330
2,4-Dinitrophenol	<6600	<6600
4-Nitrophenol	<2600	<2600
2,4-Dinitrotoluene	<660	<660
2,6-Dinitrotoluene	<990	<990
Diethylphthalate	<330	<330
4-Chlorophenyl-Phenylether	<330	<330
Fluorene	<330	<330
4,6-Dinitro-2-Methylphenol	<2000	<2000
N-Nitrosodiphenylamine	<1300	<1300
4-Bromophenyl-Phenylether	<330	<330
Hexachlorobenzene	<990	<990
Pentachlorophenol	<330	<330
Phenanthrene	830	790
Anthracene	<330	430
Di-n-Butylphthalate	<660	<660

Table 2. Semivolatile Organic Results (continued)

Canonie Sample ID

8270 Compounds	4-3-6 ug/kg	4-3-13 ug/kg
Fluoranthene	<990	<990
Pyrene	<660	<660
Butylbenzylphthalate	<990	<990
3,3-Dichlorobenzidine	<6600	<6600
Benzo(a)Anthracene	<330	<330
bis(2-Ethylhexyl)Phthalate	<660	<660
Chrysene	<330	<330
Di-n-Octyl Phthalate	<660	<660
Benzo(b)Fluoranthene	<1300	<1300
Benzo(k)Fluoranthene	<1300	<1300
Benzo(a)Pyrene	<330	<330
Indeno(1,2,3-cd)Pyrene	<330	<330
Dibenzo(a,h)Anthracene	<990	<990
Benzo(g,h,i)Perylene	<660	<660
Alpha-BHC	<3300	<3300
Beta-BHC	<3300	<3300
Gamma-BHC	<3300	<3300
Delta-BHC	<3300	<3300
Heptachlor	<3300	<3300
Aldrin	<3300	<3300
Heptachlor Epoxide	<3300	<3300
Endosulfan I	<3300	<3300
Dieldrin	<3300	<3300
4,4'-DDE	<3300	<3300
Endrin	<3300	<3300
Endosulfan II	<3300	<3300
4,4'-DDD	<3300	<3300
Endrin Aldehyde	<3300	<3300
Endosulfan Sulfate	<3300	<3300
4,4'-DDT	<3300	<3300
PCB's	<3300	<3300

Surrogates	Percent Recovery (%)	
2-Fluorophenol	49	53
Phenol-d5	54	57
Nitrobenzene-d5	40	67
2-Fluorobiphenyl	60	74
2,4,6-Tribromophenol	90	32
p-Terphenyl-d14	68	52

Table 2. Semivolatile Organic Results

Canonie Sample ID

8270 Compounds	4-7-8 ug/kg
Phenol	<330
bis(2-Chloroethyl)Ether	<330
2-Chlorophenol	<330
1,3-Dichlorobenzene	<330
1,4-Dichlorobenzene	<330
1,2-Dichlorobenzene	<660
bis(2-Chloroisopropyl)Ether	<330
N-Nitroso-Di-n-Propylamine	<1300
Hexachloroethane	<660
Nitrobenzene	<990
Isophorone	<660
2-Nitrophenol	<1300
2,4-Dimethylphenol	<990
bis(2-Chloroethoxy)Methane	<660
2,4-Dichlorophenol	<990
1,2,4-Trichlorobenzene	<330
Naphthalene	<330
Hexachlorobutadiene	<660
4-Chloro-3-Methylphenol	<330
Hexachlorocyclopentadiene	<6600
2,4,6-Trichlorophenol	<660
2-Chloronaphthalene	<330
Dimethyl Phthalate	<330
Acenaphthylene	<330
Acenaphthene	<330
2,4-Dinitrophenol	<6600
4-Nitrophenol	<2600
2,4-Dinitrotoluene	<660
2,6-Dinitrotoluene	<990
Diethylphthalate	<330
4-Chlorophenyl-Phenylether	<330
Fluorene	<330
4,6-Dinitro-2-Methylphenol	<2000
N-Nitrosodiphenylamine	<1300
4-Bromophenyl-Phenylether	<330
Hexachlorobenzene	<990
Pentachlorophenol	<330
Phenanthrene	830
Anthracene	500
Di-n-Butylphthalate	<660

Table 2. Semivolatile Organic Results (continued)

Canonie Sample ID

8270 Compounds	4-7-8 ug/kg
Fluoranthene	<990
Pyrene	<660
Butylbenzylphthalate	<990
3,3-Dichlorobenzidine	<6600
Benzo(a)Anthracene	<330
bis(2-Ethylhexyl)Phthalate	<660
Chrysene	<330
Di-n-Octyl Phthalate	<660
Benzo(b)Fluoranthene	<1300
Benzo(k)Fluoranthene	<1300
Benzo(a)Pyrene	<330
Indeno(1,2,3-cd)Pyrene	<330
Dibenzo(a,h)Anthracene	<990
Benzo(g,h,i)Perylene	<660
Alpha-BHC	<3300
Beta-BHC	<3300
Gamma-BHC	<3300
Delta-BHC	<3300
Heptachlor	<3300
Aldrin	<3300
Heptachlor Epoxide	<3300
Endosulfan I	<3300
Dieldrin	<3300
4,4'-DDE	<3300
Endrin	<3300
Endosulfan II	<3300
4,4'-DDD	<3300
Endrin Aldehyde	<3300
Endosulfan Sulfate	<3300
4,4'-DDT	<3300
PCB's	<3300

Surrogates	Percent Recovery (%)
2-Fluorophenol	72
Phenol-d5	73
Nitrobenzene-d5	59
2-Fluorobiphenyl	86
2,4,6-Tribromophenol	75
p-Terphenyl-d14	98

Table 2. Semivolatile Organic Results

Canonie Sample ID

8270 Compounds	4-8-7 ug/kg	4-8-9 ug/kg
Phenol	<330	<330
bis(2-Chloroethyl)Ether	<330	<330
2-Chlorophenol	<330	<330
1,3-Dichlorobenzene	<330	<330
1,4-Dichlorobenzene	<330	<330
1,2-Dichlorobenzene	<660	<660
bis(2-Chloroisopropyl)Ether	<330	<330
N-Nitroso-Di-n-Propylamine	<1300	<1300
Hexachloroethane	<660	<660
Nitrobenzene	<990	<990
4sophorone	<660	<660
2-Nitrophenol	<1300	<1300
2,4-Dimethylphenol	<990	<990
bis(2-Chloroethoxy)Methane	<660	<660
2,4-Dichlorophenol	<990	<990
1,2,4-Trichlorobenzene	<330	<330
Naphthalene	<330	<330
Hexachlorobutadiene	<660	<660
4-Chloro-3-Methylphenol	<330	<330
Hexachlorocyclopentadiene	<6600	<6600
2,4,6-Trichlorophenol	<660	<660
2-Chloronaphthalene	<330	<330
Dimethyl Phthalate	<330	<330
Acenaphthylene	<330	<330
Acenaphthene	<330	<330
2,4-Dinitrophenol	<6600	<6600
4-Nitrophenol	<2600	<2600
2,4-Dinitrotoluene	<660	<660
2,6-Dinitrotoluene	<990	<990
Diethylphthalate	<330	<330
4-Chlorophenyl-Phenylether	<330	<330
Fluorene	<330	<330
4,6-Dinitro-2-Methylphenol	<2000	<2000
N-Nitrosodiphenylamine	<1300	<1300
4-Bromophenyl-Phenylether	<330	<330
Hexachlorobenzene	<990	<990
Pentachlorophenol	<330	<330
Phenanthrene	660	1700
Anthracene	<330	660
Di-n-Butylphthalate	<660	<660

Table 2. Semivolatile Organic Results (continued)

Canonie Sample ID

8270 Compounds	4-8-7 ug/kg	4-8-9 ug/kg
Fluoranthene	<990	<990
Pyrene	<660	<660
Butylbenzylphthalate	<990	<990
3,3-Dichlorobenzidine	<6600	<6600
Benzo(a)Anthracene	<330	<330
bis(2-Ethylhexyl)Phthalate	<660	<660
Chrysene	<330	<330
Di-n-Octyl Phthalate	<660	<660
Benzo(b)Fluoranthene	<1300	<1300
Benzo(k)Fluoranthene	<1300	<1300
Benzo(a)Pyrene	<330	<330
Indeno(1,2,3-cd)Pyrene	<330	<330
Dibenzo(a,h)Anthracene	<990	<990
Benzo(g,h,i)Perylene	<660	<660
Alpha-BHC	<3300	<3300
Beta-BHC	<3300	<3300
Gamma-BHC	<3300	<3300
Delta-BHC	<3300	<3300
Heptachlor	<3300	<3300
Aldrin	<3300	<3300
Heptachlor Epoxide	<3300	<3300
Endosulfan I	<3300	<3300
Dieldrin	<3300	<3300
4,4'-DDE	<3300	<3300
Endrin	<3300	<3300
Endosulfan II	<3300	<3300
4,4'-DDD	<3300	<3300
Endrin Aldehyde	<3300	<3300
Endosulfan Sulfate	<3300	<3300
4,4'-DDT	<3300	<3300
PCB's	<3300	<3300

Surrogates	Percent Recovery (%)	
2-Fluorophenol	39	70
Phenol-d5	46	73
Nitrobenzene-d5	@	54
2-Fluorobiphenyl	66	92
2,4,6-Tribromophenol	@	@
p-Terphenyl-d14	58	74

@ - surrogate diluted below its detection limit

Table 2. Semivolatile Organic Results

Canonie Sample ID

8270 Compounds	4-9-4 ug/kg	4-9-13 ug/kg
Phenol	<330	<330
bis(2-Chloroethyl)Ether	<330	<330
2-Chlorophenol	<330	<330
1,3-Dichlorobenzene	<330	<330
1,4-Dichlorobenzene	<330	<330
1,2-Dichlorobenzene	<660	<660
bis(2-Chloroisopropyl)Ether	<330	<330
N-Nitroso-Di-n-Propylamine	<1300	<1300
Hexachloroethane	<660	<660
Nitrobenzene	<990	<990
Isophorone	<660	<660
2-Nitrophenol	<1300	<1300
2,4-Dimethylphenol	<990	<990
bis(2-Chloroethoxy)Methane	<660	<660
2,4-Dichlorophenol	<990	<990
1,2,4-Trichlorobenzene	<330	<330
Naphthalene	<330	<330
Hexachlorobutadiene	<660	<660
4-Chloro-3-Methylphenol	<330	<330
Hexachlorocyclopentadiene	<6600	<6600
2,4,6-Trichlorophenol	<660	<660
2-Chloronaphthalene	<330	<330
Dimethyl Phthalate	<330	<330
Acenaphthylene	<330	<330
Acenaphthene	<330	<330
2,4-Dinitrophenol	<6600	<6600
4-Nitrophenol	<2600	<2600
2,4-Dinitrotoluene	<660	<660
2,6-Dinitrotoluene	<990	<990
Diethylphthalate	<330	<330
4-Chlorophenyl-Phenylether	<330	<330
Fluorene	<330	<330
4,6-Dinitro-2-Methylphenol	<2000	<2000
N-Nitrosodiphenylamine	<1300	<1300
4-Bromophenyl-Phenylether	<330	<330
Hexachlorobenzene	<990	<990
Pentachlorophenol	<330	<330
Phenanthrene	1500	1800
Anthracene	<330	<330
Di-n-Butylphthalate	<660	<660

Table 2. Semivolatile Organic Results (continued)

Canonie Sample ID

8270 Compounds	4-9-4 ug/kg	4-9-13 ug/kg
Fluoranthene	<990	<990
Pyrene	690	830
Butylbenzylphthalate	<990	<990
3,3-Dichlorobenzidine	<6600	<6600
Benzo(a)Anthracene	<330	<330
bis(2-Ethylhexyl)Phthalate	<660	<660
Chrysene	<330	<330
Di-n-Octyl Phthalate	<660	<660
Benzo(b)Fluoranthene	<1300	<1300
Benzo(k)Fluoranthene	<1300	<1300
Benzo(a)Pyrene	<330	<330
Indeno(1,2,3-cd)Pyrene	<330	<330
Dibenzo(a,h)Anthracene	<990	<990
Benzo(g,h,i)Perylene	<660	<660
Alpha-BHC	<3300	<3300
Beta-BHC	<3300	<3300
Gamma-BHC	<3300	<3300
Delta-BHC	<3300	<3300
Heptachlor	<3300	<3300
Aldrin	<3300	<3300
Heptachlor Epoxide	<3300	<3300
Endosulfan I	<3300	<3300
Dieldrin	<3300	<3300
4,4'-DDE	<3300	<3300
Endrin	<3300	<3300
Endosulfan II	<3300	<3300
4,4'-DDD	<3300	<3300
Endrin Aldehyde	<3300	<3300
Endosulfan Sulfate	<3300	<3300
4,4'-DDT	<3300	<3300
PCB's	<3300	<3300

Surrogates	Percent Recovery (%)	
2-Fluorophenol	@	@
Phenol-d5	@	@
Nitrobenzene-d5	@	@
2-Fluorobiphenyl	@	@
2,4,6-Tribromophenol	@	@
p-Terphenyl-d14	@	@

@ - surrogates diluted out

Table 2. Semivolatile Organic Results

Canomie Sample ID

8270 Compounds	4-10-18 3468 ug/kg	method blank ug/kg
Phenol	<170	<33
bis(2-Chloroethyl)Ether	<170	<33
2-Chlorophenol	<170	<33
1,3-Dichlorobenzene	<170	<33
1,4-Dichlorobenzene	<170	<33
1,2-Dichlorobenzene	<330	<66
bis(2-Chloroisopropyl)Ether	<170	<33
N-Nitroso-Di-n-Propylamine	<660	<130
Hexachloroethane	<330	<66
Nitrobenzene	<500	<99
Isophorone	<330	<66
2-Nitrophenol	<660	<130
2,4-Dimethylphenol	<500	<99
bis(2-Chloroethoxy)Methane	<330	<66
2,4-Dichlorophenol	<500	<99
1,2,4-Trichlorobenzene	<170	<33
Naphthalene	<170	<33
Hexachlorobutadiene	<330	<66
4-Chloro-3-Methylphenol	<170	<33
Hexachlorocyclopentadiene	<3300	<660
2,4,6-Trichlorophenol	<330	<66
2-Chloronaphthalene	<170	<33
Dimethyl Phthalate	<170	<33
Acenaphthylene	<170	<33
Acenaphthene	<170	<33
2,4-Dinitrophenol	<3300	<660
4-Nitrophenol	<1300	<260
2,4-Dinitrotoluene	<330	<66
2,6-Dinitrotoluene	<500	<99
Diethylphthalate	<170	<33
4-Chlorophenyl-Phenylether	<170	<33
Fluorene	<170	<33
4,6-Dinitro-2-Methylphenol	<990	<200
N-Nitrosodiphenylamine	<660	<130
4-Bromophenyl-Phenylether	<170	<33
Hexachlorobenzene	<500	<99
Pentachlorophenol	<170	<33
Phenanthrene	810	<33
Anthracene	300	<33
Di-n-Butylphthalate	<330	<66

Table 2. Semivolatile Organic Results (continued)

Canomie Sample ID

8270 Compounds	4-10-18 3468 ug/kg	method blank ug/kg
Fluoranthene	<500	<99
Pyrene	450	<66
Butylbenzylphthalate	<500	<99
3,3-Dichlorobenzidine	<3300	<660
Benzo(a)Anthracene	<170	<33
bis(2-Ethylhexyl)Phthalate	<330	<66
Chrysene	<170	<33
Di-n-Octyl Phthalate	<330	<66
Benzo(b)Fluoranthene	<660	<130
Benzo(k)Fluoranthene	<660	<130
Benzo(a)Pyrene	<170	<33
Indeno(1,2,3-cd)Pyrene	<170	<33
Dibenzo(a,h)Anthracene	<500	<99
Benzo(g,h,i)Perylene	<330	<66
Alpha-BHC	<1700	<330
Beta-BHC	<1700	<330
Gamma-BHC	<1700	<330
Delta-BHC	<1700	<330
Heptachlor	<1700	<330
Aldrin	<1700	<330
Heptachlor Epoxide	<1700	<330
Endosulfan I	<1700	<330
Dieldrin	<1700	<330
4,4'-DDE	<1700	<330
Endrin	<1700	<330
Endosulfan II	<1700	<330
4,4'-DDD	<1700	<330
Endrin Aldehyde	<1700	<330
Endosulfan Sulfate	<1700	<330
4,4'-DDT	<1700	<330
PCB's	<1700	<330

Surrogates	Percent Recovery (%)	
2-Fluorophenol	60	60
Phenol-d5	55	59
Nitrobenzene-d5	57	68
2-Fluorobiphenyl	78	77
2,4,6-Tribromophenol	8	@
p-Terphenyl-d14	62	82

@ - surrogate diluted below its detection limit

Table 2. Semivolatile Organic Results

Canonie Sample ID

8270 Compounds	4-2-4 3271 ug/kg	4-2-6 3273 ug/kg	4-2-8 3275 ug/kg	4-13-3 3324 ug/kg	4-13-15 3329 ug/kg
Phenol	<330	<330	<330	<330	<330
Bis(2-chloroethyl)ether	<330	<330	<330	<330	<330
2-Chlorophenol	<330	<330	<330	<330	<330
1,3-Dichlorobenzene	<330	<330	<330	<330	<330
1,4-Dichlorobenzene	<330	<330	<330	<330	<330
1,2-Dichlorobenzene	<660	<660	<660	<660	<660
Bis(2-chloroisopropyl)ether	<330	<330	<330	<330	<330
N-Nitroso-di-n-propylamine	<1300	<1300	<1300	<1300	<1300
Hexachloroethane	<660	<660	<660	<660	<660
Nitrobenzene	<990	<990	<990	<990	<990
Isophorone	<660	<660	<660	<660	<660
2-Nitrophenol	<1300	<1300	<1300	<1300	<1300
2,4-Dimethylphenol	<990	<990	<990	<990	<990
Bis(2-chloroethoxy)methane	<660	<660	<660	<660	<660
2,4-Dichlorophenol	<990	<990	<990	<990	<990
1,2,4-Trichlorobenzene	<330	<330	<330	<330	<330
Naphthalene	<330	<330	<330	<330	<330
Hexachlorobutadiene	<660	<660	<660	<660	<660
4-Chloro-3-methylphenol	<330	<330	<330	<330	<330
Hexachlorocyclopentadiene	<6600	<6600	<6600	<6600	<6600
2,4,6-Trichlorophenol	<660	<660	<660	<660	<660
2-Chloronaphthalene	<330	<330	<330	<330	<330
Dimethyl phthalate	<330	<330	<330	<330	<330
Acenaphthylene	<330	<330	<330	<330	<330
Acenaphthene	<330	<330	<330	<330	<330
2,4-Dinitrophenol	<6600	<6600	<6600	<6600	<6600
4-Nitrophenol	<2600	<2600	<2600	<2600	<2600
2,4-Dinitrotoluene	<660	<660	<660	<660	<660
2,6-Dinitrotoluene	<990	<990	<990	<990	<990
Diethyl phthalate	<330	<330	<330	<330	<330
4-Chlorophenyl-phenyl ether	<330	<330	<330	<330	<330
Fluorene	<330	<330	<330	<330	<330
4,6-Dinitro-2-methylphenol	<2000	<2000	<2000	<2000	<2000
N-Nitrosodiphenylamine	<1300	<1300	<1300	<1300	<1300
4-Bromophenyl-phenyl ether	<330	<330	<330	<330	<330
Hexachlorobenzene	<990	<990	<990	<990	<990
Pentachlorophenol	<330	<330	<330	<330	<330
Phenanthrene	1600	1300	1400	1100	1100
Anthracene	<330	<330	<330	<330	<330
Di-n-Butyl phthalate	<660	<660	<660	<660	<660

Table 2. Semivolatile Organic Results (continued)

Canonie Sample ID

8270 Compounds	4-2-4 3271 ug/kg	4-2-6 3273 ug/kg	4-2-8 3275 ug/kg	4-13-3 3324 ug/kg	4-13-15 3329 ug/kg
Fluoranthene	<990	<990	<990	<990	<990
Pyrene	<660	690	<660	<660	<660
Butyl benzyl phthalate	<990	<990	<990	<990	<990
3,3-Dichlorobenzidine	<6600	<6600	<6600	<6600	<6600
Benzo(a)anthracene	<330	<330	<330	<330	<330
Bis(2-ethylhexyl)phthalate	<660	<660	<660	<660	<660
Chrysene	<330	<330	<330	<330	<330
Di-n-octyl phthalate	<660	<660	<660	<660	<660
Benzo(b)fluoranthene	<1300	<1300	<1300	<1300	<1300
Benzo(k)fluoranthene	<1300	<1300	<1300	<1300	<1300
Benzo(a)pyrene	<330	<330	<330	<330	<330
Indeno(1,2,3-cd)pyrene	<330	<330	<330	<330	<330
Dibenzo(a,h)anthracene	<990	<990	<990	<990	<990
Benzo(g,h,i)perylene	<660	<660	<660	<660	<660
Alpha-BHC	<3300	<3300	<3300	<3300	<3300
Beta-BHC	<3300	<3300	<3300	<3300	<3300
Gamma-BHC	<3300	<3300	<3300	<3300	<3300
Delta-BHC	<3300	<3300	<3300	<3300	<3300
Heptachlor	<3300	<3300	<3300	<3300	<3300
Aldrin	<3300	<3300	<3300	<3300	<3300
Heptachlor epoxide	<3300	<3300	<3300	<3300	<3300
Endosulfan I	<3300	<3300	<3300	<3300	<3300
Dieldrin	<3300	<3300	<3300	<3300	<3300
4,4'-DDE	<3300	<3300	<3300	<3300	<3300
Endrin	<3300	<3300	<3300	<3300	<3300
Endosulfan II	<3300	<3300	<3300	<3300	<3300
4,4'-DDD	<3300	<3300	<3300	<3300	<3300
Endrin aldehyde	<3300	<3300	<3300	<3300	<3300
Endosulfan sulfate	<3300	<3300	<3300	<3300	<3300
4,4'-DDT	<3300	<3300	<3300	<3300	<3300
PCB's	<3300	<3300	<3300	<3300	<3300

