

**TABLE 3-1  
SITE CONTAMINANTS OF CONCERN AND  
PADEP ACT 2 STATEWIDE HEALTH STANDARDS**

**C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

CONTAMINANTS OF CONCERN	PADEP ACT 2 <sup>1</sup> STATEWIDE HEALTH STANDARDS (µg/kg)
Vinyl Chloride	10,000
1,1,1-Trichloroethane	20,000
Benzene	800
Trichloroethene	2,000
Toluene	100,000
Tetrachloroethene	2,000
Chlorobenzene	10,000
Ethylbenzene	70,000
Total Xylenes	5,000
1,4-Dichlorobenzene <sup>2</sup>	No Criteria
1,3-Dichlorobenzene	7,000
1,2-Dichlorobenzene	7,000

**NOTES:**

- <sup>1</sup> - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program", 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
- <sup>2</sup> - Act 2 Statewide Health Standards for soils designates 1,4-Dichlorobenzene as P-Dichlorobenzene  
µg/kg - Micrograms per kilogram



**TABLE 4-1  
REVISED CONTAMINANTS OF CONCERN AND  
PADEP ACT 2 STATEWIDE HEALTH STANDARDS**

**C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

CONTAMINANTS OF CONCERN	PADEP ACT 2 <sup>1</sup> STATEWIDE HEALTH STANDARDS (µg/kg)
<b>Volatile Organic Compounds</b>	
Acetone	400,000
Vinyl Chloride	10,000
2-Butanone	50
1,1,1-Trichloroethane	20,000
Benzene	800
4-Methyl-2-pentanone	200,000
Trichloroethene	2,000
Toluene	100,000
Tetrachloroethene	2,000
Chlorobenzene	10,000
Ethylbenzene	70,000
Total Xylenes	5,000
Styrene	10,000
1,4-Dichlorobenzene <sup>2</sup>	No Criteria
1,3-Dichlorobenzene	7,000
1,2-Dichlorobenzene	7,000
<b>Semivolatile Organic Compounds</b>	
Acenaphthene	33,000
Bis(2-ethylhexyl)phthalate	400,000
Dibenzofuran	30,000
1,2-Dichlorobenzene	7,000
2,4-Dimethylphenol	No Criteria
Fluoranthene	400,000
Fluorene	100,000
Isophorone	No Criteria
2-Methylnaphthalene	20,000
2-Methylphenol	No Criteria
4-Methylphenol	No Criteria
Naphthalene	8,000
Phenol	400,000

**NOTES:**

- <sup>1</sup> - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program", 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
- <sup>2</sup> - Act 2 Statewide Health Standards for soils designates 1,4-Dichlorobenzene as P-Dichlorobenzene  
µg/kg - Micrograms per kilogram

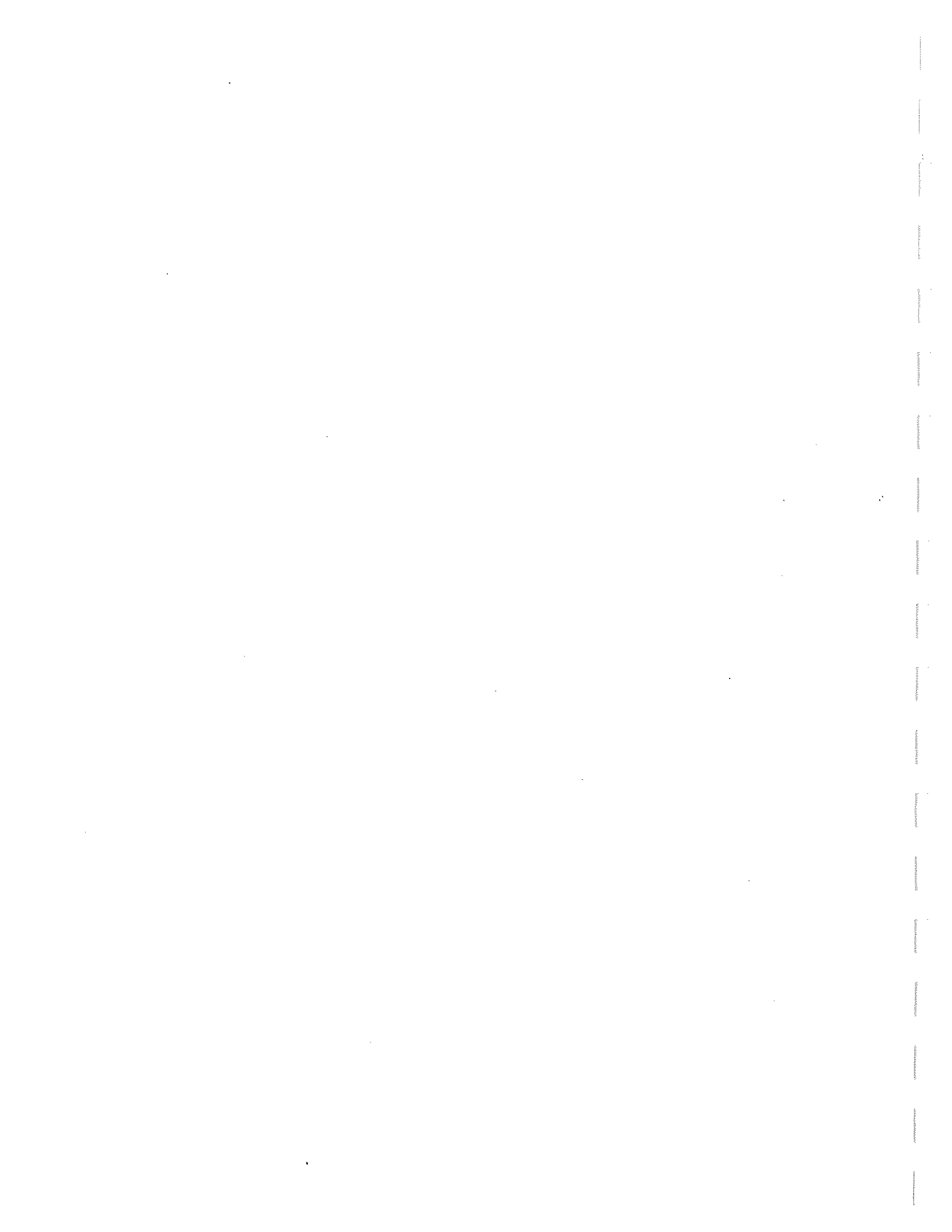


TABLE 5-1  
 AREA 1-1 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
 PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP ACT 2 <sup>2</sup> Soil Standard	SS055XXX01XX	SS099XXX01XX	SS131XXX01XX	SS195XXX01XX	SS221XXX01XX	SS244XXX01XX	SS311XXX01XX	CESS117SWE
Benzene	800	21	3 J	<33	4.6 J	8.2 J	<890	<31	<100
1,1,1-Trichloroethane	20,000	360	23	100	14	130	830 J	<31	<100
Trichloroethene	2,000	80	12	18 J	12	37	<890	<31	<100
Toluene	100,000	12 J	3.1 J	<33	5.8 J	6.9 J	1,000	<31	<100
Tetrachloroethene	2,000	13 J	3 J	8.5 J	11	<32	<890	<31	<100
Chlorobenzene	10,000	24	2.4 J	21 J	<6.2	38	680 J	15 J	<100
Ethylbenzene	70,000	<18	<6	<33	<6.2	<32	410 J	<31	<100
m&p-Xylene	5,000 <sup>3</sup>	6.2 J	6.6	9.8 J	11	23 J	2,100	<31	<200
o-Xylene	5,000 <sup>3</sup>	4.4 J	4.1 J	16 J	2.6 J	14 J	530 J	<31	<100
1,3-Dichlorobenzene	7,000	4.7 J	<6	11 J	7.3	10 J	230 J	37	<100
1,4-Dichlorobenzene	No Criteria	28	7.1	43	25	83	2,000	40	<100
1,2-Dichlorobenzene	7,000	15 J	6.1	<33	33	78	4,000	37	<100
Total Solids(%)	NA	67.9	83.7	76.9	81.1	79.2	70.2	81.6	79
Dilution Factor	NA	NA	NA	NA	NA	NA	NA	NA	1.0

TABLE 5-1  
AREA 1-1 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP ACT 2 <sup>2</sup> Soil Standard	CESS17SWW	CESS153SWE	CESS153SWE DUPE	CESS153SWW	CESS160FLC	CESS175SWE	CESS175SWW	CESS225SWE	CESS225SWW
Benzene	800	<86	<110	<110	<90	<100	<110	<92	<93	<88
1,1,1-Trichloroethane	20,000	<86	140	140	<90	110	140	<92	<93	<88
Trichloroethene	2,000	<86	200	210	<90	<100	170	<92	<93	<88
Toluene	100,000	<86	<110	<110	<90	<100	<110	<92	<93	<88
Tetrachloroethene	2,000	<86	<110	<110	<90	<100	<110	<92	<93	<88
Chlorobenzene	10,000	<86	<110	<110	<90	<100	<110	<92	<93	<88
Ethylbenzene	70,000	<86	<110	<110	<90	<100	<110	<92	<93	<88
m&p-Xylene	5,000 <sup>3</sup>	<170	<220	<220	180	<200	<220	<180	<190	<180
o-Xylene	5,000 <sup>3</sup>	<86	<110	<110	<90	<100	<110	<92	<93	<88
1,3-Dichlorobenzene	7,000	<86	<110	<110	<90	<100	<110	<92	<93	<88
1,4-Dichlorobenzene	No Criteria	<86	<110	<110	<90	<100	<110	<92	<93	<88
1,2-Dichlorobenzene	7,000	<86	<110	<110	<90	<100	<110	<92	<93	<88
Total Solids(%)	NA	92	72	72	88	91	73	87	86	91
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

