



AAFCO
Association of American Feed Control Officials



Minerals Scheme

Llama and Alpaca Feed

Test Material Code # 202351

Analyte Proficiency Testing Report

Labs Reporting: 26

Analytes Reported 16

Issue Date : 04/30/2023

Method Group	Analyte Group (Units)	Lab Code	Lab Data		Analyte Values				AAFCO PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Horwitz SD	Rob R-bar	# Tests			
015	Aluminum (ppm)	0511	470.5	3.000	589.5	36.10	6.786	17	-3.30	015.43	0
015	Aluminum (ppm)	0510	521.0	6.000	589.5	36.10	6.786	17	-1.90	015.43	0
015	Aluminum (ppm)	2292	524.0	10.00	589.5	36.10	6.786	17	-1.81	015.99	0
015	Aluminum (ppm)	0047	539.6	6.400	589.5	36.10	6.786	17	-1.38	015.52	0
015	Aluminum (ppm)	0870	543.4	2.334	589.5	36.10	6.786	17	-1.28	015.43	0
015	Aluminum (ppm)	0186	565.0	2.010	589.5	36.10	6.786	17	-0.68	015.52	0
015	Aluminum (ppm)	0407	570.8	1.791	589.5	36.10	6.786	17	-0.52	015.41	0
015	Aluminum (ppm)	0407	593.1	6.629	589.5	36.10	6.786	17	0.10	015.53	0
015	Aluminum (ppm)	0160	596.0	14.00	589.5	36.10	6.786	17	0.18	015.42	0
015	Aluminum (ppm)	0629	598.0	2.000	589.5	36.10	6.786	17	0.24	015.43	0
015	Aluminum (ppm)	0227	616.0	8.000	589.5	36.10	6.786	17	0.73	015.43	0
015	Aluminum (ppm)	2033	624.8	6.500	589.5	36.10	6.786	17	0.98	015.43	0
015	Aluminum (ppm)	0148	628.5	12.59	589.5	36.10	6.786	17	1.08	015.43	0
015	Aluminum (ppm)	0918	631.3	16.80	589.5	36.10	6.786	17	1.16	015.53	0
015	Aluminum (ppm)	0964	634.0	18.00	589.5	36.10	6.786	17	1.23	015.43	0
015	Aluminum (ppm)	0098	656.7	2.100	589.5	36.10	6.786	17	1.86	015.43	0
015	Aluminum (ppm)	0278	718.5	1.500	589.5	36.10	6.786	17	3.57	015.43	0
017	Boron (ppm)	0870	20.25	0.4885	21.80	2.193	0.5684	7	-0.70	017.43	0
017	Boron (ppm)	0510	21.50	1.000	21.80	2.193	0.5684	7	-0.13	017.43	0
017	Boron (ppm)	0629	21.60	0.6000	21.80	2.193	0.5684	7	-0.09	017.43	0
017	Boron (ppm)	0407	21.80	0.2725	21.80	2.193	0.5684	7	0.00	017.41	0
017	Boron (ppm)	2033	21.85	0.1000	21.80	2.193	0.5684	7	0.03	017.43	0
017	Boron (ppm)	0098	22.50	1.370	21.80	2.193	0.5684	7	0.32	017.43	0
017	Boron (ppm)	0407	22.65	0.1618	21.80	2.193	0.5684	7	0.39	017.53	0
017	Boron (ppm)	0160	20.65	4.100	21.80	2.193	0.5684	7	-0.52	017.42	1
021	Cobalt (ppm)	0511	17.50	1.000	22.47	2.250	0.6738	18	-2.21	021.43	0
021	Cobalt (ppm)	0047	19.81	1.563	22.47	2.250	0.6738	18	-1.18	021.52	0
021	Cobalt (ppm)	0227	20.00	0.0000	22.47	2.250	0.6738	18	-1.10	021.43	0
021	Cobalt (ppm)	0407	20.38	0.4499	22.47	2.250	0.6738	18	-0.93	021.41	0
021	Cobalt (ppm)	0918	20.89	1.036	22.47	2.250	0.6738	18	-0.70	021.53	0
021	Cobalt (ppm)	0510	21.58	0.2300	22.47	2.250	0.6738	18	-0.40	021.43	0
021	Cobalt (ppm)	0148	22.05	0.5148	22.47	2.250	0.6738	18	-0.19	021.43	0
021	Cobalt (ppm)	2141	22.14	0.4445	22.47	2.250	0.6738	18	-0.15	021.43	0

