MAPEP Mixed Analyte Performance Evaluation Program

Sample Statistical Summary

MAPEP-09-MaS21

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Inorganic							Units: (mg/kg)
Aluminum	4						
Antimony	25	25	169.8	14.9	173.0	1.7	121.1 - 224.9
Arsenic	27	26	65.8	4.3	64.0	0.7	44.8 - 83.2
Barium	25	25	259	22	252	2	176 - 328
Beryllium	28	28	24.1	2.4	25.3	0.3	17.7 - 32.9
Cadmium	30	29	13.51	1.17	14.42	0.15	10.09 - 18.75
Calcium	4						
Chromium	28	27	71.6	6.2	76.4	0.9	53.5 - 99.3
Cobalt	30	29	60.6	5.6	66.8	0.7	46.8 - 86.8
Copper	29	28	62.3	4.4	63.1	0.6	44.2 - 82.0
Iron	4						
Lead	30	28	24.6	3.1	23.6	0.4	16.5 - 30.7
Magnesium	4						
Manganese	4						
Mercury	23	21	0.1030	0.0104	0.1093	0.0013	0.0765 - 0.1421
Molybdenum	4						
Nickel	30	28	61.6	7.0	65.5	0.7	45.9 - 85.2
Potassium	4						
Selenium	24	21	10.96	1.08	11.60	0.12	8.12 - 15.08
Silver	27	23			<0.2		False Positive Test
Sodium	4						
Technetium-99	2	2			0.00071	0.00001	0.00050 - 0.00092
Thallium	24	24	60.4	7.2	65.9	0.7	46.1 - 85.7
Uranium-235	14	11	0.118	0.020	0.119	0.002	0.083 - 0.155
Uranium-238	14	10	16.0	2.1	17.4	0.6	12.2 - 22.6
Uranium-Total	20	15	16.4	1.9	17.6	0.6	12.3 - 22.9
Vanadium	28	27	72.1	6.9	71.1	1.5	49.8 - 92.4
Zinc	30	30	215	23	225	3	158 - 293

Analyte	T(1)	A(2)	Calc(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Organic							Units: (ug/kg)
4,4'-DDD	13	13	260	52	260		103 - 417
4,4'-DDE	13	12	369	72	369		154 - 584
4,4'-DDT	13	13	405	93	405		124 - 685
Aldrin	14	14	155	33	155		55 - 255
alpha-BHC	13	13	344	72	344		128 - 560
beta-BHC	13	13	270	68	270		67 - 474
delta-BHC	13	13					
Dieldrin	13	13	306	58	306		133 - 479
Endosulfan I	13	13					
Endosulfan II	13	13	312	67	312		113 - 512
Endosulfan sulfate	13	13					
Endrin	14	14	296	50	296		147 - 445
Endrin Aldehyde	13	12					
Endrin Ketone	13	4	25.56	8.32	25.56		2.56 - 50.53
gamma-BHC (Lindane)	14	14	377	80	377		138 - 617
Heptachlor	14	13	80	18	80		26 - 133
Heptachlor epoxide	13	13					
Methoxychlor	13	13	269	79	269		33 - 504
1,2,4-Trichlorobenzene	18	18	1127	325	1127		152 - 2102