Surrogates	Percent Recovery (%)				
2-Fluorophenol	53	59	62	53	59
Phenol-d5	55	59	55	55	59
Nitrobenzene-d5	@	36	@	30	20
2-Fluorobiphenyl	86	74	62	68	70
2,4,6-Tribromophenol	@	@	@	@	@
p-Terphenyl-d14	54	38	56	48	52

@ - surrogate diluted below detection limit

Table 2. Semivolatile Organic Results

Canonie Sample ID

8270 Compounds	4-14-4 ug/kg	4-14-13 ug/kg
Phenol	<170	<170
Bis(2-chloroethyl)ether	<170	<170
2-Chlorophenol	<170	<170
1,3-Dichlorobenzene	<170	<170
1,4-Dichlorobenzene	<170	<170
1,2-Dichlorobenzene	<330	<330
Bis(2-chloroisopropyl)ether	<170	<170
N-Nitroso-di-n-propylamine	<660	<660
Hexachloroethane	<330	<330
Nitrobenzene	<500	<500
Isophorone	<330	<330
2-Nitrophenol	<660	<660
2,4-Dimethylphenol	<500	<500
Bis(2-chloroethoxy)methane	<330	<330
2,4-Dichlorophenol	<500	<500
1,2,4-Trichlorobenzene	<170	<170
Naphthalene	<170	<170
Hexachlorobutadiene	<330	<330
4-Chloro-3-methylphenol	<170	<170
Hexachlorocyclopentadiene	<3300	<3300
2,4,6-Trichlorophenol	<330	<330
2-Chloronaphthalene	<170	<170
Dimethyl phthalate	<170	<170
Acenaphthylene	<170	<170
Acenaphthene	<170	<170
2,4-Dinitrophenol	<3300	<3300
4-Nitrophenol	<1300	<1300
2,4-Dinitrotoluene	<330	<330
2,6-Dinitrotoluene	<500	<500
Diethyl phthalate	<170	<170
4-Chlorophenyl-phenyl ether	<170	<170
Fluorene	<170	310
4,6-Dinitro-2-methylphenol	<990	<990
N-Nitrosodiphenylamine	<660	<660
4-Bromophenyl-phenyl ether	<170	<170
Hexachlorobenzene	<500	<500
Pentachlorophenol	<170	<170
Phenanthrene	1500	1700
Anthracene	<170	<170
Di-n-Butyl phthalate	<330	<330

Table 2. Semivolatile Organic Results (continued)

Canonie Sample ID

8270 Compounds	4-14-4 ug/kg	4-14-13 ug/kg
Fluoranthene	<500	<500
Pyrene	460	590
Butyl benzyl phthalate	<500	<500
3,3-Dichlorobenzidine	<3300	<3300
Benzo(a)anthracene	360	360
Bis(2-ethylhexyl)phthalate	<330	<330
Chrysene	350	430
Di-n-octyl phthalate	<330	<330
Benzo(b)fluoranthene	<660	<660
Benzo(k)fluoranthene	<660	<660
Benzo(a)pyrene	<170	<170
Indeno(1,2,3-cd)pyrene	<170	<170
Dibenzo(a,h)anthracene	<500	<500
Benzo(g,h,i)perylene	<330	<330
Alpha-BHC	<1700	<1700
Beta-BHC	<1700	<1700
Gamma-BHC	<1700	<1700
Delta-BHC	<1700	<1700
Heptachlor	<1700	<1700
Aldrin	<1700	<1700
Heptachlor epoxide	<1700	<1700
Endosulfan I	<1700	<1700
Dieldrin	<1700	<1700
4,4'-DDE	<1700	<1700
Endrin	<1700	<1700
Endosulfan II	<1700	<1700
4,4'-DDD	<1700	<1700
Endrin aldehyde	<1700	<1700
Endosulfan sulfate	<1700	<1700
4,4'-DDT	<1700	<1700
PCB's	<1700	<1700

Surrogates	Percent Recovery (%)	
2-Fluorophenol	65	55
Phenol-d5	70	65
Nitrobenzene-d5	65	58
2-Fluorobiphenyl	97	89
2,4,6-Tribromophenol	35	15
p-Terphenyl-d14	72	69

Table 1. Semivolatile Organic Results

Canonie Sample ID

8270 Compounds	4-15-3 3351 ug/kg	4-15-12 3363 ug/kg
Phenol	<170	<170
Bis(2-chloroethyl)ether	<170	<170
2-Chlorophenol	<170	<170
1,3-Dichlorobenzene	<170	<170
1,4-Dichlorobenzene	<170	<170
1,2-Dichlorobenzene	<330	<330
Bis(2-chloroisopropyl)ether	<170	<170
N-Nitroso-di-n-propylamine	<660	<660
Hexachloroethane	<330	<330
Nitrobenzene	<500	<500
Isophorone	<330	<330
2-Nitrophenol	<660	<660
2,4-Dimethylphenol	<500	<500
Bis(2-chloroethoxy)methane	<330	<330
2,4-Dichlorophenol	<500	<500
1,2,4-Trichlorobenzene	<170	<170
Naphthalene	<170	<170
Hexachlorobutadiene	<330	<330
4-Chloro-3-methylphenol	<170	<170
Hexachlorocyclopentadiene	<3300	<3300
2,4,6-Trichlorophenol	<330	<330
2-Chloronaphthalene	<170	<170
Dimethyl phthalate	<170	<170
Acenaphthylene	<170	<170
Acenaphthene	<170	<170
2,4-Dinitrophenol	<3300	<3300
4-Nitrophenol	<1300	<1300
2,4-Dinitrotoluene	<330	<330
2,6-Dinitrotoluene	<500	<500
Diethyl phthalate	<170	<170
4-Chlorophenyl-phenyl ether	<170	<170
Fluorene	<170	430
4,6-Dinitro-2-methylphenol	<990	<990
N-Nitrosodiphenylamine	<660	<660
4-Bromophenyl-phenyl ether	<170	<170
Hexachlorobenzene	<500	<500
Pentachlorophenol	<170	<170
Phenanthrene	1300	2400
Anthracene	<170	350
Di-n-Butyl phthalate	<330	<330

Table 1. Semivolatile Organic Results (continued)

	Canonie Sample ID	
	4-15-3 3351	4-15-12 3363
8270 Compounds	ug/kg	ug/kg
Fluoranthene	<500	660
Pyrene	540	870
Butyl benzyl phthalate	<500	<500
3,3-Dichlorobenzidine	<3300	<3300
Benzo(a)anthracene	330	510
Bis(2-ethylhexyl)phthalate	<330	<330
Chrysene	<170	<170
Di-n-octyl phthalate	<330	<330
Benzo(b)fluoranthene	<660	<660
Benzo(k)fluoranthene	<660	<660
Benzo(a)pyrene	310	<170
Indeno(1,2,3-cd)pyrene	<170	<170
Dibenzo(a,h)anthracene	<500	<500
Benzo(g,h,i)perylene	<330	<330
Alpha-BHC	<1700	<1700
Beta-BHC	<1700	<1700
Gamma-BHC	<1700	<1700
Delta-BHC	<1700	<1700
Heptachlor	<1700	<1700
Aldrin	<1700	<1700
Heptachlor epoxide	<1700	<1700
Endosulfan I	<1700	<1700
Dieldrin	<1700	<1700
4,4'-DDE	<1700	<1700
Endrin	<1700	<1700
Endosulfan II	<1700	<1700
4,4'-DDD	<1700	<1700
Endrin aldehyde	<1700	<1700
Endosulfan sulfate	<1700	<1700
4,4'-DDT	<1700	<1700
PCB's	<1700	<1700

Surrogates	Percent Recovery (%)	
2-Fluorophenol	58	61
Phenol-d5	61	64
Nitrobenzene-d5	61	66
2-Fluorobiphenyl	85	93
2,4,6-Tribromophenol	66	73
p-Terphenyl-d14	65	71

Table 1. Semivolatile Organic Results

Canonie Sample ID

8270 Compounds	4-16-4 ug/kg	4-16-7 ug/kg
Phenol	<170	<170
Bis(2-chloroethyl)ether	<170	<170
2-Chlorophenol	<170	<170
1,3-Dichlorobenzene	<170	<170
1,4-Dichlorobenzene	<170	<170
1,2-Dichlorobenzene	<330	<330
Bis(2-chloroisopropyl)ether	<170	<170
N-Nitroso-di-n-propylamine	<660	<660
Hexachloroethane	<330	<330
Nitrobenzene	<500	<500
Isophorone	<330	<330
2-Nitrophenol	<660	<660
2,4-Dimethylphenol	<500	<500
Bis(2-chloroethoxy)methane	<330	<330
2,4-Dichlorophenol	<500	<500
1,2,4-Trichlorobenzene	<170	<170
Naphthalene	<170	<170
Hexachlorobutadiene	<330	<330
4-Chloro-3-methylphenol	<170	<170
Hexachlorocyclopentadiene	<3300	<3300
2,4,6-Trichlorophenol	<330	<330
2-Chloronaphthalene	<170	<170
Dimethyl phthalate	<170	<170
Acenaphthylene	<170	<170
Acenaphthene	<170	<170
2,4-Dinitrophenol	<3300	<3300
4-Nitrophenol	<1300	<1300
2,4-Dinitrotoluene	<330	<330
2,6-Dinitrotoluene	<500	<500
Diethyl phthalate	<170	<170
4-Chlorophenyl-phenyl ether	<170	<170
Fluorene	330	330
4,6-Dinitro-2-methylphenol	<990	<990
N-Nitrosodiphenylamine	<660	<660
4-Bromophenyl-phenyl ether	<170	<170
Hexachlorobenzene	<500	<500
Pentachlorophenol	<170	<170
Phenanthrene	2100	1500
Anthracene	260	<170
Di-n-Butyl phthalate	<330	<330

Table 1. Semivolatile Organic Results (continued)

Canonie Sample ID

8270 Compounds	4-16-4 ug/kg	4-16-7 ug/kg
Fluoranthene	<500	<500
Pyrene	690	530
Butyl benzyl phthalate	<500	<500
3,3-Dichlorobenzidine	<3300	<3300
Benzo(a)anthracene	430	350
Bis(2-ethylhexyl)phthalate	<330	<330
Chrysene	510	480
Di-n-octyl phthalate	<330	<330
Benzo(b)fluoranthene	<660	<660
Benzo(k)fluoranthene	<660	<660
Benzo(a)pyrene	<170	<170
Indeno(1,2,3-cd)pyrene	<170	<170
Dibenzo(a,h)anthracene	<500	<500
Benzo(g,h,i)perylene	<330	<330
Alpha-BHC	<1700	<1700
Beta-BHC	<1700	<1700
Gamma-BHC	<1700	<1700
Delta-BHC	<1700	<1700
Heptachlor	<1700	<1700
Aldrin	<1700	<1700
Heptachlor epoxide	<1700	<1700
Endosulfan I	<1700	<1700
Dieldrin	<1700	<1700
4,4'-DDE	<1700	<1700
Endrin	<1700	<1700
Endosulfan II	<1700	<1700
4,4'-DDD	<1700	<1700
Endrin aldehyde	<1700	<1700
Endosulfan sulfate	<1700	<1700
4,4'-DDT	<1700	<1700
PCB's	<1700	<1700

Surrogates	Percent Recovery (%)	
2-Fluorophenol	70	40
Phenol-d5	70	35
Nitrobenzene-d5	68	35
2-Fluorobiphenyl	102	58
2,4,6-Tribromophenol	26	23
p-Terphenyl-d14	70	40

Table 1. Semivolatile Organic Results

Canonie Sample ID

8270 Compounds	4-17-4 ug/kg
Phenol	<660
Bis(2-chloroethyl)ether	<660
2-Chlorophenol	<660
1,3-Dichlorobenzene	<660
1,4-Dichlorobenzene	<660
1,2-Dichlorobenzene	<1300
Bis(2-chloroisopropyl)ether	<660
N-Nitroso-di-n-propylamine	<2600
Hexachloroethane	<1300
Nitrobenzene	<2000
Isophorone	<1300
2-Nitrophenol	<2600
2,4-Dimethylphenol	<2000
Bis(2-chloroethoxy)methane	<1300
2,4-Dichlorophenol	<2000
1,2,4-Trichlorobenzene	<660
Naphthalene	<660
Hexachlorobutadiene	<1300
4-Chloro-3-methylphenol	<660
Hexachlorocyclopentadiene	<13000
2,4,6-Trichlorophenol	<1300
2-Chloronaphthalene	<660
Dimethyl phthalate	<660
Acenaphthylene	<660
Acenaphthene	<660
2,4-Dinitrophenol	<13000
4-Nitrophenol	<5300
2,4-Dinitrotoluene	<1300
2,6-Dinitrotoluene	<2000
Diethyl phthalate	<660
4-Chlorophenyl-phenyl ether	<660
Fluorene	<660
4,6-Dinitro-2-methylphenol	<4000
N-Nitrosodiphenylamine	<2600
4-Bromophenyl-phenyl ether	<660
Hexachlorobenzene	<2000
Pentachlorophenol	<660
Phenanthrene	2500
Anthracene	<660
Di-n-Butyl phthalate	<1300

Table 1. Semivolatile Organic Results (continued)

Canonie Sample ID

8270 Compounds	4-17-4 ug/kg
Fluoranthene	<2000
Pyrene	<1300
Butyl benzyl phthalate	<2000
3,3-Dichlorobenzidine	<13000
Benzo(a)anthracene	<660
Bis(2-ethylhexyl)phthalate	<1300
Chrysene	<660
Di-n-octyl phthalate	<1300
Benzo(b)fluoranthene	<2600
Benzo(k)fluoranthene	<2600
Benzo(a)pyrene	<660
Indeno(1,2,3-cd)pyrene	<660
Dibenzo(a,h)anthracene	<2000
Benzo(g,h,i)perylene	<1300
Alpha-BHC	<6600
Beta-BHC	<6600
Gamma-BHC	<6600
Delta-BHC	<6600
Heptachlor	<6600
Aldrin	<6600
Heptachlor epoxide	<6600
Endosulfan I	<6600
Dieldrin	<6600
4,4'-DDE	<6600
Endrin	<6600
Endosulfan II	<6600
4,4'-DDD	<6600
Endrin aldehyde	<6600
Endosulfan sulfate	<6600
4,4'-DDT	<6600
PCB's	<6600

Surrogates	Percent Recovery (%)
2-Fluorophenol	65
Phenol-d5	57
Nitrobenzene-d5	38
2-Fluorobiphenyl	82
2,4,6-Tribromophenol	@
p-Terphenyl-d14	62

@ - surrogate diluted below its detection limit

Table 2
Results of Total Ext. Hydrocarbons Analysis on Soil
Samples Received From McKin
Results in mg/kg

04-08-1987
84-130-1840
Page 2

Sampler ID:	3-17-8
	3992
Lab ID#:	702291
Analyte(s)	
Total Extractable Hydrocarbons	30.

JMH
Analyst

Checked by

Note:
ND X denotes none detected to a level of X.

Canonie Environmental

Table 2
Results of TEH Analysis on Soil
Samples Received From McKin
Results in mg/kg

03-30-1987
84-130-1856
Page 2

Sampler ID:	3-20-12
Lab ID#:	702481
Analyte(s) Total Extractable Hydrocarbons	58.

JMH JDU

Analyst Checked by

Note:
ND X denotes none detected to a level of X.

Canonie Environmental

Table 2
Results of Total Ext. Hydrocarbons Analysis on Soil
Samples Received From McKin
Results in mg/kg

04-06-1987
84-130-1885
Page 2

Sampler ID:	3-24 11 3700	3-25-14 3219	3-25-3 3206
Lab ID#:	702763	702765	702764
Analyte(s) Total Extractable Hydrocarbons	55.	40.	47.

Analyst Checked by

Note:
ND X denotes none detected to a level of X

Table 2
Results of Total Ext. Hydrocarbons Analysis on Soil
Samples Received From McKin
Results in mg/kg

04-08-1987
84-130-1912
Page 2

Sampler ID:	3-27-3
	3279
Lab ID#:	703070
Analyte(s)	
Total Extractable Hydrocarbons	39.

JMH
Analyst

Checked by

Note:
ND X denotes none detected to a level of X.

Table 2
Results of Total Ext. Hydrocarbons Analysis on Soil
Samples Received From McKin
Results in mg/kg

04-08-1987
84-130-1926
Page 2

Sampler ID:	3-27-6	3-30-4
	3244	3297
Lab ID#:	703156	703159
Analyte(s)		
Total Extractable Hydrocarbons	28.	34.

SMA
Analyst

Checked by

Note:
ND X denotes none detected to a level of X

Table 2
Results of Total Petroleum Hydrocarbon Analysis on Soil
Samples Received From McKin
Results in mg/kg

Sampler ID:	4-14-4	4-14-13
	3494	3495
Lab ID#:	704064	704065
Analyte(s)		
Total Extractable Hydrocarbons	120.	140.

Analyst Checked by

Note:
ND X denotes none detected to a level of X.
[illegible] level of X due to an interfering peak.

Canonie Environmental

Table 1. Total Extractable Hydrocarbon Results

	Canonie Sample ID				
	4-10-18	3324	3329	4-14-4	4-14-13
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
TEH	130	180	100	200	170

Table 2
Results of Total Petroleum Hydrocarbons Analysis on Soil
Samples Received From McKin
Results in mg/kg

04-27-1987
84-130-2009
Page 2

Sampler ID:	4-15-14	4-15-8	4-16-16	4-16-4	4-17-12
	3365	3356	3386	3372	3400
Lab ID#:	704358	704357	704360	704359	704361
Analyte(s)					
Total Extractable Hydrocarbons	190.	120.	220.	130.	140.

Analyst Checked by

Note:
ND X denotes none detected

Table 1. Total Organic Hydrocarbon Results

Sample Identification	Concentration (mg/kg)
3-18-3	47
3-19-3	73
3-19-15	<10
3-23-3	20
3-23-11	<10
3-26-2	20
3-26-5	16
4-2-3	110
4-2-14	280
4-3-6	180
4-3-13	200
4-7-8	150
4-8-7	100
4-8-9	350
4-9-4	370
4-9-13	200
4-14	80
4-15	160
4-14-4	190

APPENDIX D

QUALITY ASSURANCE DATA -

McKIN/STOCKTON, CA
LABORATORY ANALYTICAL COMPARISON

MEMO

TO: Brian Bell

CH 84-130

FROM: Karen Verrue

June 8, 1987

QA Data, McKin Project

Enclosed are the plots of the relative percent difference (RPD) for all the analytes investigated by EPA method 8010/8020 for the McKin project in Gray, Maine.

Originally, samples were analyzed on-site, then the sample was shipped to the laboratory in Stockton, California, and analyzed. It was determined that in shipping the sample, a substantial amount of the contaminates were lost due to the fact that a head-space was created in the sample tube when the original analysis was performed and due to the fact that the sample was extracted at the on-site lab within hours of sampling, whereas the sample was extracted at the Stockton lab seven to ten days later.

Sample extracts were then shipped for analysis to the laboratory in Stockton, after the analysis was completed on-site.

The overall comparison of the data shows agreement between the two analyses in regards to identification and relative amounts. Towards the end of the project, results from the laboratory in Stockton were running higher than those found on-site. Based on the EPA proficiency samples analyzed at the site in Gray, Maine, and at the lab in Stockton, the problem was not with the analytical work. We feel that the higher results were due to the sample matrix; the samples taken towards the end of the project contained a large amount of an oily substance. Over time, we feel that more of the contaminates leached or were extracted into the methanol.