Method Group	Analyte Group (Units)	Lab Code	Lab Data		Analyte Values				AAFCO PT	Your	Flag
			Value	Range	Rob Mean	Horwitz SD	Rob R-bar	# Tests	Z Score	Method	
021	Cobalt (ppm)	0186	22.25	0.2300	22.47	2.250	0.6738	18	-0.10	021.52	0
021	Cobalt (ppm)	0098	22.95	0.2500	22.47	2.250	0.6738	18	0.21	021.53	0
021	Cobalt (ppm)	2113	23.00	2.000	22.47	2.250	0.6738	18	0.23	021.52	0
021	Cobalt (ppm)	0563	23.09	0.5132	22.47	2.250	0.6738	18	0.27	021.31	0
021	Cobalt (ppm)	0572	23.30	1.400	22.47	2.250	0.6738	18	0.37	021.53	0
021	Cobalt (ppm)	0629	23.70	0.0000	22.47	2.250	0.6738	18	0.55	021.43	0
021	Cobalt (ppm)	0870	24.07	0.1915	22.47	2.250	0.6738	18	0.71	021.43	0
021	Cobalt (ppm)	0407	24.62	0.4940	22.47	2.250	0.6738	18	0.95	021.53	0
021	Cobalt (ppm)	2033	25.75	0.3100	22.47	2.250	0.6738	18	1.45	021.43	0
021	Cobalt (ppm)	0278	26.13	0.8200	22.47	2.250	0.6738	18	1.63	021.43	0
022	Copper (ppm)	0529	20.95	0.1000	50.27	4.459	1.286	23	-6.57	022.31	0
022	Copper (ppm)	2292	38.50	1.000	50.27	4.459	1.286	23	-2.64	022.99	0
022	Copper (ppm)	0511	41.50	1.000	50.27	4.459	1.286	23	-1.97	022.43	0
022	Copper (ppm)	0047	44.45	3.442	50.27	4.459	1.286	23	-1.30	022.52	0
022	Copper (ppm)	0186	46.93	1.800	50.27	4.459	1.286	23	-0.75	022.52	0
022	Copper (ppm)	0148	47.23	1.087	50.27	4.459	1.286	23	-0.68	022.43	0
022	Copper (ppm)	0629	48.80	0.0000	50.27	4.459	1.286	23	-0.33	022.43	0
022	Copper (ppm)	0098	48.83	0.9900	50.27	4.459	1.286	23	-0.32	022.53	0
022	Copper (ppm)	0572	48.95	0.1000	50.27	4.459	1.286	23	-0.30	022.53	0
022	Copper (ppm)	0227	49.00	0.0000	50.27	4.459	1.286	23	-0.28	022.43	0
022	Copper (ppm)	0563	49.17	2.268	50.27	4.459	1.286	23	-0.25	022.31	0
022	Copper (ppm)	0870	49.82	0.4472	50.27	4.459	1.286	23	-0.10	022.43	0
022	Copper (ppm)	0017	50.43	0.0947	50.27	4.459	1.286	23	0.04	022.43	0
022	Copper (ppm)	0964	52.05	1.900	50.27	4.459	1.286	23	0.40	022.43	0
022	Copper (ppm)	0723	52.33	0.0740	50.27	4.459	1.286	23	0.46	022.43	0
022	Copper (ppm)	0407	52.79	2.580	50.27	4.459	1.286	23	0.57	022.53	0
022	Copper (ppm)	0010	53.50	1.000	50.27	4.459	1.286	23	0.73	022.33	0
022	Copper (ppm)	0407	53.79	1.290	50.27	4.459	1.286	23	0.79	022.41	0
022	Copper (ppm)	2113	54.00	4.000	50.27	4.459	1.286	23	0.84	022.52	0
022	Copper (ppm)	2141	55.85	1.056	50.27	4.459	1.286	23	1.25	022.43	0
022	Copper (ppm)	2033	56.25	0.3000	50.27	4.459	1.286	23	1.34	022.43	0
022	Copper (ppm)	0510	56.50	1.000	50.27	4.459	1.286	23	1.40	022.43	0
022	Copper (ppm)	0278	60.05	3.900	50.27	4.459	1.286	23	2.19	022.42	0
023	Fluorine (ppm)	0227	115.0	10.00				2		023.01	0
023	Fluorine (ppm)	2033	120.5	7.000				2		023.01	0
024	Iodine (ppm)	0160	3.450	0.1000				2		024.52	0
024	Iodine (ppm)	0186	94.10	5.480				2		024.52	0
034	Selenium, Total (Se) (ppm)	0009	0.5815	0.0575	0.8049	0.1330	0.0359	15	-1.68	034.53	0
034	Selenium, Total (Se) (ppm)	0572	0.6255	0.0390	0.8049	0.1330	0.0359	15	-1.35	034.53	0
034	Selenium, Total (Se) (ppm)	0227	0.6625	0.0430	0.8049	0.1330	0.0359	15	-1.07	034.53	0
034	Selenium, Total (Se) (ppm)	0563	0.6669	0.0176	0.8049	0.1330	0.0359	15	-1.04	034.04	0
034	Selenium, Total (Se) (ppm)	2033	0.6750	0.0100	0.8049	0.1330	0.0359	15	-0.98	034.53	0

