Technical Report

Remediation Assessment

Fansteel, Inc.
Muskogee, Oklahoma

Volume 1 of 4

Kirkpatrick & Lockhart
Pittsburgh, Pennsylvania

Project No. 111
December 1993

Earth Sciences
Consultants, Inc.

Fansteel Metals
number ten tantalum place muskogee, oklahoma 74401

December 28, 1993

Mr. Harvey Spiro
Project Manager
Regulatory Issues Section
Low Level Waste Division
U.S. Nuclear Regulatory Commission
Washington, DC 30555

RE: Transmittal
Final Report
Remedial Assessment
Fansteel, Muskogee, OK

Dear Mr. Spiro:

In accordance with Fansteel Inc. (Fansteel) Nuclear Regulatory Commission (NRC) License No. SMB-911, Licens Condition 26, amended December 21, 1992, Fansteel is pleased to provide you with the enclosed final report for the remedial assessment of our Muskogee, Oklahoma, facility. This report documents the results of the remedial assessment activities performed by Earth Sciences Consultants, Inc. (Earth Sciences), a wholly owned subsidiary of American Waste Services, Inc., at our facility during 1993. The work performed as part of the remedial assessment was conducted in accordance with Earth Sciences' Remedial Assessment Work Plan (revised July 1992) which the NRC approved by incorporation into Fansteel's NRC license amendment dated December 21, 1992.

Please review that portion of the remedial assessment regarding the deep aquifer wells expeditiously. Fansteel would like to appropriately abandon these wells as the data acquired point to no contamination of the deep aquifer. The closure would abate potential impacts caused by communication of these wells with the surface.

Fansteel is moving forward with the preparation of a site-specific decommission plan for the Muskogee, Oklahoma, facility to address the concerns identified in Earth Sciences' Remedial Assessment Report. Fansteel will be providing the NRC with a final decommissioning plan by the

deadline identified in our amended NRC license, June 30, 1994. Should you have any questions regarding the Remedial Assessment Report, please feel free to contact me or our consultant, Earth Sciences, at any time.

Sincerely,

JOHN J. HUNTER
Corp. Mgr., Process Eng. &
Facilities Construction

JJH/bsm

enc.

cc: A. Davis, US EPA
D. Dimick, OKDEQ
L. Kirk, OKDEQ
K. R. Garrity
M. J. Mocniak
J. Harrick, ESC

Fansteel
Metals
number ten tantalum place muskogee, oklahoma 74401

December 28, 1993

Mr. David Dimick
Water Quality
Oklahoma Dept. of
Environmental Quality
1000 Northeast 10th Street
Oklahoma City, OK 73117-1212

Dear Mr. Dimick:

Attached is the Remedial Assessment Study for our Muskogee, Oklahoma, property as prepared by our consultants, Earth Sciences Consultants, Inc. (Earth Sciences) of Pittsburgh, Pennsylvania. It includes a cover letter to the Nuclear Regulatory Commission's Project Manager, Mr. Harvey Spiro.

Please review that portion of the report regarding the deep aquifer wells. The data indicates that the bedrock aquifer has not been impacted by site operations. As such, Fansteel, Inc., (Fansteel) would like to appropriately close these four wells to prohibit any communication between the bedrock aquifer and the surface. Fansteel requires your concurrence before proceeding with the abandonment of these wells.

Should you have any comments or questions, please feel free to contact me or our consultants, Earth Sciences, at any time.

Sincerely,

JOHN J. HUNTER
Corp. Mgr., Process Eng. &
Facilities Construction

JJH/bsm

enc.

cc: K. R. Garrity

Table 5
Summary of Waste Chemistry Data
Pond 2 Residues
Fansteel, Inc.
Muskogee, Oklahoma

Parameter	Units	Sample Identification and Date				
		P2-1A (0-4) 2/19/93	P2-1B (4-8) 2/19/93	P2-1C (8-12.5) 2/19/93	P2-2A (0-3) 2/19/93	P2-2B (3-6) 2/19/93
Total Analyses:						
Cyanide	mg/kg	11	4.4	<1.9	<2.0	<2.0
Silver	mg/kg	21.7	39.2	23.9	49.6	10.0
Arsenic	mg/kg	<36.0	<39.0	<37.0	41.7	<36.0
Barium	mg/kg	585	452	524	1380	284
Beryllium	mg/kg	25.5	23.9	22.0	33.1	10.3
Cadmium	mg/kg	<3.60	<3.90	<3.70	<3.60	<3.60
Chromium	mg/kg	377	438	153	740	169
Mercury	mg/kg	2.74	0.685	0.312	0.774	1.15
Molybdenum	mg/kg	30	31	40	40	<18
Nickel	mg/kg	59.3	103	50.9	38.6	<18.0
Lead	mg/kg	167	<39.0	68.5	110	70.5
Antimony	mg/kg	346	118	384	284	61.9
Selenium	mg/kg	<0.360	<0.400	<0.370	<0.400	<0.390
Tin	mg/kg	3100	1600	6000	4000	830
Columbium	mg/kg	5000	1200	3100	3000	4800
Tantalum	mg/kg	2200	1700	2300	2000	980
Gross Alpha	pCi/g	2300±100	4800±100	3200±100	6200±100	3200±100
Gross Beta	pCi/g	920±20	2400±100	2000±100	2700±100	1500±100
Isotopes:						
Uranium-233 & 234	pCi/g	180±10	510±20	410±10	440±10	170±10
Uranium 235	pCi/g	5.8±1.7	19±3	22±3	19±3	5.3±1.7
Uranium-238	pCi/g	180±10	530±20	430±10	440±10	170±10
Thorium-230	pCi/g	640±40	780±40	850±40	650±30	420±30
Lead-210 @ 46 KeV	pCi/g	60±9	68±14	86±12	30±21	55±11
Thorium-234 @ 63.3 KeV	pCi/g	91±8	260±40	160±30	130±40	140±30
Protactinium-234m @ 1001 KeV	pCi/g	170±70	590±120	640±120	560±30	250±90
Radium 226	pCi/g	250±10	540±20	500±10	590±20	310±10
Lead-214 @ 295.2 KeV	pCi/g	170±10	370±10	330±10	400±10	240±10
Lead-214 @ 352.0 KeV	pCi/g	170±10	370±10	340±10	420±10	250±10
Bismuth-214 @ 609.4 KeV	pCi/g	170±10	360±10	330±10	420±10	240±10
Bismuth-214 @ 1120.4 KeV	pCi/g	160±10	360±10	330±10	420±10	240±10
Bismuth-214 @ 1764.7 KeV	pCi/g	160±10	350±10	300±10	380±10	220±10
Actinium-228 @ 338 KeV	pCi/g	140±10	300±10	230±10	460±10	230±10
Actinium-228 @ 911 KeV	pCi/g	160±10	340±10	260±10	500±10	250±10
Actinium-228 @ 968 KeV	pCi/g	160±10	340±10	260±10	500±20	260±10
Lead-212 @ 238 KeV	pCi/g	140±10	320±10	240±10	440±30	240±10
Bismuth-212 @ 727 KeV	pCi/g	170±10	370±20	300±20	540±20	270±20
Thallium-208 @ 583 KeV	pCi/g	150±10	320±10	240±10	480±10	230±10
Uranium-235 @ 143 KeV	pCi/g	5.8±1.9	15±3	13±2	15±3	8.1±2.2
ASTM Analysis:						
Alkalinity	mg/l $CaCO_3$	<2.00	<2.00	<2.00	<2.00	<2.00
Ammonia	mg/l NH3-N	5.8	8.9	8.1	2.7	1.3
Chloride	mg/l	<0.50	3.8	5.7	<0.50	<0.50
Fluoride	mg/l	410	140	110	580	450
Nitrate	mg/l NO_3-N	0.12	0.29	0.32	0.35	0.46
Sulfate	mg/l	6.6	510	26	50	2.6
pH	pH Units	2.89	3.34	3.38	2.42	2.70
Specific Conductance @ 25°C	µmhos/cm	1930	1380	845	4190	2020
Aluminum	mg/l	71	<10	34	170	91
Calcium	mg/l	53	35	13	200	91
Iron	mg/l	220	180	110	390	140
Potassium	mg/l	67	38	15	120	59
Magnesium	mg/l	20	25	16	40	25
Manganese	mg/l	52	70	33	96	33
Sodium	mg/l	19	18	<10	40	23

Table 5
(Continued)

