



AAFCO
Association of American Feed Control Officials



Animal Feed Scheme
Dry Dog Feed
Test Material Code # 202326

Method Summary Report
(Precision Report Follows)

Labs Reporting: 205
Methods Reported: 403
Issue Date : 07/31/2023

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value Robust Mean	AAFCO #fp Robust SD	Uncertainty (U) Robust	% RSD - Robust	Average Range (Rob R-bar)	Thompson Horwitz %RSD
000.02	Urea, As protein, Colorimetric (%)	1	1	0.1000							
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	77	74	7.410	0.2857	7.408	0.2636	0.0383	3.56%	0.0727	2.96%
001.99	Loss on Drying, Miscellaneous (%)	19	19	7.035	0.5383	7.053	0.5686	0.1631	8.06%	0.1306	2.98%
001.00	Loss on Drying, Vac 95°C 5 hr (%)	6	6	7.455	0.3097	7.455	0.3512	0.1792	4.71%	0.0587	2.96%
001.03	Loss on Drying, Low temp. methods (%)	4	4	7.291	0.2007	7.291	0.2007	0.1004	2.75%	0.1175	2.97%
001.05	Loss on Drying, LECO (%)	1	1	7.564							
001.08	Loss on Drying, 102°C 16 hr, in meat (%)	1	1	7.321							
002.06	Protein, Crude, Combustion Nitrogen Analyzer (%)	150	146	24.76	0.3242	24.77	0.2045	0.0212	0.83%	0.1633	2.01%
002.05	Protein, Crude, Copper, Boric Acid (%)	26	26	24.50	0.3429	24.51	0.2925	0.0717	1.19%	0.1299	2.02%
002.01	Protein, Crude, Auto Kjeh-Foss (%)	21	20	24.44	0.2548	24.42	0.2492	0.0697	1.02%	0.1406	2.02%
002.00	Protein, Crude, Crude (%)	4	4	24.91	0.6528	24.91	0.6528	0.3264	2.62%	0.1775	2.00%
002.11	Protein, Crude, NIR (%)	4	3	25.21	0.5472	25.21	0.5472	0.3869	2.17%	0.0933	1.99%
002.04	Protein, Crude, Copper Catalyst (%)	2	2	24.50	0.0884						
002.08	Protein, Crude, Cu/Ti (%)	2	2	24.43	0.2903						
002.02	Protein, Crude, Semiauto Autoanalyzer (%)	1	1	24.55							
002.10	Protein, Crude, Block dig/distillation (%)	1	1	24.24							
003.14	Fat, Crude, Ankom (%)	45	44	11.21	0.6736	11.18	0.3849	0.0725	3.44%	0.1599	2.78%
003.10	Fat, Crude, Randall, Pet Ether (%)	30	30	11.21	0.2961	11.21	0.2961	0.0676	2.64%	0.1843	2.78%
003.06	Fat, Crude, Pet Ether (%)	17	17	10.92	1.937	11.25	0.5150	0.1561	4.58%	0.1549	2.78%
003.00	Fat, Crude, Diethyl Ether Ext., Direct (%)	11	11	11.56	1.033	11.59	1.095	0.4129	9.45%	0.1432	2.77%
003.09	Fat, Crude, Randall, Diethyl Ether Ext (%)	7	7	11.02	0.3922	11.02	0.4447	0.2101	4.04%	0.1140	2.79%
003.12	Fat, Crude, Hexane Ext (%)	4	4	11.21	0.2745	11.21	0.2745	0.1373	2.45%	0.3000	2.78%
003.13	Fat, Crude, Randall, Hexane Ext. (%)	5	4	11.40	0.3458	11.40	0.3458	0.1729	3.03%	0.0876	2.77%
003.11	Fat, Crude, NIR (%)	4	3	10.26	3.661	10.26	3.661	2.588	35.67%	0.0567	2.82%
003.99	Fat, Crude, Miscellaneous (%)	3	3	12.53	1.409	12.53	1.409	0.8132	11.25%	0.2900	2.73%
003.01	Fat, Crude, Diethyl Ether Ext (13th ed.), Indirect (%)	2	2	11.08	0.0618						
004.07	Fiber, Crude, ANKOM (%)	75	74	4.005	0.7639	3.939	0.5516	0.0802	14.00%	0.2142	3.25%
004.06	Fiber, Crude, Fibertec (%)	19	18	3.986	0.4969	3.975	0.4032	0.1188	10.14%	0.1040	3.25%
004.00	Fiber, Crude, Asbestos Free (%)	14	13	4.001	0.4442	4.001	0.5037	0.1746	12.59%	0.1393	3.25%

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004.03	Fiber, Crude, Fritted Glass (%)	4	3	3.850	0.8809	3.850	0.8809	0.5086	22.88%	0.2533	3.27%
004.11	Fiber, Crude, NIR (%)	2	2	4.148	0.6187						
004.99	Fiber, Crude, Miscellaneous (%)	1	1	4.341							
005.00	Ash, 2h @ 600°C (%)	112	109	7.325	0.1402	7.339	0.0808	0.0097	1.10%	0.0550	2.96%
005.05	Ash, 3h @ 550°C (%)	40	38	7.405	0.0904	7.405	0.0554	0.0112	0.75%	0.0350	2.96%
005.99	Ash, Miscellaneous (%)	11	10	7.356	0.1416	7.374	0.1138	0.0450	1.54%	0.0785	2.96%
005.03	Ash, Microwave furnace (%)	7	7	7.463	0.1450	7.469	0.1493	0.0705	2.00%	0.1533	2.96%
005.11	Ash, NIR (%)	4	4	7.901	3.419	7.901	3.419	1.710	43.28%	0.1950	2.93%
005.02	Ash, LECO (%)	1	1	7.431							
006.99	Total Sugars, Miscellaneous (%)	2	2	1.158	0.7672						
006.00	Total Sugars, As sucrose (%)	1	1	0.4650							
008.08	Fiber, Acid Detergent, Filter Bag - ANKOM (%)	48	47	7.009	1.723	6.936	1.713	0.3123	24.70%	0.2771	2.99%
008.02	Fiber, Acid Detergent, Crucible (%)	12	11	6.916	0.5292	6.871	0.4887	0.1842	7.11%	0.1901	2.99%
008.99	Fiber, Acid Detergent, Miscellaneous (%)	2	2	6.775	0.3175						
009.09	Fiber, Neutral Detergent, Filter Bag - ANKOM (%)	43	43	12.28	2.755	12.00	2.139	0.4077	17.83%	0.4016	2.75%
009.07	Fiber, Neutral Detergent, AOAC -ENZ Pretreat (%)	12	12	13.64	1.831	13.62	1.669	0.6021	12.25%	0.7134	2.70%
009.99	Fiber, Neutral Detergent, Miscellaneous (%)	2	2	10.21	0.6965						
010.99	Moisture, Miscellaneous (%)	17	17	7.576	0.3990	7.561	0.3776	0.1145	4.99%	0.1018	2.95%
010.11	Moisture, NIR (%)	2	2	7.798	0.4632						
010.03	Moisture, Karl-Fischer (%)	1	1	6.735							
011.01	Loss on Drying, HT, 135°C 2hr (%)	69	67	7.969	0.4271	7.993	0.3624	0.0553	4.53%	0.1065	2.93%
011.02	Loss on Drying, HT, 130°C for 2 hours (%)	5	5	8.059	0.3752	8.059	0.3752	0.1678	4.66%	0.1540	2.92%
011.99	Loss on Drying, HT, High Temp. Methods Miscellaneous (%)	4	4	7.712	0.1675	7.712	0.1675	0.0838	2.17%	0.2493	2.94%
012.00	Starch, Polarimetric (Ewers) (%)	14	14	35.78	0.6832	35.79	0.7598	0.2538	2.12%	0.1877	1.67%
012.01	Starch, Enzymatic-Colorimetric Method (Megazyme) (%)	10	10	33.39	6.435	34.84	1.108	0.4380	3.18%	1.078	1.69%
012.04	Starch, Enzymatic-Enzyme Membrane Technology (YSI) (%)	7	7	35.22	1.656	34.87	0.9710	0.4587	2.78%	1.197	1.69%
012.03	Starch, Enzymatic-Colorimetric Method, Miscellaneous (%)	4	3	28.90	13.51	28.90	13.51	9.553	46.76%	0.3373	1.86%
012.11	Starch, NIR (%)	2	2	23.12	20.96						
012.20	Starch, Dietary, Enzymatic-Colorimetric (%)	1	1	33.26							
012.99	Starch, Miscellaneous (%)	1	1	34.85							
013.02	Fat, Pretreat, Mojonier, Bak Ext, Acid hydrolysis (%)	39	38	13.44	1.029	13.61	0.6897	0.1399	5.07%	0.1786	2.70%
013.00	Fat, Pretreat, Acid hydrolysis (%)	36	35	13.45	1.805	13.50	0.5842	0.1234	4.33%	0.2475	2.70%
013.13	Fat, Pretreat, Ankom- Acid Hydrolysis (%)	14	13	13.52	0.5876	13.55	0.5472	0.1897	4.04%	0.3612	2.70%
013.10	Fat, Pretreat, Soxtec-Acid Hydrolysis (%)	9	9	13.13	0.7543	13.19	0.5950	0.2479	4.51%	0.2261	2.71%
013.03	Fat, Pretreat, Roese-Gottlieb, Alkaline Hydrolysis (%)	1	1	13.35							
013.08	Fat, Pretreat, Roese-Gottlieb Modified, Alkaline Hydrolysis (%)	1	1	11.82							
014.01	Fiber, Total Dietary, Enz-Grav (%)	1	1	10.70							
015.43	Aluminum, ICP, Microwave (ppm)	6	6	113.2	21.93	110.1	17.34	8.848	15.74%	2.657	7.88%
015.42	Aluminum, ICP, Open vessel (ppm)	3	3	60.51	18.74	60.51	18.74	13.25	30.97%	14.15	8.63%
015.41	Aluminum, ICP, Dry ash (ppm)	2	2	83.04	27.10						