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034	Selenium, Total (Se) (ppm)	0511	0.6850	0.0700	0.8049	0.1330	0.0359	15	-0.90	034.43	0
034	Selenium, Total (Se) (ppm)	0148	0.6920	0.1140	0.8049	0.1330	0.0359	15	-0.85	034.42	0
034	Selenium, Total (Se) (ppm)	0870	0.7473	0.0079	0.8049	0.1330	0.0359	15	-0.43	034.43	0
034	Selenium, Total (Se) (ppm)	0407	0.8022	0.0148	0.8049	0.1330	0.0359	15	-0.02	034.53	0
034	Selenium, Total (Se) (ppm)	0098	0.8135	0.0350	0.8049	0.1330	0.0359	15	0.06	034.53	0
034	Selenium, Total (Se) (ppm)	0278	0.8300	0.0400	0.8049	0.1330	0.0359	15	0.19	034.53	0
034	Selenium, Total (Se) (ppm)	0918	0.9550	0.0020	0.8049	0.1330	0.0359	15	1.13	034.53	0
034	Selenium, Total (Se) (ppm)	0629	1.100	0.0600	0.8049	0.1330	0.0359	15	2.22	034.43	0
034	Selenium, Total (Se) (ppm)	0186	2.097	0.0532	0.8049	0.1330	0.0359	15	9.71	034.52	0
034	Selenium, Total (Se) (ppm)	0723	2.709	0.0110	0.8049	0.1330	0.0359	15	14.31	034.43	0
034	Selenium, Total (Se) (ppm)	0010	1.300	0.2000	0.8049	0.1330	0.0359	15	3.72	034.53	1
034	Selenium, Total (Se) (ppm)	0964	< 1		0.8049	0.1330	0.0359	15		034.43	5
034	Selenium, Total (Se) (ppm)	2141	< 5		0.8049	0.1330	0.0359	15		034.43	5
036	Sulfur (%)	0186	0.3577	0.0188	0.3814	0.0176	0.0152	13	-1.35	036.42	0
036	Sulfur (%)	0629	0.3650	0.0100	0.3814	0.0176	0.0152	13	-0.93	036.43	0
036	Sulfur (%)	0227	0.3700	0.0000	0.3814	0.0176	0.0152	13	-0.65	036.53	0
036	Sulfur (%)	0964	0.3723	0.0329	0.3814	0.0176	0.0152	13	-0.52	036.43	0
036	Sulfur (%)	0407	0.3728	0.0203	0.3814	0.0176	0.0152	13	-0.49	036.42	0
036	Sulfur (%)	0186	0.3768	0.0083	0.3814	0.0176	0.0152	13	-0.27	036.52	0
036	Sulfur (%)	0870	0.3787	0.0087	0.3814	0.0176	0.0152	13	-0.16	036.42	0
036	Sulfur (%)	0510	0.3850	0.0100	0.3814	0.0176	0.0152	13	0.20	036.43	0
036	Sulfur (%)	2033	0.3850	0.0100	0.3814	0.0176	0.0152	13	0.20	036.43	0
036	Sulfur (%)	0098	0.3885	0.0010	0.3814	0.0176	0.0152	13	0.40	036.43	0
036	Sulfur (%)	2292	0.3935	0.0050	0.3814	0.0176	0.0152	13	0.68	036.99	0
036	Sulfur (%)	2141	0.4099	0.0272	0.3814	0.0176	0.0152	13	1.61	036.43	0
036	Sulfur (%)	0278	0.4550	0.0300	0.3814	0.0176	0.0152	13	4.17	036.42	0
038	Molybdenum (ppm)	0563	2.385	0.4000	4.186	0.5398	0.2325	19	-3.34	038.34	0
038	Molybdenum (ppm)	0870	2.589	0.0004	4.186	0.5398	0.2325	19	-2.96	038.43	0
038	Molybdenum (ppm)	0047	3.710	0.0320	4.186	0.5398	0.2325	19	-0.88	038.52	0
038	Molybdenum (ppm)	0918	3.844	0.5780	4.186	0.5398	0.2325	19	-0.63	038.53	0
038	Molybdenum (ppm)	0407	3.850	0.0352	4.186	0.5398	0.2325	19	-0.62	038.41	0
038	Molybdenum (ppm)	2113	3.850	0.3000	4.186	0.5398	0.2325	19	-0.62	038.52	0
038	Molybdenum (ppm)	0278	3.935	0.0310	4.186	0.5398	0.2325	19	-0.47	038.42	0
038	Molybdenum (ppm)	0511	4.000	0.0000	4.186	0.5398	0.2325	19	-0.34	038.43	0
038	Molybdenum (ppm)	0407	4.243	0.1429	4.186	0.5398	0.2325	19	0.11	038.53	0
038	Molybdenum (ppm)	0510	4.300	0.0000	4.186	0.5398	0.2325	19	0.21	038.43	0
038	Molybdenum (ppm)	0098	4.311	0.2260	4.186	0.5398	0.2325	19	0.23	038.53	0
038	Molybdenum (ppm)	0629	4.370	0.0600	4.186	0.5398	0.2325	19	0.34	038.43	0
038	Molybdenum (ppm)	0572	4.385	0.6700	4.186	0.5398	0.2325	19	0.37	038.53	0
038	Molybdenum (ppm)	0964	4.475	0.3900	4.186	0.5398	0.2325	19	0.54	038.43	0
038	Molybdenum (ppm)	0010	4.550	0.5000	4.186	0.5398	0.2325	19	0.67	038.53	0
038	Molybdenum (ppm)	0186	4.555	0.0076	4.186	0.5398	0.2325	19	0.68	038.52	0