Parameter	Units	Sample Identification and Date				
		P2-1A (0-4) 2/19/93	P2-1B (4-8) 2/19/93	P2-1C (8-12.5) 2/19/93	P2-2A (0-3) 2/19/93	P2-2B (3-6) 2/19/93
TCLP Metals:						
Silver	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Barium	mg/l	<10	<10	<10	<10	<10
Cadmium	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Chromium	mg/l	7.2	3.0	0.47	15	4.4
Mercury	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	mg/l	<1.0	1.8	<1.0	<1.0	<1.0
Lead	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Selenium	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
TCLP Extraction Fluid Data:						
Extraction Fluid		No. 1	No. 1	No. 1	No. 1	No. 1
pH with Deionized Water	pH units	2.76	3.32	3.26	2.26	2.56
pH of TCLP Extract	pH units	4.44	4.65	4.74	4.17	4.39
Amount of Sample Extracted	g	50.0	50.0	50.0	50.0	50.0
Volatile Organic Analyses:						
Acetone	µg/kg	<2300	<2600	<2400	<2600	<2500
Benzene	µg/kg	<2300	<2600	<2400	<2600	<2500
Bromodichloromethane	µg/kg	<2300	<2600	<2400	<2600	<2500
Bromoform	µg/kg	<2300	<2600	<2400	<2600	<2500
Bromomethane	µg/kg	<2300	<2600	<2400	<2600	<2500
2-Butanone	µg/kg	<2300	<2600	<2400	<2600	<2500
Carbon Disulfide	µg/kg	<2300	<2600	<2400	<2600	<2500
Carbon Tetrachloride	µg/kg	<2300	<2600	<2400	<2600	<2500
Chlorobenzene	µg/kg	<2300	<2600	<2400	<2600	<2500
Dibromochloromethane	µg/kg	<2300	<2600	<2400	<2600	<2500
Chloroethane	µg/kg	<2300	<2600	<2400	<2600	<2500
Chloromethane	µg/kg	<2300	<2600	<2400	<2600	<2500
Chloroform	µg/kg	<2300	<2600	<2400	<2600	<2500
1,1-Dichloroethane	µg/kg	<2300	<2600	<2400	<2600	<2500
1,2-Dichloroethane	µg/kg	<2300	<2600	<2400	<2600	<2500
1,1-Dichloroethene	µg/kg	<2300	<2600	<2400	<2600	<2500
1,2-Dichloroethene	µg/kg	<2300	<2600	<2400	<2600	<2500
1,2-Dichloropropane	µg/kg	<2300	<2600	<2400	<2600	<2500
Cis-1,3-Dichloropropene	µg/kg	<2300	<2600	<2400	<2600	<2500
Trans-1,3-Dichloropropene	µg/kg	<2300	<2600	<2400	<2600	<2500
Ethylbenzene	µg/kg	<2300	<2600	<2400	<2600	<2500
2-Hexanone	µg/kg	<2300	<2600	<2400	<2600	<2500
Methylene Chloride	µg/kg	<2300	<2600	<2400	<2600	<2500
4-Methyl-2-pentanone	µg/kg	130000	160000	140000	43000	70000
Styrene	µg/kg	<2300	<2600	<2400	<2600	<2500
1,1,2,2-Tetrachloroethane	µg/kg	<2300	<2600	<2400	<2600	<2500
Tetrachloroethene	µg/kg	<2300	<2600	<2400	<2600	<2500
Toluene	µg/kg	<2300	<2600	<2400	<2600	<2500
1,1,1-Trichloroethane	µg/kg	<2300	<2600	<2400	<2600	<2500
1,1,2-Trichloroethane	µg/kg	<2300	<2600	<2400	<2600	<2500
Trichloroethene	µg/kg	<2300	<2600	<2400	<2600	<2500
Vinyl Chloride	µg/kg	<2300	<2600	<2400	<2600	<2500
Xylenes, Total	µg/kg	<2300	<2600	<2400	<2600	<2500

Table 5
(Continued)

Parameter	Units	Sample Identification and Date			
		P2-2C (6-9) 2/19/93	P2-3A (0-4) 2/19/93	P2-3B (4-8) 2/19/93	P2-3C (8-12) 2/19/93
Total Analyses:					
Cyanide	mg/kg	<1.9	<1.8	<2.1	<1.9
Silver	mg/kg	38.5	40.9	52.7	30.3
Arsenic	mg/kg	<35.6	39.4	74.3	<37.0
Barium	mg/kg	972	1340	2180	649
Beryllium	mg/kg	26.0	29.7	32.2	30.8
Cadmium	mg/kg	<3.56	<3.08	<3.94	<3.70
Chromium	mg/kg	303	652	442	338
Mercury	mg/kg	1.20	0.260	0.459	2.45
Molybdenum	mg/kg	34	21	35	36
Nickel	mg/kg	22.7	27.3	22.6	68.9
Lead	mg/kg	96.7	92.0	85.9	166
Antimony	mg/kg	220	144	221	576
Selenium	mg/kg	<0.380	<0.350	<0.430	<0.380
Tin	mg/kg	3400	6000	4800	4700
Columbium	mg/kg	3200	1700	2500	11000
Tantalum	mg/kg	2200	970	1300	7100
Gross Alpha	pCi/g	5200±100	4900±100	6700±100	3800±100
Gross Beta	pCi/g	2200±100	2200±100	3100±100	1800±100
Isotopes:					
Uranium-233 & 234	pCi/g	290±10	320±20	550±25	230±10
Uranium 235	pCi/g	13±2	11±3	29±6	13±3
Uranium-238	pCi/g	280±10	350±20	580±30	250±10
Thorium-230	pCi/g	670±30	710±30	690±40	860±40
Lead-210 @ 46 KeV	pCi/g	40±13	57±10	56±19	77±12
Thorium-234 @ 63.3 KeV	pCi/g	210±60	220±40	280±30	130±10
Protactinium-234m @ 1001 KeV	pCi/g	310±120	520±120	660±150	390±120
Radium 226	pCi/g	530±20	510±20	720±20	400±10
Lead-214 @ 295.2 KeV	pCi/g	400±10	390±10	450±10	310±10
Lead-214 @ 352.0 KeV	pCi/g	410±10	400±10	470±10	310±10
Bismuth-214 @ 609.4 KeV	pCi/g	400±10	380±10	460±10	300±10
Bismuth-214 @ 1120.4 KeV	pCi/g	400±10	380±10	460±10	300±10
Bismuth-214 @ 1764.7 KeV	pCi/g	370±10	360±10	420±10	280±10
Actinium-228 @ 338 KeV	pCi/g	410±10	380±20	510±10	260±10
Actinium-228 @ 911 KeV	pCi/g	450±10	420±10	560±10	300±10
Actinium-228 @ 968 KeV	pCi/g	450±10	430±10	570±10	300±10
Lead-212 @ 238 KeV	pCi/g	400±20	400±10	440±10	280±10
Bismuth-212 @ 727 KeV	pCi/g	490±20	460±20	590±20	310±20
Thallium-208 @ 583 KeV	pCi/g	430±10	390±10	540±10	270±10
Uranium-235 @ 143 KeV	pCi/g	8.5±2.9	12±3	18±5	11±2
ASTM Analysis:					
Alkalinity	mg/l $CaCO_3$	<2.00	<2.00	<2.00	<2.00
Ammonia	mg/l NH3-N	1.6	2.8	1.9	3.0
Chloride	mg/l	<0.50	<0.50	<0.50	<0.50
Fluoride	mg/l	630	610	610	650
Nitrate	mg/l NO_3-N	<0.10	<0.10	<0.10	<0.10
Sulfate	mg/l	6.9	23	22	20
pH	pH Units	2.70	2.33	2.65	2.51
Specific Conductance @ 25°C	µmhos/cm	2740	5660	2900	3520
Aluminum	mg/l	120	270	160	110
Calcium	mg/l	110	300	110	53
Iron	mg/l	280	190	640	210
Potassium	mg/l	170	130	150	110
Magnesium	mg/l	33	38	18	50
Manganese	mg/l	66	47	150	27
Sodium	mg/l	32	58	31	48

Table 5
(Continued)