**TABLE 5-1  
AREA 1-1 CONFIRMATORY SOIL SAMPLING DATA**

**C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

<b>VOLATILE ORGANIC<sup>1</sup> COMPOUNDS (µg/kg dry wt.)</b>	<b>PADEP ACT 2<sup>2</sup> Soil Standard</b>	<b>CESS256SWE</b>	<b>CESS256SWW</b>	<b>CESS280SWE</b>	<b>CESS280SWW</b>	<b>CESS284FL</b>	<b>CESS284SWE</b>	<b>CESS284FL</b>	<b>CESS284SWE</b>	<b>CESS284SWW</b>	<b>CESS14FL</b>
Benzene	800	<90	<92	<100	<86	<440	<90	<88	<90	<90	<470
1,1,1-Trichloroethane	20,000	<90	<92	<100	<86	<440	<90	<88	<90	<90	<470
Trichloroethene	2,000	<90	<92	<100	<86	<440	<90	<88	<90	<90	<470
Toluene	100,000	<90	<92	<100	<86	<440	<90	<88	<90	<90	<470
Tetrachloroethene	2,000	<90	<92	<100	<86	<440	<90	<88	<90	<90	<470
Chlorobenzene	10,000	<90	<92	<100	<86	<440	<90	<88	<90	<90	<470
Ethylbenzene	70,000	<90	<92	<100	<86	<440	<90	<88	<90	<90	550
m&p-Xylene	5,000 <sup>3</sup>	<180	<180	<210	<170	<880	<180	<190	<180	<180	2500
o-Xylene	5,000 <sup>3</sup>	<90	<92	<100	<86	<440	<90	<88	<90	<90	<470
1,3-Dichlorobenzene	7,000	<90	<92	<100	<86	<440	<90	<88	<90	<90	<470
1,4-Dichlorobenzene	No Criteria	<90	<92	<100	<86	<440	<90	95	<90	<90	1900
1,2-Dichlorobenzene	7,000	<90	<92	<100	<86	<440	<90	130	<90	<90	1500
Total Solids(%)	NA	89	87	77	93	91	89	91	89	89	85
Dilution Factor	NA	1.0	1.0	1.0	1.0	5.0	1.0	1.0	1.0	1.0	5.0

**TABLE 5-1  
AREA 1-1 CONFIRMATORY SOIL SAMPLING DATA  
C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP ACT 2 <sup>2</sup> Soil Standard	CESS314SWE	CESS314SWW	CESS320SWE	CESS320SWE DUPE	CESS320SWW	CESS330EW
Benzene	800	<920	<90	<94	<94	<110	<560
1,1,1-Trichloroethane	20,000	<920	<90	<94	<94	<110	<560
Trichloroethene	2,000	<920	<90	<94	<94	<110	<560
Toluene	100,000	<920	<90	<94	<94	1800 E	<560
Tetrachloroethene	2,000	<920	<90	<94	<94	170	<560
Chlorobenzene	10,000	<920	<90	<94	<94	1500 E	<560
Ethylbenzene	70,000	920	<90	<94	<94	710 E	1300 E
m&p-Xylene	5,000 <sup>3</sup>	4600	<180	<190	<190	1900 E	3200 E
o-Xylene	5,000 <sup>3</sup>	<920	<90	<94	<94	1500 E	<560
1,3-Dichlorobenzene	7,000	<920	<90	<94	<94	400	<560
1,4-Dichlorobenzene	No Criteria	1500	<90	<94	<94	1100 E	560
1,2-Dichlorobenzene	7,000	1900	<90	<94	<94	1100 E	<560
Total Solids (%)	NA	87	89	86	86	76	72
Dilution Factor	NA	10	1.0	1.0	1.0	1.0	5.0

**NOTES:**

- 1 - Only those compounds that were detected are shown on this table.
  - 2 - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
  - 3 - PADEP Act 2 Soil Standard for total xylenes is 5,000 µg/kg
- < - Not detected; value represents sample quantification limit  
% - Percent  
E - Estimated value; concentration exceeds calibration range  
J - Estimated value detected above the method detection limit but below the reporting limit  
µg/kg - Microgram per kilogram  
NA - Not applicable  
wt. - Weight



TABLE 5-2  
 AREA 1-2 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
 PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC COMPOUNDS ( $\mu\text{g}/\text{kg}$ dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	SBN14.00SWS	SBN14.00SWSE	SBN14.01SWS	SBN14.01SWSDUPE	SBN14.01SMW	SBN14.FLC1.0
Benzene	800	<460	<88	<88	<88	<92	<96
Toluene	100,000	<460	150	<88	<88	630	440
Tetrachloroethene	2,000	<460	<88	<88	<88	<92	<96
Ethylbenzene	70,000	1,200	130	<88	<88	380	<96
m&p-Xylene	5,000 <sup>3</sup>	1,500	760	<180	<180	1,500	1,200
o-Xylene	5,000 <sup>3</sup>	<460	220	<88	<88	600	420
1,3-Dichlorobenzene	7,000	<460	<88	<88	<88	100	<96
1,4-Dichlorobenzene	No Criteria	1,100	270	<88	<88	430	150
1,2-Dichlorobenzene	7,000	<460	<88	<88	<88	<92	<96
Total Solids(%)	NA	87	87	91	91	87	83
Dilution Factor	NA	5.0	1.0	1.0	1.0	1.0	1.0

TABLE 5-2  
 AREA 1-2 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
 PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	SBN14.FLC1.1	SBN14.FLC1.2	SBN14.FLC1.3	SBN14.SWE	SBN14.SWN1.0	SBN14.SWN1.1
Benzene	800	<90	<90	<96	<92	<92	530
Toluene	100,000	410	<90	<96	<92	190	2,400 E
Tetrachloroethene	2,000	93	<90	<96	<92	<92	130
Ethylbenzene	70,000	550	<90	<96	<92	<92	<91
m&p-Xylene	5,000 <sup>3</sup>	1,900	<180	<190	<180	130	2,800 E
o-Xylene	5,000 <sup>3</sup>	850	<90	<96	<92	<92	170
1,3-Dichlorobenzene	7,000	400	<90	<96	<92	<92	300
1,4-Dichlorobenzene	No Criteria	690	<90	<96	<92	<92	170
1,2-Dichlorobenzene	7,000	210	<90	<96	<92	<92	<91
Total Solids(%)	NA	89	88	93	87	87	88
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0	1.0

**TABLE 5-2**  
**AREA 1-2 CONFIRMATORY SOIL SAMPLING DATA**  
**C-E CAST FACILITY**  
**PHASE IV SOIL REMEDIATION**

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	SBN14.SWN1.2	SBN14.SWNW	SBN14.SWSE	SBN14.SWW	SBN14.SWWDUPE
Benzene	800	380	<88	<92	<180	<180
Toluene	100,000	1,900	<88	<92	<180	<180
Tetrachloroethene	2,000	<94	<88	<92	<180	<180
Ethylbenzene	70,000	420	<88	<92	<180	<180
m&p-Xylene	5,000 <sup>3</sup>	1,900	<180	<180	<350	<350
o-Xylene	5,000 <sup>3</sup>	990	<88	<92	<180	<180
1,3-Dichlorobenzene	7,000	600	<88	<92	<180	<180
1,4-Dichlorobenzene	No Criteria	610	<88	<92	<180	<180
1,2-Dichlorobenzene	7,000	190	<88	<92	<180	<180
Total Solids(%)	NA	85	91	87	91	91
Dilution Factor	NA	1.0	1.0	1.0	2.0	2.0

**NOTES:**

- <sup>1</sup> - Only those compounds that were detected are shown on this table.
  - <sup>2</sup> - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
  - <sup>3</sup> - PADEP Act 2 Soil Standard for total xylenes is 5,000 µg/kg
- < - Not detected; value represents sample quantitation limit  
% - Percent  
E - Estimated value; concentration exceeds calibration range  
µg/kg - Microgram per kilogram  
NA - Not applicable  
wt. - Weight



TABLE 5-3  
 AREA 1-3 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
 PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	SBN06-FLR	SBN06-FLS	SBN06-FLT	SBN06-FLU	SBN06-FLV
1,1,1-Trichloroethane	20,000	<11	<12	<12	<12	<12
Benzene	800	<11	<12	<12	<12	15
Toluene	100,000	<11	<12	17	110	110
Tetrachloroethene	2,000	<11	<12	<12	31	<12
Chlorobenzene	10,000	26	120	210	230	530
Ethylbenzene	70,000	<11	<12	38	870 E	79
m&p-Xylene	5,000 <sup>3</sup>	68	<12	110	1,000 E	170
o-Xylene	5,000 <sup>3</sup>	<11	<12	<12	210	36
m-Dichlorobenzene	7,000	80	<12	200	220	410
p-Dichlorobenzene	No Criteria	520 E	120	1,100	790 E	1,500 E
o-Dichlorobenzene	7,000	320 E	36	740 E	770 E	1,200 E
1,2,4-Trichlorobenzene	20,000	36	<12	170 E	120 E	260 E
Naphthalene	8,000	21	49	170 E	270 E	350 E
Total Solids (%)	NA	88	82	86	86	86
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0

TABLE 5-3  
AREA 1-3 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	SBN06-SWP	SBN06-SWQ	SBN06-SWW	SBN06-SWX	SBN06-SWZ
1,1,1-Trichloroethane	20,000	<11	<12	<11	<13	<11
Benzene	800	40	60	<11	<13	<11
Toluene	100,000	63	40	<11	<13	120
Tetrachloroethene	2,000	<11	<12	<11	<13	<11
Chlorobenzene	10,000	<11	780 E	130	<13	<11
Ethylbenzene	70,000	<11	260 E	<11	<13	170
m&p-Xylene	5,000 <sup>3</sup>	57	510 E	<22	<26	380 E
o-Xylene	5,000 <sup>3</sup>	19	63	<11	<13	110
m-Dichlorobenzene	7,000	470 E	470 E	97	23	88
p-Dichlorobenzene	No Criteria	730 E	740 E	420	<13	630 E
o-Dichlorobenzene	7,000	810 E	780 E	430 E	86	390 E
1,2,4-Trichlorobenzene	20,000	66	31	97	150 E	130 E
Naphthalene	8,000	103	37	63	150 E	570 E
Total Solids(%)	NA	88	87	91	75	89
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0

