MAPEP Mixed Analyte Performance Evaluation Program

Sample Statistical Summary

MAPEP-10-MaS22

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Inorganic							Units: (mg/kg)
Aluminum	5						
Antimony	23	18			<1.0		False Positive Test
Arsenic	25	24	81.62	4.89	79.51	.8	55.66 - 103.36
Barium	24	23	185.79	12.25	180.95	.82	126.67 - 235.24
Beryllium	26	25	48.67	3.21	51.36	.51	35.95 - 66.77
Cadmium	26	23	6.79	0.48	7.11	.08	4.98 - 9.24
Calcium	4						
Chromium	26	25	56.81	6.25	61.89	.84	43.32 - 80.46
Cobalt	26	25	82.7	6.9	89.7	.89	62.8 - 116.6
Copper	26	25	112.69	11.67	116.05	1.12	81.24 - 150.87
Iron	4						
Lead	25	23	39.75	3.04	40.05	.47	28.04 - 52.07
Magnesium	4						
Manganese	5						
Mercury	23	22	0.6033	0.0521	.6243	.0062	0.4370 - 0.8116
Molybdenum	5						
Nickel	26	25	149.6	12.4	164.3	1.59	115.0 - 213.6
Potassium	4						
Selenium	22	19	6.25	0.69	6.15	.06	4.31 - 8.00
Silver	25	24	44.26	3.78	45.19	.45	31.63 - 58.75
Sodium	5						
Technetium-99	3	2			<0.000012		False Positive Test
Thallium	23	21	186.77	15.20	200.15	2	140.11 - 260.20
Uranium-235	13	11	0.034	0.006	0.038	0.001	0.027 - 0.049
Uranium-238	13	11	4.8	0.8	5.1	0.2	3.6 - 6.6
Uranium-Total	17	16	4.5	0.7	5.1	0.2	3.6 - 6.6
Vanadium	26	25	113.52	9.61	113.43	1.68	79.40 - 147.46
Zinc	26	24	157.99	16.39	162.76	2.57	113.93 - 211.59

Analyte	T(1)	A(2)	Calc(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Organic							Units: (ug/kg)
4,4'-DDD	12	12	284.1	56.4	284.1		115.0 - 453.3
4,4'-DDE	12	12	308.7	60.6	308.7		127.0 - 490.4
4,4'-DDT	12	12	140.6	34.2	140.6		38.0 - 243.2
Aldrin	12	12	335.2	69.7	335.2		126.1 - 544.3
alpha-BHC	12	12	326.6	68.6	326.6		120.7 - 532.5
beta-BHC	11	11					
delta-BHC	11	11					
Dieldrin	12	12	281.7	53.7	281.7		120.7 - 442.6
Endosulfan I	11	11					
Endosulfan II	11	11					
Endosulfan sulfate	11	11					
Endrin	11	10					
Endrin Aldehyde	11	11					
Endrin Ketone	12	11					
gamma-BHC (Lindane)	12	12	400.2	84.2	400.2		147.5 - 652.9
Heptachlor	12	12	93.1	20.6	93.1		31.4 - 154.7
Heptachlor epoxide	11	11					
Methoxychlor	12	12	185.1	56.0	185.1		18.5 - 353.0
1,2,4-Trichlorobenzene	18	18	2333	604	2333		520 - 4146