Parameter	Units	Sample Identification and Date				
		P2-1A (0-4) 2/19/93	P2-1B (4-8) 2/19/93	P2-1C (8-12.5) 2/19/93	P2-2A (0-3) 2/19/93	P2-2B (3-6) 2/19/93
Semivolatile Organic Analyses:						
Acenaphthene	µg/kg	<1300	<1300	<1300	<1300	<1300
Acenaphthylene	µg/kg	<1300	<1300	<1300	<1300	<1300
Anthracene	µg/kg	<1300	<1300	<1300	<1300	<1300
Bis(2-chloroethyl)ether	µg/kg	<1300	<1300	<1300	<1300	<1300
Bis(2-chloroethoxy)methane	µg/kg	<1300	<1300	<1300	<1300	<1300
Bis(2-chloroisopropyl)ether	µg/kg	<1300	<1300	<1300	<1300	<1300
Bis(2-ethylhexyl)phthalate	µg/kg	<1300	<1300	<1300	<1300	<1300
Benzo(a)pyrene	µg/kg	<1300	<1300	<1300	<1300	<1300
Benzo(a)anthracene	µg/kg	<1300	<1300	<1300	<1300	<1300
Benzo(b)fluoranthene	µg/kg	<1300	<1300	<1300	<1300	<1300
Benzo(g,h,i)perylene	µg/kg	<1300	<1300	<1300	<1300	<1300
Benzo(k)fluoranthene	µg/kg	<1300	<1300	<1300	<1300	<1300
4-Bromophenyl Phenyl Ether	µg/kg	<1300	<1300	<1300	<1300	<1300
Butylbenzyl Phthalate	µg/kg	<1300	<1300	<1300	<1300	<1300
Carbazole	µg/kg	<1300	<1300	<1300	<1300	<1300
Chrysene	µg/kg	<1300	<1300	<1300	<1300	<1300
4-Chloroaniline	µg/kg	<1300	<1300	<1300	<1300	<1300
2-Chloronaphthalene	µg/kg	<1300	<1300	<1300	<1300	<1300
2-Chlorophenol	µg/kg	<1300	<1300	<1300	<1300	<1300
4-Chlorophenyl Phenyl Ether	µg/kg	<1300	<1300	<1300	<1300	<1300
o-Cresol	µg/kg	<1300	<1300	<1300	<1300	<1300
p-Cresol	µg/kg	<1300	<1300	<1300	<1300	<1300
Dibenzo(a,h)anthracene	µg/kg	<1300	<1300	<1300	<1300	<1300
Dibenzofuran	µg/kg	<1300	<1300	<1300	<1300	<1300
2,4-Dichlorophenol	µg/kg	<1300	<1300	<1300	<1300	<1300
1,2-Dichlorobenzene	µg/kg	<1300	<1300	<1300	<1300	<1300
1,3-Dichlorobenzene	µg/kg	<1300	<1300	<1300	<1300	<1300
1,4-Dichlorobenzene	µg/kg	<1300	<1300	<1300	<1300	<1300
3,3-Dichlorobenzidine	µg/kg	<1300	<1300	<1300	<1300	<1300
Diethyl Phthalate	µg/kg	<1300	<1300	<1300	<1300	<1300
Dimethyl Phthalate	µg/kg	<1300	<1300	<1300	<1300	<1300
2,4-Dimethylphenol	µg/kg	<1300	<1300	<1300	<1300	<1300
Di-N-butyl Phthalate	µg/kg	<1300	<1300	1400	<1300	1400
4,6-Dinitro-o-cresol	µg/kg	<6600	<6600	<6600	<6600	<6400
2,4-Dinitrotoluene	µg/kg	<1300	<1300	<1300	<1300	<1300
2,6-Dinitrotoluene	µg/kg	<1300	<1300	<1300	<1300	<1300
Di-N-octyl Phthalate	µg/kg	<1300	<1300	<1300	<1300	<1300
2,4-Dinitrophenol	µg/kg	<6600	<6600	<6600	<6600	<6400
Fluoranthene	µg/kg	<1300	<1300	<1300	<1300	<1300
Fluorene	µg/kg	<1300	<1300	<1300	<1300	<1300
Hexachlorocyclopentadiene	µg/kg	<1300	<1300	<1300	<1300	<1300
Hexachlorobenzene	µg/kg	<1300	<1300	<1300	<1300	<1300
Hexachlorobutadiene	µg/kg	<1300	<1300	<1300	<1300	<1300
Hexachloroethane	µg/kg	<1300	<1300	<1300	<1300	<1300
Indeno(1,2,3-c,d)pyrene	µg/kg	<1300	<1300	<1300	<1300	<1300
Isophorone	µg/kg	<1300	<1300	<1300	<1300	<1300
2-Methylnaphthalene	µg/kg	<1300	<1300	<1300	<1300	<1300
N-Nitrosodiphenylamine	µg/kg	<1300	<1300	<1300	<1300	<1300
N-Nitroso-di-n-propylamine	µg/kg	<1300	<1300	<1300	<1300	<1300
Naphthalene	µg/kg	<1300	<1300	<1300	<1300	<1300
2-Nitroaniline	µg/kg	<6600	<6600	<6600	<6600	<6400
3-Nitroaniline	µg/kg	<6600	<6600	<6600	<6600	<6400
4-Nitroaniline	µg/kg	<6600	<6600	<6600	<6600	<6400
Nitrobenzene	µg/kg	<1300	<1300	<1300	<1300	<1300
2-Nitrophenol	µg/kg	<1300	<1300	<1300	<1300	<1300
4-Nitrophenol	µg/kg	<6600	<6600	<6600	<6600	<6400
p-chloro-m-cresol	µg/kg	<1300	<1300	<1300	<1300	<1300
Pentachlorophenol	µg/kg	<6600	<6600	<6600	<6600	<6400
Phenanthrene	µg/kg	<1300	<1300	<1300	<1300	<1300
Phenol	µg/kg	<1300	<1300	<1300	<1300	<1300
Pyrene	µg/kg	<1300	<1300	<1300	<1300	<1300
2,4,5-Trichlorophenol	µg/kg	<6600	<6600	<6600	<6600	<6400
2,4,6-Trichlorophenol	µg/kg	<1300	<1300	<1300	<1300	<1300
1,2,4-Trichlorobenzene	µg/kg	<1300	<1300	<1300	<1300	<1300

Table 5
(Continued)

Parameter	Units	Sample Identification and Date			
		P2-2C (6-9) 2/19/93	P2-3A (0-4) 2/19/93	P2-3B (4-8) 2/19/93	P2-3C (8-12) 2/19/93
TCLP Metals:					
Silver	mg/l	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	<0.10	<0.10	<0.10	<0.10
Barium	mg/l	<10	<10	<10	<10
Cadmium	mg/l	<0.10	<0.10	<0.10	<0.10
Chromium	mg/l	4.9	20	5.0	3.8
Mercury	mg/l	<0.010	<0.010	<0.010	<0.010
Nickel	mg/l	<1.0	<1.0	<1.0	<1.0
Lead	mg/l	<0.10	0.17	<0.10	<0.10
Selenium	mg/l	<0.10	<0.10	<0.10	<0.10
TCLP Extraction Fluid Data:					
Extraction Fluid		No. 1	No. 1	No. 1	No. 1
pH with Deionized Water	pH units	2.57	2.33	2.65	2.43
pH of TCLP Extract	pH units	4.40	3.74	4.23	4.33
Amount of Sample Extracted	g	40.0	40.0	40.0	40.0
Volatile Organic Analyses:					
Acetone	µg/kg	<25000	<23000	<28000	<25000
Benzene	µg/kg	<25000	<23000	<28000	<25000
Bromodichloromethane	µg/kg	<25000	<23000	<28000	<25000
Bromoform	µg/kg	<25000	<23000	<28000	<25000
Bromomethane	µg/kg	<25000	<23000	<28000	<25000
2-Butanone	µg/kg	<25000	<23000	<28000	<25000
Carbon Disulfide	µg/kg	<25000	<23000	<28000	<25000
Carbon Tetrachloride	µg/kg	<25000	<23000	<28000	<25000
Chlorobenzene	µg/kg	<25000	<23000	<28000	<25000
Dibromochloromethane	µg/kg	<25000	<23000	<28000	<25000
Chloroethane	µg/kg	<25000	<23000	<28000	<25000
Chloromethane	µg/kg	<25000	<23000	<28000	<25000
Chloroform	µg/kg	<25000	<23000	<28000	<25000
1,1-Dichloroethane	µg/kg	<25000	<23000	<28000	<25000
1,2-Dichloroethane	µg/kg	<25000	<23000	<28000	<25000
1,1-Dichloroethene	µg/kg	<25000	<23000	<28000	<25000
1,2-Dichloroethene	µg/kg	<25000	<23000	<28000	<25000
1,2-Dichloropropane	µg/kg	<25000	<23000	<28000	<25000
Cis-1,3-Dichloropropene	µg/kg	<25000	<23000	<28000	<25000
Trans-1,3-Dichloropropene	µg/kg	<25000	<23000	<28000	<25000
Ethylbenzene	µg/kg	<25000	<23000	<28000	<25000
2-Hexanone	µg/kg	<25000	<23000	<28000	<25000
Methylene Chloride	µg/kg	<25000	<23000	<28000	<25000
4-Methyl-2-pentanone	µg/kg	68000	61000	490000	730000
Styrene	µg/kg	<25000	<23000	<28000	<25000
1,1,2,2-Tetrachloroethane	µg/kg	<25000	<23000	<28000	<25000
Tetrachloroethene	µg/kg	<25000	<23000	<28000	<25000
Toluene	µg/kg	<25000	<23000	<28000	<25000
1,1,1-Trichloroethane	µg/kg	<25000	<23000	<28000	<25000
1,1,2-Trichloroethane	µg/kg	<25000	<23000	<28000	<25000
Trichloroethene	µg/kg	<25000	<23000	<28000	<25000
Vinyl Chloride	µg/kg	<25000	<23000	<28000	<25000
Xylenes, Total	µg/kg	<25000	<23000	<28000	<25000

Table 5
(Continued)