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015.53	Aluminum, ICP-MS, Microwave (ppm)	2	2	108.7	4.663						
015.99	Aluminum, Miscellaneous (ppm)	1	1	74.10							
017.41	Boron, ICP, Dry ash (ppm)	5	4	3.543	1.294	3.543	1.294	0.6468	36.52%	0.3635	13.22%
017.42	Boron, ICP, Open vessel (ppm)	5	4	3.499	0.3344	3.499	0.3344	0.1672	9.56%	0.2603	13.25%
017.43	Boron, ICP, Microwave (ppm)	5	4	4.147	0.6813	4.147	0.6813	0.3406	16.43%	0.0906	12.91%
017.53	Boron, ICP-MS, Microwave (ppm)	1	1	3.895							
017.99	Boron, Miscellaneous (ppm)	1	1	3.165							
019.43	Calcium, ICP, Microwave (%)	36	35	1.530	0.1052	1.526	0.0771	0.0163	5.05%	0.0272	3.75%
019.41	Calcium, ICP, Dry ash (%)	27	26	1.509	0.0489	1.511	0.0465	0.0114	3.08%	0.0328	3.76%
019.31	Calcium, AAS, Dry ash (%)	20	20	1.473	0.0942	1.474	0.0976	0.0273	6.62%	0.0448	3.77%
019.42	Calcium, ICP, Open vessel (%)	20	20	1.551	0.1723	1.544	0.1249	0.0349	8.09%	0.0562	3.75%
019.44	Calcium, ICP, Dry ash (%)	21	20	1.485	0.0473	1.488	0.0416	0.0116	2.79%	0.0346	3.77%
019.08	Calcium, EDTA (%)	12	11	1.512	0.0571	1.507	0.0524	0.0197	3.48%	0.0144	3.76%
019.00	Calcium, Ox-Mn04 Vol. (%)	6	6	1.560	0.0580	1.560	0.0658	0.0336	4.22%	0.0476	3.74%
019.99	Calcium, Miscellaneous (%)	5	5	1.455	0.0576	1.455	0.0576	0.0257	3.96%	0.0300	3.78%
019.53	Calcium, ICP-MS, Microwave (%)	4	4	1.510	0.0714	1.510	0.0714	0.0357	4.73%	0.0401	3.76%
019.52	Calcium, ICP-MS, Open vessel (%)	3	3	1.517	0.0288	1.517	0.0288	0.0166	1.90%	0.0330	3.76%
019.02	Calcium, Hach Method (%)	1	1	1.550							
019.32	Calcium, AAS, Open vessel (%)	1	1	1.495							
021.41	Cobalt, ICP, Dry ash (ppm)	6	6	1.840	0.4265	1.840	0.4836	0.2468	26.28%	0.0712	14.59%
021.43	Cobalt, ICP, Microwave (ppm)	5	5	2.037	0.0975	2.037	0.0975	0.0436	4.79%	0.0926	14.37%
021.53	Cobalt, ICP-MS, Microwave (ppm)	4	4	2.054	0.1232	2.054	0.1232	0.0616	6.00%	0.1203	14.35%
021.42	Cobalt, ICP, Open vessel (ppm)	4	3	1.098	0.2319	1.098	0.2319	0.1339	21.11%	0.2490	15.77%
021.31	Cobalt, AAS, Dry ash (ppm)	2	2	2.030	0.0424						
021.52	Cobalt, ICP-MS, Open vessel (ppm)	2	2	0.6294	0.1617						
021.99	Cobalt, Miscellaneous (ppm)	1	1	2.090							
022.43	Copper, ICP, Microwave (ppm)	34	33	15.55	0.8395	15.53	0.7271	0.1582	4.68%	0.3683	10.59%
022.42	Copper, ICP, Open vessel (ppm)	21	20	15.86	1.480	15.93	1.258	0.3515	7.89%	0.5067	10.55%
022.41	Copper, ICP, Dry ash (ppm)	19	19	12.33	2.060	12.38	2.226	0.6383	17.97%	0.7791	10.95%
022.31	Copper, AAS, Dry ash (ppm)	11	10	15.47	6.238	13.84	1.768	0.6987	12.78%	0.6446	10.77%
022.44	Copper, ICP, Dry ash (ppm)	8	7	13.17	1.466	13.17	1.663	0.7856	12.62%	0.3730	10.85%
022.53	Copper, ICP-MS, Microwave (ppm)	4	4	15.74	1.479	15.74	1.479	0.7393	9.39%	0.3323	10.57%
022.99	Copper, Miscellaneous (ppm)	3	3	13.37	3.099	13.37	3.099	2.191	23.18%		10.83%
022.33	Copper, AAS, Microwave (ppm)	2	2	16.11	1.047						
022.32	Copper, AAS, Open vessel (ppm)	1	1	5.900							
022.52	Copper, ICP-MS, Open vessel (ppm)	1	1	15.31							
024.52	Iodine, ICP-MS, Open vessel (ppm)	1	1	3.803							
025.43	Iron, ICP, Microwave (ppm)	25	25	362.9	38.20	363.7	28.20	7.049	7.75%	7.943	6.59%
025.41	Iron, ICP, Dry ash (ppm)	18	18	335.1	28.78	336.5	25.32	7.459	7.52%	8.200	6.66%
025.42	Iron, ICP, Open vessel (ppm)	19	18	357.7	126.9	349.1	44.37	13.07	12.71%	13.12	6.63%