TABLE 5-3  
 AREA 1-3 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
 PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	SBN06.00FLC	SBN06.00FLS	SBN06.00SWN	SBN06.00SWNW	SBN06.01FLN
1,1,1-Trichloroethane	20,000	<180	<96	<180	<92	<180
Benzene	800	<180	<96	<180	<92	<180
Toluene	100,000	880	<96	190	<92	260
Tetrachloroethene	2,000	<180	<96	<180	<92	<180
Chlorobenzene	10,000	<180	170	<180	<92	600
Ethylbenzene	70,000	250	200	<180	<92	<180
m&p-Xylene	5,000 <sup>3</sup>	910	530	470	<180	<360
o-Xylene	5,000 <sup>3</sup>	180	<96	<180	<92	<180
m-Dichlorobenzene	7,000	<180	660 E	<180	<92	<180
p-Dichlorobenzene	No Criteria	690	1,300 E	1,200 E	<92	1,300 E
o-Dichlorobenzene	7,000	470	1,400 E	990	<92	860
1,2,4-Trichlorobenzene	20,000	NR	NR	NR	NR	NR
Naphthalene	8,000	NR	NR	NR	NR	NR
Total Solids(%)	NA	90	84	90	87	89
Dilution Factor	NA	2.0	1.0	2.0	1.0	2.0

TABLE 5-3  
 AREA 1-3 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
 PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	SBN06.01FLS	SBN06.01FLSW	SBN06.01SWN	SBN06.01SWNNE	SBN06.01SWNW
1,1,1-Trichloroethane	20,000	<170	<190	<180	<88	<92
Benzene	800	<170	<190	<180	<88	<92
Toluene	100,000	<170	280	<180	<88	<92
Tetrachloroethene	2,000	<170	<190	<180	<88	120
Chlorobenzene	10,000	<170	<190	<180	210	<92
Ethylbenzene	70,000	<170	<190	230	190	<92
m&p-Xylene	5,000 <sup>3</sup>	<350	<370	920	890	<180
o-Xylene	5,000 <sup>3</sup>	<170	<190	260	350	<92
m-Dichlorobenzene	7,000	<170	<190	450	390	<92
p-Dichlorobenzene	No Criteria	430	230	1,700 E	1,200 E	490
o-Dichlorobenzene	7,000	300	<190	1,500 E	1,100 E	380
1,2,4-Trichlorobenzene	20,000	NR	NR	NR	NR	NR
Naphthalene	8,000	NR	NR	NR	NR	NR
Total Solids (%)	NA	92	97	90	91	87
Dilution Factor	NA	2.0	2.0	2.0	1.0	1.0



**TABLE 5-3  
AREA 1-3 CONFIRMATORY SOIL SAMPLING DATA**

**C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

<b>VOLATILE ORGANIC<sup>1</sup> COMPOUNDS (µg/kg dry wt.)</b>	<b>PADEP Act 2<sup>2</sup> Soil Standard</b>	<b>SEN06.01SNWWD</b>	<b>SBN06.01SWS</b>	<b>SBN06.01SWSDUPE</b>	<b>SBN06.01SWSW</b>	<b>SBN06.02SWN</b>
1,1,1-Trichloroethane	20,000	<92	<480	<480	<180	<470
Benzene	800	<92	<480	<480	<180	<470
Toluene	100,000	<92	<480	<480	<180	<470
Tetrachloroethene	2,000	<92	<480	<480	<180	<470
Chlorobenzene	10,000	<92	<480	<480	<180	<470
Ethylbenzene	70,000	<92	<480	<480	<180	<470
m&p-Xylene	5,000 <sup>3</sup>	<180	1,200	1,300	<350	<940
o-Xylene	5,000 <sup>3</sup>	<92	<480	<480	<180	<470
m-Dichlorobenzene	7,000	<92	1,400	760	<180	<470
p-Dichlorobenzene	No Criteria	<92	1,500	850	<180	<470
o-Dichlorobenzene	7,000	<92	1,200	570	<180	560
1,2,4-Trichlorobenzene	20,000	NR	NR	NR	NR	NR
Naphthalene	8,000	NR	NR	NR	NR	NR
Total Solids(%)	NA	87	83	86	73	85
Dilution Factor	NA	1.0	5.0	5.0	2.0	5.0

TABLE 5-3  
 AREA 1-3 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
 PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	SBN06.02SWNE	SBN06.02SWSE	SBN06.02SWSW	SBN06.03SWE	SBN06.03SWSE
1,1,1-Trichloroethane	20,000	<170	<44	880	1,900 E	230
Benzene	800	<170	<44	<220	410	<46
Toluene	100,000	<170	<44	<220	1,200 E	<46
Tetrachloroethene	2,000	<170	<44	<220	190	<46
Chlorobenzene	10,000	280	<44	<220	2,600 E	<46
Ethylbenzene	70,000	<170	<44	<220	1,600 E	<46
m&p-Xylene	5,000 <sup>3</sup>	<350	<44	<220	<53	<46
o-Xylene	5,000 <sup>3</sup>	<170	<88	<440	570	<92
m-Dichlorobenzene	7,000	<170	<44	<220	78	<46
p-Dichlorobenzene	No Criteria	870	<44	<220	1,300 E	<46
o-Dichlorobenzene	7,000	790	<44	950	1,700 E	160
1,2,4-Trichlorobenzene	20,000	NR	NR	NR	NR	NR
Naphthalene	8,000	NR	NR	NR	NR	NR
Total Solids(%)	NA	92	91	91	76	87
Dilution Factor	NA	2.0	1.0	5.0	1.0	1.0

**TABLE 5-3  
AREA 1-3 CONFIRMATORY SOIL SAMPLING DATA**

**C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

<b>VOLATILE ORGANIC<sup>1</sup> COMPOUNDS (µg/kg dry wt.)</b>	<b>PADEP Act 2<sup>2</sup> Soil Standard</b>	<b>SBN06.04SWS</b>	<b>SBN06.04SWSN</b>	<b>SBN06.05SWN</b>	<b>SBN06.06SWN</b>
1,1,1-Trichloroethane	20,000	1,300 E	<45	1,600 E	1,600 E
Benzene	800	<47	<45	<44	<46
Toluene	100,000	<47	<45	<44	<46
Tetrachloroethene	2,000	<47	<45	<44	<46
Chlorobenzene	10,000	<47	<45	<44	<46
Ethylbenzene	70,000	300	<45	<44	49
m&p-Xylene	5,000 <sup>3</sup>	<47	<45	<44	53
o-Xylene	5,000 <sup>3</sup>	<94	<90	<89	<92
m-Dichlorobenzene	7,000	<47	<45	<44	<46
p-Dichlorobenzene	No Criteria	400	<45	790 E	510
o-Dichlorobenzene	7,000	1,500 E	<45	1,500 E	1,500 E
1,2,4-Trichlorobenzene	20,000	NR	NR	NR	NR
Naphthalene	8,000	NR	NR	NR	NR
Total Solids(%)	NA	86	89	90	87
Dilution Factor	NA	1.0	1.0	1.0	1.0

**NOTES:**

- 1 - Only those compounds that were detected are shown on this table.
  - 2 - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
  - 3 - PADEP Act 2 Soil Standard for total xylenes is 5,000 µg/kg
- < - Not detected; value represents sample quantitation limit  
 % - Percent  
 E - Estimated value; concentration exceeds calibration range  
 µg/kg - Microgram per kilogram  
 NA - Not applicable  
 wt. - Weight



**TABLE 5-4**  
**AREA 3-1 CONFIRMATORY SOIL SAMPLING DATA**  
**C-E CAST FACILITY**  
**PHASE IV REMEDIATION**

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	SS01604203XX	SS01805203XX	SS01904703XX	SS01904703XDXX	SS02503303XX	SS02803603XX	SS02905203XX	SS03803203XX
Chlorobenzene	10,000	1.5 J	<6.0	<6.2	<6.3	<6.3	<6.1	<5.8	<31
Toluene	100,000	4.2 J	3.1 J	1.3 J	<6.3	<6.3	<6.1	1.5	<31
1,1,1-Trichloroethane	2,000	<5.7	7.4	33	38	3.9 J	2.9 J	<5.8	<31
Total Solids(%)		87.6	82.7	80.2	79.2	79.8	81.5	86.2	80.2

**NOTES:**

- <sup>1</sup> - Only those compounds that were detected are shown on this table.
- <sup>2</sup> - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
- < - Not detected; value represents sample quantitation limit
- % - Percent
- J - Estimated value detected above the method detection limit but below the reporting limit
- µg/kg - Microgram per kilogram
- wt. - Weight



**TABLE 5-5  
BSA-1 CONFIRMATORY SOIL SAMPLING DATA**

**C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

<b>VOLATILE ORGANIC<sup>1</sup> COMPOUNDS (µg/kg dry wt.)</b>	<b>PADEP Act 2<sup>2</sup> Soil Standard</b>	<b>SB1.00FL</b>	<b>SB1.00SWS</b>	<b>SB2.00FL</b>	<b>SB2.00FLS</b>	<b>SB2.00SWS</b>	<b>SB2.01SWS</b>	<b>SB2.50SWS</b>	<b>SB3.00FL</b>
Vinyl Chloride	10,000	<95	<90	<94	<94	<94	<90	<87	<88
1,1,1-Trichloroethane	20,000	<95	<90	<94	<94	<94	<90	<87	<88
Benzene	800	<95	<90	<94	<94	<94	<90	<87	<88
Trichloroethene	2,000	<95	<90	<94	<94	<94	<90	<87	<88
Toluene	100,000	<95	<90	<94	<94	<94	<90	<87	<88
Tetrachloroethene	2,000	<95	<90	<94	<94	<94	<90	<87	<88
Chlorobenzene	10,000	<95	<90	<94	<94	<94	<90	<87	<88
Ethylbenzene	70,000	<95	<90	<94	<94	<94	<90	<87	<88
m&p-Xylene	5,000 <sup>3</sup>	<190	<180	<190	<190	<190	<180	<170	<180
o-Xylene	5,000 <sup>3</sup>	<95	<90	<94	<94	<94	<90	<87	<88
1,3-Dichlorobenzene	7,000	<95	<90	<94	<94	<94	<90	<87	<88
1,4-Dichlorobenzene	No Criteria	<95	<90	<94	<94	<94	<90	<87	<88
1,2-Dichlorobenzene	7,000	<95	<90	<94	<94	<94	<90	<87	<88
Total Solids (%)	NA	84	88	86	86	85	92	92	91
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