Parameter	Units	Sample Identification and Date			
		P2-2C (6-9) 2/19/93	P2-3A (0-4) 2/19/93	P2-3B (4-8) 2/19/93	P2-3C (8-12) 2/19/93
Semivolatile Organic Analyses:					
Acenaphthene	µg/kg	<1300	<1200	<3400	<1400
Acenaphthylene	µg/kg	<1300	<1200	<3400	<1400
Anthracene	µg/kg	<1300	<1200	<3400	<1400
Bis(2-chloroethyl)ether	µg/kg	<1300	<1200	<3400	<1400
Bis(2-chloroethoxy)methane	µg/kg	<1300	<1200	<3400	<1400
Bis(2-chloroisopropyl)ether	µg/kg	<1300	<1200	<3400	<1400
Bis(2-ethylhexyl)phthalate	µg/kg	<1300	<1200	<3400	<1400
Benzo(a)pyrene	µg/kg	<1300	<1200	<3400	<1400
Benzo(a)anthracene	µg/kg	<1300	<1200	<3400	<1400
Benzo(b)fluoranthene	µg/kg	<1300	<1200	<3400	<1400
Benzo(g,h,i)perylene	µg/kg	<1300	<1200	<3400	<1400
Benzo(k)fluoranthene	µg/kg	<1300	<1200	<3400	<1400
4-Bromophenyl Phenyl Ether	µg/kg	<1300	<1200	<3400	<1400
Butylbenzyl Phthalate	µg/kg	<1300	<1200	<3400	<1400
Carbazole	µg/kg	<1300	<1200	<3400	<1400
Chrysene	µg/kg	<1300	<1200	<3400	<1400
4-Chloroaniline	µg/kg	<1300	<1200	<3400	<1400
2-Chloronaphthalene	µg/kg	<1300	<1200	<3400	<1400
2-Chlorophenol	µg/kg	<1300	<1200	<3400	<1400
4-Chlorophenyl Phenyl Ether	µg/kg	<1300	<1200	<3400	<1400
o-Cresol	µg/kg	<1300	<1200	<3400	<1400
p-Cresol	µg/kg	<1300	<1200	<3400	<1400
Dibenzo(a,h)anthracene	µg/kg	<1300	<1200	<3400	<1400
Dibenzofuran	µg/kg	<1300	<1200	<3400	<1400
2,4-Dichlorophenol	µg/kg	<1300	<1200	<3400	<1400
1,2-Dichlorobenzene	µg/kg	<1300	<1200	<3400	<1400
1,3-Dichlorobenzene	µg/kg	<1300	<1200	<3400	<1400
1,4-Dichlorobenzene	µg/kg	<1300	<1200	<3400	<1400
3,3-Dichlorobenzidine	µg/kg	<1300	<1200	<3400	<1400
Diethyl Phthalate	µg/kg	<1300	<1200	<3400	<1400
Dimethyl Phthalate	µg/kg	<1300	<1200	<3400	<1400
2,4-Dimethylphenol	µg/kg	<1300	<1200	<3400	<1400
Di-N-butyl Phthalate	µg/kg	<1300	<1200	<3400	<1400
4,6-Dinitro-o-cresol	µg/kg	<6300	<5900	<17000	<6600
2,4-Dinitrotoluene	µg/kg	<1300	<1200	<3400	<1400
2,6-Dinitrotoluene	µg/kg	<1300	<1200	<3400	<1400
Di-N-octyl Phthalate	µg/kg	<1300	<1200	<3400	<1400
2,4-Dinitrophenol	µg/kg	<6300	<5900	<17000	<6600
Fluoranthene	µg/kg	<1300	<1200	<3400	<1400
Fluorene	µg/kg	<1300	<1200	<3400	<1400
Hexachlorocyclopentadiene	µg/kg	<1300	<1200	<3400	<1400
Hexachlorobenzene	µg/kg	<1300	<1200	<3400	<1400
Hexachlorobutadiene	µg/kg	<1300	<1200	<3400	<1400
Hexachloroethane	µg/kg	<1300	<1200	<3400	<1400
Indeno(1,2,3-c,d)pyrene	µg/kg	<1300	<1200	<3400	<1400
Isophorone	µg/kg	<1300	<1200	<3400	<1400
2-Methylnaphthalene	µg/kg	<1300	<1200	<3400	<1400
N-Nitrosodiphenylamine	µg/kg	<1300	<1200	<3400	<1400
N-Nitroso-di-n-propylamine	µg/kg	<1300	<1200	<3400	<1400
Naphthalene	µg/kg	<1300	<1200	<3400	<1400
2-Nitroaniline	µg/kg	<6300	<5900	<17000	<6600
3-Nitroaniline	µg/kg	<6300	<5900	<17000	<6600
4-Nitroaniline	µg/kg	<6300	<5900	<17000	<6600
Nitrobenzene	µg/kg	<1300	<1200	<3400	<1400
2-Nitrophenol	µg/kg	<1300	<1200	<3400	<1400
4-Nitrophenol	µg/kg	<6300	<5900	<17000	<6600
p-chloro-m-cresol	µg/kg	<1300	<1200	<3400	<1400
Pentachlorophenol	µg/kg	<6300	<5900	<17000	<6600
Phenanthrene	µg/kg	<1300	<1200	<3400	<1400
Phenol	µg/kg	<1300	<1200	<3400	<1400
Pyrene	µg/kg	<1300	<1200	<3400	<1400
2,4,5-Trichlorophenol	µg/kg	<6300	<5900	<17000	<6600
2,4,6-Trichlorophenol	µg/kg	<1300	<1200	<3400	<1400
1,2,4-Trichlorobenzene	µg/kg	<1300	<1200	<3400	<1400

Table 3
Summary of Waste Chemistry Data
Pond 3 Residues
Fansteel, Inc.
Muskogee, Oklahoma

Parameter	Units	Sample Identification and Date				
		P3-1A (0-5) 2/19/93	P3-1B (5-10) 2/19/93	P3-1C (10-16) 2/19/93	P3-2A (0-5) 2/19/93	P3-2B (5-10) 2/19/93
Total Analyses:						
Cyanide	mg/kg	15	5.9	15	5.3	1.9
Silver	mg/kg	24.7	26.5	37.0	12.4	29.7
Arsenic	mg/kg	93.6	85.7	33.0	30.7	109
Barium	mg/kg	939	987	1310	452	1200
Beryllium	mg/kg	19.4	32.0	30.8	3.50	17.4
Cadmium	mg/kg	<3.70	<4.70	<5.00	<2.90	<3.50
Chromium	mg/kg	476	1110	889	154	807
Mercury	mg/kg	1.45	0.248	0.665	1.70	3.51
Molybdenum	mg/kg	40	49	40	<15	48
Nickel	mg/kg	25.9	42.0	36.0	<15.0	37.2
Lead	mg/kg	83.8	79.7	98.4	58.2	115
Antimony	mg/kg	103	143	105	<29.0	127
Selenium	mg/kg	<0.400	<0.500	<0.560	<0.340	<0.380
Tin	mg/kg	770	2800	2600	210	830
Columbium	mg/kg	1100	2100	1400	2300	1300
Tantalum	mg/kg	1000	1300	950	2200	1200
Gross Alpha	pCi/g	5800±100	5200±100	7600±100	3400±100	5500±100
Gross Beta	pCi/g	2700±100	2900±100	3800±100	1800±100	2500±100
Isotopes:						
Uranium-233 & 234	pCi/g	570±20	860±30	950±30	290±20	650±50
Uranium 235	pCi/g	20±4	46±8	43±7	14±5	33±12
Uranium-238	pCi/g	580±20	910±30	1000±100	290±20	710±60
Thorium-230	pCi/g	770±30	780±30	800±40	790±30	1100±100
Lead-210 @ 46 KeV	pCi/g	63±13	39±17	61±14	71±10	64±10
Thorium-234 @ 63.3 KeV	pCi/g	230±10	210±30	340±30	180±10	240±40
Protactinium-234m @ 1001 KeV	pCi/g	680±130	790±130	980±170	430±130	660±140
Radium 226	pCi/g	730±20	670±20	860±20	490±20	610±20
Lead-214 @ 295.2 KeV	pCi/g	450±10	460±10	500±10	360±10	430±10
Lead-214 @ 352.0 KeV	pCi/g	480±10	470±10	510±10	380±10	440±10
Bismuth-214 @ 609.4 KeV	pCi/g	460±10	450±10	500±10	360±10	430±10
Bismuth-214 @ 1120.4 KeV	pCi/g	460±10	440±10	480±10	360±10	430±10
Bismuth-214 @ 1764.7 KeV	pCi/g	440±10	430±10	460±20	340±10	400±10
Actinium-228 @ 338 KeV	pCi/g	430±10	410±10	550±10	340±10	390±10
Actinium-228 @ 911 KeV	pCi/g	470±10	450±10	600±10	360±10	420±10
Actinium-228 @ 968 KeV	pCi/g	470±10	460±10	610±20	370±10	420±10
Lead-212 @ 238 KeV	pCi/g	410±20	410±10	540±30	320±20	400±10
Bismuth-212 @ 727 KeV	pCi/g	490±30	490±20	650±20	390±20	480±20
Thallium-208 @ 583 KeV	pCi/g	450±10	400±10	580±10	350±10	400±10
Uranium-235 @ 143 KeV	pCi/g	21±3	17±3	28±3	11±3	14±3
ASTM Analysis:						
Alkalinity	mg/l $CaCO_3$	<2.00	<2.00	<2.00	<2.00	<2.00
Ammonia	mg/l NH_3-N	3.8	4.0	5.1	6.1	7.5
Chloride	mg/l	<0.50	<0.50	2.2	2.3	5.9
Fluoride	mg/l	330	640	610	280	290
Nitrate	mg/l NO_3-N	2.6	0.55	<0.10	1.0	0.45
Sulfate	mg/l	2.9	5.2	9.8	2.6	540
pH	pH Units	2.99	2.34	2.47	3.06	2.65
Specific Conductance @ 25°C	µmhos/cm	1330	4620	3860	1520	2250
Aluminum	mg/l	49	59	95	51	99
Calcium	mg/l	38	200	170	20	43
Iron	mg/l	74	280	300	56	94
Potassium	mg/l	82	63	59	170	91
Magnesium	mg/l	21	43	27	15	33
Manganese	mg/l	24	86	83	16	27
Sodium	mg/l	19	37	28	22	25

Table 3
(Continued)