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025.31	Iron, AAS, Dry ash (ppm)	11	11	332.8	58.67	341.2	43.48	16.39	12.74%	7.807	6.65%
025.53	Iron, ICP-MS, Microwave (ppm)	5	5	357.8	22.62	357.8	22.62	10.11	6.32%	8.093	6.60%
025.99	Iron, Miscellaneous (ppm)	3	3	356.7	17.65	356.7	17.65	10.19	4.95%	14.00	6.61%
025.52	Iron, ICP-MS, Open vessel (ppm)	2	2	231.1	18.59						
025.33	Iron, AAS, Microwave (ppm)	1	1	363.5							
027.43	Magnesium, ICP, Microwave (%)	32	30	0.1298	0.0263	0.1347	0.0071	0.0016	5.30%	0.0055	5.41%
027.41	Magnesium, ICP, Dry ash (%)	22	22	0.1301	0.0068	0.1301	0.0077	0.0020	5.90%	0.0037	5.44%
027.42	Magnesium, ICP, Open vessel (%)	21	21	0.1405	0.0169	0.1399	0.0123	0.0034	8.81%	0.0081	5.38%
027.44	Magnesium, ICP, Dry ash (%)	19	19	0.1293	0.0042	0.1288	0.0024	0.0007	1.88%	0.0042	5.44%
027.31	Magnesium, AAS, Dry ash (%)	11	11	0.1313	0.0087	0.1307	0.0083	0.0031	6.35%	0.0048	5.43%
027.53	Magnesium, ICP-MS, Microwave (%)	5	4	0.1313	0.0050	0.1313	0.0050	0.0029	3.79%	0.0042	5.43%
027.52	Magnesium, ICP-MS, Open vessel (%)	3	3	0.5354	0.6621	0.5354	0.6621	0.3823	123.67%	0.0120	4.39%
027.99	Magnesium, Miscellaneous (%)	3	3	0.1367	0.0058	0.1367	0.0058				5.40%
027.32	Magnesium, AAS, Open vessel (%)	1	1	0.1450							
027.33	Magnesium, AAS, Microwave (%)	1	1	0.1200							
028.43	Manganese, ICP, Microwave (ppm)	30	29	50.96	2.545	50.93	2.766	0.6420	5.43%	0.9435	8.85%
028.41	Manganese, ICP, Dry ash (ppm)	21	20	48.27	3.144	48.63	2.640	0.7378	5.43%	0.8873	8.92%
028.42	Manganese, ICP, Open vessel (ppm)	21	20	52.08	3.425	52.00	3.706	1.036	7.13%	1.424	8.83%
028.44	Manganese, ICP, Dry ash (ppm)	14	14	46.59	3.288	46.60	2.503	0.8362	5.37%	1.007	8.97%
028.31	Manganese, AAS, Dry ash (ppm)	12	12	43.92	11.12	44.12	12.17	4.393	27.59%	1.315	9.05%
028.53	Manganese, ICP-MS, Microwave (ppm)	6	6	48.67	4.753	48.73	5.234	2.671	10.74%	1.636	8.91%
028.99	Manganese, Miscellaneous (ppm)	3	3	50.63	1.185	50.63	1.185	0.8376	2.34%		8.86%
028.52	Manganese, ICP-MS, Open vessel (ppm)	2	2	52.30	0.1308						
028.00	Manganese, Color (ppm)	1	1	52.00							
028.32	Manganese, AAS, Open vessel (ppm)	1	1	56.30							
028.33	Manganese, AAS, Microwave (ppm)	1	1	46.00							
030.01	Nitrate, Ion-selective electrode (%)	1	1	0.0057							
031.01	Phosphorus, Photometric (%)	34	34	0.9652	0.0436	0.9690	0.0343	0.0073	3.54%	0.0155	4.02%
031.43	Phosphorus, ICP, Microwave (%)	35	34	1.012	0.0681	1.006	0.0584	0.0125	5.81%	0.0211	4.00%
031.41	Phosphorus, ICP, Dry ash (%)	25	24	0.9738	0.0382	0.9743	0.0406	0.0104	4.16%	0.0201	4.02%
031.42	Phosphorus, ICP, Open vessel (%)	22	22	1.011	0.0849	1.006	0.0678	0.0181	6.74%	0.0571	4.00%
031.44	Phosphorus, ICP, Dry ash (%)	22	22	0.9542	0.0533	0.9561	0.0557	0.0149	5.83%	0.0319	4.03%
031.99	Phosphorus, Miscellaneous (%)	5	5	0.9460	0.0818	0.9460	0.0818	0.0366	8.65%	0.0133	4.03%
031.53	Phosphorus, ICP-MS, Microwave (%)	4	4	1.115	0.2099	1.115	0.2099	0.1050	18.82%	0.0145	3.93%
031.03	Phosphorus, Autoanalyzer (%)	2	2	0.9688	0.0195						
031.52	Phosphorus, ICP-MS, Open vessel (%)	2	2	0.9772	0.0109						
031.02	Phosphorus, GQMP (AOAC 935.13-Extraction) (%)	1	1	0.9846							
031.06	Phosphorus, Hach Method (%)	1	1	0.7250							
032.43	Potassium, ICP, Microwave (%)	35	34	0.7662	0.1632	0.7742	0.0342	0.0073	4.41%	0.0146	4.16%
032.41	Potassium, ICP, Dry ash (%)	24	24	0.7465	0.0316	0.7479	0.0328	0.0084	4.39%	0.0164	4.18%

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032.44	Potassium, ICP, Dry ash (%)	19	19	0.7269	0.0219	0.7270	0.0163	0.0047	2.24%	0.0238	4.20%
032.42	Potassium, ICP, Open vessel (%)	19	18	0.8241	0.1234	0.8010	0.0540	0.0159	6.74%	0.0330	4.14%
032.31	Potassium, AAS, Dry ash (%)	10	10	0.7218	0.0665	0.7209	0.0736	0.0291	10.21%	0.0146	4.20%
032.52	Potassium, ICP-MS, Open vessel (%)	3	3	0.7095	0.0622	0.7095	0.0622	0.0359	8.77%	0.0085	4.21%
032.53	Potassium, ICP-MS, Microwave (%)	4	3	0.7227	0.0046	0.7227	0.0046	0.0027	0.64%	0.0140	4.20%
032.99	Potassium, Miscellaneous (%)	4	3	0.7552	0.0150	0.7552	0.0150	0.0106	1.99%		4.17%
032.02	Potassium, Flame Emission (%)	1	1	0.7350							
032.08	Potassium, Ion-selective electrode (%)	1	1	0.7010							
032.32	Potassium, AAS, Open vessel (%)	1	1	0.7950							
033.01	Salt as chloride, Poten Cl (%)	24	22	0.9667	0.0272	0.9661	0.0255	0.0068	2.63%	0.0181	4.02%
033.00	Salt as chloride, Sol Cl (%)	16	16	0.8929	0.1009	0.9097	0.0577	0.0180	6.34%	0.0170	4.06%
033.99	Salt, Miscellaneous (%)	12	11	0.9086	0.2103	0.8944	0.2003	0.0755	22.40%	0.0629	4.07%
033.05	Salt as chloride, Ion Sel Electrode (%)	4	4	0.8183	0.1577	0.8183	0.1577	0.0789	19.27%	0.0084	4.12%
033.03	Salt as chloride, Quantab (%)	5	3	0.9833	0.0862	0.9833	0.0862	0.0610	8.77%		4.01%
034.53	Selenium, Total (Se), ICP-MS, Microwave (ppm)	7	7	0.8374	0.2779	0.7928	0.2020	0.0954	25.48%	0.0394	16.57%
034.04	Selenium, Total (Se), AA, Hydride (ppm)	4	4	0.6681	0.0622	0.6681	0.0622	0.0311	9.31%	0.0729	17.00%
034.52	Selenium, Total (Se), ICP-MS, Open vessel (ppm)	3	3	0.7464	0.1751	0.7464	0.1751	0.1011	23.45%	0.0408	16.72%
034.41	Selenium, Total (Se), ICP, Dry ash (ppm)	2	2	0.6893	0.0216						
034.42	Selenium, Total (Se), ICP, Open vessel (ppm)	2	2	4.676	4.633						
034.43	Selenium, Total (Se), ICP, Microwave (ppm)	3	2	0.5830	0.2319	0.5830	0.2319			0.0112	17.35%
034.01	Selenium, Total (Se), Fluor (ppm)	1	1	0.7875							
034.99	Selenium, Total (Se), Miscellaneous (ppm)	1	1	1.227							
035.41	Sodium, ICP, Dry ash (%)	44	42	0.2383	0.0083	0.2381	0.0090	0.0017	3.80%	0.0079	4.96%
035.43	Sodium, ICP, Microwave (%)	31	30	0.2432	0.0616	0.2438	0.0172	0.0039	7.04%	0.0082	4.95%
035.42	Sodium, ICP, Open vessel (%)	19	18	0.2667	0.0636	0.2478	0.0188	0.0055	7.60%	0.0082	4.93%
035.31	Sodium, AAS, Dry ash (%)	10	10	0.2248	0.0337	0.2281	0.0298	0.0118	13.08%	0.0138	5.00%
035.53	Sodium, ICP-MS, Microwave (%)	5	4	0.2128	0.0213	0.2128	0.0213	0.0123	10.02%	0.0085	5.05%
035.99	Sodium, Miscellaneous (%)	3	3	0.2333	0.0076	0.2333	0.0076	0.0044	3.27%	0.0100	4.98%
035.05	Sodium, Flame Emission (%)	2	2	0.2228	0.0110						
035.52	Sodium, ICP-MS, Open vessel (%)	2	2	0.2341	0.0115						
035.32	Sodium, AAS, Open vessel (%)	1	1	0.2150							
036.43	Sulfur, ICP, Microwave (%)	20	19	0.3117	0.0840	0.3214	0.0207	0.0059	6.44%	0.0149	4.74%
036.42	Sulfur, ICP, Open vessel (%)	18	18	0.3109	0.0424	0.3046	0.0248	0.0073	8.14%	0.0134	4.78%
036.04	Sulfur, LECO (%)	6	5	0.3262	0.0200	0.3262	0.0200	0.0112	6.14%	0.0051	4.73%
036.99	Sulfur, Miscellaneous (%)	2	2	0.2900	0.0424						
036.00	Sulfur, Gravimetric (%)	1	1	0.3350							
036.52	Sulfur, ICP-MS, Open vessel (%)	1	1	0.3058							
036.53	Sulfur, ICP-MS, Microwave (%)	1	1	0.3180							
037.43	Zinc, ICP, Microwave (ppm)	33	32	200.6	14.69	199.2	9.601	2.122	4.82%	3.097	7.21%
037.41	Zinc, ICP, Dry ash (ppm)	25	25	173.1	13.35	173.4	10.97	2.742	6.33%	5.973	7.36%

