

Table 1. Mean recovery, relative standard deviations, and detection limits for eight replicate analyses of metals in standard reference soil NIST SRM 2710.

SRM	Metal	Mean Recovery %	RSD %	Detection Limit mg/kg soil
Soil NIST SRM 2710	As	107	1.18	5.00
	Cd	106	1.14	0.50
	Cu	99	1.22	0.50
	Pb	98	1.39	1.50

Table 2. Total metal content of soils, soil/slag mixtures, and slags. All values are expressed as mg metal/kg soil. November 1, 2002.

Sample ID	Description	As	Cd	Cu	Pb
1	right side	23.1	9.60	280	373
2	backyard 6-inch	27.7	16.3	468	638
3	slag surface soil	84.7	32.9	1621	1342
4	front 6-inch	96.5	5.0	140	204
5	backyard surface	59.4	13.7	406	520
6	slag surface soil	21.9	10.5	751	145
7	slag	91.4	7.50	3541	153
8	slag	287	8.90	3535	6238
9	slag surface soil	107	33.0	1701	1139
10	backyard surface	11.9	5.90	223	209
11	slag soil	68.9	20.1	1979	430
12	left 6-inch	67.2	31.0	1408	1474
13	front surface	51.1	22.8	845	817
14	left surface	72.9	20.4	706	1171
15	front surface	41.9	11.5	364	566
16	backyard surface	47.5	22.0	651	922
	Mean	72.5	16.9	1164	1021
	Median	63.3	15	729	602
	Minimum	11.9	5	140	145
	Maximum	287	33	3541	6238
Samples sent to Dr. Stan Casteel					
	17	75.6	19.1	575	983
	18	71.8	17.5	735	1266

Table 3. Mean total As, IVG As, and % bioavailable As of soils, soil/slag mixtures, and slags. November 1, 2002.

Sample ID	Description	Total As mg/kg	IVG As mg/kg	% Bioavailable As
1	right side	23.1	10.4	45.3
2	backyard 6-inch	27.7	9.93	35.8
3	slag surface soil	84.7	40.4	47.8
4	front 6-inch	96.5	15.3	15.9
5	backyard surface	59.4	14.2	23.9
6	slag surface soil	21.9	4.52	20.7
7	slag	91.4	57.9	63.3
8	slag	287	8.40	2.93
9	slag surface soil	107	16.7	15.6
10	backyard surface	11.9	4.84	40.6
11	slag soil	68.9	15.7	22.8
12	left 6-inch	67.2	26.3	39.1
13	front surface	51.1	40.7	79.8
14	left surface	72.9	18.4	25.2
15	front surface	41.9	14.8	35.2
16	backyard surface	47.5	22.3	46.9
	Mean	72.5	20.0	35.1
	Median	63.3	15.5	35.5
	Minimum	11.9	4.52	2.93
	Maximum	287	57.9	79.8
Dr. Casteel Samples				
17		75.6	18.0	23.8
18		71.8	17.1	23.8

Table 4. Mean recovery, relative standard deviations, and detection limits for eight replicate analyses of metals in standard reference soil SRM 2710. (December 16, 2002).

SRM	Metal	Mean Recovery %	RSD %	Detection Limit mg/kg in soil
Soil SRM 2710	As	102	3.08	5.00
	Cd	102	5.00	0.50
	Cu	98	3.39	0.50
	Pb	96	3.36	1.50

Table 5. Total metal content of soils, soil/slag mixtures, and slags. All values are expressed as mg metal/kg soil. December 16, 2002.

