SDMS US EPA REGION V -1

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THE AVENDT GROUP, INC.

ENVIRONMENTAL MANAGEMENT CONSULTANTS

February 13, 1990

Sangamo (AREA 1)
SF/TECH

Mr. Paul E. Takacs, Project Manager
Illinois Environmental Protection Agency
Federal Site Management Unit
Division of Land Pollution Control
Post Office Box 19276
Springfield, Illinois 62794-9276

RE: "A" Boring Data; Dead Creek Sector A

Dear Mr. Takacs;

Please find [illegible] chemical data from the samples colle[illegible] the "A" boring sites [illegible] of Dead Creek Sector A (DCS-A) [illegible] samples were colle[illegible] investigation activities performed in July, 1989. All samples were collected [illegible] of the creek except for boring A23A which was collected from the re[illegible] boundary of DCS-A.

If you have any [illegible] this material, please call me at your convenience.

[illegible]

432 NORTH SAGINAW 3RD FL • FLINT, MI • 48502
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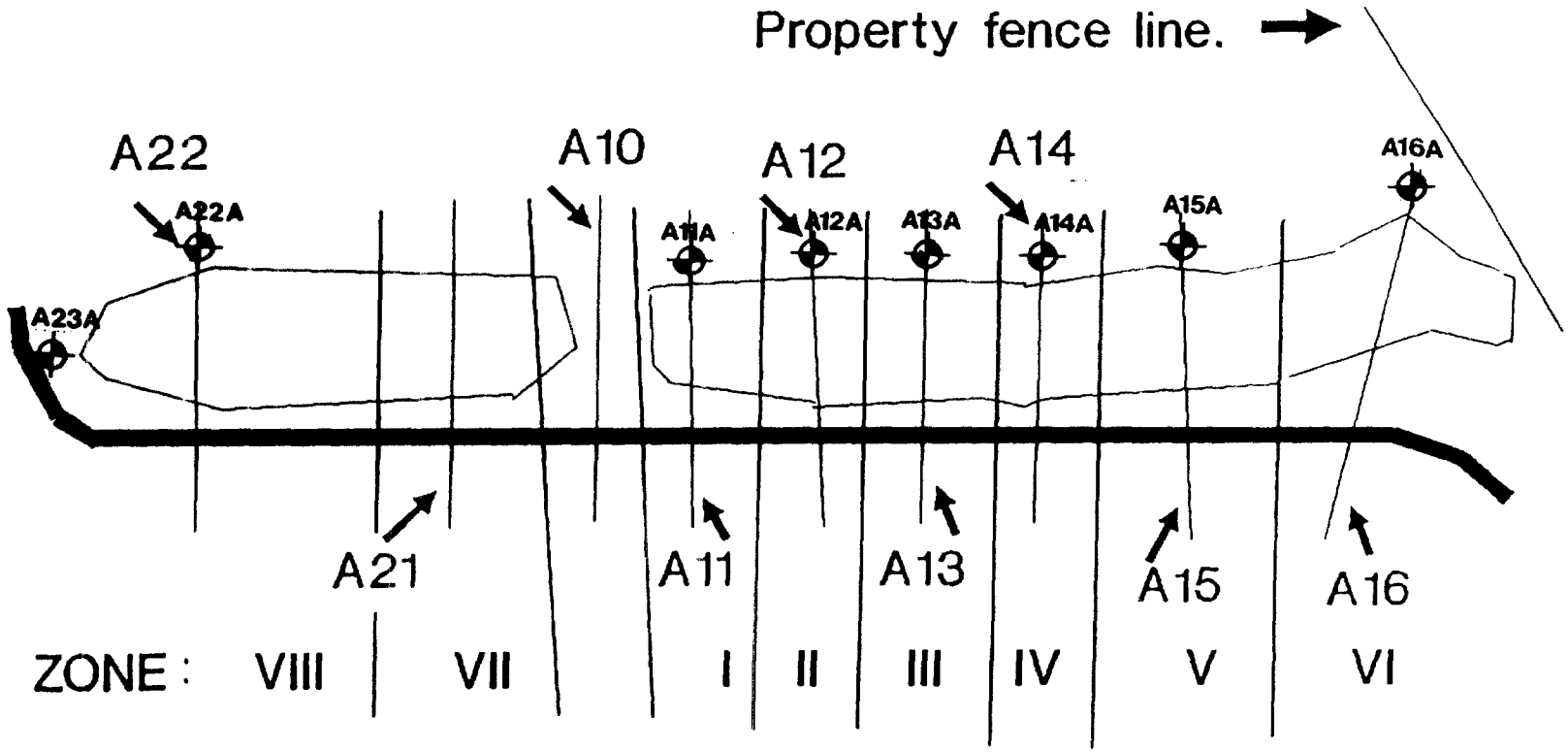
Property fence line.
A22
A10
A12
A14
A16A
A22A
A11A
A12A
A13A
A14A
A15A
A23A
A21
A11
A13
A15
A16
ZONE:
VIII
VII
I
II
III
IV
V
VI