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037.42	Zinc, ICP, Open vessel (ppm)	20	19	202.0	20.34	201.6	22.33	6.404	11.08%	7.866	7.20%
037.31	Zinc, AAS, Dry ash (ppm)	11	11	171.4	16.14	172.1	16.65	6.275	9.67%	6.927	7.37%
037.44	Zinc, ICP, Dry ash (ppm)	4	4	171.1	16.24	171.1	16.24	8.118	9.49%	4.678	7.38%
037.53	Zinc, ICP-MS, Microwave (ppm)	5	4	201.8	11.37	201.8	11.37	5.687	5.64%	2.416	7.20%
037.99	Zinc, Miscellaneous (ppm)	3	3	196.2	17.21	196.2	17.21	9.939	8.78%	1.667	7.23%
037.33	Zinc, AAS, Microwave (ppm)	2	2	194.0	4.511						
037.52	Zinc, ICP-MS, Open vessel (ppm)	2	2	167.0	28.36						
037.32	Zinc, AAS, Open vessel (ppm)	1	1	196.0							
037.34	Zinc, AAS, Dry ash (ppm)	1	1	153.4							
038.43	Molybdenum, ICP, Microwave (ppm)	6	6	8.554	19.12	0.8530	0.3484	0.1778	40.84%	0.2078	16.38%
038.53	Molybdenum, ICP-MS, Microwave (ppm)	4	4	0.7274	0.0296	0.7274	0.0296	0.0148	4.06%	0.0367	16.78%
038.41	Molybdenum, ICP, Dry ash (ppm)	3	3	0.7397	0.2004	0.7397	0.2004	0.1157	27.10%	0.0124	16.74%
038.42	Molybdenum, ICP, Open vessel (ppm)	4	3	0.8002	0.0552	0.8002	0.0552	0.0319	6.90%	0.1523	16.54%
038.52	Molybdenum, ICP-MS, Open vessel (ppm)	2	2	0.6546	0.0206						
040.53	Barium, ICP-MS, Microwave (ppm)	1	1	18.06							
041.53	Vanadium, ICP-MS, Microwave (ppm)	1	1	0.3229							
042.00	Chloride, Titrimetric (%)	9	8	0.6296	0.0863	0.6210	0.0768	0.0340	12.37%	0.0122	4.30%
042.99	Chloride, Miscellaneous (%)	2	2	0.9930	0.5416						
042.01	Chloride, Ion-selective electrode (%)	1	1	0.5226							
101.99	Choline Chloride, Miscellaneous (ppm)	1	1	5,900							
102.01	Niacin, Microbiological (ppm)	1	1	78.95							
102.02	Niacin, LC (ppm)	1	1	45.95							
102.99	Niacin, Miscellaneous (ppm)	1	1	11.10							
103.01	Pantothenic Acid, Microbiological (ppm)	1	1	27.45							
103.99	Pantothenic Acid, Miscellaneous (ppm)	1	1	41.85							
104.03	Riboflavin, LC (ppm)	2	2	6.573	3.270						
104.00	Riboflavin, Fluorometric (ppm)	1	1	5.310							
104.99	Riboflavin, Miscellaneous (ppm)	1	1	2.765							
105.00	Thiamine, LC (ppm)	2	2	9.245	2.772						
105.01	Thiamine, Fluorometer (ppm)	1	1	15.83							
106.02	Vitamin A, LC (KU / kg)	11	10	5.497	1.367	5.435	1.406	0.5559	25.87%	0.5198	
106.01	Vitamin A, UV (KU / kg)	1	1	4.550							
107.00	Vitamin B12, Microbiological (ppb)	1	1	33.65							
107.99	Vitamin B12, Miscellaneous (ppb)	1	1	134.0							
108.02	Vitamin D3, LC (KU / kg)	6	6	1.090	0.8815	0.8983	0.5130	0.2618	57.11%	0.3093	
108.99	Vitamin D3, Miscellaneous (KU / kg)	1	1	0.4340							
109.02	Vitamin E, LC (IU / kg)	12	11	290.9	96.42	288.4	103.8	39.14	36.01%	23.32	
109.99	Vitamin E, Miscellaneous (IU / kg)	1	1	357.5							
111.00	Vitamin C, Phosphorylated, LC (ppm)	1		4.400							
112.01	Pyridoxine, LC (µg / g)	2	2	4.156	0.3023						