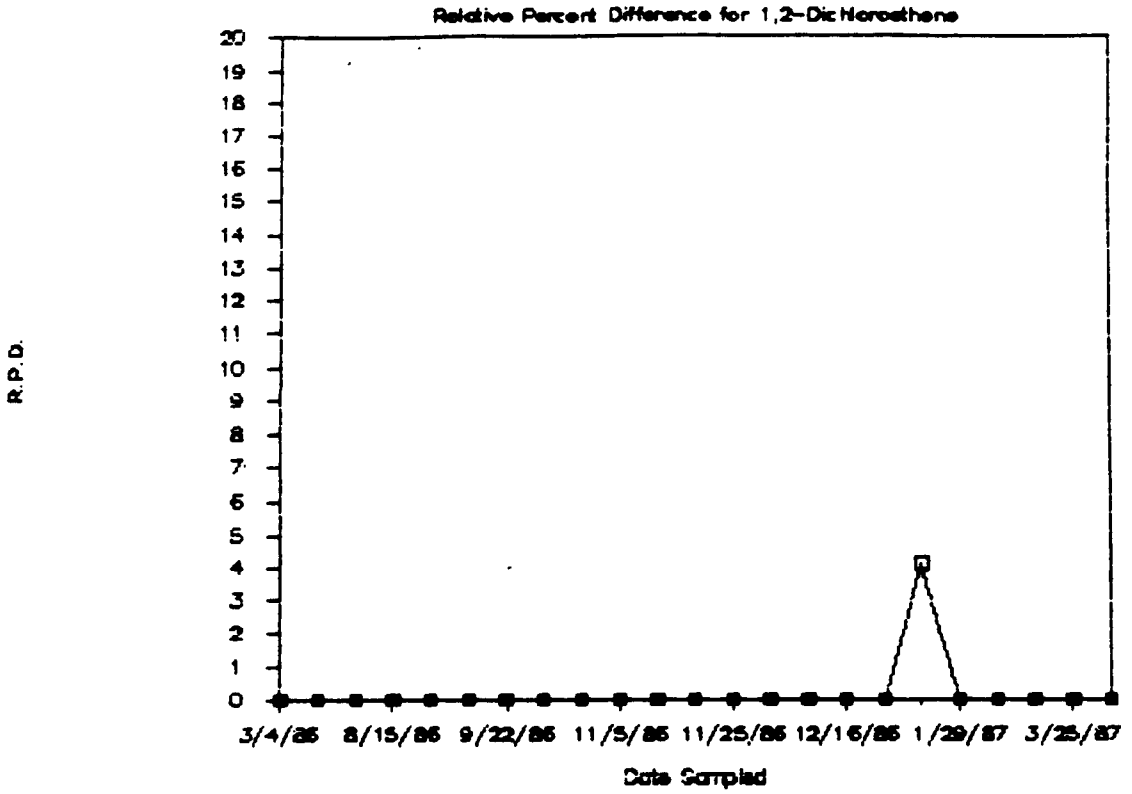
If you need any more information, please give me a call.

KAV/jmh

Enclosure

cc: Ken Wahl

Canonie Environmental Services – McKin/Stockton Comparison



Analyte: 1,2-Dichloroethene

Lab ID:	PS 16-L81	7-21-1	7-30-1	8-15-1	8-29-1	9-12-210	9-22-Hole2N
Date:	3/4/86	7/21/86	7/30/86	8/15/86	8/29/86	9/12/86	9/22/86
McKin Value:	ND 10.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.04	ND 0.1
Stockton Value:	ND 10.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

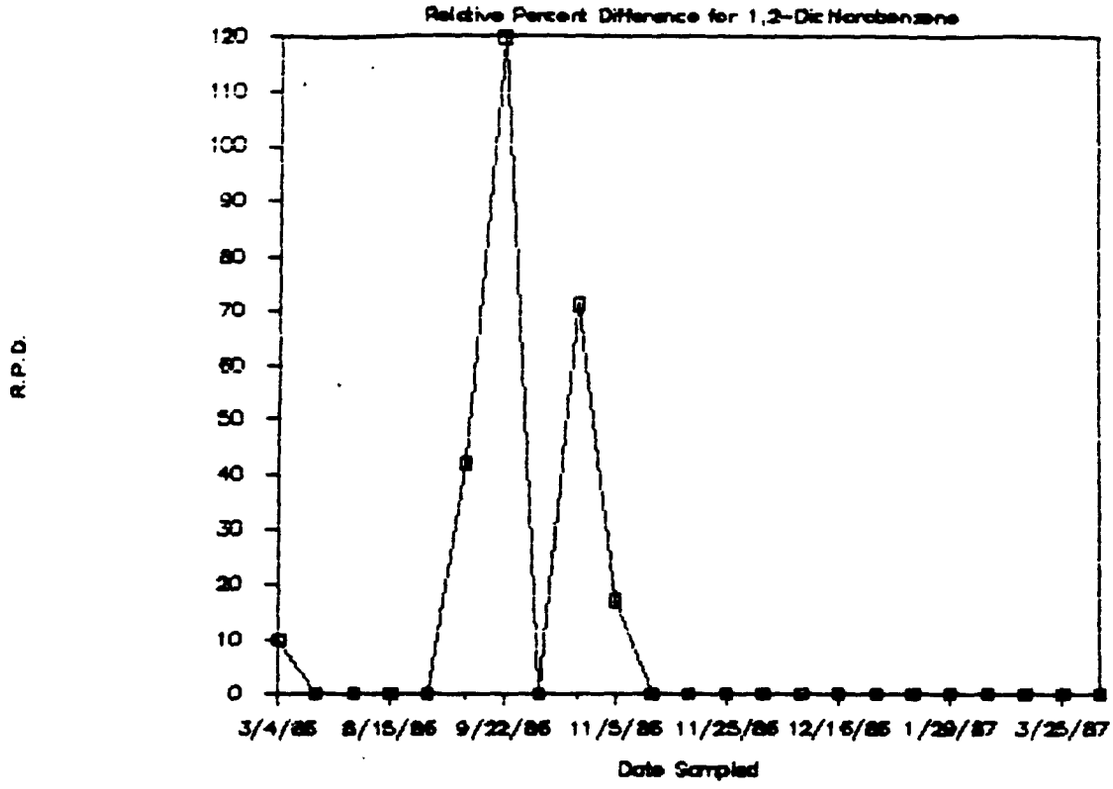
Lab ID:	10-21-13	10-27Hol327	11-5N126	11-12Hol335	11-13Hol351	11-25Hol420	12-1Hole443
Date:	10/21/86	10/27/86	11/5/86	11/12/86	11/13/86	11/25/86	12/1/86
McKin Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.1	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.02	ND 0.02	ND 0.02
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Lab ID:	12-10-7	12-16-3	12-31A1STP	1-13 Area 8	1-29N8-12	2-3-11	3-18-7
Date:	12/10/86	12/16/86	12/31/86	1/13/87	1/29/87	2/3/87	3/18/87
McKin Value:	ND 0.02	ND 0.02	ND 0.02	25.	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	ND 0.02	ND 0.02	24.	ND 0.02	ND 0.02	ND 0.02
R.P.D.:	0.	0.	0.	4.1	0.	0.	0.

Analyte:	1,2-Dichlora
Lab ID:	3-25-9
Date:	3/25/87
McKin Value:	ND 0.02
Stockton Value:	ND 0.02
R.P.D.:	0.

Canonie Environmental

Canonie Environmental Services – McKin/Stockton Comparison



Analyte: 1,2-Dichlorobenzene

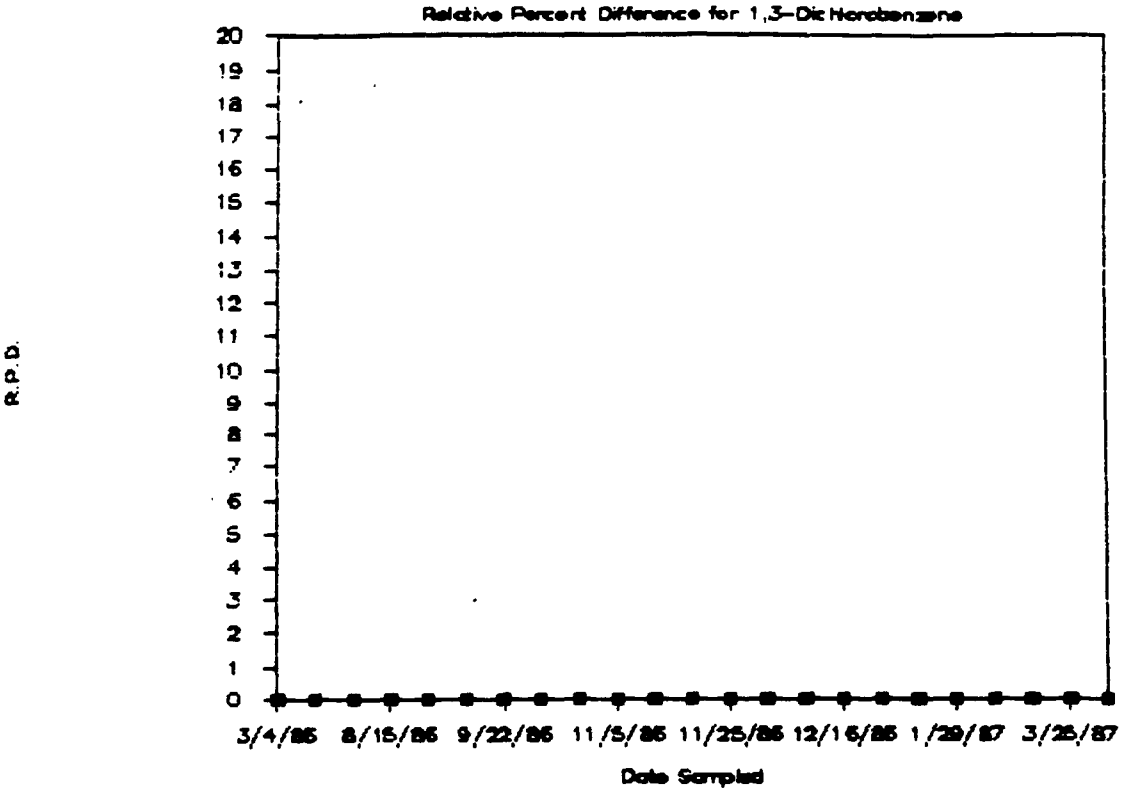
Lab ID:	PS 16-LB1	7-21-1	7-30-1	8-15-1	8-29-1	9-12-210	9-22-Hole2N
Date:	3/4/86	7/21/86	7/30/86	8/15/86	8/29/86	9/12/86	9/22/86
McKin Value:	38.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	5.6	37.4
Stockton Value:	42.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	8.6	9.4
R.P.D.:	10.	0.	0.	0.	0.	42.	120.

Lab ID:	10-21-13	10-27Hol327	11-5N126	11-12Hol335	11-13Hol351	11-25Hol420	12-1Hole443
Date:	10/21/86	10/27/86	11/5/86	11/12/86	11/13/86	11/25/86	12/1/86
McKin Value:	ND 0.02	0.42	0.59	ND 0.1	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	0.2	0.70	ND 0.2	ND 0.02	ND 0.02	ND 0.02
R.P.D.:	0.	71.	17.	0.	0.	0.	0.

Lab ID:	12-10-7	12-16-3	12-31A1STP	1-13 Area 8	1-29A8-12	2-3-11	3-10-7
Date:	12/10/86	12/16/86	12/31/86	1/13/87	1/29/87	2/3/87	3/10/87
McKin Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.04	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.04	ND 0.02	ND 0.02	ND 0.02
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Analyte:	1,2-Dichlore
Lab ID:	3-25-9
Date:	3/25/87
McKin Value:	ND 0.02
Stockton Value:	ND 0.02
R.P.D.:	0.

Canonie Environmental Services – McKin/Stockton Comparison



Analyte: 1,3-Dichlorobenzene

Lab ID:	PS 16-LB1	7-21-1	7-30-1	8-15-1	8-29-1	9-12-210	9-22-Hole2N
Date:	3/4/86	7/21/86	7/30/86	8/15/86	8/29/86	9/12/86	9/22/86
McKin Value:	10.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.04	ND 0.1
Stockton Value:	ND 10.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Lab ID:	10-21-13	10-27Hol327	11-5N126	11-12Hol335	11-13Hol351	11-25Hol420	12-1Hole443
Date:	10/21/86	10/27/86	11/5/86	11/12/86	11/13/86	11/25/86	12/1/86
McKin Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.1	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	ND 0.2	ND 0.02	ND 0.2	ND 0.02	ND 0.02	ND 0.02
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Lab ID:	12-10-7	12-16-3	12-31A15TP	1-13 Area 8	1-29N8-12	2-3-11	3-10-7
Date:	12/10/86	12/16/86	12/31/86	1/13/87	1/29/87	2/3/87	3/10/87
McKin Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.04	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.04	ND 0.02	ND 0.02	ND 0.02
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Analyte:	1,3-Dichlore
Lab ID:	3-25-4
Date:	3/25/87
McKin Value:	ND 0.02
Stockton Value:	ND 0.02
R.P.D.:	0.

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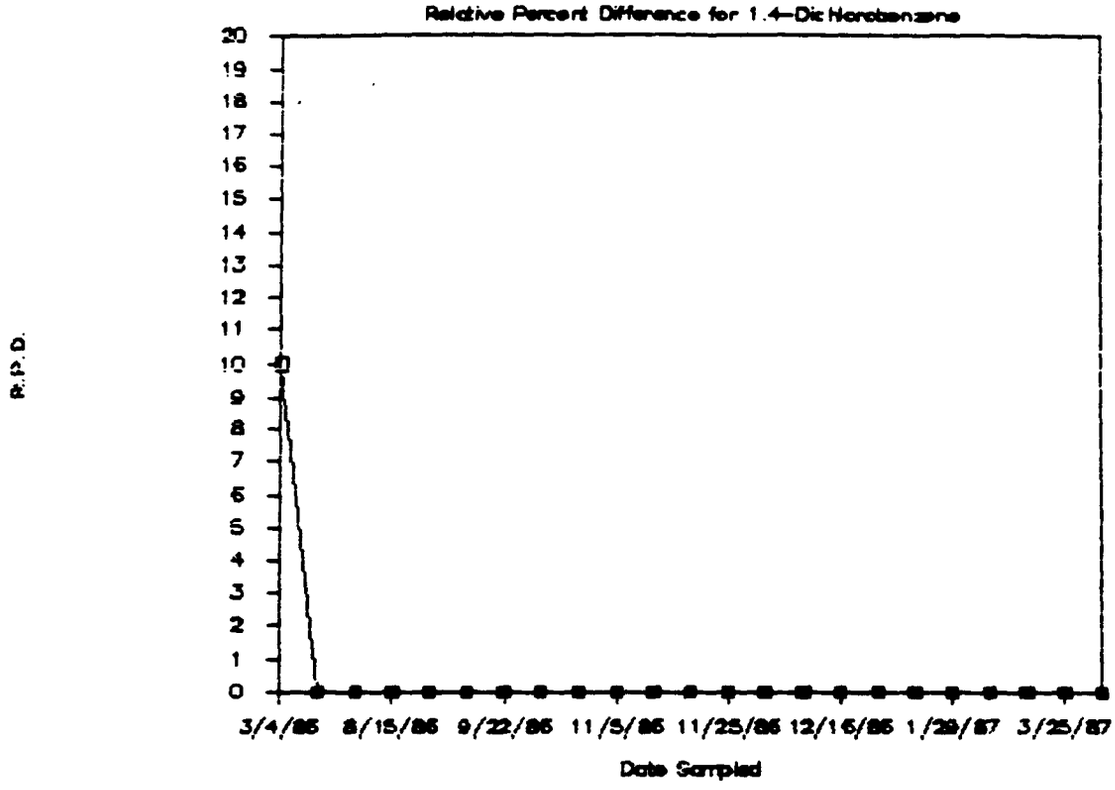
Canonie Environmental Services – McKin/Stockton Comparison



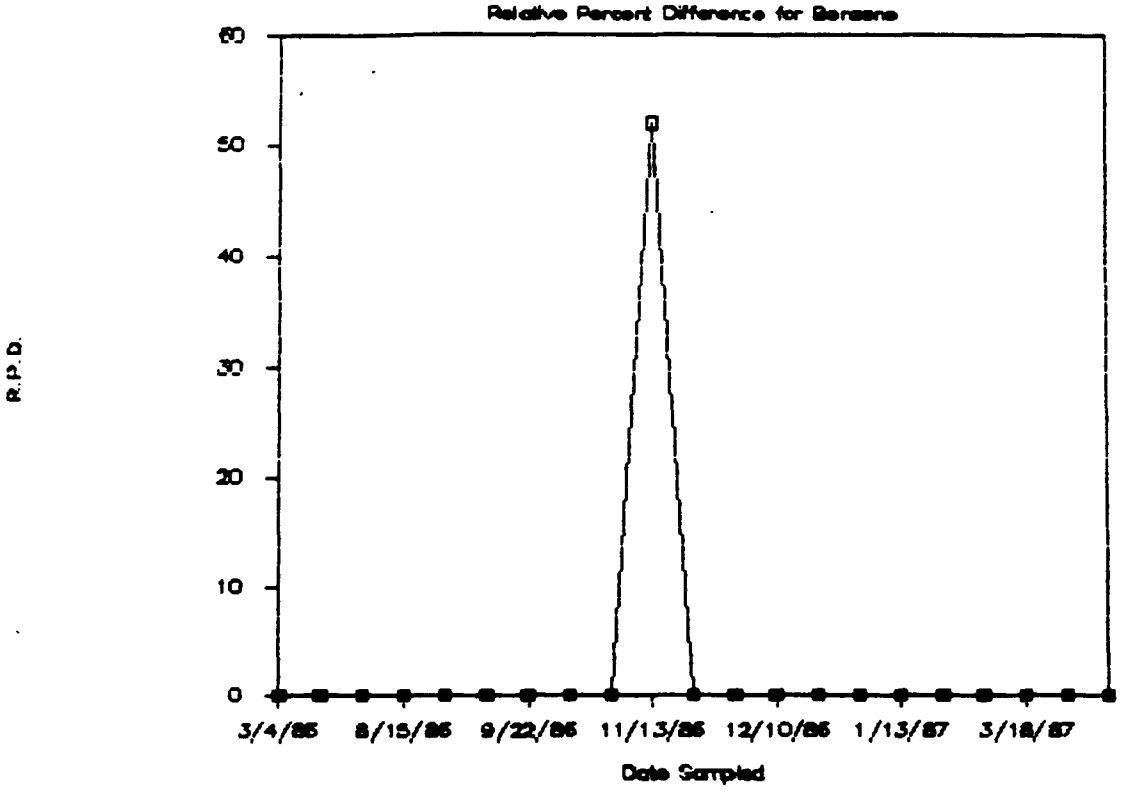
Analyte:	1,4-Dichlorobenzene						
Lab ID:	PS 16-LB1	7-21-1	7-30-1	8-15-1	8-29-1	9-12-210	9-22-Hole2N
Date:	3/4/86	7/21/86	7/30/86	8/15/86	8/29/86	9/12/86	9/22/86
McKin Value:	38.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.04	ND 0.1
Stockton Value:	42.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2
R.P.D.:	10.	0.	0.	0.	0.	0.	0.

Lab ID:	10-21-13	10-27Hol327	11-5N126	11-12Hol335	11-13Hol351	11-25Hol420	12-1Hole443
Date:	10/21/86	10/27/86	11/5/86	11/12/86	11/13/86	11/25/86	12/1/86
McKin Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.1	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	ND 0.2	ND 0.02	ND 0.2	ND 0.02	ND 0.02	ND 0.02
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Lab ID:	12-10-7	12-16-3	12-31A1STP	1-13 Area 8	1-29N8-12	2-3-11	3-10-7
Date:	12/10/86	12/16/86	12/31/86	1/13/87	1/29/87	2/3/87	3/10/87
McKin Value:	ND 0.02	ND 0.02	ND 0.2	ND 0.04	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	ND 0.02	ND 0.2	ND 0.04	ND 0.02	ND 0.02	ND 0.02
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Analyte:	1,4-Dichlorobe
Lab ID:	3-25-9
Date:	3/25/87
McKin Value:	ND 0.02
Stockton Value:	ND 0.02
R.P.D.:	0.

Canonie Environmental Services – McKin/Stockton Comparison

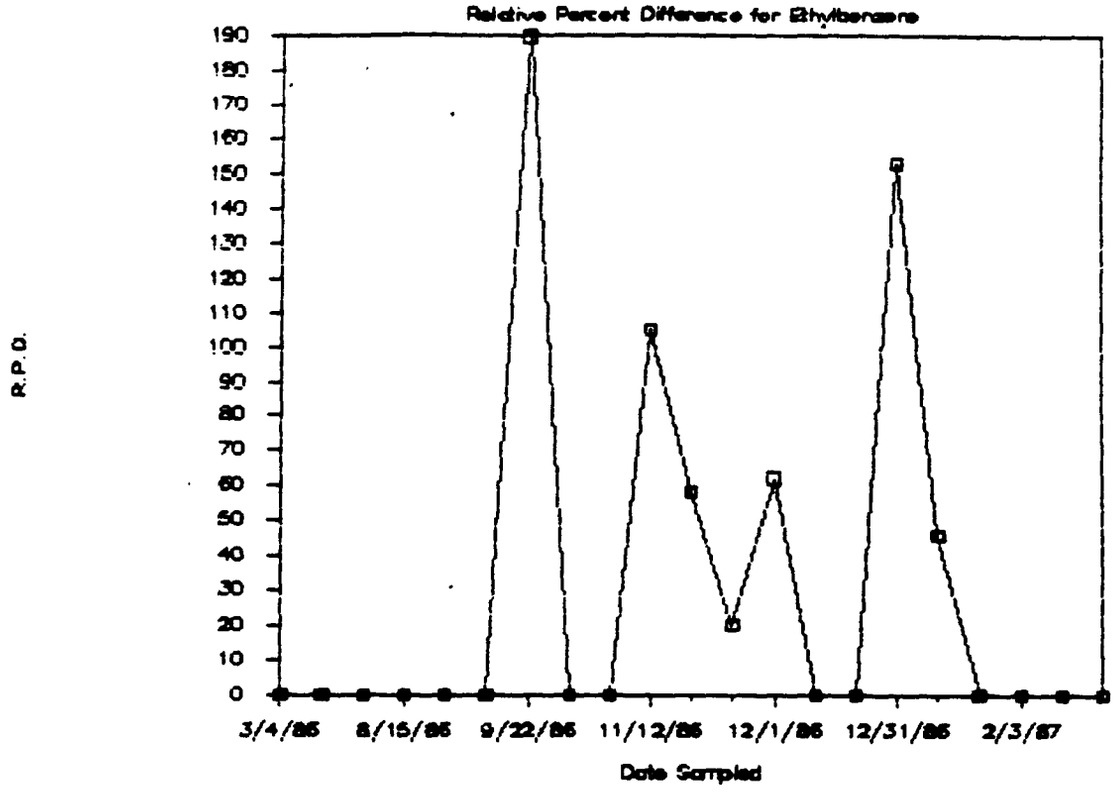


Analyte:	Benzene						
Lab ID:	PS 16-LB1	7-21-1	7-30-1	8-15-1	8-29-1	9-12-210	9-22-Hole2N
Date:	3/4/86	7/21/86	7/30/86	8/15/86	8/29/86	9/12/86	9/22/86
McKin Value:	ND 500.	ND 1.	ND 1.	ND 1.	ND 1.	ND 5.	ND 5.
Stockton Value:	ND 500.	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 2.	ND 2.
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Lab ID:	10-21-13	11-5N126	11-13HOL351	11-25HOL420	12-1HOL443	12-10-7	12-16-3
Date:	10/21/86	11/5/86	11/13/86	11/25/86	12/1/86	12/10/86	12/16/86
McKin Value:	ND 1.	ND 1.	ND 1.	ND 1.	ND 1.	ND 1.	ND 1.
Stockton Value:	ND 0.2	ND 0.2	1.7	ND 0.2	ND 0.2	ND 0.2	ND 0.2
R.P.D.:	0.	0.	52.	0.	0.	0.	0.