VOLATILES
BY GC/MS
APPENDIX IX

"A" BORINGS

SAMPLE I.D. :	A23A
DEPTH (ft) :	19-20

PARAMETERS	
Chloromethane	ND
Bromomethane	ND
Vinyl Chloride	ND
Chloroethane	ND
Methylene Chloride	2100
Acetone	2400
Carbon Disulfide	ND
1,1-Dichloroethene	ND
1,1-Dichloroethane	ND
1,2-Dichloroethene (total)	ND
Chloroform	ND
1,2-Dichloroethane	ND
2-Butanone	ND
1,1,1-Trichloroethane	ND
Carbon Tetrachloride	ND
Vinyl Acetate	ND
Bromodichloromethane	ND
1,2-Dichloropropane	ND
cis-1,3-Dichloropropene	ND
Trichloroethene	2100
Dibromochloromethane	ND
1,1,2-Trichloroethane	ND
Benzene	ND
Trans-1,3-Dichloropropene	ND
Bromoform	ND
4-Methyl-2-pentanone	ND
2-Hexanone	ND
Tetrachloroethene	ND
1,1,2,2-Tetrachloroethane	ND
Toluene	5700
Chlorobenzene	18000
Ethylbenzene	BDL
Styrene	ND
Xylene(total)	ND
Acrolein	ND
Acrylonitrile	ND
Trichlorofluoromethane	ND
Dichlorodifluoromethane	ND
Acetonitrile	ND
Iodomethane	ND
Propionitrile (Ethyl Cyanide)	ND
3-Chloropropene	ND

Methacrylonitrile	ND
Dibromomethane	ND
Isobutyl alcohol	ND
1,2-Dibromoethane	ND
1,1,1,2-Tetrachlorethane	ND
1,2,3-Trichloropropane	ND
trans-1,4-Dichloro-2-butene	ND
1,2-Dibromo-3-chloropropane	ND
2-Chloro-1,3-Butadiene	ND

SEMIVOLATILES
BY SC/MS
APPENDIX IX

"A" BORINGS

SAMPLE I.D. : A23A
DEPTH (ft) : 4-8

PARAMETERS	
Phenol	38000
bis(2-Chloroethyl)ether	ND
2-Chlorophenol	ND
1,3-Dichlorobenzene	ND
1,4-Dichlorobenzene	BDL
Benzyl Alcohol	82000
1,2-Dichlorobenzene	6100
2-Methylphenol	BDL
bis(2-Chloroisopropyl)ether	ND
4-Methylphenol	12000
N-Nitroso-Di-n-propylamine	ND
Hexachloroethane	ND
Nitrobenzene	ND
Isophorone	ND
2-Nitrophenol	ND
2,4-Dimethylphenol	55000
Benzoic Acid	280000
bis(2-Chloroethoxy)methane	ND
2,4-Dichlorophenol	ND
1,2,4-Trichlorobenzene	9500
Naphthalene	BDL
4-Chloroaniline	73000
Hexachlorobutadiene	ND
4-Chloro-3-methylphenol	ND
2-Methylnaphthalene	ND
Hexachlorocyclopentadiene	ND
Methyl methacrylate	ND
Pyridine	ND
N-Nitrosodimethylamine	ND
Ethyl methacrylate	ND
2-Picoline	ND
N-Nitrosomethylethylamine	ND
Methyl methanesulfonate	ND
N-Nitrosodiethylamine	ND
Ethyl methanesulfonate	ND
Aniline	BDL
Pentachloroethane	ND
3-Methylphenol	12000
N-Nitrosopyrrolidine	ND
Acetophenone	BDL
N-Nitrosomorpholine	ND
o-Toluidine	ND
N-Nitrosopiperidine	ND
a,a-Dimethylphenethylamine	ND
2,6-Dichlorophenol	ND