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112.99	Pyridoxine, Miscellaneous (µg / g)	1	1	1.755							
113.01	Folic Acid, Micro (ppm)	1	1	1.110							
113.02	Folic acid, LC (ppm)	1	1	0.6885							
113.99	Folic acid, Miscellaneous (ppm)	1	1	1.045							
114.01	Biotin, Microbiological (ppm)	1	1	0.2455							
114.99	Biotin, Miscellaneous (ppm)	1	1	0.2300							
115.00	Non Protein N (NPN), Urea + Am, Urease method (%)	1	1	0.1100							
115.99	Non Protein N (NPN), Miscellaneous (%)	1	1	0.5959							
120.00	Alanine, Post-col Ninhydrin Der (%)	15	14	1.730	0.0606	1.726	0.0479	0.0160	2.77%	0.0200	3.68%
120.05	Alanine, Pre-col AQC Der (%)	11	11	1.649	0.1414	1.652	0.1286	0.0485	7.79%	0.0342	3.71%
120.99	Alanine, Miscellaneous (%)	3	3	1.688	0.0895	1.688	0.0895	0.0517	5.30%	0.0650	3.70%
120.02	Alanine, Post-col OPA Der (%)	2	2	1.710	0.0074						
121.00	Arginine, Post-col Ninhydrin Der (%)	15	15	1.511	0.0884	1.522	0.0655	0.0212	4.31%	0.0285	3.75%
121.05	Arginine, Pre-col AQC Der (%)	11	10	1.510	0.1277	1.517	0.1298	0.0513	8.56%	0.0154	3.76%
121.99	Arginine, Miscellaneous (%)	3	3	1.523	0.1449	1.523	0.1449	0.0837	9.51%	0.0700	3.75%
121.02	Arginine, Post-col OPA Der (%)	2	2	1.457	0.0474						
122.00	Aspartic, Post-col Ninhydrin Der (%)	15	14	1.992	0.0530	1.985	0.0400	0.0134	2.02%	0.0183	3.61%
122.05	Aspartic, Pre-col AQC Der (%)	11	10	1.948	0.1246	1.948	0.1413	0.0559	7.26%	0.0340	3.62%
122.99	Aspartic, Miscellaneous (%)	3	3	2.027	0.2610	2.027	0.2610	0.1507	12.88%	0.0333	3.60%
122.02	Aspartic, Post-col OPA Der (%)	2	2	2.148	0.2146						
124.00	Cysteine/Cystine, PAO Post-col Ninhydrin Der (%)	15	15	0.3214	0.0236	0.3211	0.0261	0.0084	8.12%	0.0069	4.75%
124.05	Cysteine/Cystine, PAO Pre-col AQC Der (%)	11	11	0.3218	0.0901	0.3107	0.0523	0.0197	16.83%	0.0230	4.77%
124.99	Cysteine/Cystine, Miscellaneous (%)	4	4	0.4281	0.2375	0.4281	0.2375	0.1187	55.46%	0.0274	4.54%
124.02	Cysteine/Cystine, PAO Post-col OPA Der (%)	2	2	0.4008	0.1050						
125.00	Glutamic, Post-col Ninhydrin Der (%)	15	14	3.319	0.1111	3.310	0.1014	0.0339	3.06%	0.0228	3.34%
125.05	Glutamic, Pre-col AQC Der (%)	11	11	3.227	0.2842	3.246	0.2748	0.1036	8.46%	0.0535	3.35%
125.99	Glutamic, Miscellaneous (%)	3	3	3.487	0.3675	3.487	0.3675	0.2122	10.54%	0.0800	3.31%
125.02	Glutamic, Post-col OPA Der (%)	2	2	3.290	0.1209						
126.00	Glycine, Post-col Ninhydrin Der (%)	15	14	1.744	0.0456	1.744	0.0364	0.0122	2.09%	0.0176	3.68%
126.05	Glycine, Pre-col AQC Der (%)	11	10	1.728	0.1932	1.743	0.1775	0.0701	10.18%	0.0311	3.68%
126.99	Glycine, Miscellaneous (%)	3	3	1.265	0.6587	1.265	0.6587	0.3803	52.07%	0.0650	3.86%
126.02	Glycine, Post-col OPA Der (%)	2	2	1.804	0.0226						
127.00	Histidine, Post-col Ninhydrin Der (%)	15	15	0.6830	0.0359	0.6854	0.0347	0.0112	5.06%	0.0129	4.23%
127.05	Histidine, Pre-col AQC Der (%)	11	11	0.6823	0.0691	0.6782	0.0571	0.0215	8.43%	0.0214	4.24%
127.99	Histidine, Miscellaneous (%)	3	3	0.6000	0.0800	0.6000	0.0800	0.0462	13.33%	0.0200	4.32%
127.02	Histidine, Post-col OPA Der (%)	2	2	0.6800	0.0424						
128.00	Isoleucine, Post-col Ninhydrin Der (%)	15	15	0.8532	0.0562	0.8534	0.0580	0.0187	6.80%	0.0152	4.10%
128.05	Isoleucine, Pre-col AQC Der (%)	11	10	0.8359	0.0703	0.8370	0.0773	0.0306	9.24%	0.0100	4.11%
128.99	Isoleucine, Miscellaneous (%)	3	3	0.8492	0.0689	0.8492	0.0689	0.0398	8.12%	0.1117	4.10%
128.02	Isoleucine, Post-col OPA Der (%)	2	2	0.8323	0.0392						

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129.00	Leucine, Post-col Ninhydrin Der (%)	15	14	2.077	0.0559	2.076	0.0586	0.0196	2.82%	0.0216	3.58%
129.05	Leucine, Pre-col AQC Der (%)	11	10	2.015	0.1027	2.014	0.1144	0.0452	5.68%	0.0243	3.60%
129.99	Leucine, Miscellaneous (%)	3	3	2.133	0.0375	2.133	0.0375	0.0217	1.76%	0.0667	3.57%
129.02	Leucine, Post-col OPA Der (%)	2	2	1.982	0.0180						
130.00	L-Lysine, Post-col Ninhydrin Der (%)	18	17	1.327	0.0813	1.332	0.0735	0.0223	5.52%	0.0139	3.83%
130.05	L-Lysine, Pre-col AQC Der (%)	11	10	1.304	0.0855	1.305	0.0943	0.0373	7.23%	0.0168	3.84%
130.99	L-Lysine, Miscellaneous (%)	4	4	1.165	0.1890	1.165	0.1890	0.0945	16.22%	0.0451	3.91%
130.02	L-Lysine, Post-col OPA Der (%)	2	2	1.351	0.0301						
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	15	15	0.4330	0.0182	0.4325	0.0194	0.0063	4.48%	0.0116	4.54%
131.05	Methionine, PAO Pre-col AQC Der (%)	11	10	0.4407	0.0574	0.4380	0.0560	0.0221	12.79%	0.0107	4.53%
131.99	Methionine, Miscellaneous (%)	4	3	0.4567	0.0925	0.4567	0.0925	0.0534	20.26%	0.0100	4.50%
131.02	Methionine, PAO Post-col OPA Der (%)	2	2	0.4288	0.0442						
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	15	14	1.140	0.0317	1.135	0.0173	0.0058	1.53%	0.0117	3.92%
132.05	Phenylalanine, Pre-col AQC Der (%)	11	11	1.079	0.0471	1.080	0.0490	0.0185	4.53%	0.0179	3.95%
132.99	Phenylalanine, Miscellaneous (%)	3	3	1.019	0.0964	1.019	0.0964	0.0556	9.46%	0.0183	3.99%
132.02	Phenylalanine, Post-col OPA Der (%)	2	2	1.099	0.0446						
133.00	Proline, Post-col Ninhydrin Der (%)	15	14	1.465	0.1071	1.488	0.0647	0.0216	4.35%	0.0301	3.77%
133.05	Proline, Pre-col AQC Der (%)	11	11	1.472	0.1453	1.463	0.1308	0.0493	8.94%	0.0346	3.78%
133.99	Proline, Miscellaneous (%)	4	4	1.611	0.2153	1.611	0.2153	0.1077	13.36%	0.0350	3.72%
134.00	Serine, Post-col Ninhydrin Der (%)	15	15	1.114	0.0605	1.116	0.0478	0.0154	4.28%	0.0194	3.93%
134.05	Serine, Pre-col AQC Der (%)	11	11	1.105	0.0976	1.105	0.1107	0.0417	10.01%	0.0201	3.94%
134.99	Serine, Miscellaneous (%)	3	3	1.153	0.1068	1.153	0.1068	0.0617	9.26%	0.0267	3.91%
134.02	Serine, Post-col OPA Der (%)	2	2	1.037	0.1107						
135.00	Threonine, Post-col Ninhydrin Der (%)	15	15	0.9558	0.0276	0.9539	0.0266	0.0086	2.79%	0.0110	4.03%
135.05	Threonine, Pre-col AQC Der (%)	11	11	0.9357	0.0717	0.9353	0.0805	0.0303	8.61%	0.0148	4.04%
135.99	Threonine, Miscellaneous (%)	4	4	0.9541	0.0373	0.9541	0.0373	0.0186	3.91%	0.0210	4.03%
135.02	Threonine, Post-col OPA Der (%)	2	2	0.9895	0.1138						
136.03	Tryptophan, Alka-Hydrol + IS RP LC FI (%)	7	7	0.2933	0.0348	0.2876	0.0250	0.0118	8.68%	0.0043	4.82%
136.05	Tryptophan, Pre-col AQC Der (%)	4	4	0.2039	0.0656	0.2039	0.0656	0.0328	32.19%	0.0079	5.08%
136.99	Tryptophan, Miscellaneous (%)	4	3	0.3595	0.2614	0.3595	0.2614	0.1509	72.70%	0.0060	4.67%
136.00	Tryptophan, Alka-Hydrol Post-col Ninhyd (%)	4	2	0.3100	0.0141	0.3100	0.0141				4.77%
136.01	Tryptophan, Alka-Hydrol Rev Phase LC UV (%)	2	2	0.2950	0.0007						
136.02	Tryptophan, Alka-Hydrol Post-col OPA De (%)	2	2	0.2530	0.0325						
137.00	Tyrosine, Post-col Ninhydrin Der (%)	12	12	0.7051	0.0790	0.7095	0.0763	0.0275	10.75%	0.0130	4.21%
137.05	Tyrosine, Pre-col AQC Der (%)	10	10	0.7013	0.1142	0.7013	0.1295	0.0512	18.46%	0.0195	4.22%
137.99	Tyrosine, Miscellaneous (%)	3	3	0.6267	0.0351	0.6267	0.0351	0.0203	5.60%	0.0500	4.29%
137.02	Tyrosine, Post-col OPA Der (%)	2	2	0.5293	0.0202						
138.00	Valine, Post-col Ninhydrin Der (%)	15	14	1.227	0.0551	1.229	0.0497	0.0166	4.05%	0.0202	3.88%
138.05	Valine, Pre-col AQC Der (%)	11	10	1.214	0.0689	1.214	0.0781	0.0309	6.43%	0.0142	3.88%
138.99	Valine, Miscellaneous (%)	3	3	1.113	0.1418	1.113	0.1418	0.0819	12.75%	0.0583	3.94%