Lab ID:	12-31A1STP	1-13Area8	1-29A8-12	2-3-11	3-18-7	3-25-9	4-3-5
Date:	12/31/86	1/13/87	1/29/87	2/3/87	3/18/87	3/25/87	4/3/87
McKin Value:	0.7	ND 2.	ND 1.	ND 1.	ND 0.5	ND 0.5	ND 0.5
Stockton Value:	ND 2.	ND 1.	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 0.2
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Canonie Environmental Services – McKin/Stockton Comparison



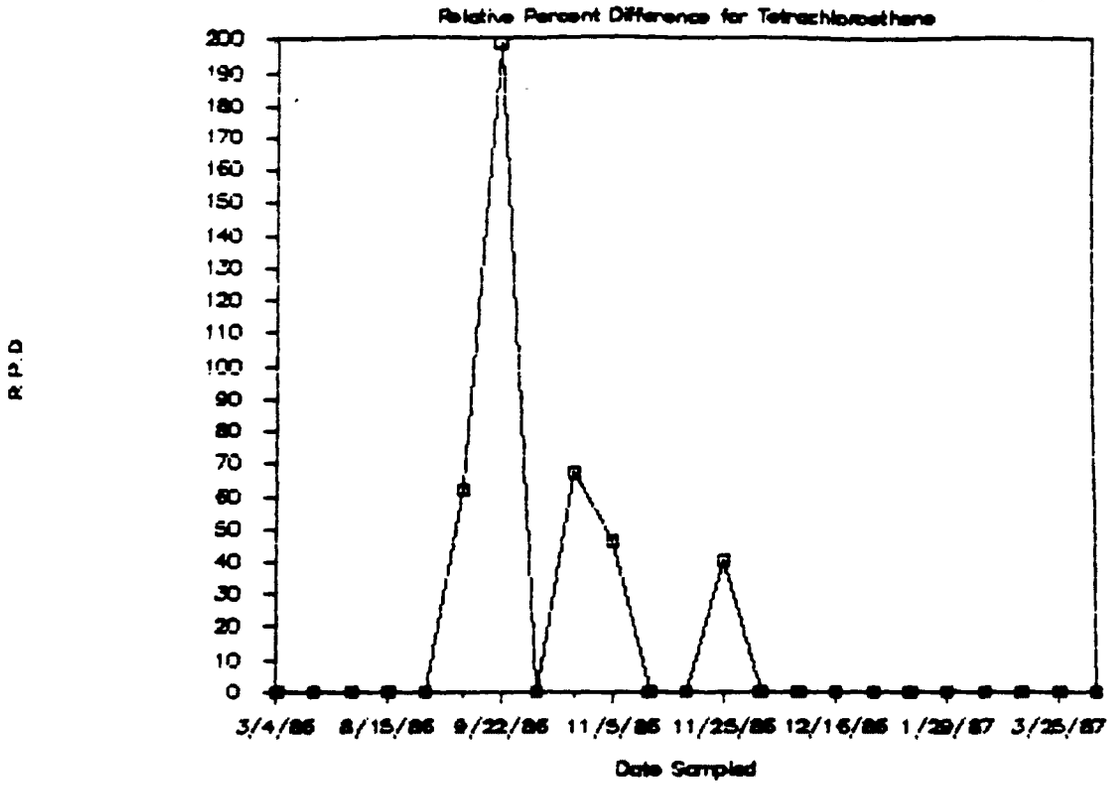
Analyte:	Ethylbenzene						
Lab ID:	PS 16-LB1	7-21-1	7-30-1	8-15-1	8-29-1	9-12-210	9-22 Hole2N
Date:	3/4/86	7/21/86	7/30/86	8/15/86	8/29/86	9/12/86	9/22/86
McKin Value:	ND 500.	ND 1.	ND 1.	ND 1.	ND 1.	ND 5.	189.
Stockton Value:	ND 500.	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 2.	ND 2.
R.P.D.:	0.	0.	0.	0.	0.	0.	190.

Lab ID:	10-21-13	11-5N126	11-12HOL335	11-13HOL351	11-25HOL420	12-1HOL443	12-10-7
Date:	10/21/86	11/5/86	11/12/86	11/13/86	11/25/86	12/1/86	12/10/86
McKin Value:	ND 1.	ND 1.	14.	5.	0.49	1.7	ND 1.
Stockton Value:	ND 0.2	0.4	45.	9.1	0.4	0.9	ND 0.2
R.P.D.:	0.	0.	185.	58.	20.	62.	0.

Lab ID:	12-16-3	12-31A1STP	1-13Area8	1-29HB-12	2-3-11	3-18-7	3-25-9
Date:	12/16/86	12/31/86	1/13/87	1/29/87	2/3/87	3/18/87	3/25/87
McKin Value:	ND 1.	3.7	5.	ND 1.	ND 1.	ND 0.5	ND 0.5
Stockton Value:	ND 0.2	28.	8.	ND 0.2	ND 0.2	ND 0.2	ND 0.2
R.P.D.:	0.	153.	46.	0.	0.	0.	0.

Analyte:	Ethyl
Lab ID:	4-3-5
Date:	4/3/8
McKin Value:	ND 0.
Stockton Value:	ND 0.
R.P.D.:	0.

Canonie Environmental Services – McKin/Stockton Comparison



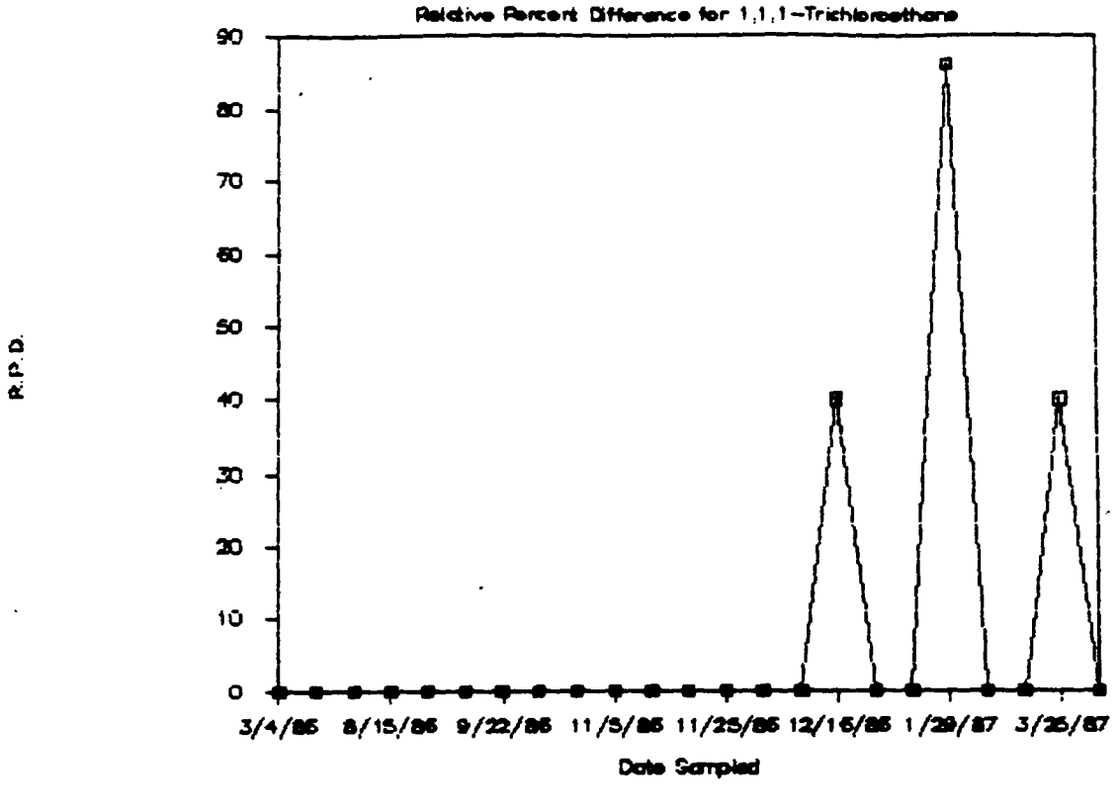
Analyte:	Tetrachloroethene						
Lab ID:	PS 16-L81	7-21-1	7-30-1	8-15-1	8-29-1	9-12-210	9-22-Hole2N
Date:	3/4/86	7/21/86	7/30/86	8/15/86	8/29/86	9/22/86	9/22/86
McKin Value:	ND 10.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	0.58	11.1
Stockton Value:	ND 10.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	1.1	ND 0.2
R.P.D.:	0.	0.	0.	0.	0.	62.	199.

Lab ID:	10-21-13	10-27Hol327	11-3N126	11-12Hol335	11-13Hol351	11-25Hol420	12-1Hole443
Date:	10/21/86	10/27/86	11/5/86	11/12/86	11/13/86	11/25/86	12/1/86
McKin Value:	ND 0.02	0.4	0.05	ND 0.1	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	ND 0.2	0.08	ND 0.2	ND 0.02	0.03	ND 0.02
R.P.D.:	0.	67.	46.	0.	0.	40.	0.

Lab ID:	12-16-7	12-16-3	12-31A1STP	1-13 Area 8	1-29B8-12	2-3-11	3-18-7
Date:	12/16/86	12/16/86	12/31/86	1/13/87	1/29/87	2/3/87	3/18/87
McKin Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.04	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.04	ND 0.02	ND 0.02	ND 0.02
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Analyte:	Tetrachloroethe
Lab ID:	3-25-9
Date:	3/25/87
McKin Value:	ND 0.02
Stockton Value:	ND 0.02
R.P.D.:	0.

Canonie Environmental Services – McKin/Stockton Comparison



Analyte: 1,1,1-Trichloroethane

Lab ID:	PS 16-LB1	7-21-1	7-30-1	8-15-1	8-29-1	9-12-210	9-22-Hole2N
Date:	3/4/86	7/21/86	7/30/86	8/15/86	8/29/86	9/22/86	9/22/86
McKin Value:	ND 10.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.04	0.1
Stockton Value:	ND 10.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.02	ND 0.2
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Lab ID:	10-21-13	10-27Hol327	11-5N126	11-12Hol335	11-13Hol351	11-25Hol420	12-1Hole443
Date:	10/21/86	10/27/86	11/5/86	11/12/86	11/13/86	11/25/86	12/1/86
McKin Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.1	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.2	ND 0.02	ND 0.02	0.02
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Lab ID:	12-10-7	12-16-3	12-31A15TP	1-13 Area 8	1-29N8-12	2-3-11	3-18-7
Date:	12/10/86	12/16/86	12/31/86	1/13/87	1/29/87	2/3/87	3/18/87
McKin Value:	ND 0.02	0.03	ND 0.02	ND 0.04	ND 0.02	ND 0.02	ND 0.02
Stockton Value:	ND 0.02	ND 0.02	ND 0.02	ND 0.04	0.05	ND 0.02	ND 0.02
R.P.D.:	0.	40	0.	0.	86.	0.	0.

Analyte:	1,1,1-Trichlo
Lab ID:	3-25-9
Date:	3/25/87
McKin Value:	ND 0.02
Stockton Value:	0.03
R.P.D.:	40.

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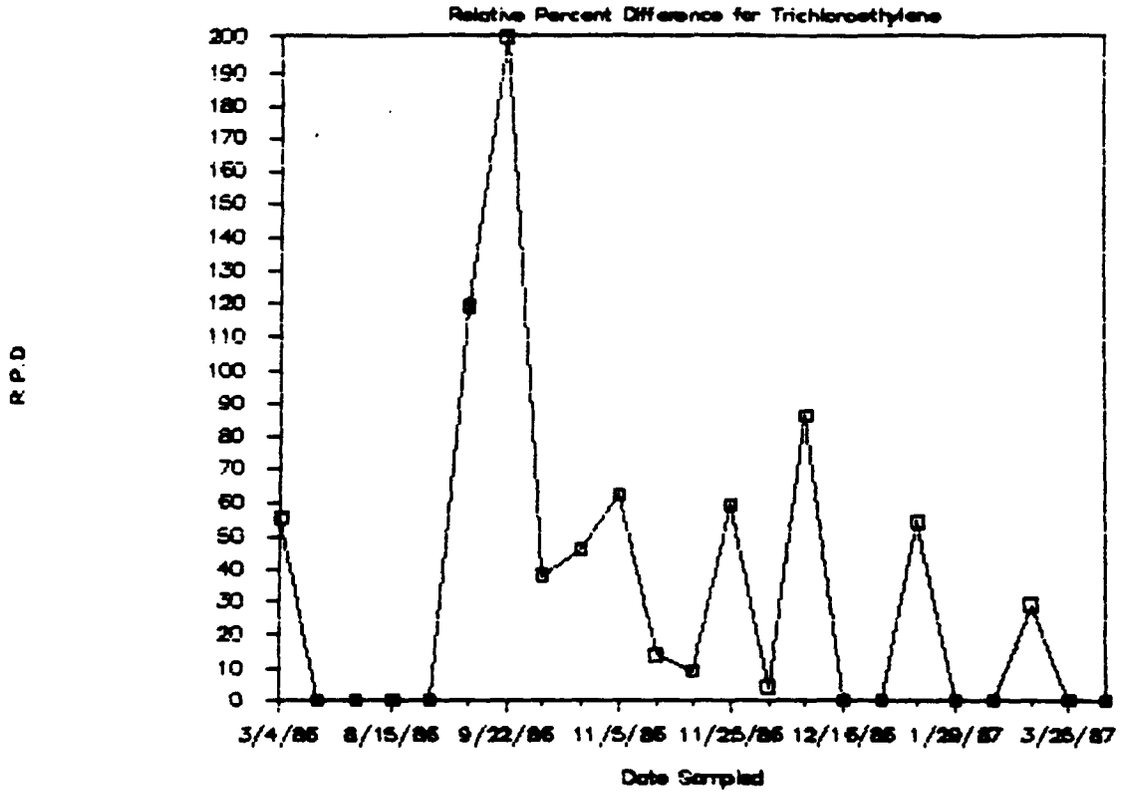
Canonie Environmental Services – McKin/Stockton Comparison



Analyte: Trichloroethylene

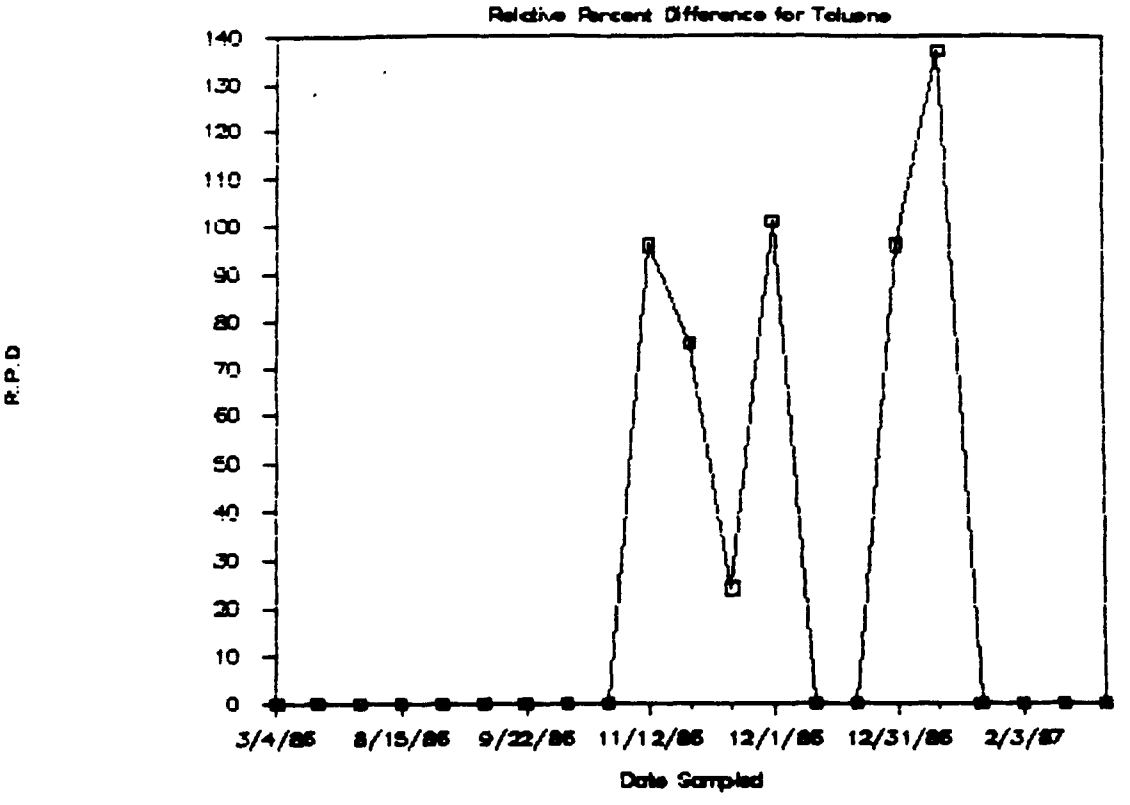
Lab ID:	PS 16-LB1	7-21-1	7-30-1	8-15-1	8-29-1	9-12-210	9-22-Hole2N
Date:	3/4/86	7/21/86	7/30/86	8/15/86	8/29/86	9/12/86	9/22/86
McKin Value:	370.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	17.4	125.
Stockton Value:	210.	ND 0.02	ND 0.02	ND 0.02	ND 0.02	69.	ND 0.2
R.P.D.:	55.	0.	0.	0.	0.	119.	200.

Lab ID:	10-21-13	10-27Hole327	11-5N126	11-12Hole335	11-13Hole351	11-25Hole428	12-1Hole443
Date:	10/21/86	10/27/86	11/5/86	11/12/86	11/13/86	11/25/86	12/1/86
McKin Value:	0.22	61.	1.9	6.5	2.1	0.06	0.24
Stockton Value:	0.15	38.	1.0	7.5	2.3	0.11	0.23
R.P.D.:	38.	46.	62.	14.	9.1	59.	4.

Lab ID:	12-10-7	12-16-3	12-31A15TP	1-13 Area 8	1-29A8-12	2-3-11	3-10-7
Date:	12/10/86	12/16/86	12/31/86	1/13/87	1/29/87	2/3/87	3/10/87
McKin Value:	ND 0.02	ND 0.02	ND 0.02	0.07	ND 0.02	ND 0.02	0.04
Stockton Value:	0.05	ND 0.02	ND 0.02	ND 0.04	ND 0.02	ND 0.02	0.03
R.P.D.:	86.	0.	0.	54.	0.	0.	29.

Analyte:	Trichloroeth
Lab ID:	3-25-4
Date:	3/25/87
McKin Value:	ND 0.02
Stockton Value:	ND 0.02
R.P.D.:	0.