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038	Molybdenum (ppm)	2033	4.635	0.0700	4.186	0.5398	0.2325	19	0.83	038.43	0
038	Molybdenum (ppm)	0227	4.650	0.5400	4.186	0.5398	0.2325	19	0.86	038.53	0
038	Molybdenum (ppm)	0148	5.210	0.0200	4.186	0.5398	0.2325	19	1.90	038.43	0
038	Molybdenum (ppm)	2141	< 5		4.186	0.5398	0.2325	19		038.43	5
041	Vanadium (ppm)	0511	15.00	0.0000	18.93	1.945	0.4339	10	-2.02	041.43	0
041	Vanadium (ppm)	0870	15.67	0.8117	18.93	1.945	0.4339	10	-1.67	041.43	0
041	Vanadium (ppm)	0047	18.59	0.2520	18.93	1.945	0.4339	10	-0.17	041.52	0
041	Vanadium (ppm)	0098	18.76	0.2300	18.93	1.945	0.4339	10	-0.09	041.53	0
041	Vanadium (ppm)	0160	18.85	0.3000	18.93	1.945	0.4339	10	-0.04	041.42	0
041	Vanadium (ppm)	0629	19.20	0.2000	18.93	1.945	0.4339	10	0.14	041.43	0
041	Vanadium (ppm)	0407	19.70	0.7312	18.93	1.945	0.4339	10	0.40	041.53	0
041	Vanadium (ppm)	2033	20.08	0.6500	18.93	1.945	0.4339	10	0.59	041.43	0
041	Vanadium (ppm)	0278	21.32	0.2700	18.93	1.945	0.4339	10	1.23	041.43	0
041	Vanadium (ppm)	0563	21.70	0.4600	18.93	1.945	0.4339	10	1.42	041.34	0
516	Arsenic, Total (As) (ppm)	0148	8.359	0.2287	10.12	1.143	0.2579	17	-1.54	516.43	0
516	Arsenic, Total (As) (ppm)	2033	8.720	0.0600	10.12	1.143	0.2579	17	-1.23	516.53	0
516	Arsenic, Total (As) (ppm)	0870	9.001	0.0929	10.12	1.143	0.2579	17	-0.98	516.43	0
516	Arsenic, Total (As) (ppm)	0047	9.055	0.2320	10.12	1.143	0.2579	17	-0.93	516.52	0
516	Arsenic, Total (As) (ppm)	0629	9.735	0.2900	10.12	1.143	0.2579	17	-0.34	516.43	0
516	Arsenic, Total (As) (ppm)	0186	9.822	0.2249	10.12	1.143	0.2579	17	-0.26	516.52	0
516	Arsenic, Total (As) (ppm)	0572	9.900	0.0000	10.12	1.143	0.2579	17	-0.20	516.53	0
516	Arsenic, Total (As) (ppm)	0964	10.01	0.5900	10.12	1.143	0.2579	17	-0.10	516.43	0
516	Arsenic, Total (As) (ppm)	0407	10.14	0.0653	10.12	1.143	0.2579	17	0.02	516.53	0
516	Arsenic, Total (As) (ppm)	0098	10.16	0.4660	10.12	1.143	0.2579	17	0.03	516.53	0
516	Arsenic, Total (As) (ppm)	0227	10.17	0.4700	10.12	1.143	0.2579	17	0.04	516.53	0
516	Arsenic, Total (As) (ppm)	0723	10.52	0.0410	10.12	1.143	0.2579	17	0.35	516.43	0
516	Arsenic, Total (As) (ppm)	0278	10.79	0.0200	10.12	1.143	0.2579	17	0.58	516.53	0
516	Arsenic, Total (As) (ppm)	2141	11.05	0.4558	10.12	1.143	0.2579	17	0.81	516.43	0
516	Arsenic, Total (As) (ppm)	0918	11.39	0.0100	10.12	1.143	0.2579	17	1.10	516.53	0
516	Arsenic, Total (As) (ppm)	0010	11.40	0.0000	10.12	1.143	0.2579	17	1.12	516.53	0
516	Arsenic, Total (As) (ppm)	2113	13.50	1.000	10.12	1.143	0.2579	17	2.95	516.52	0
516	Arsenic, Total (As) (ppm)	0511	9.000	2.000	10.12	1.143	0.2579	17	-0.98	516.43	1
516	Arsenic, Total (As) (ppm)	0160	< 10		10.12	1.143	0.2579	17		516.42	5
518	Cadmium (ppm)	0511	4.000	0.0000	5.572	0.6883	0.1677	21	-2.28	518.43	0
518	Cadmium (ppm)	0407	4.457	0.1469	5.572	0.6883	0.1677	21	-1.62	518.41	0
518	Cadmium (ppm)	2325	4.810	0.0200	5.572	0.6883	0.1677	21	-1.11	518.31	0
518	Cadmium (ppm)	0563	5.112	0.3758	5.572	0.6883	0.1677	21	-0.67	518.31	0
518	Cadmium (ppm)	0629	5.200	0.2400	5.572	0.6883	0.1677	21	-0.54	518.43	0
518	Cadmium (ppm)	0047	5.333	0.0080	5.572	0.6883	0.1677	21	-0.35	518.52	0
518	Cadmium (ppm)	0160	5.350	0.1000	5.572	0.6883	0.1677	21	-0.32	518.42	0
518	Cadmium (ppm)	0870	5.388	0.0175	5.572	0.6883	0.1677	21	-0.27	518.43	0
518	Cadmium (ppm)	0918	5.441	0.1970	5.572	0.6883	0.1677	21	-0.19	518.53	0