Sample ID	Description	As	Cd	Cu	Pb
19	fine slag	414	24.9	14587	2422
20	fine slag	26663	7885	198100	61715
21	fine slag	26967	7740	194325	61118
22	crushed slag	680	15.6	6355	6661
22	whole slag	136	5.93	1398	3641
23	crushed slag	595	19.6	4709	3662
23	whole slag	117	7.44	759	1737
24	crushed slag	61.2	5.88	3365	247
24	whole slag	53.3	2.53	2324	176
25	crushed slag	31.3	4.59	3102	108
25	whole slag	10.7	2.08	1598	40.1
6	crushed slag	605	8.73	3439	819
6	whole slag	24.0	2.05	2308	55.9
8	crushed slag	45.1	3.20	2894	313
8	whole slag	63.2	1.66	1074	2151
13	front surface soil	40.8	18.8	751	712
26	soil	38.0	14.3	570	558
27	soil	61.4	14.9	904	705
28	soil	60.6	8.45	393	477
29	soil	64.8	20.4	443	778
30	soil	97.6	11.2	647	562
31	soil	34.3	11.2	342	384
	Mean	2585	719	20199	6775
	Median	62.3	9.96	1953	708
	Minimum	10.7	1.66	342	40.1
	Maximum	26967	7885	198100	61715

Table 6. Mean total As, IVG As, and % bioavailable As of soils, soil/slag mixtures, and slags. November 1, 2002.

Sample ID	Description	Total As mg/kg	IVG As mg/kg	% Bioavailable As
19	fine slag	414	38.4	9.27
20	fine slag	26663	9786	36.7
21	fine slag	26967	9905	36.7
22	crushed slag	680	319	46.9
22	whole slag	136	5.58	4.10
23	crushed slag	595	224	37.7
23	whole slag	117	19.1	16.3
24	crushed slag	61.2	50.4	82.3
24	whole slag	53.3	2.16	4.05
25	crushed slag	31.3	23.2	74.1
25	whole slag	10.7	1.21	11.3
6	crushed slag	605	163	26.9
6	whole slag	24.0	1.10	4.58
8	crushed slag	45.1	15.3	34.0
8	whole slag	63.2	6.20	9.89
13	front surface soil	40.8	17.1	42.0
26	soil	38.0	18.0	47.5
27	soil	61.4	15.5	25.2
28	soil	60.6	19.7	32.6
29	soil	64.8	31.8	49.0
30	soil	97.6	18.0	18.5
31	soil	34.3	14.4	41.8
	Mean	2585	941	31.4
	Median	62.3	18.6	33.3
	Minimum	10.7	1.1	4.1
	Maximum	26967	9905	82.3

Table 7. Mean total As, IVG As, and % bioavailable As of soils, soil/slag mixtures, and slags. November 1, 2002.

Sample ID	Report Date	Description	Total As mg/kg	IVG As mg/kg	% Bioavailable As
13	Nov. 1, 2002	surface soil	51.1	40.7	79.8
		bad rep removed	51.1	<b>18.3</b>	<b>35.8</b>
13	Dec 16, 2002	surface soil	40.8	17.1	42.0
26	Dec 16, 2002	soil	38.0	18.0	47.5
6	Nov. 1, 2002	crushed slag	21.9	4.52	20.7
6	Dec 16, 2002	crushed slag	605	163	26.9
6	Dec 16, 2002	whole slag	24.0	1.10	4.58
8	Nov. 1, 2002	crushed slag	287	8.40	2.93
8	Dec 16, 2002	crushed slag	45.1	15.3	34.0
8	Dec 16, 2002	whole slag	63.2	6.20	9.89

Table 8. Summary of IVG Bioavailable As values for all soils and slags

Sample ID	Description	Total As mg/kg	IVG As mg/kg	% IVG Bioavailable As
1	right side	23.1	10.4	45.3
2	backyard 6-inch	27.7	9.93	35.8
3	slag surface soil	84.7	40.4	47.8
4	front 6-inch	96.5	15.3	15.9
5	backyard surface	59.4	14.2	23.9
6	slag surface soil	605	163	26.9
6	whole slag	24.0	1.10	4.58
7	slag	91.4	57.9	63.3
8	slag	45.1	15.3	34.0
8	whole slag	63.2	6.20	9.89
9	slag surface soil	107	16.7	15.6
10	backyard surface	11.9	4.84	40.6
11	slag soil	68.9	15.7	22.8
12	left 6-inch	67.2	26.3	39.1
13	front surface	40.8	17.1	42.0
14	left surface	72.9	18.4	25.2
15	front surface	41.9	14.8	35.2
16	backyard surface	47.5	22.3	46.9
17	Dr. Casteel soil	75.6	18.0	23.8
18	Dr. Casteel soil	71.8	17.1	23.8