Canonie Environmental Services – McKin/Stockton Comparison



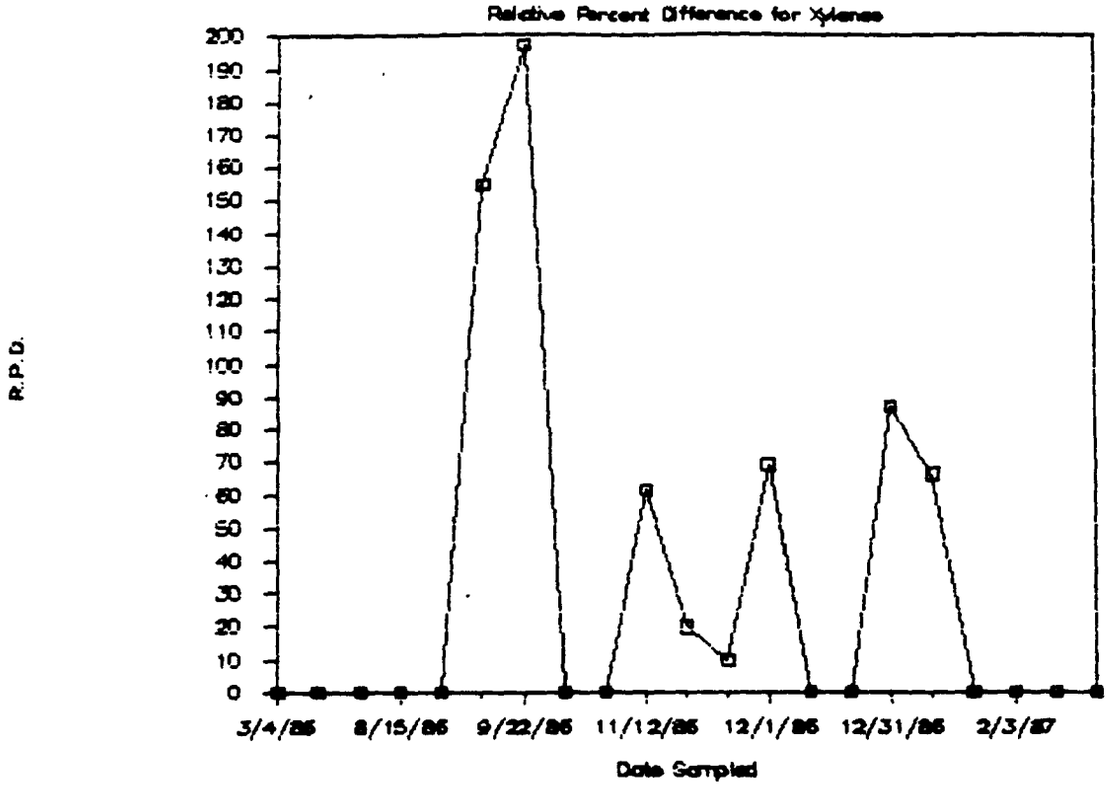
Analyte:	Toluene						
Lab ID:	PS 16-LB1	7-21-1	7-30-1	8-15-1	8-29-1	9-12-210	9-22-Hole2N
Date:	3/4/86	7/21/86	7/30/86	8/15/86	8/29/86	9/12/86	9/22/86
McKin Value:	ND 500.	ND 1.	ND 1.	ND 1.	ND 1.	ND 5.	ND 5.
Stockton Value:	ND 500.	ND 0.2	ND 0.2	ND 0.2	ND 0.2	ND 2.	ND 2.
R.P.D.:	0.	0.	0.	0.	0.	0.	0.

Lab ID:	10-21-13	11-5N126	11-12HOL335	11-13HOL351	11-25HOL420	12-1HOL443	12-10-7
Date:	10/21/86	11/5/86	11/12/86	11/13/86	11/25/86	12/1/86	12/10/86
McKin Value:	ND 1.	ND 1.	15.	5.	0.38	3.0	ND 1.
Stockton Value:	ND 0.2	ND 0.2	43.	11.	0.3	1.0	ND 0.2
R.P.D.:	0.	0.	96.	75.	24.	101.	0.

Lab ID:	12-16-3	12-31A1STP	1-13Area8	1-29N8-12	2-3-11	3-10-7	3-25-9
Date:	12/16/86	12/31/86	1/13/87	1/29/87	2/3/87	3/10/87	3/25/87
McKin Value:	ND 1.	2.8	3.	ND 1.	ND 1.	ND 0.5	ND 0.5
Stockton Value:	ND 0.2	8.	16.	ND 0.2	0.4	ND 0.2	ND 0.2
R.P.D.:	0.	96.	137.	0.	0.	0.	0.

Analyte:	Toluene
Lab ID:	4-3-5
Date:	4/3/87
McKin Value:	ND 0.5
Stockton Value:	ND 0.2
R.P.D.:	0.

Canonie Environmental Services — McKin/Stockton Comparison



Analyte:	Xylenes						
Lab ID:	PS 16-LB1	7-21-1	7-30-1	8-15-1	8-29-1	9-12-210	9-22-Hole2N
Date:	3/4/86	7/21/86	7/30/86	8/15/86	8/29/86	9/12/86	9/22/86
McKin Value:	ND 500.	ND 1.	ND 1.	ND 1.	ND 1.	12.6	448.
Stockton Value:	ND 500.	ND 0.2	ND 0.2	ND 0.2	ND 0.2	100.	3.1
R.P.D.:	0.	0.	0.	0.	0.	155.	197.

Lab ID:	10-21-13	11-5N126	11-12HOL335	11-13HOL351	11-25HOL420	12-1HOL443	12-10-7
Date:	10/21/86	11/5/86	11/12/86	11/13/86	11/25/86	12/1/86	12/10/86
McKin Value:	ND 1.	ND 1.	69.	22.	1.9	9.2	ND 1.
Stockton Value:	ND 0.2	0.4	130.	27.	2.1	4.5	ND 0.2
R.P.D.:	0.	0.	61.	20.	10.	69.	0.

Lab ID:	12-16-3	12-31A18TP	1-13Area8	1-29A8-12	2-3-11	3-18-7	3-25-9
Date:	12/16/86	12/31/86	1/13/87	1/29/87	2/3/87	3/18/87	3/25/87
McKin Value:	ND 1.	32.	15.	ND 1.	ND 1.	ND 0.5	ND 0.5
Stockton Value:	ND 0.2	81.	37.	ND 0.2	ND 0.2	ND 0.2	ND 0.2
R.P.D.:	0.	87.	66.	0.	0.	0.	0.

Analyte:	Xylenes
Lab ID:	4-3-5
Date:	4/3/87
McKin Value:	ND 0.5
Stockton Value:	ND 0.2
R.P.D.:	0.

APPENDIX E

COMPARISON OF PRE-TREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION - SOILS CONTAINING VOC'S

COMPARISON OF PRETREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION
LOW TEMPERATURE THERMAL AERATION PROCESS
MCKIN SUPERFUND SITE
GRAY, MAINE

SAMPLE I.D. Type	31368.9 Pretreatment	31368.9 Post-treatment	31683.9 Pretreatment	3168: Post-t:
U.S. EPA Method 8020	Location 1		Location 2	
Benzene	ND 10.	ND 1.	ND 10.	NI
Chlorobenzene	ND 1		ND 0.02	
1,2-Dichlorobenzene	ND 1	ND 0.02	16	NI
1,3-Dichlorobenzene	ND 1	ND 0.02	ND 0.02	NI
1,4-Dichlorobenzene	ND 1	ND 0.02	ND 0.02	NI
Ethylbenzene	28	ND 1.	20	ND
Toluene	35	ND 1.	ND 10.	ND
Xylenes	84	ND 1.	38	ND
U.S. EPA Method 8010				
Bromodichloromethane	ND 0.02		ND 0.02	
Bromoform	ND 0.02		ND 0.02	
Bromomethane	ND 0.02		ND 0.02	
Carbon Tetrachloride	ND 0.02		ND 0.02	
Chlorobenzene	ND 0.02		ND 0.02	
Chloroethane	ND 0.02		ND 0.02	
2-Chloroethylvinyl ether	ND 0.02		ND 0.02	
Chloroform	ND 0.02		ND 0.02	
Chloromethane	ND 0.02		ND 0.02	
Dibromochloromethane	ND 0.02		ND 0.02	
1,2-Dichlorobenzene	ND 0.02	ND 0.02	16	ND
1,3-Dichlorobenzene	ND 0.02	ND 0.02	ND 0.02	ND
1,4-Dichlorobenzene	ND 0.02	ND 0.02	ND 0.02	ND
Dichlorodifluoromethane	ND 0.02		ND 0.02	
1,1-Dichloroethane	ND 0.02		ND 0.02	
1,2-Dichloroethane	ND 0.02		ND 0.02	
1,1-Dichloroethene	ND 0.02		ND 0.02	
trans-1,1-Dichloroethene	0.11	ND 0.02	ND 0.02	ND
1,2-Dichloropropane	ND 0.02		ND 0.02	
cis-1,3-Dichloropropene	ND 0.02		ND 0.02	
trans-1,3-Dichloropropene	ND 0.02		ND 0.02	
1,1,2,2-Tetrachloroethane	ND 0.02		9	
Tetrachloroethane	0.09	ND 0.02	ND 0.02	ND
1,1,1-Trichloroethane	0.13	ND 0.02	0.04	ND
1,1,2-Trichloroethane	ND 0.02		ND 0.02	
Trichloroethene	7.3	ND 0.02	20	ND
Trichlorofluoromethane	ND 0.02		ND 0.02	
Vinyl chloride	ND 0.02		ND 0.02	
Methylene chloride	ND 0.02		ND 0.02	

Note: All values shown are in mg/kg.
ND x indicates that compound was not detected at a concentration in excess of x mg/kg. Where no value is reported for a particular compound, that compound was not analyzed in post-treatment soil samples.

COMPARISON OF PRETREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION
LOW TEMPERATURE THERMAL AERATION PROCESS
MCKIN SUPERFUND SITE
GRAY, MAINE
(Continued)

SAMPLE I.D. Type	32083.5 Pretreatment	32083.5 Post-treatment	32077.5 Pretreatment	3207 Post-tre
U.S. EPA Method 8020	Location 3		Location 4	
Benzene	ND 5.	ND 1.	ND 10.	ND 1.
Chlorobenzene	ND 0.1		ND 0.2	
1,2-Dichlorobenzene	300	ND 0.02	15	ND 0.
1,3-Dichlorobenzene	ND 0.1	ND 0.02	ND 0.2	ND 0.
1,4-Dichlorobenzene	ND 0.1	ND 0.02	ND 0.2	ND 0.
Ethylbenzene	130	ND 1.	ND 10.	ND 1.
Toluene	ND 5.	ND 1.	ND 10.	ND 1.
Xylenes	840	ND 1.	ND 10.	ND 1.
U.S. EPA Method 8010				
Bromodichloromethane	ND 0.1		ND 0.2	
Bromoform	ND 0.1		ND 0.2	
Bromomethane	ND 0.1		ND 0.2	
Carbon Tetrachloride	ND 0.1		ND 0.2	
Chlorobenzene	ND 0.1		ND 0.2	
Chloroethane	ND 0.1		ND 0.2	
2-Chloroethylvinyl ether	ND 0.1		ND 0.2	
Chloroform	ND 2		ND 0.2	
Chloromethane	ND 0.1		ND 0.2	
Dibromochloromethane	ND 0.1		ND 0.2	
1,2-Dichlorobenzene	300	ND 0.02	15	ND 0.0
1,3-Dichlorobenzene	ND 0.1	ND 0.02	ND 0.2	ND 0.0
1,4-Dichlorobenzene	ND 0.1	ND 0.02	ND 0.2	ND 0.0
Dichlorodifluoromethane	ND 0.1		ND 0.2	
1,1-Dichloroethane	ND 0.1		ND 0.2	
1,2-Dichloroethane	ND 0.1		ND 0.2	
1,1-Dichloroethene	ND 0.1		ND 0.2	
trans-1,1-Dichloroethene	ND 2	ND 0.02	ND 0.2	ND 0.0
1,2-Dichloropropane	ND 0.1		ND 0.2	
cis-1,3-Dichloropropene	ND 0.1		ND 0.2	
trans-1,3-Dichloropropene	ND 0.1		ND 0.2	
1,1,2,2-Tetrachloroethane	ND 0.1		0.35	
Tetrachloroethane	40	ND 0.02	ND 0.2	ND 0.0
1,1,1-Trichloroethane	1.1	ND 0.02	ND 0.2	ND 0.0
1,1,2-Trichloroethane	ND 0.1		ND 0.2	
Trichloroethene	650	0.04	0.54	0.04
Trichlorofluoromethane	ND 0.1		ND 0.2	
Vinyl chloride	ND 0.1		ND 0.2	
Methylene chloride	ND 0.1		0.53	

Note: All values shown are in mg/kg.
ND x indicates that compound was not detected at a concentration in excess of x mg/kg. Where no value is reported for a particular compound, that compound was not analyzed in post-treatment soil samples.

COMPARISON OF PRETREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION
LOW TEMPERATURE THERMAL AERATION PROCESS
MCKIN SUPERFUND SITE
GRAY, MAINE
(Continued)

SAMPLE I.D. Type	32073.5 Pretreatment	32073.5 Post-treatment	32068.5 Pretreatment	32068. Post-treat
U.S. EPA Method 8020	Location 5		Location 6	
Benzene	ND 10.	ND 1.	ND 1.	ND 1.
Chlorobenzene	ND 0.2		ND 0.02	
1,2-Dichlorobenzene	43	ND 0.02	320	ND 0.
1,3-Dichlorobenzene	ND 0.2	ND 0.02	ND 0.02	ND 0.
1,4-Dichlorobenzene	ND 0.2	ND 0.02	ND 0.02	ND 0.
Ethylbenzene	19	ND 1.	72	ND 1.
Toluene	ND 10.	ND 1.	ND 1.	ND 1.
Xylenes	44	ND 1.	160	ND 1.
U.S. EPA Method 8010				
Bromodichloromethane	ND 0.2		ND 1	
Bromoform	ND 0.2		ND 1	
Bromomethane	ND 0.2		ND 1	
Carbon Tetrachloride	ND 0.2		ND 1	
Chlorobenzene	ND 0.2		ND 1	
Chloroethane	ND 0.2		ND 1	
2-Chloroethylvinyl ether	ND 0.2		ND 1	
Chloroform	ND 0.2		ND 1	
Chloromethane	ND 0.2		ND 1	
Dibromochloromethane	ND 0.2		ND 1	
1,2-Dichlorobenzene	43	ND 0.02	320	ND 0.0
1,3-Dichlorobenzene	ND 0.2	ND 0.02	ND 1	ND 0.0
1,4-Dichlorobenzene	ND 0.2	ND 0.02	ND 1	ND 0.0
Dichlorodifluoromethane	ND 0.2		ND 1	
1,1-Dichloroethane	ND 0.2		ND 1	
1,2-Dichloroethane	ND 0.2		ND 1	
1,1-Dichloroethene	ND 0.2		ND 1	
trans-1,1-Dichloroethene	ND 0.2	ND 0.02	6.1	ND 0.0
1,2-Dichloropropane	ND 0.2		ND 1	
cis-1,3-Dichloropropene	ND 0.2		ND 1	
trans-1,3-Dichloropropene	ND 0.2		ND 1	
1,1,2,2-Tetrachloroethane	ND 0.2		ND 1	
Tetrachloroethane	8.8	ND 0.02	120	ND 0.0
1,1,1-Trichloroethane	0.4	ND 0.02	19	ND 0.0
1,1,2-Trichloroethane	ND 0.2		ND 1	
Trichloroethene	210	0.04	3310	
Trichlorofluoromethane	ND 0.2		ND 1	
Vinyl chloride	ND 0.2		ND 1	
Methylene chloride	ND 0.2		3.8	

Note: All values shown are in mg/kg.
ND x indicates that compound was not detected at a concentration in excess of x mg/kg. Where no value is reported for a particular compound, that compound was not analyzed in post-treatment soil samples.

COMPARISON OF PRETREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION
LOW TEMPERATURE THERMAL AERATION PROCESS
MCKIN SUPERFUND SITE
GRAY, MAINE
(Continued)

SAMPLE I.D. Type	32365.3 Pretreatment	32365.3 Post-treatment	32483.5 Pretreatment	3248 Post-tre
U.S. EPA Method 8020	Location 7		Location 8	
Benzene	2.7	ND 1.	ND 100	N
Chlorobenzene	ND 0.02		ND 2	
1,2-Dichlorobenzene	33	ND 0.02	31	ND
1,3-Dichlorobenzene	ND 0.02	ND 0.02	ND 2	ND
1,4-Dichlorobenzene	ND 0.02	ND 0.02	ND 2	ND
Ethylbenzene	1.8	ND 1.	130	ND
Toluene	4	ND 1.	ND 1	ND
Xylenes	12.9	ND 1.	140	ND
U.S. EPA Method 8010				
Bromodichloromethane	ND 4		ND 2	
Bromoform	ND 4		ND 2	
Bromomethane	ND 4		ND 2	
Carbon Tetrachloride	ND 4		ND 2	
Chlorobenzene	ND 4		ND 2	
Chloroethane	ND 4		ND 2	
2-Chloroethylvinyl ether	ND 4		ND 2	
Chloroform	ND 4		ND 2	
Chloromethane	ND 4		ND 2	
Dibromochloromethane	ND 4		ND 2	
1,2-Dichlorobenzene	33	ND 0.02	30	ND (
1,3-Dichlorobenzene	ND 4	ND 0.02	ND 2	ND (
1,4-Dichlorobenzene	ND 4	ND 0.02	ND 2	ND (
Dichlorodifluoromethane	ND 4		ND 2	
1,1-Dichloroethane	ND 4		ND 2	
1,2-Dichloroethane	ND 4		ND 2	
1,1-Dichloroethene	ND 4		ND 2	
trans-1,1-Dichloroethene	ND 4	ND 0.02	ND 2	ND (
1,2-Dichloropropane	ND 4		ND 2	
cis-1,3-Dichloropropene	ND 4		ND 2	
trans-1,3-Dichloropropene	ND 4		ND 2	
1,1,2,2-Tetrachloroethane	ND 4		ND 2	
Tetrachloroethane	4.3	ND 0.02	19	ND (
1,1,1-Trichloroethane	8.6	ND 0.02	ND 2	ND (
1,1,2-Trichloroethane	ND 4		ND 2	
Trichloroethene	1000	ND 0.02	140	ND (
Trichlorofluoromethane	ND 4		ND 2	
Vinyl chloride	ND 4		ND 2	
Methylene chloride	ND 4		12	

Note: All values shown are in mg/kg.
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COMPARISON OF PRETREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION
LOW TEMPERATURE THERMAL AERATION PROCESS
MCKIN SUPERFUND SITE
GRAY, MAINE
(Continued)

SAMPLE I.D. Type	32683.5 Pretreatment	32683.5 Post-treatment	32678.5 Pretreatment	32678.5 Post-treatment
U.S. EPA Method 8020	Location 9		Location 10	
Benzene	ND 50	ND 1.	ND 1.	ND 1.
Chlorobenzene	ND 1		ND 0.02	
1,2-Dichlorobenzene	ND 1	ND 0.02	7.6	ND 0.02
1,3-Dichlorobenzene	ND 1	ND 0.02	ND 0.02	ND 0.02
1,4-Dichlorobenzene	ND 1	ND 0.02	ND 0.02	ND 0.02
Ethylbenzene	ND 50	ND 1.	20	ND 1.
Toluene	ND 50	ND 1.	1	ND 1.
Xylenes	ND 50	ND 1.	34	ND 1.
U.S. EPA Method 8010				
Bromodichloromethane	ND 2		ND 0.02	
Bromoform	ND 2		ND 0.02	
Bromomethane	ND 2		ND 0.02	
Carbon Tetrachloride	ND 2		ND 0.02	
Chlorobenzene	ND 2		ND 0.02	
Chloroethane	ND 2		ND 0.02	
2-Chloroethylvinyl ether	ND 2		ND 0.02	
Chloroform	7.3		0.43	
Chloromethane	ND 2		ND 0.02	
Dibromochloromethane	ND 2		ND 0.02	
1,2-Dichlorobenzene	15	ND 0.02	7.6	ND 0.02
1,3-Dichlorobenzene	ND 2	ND 0.02	ND 0.02	ND 0.02
1,4-Dichlorobenzene	ND 2	ND 0.02	ND 0.02	ND 0.02
Dichlorodifluoromethane	ND 2		ND 0.02	
1,1-Dichloroethane	ND 2		ND 0.02	
1,2-Dichloroethane	ND 2		ND 0.02	
1,1-Dichloroethene	ND 2		ND 0.02	
trans-1,1-Dichloroethene	ND 2	ND 0.02	ND 0.02	ND 0.02
1,2-Dichloropropane	ND 2		ND 0.02	
cis-1,3-Dichloropropene	ND 2		ND 0.02	
trans-1,3-Dichloropropene	ND 2		ND 0.02	
1,1,2,2-Tetrachloroethane	8.3		ND 0.02	
Tetrachloroethane	ND 2	ND 0.02	3.6	ND 0.02
1,1,1-Trichloroethane	ND 2	ND 0.02	ND 0.02	ND 0.02
1,1,2-Trichloroethane	ND 2		ND 0.02	
Trichloroethene	150	ND 0.02	7.9	ND 0.02
Trichlorofluoromethane	ND 2		ND 0.02	
Vinyl chloride	ND 2		ND 0.02	
Methylene chloride	9.7		1	

Note: All values shown are in mg/kg.
ND x indicates that compound was not detected at a concentration in excess of x mg/kg. Where no value is reported for a particular compound, that compound was not analyzed in post-treatment soil samples.

