Table 4-3
Summary Statistics for Background Metals

Metal	Data Distribution [1]		Summary Statistics						Background Threshold Value		Maine RAGs for Comparison [4] (mg/kg)			
	Normal	Lognormal	Number of Results	Number Detected	Percent Detected	Minimum Detected	Maximum Detected	Mean [2]	Final UPL [3]	Statistic / Rationale	Residential	Park User	Commercial	Construction
Mercury			140	135	96%	0.01	0.18	0.0674	0.123	90% KM Statistics	51	510	85	930
Silver			140	1	1%	1	1	NA	NA [5]		850	8500	1400	1500
Arsenic	X		143	143	100%	1	25	9.8	16.4	90% Normal UPL	1.4	4.2	2.3	42
Barium	X		144	144	100%	117	602	351	469	90% Normal UPL	34000	340000	57000	62000
Beryllium			144	144	100%	0.2	3.1	1.5	2.4	90% UPL	340	3400	570	620
Bismuth		X	140	140	100%	0.06	0.32	0.17	0.25	90% Lognormal UPL	--	--	--	--
Cadmium			133	94	71%	0.1	0.3	0.15	0.26	90% UPL	11	94	18	19
Cerium			147	147	100%	10.8	81	48	63	90% UPL	--	--	--	--
Cobalt	X		150	150	100%	0.6	20.8	8.9	14.9	90% Normal UPL	51	510	85	920
Chromium	X		150	150	100%	7	98	51	79	90% Normal UPL	--	--	--	--
Cesium			137	3	0%	NA	NA	NA	NA [5]		--	--	--	--
Copper			141	141	100%	2.4	32	13.0	23	90% UPL	2400	24000	4000	4300
Gallium	X		141	141	100%	6.23	22.1	13.9	18.0	90% Normal UPL	--	--	--	--
Indium			148	135	91%	0.02	0.09	0.044	0.065	90% KM Statistics	--	--	--	--
Lanthanum			148	148	100%	5.2	37.3	22	30	90% UPL	--	--	--	--
Lithium	X		147	147	100%	3	55	27	42	90% Normal UPL	--	--	--	--
Manganese	X		138	138	100%	103	1210	549	841	90% Normal UPL	4100	40000	6800	7400
Molybdenum		X	142	142	100%	0.21	1.3	0.65	0.98	90% Lognormal UPL	850	8500	1400	1500
Niobium	X		138	138	100%	0.9	11.7	6.1	8.9	90% Normal UPL	--	--	--	--
Nickel	X	X	149	149	100%	4.1	55.4	24	39	90% Normal UPL	510	5100	850	930
Phosphorus		X	147	147	100%	240	1460	721	1126	90% Lognormal UPL	--	--	--	--
Lead		X	134	134	100%	7.2	43.2	23	32	90% Lognormal UPL	340	1100	530	950
Rubidium			136	136	100%	29.3	128	75	104	90% UPL	--	--	--	--
Antimony	X		141	140	99%	0.05	0.99	0.46	0.71	90% Normal UPL	68	680	110	120
Scandium	X		148	148	100%	1	17	9.2	13.7	90% Normal UPL	--	--	--	--
Tin			133	133	100%	0.8	3.4	2.0	2.7	90% UPL	--	--	--	--
Strontium		X	141	141	100%	23.9	167	86	131	90% Lognormal UPL	--	--	--	--
Tellurium			159	0	0%	NA	NA	NA	NA [6]		--	--	--	--
Thorium			138	138	100%	2.9	10.9	6.9	8.8	90% UPL	--	--	--	--
Thallium			124	124	100%	0.3	0.6	0.45	0.60	90% UPL	14	140	23	250
Uranium			142	142	100%	0.5	2.9	1.7	2.2	90% UPL	--	--	--	--
Vanadium	X		159	150	94%	10	134	68	103	90% Normal UPL	1200	12000	2000	2200
Tungsten			136	136	100%	0.1	1.4	0.60	1.1	90% UPL	--	--	--	--
Yttrium	X		144	144	100%	2	19.3	10.3	15.1	90% Normal UPL	--	--	--	--
Zinc	X		148	148	100%	10	139	66	101	90% Normal UPL	51000	510000	85000	93000
Selenium	X		148	92	62%	0.2	0.9	0.32	0.61	90% KM Statistics	340	3400	570	1500

Notes
1) Represents the distribution of each dataset once outliers were removed. Data distribution was determined via ProUCL's Goodness of Fit tests (See Attachement D-4).
2) Mean was calculated using 1/2 the reporting limit for nondetects
3) Hierachy followed for UPL selection is normal distribution, lognormal distribution then nonparametric distribution. See text for further discussion. See Attachment D-7 for ProUCL Outputs
4) 1. Guidelines for residential, park user, commercial worker and excavation or construction worker were selected from the MEDEP Soil Remediation Guidelines.
http://maine.gov/dep/rwm/publications/guidance/rags/Final%201-13-2010/3-RAGs_Appendix_1-2-3_Jan_13_2010.pdf
Highlighted cells indicate those which are lower than their respective estimated background value (UPL)
5) UPL could not be calculated as there is only 1 distinct value (detect) within the dataset.
6) UPL could not be calculated as all results were reported as nondetect
UPL: Upper Prediction Limit
"--" indicates that Maine RAGs were not available.
"NA" indicates value is not applicable or not available

Prepared By: RRD
Checked By: EYM