Hexachloropropene	ND
p-Phenylenediamine	ND
N-Nitroso-di-n-butylamine	ND
Safrole	ND
1,2,4,5-Tetrachlorobenzene	ND
Isoafrole	ND
1,4-Naphthoquinane	ND
1,3-Dinitrobenzene	ND
Pentachlorobenzene	ND
2,4,6-Trichlorophenol	ND
2,4,5-Trichlorophenol	ND
2-Chloronaphthalene	ND
2-Nitroaniline	ND
Dimethylphthalate	ND
Acenaphthylene	ND
2,6-Dinitrotoluene	ND
3-Nitroaniline	ND
Acenaphthene	ND
2,4-Dinitrophenol	ND
4-Nitrophenol	ND
Dibenzofuran	ND
2,4-Dinitrotoluene	ND
Diethylphthalate	ND
4-Chlorophenyl-phenylether	ND
Fluorene	ND
4-Nitroaniline	ND
4,6-Dinitro-2-methylphenol	ND
N-Nitrosodiphenylamine (1)	ND
4-Bromophenyl-phenylether	ND
Hexachlorobenzene	ND
Pentachlorophenol	ND
Phenanthrene	BDL
Anthracene	ND
Di-n-Butylphthalate	BDL
Fluoranthene	ND
Pyrene	ND
Butylbenzylphthalate	BDL
3,3'-Dichlorobenzidine	ND
Benzo(a)anthracene	ND
Chrysene	BDL
bis(2-Ethylhexyl)phthalate	20000
Di-n-octyl phthalate	ND
Benzo(b)fluoranthene	ND
Benzo(k)fluoranthene	ND
Benzo(a)pyrene	ND
Indeno(1,2,3-cd)pyrene	ND
Dibenzo(a,h)anthracene	ND
Benzo(g,h,i)perylene	ND
1,4-Dioxane	ND
1-Naphthylamine	ND
2-Naphthylamine	ND
2,3,4,6-Tetrachlorophenol	ND
1,3,5-Trinitrobenzene	ND
Diallate	ND
Phenacetin	ND

Diphenylamine	ND
5-Notro-o-toluidine	ND
4-Aminobiphenyl	ND
Pronamide	ND
2-sec-Butyl-4,6-dinitvophenol	ND
Pentachloronitrobenzene	ND
4-Nitroquinoline-1-oxide	ND
Methapyrilene	ND
Aramite	ND
Chlorobenzilate	ND
p-Dimethylaminoazobenzene	ND
3,3'-Dimethylbenzidine	ND
2-Aacetylaminofluorene	ND
7,12-Dimethylbenzidine	ND
Hexachlorophene	ND
3-Methylcholanthrene	ND

PCBs by GC

PCBs by GC (ppb)
"A" Borings

Sample I.D.		Date	Parameters : Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
A11A	8-13	07/19	ND	ND	ND	ND	ND	0.00	ND
A11A	13-18	07/19	ND	ND	ND	ND	ND	ND	ND
A12A	8-11	07/19	ND	ND	ND	ND	ND	ND	ND
A12A	11-20.5	07/19	ND	ND	ND	ND	ND	67	ND
A13A	9-14	07/20	ND	ND	ND	ND	ND	ND	ND
A13A	14-19	07/20	ND	ND	ND	ND	ND	ND	ND
A13A	19-20.5	07/20	ND	ND	ND	ND	ND	ND	ND
A14A	4-9	07/20	ND	ND	ND	ND	ND	99	ND
A14A	13.5-23.5	7/20	ND	ND	ND	ND	ND	62	ND
A14A	23.5-28.5	7/20	ND	ND	ND	ND	ND	ND	ND
A16A	9-14	07/20	ND	ND	ND	ND	ND	ND	ND
A16A	14-19	07/20	ND	ND	ND	ND	ND	2100	860
A16A	24-29	07/20	ND	ND	ND	ND	ND	ND	ND
A22A	9-14	07/11	ND	ND	ND	ND	ND	ND	ND
A22A	19-22	07/11	ND	ND	ND	ND	ND	ND	ND
A22A	24-28	07/11	ND	ND	ND	ND	ND	ND	ND
A23A	12-13	07/14	ND	ND	ND	ND	3300	ND	690
A23A	13-19	07/14	ND	ND	ND	ND	5700	ND	1200
A23A	19-20		ND	ND	ND	ND	150000	ND	ND
A23A	21-23	07/14	ND	ND	ND	ND	1600	ND	ND