COMPARISON OF PRETREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION
LOW TEMPERATURE THERMAL AERATION PROCESS
MCKIN SUPERFUND SITE
GRAY, MAINE
(Continued)

SAMPLE I.D. Type	32673.5 Pretreatment	32673.5 Post-treatment	32668.5 Pretreatment	3266 Post-tre
U.S. EPA Method 8020	Location 11		Location 12	
Benzene	ND 50	ND 1.	ND 50	ND
1.Chlorobenzene	ND 1		ND 1	
1,2-Dichlorobenzene	22	ND 0.02	ND 1	ND 0
1,3-Dichlorobenzene	ND 1	ND 0.02	ND 1	ND 0
1,4-Dichlorobenzene	ND 1	ND 0.02	ND 1	ND 0
Ethylbenzene	ND 50	ND 1.	ND 50	ND
Toluene	ND 50	ND 1.	ND 50	ND
Xylenes	62	ND 1.	ND 50	ND
U.S. EPA Method 8010				
Bromodichloromethane	ND 1		ND 2	
Bromoform	ND 1		ND 2	
Bromomethane	ND 1		ND 2	
Carbon Tetrachloride	ND 1		ND 2	
Chlorobenzene	ND 1		ND 2	
Chloroethane	ND 1		ND 2	
2-Chloroethylvinyl ether	ND 1		ND 2	
Chloroform	ND 1		30	
Chloromethane	ND 1		ND 2	
Dibromochloromethane	ND 1		ND 2	
1,2-Dichlorobenzene	22	ND 0.02	15	ND
1,3-Dichlorobenzene	ND 1	ND 0.02	ND 2	ND
1,4-Dichlorobenzene	ND 1	ND 0.02	ND 2	ND
Dichlorodifluoromethane	ND 1		ND 2	
1,1-Dichloroethane	ND 1		ND 2	
1,2-Dichloroethane	ND 1		ND 2	
1,1-Dichloroethene	ND 1		ND 2	
trans-1,1-Dichloroethene	ND 1	ND 0.02	ND 2	ND
1,2-Dichloropropane	ND 1		ND 2	
cis-1,3-Dichloropropene	ND 1		ND 2	
trans-1,3-Dichloropropene	ND 1		ND 2	
1,1,2,2-Tetrachloroethane	ND 1		ND 2	
Tetrachloroethane	2.7	ND 0.02	6	ND
1,1,1-Trichloroethane	0.14	ND 0.02	2.9	ND
1,1,2-Trichloroethane	ND 1		ND 2	
Trichloroethene	34	ND 0.02	314	ND
Trichlorofluoromethane	ND 1		ND 2	
Vinyl chloride	ND 1		ND 2	
Methylene chloride	ND 1		15	

Note: All values shown are in mg/kg.
ND x indicates that compound was not detected at a concentration in excess of x mg/kg. Where no value is reported for a particular compound, that compound was not analyzed in post-treatment soil samples.

APPENDIX F

COMPARISON OF PRETREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION - PETROLEUM AREA SOILS

COMPARISON OF PRETREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION
PETROLEUM AREA SOILS REMEDIATION
LOW TEMPERATURE THERMAL AERATION PROCESS
MCKIN SUPERFUND SITE
GRAY, MAINE

SAMPLE I.D. Type	323A Pretreatment	323B Post-treatment	329A Pretreatment	329B Post-treatme
U.S. EPA Method 8020	Location 13		Location 14	
Benzene	ND 0.2	ND 0.2	ND 0.2	ND 0.2
Chlorobenzene	ND 0.2	ND 0.2	ND 0.2	ND 0.2
1,2-Dichlorobenzene	1.5	ND 0.2	1.7	ND 0.2
1,3-Dichlorobenzene	ND 0.2	ND 0.2	ND 0.2	ND 0.2
1,4-Dichlorobenzene	ND 0.2	ND 0.2	ND 0.2	ND 0.2
Ethylbenzene	1.5	ND 0.2	2	ND 0.2
Toluene	ND 0.2	ND 0.2	0.3	ND 0.2
Xylenes	3.7	ND 0.2	4.9	ND 0.2
U.S. EPA Method 8270				
N-Nitrosodiethylamine	ND 0.330	ND 0.330	ND 0.330	ND 0.330
Phenol	ND 0.330	ND 0.330	ND 0.330	ND 0.330
bis (-2-Chloroethyl) Ether	ND 0.330	ND 0.330	ND 0.330	ND 0.330
2-Chlorophenol	ND 0.330	ND 0.330	ND 0.330	ND 0.330
1,3-Dichlorobenzene	ND 0.330	ND 0.330	ND 0.330	ND 0.330
1,4-Dichlorobenzene	ND 0.330	ND 0.330	ND 0.330	ND 0.330
1,2-Dichlorobenzene	0.920	ND 0.330	1.900	ND 0.330
bis (2-chloroisopropyl) Ether	ND 0.330	ND 0.330	ND 0.330	ND 0.330
N-Nitroso-Di-Propylamine	ND 0.330	ND 0.330	ND 0.330	ND 0.330
Hexachloroethane	ND 0.330	ND 0.330	ND 0.330	ND 0.330
Nitrobenzene	ND 0.330	ND 0.330	ND 0.330	ND 0.330
Isophorone	0.740	ND 0.330	0.790	ND 0.330
2-Nitrophenol	ND 0.330	ND 0.330	ND 0.330	ND 0.330
2,4-Dimethylphenol	ND 0.330	ND 0.330	ND 0.330	ND 0.330
bis (-2-Chloroethoxy) Methane	ND 0.330	ND 0.330	ND 0.330	ND 0.330
2,4-Dichlorophenol	ND 0.330	ND 0.330	ND 0.330	ND 0.330
1,2,4-Trichlorobenzene	ND 0.330	ND 0.330	ND 0.330	ND 0.330
Naphthalene	0.800	ND 0.330	0.750	ND 0.330
Hexachlorobutadiene	ND 0.330	ND 0.330	ND 0.330	ND 0.330
4-Chloro-3-Methylphenol	ND 0.330	ND 0.330	ND 0.330	ND 0.330
Hexachlorocyclopentadiene	ND 0.330	ND 0.330	ND 0.330	ND 0.330
2,4,6-Trichlorophenol	ND 0.330	ND 0.330	ND 0.330	ND 0.330
2-Chloronaphthalene	ND 0.330	ND 0.330	ND 0.330	ND 0.330
Dimethyl Phthalate	ND 0.330	ND 0.330	ND 0.330	ND 0.330
Acenaphthylene	ND 0.330	ND 0.330	ND 0.330	ND 0.330
2,6-Dinitrotoluene	ND 0.330	ND 0.330	ND 0.330	ND 0.330

COMPARISON OF PRETREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION
PETROLEUM AREA SOILS REMEDIATION
LOW TEMPERATURE THERMAL AERATION PROCESS
MCKIN SUPERFUND SITE
GRAY, MAINE
(Continued)

SAMPLE I.D. Type	323A Pretreatment	323B Post-treatment	329A Pretreatment	329 Post-tre
Acenaphthene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
2,6-Dinitrophenol	ND 0.330	ND 1.650	ND 0.330	ND 1.65
4-Nitrophenol	ND 0.330	ND 0.330	ND 0.330	ND 0.33
2,4-Dinitrotoluene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Diethylphthalate	ND 0.330	ND 0.330	ND 0.330	ND 0.33
4-Chlorophenyl-phenylether	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Fluorene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Benzidine	ND 0.330	ND 0.330	ND 0.330	ND 0.33
4,6-Dinitro-2-Methylphenol	ND 0.330	ND 1.650	ND 0.330	ND 1.65
N-Nitrosodiphenylamine	ND 0.330	ND 0.330	ND 0.330	ND 0.33
4-Bromophenyl-phenylether	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Hexachlorobenzene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Pentachlorophenol	ND 0.330	ND 1.650	ND 0.330	ND 1.65
Phenanthrene	0.850	0.630	1.200	0.51
Anthracene	0.790	ND 0.330	1.200	ND 0.33
Di-N-Butylphthalate	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Fluoranthene	0.330	ND 0.330	0.340	ND 0.33
Pyrene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Butylbenzylphthalate	ND 0.330	ND 0.330	ND 0.330	ND 0.33
3,3'-Dichlorobenzidine	ND 0.660	ND 0.660	ND 0.660	ND 0.66
Benzo(a)Anthracene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
bis-(2-Ethylhexyl) Phthalate	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Chrysene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Di-N-Octyl Phthalate	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Benzo(b)Fluoranthene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Benzo(k)Fluoranthene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Benzo(a)Pyrene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Indendo(1,2,3-cd)Pyrene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Dibenzo(a,h)Anthracene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Benzo(g,h,i)Perylene	ND 0.330	ND 0.330	ND 0.330	ND 0.33
Total Extractable Hydrocarbons	1800	690	1600	70

Note: All values shown are in mg/kg.
ND x indicates that compound was not detected at a concentration in excess of x mg/kg.

COMPARISON OF PRETREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION
PETROLEUM AREA SOILS REMEDIATION
LOW TEMPERATURE THERMAL AERATION PROCESS
MCKIN SUPERFUND SITE
GRAY, MAINE

SAMPLE I.D. Type	326A Pretreatment	326B Post-treatment
U.S. EPA Method 8020	Location 15	
Benzene	ND 0.2	ND 0.2
Chlorobenzene	ND 0.2	ND 0.2
1,2-Dichlorobenzene	1.5	ND 0.2
1,3-Dichlorobenzene	ND 0.2	ND 0.2
1,4-Dichlorobenzene	ND 0.2	ND 0.2
Ethylbenzene	1.3	ND 0.2
Toluene	0.2	ND 0.2
Xylenes	3.3	ND 0.2
U.S. EPA Method 8270		
N-Nitrosodiethylamine	ND 0.330	ND 0.330
Phenol	ND 0.330	ND 0.330
bis (-2-Chloroethyl) Ether	ND 0.330	ND 0.330
2-Chlorophenol	ND 0.330	ND 0.330
1,3-Dichlorobenzene	ND 0.330	ND 0.330
1,4-Dichlorobenzene	ND 0.330	ND 0.330
1,2-Dichlorobenzene	0.710	ND 0.330
bis (2-chloroisopropyl) Ether	ND 0.330	ND 0.330
N-Nitroso-Di-Propylamine	ND 0.330	ND 0.330
Hexachloroethane	ND 0.330	ND 0.330
Nitrobenzene	ND 0.330	ND 0.330
Isophorone	0.450	ND 0.330
2-Nitrophenol	ND 0.330	ND 0.330
2,4-Dimethylphenol	ND 0.330	ND 0.330
bis (-2-Chloroethoxy) Methane	ND 0.330	ND 0.330
2,4-Dichlorophenol	ND 0.330	ND 0.330
1,2,4-Trichlorobenzene	ND 0.330	ND 0.330
Naphthalene	ND 0.330	ND 0.330
Hexachlorobutadiene	ND 0.330	ND 0.330
4-Chloro-3-Methylphenol	ND 0.330	ND 0.330
Hexachlorocyclopentadiene	ND 0.330	ND 0.330
2,4,6-Trichlorophenol	ND 0.330	ND 0.330
2-Chloronaphthalene	ND 0.330	ND 0.330
Dimethyl Phthalate	ND 0.330	ND 0.330
Acenaphthylene	ND 0.330	ND 0.330
2,6-Dinitrotoluene	ND 0.330	ND 0.330

COMPARISON OF PRETREATMENT AND POST-TREATMENT SOIL CHARACTERIZATION
PETROLEUM AREA SOILS REMEDIATION
LOW TEMPERATURE THERMAL AERATION PROCESS
MCKIN SUPERFUND SITE
GRAY, MAINE
(Continued)

SAMPLE I.D. Type	326A Pretreatment	326B Post-treatment
Acenaphthene	ND 0.330	ND 0.330
2,4-Dinitrophenol	ND 0.330	ND 1.650
4-Nitrophenol	ND 0.330	ND 0.330
2,4-Dinitrotoluene	ND 0.330	ND 0.330
Diethylphthalate	ND 0.330	ND 0.330
4-Chlorophenyl-phenylether	ND 0.330	ND 0.330
Fluorene	ND 0.330	ND 0.330
Benzidine	ND 0.330	ND 0.330
4,6-Dinitro-2-Methylphenol	ND 0.330	ND 1.650
N-Nitrosodiphenylamine	ND 0.330	ND 0.330
4-Bromophenyl-phenylether	ND 0.330	ND 0.330
Hexachlorobenzene	ND 0.330	ND 0.330
Pentachlorophenol	ND 0.330	ND 1.650
Phenanthrene	1.100	0.540
Anthracene	0.810	ND 0.330
Di-N-Butylphthalate	ND 0.330	ND 0.330
Fluoranthene	0.800	ND 0.330
Pyrene	ND 0.330	ND 0.330
Butylbenzylphthalate	0.440	ND 0.330
3,3'-Dichlorobenzidine	ND 0.660	ND 0.660
Benzo(a)Anthracene	ND 0.330	ND 0.330
bis-(2-Ethylhexyl) Phthalate	ND 0.330	ND 0.330
Chrysene	ND 0.330	ND 0.330
Di-N-Octyl Phthalate	ND 0.330	ND 0.330
Benzo(b)Fluoranthene	ND 0.330	ND 0.330
Benzo(k)Fluoranthene	ND 0.330	ND 0.330
Benzo(a)Pyrene	ND 0.330	ND 0.330
Indendo(1,2,3-cd)Pyrene	ND 0.330	ND 0.330
Dibenzo(a,h)Anthracene	ND 0.330	ND 0.330
Benzo(g,h,i)Perylene	ND 0.330	ND 0.330

Note: All values shown are in mg/kg.
ND x indicates that compound was not detected at a concentration in excess of x mg/kg.

APPENDIX G

DECONTAMINATION CERTIFICATION

APPENDIX G

DECONTAMINATION CERTIFICATION

The construction and process equipment was decontaminated using a hot water pressure cleaner to remove all visible surface soil and surface contamination.

The criteria for decontamination certification are:

1. Absence of a visual identification of foreign substances, colors, or films;

2. Absence of any sources of organic vapor evolution, as monitored by a Century Organic Vapor Analyzer.

I certify that the decontamination was completed in accordance with the Closure Action Work Plan of October, 1985.

Timothy J. Harrington, P.E.
State of Maine Professional Engineer #5282

APPENDIX H

MANIFEST FORMS -

TRANSPORTATION AND DISPOSAL OF
WASTE MATERIALS

46-14-1 (4/85)

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please print or type.

Form Approved OMB No. 2000-0404 Expires 7-31-8

H-

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. ME D980524078 Manifest Document No. 00001

2. Page 1 of 1 Information in the shaded are is not required by Federal La

3. Generator's Name and Mailing Address McKIN SUPERFUND SITE 25 MAYALL RD, GRAY, ME 04039

4. Generator's Phone ( ) 207-657-3366

5. Transporter 1 (Company Name) SCA CHEMICAL SVCS, INC.

6. US EPA ID Number NYD049836679

7. Transporter 2 (Company Name) SCA CHEMICAL SVCS, INC

8. US EPA ID Number

9. Designated Facility Name and Site Address MODEL CITY LANDFILL 1135 BALMER RD. MODEL CITY, NY 14107

10. US EPA ID Number NYD049836679

A. State Manifest Document No. NY A [redacted]

B. Generator's ID ME D980524078 [redacted]

C. State Transporter's ID [redacted]

D. Transporter's Phone ( ) [redacted]

E. State Transporter's ID [redacted]

F. Transporter's Phone ( )

G. State Facility's ID NYD049836679

H. Facility's Phone 716 754-8231

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. HAZARDOUS WASTE SOLID - NOS [ORM-E NA9189]	080	DF	00022	Y*	[redacted]
b.					
c.					
d.					

J. Additional Descriptions for Materials listed Above
a. CRUDE OIL SLUDGE w/ chrome - lead 2.00
b
c
d

K. Handling Codes for Wastes Listed Above
a [redacted] c
b d

15. Special Handling Instructions and Additional Information WASTE Profile NO: F09064 WORK ORDER #: 109746

*- TOTAL VOLUME IN CUBIC YARDS

16 **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governm regulations and state laws and regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002 (b) RCRA, I also certify that I have a program in place to reduce volume and toxicity of waste generated to the degree I have determined to be economically practicable and I h selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment

Printed/Typed Name BRIAN M BELL Signature Brian M Bell Mo. Day 10 30 8

TRANSPORTER

17 Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name C McMurdo Signature C McMurdo Mo. Day 10 30 8

18 Transporter 2 (Acknowledgement or Receipt of Materials)

Printed/Typed Name Signature Mo. Day

FACILITY

19. Discrepancy Indication Space

20 Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name Donna J Hine Signature Donna J Hine Mo. Day 10 31

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete. **COPY 3—Generator—mailed by TSD facility**

In case of emergency or spill immediately call the National Response Center 424-8802 and the N.Y. Department of Transportation (518) 457 7362

48-14-1 (4/85)

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

H-2

HAZARDOUS WASTE MANIFEST

MED P.O. Box 12820, Albany, New York 12212

Please print or type.

Form Approved. OMB No. 2000-0404 Expires 7 31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. MED980524078 Manifest Document No. 000C2

2. Page 1 of 1

Information in the shaded area is not required by Federal Law

3. Generator's Name and Mailing Address McKIN SUPERFUND SITE 25 MAYALL RD GRAY, ME 04039

4. Generator's Phone (207-657-3366)

A. State Manifest Document No. NY A [redacted]

B. Generator's ID SAME

5. Transporter 1 (Company Name) SCA CHEMICAL SVCS INC

6. US EPA ID Number WYD049836679

C. State Transporter's ID [redacted]

D. Transporter's Phone (716) 754-82[illegible]

7. Transporter 2 (Company Name)

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone ( )

9. Designated Facility Name and Site Address SCA CHEMICAL SVCS, INC 1135 BALMER RD. MODEL CITY, NY 14107

10. US EPA ID Number WYD049836679

G. State Facility's ID WYD049836679

H. Facility's Phone (716) 754-8231

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)

	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	L
a. HAZARDOUS WASTE SOLID - NOS [ORM-E NA9189]	080	DF	00022	Y	[redacted]
b.					
c.					
d.					

J. Additional Descriptions for Materials listed Above
a. CRUDE OIL SLUDGE w/ chrome-lead 2.00
b.

K. Handling Codes for Wastes Listed Above
a. [redacted] c.
b. [redacted] d.

15. Special Handling Instructions and Additional Information
WASTE PROFILE No. [illegible]
WORK ORDER No. [illegible]
Total Volume CUBIC YARDS

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmental regulations and state laws and regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002 (b) RCRA, I also certify that I have a program in place to reduce volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment

Printed/Typed Name BRIAN M BELL Signature Brian M Bell Mo. 11 Day 06 Y 8

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name G. McMurro Signature G McMurro Mo. 11 Day 06 Y 8

18. Transporter 2 (Acknowledgement of Receipt of Materials)

Printed/Typed Name Signature Mo. Day Y

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name Lynn Piechowski Signature Lynn Piechowski Mo. 11 Day 07 Y 8

In case of emergency or spill immediately call the National Response Center (... 424 8802 and the N.Y. Department of Transportation (518) 457-7362.

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete. **COPY 3—Generator—mailed by TSD facility**

48-14-1 (4/85)

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

H-3

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please print or type.

Form Approved. OMB No. 2000-0404 Expires 7-31-8

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. / Manifest Document No.: ME D980524079 00003

2. Page 1 of 1

Information in the shaded are is not required by Federal Lav

3. Generator's Name and Mailing Address: McKIN SUPERFUND SITE, 25 MAYALL RD, GRAY, ME 04039

4. Generator's Phone ( ): 207-657-3366

5. Transporter 1 (Company Name): SCA CHEMICAL SVCS., INC.

6. US EPA ID Number: NYD049836679

7. Transporter 2 (Company Name)

8. US EPA ID Number

9. Designated Facility Name and Site Address: SCA CHEMICAL SVCS, INC. 1135 BALMER RD, MODEL CITY, NY 14107

10. US EPA ID Number: NYD049836679

A. State Manifest [redacted]

B. Generator's ID [redacted]

C. State Transporter [redacted]

D. Transporter's Phone [redacted]

E. State Transporter's ID [redacted]

F. Transporter's Phone [redacted]

G. State Designated Facility [redacted]

H. Facility's Phone [redacted]

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. HAZARDOUS WASTE SOLID - NOS [ORM-E NA 9189]	050	DF	00022	Y
b.				
c.				
d.				

J. Additional Descriptions for Materials listed Above: CLOSE OFF SURE

a. Inj Chrome - Lead 2.0D

b.

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information: WASTE PROFILE NO: F09264 WORK ORDER NO: 109748 VOLUME 1 CUBIC YRD.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and a classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governme regulations and state laws and regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002 (b) RCRA, I also certify that I have a program in place to reduce volume and toxicity of waste generated to the degree I have determined to be economically practicable and I ha selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment

Printed/Typed Name: BRIAN M BELL — Signature: Brian M Bell — Mo. Day Y

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name: G. McMurdo — Signature: G. McMurdo — Mo. Day Y 1 1 3 8

18. Transporter 2 (Acknowledgement or Receipt of Materials)

Printed/Typed Name — Signature — Mo. Day Y

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by the manifest except as noted in Item 19.

Printed/Typed Name: Lynn Piechowski — Signature: Lynn Piechowski — Mo Day Y 1 1 14 3

GENERATOR

In case of emergency or spill immediately call the National Response Center 424-8802 and the N.Y. Department of Transportation (518) 457-7362.

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete. **COPY 3—Generator—mailed by TSD facility**

48-14-1 (4/85)

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDOUS WASTE

H-4

HAZARDOUS WASTE MANIFEST

P.O. Box 12820, Albany, New York 12212

Please print or type.

Form Approved. OMB No 2000-0404 Expires 7-31-86

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA No. MED980524078 Manifest Document No. 00004

2. Page 1 of 1

Information in the shaded areas is not required by Federal Law.