TABLE 5-5  
BSA-1 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	SB3.01SWS	SB3.30FL	SB4.00FL	SB4.00SVIN	SB5.00FL	SB6.00FL	SB6.00SWE
Vinyl Chloride	10,000	<87	<88	<88	<87	<90	<87	<87
1,1,1-Trichloroethane	20,000	<87	<88	<88	<87	<90	<90	<87
Benzene	800	<87	<88	<88	<87	<90	<87	<87
Trichloroethene	2,000	<87	<88	<88	<87	<90	<87	<87
Toluene	100,000	<87	<88	<88	<87	<90	<87	<87
Tetrachloroethene	2,000	<87	<88	<88	<87	<90	<87	<87
Chlorobenzene	10,000	<87	<88	<88	<87	<90	<87	<87
Ethylbenzene	70,000	<87	<88	<88	<87	<90	<87	<87
m&p-Xylene	5,000 <sup>3</sup>	<170	<180	<180	<170	<180	<170	<170
o-Xylene	5,000 <sup>3</sup>	<87	<88	<88	<87	<90	<87	<87
1,3-Dichlorobenzene	7,000	<87	<88	<88	<87	<90	<87	<87
1,4-Dichlorobenzene	No Criteria	<87	<88	<88	<87	<90	<87	<87
1,2-Dichlorobenzene	7,000	<87	<88	<88	<87	<90	<87	<87
Total Solids(%)	NA	92	91	91	91	90	92	93
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0	1.0	1.0

NOTES:

- 1 - Only those compounds that were detected are shown on this table.
  - 2 - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
  - 3 - PADEP Act 2 Soil Standard for total xylenes is 5,000 µg/kg
- < - Not detected; value represents sample quantitation limit  
% - Percent  
µg/kg - Microgram per kilogram  
NA - Not applicable  
wt. - Weight



TABLE 5-6  
BSA-2 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	BS2-FLI	BS2-FLJ	BS2-FLK	BS2-FLL	BS2-FLM	BS2-FLN	BS2-FLO	BS2-SWG	BS2-SWA	BS2-SWB
1,1,1-Trichloroethane	20,000	140 E	170 E	230 E	170 E	170 E	180 E	<22	24	<21	62
Trichloroethene	2,000	<22	120	320	240	250	700 E	100	<22	29	130
Toluene	100,000	<22	<22	57	<22	<22	180	<22	<22	<21	<22
Tetrachloroethene	2,000	<22	120	510	160	70	900 E	170	<22	<21	<22
Ethylbenzene	70,000	<22	<22	56	<22	<22	71	<22	<22	<21	<22
m&p-Xylene	5,000 <sup>3</sup>	<44	<44	170	44	<44	270	<44	<44	<43	<44
o-Xylene	5,000 <sup>3</sup>	<22	<22	110	<22	<22	970	<22	<22	<21	<22
1,3-Dichlorobenzene	7,000	<22	<22	270	57	<22	260	<22	<22	<21	<22
1,4-Dichlorobenzene	No Criteria	<22	<22	210	100	<22	460	25	<22	<21	<22
1,2-Dichlorobenzene	7,000	<22	<22	210	56	<22	150	44	<22	<21	<22
Total Solids(%)		91	90	67	92	91	89	91	91	93	92
Dilution Factor		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

**TABLE 5-6  
BSA-2 CONFIRMATORY SOIL SAMPLING DATA**

**C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

<b>VOLATILE ORGANIC<sup>1</sup> COMPOUNDS (µg/kg dry wt.)</b>	<b>PADEP Act 2<sup>2</sup> Soil Standard</b>	<b>BS2-SWC</b>	<b>BS2-SWD</b>	<b>BS2-SWE</b>	<b>BS2-SWF</b>	<b>BS2-SWH</b>
1,1,1-Trichloroethane	20,000	170 E	170 E	<23	<22	<22
Trichloroethene	2,000	120	<22	<23	<22	<22
Toluene	100,000	<22	<22	<23	<22	<22
Tetrachloroethene	2,000	<22	<22	<23	<22	<22
Ethylbenzene	70,000	<22	<22	<23	<22	<22
m&p-Xylene	5,000 <sup>3</sup>	<44	<44	<46	<44	<44
o-Xylene	5,000 <sup>3</sup>	<22	<22	<23	<22	<22
1,3-Dichlorobenzene	7,000	<22	<22	<23	<22	<22
1,4-Dichlorobenzene	No Criteria	<22	<22	<23	<22	<22
1,2-Dichlorobenzene	7,000	<22	<22	<23	<22	<22
Total Solids(%)		88	91	86	93	89
Dilution Factor		1.0	1.0	1.0	1.0	1.0

**NOTES:**

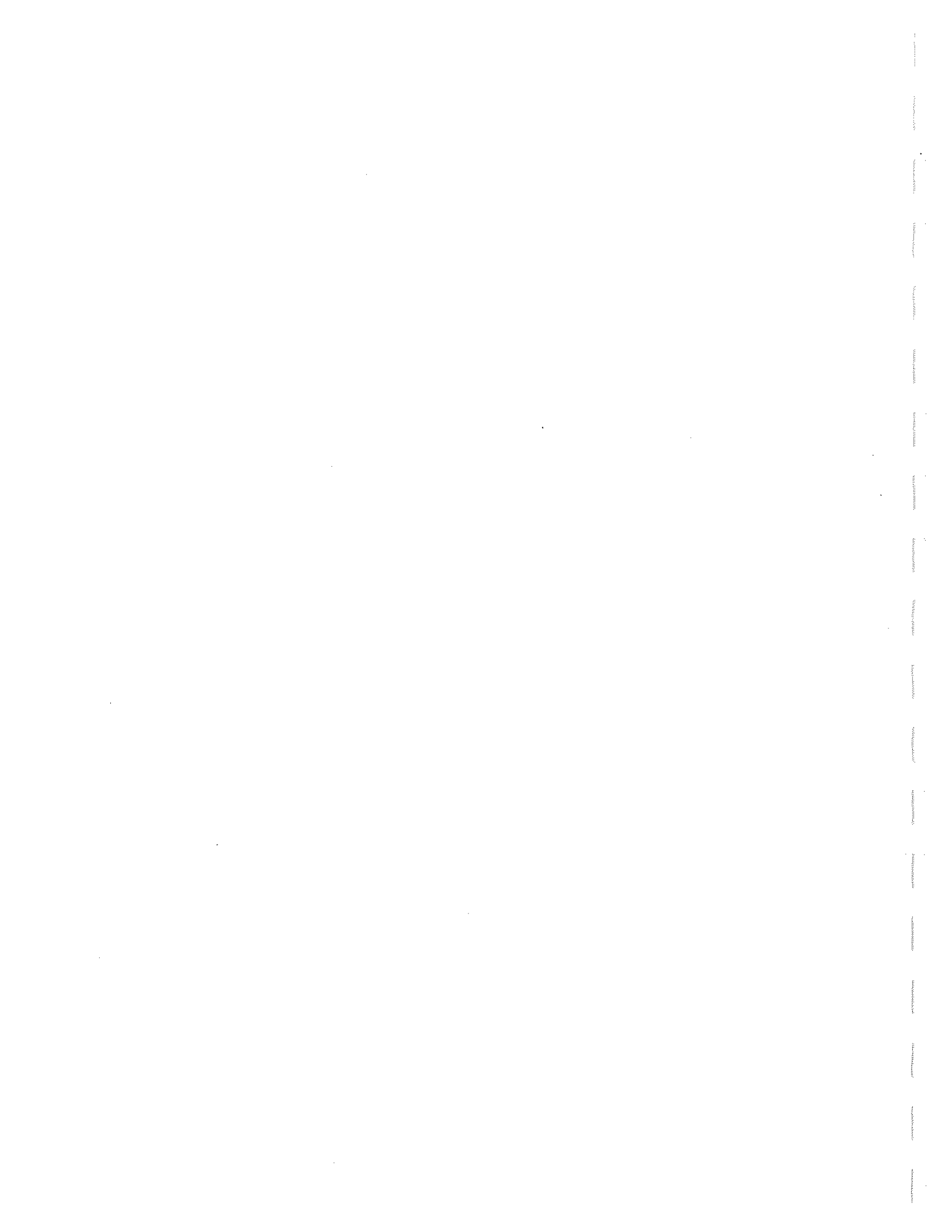
- <sup>1</sup> - Only those compounds that were detected are shown on this table.
- <sup>2</sup> - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
- <sup>3</sup> - PADEP Act 2 Soil Standard for total xylenes is 5,000 µg/kg
- < - Not detected; value represents sample quantitation limit
- % - Percent
- E - Estimated value; concentration exceeds calibration range
- µg/kg - Microgram per kilogram
- NA - Not applicable
- wt. - Weight

**TABLE 5-7**  
**BSA-3 CONFIRMATORY SOIL SAMPLING DATA**  
**C-E CAST FACILITY**  
**PHASE IV SOIL REMEDIATION**

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	BS3-FLA	BS3-SS2	BS3-SS3	BS3-SS4	BS3-SSI	BS3-SWA	BS3-SWB	BS3-SWC	BS3-SWD
Vinyl Chloride	10,000	<11	<11	<11	<12	27	<13	<11	<11	24
1,1,1-Trichloroethane	20,000	<11	<11	<11	<12	<12	180 E	13	<11	<12
Toluene	100,000	<11	<11	<11	<12	<12	48	<11	<11	<12
Tetrachloroethene	2,000	65	<11	<11	<12	<12	180	84	<11	<12
Ethylbenzene	70,000	<11	<11	<11	<12	<12	130	<11	<11	<12
m&p-Xylene	5,000 <sup>3</sup>	<22	<22	<22	<24	<24	230	<22	<22	<24
o-Xylene	5,000 <sup>3</sup>	<11	<11	<11	<12	<12	290	<11	<11	<12
1,3-Dichlorobenzene	7,000	<11	<11	<11	<12	<12	310	<11	<11	<12
1,4-Dichlorobenzene	No Criteria	<11	<11	<11	<12	<12	430	<11	<11	<12
1,2-Dichlorobenzene	7,000	<11	<11	<11	<12	<12	290	<11	<11	<12
Naphthalene	8,000	<11	<11	<11	<12	<12	270	<11	<11	<12
Total Solids(%)	NA	89	90	91	85	84	77	89	92	87
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