EPTOX
"A" Borings

Sample ID	A11A 8-13	A12A 8-11	A16A 9-14	A22A 9-14	A23A 19-20
Parameters					
Silver	ND	ND	0.032	ND	0.024
Arsenic	ND	ND	ND	ND	ND
Barium	ND	1.4	1.1	ND	ND
Cadmium	0.069	4	ND	ND	0.012
Chromium	0.030	0.025	0.044	ND	0.033
Mercury	ND	ND	ND	ND	ND
Lead	0.069	0.096	0.15	0.16	0.17
Selenium	ND	ND	ND	ND	ND

** units : mg/L **

Pesticides by GC
EP LEACHATE (ppb)
"A" Borings

Compound:		gamma-BHC (Lindane)	Endrin	Methoxychlor	Toxaphene
A11A	8-13	BDL	0.054 J	BDL	BDL
A12A	8-11	BDL	BDL	BDL	BDL
A13A	9-14	BDL	BDL	BDL	BDL
A14A	4-9	BDL	BDL	BDL	BDL
A15A	9-14	BDL	BDL	BDL	BDL
A16A	9-14	BDL	BDL	BDL	BDL
A23A	19-20	BDL	BDL	BDL	BDL

Total Metals
"A" Borings

Sample I.D.:	A11A	A12A	A14A	A23A
Date:	8-13	8-11	4-9	19-20
Parameters				
Sliver	ND	ND	ND	ND
Alminum	7380	6270	5450	5590
Arsenic	13	3.9	2.9	5.6
Barium	240	197	201	198
Beryllium	ND	ND	ND	ND
Calcium	3940	15900	15700	26200
Cadmium	5.2	ND	ND	ND
Cobalt	ND	ND	ND	23.0
Chromium	222	12.6	10.8	15.6
Copper	1130	103	48.1	591
Iron	13800	12100	11800	13500
Mercury	ND	ND	ND	ND
Potassium	1870	1420	1250	ND
Magnesium	2660	7330	6580	5160
Manganese	56.0	150	173	318
Sodium	ND	ND	ND	ND
Nickel	303	133	27.7	56.3
Lead	72.0	7.6	13.6	24.0
Antimony	ND	ND	ND	ND
Selenium	ND	2.5	ND	ND
Thallium	ND	ND	ND	ND
Vanadium	21.0	19.4	17.4	17.4
Zinc	1410	333	69.6	237

Characteristics of Hazardous Waste
"A" Borings

Sample I.D.		Date	Ash (%)	Solids (%)	Alkalinit (%)	Cyanide Reactive (mg/kg)	Cyanide Total (mg/kg)	Flash Point (deg F)	pH	Sulfide (mg/kg)	Sulfide Reactive (mg/kg)	Total PCBs ppm	Observed Creek Sediment
A11A	8-13	07/19		71.9								0	
A11A	13-18	07/19		65.8								0	
A12A	8-11	07/19		74.2								0	
A12A	11-20.5	07/19		79.4								.067	
A13A	9-14	07/20										0	
A13A	14-19	07/20										0	
A13A	19-20.5	07/20										0	
A14A	4-9	07/20										.099	
A14A	13.5-23.5	07/20										.062	
A14A	23.5-28.5	07/20										0	
A15A	9-14	07/20										0	
A15A	14-19	07/20										0	
A15A	19-24	07/20										0	
A16A	9-14	07/20										0	
A16A	14-19	07/20										2.96	
[illegible]6A	24-29	07/20										0	
[illegible]2A	9-14	07/11		71.4								0	
A22A	19-22	07/11		79.4								0	
A22A	24-28	07/11		77.4								0	
A23A	12-13	07/14		87.6								3.99	
A23A	13-19	07/14		74.0								6.9	
A23A	19-20	07/14	94.7	66.1	1.3	ND	ND	>200	8.6	9.4	ND	150	
A23A	21-23	07/14		83.8								1.6	

Organophosphorus Pesticides
Appendix IX (ppb)
"A" Borings

Analyte :	Ethyl Phosphorothioate	Thionazin (zinophos)	Phorate	Sulfotepp	Disulfoton	Dimethoate	Methyl Parathion	Ethyl Parathion	Famphur (famophos)	Diazi
Sample I.D.										
A23A 19-20	BDL	BDL	BDL	BDL	BDL	BDL	550.0	BDL	BDL	NA