Parameter	Units	Sample Identification and Date				
		P3-1A (0-5) 2/19/93	P3-1B (5-10) 2/19/93	P3-1C (10-16) 2/19/93	P3-2A (0-5) 2/19/93	P3-2B (5-10) 2/19/93
TCLP Metals:						
Silver	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	<0.10	0.21	0.18	0.1	0.10
Barium	mg/l	<10	<10	<10	<10	<10
Cadmium	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Chromium	mg/l	5.7	20	15	3.6	7.5
Mercury	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
Lead	mg/l	<0.10	0.34	0.26	0.10	0.24
Selenium	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
TCLP Extraction Fluid Data:						
Extraction Fluid		No. 1	No. 1	No. 1	No. 1	No. 1
pH with Deionized Water	pH units	2.74	2.20	2.27	2.97	2.45
pH of TCLP Extract	pH units	4.59	4.26	4.29	4.60	4.52
Amount of Sample Extracted	g	50.0	50.0	50.0	50.0	50.0
Volatile Organic Analyses:						
Acetone	µg/kg	<26000	<33000	<3700	<2200	81000
Benzene	µg/kg	<26000	<33000	<3700	<2200	<25000
Bromodichloromethane	µg/kg	<26000	<33000	<3700	<2200	<25000
Bromoform	µg/kg	<26000	<33000	<3700	<2200	<25000
Bromomethane	µg/kg	<26000	<33000	<3700	<2200	<25000
2-Butanone	µg/kg	<26000	<33000	<3700	<2200	<25000
Carbon Disulfide	µg/kg	<26000	<33000	<3700	<2200	<25000
Carbon Tetrachloride	µg/kg	<26000	<33000	<3700	<2200	<25000
Chlorobenzene	µg/kg	<26000	<33000	<3700	<2200	<25000
Dibromochloromethane	µg/kg	<26000	<33000	<3700	<2200	<25000
Chloroethane	µg/kg	<26000	<33000	<3700	<2200	<25000
Chloromethane	µg/kg	<26000	<33000	<3700	<2200	<25000
Chloroform	µg/kg	<26000	<33000	<3700	<2200	<25000
1,1-Dichloroethane	µg/kg	<26000	<33000	<3700	<2200	<25000
1,2-Dichloroethane	µg/kg	<26000	<33000	<3700	<2200	<25000
1,1-Dichloroethene	µg/kg	<26000	<33000	<3700	<2200	<25000
1,2-Dichloroethene	µg/kg	<26000	<33000	<3700	<2200	<25000
1,2-Dichloropropane	µg/kg	<26000	<33000	<3700	<2200	<25000
Cis-1,3-Dichloropropene	µg/kg	<26000	<33000	<3700	<2200	<25000
Trans-1,3-Dichloropropene	µg/kg	<26000	<33000	<3700	<2200	<25000
Ethylbenzene	µg/kg	<26000	<33000	<3700	<2200	<25000
2-Hexanone	µg/kg	<26000	<33000	<3700	<2200	<25000
Methylene Chloride	µg/kg	<26000	<33000	<3700	<2200	<25000
4-Methyl-2-pentanone	µg/kg	150000	780000	130000	34000	330000
Styrene	µg/kg	<26000	<33000	<3700	<2200	<25000
1,1,2,2-Tetrachloroethane	µg/kg	<26000	<33000	<3700	<2200	<25000
Tetrachloroethene	µg/kg	<26000	<33000	<3700	<2200	<25000
Toluene	µg/kg	<26000	<33000	<3700	<2200	<25000
1,1,1-Trichloroethane	µg/kg	<26000	<33000	<3700	<2200	<25000
1,1,2-Trichloroethane	µg/kg	<26000	<33000	<3700	<2200	<25000
Trichloroethene	µg/kg	<26000	<33000	<3700	<2200	<25000
Vinyl Chloride	µg/kg	<26000	<33000	<3700	<2200	<25000
Xylenes, Total	µg/kg	<26000	<33000	<3700	<2200	<25000

Table 3
(Continued)

Parameter	Units	Sample Identification and Date				
		P3-1A (0-5) 2/19/93	P3-1B (5-10) 2/19/93	P3-1C (10-16) 2/19/93	P3-2A (0-5) 2/19/93	P3-2B (5-10) 2/19/93
Semivolatile Organic Analyses:						
Acenaphthene	µg/kg	<1300	<1300	<2000	<3200	<3400
Acenaphthylene	µg/kg	<1300	<1300	<2000	<3200	<3400
Anthracene	µg/kg	<1300	<1300	<2000	<3200	<3400
Bis(2-chloroethyl)ether	µg/kg	<1300	<1300	<2000	<3200	<3400
Bis(2-chloroethoxy)methane	µg/kg	<1300	<1300	<2000	<3200	<3400
Bis(2-chloroisopropyl)ether	µg/kg	<1300	<1300	<2000	<3200	<3400
Bis(2-ethylhexyl)phthalate	µg/kg	<1300	<1300	<2000	<3200	<3400
Benzo(a)pyrene	µg/kg	<1300	<1300	<2000	<3200	<3400
Benzo(a)anthracene	µg/kg	<1300	<1300	<2000	<3200	<3400
Benzo(b)fluoranthene	µg/kg	<1300	<1300	<2000	<3200	<3400
Benzo(g,h,i)perylene	µg/kg	<1300	<1300	<2000	<3200	<3400
Benzo(k)fluoranthene	µg/kg	<1300	<1300	<2000	<3200	<3400
4-Bromophenyl Phenyl Ether	µg/kg	<1300	<1300	<2000	<3200	<3400
Butylbenzyl Phthalate	µg/kg	<1300	<1300	<2000	<3200	<3400
Carbazole	µg/kg	<1300	<1300	<2000	<3200	<3400
Chrysene	µg/kg	<1300	<1300	<2000	<3200	<3400
4-Chloroaniline	µg/kg	<1300	<1300	<2000	<3200	<3400
2-Chloronaphthalene	µg/kg	<1300	<1300	<2000	<3200	<3400
2-Chlorophenol	µg/kg	<1300	<1300	<2000	<3200	<3400
4-Chlorophenyl Phenyl Ether	µg/kg	<1300	<1300	<2000	<3200	<3400
o-Cresol	µg/kg	<1300	<1300	<2000	<3200	<3400
p-Cresol	µg/kg	<1300	<1300	<2000	<3200	<3400
Dibenzo(a,h)anthracene	µg/kg	<1300	<1300	<2000	<3200	<3400
Dibenzofuran	µg/kg	<1300	<1300	<2000	<3200	<3400
2,4-Dichlorophenol	µg/kg	<1300	<1300	<2000	<3200	<3400
1,2-Dichlorobenzene	µg/kg	<1300	<1300	<2000	<3200	<3400
1,3-Dichlorobenzene	µg/kg	<1300	<1300	<2000	<3200	<3400
1,4-Dichlorobenzene	µg/kg	<1300	<1300	<2000	<3200	<3400
3,3-Dichlorobenzidine	µg/kg	<1300	<1300	<2000	<3200	<3400
Diethyl Phthalate	µg/kg	<1300	<1300	<2000	<3200	<3400
Dimethyl Phthalate	µg/kg	<1300	<1300	<2000	<3200	<3400
2,4-Dimethylphenol	µg/kg	<1300	<1300	<2000	<3200	<3400
Di-N-butyl Phthalate	µg/kg	1600	<1300	2700	<3200	<3400
4,6-Dinitro-o-cresol	µg/kg	<6600	<6600	<9900	<16000	<16000
2,4-Dinitrotoluene	µg/kg	<1300	<1300	<2000	<3200	<3400
2,6-Dinitrotoluene	µg/kg	<1300	<1300	<2000	<3200	<3400
Di-N-octyl Phthalate	µg/kg	<1300	<1300	<2000	<3200	<3400
2,4-Dinitrophenol	µg/kg	<6600	<6600	<9900	<16000	<16000
Fluoranthene	µg/kg	<1300	<1300	<2000	<3200	<3400
Fluorene	µg/kg	<1300	<1300	<2000	<3200	<3400
Hexachlorocyclopentadiene	µg/kg	<1300	<1300	<2000	<3200	<3400
Hexachlorobenzene	µg/kg	<1300	<1300	<2000	<3200	<3400
Hexachlorobutadiene	µg/kg	<1300	<1300	<2000	<3200	<3400
Hexachloroethane	µg/kg	<1300	<1300	<2000	<3200	<3400
Indeno(1,2,3-c,d)pyrene	µg/kg	<1300	<1300	<2000	<3200	<3400
Isophorone	µg/kg	<1300	<1300	<2000	<3200	<3400
2-Methylnaphthalene	µg/kg	<1300	<1300	<2000	<3200	<3400
N-Nitrosodiphenylamine	µg/kg	<1300	<1300	<2000	<3200	<3400
N-Nitroso-di-n-propylamine	µg/kg	<1300	<1300	<2000	<3200	<3400
Naphthalene	µg/kg	<1300	<1300	<2000	<3200	<3400
2-Nitroaniline	µg/kg	<6600	<6600	<9900	<16000	<16000
3-Nitroaniline	µg/kg	<6600	<6600	<9900	<16000	<16000
4-Nitroaniline	µg/kg	<6600	<6600	<9900	<16000	<16000
Nitrobenzene	µg/kg	<1300	<1300	<2000	<3200	<3400
2-Nitrophenol	µg/kg	<1300	<1300	<2000	<3200	<3400
4-Nitrophenol	µg/kg	<6600	<6600	<9900	<16000	<16000
p-chloro-m-cresol	µg/kg	<1300	<1300	<2000	<3200	<3400
Pentachlorophenol	µg/kg	<6600	<6600	<9900	<16000	<16000
Phenanthrene	µg/kg	<1300	<1300	<2000	<3200	<3400
Phenol	µg/kg	<1300	<1300	<2000	<3200	<3400
Pyrene	µg/kg	<1300	<1300	<2000	<3200	<3400
2,4,5-Trichlorophenol	µg/kg	<6600	<6600	<9900	<16000	<16000
2,4,6-Trichlorophenol	µg/kg	<1300	<1300	<2000	<3200	<3400
1,2,4-Trichlorobenzene	µg/kg	<1300	<1300	<2000	<3200	<3400

Table 6
(Continued)