**NOTES:**

- <sup>1</sup> - Only those compounds that were detected are shown on this table.
- <sup>2</sup> - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
- <sup>3</sup> - PADEP Act 2 Soil Standard for total xylenes is 5,000 µg/kg
- < - Not detected; value represents sample quantitation limit
- % - Percent
- E - Estimated value; concentration exceeds calibration range
- µg/kg - Microgram per kilogram
- NA - Not applicable
- wt. - Weight



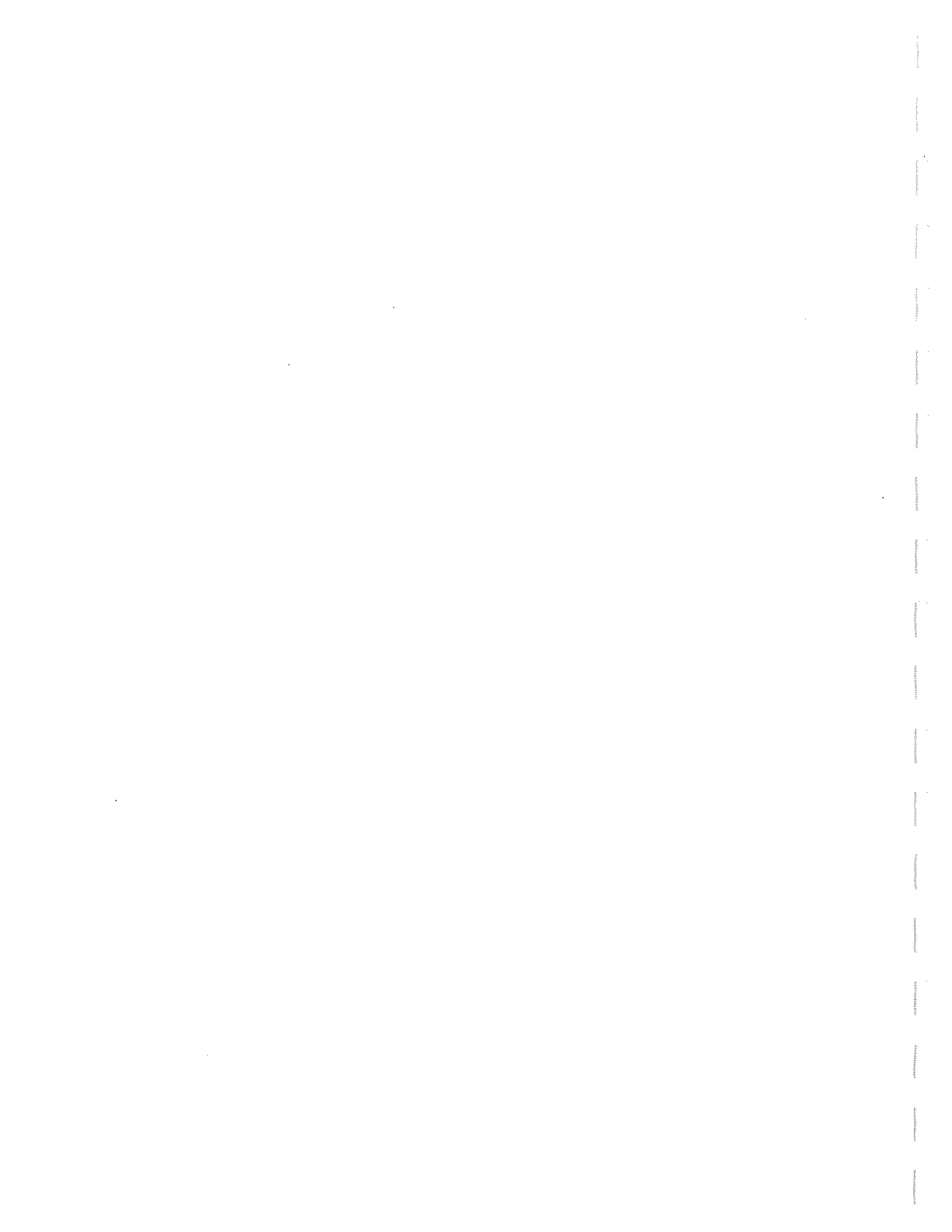
**TABLE 5-8  
BSA-4 CONFIRMATORY SOIL SAMPLING DATA**

**C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (ug/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	BS4-FLA	BS4-FLB	BS4-FLB-XD	BS4-SWA	BS4-SWB	BS4-SWC	BS4-SWD	BS4-SWE
Chlorobenzene	10,000	<11	<11	<12	<11	<11	<11	45	<11
m&p-Xylene	5,000 <sup>3</sup>	<22	<22	<24	<22	<22	<22	<22	<22
o-Xylene	5,000 <sup>3</sup>	<11	<11	<12	<11	<11	<11	41	<11
m-Dichlorobenzene	7,000	<11	<11	<12	<11	<11	<11	120	<11
p-Dichlorobenzene	No Criteria	<11	<11	<12	<11	<11	<11	100	<11
o-Dichlorobenzene	7,000	<11	<11	<12	<11	<11	<11	97	<11
Naphthalene	8,000	<11	290	<12	<11	<11	<11	<11	<11
Total Solids(%)	NA	92	91	86	92	91	95	91	92
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

**NOTES:**

- <sup>1</sup> - Only those compounds that were detected are shown on this table.
  - <sup>2</sup> - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
  - <sup>3</sup> - PADEP Act 2 Soil Standard for total xylenes is 5,000 µg/kg
- < - Not detected; value represents sample quantification limit  
 % - Percent  
 µg/kg - Microgram per kilogram  
 NA - Not applicable  
 wt. - Weight



**TABLE 5-9  
EMA-3 CONFIRMATORY SOIL SAMPLING DATA**

**C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

<b>VOLATILE ORGANIC<sup>1</sup> COMPOUNDS (µg/kg dry wt.)</b>	<b>PADEP Act 2<sup>2</sup> Soil Standard</b>	<b>CEPSEMAXX0301</b>	<b>CEPSEMAXX0305</b>	<b>CEPSEMAXX0307</b>	<b>CEPSEMAXX0311</b>	<b>CEPSEMAXX0316</b>	<b>CEPSEMAXX0318</b>	<b>CEPSEMAXX0319</b>
Acetone	400,000	<22	<21	<24	<27	<23	67	<22
2-Butanone	50	<22	<21	<24	<27	<23	<23	<22
Ethylbenzene	70,000	<5.5	<5.3	<6.0	<6.7	<5.8	<5.7	<5.5
Methylene chloride	500	4.5	4.9 J	<6.0	5.8 J	<5.8	<5.7	<5.5
4-Methyl-2-pentanone	200,000	<22	<21	<24	<27	<23	<23	<22
Tetrachloroethene	2,000	6.4	<3.2 J	<6.0	6.7	<5.8	<5.7	<5.5
Toluene	100,000	13	9.9	<6.0	93	<5.8	<5.7	<5.5
Trichloroethene	100,000	40	14	<6.0	9.0	<5.8	<5.7	<5.5
Total Xylenes	5,000	<5.5	<5.3	<6.0	6.3 J	5.1 J	<5.7	<5.5
Total Solids(%)	NA	91.0	93.8	84.0	74.9	86.9	87.9	90.3
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0	1.0	1.0

TABLE 5-9  
EMA-3 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMXXX0321	CEPSEMXXX0327	CEPSEMXXX0328	CEPSEMXXX0329	CEPSEMXXX0330	CEPSEMXXX0332
Acetone	400,000	<24	<23	<23	<22	<23	16 J
2-Butanone	50	<24	<23	<23	<22	<23	<23
Ethylbenzene	70,000	<6.1	<5.7	<5.8	<5.5	<5.8	<5.7
Methylene chloride	500	<6.1	<5.7	<5.8	<5.5	<5.8	<5.7
4-Methyl-2-pentanone	200,000	<24	<23	<23	<22	<23	<23
Tetrachloroethene	2,000	<6.1	<5.7	<5.8	<5.5	<5.8	<5.7
Toluene	100,000	<6.1	<5.7	<5.8	<5.5	<5.8	<5.7
Trichloroethene	100,000	<6.1	<5.7	<5.8	<5.5	<5.8	<5.7
Total Xylenes	5,000	<6.1	<5.7	10	<5.5	<5.8	<5.7
Total Solids(%)	NA	82.2	87.2	86.3	91.5	86.1	87.5
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0	1.0



TABLE 5-9  
EMA-3 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMXXX0334	CEPSEMXXX0336	CEPSEMXXX0037	CEPSEMXXX0339	CEPSEMA00339RX <sup>3</sup>	CEPSEMXXX0349
Acetone	400,000	<23	<22	<22	1,100 J	27 J	14 J
2-Butanone	50	<23	<22	<22	1,200 J	<28	<26
Ethylbenzene	70,000	<5.7	<5.4	<5.5	5,200	<7.0	4.9 J
Methylene chloride	500	<5.7	<5.4	<5.5	<830	<7.0	2.8 J
4-Methyl-2-pentanone	200,000	<23	<22	<22	2,000 J	<28	<26
Tetrachloroethene	2,000	<5.7	<5.4	<5.5	<830	<7.0	34
Toluene	100,000	<5.7	<5.4	<5.5	2,000	<7.0	79
Trichloroethene	100,000	<5.7	<5.4	<5.5	<830	<7.0	71
Total Xylenes	5,000	<5.7	3.3 J	<5.5	33,000	<7.0	22.0
Total Solids(%)	NA	87.2	91.8	90.5	75.1	71.9	78.1
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0	1.0