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518	Cadmium (ppm)	0964	5.485	0.8100	5.572	0.6883	0.1677	21	-0.13	518.43	0
518	Cadmium (ppm)	0186	5.546	0.0131	5.572	0.6883	0.1677	21	-0.04	518.52	0
518	Cadmium (ppm)	2141	5.577	0.7579	5.572	0.6883	0.1677	21	0.01	518.43	0
518	Cadmium (ppm)	0723	5.699	0.1090	5.572	0.6883	0.1677	21	0.18	518.43	0
518	Cadmium (ppm)	0407	5.768	0.0186	5.572	0.6883	0.1677	21	0.28	518.53	0
518	Cadmium (ppm)	0227	5.795	0.1700	5.572	0.6883	0.1677	21	0.32	518.53	0
518	Cadmium (ppm)	0098	5.860	0.5400	5.572	0.6883	0.1677	21	0.42	518.53	0
518	Cadmium (ppm)	2033	6.020	0.0400	5.572	0.6883	0.1677	21	0.65	518.53	0
518	Cadmium (ppm)	0010	6.100	0.2000	5.572	0.6883	0.1677	21	0.77	518.53	0
518	Cadmium (ppm)	0278	6.240	0.0800	5.572	0.6883	0.1677	21	0.97	518.43	0
518	Cadmium (ppm)	2113	6.500	0.2000	5.572	0.6883	0.1677	21	1.35	518.52	0
518	Cadmium (ppm)	0148	6.680	0.0000	5.572	0.6883	0.1677	21	1.61	518.43	0
518	Cadmium (ppm)	0572	5.400	1.440	5.572	0.6883	0.1677	21	-0.25	518.53	1
520	Chromium, Total (Cr) (ppm)	0010	3.450	0.3000	12.21	1.341	0.2812	19	-6.54	520.53	0
520	Chromium, Total (Cr) (ppm)	0047	4.580	0.0330	12.21	1.341	0.2812	19	-5.69	520.52	0
520	Chromium, Total (Cr) (ppm)	0407	6.786	0.1187	12.21	1.341	0.2812	19	-4.05	520.41	0
520	Chromium, Total (Cr) (ppm)	2113	8.800	0.2000	12.21	1.341	0.2812	19	-2.55	520.52	0
520	Chromium, Total (Cr) (ppm)	0563	10.18	0.0338	12.21	1.341	0.2812	19	-1.52	520.31	0
520	Chromium, Total (Cr) (ppm)	0511	11.00	0.0000	12.21	1.341	0.2812	19	-0.91	520.43	0
520	Chromium, Total (Cr) (ppm)	2141	11.67	1.045	12.21	1.341	0.2812	19	-0.41	520.43	0
520	Chromium, Total (Cr) (ppm)	0098	11.70	0.4000	12.21	1.341	0.2812	19	-0.38	520.53	0