3. Generator's Name and Mailing Address: McKIN SUPERFUND SITE, 25 MAYALL RD., GRAY, ME. 04039

4. Generator's Phone ( ) 207-657-3366

5. Transporter 1 (Company Name): HAZ MAT ENVIRONMENTAL CORP

6. US EPA ID Number: NYD980769947

7. Transporter 2 (Company Name)

8. US EPA ID Number

9. Designated Facility Name and Site Address: SCA CHEMICAL SVCS, INC., 1135 BALMER RD., MODEL CITY, NY 14107

10. US EPA ID Number: NYD049836679

A. State Manifest Document Number: [redacted]

B. Generator's ID: [redacted]

C. State Transporter's ID: [redacted]

D. Transporter's Phone: [redacted]

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID: NYD049836679

H. Facility's Phone: [redacted]-1231

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	Unit Wt./Vol.	Waste No.
a. HAZARDOUS WASTE SOLID-NOS [ORM-E NA 9189]	040	DF	00011	Y	[redacted]
b. WASTE COMBUSTIBLE LIQUID [COMBUSTIBLE NA 1993]	012	DF	00660	G	
c.					
d.					

BMB 11-20-86

J. Additional Descriptions for Materials Listed Above

a. CRUDE OIL SLUDGE w/ CHROME - LEAD 2.00

b. COMB. WASTE FUEL OIL ; <2 ppm PCBs 0.95

K. Handling Codes for Wastes Listed Above

a. c.

b. d.

15. Special Handling Instructions and Additional Information

WASTE PROFILE # a : F09064

WASTE PROFILE # b : F11710

WK. order # : 109749

* - TOTAL VOLUME IN YD³

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and ar classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national governmer regulations and state laws and regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002 (b) c RCRA, I also certify that I have a program in place to reduce volume and toxicity of waste generated to the degree I have determined to be economically practicable and I hav selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment

Printed/Typed Name: BRIAN M BELL — Signature: Brian M Bell — Mo. 11 Day 20 Ye 8

TRANSPORTER

17. Transporter 1 (Acknowledgement of Receipt of Materials)

Printed/Typed Name: Jack Williams — Signature: Jack Williams — Mo. 11 Day 20 Ye 86

18. Transporter 2 (Acknowledgement of Receipt of Materials)

Printed/Typed Name — Signature — Mo Day Ye

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name: Donna J. Times — Signature: Donna J. Times — Mo 11 Day 21 Ye 86

In case of emergency or spill immediately call the National Response Center :24-8802 and the N.Y. Department of Transportation (518) 457-7362.

EPA Form 8700-22 (Rev. 4-85) Previous edition is obsolete **COPY 3—Generator—mailed by TSD facility**

2200 CHURCHILL ROAD SPRINGFIELD ILLINOIS 62706 (217) 782-6761

IL532-0610
LPC 52 3 81

H-5

Please print or type (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (3-84)** Form Approved OMB No. 2000-0404 Expires 7-31-8

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MED 980524078 Manifest Document No. 100001

2. Page 1 of 1

Information in the shaded areas is not required by Federal law but is required by Illinois law

3. Generator's Name and Mailing Address McKIN SUPERFUND SITE 25 MAYALL RD GRAY, ME 04039

4. Generator's Phone ( ) 207-657-3366

A. Illinois Manifest Document Number IL 1578536

B. Illinois Generator's ID 9230055012

5. Transporter 1 Company Name SCA CHEMICAL SVCS.

6. US EPA ID Number INYD 049836679

C. Illinois Transporter's ID 4666

D. Transporter's Phone ( ) 754-8221

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address TRADE WASTE INCINERATION #7 MOBILE AVE. SAUGET, IL 62201

10. US EPA ID Number ILD 098642424

G. Illinois Facility's ID 1631210009

H. Facility's Phone (618) 271-2804

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. NON-HAZARDOUS MATERIAL (CRUSHED DRUMS w/ WASTE CRUDE OIL)		013	DM	00003	2	EPA HW Number NA; 690000
b.						
c.						
d.						

J. Additional Descriptions for Materials Listed Above: CRUSHED DRUMS WRAPPED WITH PLASTIC AND PLACED IN 7½ ft x 4 ft x 4 ft. WOODEN BOX

K. Handling Codes for Wastes Listed Above In Item #14: 1 = Gallons 2 = Cubic Yards

15. Special Handling Instructions and Additional Information: WASTE PROF. # : COL F 11712 WK. ORDER # : 36315

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Illinois regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Sectio 3002(b) of RCRA I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and futu threat to human health and the environment.

Printed/Typed Name: BRIAN M BELL Signature: Brian M Bell Date (Month Day Ye): 01 06 8

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: FRANK PAGE Signature: Frank Page Date (Month Day Ye): 01 06 8

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date (Month Day Ye):

FACILITY

19. Discrepancy Indication Space: Line I changed authorization number from 90005 to 90002 per Brian Bell 1-9-87 Diane Baldovski

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19

Printed/Typed Name: DIANE BALDOVSKI Signature: Diane Baldovski Date (Month Day Y): 01 06 8

IN ILLINOIS 217 782-3637 OUTSIDE ILLINOIS 800 424-8802 or 202 426-

DISTRIBUTION PART - 1 GENERATOR PART - 2 IEPA PART - 3 FACILITY PART - 4 TRANSPORTER PART - 5 IEPA PART - 6 GENERATOR

REV 16

GENERATOR COPY - PART 1 - DO NOT REMOVE PART 1 FROM SET UNTIL COMPLETED.

This Agency is authorized to require, pursuant to Illinois Revised Statutes 1983 Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

7590

LPC 62 8/81 H-6

EPA Form 8700-22 (3-84) (DC) Form Approved OMB No 2000-0404 Expires 7-31

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No: MED-980-524-078 | Manifest Document No.: 00001

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: McKIN SUPERFUND SITE C/O CANONIE ENVIRONMENTAL SVC. 800 CANONIE DR. PORTER, IN 46304

4. Generator's Phone ( ) 219-926-8551

A. Illinois Manifest Document Number: IL 1578535

B. Illinois Generator's ID: 9230055 01

5. Transporter 1 Company Name: SCA CHEMICAL SVCS.

6. US EPA ID Number: INYDO 49836679

C. Illinois Transporter's ID: 054

D. (716) 754-82[illegible] Transporter's Pho

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. Illinois Transporter's ID:

F. (716) 754-8231 Transporter's Pho

9. Designated Facility Name and Site Address: SCA CHEMICAL SVCS. 11700 S. STONY ISLAND AVE. CHICAGO, IL 60617

10. US EPA ID Number: ILD000672121

G. Illinois Facility's ID: 0316000005

H. Facility's Phone: (312) 646-5700

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a	NON-HAZARDOUS MATERIAL (CUT RUBBER HOSE) F09065 86-5760	120	DF	04200	P	EPA HW Number: N/A; Authorization Number: 0900
b.	(DC)				C	EPA HW Number; Authorization Number
c						EPA HW Number; Authorization Number
d	(DC)					EPA HW Number; Authorization Number

J. Additional Descriptions for Materials Listed Above: GENERATING SITE: McKIN SUPERFUND SITE 25 MAYALL RD GRAY, MAINE 04039

K. Handling Codes for Wastes Listed Above in Item #14: 1 = Gallons 2 = Cubic Yard

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Illinois regulations.

If I am a small quantity generator and has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3.5(a) of RCRA, I hereby certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: BRIAN M BELL | Signature: Brian M Bell | Date Month Day: 10 22

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: TIM DILIBERTILLO | Signature: Tim Dilibertillo | Date Month Day: 10 22

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Driver 102 | Signature: JOSEPH P Delelis II | Date Month Day: 10 23

19. Discrepancy Indication Space: NOTE ITEMS TO MANIFEST BY L GRIGARI PER BRIAN BELL.

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 19

Printed/Typed Name: LORENE J GRIGARI | Signature: Lorene J Grigari | Date Month Day: 10 24

24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS: OUTSIDE ILLINOIS 800 / 424-8802 or 202 /

PART 1 - GENERATOR PART - 2 EPA PART - 3 FACILITY PART - 4 TRANSPORTER PART - 5 EPA

GENERATOR COPY - PART 1 - DO NOT REMOVE PART 1 FROM SET UNTIL COMPLETED

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)* *Form Approved. OMB No. 2000-0404. Expires 7-31-8*

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. NOT APPLICABLE — Manifest Document No. 000001
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
McKIN SUPERFUND SITE
25 MAYALL RD
GRAY, ME 04039

4. Generator's Phone ( )

5. Transporter 1 Company Name: CHEMICAL WASTE MGMT, INC
6. US EPA ID Number: ALD006224644

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459
10. US EPA ID Number: ALD006224644

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. ASBESTOS CRM-E NOT HAZARDOUS — CWM Profile Number G47089	012	DM	00005	Z
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[redacted]

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

Printed/Typed Name: BRIAN M BELL — Signature: Brian M Bell — Month Day Year: 11 05 8

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: H. K. HERRON — Signature: H. K. Herron — Month Day Year: 11 15 86

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name — Signature — Month Day Year

GENERATOR / TRANSPORTER / FACILITY

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-8

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. TXD000091342 — Manifest Document No. 2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: TEXACO INC. X-2332 T. ARNOLD PETRAK [illegible] TX [illegible]

4. Generator's Phone ( )

5. Transporter 1 Company Name: [illegible] — 6. US EPA ID Number: [illegible]

7. Transporter 2 Company Name: [illegible] — 8. US EPA ID Number: [illegible]

9. Designated Facility Name and Site Address: CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility, Alabama Highway 17 at Mile Marker 163, Emelle, Alabama 35459 — 10. US EPA ID Number: ALD 000622464

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. WASTE OIL/FERRIS SOLID — NA-[illegible] CWM Profile Number [illegible]	001	DT	00018	Y
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[illegible] SITE: MKM [illegible] FUND SITE [illegible] -5 [illegible] EPA, INC. 4039

15. Special Handling Instructions and Additional Information: [illegible]

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name [illegible] and labeled, and are in all respects in proper condition for transport by highway according to applicable [illegible] government regulations.

If I am a large quantity generator, I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable [illegible] practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human [illegible] OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management [illegible] available to me and that I can afford.

Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year [illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year [illegible]

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name — Signature — Month Day Year

GENERATOR / TRANSPORTER / FACILITY

EPA Form 8700-22 Rev. 9-88 Previous editions are obsolete.

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MEP000001343 — Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

5. Transporter 1 Company Name — 6. US EPA ID Number

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address — 10. US EPA ID Number

CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

ALD000622464

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. WASTE [illegible] CWM Profile Number 41151	001	DT	00016	Y
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[redacted]

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name — Signature — Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: BILL E SUBLETS — Signature — Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: BILL E SUBLETS — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by the manifest except as noted in Item 19

Printed/Typed Name — Signature — Month Day Year

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No 2050-0039 Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [illegible] Manifest Document No. [illegible]
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
[illegible] TEXA[illegible]
[illegible] TX [illegible]

4. Generator's Phone ( )

5. Transporter 1 Company Name [illegible]
6. US EPA ID Number [illegible]

7. Transporter 2 Company Name [illegible]
8. US EPA ID Number [illegible]

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459
10. US EPA ID Number ALD000622464

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. WASTE [illegible] CWM Profile Number [illegible]	[illegible]	[illegible]	[illegible]	Y
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[illegible] for Materials Listed Above
[illegible] Site: [illegible] SITE
[illegible] 5 MAYALL RD.
[illegible] ALIAS. 4037[illegible]

15. Special Handling Instructions and Additional Information

16 GENERATOR'S CERTIFICATION: I hereby certify that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name [illegible] ELL | Signature [illegible] | Month Day Year

TRANSPORTER

17 Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name [illegible] | Signature | Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name [illegible] | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19
Printed/Typed Name | Signature | Month Day Year

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [illegible] Manifest Document No. [illegible]
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address [illegible] TEXAS [illegible]
4. Generator's Phone ( )
5. Transporter 1 Company Name [illegible]
6. US EPA ID Number [illegible]
7. Transporter 2 Company Name [illegible]
8. US EPA ID Number [illegible]
9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459
10. US EPA ID Number ALD006224644

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. [illegible]
a. WASTE [illegible] CWM Profile Number [illegible]	001	DT	00018	[illegible]
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[illegible] Site: [illegible] 25 [illegible]

15. Special Handling Instructions and Additional Information [illegible]

16. GENERATOR'S [illegible] that the contents of this consignment are fully and accurately described above by proper shipping [illegible] and labeled, and are in all respects in proper condition for transport by highway according to [illegible] government regulations

If I am a large [illegible] program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically [illegible] practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat [illegible], if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management [illegible] to me and that I can afford.

Printed/Typed Name [illegible] Signature [illegible] Month Day Y

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Month Day Y

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Month Day Y

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name Signature Month Day Y

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [illegible] Manifest Document No. [illegible]

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: TEXACO [illegible]

4. Generator's Phone ( )

5. Transporter 1 Company Name: [illegible]

6. US EPA ID Number: [illegible]

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

10. US EPA ID Number: A L D 0 0 0 6 2 2 4 6 4

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. WASTE OIL FILTER [illegible] CWM Profile Number [illegible]	001	DT	00015	[illegible]
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[redacted]

15. Special Handling Instructions and Additional Information

16. GENERATOR'S [redacted] that the contents of this consignment are fully and accurately described above by proper shipping [redacted] and labeled, and are in all respects in proper condition for transport by highway according to applic[redacted]vernment regulations

If I am a large [redacted] program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practic[redacted]ticable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human [redacted], if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste mana[redacted] to me and that I can afford

Printed/Typed Name: [illegible] Signature: [illegible] Month Day Year: 04 / [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: ERNEST N EDWARDS Signature: Ernest N Edwards Month Day Year: 04 / 19

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Signature: Month Day Year:

GENERATOR

TRANSPORTER

FACILITY

EPA Form 8700-22 (Rev. 2-85) Previous editions are obsolete.

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Please [illegible] typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-

UNIFORM HA[illegible] WASTE MA[illegible]

1. Generator's US EPA ID No. [illegible]0000139[illegible] — Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and [illegible] Address: TEXA[illegible] X 2232 [illegible] TX [illegible]

4. Generator's Phone ( )

5. Transporter 1 Company Name: [illegible]

6. US EPA ID Number: [illegible]ND042[illegible]

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

10. US EPA ID Number: ALD000622464

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. WASTE [illegible] CWM Profile Number [illegible]47159	[illegible]1	[illegible]	[illegible]5	[illegible]
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[redacted]

15. Special Handling Instructions and Additional Information

16. GENERATOR'S [illegible] that the contents of this consignment are fully and accurately described above by proper shipping name [illegible] and labeled, and are in all respects in proper condition for transport by highway according to applicable [illegible] government regulations

If I am a large quantity [illegible] a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable [illegible] practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human [illegible] OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management [illegible] to me and that I can afford

Printed/Typed Name: [illegible] Signature: [illegible] Month Day Y[illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] Signature: [illegible] Month Day Y[illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Month Day Y[illegible]

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Signature: Month Day Y[illegible]

GENERATOR

TRANSPORTER

FACILITY

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Press firmly and clearly. Use typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. T X D 0 0 0 0 1 3 9 1 8 0 0 0 7 — Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: [illegible] ARCEL LISTAK — TEXACO INC. [illegible] TX 77252 HOUSTON, TX 77052

4. Generator's Phone ( )

5. Transporter 1 Company Name: [illegible] TRANSPORT CO.

6. US EPA ID Number: A L D 0 4 2 5 9 4 7 5

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address: CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility, Alabama Highway 17 at Mile Marker 163, Emelle, Alabama 35459

10. US EPA ID Number: A L D 0 0 0 6 2 2 4 6 4

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14.
a. WASTE OILY [illegible] — [illegible] CWM Profile Number [illegible] 49959	001	T	00015	
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[redacted]

15. Special Handling Instructions and Additional Information

16. GENERATOR'S [redacted] that the contents of this consignment are fully and accurately described above by proper shipping [redacted] and labeled, and are in all respects in proper condition for transport by highway according to [redacted] government regulations.

If I am a large quantity [redacted] program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable [redacted] practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat [redacted]; if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management [redacted] me and that I can afford.

Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year: [illegible]

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: WAYNE KNO — Signature: [illegible] — Month Day Year: 06/17/[illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name — Signature — Month Day Year

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-8[illegible]

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MEP000013999 Manifest Document No. [illegible]

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
ATTN: J. ANDEL USTAK
P.O. BOX -4221
TEXACO INC.
P.O. BOX 52332
HOUSTON - TX 77252

4. Generator's Phone ( )

5. Transporter 1 Company Name: JAC-JAY TRANSPORT INC.

6. US EPA ID Number: IMD 042548975

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

10. US EPA ID Number: ALD000622464

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. WASTE CITY DEBRIS SOIL - NON-HAZARDOUS CWM Profile Number OAK-649959	001	DT	00018	Y
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[redacted] Listed Above
Generating Site: McKIN SITE
25 MAYALL RD.
GRAI, ME 04039

15. Special Handling Instructions and Additional Information
[illegible] To [illegible] [illegible] material

16. GENERATOR'S CERT[illegible] that the contents of this consignment are fully and accurately described above by proper shipping name [illegible] and labeled, and are in all respects in proper condition for transport by highway according to applicable [illegible] government regulations.

If I am a large quantity [illegible] have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable [illegible] have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: KIAN M SELL | Signature: Kian M Sell | Month Day Year: 10/6/[illegible]

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] | Signature | Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19
Printed/Typed Name | Signature | Month Day Year

EPA Form 8700-22 Rev. 9-86) Previous editions are obsolete.

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No 2050-0039. Expires 9-30-

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. W E P 0 0 0 0 1 4 0 0 0 0 0 9 — Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
TEXACO INC.
P.O. BOX 52332
HOUSTON, TX 77052

4. Generator's Phone ( )

5. Transporter 1 Company Name — 6. US EPA ID Number

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address — 10. US EPA ID Number
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459
A L D 0 0 0 6 2 2 4 6 4

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*

	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. WASTE OILY LEBKIS SOIL - NON-HAZARDOUS CWM Profile Number OAK-649959	001	LT	00018	Y
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

Generating SHC: McKIN SITE
25 MAYALL RD.
GRAY, ME 04039

15. Special Handling Instructions and Additional Information
[illegible]

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: ROAN M. ZELL — Signature: [signature] — Month Day Year

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19
Printed/Typed Name — Signature — Month Day Year

GENERATOR — TRANSPORTER — FACILITY

EPA Form 8700-22 Rev. 3-86 Previous editions are obsolete.

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MEP000014010 Manifest Document No. 000070

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
ATTN: J. SAMUEL LATIAK
(207) 40-4221
TEXACO INC.
P.O. BOX 52332
HOUSTON, TX 77052

4. Generator's Phone ( )

5. Transporter 1 Company Name

6. US EPA ID Number MNC453346715

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

10. US EPA ID Number ALD000622464

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. WASTE OIL LEBRIS SOIL - NON-HAZARDOUS CWM Profile Number OAK-649959	001	DT	00018	Y
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

GENERATOR

[illegible] Generating Site: McKIN SITE
25 MAYALL RD.
GRAY, ME 04[illegible]

15. Special Handling Instructions and Additional Information
[illegible]

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: BRIAN M BELL Signature: Brian M Bell Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [illegible] Signature: [illegible] Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Month Day Year

19. Discrepancy Indication Space

FACILITY

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by the manifest except as noted in Item 19
Printed/Typed Name Signature Month Day Year

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MEP000001402 — Manifest Document No. 080177

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: MR. SAMUEL USTAK, (412) 650-4221 — TEXACO INC., P.O. BOX 52332, HOUSTON, TX 77052

4. Generator's Phone ( )

5. Transporter 1 Company Name: JACK GRAY TRANSPORT, INC. — 6. US EPA ID Number: ALD 127 646 73

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address: CHEMICAL WASTE MANAGEMENT, INC., Emelle Facility, Alabama Highway 17 at Mile Marker 163, Emelle, Alabama 35459 — 10. US EPA ID Number: ALD 000 622 464

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. WASTE OILY DEBRIS SOLID - NON-HAZARDOUS CWM Profile Number OAK-549959	001	LT	00018	Y
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

Additional Descriptions for Materials Listed Above: Generating Site: MERIN SITE, 25 MAYALL RD, GRAY, ME 04039

15. Special Handling Instructions and Additional Information: [illegible]

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: BRIAN M. BELL — Signature: Brian M. Bell — Month 10 Day 16 Year 86

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] — Signature: [illegible] — Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name — Signature — Month Day Year

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. *(Form designed for use on elite (12 pitch) typewriter.)*

Form Approved. OMB No. 2050-0039 Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [illegible] Manifest Document No. [illegible]

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: [illegible] TEXA[illegible] [illegible] X - 23[illegible] HOUST[illegible] TX 77[illegible]

4. Generator's Phone ( )

5. Transporter 1 Company Name — 6. US EPA ID Number: [illegible]

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address — 10. US EPA ID Number

CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

A L D 0 0 0 6 2 2 4 6 4

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. [illegible] CWM Profile Number	[illegible]	DT	[illegible]	Y
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[illegible] Descriptions for Materials Listed Above: [illegible] MCKI[illegible] [illegible]TE [illegible] MAYALL [illegible] [illegible]A[illegible] ME [illegible]

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name — Signature — Month Day Year [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] — Signature — Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name — Signature — Month Day Year

GENERATOR — TRANSPORTER — FACILITY

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12 pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [redacted] Manifest Document No.