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138.02	Valine, Post-col OPA Der (%)	2	2	1.209	0.1181						
139.00	Taurine, Post-col Ninhydrin Der (%)	3	3	0.2013	0.1253	0.2013	0.1253	0.0723	62.22%	0.0100	5.09%
139.05	Taurine, Pre-col AQC Der (%)	2	2	0.1423	0.0244						
139.99	Taurine, Miscellaneous (%)	2	2	0.0730	0.0467						
139.02	Taurine, Post-col OPA Der (%)	1	1	0.1050							
160.10	Fructose, HPAEC PAD (%)	1		0.0000							
161.10	Galactose, HPAEC PAD (%)	1		0.0000							
162.10	Glucose, HPAEC PAD (%)	1		0.0000							
163.10	Lactose, HPAEC PAD (%)	1		0.0000							
164.10	Maltose, HPAEC PAD (%)	1		0.0000							
165.10	Sucrose, HPAEC PAD (%)	1	1	2.420							
166.10	Raffinose, HPAEC PAD (%)	1	1	1.960							
167.10	Stachyose, HPAEC PAD (%)	1	1	0.8450							
400.01	Water Activity, Aqualab chilled mirror (Units)	9	9	0.5094	0.0467	0.5217	0.0151	0.0063	2.89%	0.0039	
400.99	Water Activity, Miscellaneous (Units)	1	1	0.5550							
516.53	Arsenic, Total (As), ICP-MS, Microwave (ppm)	3	2	0.1285	0.0099	0.1285	0.0099			0.0060	21.78%
516.00	Arsenic, Total (As), AA, Hydride (ppm)	1	1	0.0750							
516.52	Arsenic, Total (As), ICP-MS, Open vessel (ppm)	1	1	0.1096							
516.43	Arsenic, Total (As), ICP, Microwave (ppm)	2		0.8900							
518.53	Cadmium, ICP-MS, Microwave (ppm)	3	2	0.0363	0.0039	0.0363	0.0039			0.0021	22.00%
518.41	Cadmium, ICP, Dry ash (ppm)	1	1	0.0366							
518.42	Cadmium, ICP, Open vessel (ppm)	2	1	0.0500							
518.43	Cadmium, ICP, Microwave (ppm)	3	1								
518.52	Cadmium, ICP-MS, Open vessel (ppm)	1		0.0500							
520.43	Chromium, Total (Cr), ICP, Microwave (ppm)	3	3	3.149	0.3371	3.149	0.3371	0.1946	10.71%	0.0244	13.46%
520.53	Chromium, Total (Cr), ICP-MS, Microwave (ppm)	3	3	3.206	0.3152	3.206	0.3152	0.2229	9.83%	0.1102	13.42%
520.41	Chromium, Total (Cr), ICP, Dry ash (ppm)	2	2	3.021	0.9251						
520.42	Chromium, Total (Cr), ICP, Open vessel (ppm)	2	2	2.637	0.1740						
520.52	Chromium, Total (Cr), ICP-MS, Open vessel (ppm)	1	1	1.310							
526.53	Lead, ICP-MS, Microwave (ppm)	4	3	0.1399	0.0047	0.1399	0.0047	0.0027	3.35%	0.0202	21.51%
526.41	Lead, ICP, Dry ash (ppm)	2	2	0.3805	0.3797						
526.42	Lead, ICP, Open vessel (ppm)	1	1	12.83							
526.43	Lead, ICP, Microwave (ppm)	2	1	0.1764							
526.52	Lead, ICP-MS, Open vessel (ppm)	1	1	0.1475							
529.99	Mercury, Miscellaneous (ppb)	3	1								
539.53	Nickel, ICP-MS, Microwave (ppm)	3	3	2.114	0.1554	2.114	0.1554	0.0897	7.35%	0.1125	14.29%
539.43	Nickel, ICP, Microwave (ppm)	2	2	2.070	0.2124						
539.41	Nickel, ICP, Dry ash (ppm)	1	1	1.798							
539.42	Nickel, ICP, Open vessel (ppm)	1	1	6.269							
539.52	Nickel, ICP-MS, Open vessel (ppm)	1	1	1.613							