520	Chromium, Total (Cr) (ppm)	0870	12.30	0.4476	12.21	1.341	0.2812	19	0.06	520.43	0
520	Chromium, Total (Cr) (ppm)	0160	12.85	0.3000	12.21	1.341	0.2812	19	0.47	520.42	0
520	Chromium, Total (Cr) (ppm)	0723	13.57	0.0980	12.21	1.341	0.2812	19	1.01	520.43	0
520	Chromium, Total (Cr) (ppm)	0186	13.79	0.2201	12.21	1.341	0.2812	19	1.17	520.52	0
520	Chromium, Total (Cr) (ppm)	0510	13.82	0.0400	12.21	1.341	0.2812	19	1.20	520.43	0
520	Chromium, Total (Cr) (ppm)	0629	14.00	0.6000	12.21	1.341	0.2812	19	1.33	520.43	0
520	Chromium, Total (Cr) (ppm)	0227	14.55	0.5000	12.21	1.341	0.2812	19	1.74	520.53	0
520	Chromium, Total (Cr) (ppm)	0407	14.91	0.1517	12.21	1.341	0.2812	19	2.01	520.53	0
520	Chromium, Total (Cr) (ppm)	0148	15.40	0.2650	12.21	1.341	0.2812	19	2.38	520.43	0
520	Chromium, Total (Cr) (ppm)	2033	15.45	0.5000	12.21	1.341	0.2812	19	2.41	520.43	0
520	Chromium, Total (Cr) (ppm)	0278	16.02	0.2500	12.21	1.341	0.2812	19	2.84	520.43	0
520	Chromium, Total (Cr) (ppm)	0918	8.067	1.814	12.21	1.341	0.2812	19	-3.09	520.53	1
526	Lead (ppm)	0148	0.9737	0.0636	1.833	0.2676	0.0712	20	-3.21	526.43	0
526	Lead (ppm)	0511	1.000	0.0000	1.833	0.2676	0.0712	20	-3.11	526.43	0
526	Lead (ppm)	0407	1.525	0.0315	1.833	0.2676	0.0712	20	-1.15	526.41	0
526	Lead (ppm)	0964	1.595	0.0100	1.833	0.2676	0.0712	20	-0.89	526.43	0
526	Lead (ppm)	0723	1.615	0.1090	1.833	0.2676	0.0712	20	-0.81	526.43	0
526	Lead (ppm)	0629	1.645	0.0900	1.833	0.2676	0.0712	20	-0.70	526.43	0
526	Lead (ppm)	0563	1.769	0.1017	1.833	0.2676	0.0712	20	-0.24	526.31	0
526	Lead (ppm)	2141	1.775	0.2100	1.833	0.2676	0.0712	20	-0.22	526.43	0
526	Lead (ppm)	2113	1.800	0.0000	1.833	0.2676	0.0712	20	-0.12	526.52	0