**TABLE 5-9  
EMA-3 CONFIRMATORY SOIL SAMPLING DATA  
C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMXXX0345	CEPSEMXXX0357	CEPSEMA00357RX <sup>3</sup>	CEPSEMXXX0359	CEPSEMXXX0342	EMA3DEPSPLIT <sup>4</sup>
Acetone	400,000	<23	<29,000	<23	<22	<25	<24
2-Butanone	50	<23	<29,000	<23	<22	<25	<24
Ethylbenzene	70,000	<5.8	24,000.0	<5.7	<5.5	<6.3	<5.9
Methylene chloride	500	<5.8	<7200	<5.7	<5.5	<6.3	<5.9
4-Methyl-2-pentanone	200,000	<23	<29,000	<23	<22	<25	<24
Tetrachloroethene	2,000	<5.8	<7200	<5.7	<5.5	11	<5.9
Toluene	100,000	<5.8	4,100 J	<5.7	<5.5	<6.3	<5.9
Trichloroethene	100,000	<5.8	<7200	<5.7	<5.5	<6.3	<5.9
Total Xylenes	5,000	<5.8	330,000	<5.7	<5.5	18.0	<5.9
Total Solids(%)	NA	86.3	87.3	88.4	91.1	78.8	84.8
Dilution Factor	NA	1.0	1250.00	1.0	1.0	1.0	1.0

**NOTES:**

- 1 - Only those compounds that were detected are shown on this table.
- 2 - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
- 3 - Second round confirmation soil sample
- 4 - PADEP split-sample
- < - Not detected; value represents sample quantitation limit
- % - Percent
- J - Estimated value detected above the method detection limit but below the reporting limit
- µg/kg - Microgram per kilogram
- NA - Not applicable
- wt. - Weight

**TABLE 5-10  
EMA-4 SOIL SAMPLING DATA (BELOW LEAKING DRUMS)**

**C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION**

COMPOUND <sup>1</sup> (µg/kg)	PADEP Act 2 <sup>2</sup> Soil Standard	HIGHEST CONCENTRATION DETECTED	REPORTING LIMIT	SAMPLE NO.
<b>VOLATILE ORGANIC COMPOUNDS</b>				
<sup>3</sup> Acetone	4,000,000	670,000	610,000	401
Benzene	800	2,100	690	405
<sup>3</sup> 2-Butanone	50	1,300,000	610,000	401
Ethylbenzene	70,000	2,800,000	400,000	403
<sup>3</sup> 4-Methyl-2-pentanone	200,000	5,700,000	1,600,000	403
Trichloroethene	2,000	180,000	150,000	401
Styrene	10,000	910,000	400,000	403
Toluene	100,000	3,000,000	400,000	403
Xylenes (total)	5,000	15,000,000	480,000	406
<b>SEMIVOLATILE ORGANIC COMPOUNDS</b>				
<sup>4</sup> Acenaphthene	33,000	23,000 J	28,000	402
<sup>4</sup> Anthracene	1,000,000	220 J	730	405
<sup>4</sup> Benzo(a)anthracene	500,000	230 J	730	405
<sup>3</sup> Bis(2-ethylhexyl)phthalate	400,000	3,500,000	2,000,000	406
<sup>4</sup> Chrysene	300,000	350 J	730	405
<sup>4</sup> Dibenzofuran	30,000	29,000	28,000	402
1,2-Dichlorobenzene	7,000	19,000 J	28,000	402
2,4-Dimethylphenol	No Criteria	310,000 J	400,000	401
<sup>4</sup> Fluoranthene	400,000	7,300 J	28,000	402
<sup>4</sup> Fluorene	100,000	17,000 J	28,000	402
Isophorone	No Criteria	20,000,000	2,000,000	406
<sup>3</sup> 2-Methylnaphthalene	20,000	870,000 J	2,000,000	406
2-Methylphenol	No Criteria	600,000	400,000	401
4-Methylphenol	No Criteria	1,200,000	2,000,000	406
<sup>3</sup> Naphthalene	8,000	5,300,000	560,000	404
<sup>4</sup> Phenanthrene	80,000	35,000	28,000	402
<sup>3</sup> Phenol	400,000	950,000 J	2,000,000	406
<sup>4</sup> Pyrene	300,000	360 J	730	405

**NOTES:**

- <sup>1</sup> Only those compounds that were detected are shown on this table.
  - <sup>2</sup> PADEP Act 2 of 1995, Appendix B2: Statewide Human Health Standards for Soils - Soil to Groundwater Pathway.
  - <sup>3</sup> Compound was analyzed for but not detected during Phase III Site Assessment and was therefore determined not to be a constituent of concern at existing sites. However, this compound is present in soils at the newly-discovered site EMA-4 at concentrations *greater than* PADEP Act 2 Statewide Human Health Standards for Soils.
  - <sup>4</sup> Compound was analyzed for but not detected during Phase III Site Assessment and was therefore determined not to be a constituent of concern at existing sites. However, this compound is present in soils at the newly-discovered site EMA-4 at concentrations *less than* PADEP Act 2 Statewide Human Health Standards for Soils.
- J Estimated  
µg/kg Microgram per kilogram



**TABLE 5-11**  
**EMA-4 HAZARDOUS WASTE CHARACTERISTICS SOIL SAMPLING DATA**  
**C-E CAST FACILITY**  
**PHASE IV REMEDIATION**

PARAMETER	REGULATORY LEVEL (mg/L)	CEPSEMA00407XX	CEPSEMA00408XX	CEPSEMA00409XX
TCLP Volatiles (mg/L)				
Benzene	0.5	<0.25	<0.50	<0.025
Methyl ethyl ketone	200	<0.50	1.3	0.077
Carbon tetrachloride	0.5	<0.25	<0.50	<0.025
Chlorobenzene	100	<0.25	<0.50	<0.025
Chloroform	6	<0.25	<0.50	<0.025
1,2-Dichloroethane	0.5	<0.25	<0.50	<0.025
1,1-Dichloroethylene	0.7	<0.70	<1.4	<0.700
Tetrachloroethylene	0.7	<0.25	<0.50	<0.025
Trichloroethylene	0.5	<0.25	<0.50	<0.025
Vinyl chloride	0.2	0.50	<1.0	<0.050
Flash and Fire Points	140°F	>180°F	>180°F	>180°F

**NOTES:**

- < - Not detected; value represents sample quantitation limit
- > - Greater than
- °F - Degrees Fahrenheit
- mg/L - Milligram per liter
- TCLP - Toxicity Characteristic Leachate Procedure, Method 1311
- TCLP Volatiles by Method SW-846 8240A
- Flash and fire points by Methods ASTM D92-90



TABLE 5-12A  
EMA-4 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMA00410XX	CEPSEMA00410RX <sup>3</sup>	CEPSEMA00411XX	CEPSEMA00411RX <sup>3</sup>	CEPSEMA00412XX	CEPSEMA00412RX <sup>3</sup>
Methylene chloride	500	5.5 J	<5.9	<49,000	<6.0	<4,100	<5.7
Acetone	400,000	<24	<24	<200,000	<24	2,900 J	18 J
Chloroform	10,000	<6.1	<5.9	<49,000	<6.0	<4,100	<5.7
2-Butanone	50	<24	<24	<200,000	<24	<16,000	<23
1,1,1-Trichloroethane	20,000	8.8	<5.9	<49,000	<6.0	<4,100	<5.7
Trichloroethene	2,000	25	<5.9	<49,000	<6.0	2,200 J	<5.7
4-Methyl-2-pentanone	200,000	<24	<24	<200,000	<24	1,800 J	<23
Tetrachloroethene	2,000	30	<5.9	<49,000	<6.0	13,000	<5.7
Toluene	100,000	92	<5.9	59,000	<6.0	8,200	<5.7
Ethylbenzene	70,000	3.5 J	<5.9	350,000	<6.0	24,000	<5.7
Styrene	10,000	<6.1	<5.9	<49,000	<6.0	<4,100	<5.7
Total Xylenes	5,000	17	<5.9	1,800,000	<6.0	210,000	<5.7
Total Solids(%)	NA	82.1	84.8	62.6	83.3	76.5	87.1
Dilution Factor	NA	1.0	1.0	50	1.0	5.0	1.0

TABLE 5-12A  
EMA-4 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMA00413XX	CEPSEMA00414XX	CEPSEMA00414RX <sup>3</sup>	CEPSEMA00414RX <sup>3</sup> (Duplicate)	CEPSEMA00415XX	CEPSEMA00416XX
Methylene chloride	500	<19	<710	<5.6	<5.6	<5.7	<5.7
Acetone	400,000	44 J	880 J	<22	12 J	<23	<23
Chloroform	10,000	<19	<710	<5.6	<5.6	<5.7	<5.7
2-Butanone	50	<77	1,800 J	<22	<22	<23	<23
1,1,1-Trichloroethane	20,000	<19	<710	<5.6	<5.6	<5.7	<5.7
Trichloroethene	2,000	<19	820	<5.6	<5.6	<5.7	<5.7
4-Methyl-2-pentanone	200,000	9.9 J	4,500	6.7 J	6.6 J	4.0 J	<23
Tetrachloroethene	2,000	<19	1,200	<5.6	<5.6	<5.7	<5.7
Toluene	100,000	8.2 J	2,600	<5.6	<5.6	<5.7	<5.7
Ethylbenzene	70,000	11 J	3,300	<5.6	<5.6	<5.7	<5.7
Styrene	10,000	<19	<710	<5.6	<5.6	<5.7	<5.7
Total Xylenes	5,000	760	18,000	<5.6	<5.6	2.5 J	<5.7
Total Solids(%)	NA	86.0	86.8	89.9	90.0	87.3	87.2
Dilution Factor	NA	3.3	1.0	1.0	1.0	1.0	1.0



**TABLE 5-12A**  
**EMA-4 CONFIRMATORY SOIL SAMPLING DATA**  
**C-E CAST FACILITY**  
**PHASE IV SOIL REMEDIATION**

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMA00417XX	CEPSEMA00418XX	CEPSEMA00419XX	CEPSEMA00419RX <sup>3</sup>	CEPSEMA00420XX	CEPSEMA00420RX <sup>3</sup>
Methylene chloride	500	<14	<5.7	<670	<5.6	<700	<5.3
Acetone	400,000	<56	<23	690 J	19 J	1,400 J	<21
Chloroform	10,000	<14	<5.7	<670	<5.6	<700	<5.3
2-Butanone	50	<56	<23	1,300 J	<22	3,300	<21
1,1,1-Trichloroethane	20,000	<14	<5.7	<670	<5.6	<700	<5.3
Trichloroethene	2,000	<14	<5.7	390 J	<5.6	1,100	3.3 J
4-Methyl-2-pentanone	200,000	7.1 J	<23	2,600 J	<22	5,000	<21
Tetrachloroethene	2,000	8.4 J	<5.7	560 J	<5.6	1,600	8.1
Toluene	100,000	7.5 J	<5.7	1,500	<5.6	4,800	120
Ethylbenzene	70,000	46	<5.7	1,600	<5.6	6,200	46
Styrene	10,000	29	<5.7	<670	<5.6	<700	<5.3
Total Xylenes	5,000	370	7.1	12,000	<5.6	44,000	130
Total Solids(%)	NA	89.1	87.4	92.5	89.0	88.1	93.6
Dilution Factor	NA	2.5	1.0	1.0	1.0	1.0	1.0

