MAPEP Mixed Analyte Performance Evaluation Program

Sample Statistical Summary

MAPEP-07-MaS17

Analyte	T(1)	A(2)	Grand Mean	Standard Deviation	Ref Value	Analyte Text	Acceptance Range	Units
Aluminum	3							(mg/kg)
Antimony	26	20	82	10	84		59 - 109	(mg/kg)
Arsenic	29	28	38	3	37		26 - 48	(mg/kg)
Barium	29	29	150	119	121		85 - 157	(mg/kg)
Beryllium	29	28	41.9	3.0	45.3		31.7 - 58.9	(mg/kg)
Cadmium	30	30	9.8	0.8	11.0		7.7 - 14.3	(mg/kg)
Calcium	3							(mg/kg)
Chromium	29	29	75	11	71		50 - 92	(mg/kg)
Cobalt	27	26	116	7	110		77 - 143	(mg/kg)
Copper	28	28	113	8	120		84 - 156	(mg/kg)
Iron	3							(mg/kg)
Lead	30	29	71	5	69		48 - 90	(mg/kg)
Magnesium	3							(mg/kg)
Manganese	5							(mg/kg)
Mercury	23							(mg/kg)
Molybdenum	2							(mg/kg)
Nickel	30	30	80	6	79		55 - 103	(mg/kg)
Potassium	2							(mg/kg)
Selenium	25	18				False Positive Test		(mg/kg)
Silver	25	24	79.4	6.1	88.3		61.8 - 114.8	(mg/kg)
Sodium	2							(mg/kg)
Thallium	27	24	115	10	118		83 - 153	(mg/kg)
Uranium-Total	14	12	13.7	1.2	15.6		10.9 - 20.3	(mg/kg)
Uranium-235	9	8	0.10	0.01	0.11		0.08 - 0.14	(mg/kg)
Uranium-238	9	9	14.3	1.3	15.5		10.9 - 20.2	(mg/kg)
Vanadium	28	28	81	14	79		55 - 103	(mg/kg)
Zinc	29	27	67	8	67		47 - 87	(mg/kg)
Actinium-228	1							(Bq/kg)
Americium-241	53	50	31.2	3.1	34.8		24.4 - 45.2	(Bq/kg)
Bismuth-214	1							(Bq/kg)
Cadmium-109	2							(Bq/kg)
Cesium-134	69	69	297.7	31.1	327.4		229.2 - 425.6	(Bq/kg)

Cesium-137	71	70	787.3	63.4	799.7		559.8 - 1039.6	(Bq/kg)
Cobalt-57	72	70	460.9	41.2	471.2		329.8 - 612.6	(Bq/kg)
Cobalt-60	72	72	269.5	23.0	274.7		192.3 - 357.1	(Bq/kg)
Europium-154	1							(Bq/kg)
Iron-55	9	5	823.5	45.3	807.6		565.3 - 1049.9	(Bq/kg)
Lead-212	2							(Bq/kg)
Lead-214	2							(Bq/kg)
Manganese-54	71	70	691.2	60.2	685.2		479.6 - 890.8	(Bq/kg)
Nickel-63	14	13	512.3	68.2	585.0		409.5 - 760.5	(Bq/kg)
Plutonium-238	33	26	30.6	3.0	31.3		21.9 - 40.7	(Bq/kg)
Plutonium-239/240	33	30	41.3	3.4	44.5		31.2 - 57.9	(Bq/kg)
Potassium-40	67	64	605	59	602		421 - 783	(Bq/kg)
Strontium-90	33	29	283.0	29.5	319.0		223.3 - 414.7	(Bq/kg)
Technetium-99	21	17				False Positive Test		(Bq/kg)
Uranium-234/233	33	31	170.5	13.1	185.0		129.5 - 240.5	(Bq/kg)
Uranium-235	3							(Bq/kg)
Uranium-238	42	40	179.0	19.0	192.4		134.7 - 250.1	(Bq/kg)
Zinc-65	68	66	550.8	47.4	536.8		375.8 - 697.8	(Bq/kg)
Zirconium-95	2							(Bq/kg)
Aniline	8	8						(ug/kg)
Phenol	19	19						(ug/kg)
2-Chlorophenol	19	19						(ug/kg)
1,3-Dichlorobenzene	18	18						(ug/kg)
1,4-Dichlorobenzene	19	19						(ug/kg)
Benzyl Alcohol	11	11						(ug/kg)
1,2-Dichlorobenzene	19	19						(ug/kg)
Hexachloroethane	20	20	223.5	120.8	193.0		QL - 479.9	(ug/kg)
Nitrobenzene	19	19						(ug/kg)
Isophorone	19	19						(ug/kg)
2-Nitrophenol	19	19						(ug/kg)
2,4-Dimethylphenol	19	19	138	32	180			(ug/kg)
2,4-Dichlorophenol	20	20	4741	1317	4762		347 - 9177	(ug/kg)
1,2,4-Trichlorobenzene	20	20	2488	759	2460		146 - 4775	(ug/kg)
Naphthalene	19	19						(ug/kg)
Hexachlorobutadiene	20	20	1820	621	1744		295 - 3193	(ug/kg)
4-Chloro-3-methylphenol	20	20	2546	785	2520		89 - 4951	(ug/kg)