1,2-Dichlorobenzene	18	18	451	208	451	45 - 1074
1,3-Dichlorobenzene	17	17	1242	625	1242	124 - 3117
1,3-Dinitrobenzene	7	7				
1,4-Dichlorobenzene	17	17				
2,4,5-Trichlorophenol	18	18	3505	923	3505	736 - 6275
2,4,6-Trichlorophenol	18	18	1736	503	1736	226 - 3245
2,4-Dichlorophenol	18	18	2570	706	2570	452 - 4689
2,4-Dimethylphenol	17	17				
2,4-Dinitrophenol	18	18	2158	1223	2158	216 - 5828
2,4-Dinitrotoluene	18	18	1924	578	1924	192 - 3658
2,6-Dichlorophenol	11	11				
2,6-Dinitrotoluene	17	17				
2-Chloronaphthalene	17	17				
2-Chlorophenol	17	17				
2-Methylnaphthalene	18	17				
2-Methylphenol	18	18	383	241	383	38 - 1105
2-Nitrophenol	18	18	3258	945	3258	425 - 6092
3-Methyl & 4-Methylphenol	17	16				
4,6-Dinitro-2-methylphenol	17	17	3616	1682	3616	362 - 8664
4-Bromophenyl-phenylether	18	18	6044	1231	6044	2351 - 9737
4-Chloro-3-methylphenol	18	18	1677	484	1677	225 - 3130
4-Chlorophenyl-phenylether	17	17	4709	1014	4709	1668 - 7751
4-Nitrophenol	18	17				
Acenaphthene	18	18	1356	345	1356	321 - 2391
Acenaphthylene	17	17				
Anthracene	18	18	574	175	574	57 - 1098
Benzo(a)anthracene	17	17				
Benzo(a)pyrene	18	17	262	65	262	67 - 457
Benzo(b)fluoranthene	18	18	3037	681	3037	995 - 5080
Benzo(g,h,i)perylene	18	18	1769	450	1769	419 - 3118
Benzo(k)fluoranthene	18	16	1360	303	1360	451 - 2270
bis(2-chloroethoxy)methane	18	18	2849	711	2849	715 - 4982
bis(2-chloroethyl)ether	18	18	588	116	588	241 - 935
bis(2-chloroisopropyl)ether	16	16				
Bis(2-ethylhexyl)phthalate	18	17	2909	714	2909	767 - 5051
Butylbenzylphthalate	17	15	5851	1405	5851	1635 - 10067
Chrysene	18	18	964	209	964	337 - 1591
Di-n-butylphthalate	17	17	5991	1398	5991	1796 - 10185
Di-n-octylphthalate	18	17				
Dibenzo(a,h)anthracene	18	18	914	310	914	91 - 1844
Dibenzofuran	18	18	1286	276	1286	458 - 2113
Diethylphthalate	17	17				
Dimethylphthalate	18	18	6080	1269	6080	2272 - 9888
Fluoranthene	18	18	3910	774	3910	1588 - 6232
Fluorene	17	17				
Hexachlorobenzene	16	16				
Hexachlorobutadiene	17	17	546	191	546	55 - 1120
Hexachlorocyclopentadiene	19	18	1409	746	1409	141 - 3646
Hexachloroethane	18	17	573	211	573	57 - 1205
Indeno(1,2,3-c,d)pyrene	18	18	940	302	940	94 - 1846
Isophorone	18	18	2234	304	2234	1322 - 3147
Naphthalene	17	17				
Nitrobenzene	18	18	3587	936	3587	778 - 6396
Pentachlorophenol	17	17				
Phenanthrene	18	18	1368	329	1368	380 - 2357
Phenol	18	18	3143	900	3143	442 - 5844
Pyrene	18	17				

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Radiological							Units: (Bq/kg)
Americium-241	52	43	84.8	9.1	89.8	1.4	62.9 - 116.7
Antimony-125	1						
Cesium-134	50	49					False Positive Test
Cesium-137	70	67	695	59	669	10	468 - 870
Cobalt-57	70	64	599	57	586	11	410 - 762
Cobalt-58	1						
Cobalt-60	71	69	335	28	327	5	229 - 425
Iron-55	10	8	803	102	796	16	557 - 1035
Manganese-54	69	64	844	76	796	16	557 - 1035
Nickel-63	16	14	654	78	680	14	476 - 884
Plutonium-238	34	30	64.3	4.6	63.2	1.0	44.2 - 82.2
Plutonium-239/240	34	30	112.2	7.3	116.3	1.8	81.4 - 151.2
Potassium-40	62	59	390	37	375	8	263 - 488
Strontium-90	29	24	429	47	455	5	319 - 592
Technetium-99	18	16	393	47	444	8	311 - 577
Uranium-234/233	34	34	193	15	209	6	146 - 272
Uranium-235	8						
Uranium-238	40	37	200	17	217	7	152 - 282
Zinc-65	68	58	1269	98	1178	24	825 - 1531

Note: (1) T = Total number of laboratories reporting analyte.
(2) A = Number of laboratories with 'Acceptable' performance.
(3) Mean excludes values derived as total metals and values indicated as "Not Acceptable";
Additionally, mean for organics in soil is the biweight mean of all the data per NELAC FOPT Table.