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value Robust Mean	AAFCO ffp Robust SD	Uncertainty (U) Robust	% RSD - Robust	Average Range (Rob R-bar)	Thompson Horwitz %RSD
702.00	Butyric Acid (4:0), Miscellaneous GC (%)	2	2	0.0178	0.0237						
704.00	Caproic Acid (6:0) , Miscellaneous GC (%)	2	2	0.0048	0.0018						
706.99	Caprylic acid (8:0), Miscellaneous (% (w/w))	2	1	0.0020							
706.01	Caprylic acid (8:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1		0.0000							
708.01	Capric acid (10:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.0065							
708.99	Capric acid (10:0), Miscellaneous (% (w/w))	2	1	0.0045							
710.99	Lauric Acid (12:0), Miscellaneous (% (w/w))	4	3	0.0082	0.0021	0.0082	0.0021	0.0012	25.06%	0.0008	8.24%
710.01	Lauric Acid (12:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.0090							
714.99	Myristic Acid (14:0) , Miscellaneous (% (w/w))	3	3	0.3600	0.4374	0.3600	0.4374	0.3093	121.50%	0.0038	4.66%
714.01	Myristic Acid (14:0) , Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.1200							
716.99	Palmitic Acid (16:0), Miscellaneous (% (w/w))	3	3	9.318	11.43	9.318	11.43	8.085	122.71%	0.0327	2.86%
716.01	Palmitic Acid (16:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	3.245							
718.99	Palmitoleic Acid (9c-16:1), Miscellaneous (% (w/w))	4	2	0.5414	0.0133	0.5414	0.0133			0.0026	4.39%
718.01	Palmitoleic Acid (9c-16:1), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.6335							
720.99	Margaric acid (17:0), Miscellaneous (% (w/w))	1	1	0.0470							
722.99	Stearic Acid (18:0), Miscellaneous (% (w/w))	3	3	3.624	4.466	3.624	4.466	3.158	123.22%	0.0435	3.30%
722.01	Stearic Acid (18:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	1.195							
724.99	Oleic Acid (9c-18:1), Miscellaneous (% (w/w))	3	3	14.39	17.77	14.39	17.77	12.57	123.51%	0.0487	2.64%
724.01	Oleic Acid (9c-18:1), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	4.570							
726.99	Linoleic Acid (9c,12c-18:2), Miscellaneous (% (w/w))	5	4	2.330	0.0935	2.330	0.0935	0.0540	4.01%	0.0414	3.52%
726.01	Linoleic Acid (9c,12c-18:2), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	2.740							
726.02	Linoleic Acid (9c,12c-18:2), Direct Methylation by Acid-Alkali Hydrolysis & GC (%)	1	1	2.115							
728.99	alpha-Linolenic Acid (9c,12c,15c-18:3), Miscellaneous (% (w/w))	4	3	0.1128	0.0026	0.1128	0.0026	0.0015	2.28%	0.0025	5.55%
728.01	alpha-Linolenic Acid (9c,12c,15c-18:3), Direct Methylation by Alkali Hydrolysis	1	1	0.1360							
730.99	Arachidic Acid (20:0), Miscellaneous (% (w/w))	3	3	0.0837	0.1050	0.0837	0.1050	0.0743	125.47%	0.0037	5.81%
730.01	Arachidic Acid (20:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.0295							
732.99	Gondoic Acid (11c-20:1), Miscellaneous (% (w/w))	2	2	0.0379	0.0069						
732.01	Gondoic Acid (11c-20:1), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.0420							
736.99	Arachidonic Acid (5c,8c,11c,14c-20:4), Miscellaneous (% (w/w))	2	2	0.0440	0.0014						
736.01	Arachidonic Acid (5c,8c,11c,14c-20:4), Direct Methylation by Alkali Hydrolysis	1	1	0.0585							
738.01	Mead Acid (11c,14c,17c-20:3), Direct Methylation by Alkali Hydrolysis & GC (%)	1		0.0000							
740.99	Eicosapentaenoic Acid EPA (5c,8c,11c,14c,17c-20:5), Miscellaneous (% (w/w))	4	2	0.0395	0.0502	0.0395	0.0502				6.50%
740.01	Eicosapentaenoic Acid EPA (5c,8c,11c,14c,17c-20:5), Direct Methylation by Al	1		0.0000							
742.99	Behenic Acid (22:0), Miscellaneous (% (w/w))	3	3	0.0527	0.0670	0.0527	0.0670	0.0474	127.24%	0.0070	6.23%
744.99	Erucic Acid (13c-22:1), Miscellaneous (% (w/w))	3	1								
744.01	Erucic Acid (13c-22:1), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1		0.0000							
746.99	Docosapentaenoic Acid n-3 DPA (7c,10c,13c,16c,19c-22:5), Miscellaneous (% (w/w))	4	3	0.0075	0.0009	0.0075	0.0009	0.0005	11.30%	0.0007	8.35%
746.01	Docosapentaenoic Acid n-3 DPA (7c,10c,13c,16c,19c-22:5), Direct Methylation	1		0.0000							
748.99	Lignoceric Acid (24:0), Miscellaneous (% (w/w))	3	3	0.0618	0.0764	0.0618	0.0764	0.0540	123.70%	0.0205	6.08%
750.99	Docosaheptaenoic Acid DHA (4c,7c,10c,13c,16c,19c-22:6), Miscellaneous (% (w/w))	4	1								

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value Robust Mean	AAFCO ffp Robust SD	Uncertainty (U) Robust	% RSD - Robust	Average Range (Rob R-bar)	Thompson Horwitz %RSD
750.01	Docosahexaenoic Acid DHA (4c,7c,10c,13c,16c,19c-22:6), Direct Methylation	1		0.0000							
752.99	Nervonic Acid (24:1) isomers, Miscellaneous (% (w/w))	2	2	0.0078	0.0010						
752.01	Nervonic Acid (24:1) isomers, Direct Methylation by Alkali Hydrolysis & GC (%)	1		0.0000							
754.99	Total n-3 Polyunsaturated (Omega-3) Fatty Acids, Miscellaneous (% (w/w))	6	6	0.1258	0.0221	0.1258	0.0251	0.0128	19.92%	0.0080	5.46%
754.02	Total n-3 Polyunsaturated (Omega-3) Fatty Acids, Direct Methylation by Acid- <i>f</i>	1	1	0.1370							
756.99	Total n-6 Polyunsaturated (Omega-6) Fatty Acids, Miscellaneous (% (w/w))	6	6	2.463	0.1705	2.463	0.1933	0.0986	7.85%	0.0483	3.49%
756.01	Total n-6 Polyunsaturated (Omega-6) Fatty Acids, Direct Methylation by Alkali	1	1	2.190							
758.99	Total Saturated Fatty Acids, Miscellaneous (% (w/w))	2	2	18.61	20.83						
762.99	Total Monounsaturated Fatty Acids, Miscellaneous (% (w/w))	1	1	40.40							
764.99	Total cis Monounsaturated Fatty Acids, Miscellaneous (% (w/w))	1	1	4.903							
766.99	Total Polyunsaturated Fatty Acids, Miscellaneous (% (w/w))	1	1	21.11							
768.99	Total cis Polyunsaturated Fatty Acids, Miscellaneous (% (w/w))	1	1	2.563							
770.99	Total Fat (equivalent to NLEA), Miscellaneous (% (w/w))	1	1	12.03							
772.99	Total Fatty Acids, Miscellaneous (% (w/w))	2	2	11.42	0.1111						

Notes: Robust statistics not used if < 6 labs reporting. In this case Means and SD's may be reported based on Raw Data with obvious blunders removed. Robust Assigned Values indicated in bold font.