2-Methylnaphthalene	18	18					(ug/kg)
2-Methylphenol	20	20	168.0	85.6	167.5	QL - 405.6	(ug/kg)
Hexachlorocyclopentadiene	20	20	214.0	142.2	174.5	QL - 446.9	(ug/kg)
3 Methyl & 4-Methylphenol	19	19					(ug/kg)
2,4,6-Trichlorophenol	20	20	1175	349	1168	50 - 2285	(ug/kg)
2,6-Dichlorophenol	7	7					(ug/kg)
o-Toluidine	5	5					(ug/kg)
1,4-Phenylenediamine	3	3					(ug/kg)
2-Chloronaphthalene	19	19	1061	229	1049	355 - 1742	(ug/kg)
2-Nitroaniline	13	13					(ug/kg)
Dimethylphthalate	20	20	4031	945	4100	1192 - 7009	(ug/kg)
Acenaphthylene	19	18					(ug/kg)
2,6-Dinitrotoluene	20	20	2369	512	2347	968 - 3726	(ug/kg)
3-Nitroaniline	13	13					(ug/kg)
Acenaphthene	20	19	1375	316	1367	375 - 2359	(ug/kg)
2,4-Dinitrotoluene	20	20	1545	352	1555	533 - 2577	(ug/kg)
2,4-Dinitrophenol	19	19					(ug/kg)
4-Chloroaniline	13	13					(ug/kg)
Dibenzofuran	18	18					(ug/kg)
4-Nitrophenol	19	19					(ug/kg)
2-Naphthylamine	6	6					(ug/kg)
1,4-Naphthoquinone	4	4					(ug/kg)
Fluorene	20	20	3041	600	3048	988 - 5108	(ug/kg)
Diethylphthalate	20	20	2480	591	2505	633 - 4378	(ug/kg)
4,6-Dinitro-2-methylphenol	18	18					(ug/kg)
1,2,4,5-Tetrachlorobenzene	6	6					(ug/kg)
2,4,5-Trichlorophenol	19	19					(ug/kg)
Hexachlorobenzene	20	20	1761	388	1754	466 - 3043	(ug/kg)
Pentachlorophenol	19	19					(ug/kg)
4-Nitroaniline	13	13					(ug/kg)
Phenanthrene	19	19					(ug/kg)
Anthracene	20	20	1557	333	1547	469 - 2625	(ug/kg)
1,4-Dinitrobenzene	4	4					(ug/kg)
1,3-Dinitrobenzene	5	5					(ug/kg)
1,2-Dinitrobenzene	2	2					(ug/kg)
Pentachlorobenzene	5	5					(ug/kg)
Pentachloronitrobenzene	5	5					(ug/kg)
Di-n-butylphthalate	20	20	3974	803	3954	1635 - 6273	(ug/kg)
2,3,4,6-Tetrachlorophenol	7	7					(ug/kg)

Fluoranthene	20	20	5842	1230	5822	1659 - 9986	(ug/kg)
Pyrene	20	20	2339	460	2313	812 - 3815	(ug/kg)
Dinoseb	4	4					(ug/kg)
Butylbenzylphthalate	19	19					(ug/kg)
Benzo(a)anthracene	20	20	2804	543	2786	1012 - 4561	(ug/kg)
Chrysene	20	20	3469	698	3446	1146 - 5746	(ug/kg)
Bis(2-ethylhexyl)phthalate	20	20	2749	599	2760	889 - 4630	(ug/kg)
Di-n-octylphthalate	20	20	1132	282	1141	244 - 2038	(ug/kg)
Benzo(b)fluoranthene	20	20	1785	335	1793	658 - 2928	(ug/kg)
Benzo(k)fluoranthene	19	19					(ug/kg)
Benzo(a)pyrene	19	19					(ug/kg)
Indeno(1,2,3-c,d)pyrene	19	19					(ug/kg)
Dibenzo(a,h)anthracene	20	20	1040	297	1029	153 - 1905	(ug/kg)
Benzo(g,h,i)perylene	19	19					(ug/kg)
alpha-BHC	14	13	21.90	7.38	20.06	10.69 - 29.43	(ug/kg)
beta-BHC	13	13					(ug/kg)
gamma-BHC (Lindane)	13	13					(ug/kg)
delta-BHC	13	12					(ug/kg)
Heptachlor	14	14	9.51	6.00	9.23	QL - 29.91	(ug/kg)
Aldrin	15	14	65.11	12.01	63.47	30.90 - 96.05	(ug/kg)
Heptachlor epoxide	13	11					(ug/kg)
Endosulfan I	13	13					(ug/kg)
4,4'-DDE	15	14	123.8	37.4	123.7	1.5 - 245.9	(ug/kg)
Dieldrin	15	15	17.8	6.1	18.1	QL - 38.1	(ug/kg)
Endrin	14	12	5.62	1.97	5.32	QL - 10.82	(ug/kg)
4,4'-DDD	15	13	16.23	7.12	16.43	QL - 42.23	(ug/kg)
Endosulfan II	13	12					(ug/kg)
4,4'-DDT	15	15	29.26	14.32	29.50	QL - 78.66	(ug/kg)
Endrin Aldehyde	13	12					(ug/kg)
Endosulfan sulfate	13	13					(ug/kg)
Endrin Ketone	8	8					(ug/kg)
Methoxychlor	8	8					(ug/kg)

Note: (1) T = Total number of laboratories reporting analyte.
(2) A = Number of laboratories with 'Acceptable' performance.

1. For organic components with absolute value of Z-score < 3
2. Acceptance range minimum labeled as "QL" means from detection limit to the upper range.