2. Page 1 of

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: TEXAL INC. TX

4. Generator's Phone ( )

5. Transporter 1 Company Name — 6. US EPA ID Number

7. Transporter 2 Company Name — 8. US EPA ID Number

9. Designated Facility Name and Site Address — 10. US EPA ID Number

CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

A L D 0 0 0 6 2 2 4 6 4

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. WASTE OIL CONTAINING HALOGENATED SOLVENTS CWM Profile Number UAK-2419	1	DT	0016	Y
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

Additional Descriptions for Materials Listed Above: Generating Site: McKIN SITE 65 MI NW ALBANY GLAY, MEX

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name — Signature — Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name — Signature — Month Day Year

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No 2050-0039 Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [illegible] Manifest Document No. [illegible]

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address [illegible] TEXAS [illegible]

4. Generator's Phone ( ) [illegible]

5. Transporter 1 Company Name [illegible] 6. US EPA ID Number [illegible]

7. Transporter 2 Company Name 8. US EPA ID Number

9. Designated Facility Name and Site Address 10. US EPA ID Number

CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

A L D 0 0 0 6 2 2 4 6 4

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. [illegible] CWM Profile Number [illegible]	[illegible]	[illegible]	[illegible]	[illegible]
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[illegible] Listed Above [illegible] CONSTRUCTION [illegible] M-KW SITE [illegible] 5 MAY [illegible] SGA [illegible]

15. Special Handling Instructions and Additional Information [illegible]

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name [illegible] Signature [illegible] Month Day Year [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name [illegible] Signature [illegible] Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name Signature Month Day Year

GENERATOR

TRANSPORTER

FACILITY

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. | Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address

4. Generator's Phone ( )

5. Transporter 1 Company Name | 6. US EPA ID Number

7. Transporter 2 Company Name | 8. US EPA ID Number

9. Designated Facility Name and Site Address | 10. US EPA ID Number

CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

A L D 0 0 0 6 2 2 4 6 4

11. US DOT Description *(Including Proper Shipping Name, Hazard Class, and ID Number)*	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. CWM Profile Number				
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

Additional Descriptions for Materials Listed Above

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name | Signature | Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name | Signature | Month Day Year

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-8

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MEP000001407 Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: TEXACO INC. P.O. BOX 2220 HOUSTON TX 77252

4. Generator's Phone ( )

5. Transporter 1 Company Name: CWM TRANSPORTATION

6. US EPA ID Number: [illegible]

7. Transporter 2 Company Name: [illegible] MANAGEMENT

8. US EPA ID Number: [illegible]

9. Designated Facility Name and Site Address:
CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

10. US EPA ID Number: ALD000622464

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. WASTE OILY DEBRIS SOIL - NON-HAZARDOUS CWM Profile Number CAX-649959	001	DT	00018	Y
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[redacted] Site: MALIN SITE 25 MAPLE RD. SALEM, ME 048[illegible]

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERT[redacted] that the contents of this consignment are fully and accurately described above by proper shipping name [redacted] marked, and labeled, and are in all respects in proper condition for transport by highway according to [redacted] government regulations.

If I am a large quantity [redacted] have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practica[redacted] practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human [redacted]; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management [redacted] to me and that I can afford.

Printed/Typed Name: BRIAN M LELL | Signature: [illegible] | Month Day Year: 6 12 18

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: | Signature: | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name: | Signature: | Month Day Year

3371

H-24

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [redacted]P000001408 Manifest Document No. [redacted]

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: [redacted] ANGEL LISTAE [redacted] TEXACO INC. P.O. BOX 52332 HOUSTON TX 77052

4. Generator's Phone ( )

5. Transporter 1 Company Name: CWM TRANSPORTATION

6. US EPA ID Number: A L D 0 0 0 6 2 2 4 6 4

7. Transporter 2 Company Name: [redacted]

8. US EPA ID Number: [redacted]

9. Designated Facility Name and Site Address: CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility Alabama Highway 17 at Mile Marker 163 Emelle, Alabama 35459

10. US EPA ID Number: A L D 0 0 0 6 2 2 4 6 4

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. [redacted]
a. WASTE OILY DEBRIS SOLID - NON-HAZARDOUS CWM Profile Number UAL-64459	001	DT	0018	[redacted]
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[redacted]

15. Special Handling Instructions and Additional Information

[illegible]

16. GENERATOR'S CERTIFICATION: [redacted] the contents of this consignment are fully and accurately described above by proper shipping name [redacted] and labeled, and are in all respects in proper condition for transport by highway according to applicable [redacted] government regulations.

If I am a large quantity [redacted] program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable [redacted] practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health [redacted], if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: BRIAN MASELL Signature: BRIAN MASELL Month Day Year: 06 21 85

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Wayne Plunkett Signature: [illegible] Month Day Year: 06 21 85

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Wayne Plunkett Signature: [illegible] Month Day Year: 06 21 85

19. Discrepancy Indication Space

FACILITY

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Signature: Month Day Year:

EPA Form 8700-22 (Rev. 9-85) Previous editions are obsolete.

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039 Expires 9-30-8

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. E P 0 0 0 0 0 1 4 0 9 0 0 0 1 8 — Manifest Document No.

2. Page 1 of

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: TEXACO INC. P.O. BOX [illegible]

4. Generator's Phone ( )

5. Transporter 1 Company Name: CWM TRANSPORTATION — 6. US EPA ID Number: A L D 0 0 0 6 1 2 4 0 1 4

7. Transporter 2 Company Name: CHEMICAL WASTE MANAGEMENT — 8. US EPA ID Number: I L D 0 9 1 2 0 1 6 1 1

9. Designated Facility Name and Site Address: CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

10. US EPA ID Number: A L D 0 0 0 6 2 2 4 6 4

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. WASTE OILY BEARS SOLID — NON-HAZARDOUS CWM Profile Number PK-47959	001	DT	0018	
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[redacted] Generating site: MKN S[illegible] 26 [redacted]

15. Special Handling Instructions and Additional Information

[illegible]

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name [illegible] and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: BRIAN M BELL — Signature: Brian M Bell — Month Day Year: 1 6 2 2 8

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Ronny Robinson — Signature: Ronny Robinson — Month Day Year: 1 6 2 2 8

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Ronny Robinson — Signature: Ronny Robinson — Month Day Year: 1 6 2 2 8

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Printed/Typed Name — Signature — Month Day Year

HAZARDOUS WASTE MANIFEST

(As Required By The Alabama Department of Environmental Management)

Please print or type. (Form [illegible] typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-[illegible]

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [illegible]0000014100 Manifest Document No. [illegible]
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: TEXACO INC. [illegible] BOX [illegible] AUSTIN, TX [illegible]
4. Generator's Phone ( )
5. Transporter 1 Company Name: CWM Transportation
6. US EPA ID Number: ALD-0[illegible]
7. Transporter 2 Company Name: Chemical Waste Management
8. US EPA ID Number: ILD0992[illegible]
9. Designated Facility Name and Site Address: CHEMICAL WASTE MANAGEMENT, INC. Emelle Facility, Alabama Highway 17 at Mile Marker 163, Emelle, Alabama 35459
10. US EPA ID Number: ALD000622464

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. [illegible]
a. WASTE OIL/LEC+S SLUD - NON HAZARDOUS CWM Profile Number OAK-6[illegible]	001	DT	00018	[illegible]
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[illegible] Site: [illegible] 25 [illegible]

15. Special Handling Instructions and Additional Information: [illegible]

16. GENERATOR'S [illegible] that the contents of this consignment are fully and accurately described above by proper shipping [illegible] and labeled, and are in all respects in proper condition for transport by highway according to [illegible] government regulations.

If I am a large [illegible] program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practic[illegible] practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human [illegible], if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste manag[illegible] me and that I can afford.

Printed/Typed Name: SPINN M BELL | Signature: [illegible] | Month Day Year [illegible]

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: R L WALKER | Signature: [illegible] | Month Day Year [illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name | Signature | Month Day Year

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

HAZARDOUS WASTE MANIFEST

(Mandatory Required By The Alabama Department of Environmental Management)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-8

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. [redacted] Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address: [illegible] JENKS [illegible]

4. Generator's Phone ( )

5. Transporter 1 Company Name: CWM TRANSPORTATION — 6. US EPA ID Number: ALD000622464

7. Transporter 2 Company Name: CHEMICAL WASTE MANAGEMENT — 8. US EPA ID Number: ILD099102681

9. Designated Facility Name and Site Address: — 10. US EPA ID Number

CHEMICAL WASTE MANAGEMENT, INC.
Emelle Facility
Alabama Highway 17 at Mile Marker 163
Emelle, Alabama 35459

ALD000622464

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit
a. WASTE OILY DEBRIS SOLID - NON-HAZARDOUS CWM Profile Number OAK-49959	001	DT	00018	[redacted]
b. CWM Profile Number				
c. CWM Profile Number				
d. CWM Profile Number				

[redacted] Generating Site: McLINS 25 [redacted]

15. Special Handling Instructions and Additional Information

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Printed/Typed Name: BRIAN M LEE — Signature: [signature] — Month Day Year: 06 21 91

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: BILLY E SCRUGGS — Signature: [signature] — Month Day Year: 06 21 91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: BILLY E SCRUGGS — Signature: [signature] — Month Day Year: 06 21 91

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name — Signature — Month Day Year

GENERATOR — TRANSPORTER — FACILITY

EPA Form 8700-22 (Rev. 9-88) Previous editions are obsolete.

LPC 62 8/81 H-28

Please print or type. (Form designed for use on elite (12-pitch) typewriter) EPA Form 8700-22 (3-84) Form Approved. OMB No. 2050-0039. Expires 9-30-

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MED 1 8 0 5 4 6 7 8 | Manifest Document No.

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address MEKIN SUPERFUND SITE
25 MIALL RD.
GRAYLAKE IL 60030

4. Generator's Phone ( ) 1 (5 7 - 5 3 6 6

5. Transporter 1 Company Name ME. FLANIK INC.

6. US EPA ID Number ILD 0 6 9 5 0 6 1 6 0

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address TRADE WASTE INCINERATION
27 [illegible]
[illegible] IL [illegible]

10. US EPA ID Number ILD 9 8 6 4 2 4 2 4

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

	HM		12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a.		NON-HAZARDOUS WASTE SOLID, (NOT A RESPIRATORY HAZARD) NA 9189	038	DF	0269.0	1
b.		NON-HAZARDOUS WASTE NON-SOLID (NOT A RESPIRATORY HAZARD) NA 9189	029	LF	0154.5	1
c.						
d.						

12. [illegible] Cubic Yards

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Illinois regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Sectio 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to b economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and futu threat to human health and the environment.

Printed/Typed Name: BRIAN M. BELL | Signature: Brian M Bell | Date: Month Day Y

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] | Signature: [illegible] | Date: Month Day Y

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Y

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name | Signature | Date: Month Day Y

GENERATOR

TRANSPORTER

FACILITY

IN ILLINOIS: 217 / 782-3637 "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS" OUTSIDE ILLINOIS: 800 / 424-8802 or 202 / 426-2

DISTRIBUTION: PART - 1 GENERATOR PART - 2 IEPA PART - 3 FACILITY PART - 4 TRANSPORTER PART - 5 IEPA PART - 6 GENERATOR

REV 86

GENERATOR COPY - PART 1- DO NOT REMOVE PART 1 FROM SET UNTIL COMPLETED.

The Agency is authorized to require, pursuant to Illinois Revised Statutes, 1983, Chapter 111½, Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management

IEPA COPY - PART 5

ILLINOIS 62706 (217) 782-6761

LSU2-0610

UPC 62 8/81 H-29

Please print or type. (Form designed for use on elite (12-pitch) typewriter) EPA Form 8700-22 (3-84) Form Approved. OMB No 2050-0039. Expires 9-30-8

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ILL [illegible] Manifest Document No. [illegible]

2. Page 1 of 1

Information in the shaded areas is no required by Federal law, but is require by Illinois law.

3. Generator's Name and Mailing Address [illegible]

4. Generator's Phone ( )

5. Transporter 1 Company Name [illegible] TANK INC.

6. US EPA ID Number ILL [illegible]

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address [illegible]

10. US EPA ID Number ILL [illegible]

GENERATOR

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.
a.	NON-HAZARDOUS WASTE [illegible]		014	DF	1,490	1
b.	NON-HAZARDOUS WASTE [illegible]		042	DF	0,1470	1
c.						
d.						

J. Additional Descriptions for Materials Listed Above

a: WASTE [illegible]

b: WASTE [illegible]

2 = Cubic Yards

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Illinois regulations.

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Printed/Typed Name: ELIAS M. LEIL Signature: [illegible] Date: Month Day Y

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Robert Parkins Signature: [illegible] Date: Month Day Y 06 17 8

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date: Month Day Y

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name Signature Date: Month Day Y

IN ILLINOIS: 217 / 782-3637 "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS" OUTSIDE ILLINOIS: 800 / 424-8802 or 202 / 426-2

DISTRIBUTION: PART - 1 GENERATOR PART - 2 IEPA PART - 3 FACILITY PART - 4 TRANSPORTER PART - 5 IEPA PART - 6 GENERATOR

REV 88

GENERATOR COPY - PART 1- DO NOT REMOVE PART 1 FROM SET UNTIL COMPLETED.

This Agency is authorized to require, pursuant to Illinois Revised Statutes, 1983, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center

IEPA COPY - PART 5

2200 CHURCHILL ROAD, SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761
P.O. BOX 19275

IL532-0610
LPC 62 8/81

H-30

Please print or type (Form designed for use on elite (12-pitch) typewriter) **EPA Form 8700-22 (Rev. 9-86)** Form Approved OMB No 2050-0039, Expires 9-30-

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MED980524078 Manifest Document No.
2. Page 1 of 1

Information in the shaded areas is required by Illinois law

3. Generator's Name and Mailing Address
McKIN SUPERFUND SITE
25 MAYALL RD.
GRAY, ME 04039
4. Generator's Phone ( ) 14-926-8857

5. Transporter 1 Company Name: HAZMAT ENVIRONMENTAL CORP. INC
6. US EPA ID Number: NYD980769947

7. Transporter 2 Company Name
8. US EPA ID Number

9. Designated Facility Name and Site Address
TRADE WASTE INCINERATOR
#7 MOBILE AVE.
SAUGET IL 62201
10. US EPA ID Number: ILD098642424

A. Manifest Document No.
B. State Generator's ID
C. State Transporter's ID
D. Transporter's Phone
E. State Transporter's ID
F. Transporter's Phone
G. State Facility's ID: 1653121090
H. Facility's Phone: 618 271-2804

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE OIL (WATER) NON-HAZARDOUS	001	TT	01400	1	XX
b.					XX
c.					XX
d.					XX

J. Additional Descriptions for Materials Listed Above
Chem waste profile #47-649960

K. Handling Codes for Wastes Listed Above in Item # 14
1 = Gallons 2 = Cubic Yar

15. Special Handling Instructions and Additional Information

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and se the best waste management method that is available to me and that I can afford.

Printed/Typed Name: BRIAN M BELL Signature: Brian M Bell Date Month Day: 06 19 8

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: JERRY WHITE Signature: Jerry White Date Month Day: 06 18

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name Signature Date Month Day

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Date
Printed/Typed Name Signature Month Day

IN ILLINOIS, 217 / 782-3637 *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* OUTSIDE ILLINOIS, 800 / 424-8802 or 202 / 426-

DISTRIBUTION PART - 1 GENERATOR PART - 2 IEPA PART - 3 FACILITY PART - 4 TRANSPORTER PART - 5 IEPA PART - 6 GENERATOR

REV 7

GENERATOR COPY — PART 1-DO NOT REMOVE PART 1 FROM SET UNTIL COMPLETED.

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IEPA COPY - PART 5

2200 CHURCHILL ROAD, SPRINGFIELD, ILLINOIS 62706 (217) 782-6761

IL538-6610
LPC 62 8/81

H-31

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (3-84) Form Approved. OMB No. 2050-0039. Expires 9-30

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MED 980524078 Manifest Document No. 00002

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: MEKIN SUPERFUND SITE, 25 MAYALL RD., GRAY, ME 04039

4. Generator's Phone: 207 657-3366

5. Transporter 1 Company Name: ME. FRANK INC.

6. US EPA ID Number: ILD 069506160

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address: TRADE WASTE INCINERATION, #7 MILE AVE., SAUGET, IL 62201

10. US EPA ID Number: ILD 098642424

GENERATOR

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a.	NON-HAZARDOUS WASTE SOLID (SPENT AIR-FILTRATION MEDIA) 75024		038	DF	0299.0	1
b.	NON-HAZARDOUS WASTE SOLID (SPENT SANDBLAST SLAG) 75022		029	DF	0159.5	T
c.						
d.						

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Illinois regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Sec 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and fu threat to human health and the environment.

Printed/Typed Name: BRIAN [redacted] Signature: Brian M Bell Date: Month 06 Day 1 / 6

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: [illegible] Signature: [illegible] Date: Month 06 Day 16

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Signature: Date: Month Day

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: Signature: Date: Month Day

IN ILLINOIS: 217 / 782-3637 "24 HOUR EMERGENCY AID SPILL ASSISTANCE NUMBERS" OUTSIDE ILLINOIS: 800 / 424-8802 or 202 / 426

DISTRIBUTION: PART - 1 GENERATOR PART - 2 IEPA PART - 3 FACILITY PART - 4 TRANSPORTER PART - 5 IEPA PART - 6 GENERATOR

REV 88 GENERATOR COPY – PART 1- DO NOT REMOVE PART 1 FROM SET UNTIL COMPLETED.

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IEPA COPY - PART 5

2200 CHURCHILL ROAD, SPRINGFIELD, ILLINOIS 62706 (217) 782-6761

LPC 62 8/91 H-32

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (3-84) Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MED986524C78 Manifest Document No. 10 003
2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: McKIN SUPERFUND SITE, 25 MAYALL, GLEN ALLEN, ME 4239

4. Generator's Phone ( )

5. Transporter 1 Company Name: MR. FLANK INC. 6. US EPA ID Number: ILD069506160

7. Transporter 2 Company Name 8. US EPA ID Number

9. Designated Facility Name and Site Address: TRADE WASTE INCINERATOR, 54 MERLE AVE., SAUGET, IL 62201 10. US EPA ID Number: ILD098642424

GENERATOR

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a.	NON-HAZARDOUS WASTE SOLID (NOT SUPERFUND WASTE)		014	DF	00490	1
b.	NON-HAZARDOUS WASTE SOLID (NOT TOXICANTS)		042	DF	01470	1
c.						
d.						

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Illinois regulations.

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Printed/Typed Name: BRIAN [illegible] Signature: Brian M Bell Date: Month 06 Day 17 Year [illegible]

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: Robert Perkins Signature: Robert Perkins Date: Month 06 Day 17 Year 89

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name Signature Date: Month Day Year

IN ILLINOIS: 217 / 782-3637 "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS" OUTSIDE ILLINOIS: 800 / 424-8802 or 202 / 426-267

DISTRIBUTION: PART - 1 GENERATOR PART - 2 EPA PART - 3 FACILITY PART - 4 TRANSPORTER PART - 5 IEPA PART - 6 GENERATOR

REV. 88

GENERATOR COPY - PART 1- DO NOT REMOVE PART 1 FROM SET UNTIL COMPLETED.

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IEPA COPY - PART 5

P.O. BOX 19275 (217) 782-6761

LS62-0810 UPC 62 8/91 H-3

Please print or type. (Form designed for use on elite (12-pitch) typewriter) EPA Form 8700-22 (Rev. 9-88) Form Approved. OMB No. 2050-0039. Expires 9-30

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. MED980524078 Manifest Document No. 000 4

2. Page 1 of 1

Information in the shaded areas is required by Federal law, but is req by Illinois law.

3. Generator's Name and Mailing Address
McKIN SUPERFUND SITE
35 MAYALL RD.
GRAY, ME 04039

4. Generator's Phone ( ) 319-926-8651

5. Transporter 1 Company Name HAZMAT ENVIRONMENTAL GROUP INC

6. US EPA ID Number NYD980769947

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
TRADE WASTE INCINERATION
#7 MOBILE AVE.
SAUGET IL 62201

10. US EPA ID Number ILD098642424

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. WASTE OIL (WATER) NON-HAZARDOUS	001	TT	01400	I
b.				
c.				
d.				

J. Additional Descriptions for Materials Listed Above

Clean waste [illegible] 2 = Cubic Yar

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name BRIAN M BELL Signature Brian M Bell Date Month Day 06 19 8

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name JERRY WHITE Signature Jerry White Date Month Day 06 19 8

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name Signature Date Month Day

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name Signature Date Month Day

IN ILLINOIS, 217 / 782-3637 *24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS* OUTSIDE ILLINOIS: 800 / 424-8802 or 202 / 426-2

DISTRIBUTION: PART - 1 GENERATOR PART - 2 IEPA PART - 3 FACILITY PART - 4 TRANSPORTER PART - 5 IEPA PART - 6 GENERATOR

REV 7

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IEPA COPY - PART 5

CALGON
CALGON CARBON CORPORATION

JUL 1 - 1987

CANONIE ENVIRONMENTAL

CALGON CARBON CORPORATION 120 EAST OGDEN AVE. HINSDALE, ILLINOIS 60521-3579 (312) 325-9090

June 30, 1987

Mr. Brian Bell
Canonie Environmental Services Corporation
800 Canonie Drive
Porter, IN 46304

Dear Brian:

Per your request, Calgon Carbon accepted approximately 30,000 pounds of spent carbon for reactivation at our Columbus, Ohio, facility around September, 1986. Calgon Carbon also accepted approximately 15,000 pounds of spent carbon at our Neville Island facility around the beginning of May, 1987. Both of these shipments were from the Grey, Maine, project.

Please let me know if I can be of additional assistance.

Very truly yours,

Edward T. Ricketts

Edward T. Ricketts
Technical Sales Representative

ETR:tl