Parameter	Units	Sample Identification and Date				
		P3-2C (10-15) 2/19/93	P3-3A (0-5) 2/19/93	P3-3B (5-10) 2/19/93	P3-3C (10-13) 2/19/93	P3-4A (0-3) 2/19/93
Total Analyses:						
Cyanide	mg/kg	<2.4	3.1	42	<2.5	5.4
Silver	mg/kg	30.4	34.4	19.4	19.3	22.2
Arsenic	mg/kg	107	<45.0	<40.0	47.9	<42.0
Barium	mg/kg	884	757	565	690	763
Beryllium	mg/kg	39.8	19.1	22.2	24.0	24.5
Cadmium	mg/kg	<4.50	5.90	<4.00	<4.60	<4.20
Chromium	mg/kg	1970	580	813	867	704
Mercury	mg/kg	0.286	0.598	<0.110	0.135	0.142
Molybdenum	mg/kg	45	31	36	35	45
Nickel	mg/kg	56.4	<22.0	31.3	50.7	26.3
Lead	mg/kg	98.6	<45.0	45.4	48.3	57.1
Antimony	mg/kg	197	61.4	74.2	93.2	171
Selenium	mg/kg	<0.480	<0.470	<0.450	<0.500	<0.470
Tin	mg/kg	1400	830	1600	2400	2900
Columbium	mg/kg	2600	720	1300	1900	1900
Tantalum	mg/kg	1100	610	590	1300	1000
Gross Alpha	pCi/g	6300±100	5400±100	3300±100	5500±100	5900±100
Gross Beta	pCi/g	3100±100	2900±100	1700±100	2700±100	2700±100
Isotopes:						
Uranium-233 & 234	pCi/g	800±30	510±20	420±20	340±20	420±40
Uranium 235	pCi/g	45±7	30±5	42±6	14±3	22±10
Uranium-238	pCi/g	870±30	560±20	460±20	340±20	430±40
Thorium-230	pCi/g	1200±100	950±40	690±30	920±40	700±30
Lead-210 @ 46 KeV	pCi/g	50±14	23±17	44±12	71±14	88±18
Thorium-234 @ 63.3 KeV	pCi/g	310±20	290±20	250±30	220±40	280±20
Protactinium-234m @ 1001 KeV	pCi/g	1000±200	830±130	670±110	480±90	650±100
Radium 226	pCi/g	840±20	720±20	550±20	590±20	660±20
Lead-214 @ 295.2 KeV	pCi/g	490±10	530±10	300±10	450±10	420±10
Lead-214 @ 352.0 KeV	pCi/g	510±10	540±10	320±10	460±10	440±10
Bismuth-214 @ 609.4 KeV	pCi/g	490±10	520±10	300±10	450±10	420±10
Bismuth-214 @ 1120.4 KeV	pCi/g	490±10	510±10	290±10	450±10	430±10
Bismuth-214 @ 1764.7 KeV	pCi/g	460±10	490±10	280±10	410±10	410±10
Actinium-228 @ 338 KeV	pCi/g	400±20	470±20	260±10	420±20	360±10
Actinium-228 @ 911 KeV	pCi/g	450±10	520±10	290±10	470±10	400±10
Actinium-228 @ 968 KeV	pCi/g	460±10	540±10	300±10	480±10	400±10
Lead-212 @ 238 KeV	pCi/g	400±20	490±10	250±20	440±10	350±20
Bismuth-212 @ 727 KeV	pCi/g	460±20	570±30	320±10	530±30	420±20
Thallium-208 @ 583 KeV	pCi/g	440±10	480±10	270±10	440±10	380±10
Uranium-235 @ 143 KeV	pCi/g	25±3	20±3	15±3	13±3	17±3
ASTM Analysis:						
Alkalinity	mg/l $CaCO_3$	<2.00	<2.00	<2.00	<2.00	<2.00
Ammonia	mg/l NH3-N	3.9	6.7	6.9	7.4	4.7
Chloride	mg/l	<0.50	4.1	<0.50	<0.50	3.5
Fluoride	mg/l	660	540	670	640	650
Nitrate	mg/l NO_3-N	<0.10	0.87	<0.10	0.34	<0.10
Sulfate	mg/l	540	2.7	3.0	5.2	2.7
pH	pH Units	2.10	2.67	2.63	2.66	2.42
Specific Conductance @ 25°C	µmhos/cm	5900	2400	6220	3910	4000
Aluminum	mg/l	73	53	25	53	40
Calcium	mg/l	96	71	270	250	230
Iron	mg/l	260	150	280	380	200
Potassium	mg/l	86	43	38	47	45
Magnesium	mg/l	29	30	48	47	55
Manganese	mg/l	27	46	71	85	50
Sodium	mg/l	36	17	32	29	28

Table 6
(Continued)

Parameter	Units	Sample Identification and Date				
		P3-2C (10-15) 2/19/93	P3-3A (0-5) 2/19/93	P3-3B (5-10) 2/19/93	P3-3C (10-13) 2/19/93	P3-4A (0-3) 2/19/93
TCLP Metals:						
Silver	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	0.56	<0.10	<0.10	<0.10	0.15
Barium	mg/l	<10	<10	<10	<10	<10
Cadmium	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Chromium	mg/l	36	10	13	13	13
Mercury	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
Lead	mg/l	0.36	0.20	<0.10	<0.10	0.17
Selenium	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
TCLP Extraction Fluid Data:						
Extraction Fluid		No. 1	No. 1	No. 1	No. 1	No. 1
pH with Deionized Water	pH units	1.96	2.46	2.35	2.51	2.32
pH of TCLP Extract	pH units	4.33	4.53	4.28	4.25	4.26
Amount of Sample Extracted	g	50.0	50.0	50.0	50.0	50.0
Volatile Organic Analyses:						
Acetone	µg/kg	<31000	<31000	<30000	<33000	<30000
Benzene	µg/kg	<31000	<31000	<30000	<33000	<30000
Bromodichloromethane	µg/kg	<31000	<31000	<30000	<33000	<30000
Bromoform	µg/kg	<31000	<31000	<30000	<33000	<30000
Bromomethane	µg/kg	<31000	<31000	<30000	<33000	<30000
2-Butanone	µg/kg	<31000	<31000	<30000	<33000	<30000
Carbon Disulfide	µg/kg	<31000	<31000	<30000	<33000	<30000
Carbon Tetrachloride	µg/kg	<31000	<31000	<30000	<33000	<30000
Chlorobenzene	µg/kg	<31000	<31000	<30000	<33000	<30000
Dibromochloromethane	µg/kg	<31000	<31000	<30000	<33000	<30000
Chloroethane	µg/kg	<31000	<31000	<30000	<33000	<30000
Chloromethane	µg/kg	<31000	<31000	<30000	<33000	<30000
Chloroform	µg/kg	<31000	<31000	<30000	<33000	<30000
1,1-Dichloroethane	µg/kg	<31000	<31000	<30000	<33000	<30000
1,2-Dichloroethane	µg/kg	<31000	<31000	<30000	<33000	<30000
1,1-Dichloroethene	µg/kg	<31000	<31000	<30000	<33000	<30000
1,2-Dichloroethene	µg/kg	<31000	<31000	<30000	<33000	<30000
1,2-Dichloropropane	µg/kg	<31000	<31000	<30000	<33000	<30000
Cis-1,3-Dichloropropene	µg/kg	<31000	<31000	<30000	<33000	<30000
Trans-1,3-Dichloropropene	µg/kg	<31000	<31000	<30000	<33000	<30000
Ethylbenzene	µg/kg	<31000	<31000	<30000	<33000	<30000
2-Hexanone	µg/kg	<31000	<31000	<30000	<33000	<30000
Methylene Chloride	µg/kg	<31000	<31000	<30000	<33000	<30000
4-Methyl-2-pentanone	µg/kg	1300000	330000	850000	830000	660000
Styrene	µg/kg	<31000	<31000	<30000	<33000	<30000
1,1,2,2-Tetrachloroethane	µg/kg	<31000	<31000	<30000	<33000	<30000
Tetrachloroethene	µg/kg	<31000	<31000	<30000	<33000	<30000
Toluene	µg/kg	<31000	<31000	<30000	<33000	<30000
1,1,1-Trichloroethane	µg/kg	<31000	<31000	<30000	<33000	<30000
1,1,2-Trichloroethane	µg/kg	<31000	<31000	<30000	<33000	<30000
Trichloroethene	µg/kg	<31000	<31000	<30000	<33000	<30000
Vinyl Chloride	µg/kg	<31000	<31000	<30000	<33000	<30000
Xylenes, Total	µg/kg	<31000	<31000	<30000	<33000	<30000

Table 3
(Continued)