Method Group	Analyte Group (Units)	Lab Code	Lab Data		Analyte Values				AAFCO PT	Your	Flag
			Value	Range	Rob Mean	Horwitz SD	Rob R-bar	# Tests	Z Score	Method	
526	Lead (ppm)	0047	1.837	0.1500	1.833	0.2676	0.0712	20	0.02	526.52	0
526	Lead (ppm)	0186	1.917	0.0350	1.833	0.2676	0.0712	20	0.32	526.52	0
526	Lead (ppm)	0098	1.940	0.0000	1.833	0.2676	0.0712	20	0.40	526.53	0
526	Lead (ppm)	0407	1.944	0.0326	1.833	0.2676	0.0712	20	0.42	526.53	0
526	Lead (ppm)	0918	1.952	0.0590	1.833	0.2676	0.0712	20	0.44	526.53	0
526	Lead (ppm)	2325	1.970	0.0200	1.833	0.2676	0.0712	20	0.51	526.31	0
526	Lead (ppm)	0227	1.985	0.0100	1.833	0.2676	0.0712	20	0.57	526.53	0
526	Lead (ppm)	0870	2.053	0.0876	1.833	0.2676	0.0712	20	0.82	526.43	0
526	Lead (ppm)	0572	2.105	0.3300	1.833	0.2676	0.0712	20	1.02	526.53	0
526	Lead (ppm)	2033	2.125	0.0500	1.833	0.2676	0.0712	20	1.09	526.53	0
526	Lead (ppm)	0278	2.205	0.0500	1.833	0.2676	0.0712	20	1.39	526.43	0
526	Lead (ppm)	0010	2.350	0.7000	1.833	0.2676	0.0712	20	1.93	526.53	1
526	Lead (ppm)	0160	< 5		1.833	0.2676	0.0712	20		526.42	5
529	Mercury (ppb)	0918	1.893	0.0190	1,542	231.1	49.50	9	-6.66	529.99	0
529	Mercury (ppb)	0186	175.5	1.160	1,542	231.1	49.50	9	-5.91	529.99	0
529	Mercury (ppb)	0098	1,715	30.00	1,542	231.1	49.50	9	0.75	529.99	0
529	Mercury (ppb)	0629	1,775	110.0	1,542	231.1	49.50	9	1.01	529.99	0
529	Mercury (ppb)	2033	1,799	54.65	1,542	231.1	49.50	9	1.11	529.99	0
529	Mercury (ppb)	0227	1,805	10.00	1,542	231.1	49.50	9	1.14	529.99	0
529	Mercury (ppb)	0010	1,902	70.00	1,542	231.1	49.50	9	1.56	529.99	0
529	Mercury (ppb)	0563	2,047	129.0	1,542	231.1	49.50	9	2.18	529.99	0
529	Mercury (ppb)	0407	2,402	41.59	1,542	231.1	49.50	9	3.72	529.99	0
529	Mercury (ppb)	0160	2,045	310.0	1,542	231.1	49.50	9	2.18	529.00	1
539	Nickel (ppm)	0010	3.100	0.2000	11.47	1.271	0.4120	17	-6.59	539.53	0
539	Nickel (ppm)	0047	7.336	0.0180	11.47	1.271	0.4120	17	-3.25	539.52	0
539	Nickel (ppm)	0511	9.500	1.000	11.47	1.271	0.4120	17	-1.55	539.43	0