TABLE 5-12A  
EMA-4 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>†</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMA00421XX	CEPSEMA00421XX (Duplicate)	CEPSEMA00421RX <sup>3</sup>	CEPSEMA00422XX	CEPSEMA00423XX	CEPSEMA00424XX
Methylene chloride	500	<710	<710	<5.6	<5.7	<5.4	<5.5
Acetone	400,000	<2900	1,100 J	<23	<23	<22	<22
Chloroform	10,000	<710	<710	<5.6	<5.7	<5.4	<5.5
2-Butanone	50	2,700 J	2,400 J	<23	<23	<22	<22
1,1,1-Trichloroethane	20,000	<710	<710	<5.6	<5.7	<5.4	<5.5
Trichloroethene	2,000	980	690 J	<5.6	<5.7	<5.4	<5.5
4-Methyl-2-pentanone	200,000	3,700	4,700	<23	11 J	49	<22
Tetrachloroethene	2,000	730	570 J	<5.6	<5.7	<5.4	<5.5
Toluene	100,000	3,500	3,300	<5.6	<5.7	2.6 J	<5.5
Ethylbenzene	70,000	4,300	4,800	<5.6	<5.7	<5.4	<5.5
Styrene	10,000	<710	<710	<5.6	<5.7	<5.4	<5.5
Total Xylenes	5,000	27,000	30,000	<5.6	<5.7	22	<5.5
Total Solids(%)	NA	87.1	87.5	88.9	87.8	91.8	90.4
Dilution Factor	NA	1.0	1.0	1.0	1.0	1.0	1.0

TABLE 5-12A  
EMA-4 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

VOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMA00425XX	CEPSEMA00425RX <sup>3</sup>	EMA4DEPSPLIT <sup>4</sup>
Methylene chloride	500	2.6 J	<5.7	<6.5
Acetone	400,000	<22	<23	<26
Chloroform	10,000	2.7 J	<5.7	<6.5
2-Butanone	50	<22	<23	<26
1,1,1-Trichloroethane	20,000	11	<5.7	<6.5
Trichloroethene	2,000	31	<5.7	6.0 J
4-Methyl-2-pentanone	200,000	<22	<23	7.3 J
Tetrachloroethene	2,000	160	<5.7	6.6
Toluene	100,000	130	<5.7	14
Ethylbenzene	70,000	3.8 J	<5.7	34
Styrene	10,000	<5.5	<5.7	17
Total Xylenes	5,000	7.8	<5.7	180
Total Solids(%)	NA	90.7	88.2	77.2
Dilution Factor	NA	1.0	1.0	1.0

NOTES:

- <sup>1</sup> - Only those compounds that were detected are shown on this table.
  - <sup>2</sup> - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
  - <sup>3</sup> - Second round confirmation soil sample
  - <sup>4</sup> - PADEP split-sample
- < - Not detected; value represents sample quantitation limit  
% - Percent  
J - Estimated value detected above the method detection limit but below the reporting limit  
µg/kg - Microgram per kilogram  
NA - Not applicable  
wt. - Weight
- Sample concentration exceeded PADEP Act 2 Soil Standard



TABLE 5-12B  
EMA-4 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMA00410	CEPSEMA00410RX <sup>3</sup>	CEPSEMA00411XX	CEPSEMA00411RX <sup>3</sup>	CEPSEMA00412XX	CEPSEMA00412RX <sup>3</sup>
Acenaphthene	30,000	<800	<390	<3,200,000	<400	<110,000	<380
Anthracene	1,000,000	<800	<390	<3,200,000	<400	<110,000	<380
Benzo (a) anthracene	500,000	370 J	<390	<3,200,000	<400	<110,000	<380
Benzo (b) fluoranthene	500,000	150 J	<390	<3,200,000	<400	<110,000	<380
Benzo (a) pyrene	500,000	100 J	<390	<3,200,000	<400	<110,000	<380
bis (2-Ethylhexyl) phthalate	400,000	3,000	<390	45,000,000	<400	1,200,000	<380
Butyl benzyl phthalate	100,000	160 J	<390	<3,200,000	<400	<110,000	<380
Chrysene	300,000	500 J	<390	<3,200,000	<400	<110,000	<380
Dibenzofuran	30,000	2,600	<390	<3,200,000	<400	<110,000	<380
Di-n-butyl phthalate	No Criteria	<800	<390	<3,200,000	<400	<110,000	<380
1,2-Dichlorobenzene	7,000	<800	<390	<3,200,000	<400	<110,000	<380
Di-n-octyl phthalate	No Criteria	<800	<390	<3,200,000	<400	<110,000	<380
Fluoranthene	400,000	320 J	<390	<3,200,000	<400	<110,000	<380
Fluorene	100,000	<800	<390	<3,200,000	<400	<110,000	<380
Isophorone	No Criteria	1,900	<390	<3,200,000	<400	<110,000	<380
2-Methylnaphthalene	20,000	11,000	<390	<3,200,000	<400	<110,000	<380
2-Methylphenol	500	<800	<390	<3,200,000	<400	<110,000	<380
4-Methylphenol	400	<800	<390	<3,200,000	<400	<110,000	<380
Naphthalene	8,000	8,800	<390	<3,200,000	<400	12,000 J	<380
Phenanthrene	80,000	4,100	<390	<3,200,000	<400	<110,000	<380
Phenol	400,000	<800	<390	<3,200,000	<400	<110,000	<380
Pyrene	300,000	340 J	<390	<3,200,000	<400	<110,000	<380
Carbazole	No Criteria	210 J	<390	<3,200,000	<400	<110,000	<380
Total Solids(%)	NA	82.1	84.8	62.6	83.3	76.5	87.1
Dilution Factor	NA	2.0	1.0	1,000	1.0	250	1.0

TABLE 5-12B  
EMA-4 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

SEMI-VOLATILE ORGANIC COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMA00413XX	CEPSEMA00414XX	CEPSEMA00414RX <sup>3</sup>	CEPSEMA00414RD <sup>3</sup> Duplicate	CEPSEMA00415XX	CEPSEMA00416XX
Acenaphthene	30,000	<380	<7,600	<370	<370	<380	<380
Anthracene	1,000,000	<380	<7,600	<370	<370	<380	<380
Benzo (a) anthracene	500,000	<380	<7,600	<370	<370	<380	<380
Benzo (b) fluoranthene	500,000	<380	<7,600	<370	<370	<380	<380
Benzo (a) pyrene	500,000	<380	<7,600	<370	<370	<380	<380
bis (2-Ethylhexyl) phthalate	400,000	270,000	85,000	<370	<370	<380	<380
Butyl benzyl phthalate	100,000	<380	<7,600	<370	<370	<380	3,500
Chrysene	300,000	<380	<7,600	<370	<370	<380	<380
Dibenzofuran	30,000	<380	1,100 J	<370	<370	<380	<380
Di-n-butyl phthalate	No Criteria	6,700	2,300 J	<370	<370	<380	<380
1,2-Dichlorobenzene	7,000	48 J	<7,600	<370	<370	<380	<380
Di-n-octyl phthalate	No Criteria	1,200	1,300 J	<370	<370	<380	<380
Fluoranthene	400,000	<380	<7,600	<370	<370	<380	<380
Fluorene	100,000	<380	<7,600	<370	<370	<380	<380
Isophorone	No Criteria	690	31,000	<370	<370	<380	<380
2-Methylnaphthalene	20,000	91 J	5,200 J	<370	<370	190 J	240 J
2-Methylphenol	500	<380	<7,600	<370	<370	57 J	56 J
4-Methylphenol	400	<380	2,900 J	<370	<370	<380	<380
Naphthalene	8,000	640	5,400 J	<370	<370	<380	<380
Phenanthrene	80,000	<380	2,200 J	<370	<370	75 J	75 J
Phenol	400,000	<380	<7,600	<370	<370	53 J	<380
Pyrene	300,000	<380	<7,600	<370	<370	<380	<380
Carbazole	No Criteria	<380	<7,600	<370	<370	<380	<380
Total Solids(%)	NA	86.0	86.8	89.9	90.0	87.3	87.2
Dilution Factor	NA	1.0	20	1.0	1.0	1.0	1.0

TABLE 5-12B  
EMA-4 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

SEMIVOLATILE ORGANIC COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMA00417XX	CEPSEMA00418XX	CEPSEMA00419XX	CEPSEMA00419RX <sup>3</sup>	CEPSEMA00420XX	CEPSEMA00420RX <sup>2</sup>
Acenaphthene	30,000	<7,400	<380	120 J	<370	<3,700	<350
Anthracene	1,000,000	<7,400	<380	<710	<370	<3,700	<350
Benzo (a) anthracene	500,000	<7,400	<380	<710	<370	<3,700	<350
Benzo (b) fluoranthene	500,000	<7,400	<380	<710	<370	<3,700	<350
Benzo (a) pyrene	500,000	<7,400	<380	<710	<370	<3,700	<350
bis (2-Ethylhexyl) phthalate	400,000	63,000	<380	9,300	<370	39,000	3,100
Butyl benzyl phthalate	100,000	<7,400	<380	<710	<370	<3,700	<350
Chrysene	300,000	<7,400	<380	<710	<370	<3,700	<350
Dibenzofuran	30,000	<7,400	<380	170 J	<370	570 J	<350
Di-n-butyl phthalate	No Criteria	<7,400	<380	550 J	<370	1,300 J	<350
1,2-Dichlorobenzene	7,000	<7,400	<380	<710	<370	<3,700	<350
Di-n-octyl phthalate	No Criteria	2,400 J	<380	<710	<370	930 J	170 J
Fluoranthene	400,000	<7,400	<380	<710	<370	<3,700	<350
Fluorene	100,000	<7,400	<380	130 J	<370	<3,700	<350
Isophorone	No Criteria	10,000	110 J	6,200	<370	18,000	170 J
2-Methylnaphthalene	20,000	1,200 J	<380	1,100	<370	2,000 J	<350
2-Methylphenol	500	<7,400	<380	1,400	<370	3,000 J	<350
4-Methylphenol	400	<7,400	<380	1,300	<370	3,200 J	<350
Naphthalene	8,000	1,600 J	<380	1,000	<370	3,300 J	<350
Phenanthrene	80,000	750 J	<380	260 J	<370	2,100 J	<350
Phenol	400,000	<7,400	<380	400 J	<370	<3,700	<350
Pyrene	300,000	<7,400	<380	<710	<370	<3,700	<350
Carbazole	No Criteria	<7,400	<380	<710	<370	<3,700	<350
Total Solids(%)	NA	89.1	87.4	92.5	89.0	88.1	93.6
Dilution Factor	NA	20	1.0	2.0	1.0	10	1.0