Parameter	Units	Sample Identification and Date				
		P3-2C (10-15) 2/19/93	P3-3A (0-5) 2/19/93	P3-3B (5-10) 2/19/93	P3-3C (10-13) 2/19/93	P3-4A (0-3) 2/19/93
Semivolatile Organic Analyses:						
Acenaphthene	µg/kg	<1300	<3400	<660	<660	<660
Acenaphthylene	µg/kg	<1300	<3400	<660	<660	<660
Anthracene	µg/kg	<1300	<3400	<660	<660	<660
Bis(2-chloroethyl)ether	µg/kg	<1300	<3400	<660	<660	<660
Bis(2-chloroethoxy)methane	µg/kg	<1300	<3400	<660	<660	<660
Bis(2-chloroisopropyl)ether	µg/kg	<1300	<3400	<660	<660	<660
Bis(2-ethylhexyl)phthalate	µg/kg	<1300	<3400	<660	<660	<660
Benzo(a)pyrene	µg/kg	<1300	<3400	<660	<660	<660
Benzo(a)anthracene	µg/kg	<1300	<3400	<660	<660	<660
Benzo(b)fluoranthene	µg/kg	<1300	<3400	<660	<660	<660
Benzo(g,h,i)perylene	µg/kg	<1300	<3400	<660	<660	<660
Benzo(k)fluoranthene	µg/kg	<1300	<3400	<660	<660	<660
4-Bromophenyl Phenyl Ether	µg/kg	<1300	<3400	<660	<660	<660
Butylbenzyl Phthalate	µg/kg	<1300	<3400	<660	<660	<660
Carbazole	µg/kg	<1300	<3400	<660	<660	<660
Chrysene	µg/kg	<1300	<3400	<660	<660	<660
4-Chloroaniline	µg/kg	<1300	<3400	<660	<660	<660
2-Chloronaphthalene	µg/kg	<1300	<3400	<660	<660	<660
2-Chlorophenol	µg/kg	<1300	<3400	<660	<660	<660
4-Chlorophenyl Phenyl Ether	µg/kg	<1300	<3400	<660	<660	<660
o-Cresol	µg/kg	<1300	<3400	<660	<660	<660
p-Cresol	µg/kg	<1300	<3400	<660	<660	<660
Dibenzo(a,h)anthracene	µg/kg	<1300	<3400	<660	<660	<660
Dibenzofuran	µg/kg	<1300	<3400	<660	<660	<660
2,4-Dichlorophenol	µg/kg	<1300	<3400	<660	<660	<660
1,2-Dichlorobenzene	µg/kg	<1300	<3400	<660	<660	<660
1,3-Dichlorobenzene	µg/kg	<1300	<3400	<660	<660	<660
1,4-Dichlorobenzene	µg/kg	<1300	<3400	<660	<660	<660
3,3-Dichlorobenzidine	µg/kg	<1300	<3400	<660	<660	<660
Diethyl Phthalate	µg/kg	<1300	<3400	<660	<660	<660
Dimethyl Phthalate	µg/kg	<1300	<3400	<660	<660	<660
2,4-Dimethylphenol	µg/kg	<1300	<3400	<660	<660	<660
Di-N-butyl Phthalate	µg/kg	<1300	<3400	<660	<660	700
4,6-Dinitro-o-cresol	µg/kg	<6600	<17000	<3200	<3200	<3400
2,4-Dinitrotoluene	µg/kg	<1300	<3400	<660	<660	<660
2,6-Dinitrotoluene	µg/kg	<1300	<3400	<660	<660	<660
Di-N-octyl Phthalate	µg/kg	<1300	<3400	<660	<660	<660
2,4-Dinitrophenol	µg/kg	<6600	<17000	<3200	<3200	<3400
Fluoranthene	µg/kg	<1300	<3400	<660	<660	<660
Fluorene	µg/kg	<1300	<3400	<660	<660	<660
Hexachlorocyclopentadiene	µg/kg	<1300	<3400	<660	<660	<660
Hexachlorobenzene	µg/kg	<1300	<3400	<660	<660	<660
Hexachlorobutadiene	µg/kg	<1300	<3400	<660	<660	<660
Hexachloroethane	µg/kg	<1300	<3400	<660	<660	<660
Indeno(1,2,3-c,d)pyrene	µg/kg	<1300	<3400	<660	<660	<660
Isophorone	µg/kg	<1300	<3400	<660	<660	<660
2-Methylnaphthalene	µg/kg	<1300	<3400	<660	<660	<660
N-Nitrosodiphenylamine	µg/kg	<1300	<3400	<660	<660	<660
N-Nitroso-di-n-propylamine	µg/kg	<1300	<3400	<660	<660	<660
Naphthalene	µg/kg	<1300	<3400	<660	<660	<660
2-Nitroaniline	µg/kg	<6600	<17000	<3200	<3200	<3400
3-Nitroaniline	µg/kg	<6600	<17000	<3200	<3200	<3400
4-Nitroaniline	µg/kg	<6600	<17000	<3200	<3200	<3400
Nitrobenzene	µg/kg	<1300	<3400	<660	<660	<660
2-Nitrophenol	µg/kg	<1300	<3400	<660	<660	<660
4-Nitrophenol	µg/kg	<6600	<17000	<3200	<3200	<3400
p-chloro-m-cresol	µg/kg	<1300	<3400	<660	<660	<660
Pentachlorophenol	µg/kg	<6600	<17000	<3200	<3200	<3400
Phenanthrene	µg/kg	<1300	<3400	<660	<660	<660
Phenol	µg/kg	<1300	<3400	<660	<660	<660
Pyrene	µg/kg	<1300	<3400	<660	<660	<660
2,4,5-Trichlorophenol	µg/kg	<6600	<17000	<3200	<3200	<3400
2,4,6-Trichlorophenol	µg/kg	<1300	<3400	<660	<660	<660
1,2,4-Trichlorobenzene	µg/kg	<1300	<3400	<660	<660	<660

Table 6
(Continued)

Parameter	Units	Sample Identification and Date				
		P3-4B (3-6) 2/19/93	P3-4C (6-9) 2/19/93	P3-5A (0-3) 2/19/93	P3-5B (3-6) 2/19/93	P3-5C (6-9) 2/19/93
Total Analyses:						
Cyanide	mg/kg	110	36	<2.1	7.6	160
Silver	mg/kg	18.1	32.6	26.0	9.60	14.0
Arsenic	mg/kg	<50.0	<56.0	<38.0	<48.0	57.2
Barium	mg/kg	558	1720	942	288	534
Beryllium	mg/kg	21.2	30.9	18.4	20.8	22.9
Cadmium	mg/kg	<5.00	<5.60	<3.80	<4.80	<4.10
Chromium	mg/kg	430	1370	428	636	692
Mercury	mg/kg	<0.140	0.228	0.687	0.299	0.188
Molybdenum	mg/kg	<25	47	32	42	39
Nickel	mg/kg	<25.0	51.3	<19.0	34.2	40.1
Lead	mg/kg	56.8	137	73.1	67.5	65.8
Antimony	mg/kg	<50.0	105	49.4	241	174
Selenium	mg/kg	<0.540	<0.600	<0.410	<0.480	<0.440
Tin	mg/kg	1000	3900	660	3300	3000
Columbium	mg/kg	1700	1600	730	2300	4400
Tantalum	mg/kg	1100	1100	580	260	740
Gross Alpha	pCi/g	6400±100	6900±100	6500±100	840±40	4400±100
Gross Beta	pCi/g	3700±100	3800±100	3100±100	610±20	2100±100
Isotopes:						
Uranium-233 & 234	pCi/g	820±30	1000±100	820±30	170±20	350±20
Uranium 235	pCi/g	32±6	41±6	39±6	12±5	20±5
Uranium-238	pCi/g	850±30	1100±100	870±30	180±20	370±20
Thorium-230	pCi/g	850±40	810±30	430±20	210±20	490±30
Lead-210 @ 46 KeV	pCi/g	73±15	52±22	77±11	32±9	69±9
Thorium-234 @ 63.3 KeV	pCi/g	240±30	340±20	320±20	110±20	240±30
Protactinium-234m @ 1001 KeV	pCi/g	770±150	780±170	840±140	300±60	560±120
Radium 226	pCi/g	680±20	820±30	740±20	170±10	480±10
Lead-214 @ 295.2 KeV	pCi/g	440±10	470±10	510±10	90±3	320±10
Lead-214 @ 352.0 KeV	pCi/g	450±10	490±10	520±10	95±3	330±10
Bismuth-214 @ 609.4 KeV	pCi/g	440±10	480±10	500±10	90±3	310±10
Bismuth-214 @ 1120.4 KeV	pCi/g	440±10	470±10	500±10	93±4	310±10
Bismuth-214 @ 1764.7 KeV	pCi/g	400±10	420±10	460±10	84±4	290±10
Actinium-228 @ 338 KeV	pCi/g	470±20	620±20	440±10	85±4	310±10
Actinium-228 @ 911 KeV	pCi/g	530±10	680±10	470±10	94±3	350±10
Actinium-228 @ 968 KeV	pCi/g	540±10	690±10	490±10	98±4	350±10
Lead-212 @ 238 KeV	pCi/g	500±20	600±30	440±10	88±3	320±10
Bismuth-212 @ 727 KeV	pCi/g	580±20	720±30	520±20	100±10	380±20
Thallium-208 @ 583 KeV	pCi/g	500±10	640±20	440±10	88±3	320±10
Uranium-235 @ 143 KeV	pCi/g	21±3	21±4	21±3	5.7±1.4	14±3
ASTM Analysis:						
Alkalinity	mg/l $CaCO_3$	<2.00	<2.00	<2.00	3.00	<2.00
Ammonia	mg/l NH_3-N	5.0	2.9	5.4	4.3	5.6
Chloride	mg/l	<0.50	2.6	1.6	48	8.7
Fluoride	mg/l	630	640	650	32	630
Nitrate	mg/l NO_3-N	<0.10	0.45	0.83	0.63	0.67
Sulfate	mg/l	5.4	6.0	2.9	210	3.1
pH	pH Units	2.47	2.37	2.72	5.56	2.94
Specific Conductance @ 25°C	µmhos/cm	4240	4550	2850	714	2910
Aluminum	mg/l	100	100	27	<10	28
Calcium	mg/l	150	170	120	160	160
Iron	mg/l	340	310	200	<10	300
Potassium	mg/l	60	21	48	14	35
Magnesium	mg/l	26	18	51	25	45
Manganese	mg/l	99	140	51	20	67
Sodium	mg/l	29	31	21	16	21

Table 6
(Continued)