1,2-Dichlorobenzene	17	17				
1,3-Dichlorobenzene	17	17	471	246	471	47 - 1210
1,3-Dinitrobenzene	7	7				
1,4-Dichlorobenzene	18	18	500	267	500	50 - 1300
2,4,5-Trichlorophenol	18	16	1464	407	1464	244 - 2684
2,4,6-Trichlorophenol	18	13	1099	369	1099	110 - 2206
2,4-Dichlorophenol	18	18	2607	715	2607	464 - 4751
2,4-Dimethylphenol	17	17				
2,4-Dinitrophenol	17	17				
2,4-Dinitrotoluene	17	16				
2,6-Dichlorophenol	11	11				
2,6-Dinitrotoluene	18	18	1330	347	1330	288 - 2371
2-Chloronaphthalene	18	18	2936	691	2936	864 - 5008
2-Chlorophenol	17	17				
2-Methylnaphthalene	18	18	2553	385	2553	1400 - 3707
2-Methylphenol	17	17				
2-Nitrophenol	17	17				
3-Methyl & 4-Methylphenol	16	16				
4,6-Dinitro-2-methylphenol	17	17				
4-Bromophenyl-phenylether	17	17				
4-Chloro-3-methylphenol	18	18	1288	416	1288	129 - 2537
4-Chlorophenyl-phenylether	17	17				
4-Nitrophenol	18	13	1543	533	1543	154 - 3141
Acenaphthene	18	18	1636	399	1636	438 - 2833
Acenaphthylene	17	16				
Anthracene	18	18	565	173	565	56 - 1082
Benzo(a)anthracene	17	16				
Benzo(a)pyrene	18	18	1943	452	1943	587 - 3298
Benzo(b)fluoranthene	18	17	1771	419	1771	514 - 3027
Benzo(g,h,i)perylene	17	17				
Benzo(k)fluoranthene	18	17	1166	261	1166	382 - 1950
bis(2-chloroethoxy)methane	17	17				
bis(2-chloroethyl)ether	17	16				
bis(2-chloroisopropyl)ether	17	16	2886	805	2886	471 - 5301
Bis(2-ethylhexyl)phthalate	18	17	2804	692	2804	728 - 4880
Butylbenzylphthalate	18	17	5627	1352	5627	1571 - 9682
Chrysene	18	18	1745	373	1745	626 - 2865
Di-n-butylphthalate	18	18	2428	638	2428	515 - 4342
Di-n-octylphthalate	18	17	6096	1648	6096	1152 - 11041
Dibenzo(a,h)anthracene	18	17	1037	333	1037	104 - 2036
Dibenzofuran	17	17				
Diethylphthalate	18	18	2908	734	2908	705 - 5111
Dimethylphthalate	18	18	3981	869	3981	1373 - 6589
Fluoranthene	18	18	3310	659	3310	1332 - 5288
Fluorene	18	18	1254	316	1254	307 - 2201
Hexachlorobenzene	17	17				
Hexachlorobutadiene	18	18	2034	557	2034	361 - 3706
Hexachlorocyclopentadiene	17	17				
Hexachloroethane	18	18	393	206	393	39 - 1010
Indeno(1,2,3-c,d)pyrene	17	14				
Isophorone	17	17				
Naphthalene	18	18	1684	433	1684	385 - 2982
Nitrobenzene	18	18	2549	703	2549	440 - 4658
Pentachlorophenol	17	17				
Phenanthrene	18	18	1950	434	1950	649 - 3250
Phenol	17	17				
Pyrene	17	13				

Analyte	T(1)	A(2)	Grand(3) Mean	Std Dev	Ref Value	Ref Unc	Acceptance Range
Radiological							Units: (Bq/kg)
Americium-241	42	36					False Positive Test
Antimony-125	1						
Cesium-134	71	66	686	67	733	11	513 - 953
Cesium-137	74	69	801	65	779	12	545 - 1013
Cobalt-57	72	67	541	47	522	10	365 - 679
Cobalt-58	4						
Cobalt-60	73	68	636	46	622	40	435 - 809
Iron-55	6	5					False Positive Test
Manganese-54	72	65	894	67	849	17	594 - 1104
Nickel-63	13	11	495	70	477	10	334 - 620
Plutonium-238	37	30	24.0	2.7	24.1	0.4	16.9 - 31.3
Plutonium-239/240	35	28					False Positive Test
Potassium-40	64	60	577	52	559	11	391 - 727
Strontium-90	31	31	268	27	288	6	202 - 374
Technetium-99	17	17					False Positive Test
Uranium-234/233	39	31	61	7	60	2	42 - 78
Uranium-235	6						
Uranium-238	43	35	64	7	64	2	45 - 83
Zinc-65	52	49					False Positive Test

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.