TABLE 5-12B  
EMA-4 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

SEMI-VOLATILE ORGANIC COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMA00421XX	CEPSEMA00421XD Duplicate	CEPSEMA00421RX <sup>3</sup>	CEPSEMA00422	CEPSEMA00423	CEPSEMA00424
Acenaphthene	30,000	<3,800	<3,800	<370	<380	<360	<370
Anthracene	1,000,000	<3,800	<3,800	<370	<380	<360	<370
Benzo (a) anthracene	500,000	<3,800	<3,800	<370	<380	<360	<370
Benzo (b) fluoranthene	500,000	<3,800	<3,800	<370	<380	<360	<370
Benzo (a) pyrene	500,000	<3,800	<3,800	<370	<380	<360	<370
bis (2-Ethylhexyl) phthalate	400,000	46,000	45,000	<370	1,100	1,400	<370
Butyl benzyl phthalate	100,000	<3,800	<3,800	<370	<380	<360	<370
Chrysene	300,000	<3,800	<3,800	<370	<380	<360	<370
Dibenzofuran	30,000	670	630	<370	<380	<360	<370
Di-n-butyl phthalate	No Criteria	1,500	1,400	<370	<380	<360	39 J
1,2-Dichlorobenzene	7,000	<3,800	420	<370	<380	<360	<370
Di-n-octyl phthalate	No Criteria	750	1,300	<370	<380	<360	81 J
Fluoranthene	400,000	<3,800	<3,800	<370	<380	<360	<370
Fluorene	100,000	<3,800	<3,800	<370	<380	<360	<370
Isophorone	No Criteria	12,000	14,000	<370	<380	<360	<370
2-Methylnaphthalene	20,000	1,500	1,700	<370	220	240	<370
2-Methylphenol	500	1,800	2,300	<370	<380	<360	<370
4-Methylphenol	400	2,600	3,400	<370	<380	<360	<370
Naphthalene	8,000	2,400	2,900	<370	<380	<360	<370
Phenanthrene	80,000	2,000	2,300	<370	<380	<360	<370
Phenol	400,000	1,200	1,400	<370	<380	<360	160 J
Pyrene	300,000	<3,800	<3,800	<370	<380	<360	<370
Carbazole	No Criteria	<3,800	<3,800	<370	<380	<360	<370
Total Solids(%)	NA	87.1	87.5	88.9	87.8	91.8	90.4
Dilution Factor	NA	10	10	1.0	1.0	1.0	1.0



TABLE 5-12B  
EMA-4 CONFIRMATORY SOIL SAMPLING DATA

C-E CAST FACILITY  
PHASE IV SOIL REMEDIATION

SEMIVOLATILE ORGANIC <sup>1</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEPSEMA00425	CEPSEMA00425RX <sup>3</sup>	EMA4DEPSPLIT <sup>4</sup>
Acenaphthene	30,000	<7,300	<750	150 J
Anthracene	1,000,000	10,000	<750	24 J
Benzo (a) anthracene	500,000	<7,300	<750	<430
Benzo (b) fluoranthene	500,000	<7,300	<750	<430
Benzo (a) pyrene	500,000	<7,300	<750	<430
bis (2-Ethylhexyl) phthalate	400,000	7,600	5,500	73,000 E
Butyl benzyl phthalate	100,000	<7,300	<750	<430
Chrysene	300,000	<7,300	<750	<430
Dibenzofuran	30,000	14,000	690 J	260 J
Di-n-butyl phthalate	No Criteria	<7,300	100 J	1,500
1,2-Dichlorobenzene	7,000	<7,300	160 J	89 J
Di-n-octyl phthalate	No Criteria	<7,300	<750	2,600
Fluoranthene	400,000	5,400 J	100 J	120 J
Fluorene	100,000	<7,300	<750	94 J
Isophorone	No Criteria	<7,300	810	3,400
2-Methylnaphthalene	20,000	4,600 J	270 J	<3,800
2-Methylphenol	500	<7,300	79 J	280 J
4-Methylphenol	400	<7,300	93 J	380 J
Naphthalene	8,000	1,900 J	200 J	1,900
Phenanthrene	80,000	110,000	1,300	610
Phenol	400,000	<7,300	87 J	200 J
Pyrene	300,000	3,000 J	<750	82 J
Carbazole	No Criteria	<7,300	<750	<430
Total Solids(%)	NA	90.7	88.2	77.2
Dilution Factor	NA	20	2.0	1.0

NOTES:

- 1 - Only those compounds detected are shown on this table.
  - 2 - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
  - 3 - Second round confirmation soil sample
  - 4 - PADEP split-sample
- < - Not detected; value represents sample quantitation limit  
% - Percent  
J - Estimated value detected above the method detection limit but below the reporting limit  
µg/kg - Microgram per kilogram  
NA - Not applicable  
wt. - Weight



**TABLE 5-13**  
**EMA 15' CONFIRMATORY SOIL SAMPLING DATA**  
**C-E CAST FACILITY**  
**PHASE IV SOIL REMEDIATION**

VOLATILE ORGANIC <sup>2</sup> COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>3</sup> Soil Standard	CEPSMA013E1XX	CEPSEMA013E2XX	CEPSEMA013M1XX	CEPSEMA013S1XX	CEPSEMA013W1XX	CEPSEMA013F1XX	CEPSEMA013F2XX	CEPSEMA013F3XX
Vinyl Chloride	10,000	<45	<46	<46	<46	<44	<44	<44	<46
1,1,1-Trichloroethane	20,000	<45	<46	<46	<46	<44	<44	<44	<46
Benzene	800	<45	<46	<46	<46	<44	<44	<44	<46
Trichloroethene	2,000	<45	<46	<46	<46	<44	<44	<44	<46
Toluene	100,000	<45	<46	<46	<46	<44	<44	<44	<46
Tetrachloroethene	2,000	<45	<46	<46	<46	<44	<44	<44	<46
Chlorobenzene	10,000	<45	<46	<46	<46	<44	<44	<44	<46
Ethylbenzene	70,000	<45	<46	<46	<46	<44	<44	<44	<46
m&p-Xylene	5,000 <sup>4</sup>	<45	<46	<46	<46	<44	<44	<44	<46
o-Xylene	5,000 <sup>4</sup>	<45	<46	<46	<46	<44	<44	<44	58
1,3-Dichlorobenzene	7,000	<45	<46	<46	<46	<44	<44	<44	<46
1,4-Dichlorobenzene	7,000	<45	<46	<46	<46	<44	<44	<44	<46
1,2-Dichlorobenzene	No Criteria	<45	<46	<46	<46	<44	<44	<44	<46
1,2,4-Trichlorobenzene	20,000	<45	<46	<46	<46	<44	<44	<44	<46
Naphthalene	8,000	<45	<46	<46	<46	<44	<44	<44	<46
Total Solids(%)	NA	89	86	87	86	91	90	91	87
Dilution Factor	NA	1.13	1.16	1.15	1.16	1.10	1.12	1.10	1.15

**NOTES:**

- 1 - Samples were incorrectly labelled EMA013. The correct identification is EMA015.
  - 2 - Only those compounds that were detected are shown on this table.
  - 3 - PADEP Act 2 Soil Standard - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
  - 4 - PADEP Act 2 Soil Standard for total xylenes is 5,000 µg/kg
- < - Not detected; value represents sample quantitation limit

% - Percent

µg/kg - Microgram per kilogram

NA - Not applicable

wt. - Weight



**TABLE 5-14**  
**SLUDGE AREA CONFIRMATORY SOIL SAMPLING DATA**  
**C-E CAST FACILITY**  
**PHASE IV SOIL REMEDIATION**

SEMIVOLATILE ORGANIC COMPOUNDS <sup>1</sup> (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEWA001XXX01XX	CEWA001XXX02XX	VOLATILE ORGANIC COMPOUNDS (µg/kg dry wt.)	PADEP Act 2 <sup>2</sup> Soil Standard	CEWA001XXX01XX	CEWA001XXX02XX
Chrysene	300,000	14,000	26,000	Toluene	100,000	8.2	7.3
2-Methylnaphthalene	20,000	12,000	<51,000	Total Xylenes	5,000	<5.6	2.4
Naphthalene	8,000	8,700	<51,000				J
Phenanthrene	80,000	9,100	5,700				
Pyrene	300,000	5,400	<51,000				
Total Solids(%)	NA	89.8	90.8	Total Solids(%)	NA	89.8	90.8
Dilution Factor	NA	20	20	Dilution Factor	NA	1.0	1.0

**NOTES:**

- <sup>1</sup> - Only those compounds that were detected are shown on this table.
- <sup>2</sup> - **PADEP Act 2 Soil Standard** - Pennsylvania Department of Environmental Protection, "Pennsylvania's Land Recycling Program," 7/18/95, Appendix B-2, Statewide Human Health Standards for Soils
- < - Not detected; value represents sample quantitation limit
- % - Percent
- J - Estimated value detected above the method detection limit but below the reporting limit
- µg/kg - Microgram per kilogram
- NA - Not applicable
- wt. - Weight