Parameter	Units	Sample Identification and Date				
		P3-4B (3-6) 2/19/93	P3-4C (6-9) 2/19/93	P3-5A (0-3) 2/19/93	P3-5B (3-6) 2/19/93	P3-5C (6-9) 2/19/93
TCLP Metals:						
Silver	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	mg/l	<0.10	<0.10	<0.10	0.15	<0.10
Barium	mg/l	<10	<10	<10	<10	<10
Cadmium	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
Chromium	mg/l	15	18	9.2	<0.10	10
Mercury	mg/l	<0.010	<0.010	<0.010	<0.010	<0.010
Nickel	mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
Lead	mg/l	0.17	0.20	<0.10	<0.10	<0.10
Selenium	mg/l	<0.10	<0.10	<0.10	<0.10	<0.10
TCLP Extraction Fluid Data:						
Extraction Fluid		No. 1	No. 1	No. 1	No. 1	No. 1
pH with Deionized Water	pH units	2.29	2.17	2.64	6.26	2.84
pH of TCLP Extract	pH units	4.27	4.27	4.46	5.10	4.39
Amount of Sample Extracted	g	50.0	50.0	50.0	50.0	50.0
Volatile Organic Analyses:						
Acetone	µg/kg	<35000	<39000	<27000	<31000	<28000
Benzene	µg/kg	<35000	<39000	<27000	<31000	<28000
Bromodichloromethane	µg/kg	<35000	<39000	<27000	<31000	<28000
Bromoform	µg/kg	<35000	<39000	<27000	<31000	<28000
Bromomethane	µg/kg	<35000	<39000	<27000	<31000	<28000
2-Butanone	µg/kg	<35000	<39000	<27000	<31000	<28000
Carbon Disulfide	µg/kg	<35000	<39000	<27000	<31000	<28000
Carbon Tetrachloride	µg/kg	<35000	<39000	<27000	<31000	<28000
Chlorobenzene	µg/kg	<35000	<39000	<27000	<31000	<28000
Dibromochloromethane	µg/kg	<35000	<39000	<27000	<31000	<28000
Chloroethane	µg/kg	<35000	<39000	<27000	<31000	<28000
Chloromethane	µg/kg	<35000	<39000	<27000	<31000	<28000
Chloroform	µg/kg	<35000	<39000	<27000	<31000	<28000
1,1-Dichloroethane	µg/kg	<35000	<39000	<27000	<31000	<28000
1,2-Dichloroethane	µg/kg	<35000	<39000	<27000	<31000	<28000
1,1-Dichloroethene	µg/kg	<35000	<39000	<27000	<31000	<28000
1,2-Dichloroethene	µg/kg	<35000	<39000	<27000	<31000	<28000
1,2-Dichloropropane	µg/kg	<35000	<39000	<27000	<31000	<28000
Cis-1,3-Dichloropropene	µg/kg	<35000	<39000	<27000	<31000	<28000
Trans-1,3-Dichloropropene	µg/kg	<35000	<39000	<27000	<31000	<28000
Ethylbenzene	µg/kg	<35000	<39000	<27000	<31000	<28000
2-Hexanone	µg/kg	<35000	<39000	<27000	<31000	<28000
Methylene Chloride	µg/kg	<35000	<39000	<27000	<31000	<28000
4-Methyl-2-pentanone	µg/kg	880000	800000	200000	750000	600000
Styrene	µg/kg	<35000	<39000	<27000	<31000	<28000
1,1,2,2-Tetrachloroethane	µg/kg	<35000	<39000	<27000	<31000	<28000
Tetrachloroethene	µg/kg	<35000	<39000	<27000	<31000	<28000
Toluene	µg/kg	<35000	<39000	<27000	<31000	<28000
1,1,1-Trichloroethane	µg/kg	<35000	<39000	<27000	<31000	<28000
1,1,2-Trichloroethane	µg/kg	<35000	<39000	<27000	<31000	<28000
Trichloroethene	µg/kg	<35000	<39000	<27000	<31000	<28000
Vinyl Chloride	µg/kg	<35000	<39000	<27000	<31000	<28000
Xylenes, Total	µg/kg	<35000	<39000	<27000	<31000	<28000

Table 6
(Continued)

Parameter	Units	Sample Identification and Date				
		P3-4B (3-6) 2/19/93	P3-4C (6-9) 2/19/93	P3-5A (0-3) 2/19/93	P3-5B (3-6) 2/19/93	P3-5C (6-9) 2/19/93
Semivolatile Organic Analyses:						
Acenaphthene	µg/kg	<990	<990	<660	<660	<660
Acenaphthylene	µg/kg	<990	<990	<660	<660	<660
Anthracene	µg/kg	<990	<990	<660	<660	<660
Bis(2-chloroethyl)ether	µg/kg	<990	<990	<660	<660	<660
Bis(2-chloroethoxy)methane	µg/kg	<990	<990	<660	<660	<660
Bis(2-chloroisopropyl)ether	µg/kg	<990	<990	<660	<660	<660
Bis(2-ethylhexyl)phthalate	µg/kg	<990	<990	<660	<660	<660
Benzo(a)pyrene	µg/kg	<990	<990	<660	<660	<660
Benzo(a)anthracene	µg/kg	<990	<990	<660	<660	<660
Benzo(b)fluoranthene	µg/kg	<990	<990	<660	<660	<660
Benzo(g,h,i)perylene	µg/kg	<990	<990	<660	<660	<660
Benzo(k)fluoranthene	µg/kg	<990	<990	<660	<660	<660
4-Bromophenyl Phenyl Ether	µg/kg	<990	<990	<660	<660	<660
Butylbenzyl Phthalate	µg/kg	<990	<990	<660	<660	<660
Carbazole	µg/kg	<990	<990	<660	<660	<660
Chrysene	µg/kg	<990	<990	<660	<660	<660
4-Chloroaniline	µg/kg	<990	<990	<660	<660	<660
2-Chloronaphthalene	µg/kg	<990	<990	<660	<660	<660
2-Chlorophenol	µg/kg	<990	<990	<660	<660	<660
4-Chlorophenyl Phenyl Ether	µg/kg	<990	<990	<660	<660	<660
o-Cresol	µg/kg	<990	<990	<660	<660	<660
p-Cresol	µg/kg	<990	<990	<660	<660	<660
Dibenzo(a,h)anthracene	µg/kg	<990	<990	<660	<660	<660
Dibenzofuran	µg/kg	<990	<990	<660	<660	<660
2,4-Dichlorophenol	µg/kg	<990	<990	<660	<660	<660
1,2-Dichlorobenzene	µg/kg	<990	<990	<660	<660	<660
1,3-Dichlorobenzene	µg/kg	<990	<990	<660	<660	<660
1,4-Dichlorobenzene	µg/kg	<990	<990	<660	<660	<660
3,3-Dichlorobenzidine	µg/kg	<990	<990	<660	<660	<660
Diethyl Phthalate	µg/kg	<990	<990	<660	<660	<660
Dimethyl Phthalate	µg/kg	<990	<990	<660	<660	<660
2,4-Dimethylphenol	µg/kg	<990	<990	<660	<660	<660
Di-N-butyl Phthalate	µg/kg	<990	<990	1600	760	<660
4,6-Dinitro-o-cresol	µg/kg	<5100	<4800	<3200	<3400	<3200
2,4-Dinitrotoluene	µg/kg	<990	<990	<660	<660	<660
2,6-Dinitrotoluene	µg/kg	<990	<990	<660	<660	<660
Di-N-octyl Phthalate	µg/kg	<990	<990	<660	<660	<660
2,4-Dinitrophenol	µg/kg	<5100	<4800	<3200	<3400	<3200
Fluoranthene	µg/kg	<990	<990	<660	<660	<660
Fluorene	µg/kg	<990	<990	<660	<660	<660
Hexachlorocyclopentadiene	µg/kg	<990	<990	<660	<660	<660
Hexachlorobenzene	µg/kg	<990	<990	<660	<660	<660
Hexachlorobutadiene	µg/kg	<990	<990	<660	<660	<660
Hexachloroethane	µg/kg	<990	<990	<660	<660	<660
Indeno(1,2,3-c,d)pyrene	µg/kg	<990	<990	<660	<660	<660
Isophorone	µg/kg	<990	<990	<660	<660	<660
2-Methylnaphthalene	µg/kg	<990	<990	<660	<660	<660
N-Nitrosodiphenylamine	µg/kg	<990	<990	<660	<660	<660
N-Nitroso-di-n-propylamine	µg/kg	<990	<990	<660	<660	<660
Naphthalene	µg/kg	<990	<990	<660	<660	<660
2-Nitroaniline	µg/kg	<5100	<4800	<3200	<3400	<3200
3-Nitroaniline	µg/kg	<5100	<4800	<3200	<3400	<3200
4-Nitroaniline	µg/kg	<5100	<4800	<3200	<3400	<3200
Nitrobenzene	µg/kg	<990	<990	<660	<660	<660
2-Nitrophenol	µg/kg	<990	<990	<660	<660	<660
4-Nitrophenol	µg/kg	<5100	<4800	<3200	<3400	<3200
p-chloro-m-cresol	µg/kg	<990	<990	<660	<660	<660
Pentachlorophenol	µg/kg	<5100	<4800	<3200	<3400	<3200
Phenanthrene	µg/kg	<990	<990	<660	<660	<660
Phenol	µg/kg	<990	<990	<660	<660	<660
Pyrene	µg/kg	<990	<990	<660	<660	<660
2,4,5-Trichlorophenol	µg/kg	<5100	<4800	<3200	<3400	<3200
2,4,6-Trichlorophenol	µg/kg	<990	<990	<660	<660	<660
1,2,4-Trichlorobenzene	µg/kg	<990	<990	<660	<660	<660