539	Nickel (ppm)	0407	10.43	0.0759	11.47	1.271	0.4120	17	-0.82	539.41	0
539	Nickel (ppm)	2113	10.50	1.000	11.47	1.271	0.4120	17	-0.76	539.52	0
539	Nickel (ppm)	0870	10.76	0.3633	11.47	1.271	0.4120	17	-0.56	539.43	0
539	Nickel (ppm)	0918	11.00	0.7790	11.47	1.271	0.4120	17	-0.37	539.53	0
539	Nickel (ppm)	2292	11.00	0.0000	11.47	1.271	0.4120	17	-0.37	539.99	0
539	Nickel (ppm)	0629	11.20	0.2000	11.47	1.271	0.4120	17	-0.21	539.43	0
539	Nickel (ppm)	0098	12.00	0.4000	11.47	1.271	0.4120	17	0.42	539.53	0
539	Nickel (ppm)	0964	12.05	0.9000	11.47	1.271	0.4120	17	0.46	539.43	0
539	Nickel (ppm)	0160	12.60	0.4000	11.47	1.271	0.4120	17	0.89	539.42	0
539	Nickel (ppm)	0407	12.72	0.4061	11.47	1.271	0.4120	17	0.99	539.53	0
539	Nickel (ppm)	0186	12.79	0.1935	11.47	1.271	0.4120	17	1.04	539.52	0
539	Nickel (ppm)	0148	13.19	0.1541	11.47	1.271	0.4120	17	1.35	539.43	0
539	Nickel (ppm)	2033	13.70	0.3800	11.47	1.271	0.4120	17	1.76	539.43	0
539	Nickel (ppm)	0278	14.18	0.2500	11.47	1.271	0.4120	17	2.13	539.43	0
539	Nickel (ppm)	2141	14.15	2.032	11.47	1.271	0.4120	17	2.11	539.43	1

Note 1: Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or between -2 and -3 (warning)

Method Group	Analyte Group (Units)	Lab Code	Lab Data		Analyte Values				AAFCO PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Horwitz SD	Rob R-bar	# Tests			
and Green = $Z \leq 2$ and ≥ -2 (OK at 95%). Horwitz SD's assigned based on Rob Mean only.											
Note 2: Data Not Used Flags: 1=Rejected for duplicates too far apart, 2=Rejected as extreme outlier, 5=Reporting limit (<), 4=Zeros submitted as values and 3=Statistical problem. Flag 0 indicates data used in calculations.											
Note 3: Robust statistics not used if < 6 labs reporting, in the case of 4 or 5 labs reporting Means and SD's may be reported based on Raw Data with obvious blunders removed (Mandel h and k exclusions apply; Grey). A zero range is not included in robust R-bar calculation.											