Animal Feed Scheme

Dry Dog Feed

Test Material Code # 202326

Methods Reported: 133

Labs Reporting: 205

Issue Date : 07/31/2023

Method Precision Report

Method Code	Analyte and Method	Total # Labs Submitting	# Labs used in Precision Calcs	Precision Mean	Precision SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
001.00	Loss on Drying, Vac 95°C 5 hr (%)	6	6	7.455	0.3097	0.3072	0.0556	0.3121	4.12%	0.75%	4.19%	5.619
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	77	69	7.410	0.2857	0.2416	0.0689	0.2513	3.27%	0.93%	3.40%	3.645
001.99	Loss on Drying, Miscellaneous (%)	19	19	7.035	0.5383	0.5333	0.1041	0.5433	7.58%	1.48%	7.72%	5.219
002.01	Protein, Crude, Auto Kjel-Foss (%)	21	19	24.44	0.2548	0.2531	0.0937	0.2699	1.04%	0.38%	1.10%	2.881
002.05	Protein, Crude, Copper, Boric Acid (%)	26	25	24.50	0.3429	0.2886	0.1261	0.3149	1.18%	0.51%	1.28%	2.497
002.06	Protein, Crude, Combustion Nitrogen Analyzer (%)	150	139	24.76	0.3242	0.2250	0.1397	0.2649	0.91%	0.56%	1.07%	1.896
003.00	Fat, Crude, Diethyl Ether Ext., Direct (%)	11	11	11.56	1.033	1.028	0.1509	1.039	8.89%	1.31%	8.99%	6.885
003.06	Fat, Crude, Pet Ether (%)	17	15	10.92	1.937	0.6117	0.1211	0.6236	5.39%	1.07%	5.49%	5.150
003.09	Fat, Crude, Randall, Diethyl Ether Ext (%)	7	7	11.02	0.3922	0.3855	0.1020	0.3988	3.50%	0.93%	3.62%	3.911
003.10	Fat, Crude, Randall, Pet Ether (%)	30	29	11.21	0.2961	0.2698	0.1720	0.3199	2.40%	1.53%	2.85%	1.860
003.14	Fat, Crude, Ankom (%)	45	40	11.21	0.6736	0.5247	0.1362	0.5420	4.71%	1.22%	4.87%	3.980
004.00	Fiber, Crude, Asbestos Free (%)	14	13	4.001	0.4442	0.4377	0.1067	0.4505	10.94%	2.67%	11.26%	4.222
004.06	Fiber, Crude, Fibertec (%)	19	16	3.986	0.4969	0.4005	0.0706	0.4067	10.28%	1.81%	10.44%	5.759
004.07	Fiber, Crude, ANKOM (%)	75	69	4.005	0.7639	0.5326	0.1880	0.5648	13.79%	4.87%	14.62%	3.004
005.00	Ash, 2h @ 600°C (%)	112	102	7.325	0.1402	0.0833	0.0515	0.0979	1.13%	0.70%	1.33%	1.901
005.03	Ash, Microwave furnace (%)	7	7	7.463	0.1450	0.1222	0.1104	0.1646	1.64%	1.48%	2.21%	1.492
005.05	Ash, 3h @ 550°C (%)	40	36	7.405	0.0904	0.0720	0.0303	0.0781	0.97%	0.41%	1.06%	2.580
005.99	Ash, Miscellaneous (%)	11	9	7.356	0.1416	0.0778	0.0497	0.0923	1.05%	0.67%	1.25%	1.856
008.02	Fiber, Acid Detergent, Crucible (%)	12	9	6.916	0.5292	0.3776	0.1350	0.4010	5.57%	1.99%	5.92%	2.970
008.08	Fiber, Acid Detergent, Filter Bag - ANKOM (%)	48	44	7.009	1.723	1.460	0.2960	1.490	21.45%	4.35%	21.88%	5.032
009.07	Fiber, Neutral Detergent, AOAC -ENZ Pretreat (%)	12	11	13.64	1.831	1.741	0.5009	1.812	12.96%	3.73%	13.48%	3.617
009.09	Fiber, Neutral Detergent, Filter Bag - ANKOM (%)	43	41	12.28	2.755	2.532	0.3662	2.559	20.97%	3.03%	21.19%	6.987
010.99	Moisture, Miscellaneous (%)	17	15	7.576	0.3990	0.3304	0.0977	0.3446	4.39%	1.30%	4.58%	3.527
011.01	Loss on Drying, HT, 135°C 2hr (%)	69	64	7.969	0.4271	0.3213	0.1018	0.3371	4.00%	1.27%	4.20%	3.311
011.02	Loss on Drying, HT, 130°C for 2 hours (%)	5	5	8.059	0.3752	0.3617	0.1410	0.3882	4.49%	1.75%	4.82%	2.754
012.00	Starch, Polarimetric (Ewers) (%)	14	13	35.78	0.6832	0.6491	0.1312	0.6622	1.82%	0.37%	1.85%	5.047
012.01	Starch, Enzymatic-Colorimetric Method (Megazyme) (%)	10	9	33.39	6.435	1.425	1.293	1.924	4.03%	3.66%	5.44%	1.488
012.04	Starch, Enzymatic-Enzyme Membrane Technology (YSI) (%)	7	6	35.22	1.656		0.9106			2.63%		
013.00	Fat, Pretreat, Acid hydrolysis (%)	36	32	13.45	1.805	0.5454	0.2342	0.5935	4.03%	1.73%	4.39%	2.534
013.02	Fat, Pretreat, Mojonnier, Bak Ext, Acid hydrolysis (%)	39	35	13.44	1.029	0.7386	0.1985	0.7648	5.45%	1.46%	5.64%	3.853
013.10	Fat, Pretreat, Soxtec-Acid Hydrolysis (%)	9	9	13.13	0.7543	0.7472	0.1460	0.7614	5.69%	1.11%	5.80%	5.214
013.13	Fat, Pretreat, Ankom- Acid Hydrolysis (%)	14	12	13.52	0.5876	0.5788	0.2811	0.6435	4.28%	2.08%	4.76%	2.289
015.43	Aluminum, ICP, Microwave (ppm)	6	5	113.2	21.93	9.382	1.600	9.517	8.94%	1.53%	9.07%	5.947
019.00	Calcium, Ox-Mn04 Vol. (%)	6	6	1.560	0.0580	0.0552	0.0254	0.0607	3.54%	1.63%	3.89%	2.394
019.08	Calcium, EDTA (%)	12	9	1.512	0.0571	0.0404	0.0077	0.0411	2.69%	0.51%	2.73%	5.344
019.31	Calcium, AAS, Dry ash (%)	20	20	1.473	0.0942	0.0911	0.0337	0.0971	6.19%	2.29%	6.59%	2.883

Method Code	Analyte and Method	Total # Labs Submitting	# Labs used in Precision Calcs	Precision Mean	Precision SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
019.41	Calcium, ICP, Dry ash (%)	27	25	1.509	0.0489	0.0466	0.0241	0.0525	3.09%	1.60%	3.47%	2.176
019.42	Calcium, ICP, Open vessel (%)	20	17	1.551	0.1723	0.0924	0.0501	0.1051	5.97%	3.24%	6.79%	2.097
019.43	Calcium, ICP, Microwave (%)	36	33	1.530	0.1052	0.0825	0.0234	0.0858	5.45%	1.54%	5.66%	3.669
019.44	Calcium, ICP, Dry ash (%)	21	19	1.485	0.0473	0.0279	0.0297	0.0408	1.87%	1.99%	2.73%	1.372
019.99	Calcium, Miscellaneous (%)	5	5	1.455	0.0576	0.0551	0.0235	0.0599	3.79%	1.61%	4.12%	2.554
021.41	Cobalt, ICP, Dry ash (ppm)	6	6	1.840	0.4265	0.4246	0.0574	0.4284	23.07%	3.12%	23.28%	7.469
021.43	Cobalt, ICP, Microwave (ppm)	5	5	2.037	0.0975	0.0833	0.0717	0.1099	4.09%	3.52%	5.40%	1.534
022.31	Copper, AAS, Dry ash (ppm)	11	8	15.47	6.238	1.108	0.4334	1.190	8.03%	3.14%	8.62%	2.746
022.41	Copper, ICP, Dry ash (ppm)	19	17	12.33	2.060	2.105	0.5034	2.164	16.96%	4.06%	17.44%	4.300
022.42	Copper, ICP, Open vessel (ppm)	21	18	15.86	1.480	1.116	0.4643	1.209	6.95%	2.89%	7.53%	2.603
022.43	Copper, ICP, Microwave (ppm)	34	31	15.55	0.8395	0.6395	0.3282	0.7188	4.14%	2.13%	4.66%	2.190
022.44	Copper, ICP, Dry ash (ppm)	8	6	13.17	1.466	1.574	0.2117	1.588	11.86%	1.59%	11.97%	7.505
025.31	Iron, AAS, Dry ash (ppm)	11	11	332.8	58.67	58.45	7.154	58.89	17.56%	2.15%	17.69%	8.231
025.41	Iron, ICP, Dry ash (ppm)	18	17	335.1	28.78	28.86	6.120	29.50	8.64%	1.83%	8.84%	4.820
025.42	Iron, ICP, Open vessel (ppm)	19	17	357.7	126.9	69.76	12.03	70.79	20.98%	3.62%	21.29%	5.885
025.43	Iron, ICP, Microwave (ppm)	25	23	362.9	38.20	31.13	6.723	31.85	8.45%	1.83%	8.65%	4.737
025.53	Iron, ICP-MS, Microwave (ppm)	5	5	357.8	22.62	21.95	7.725	23.27	6.13%	2.16%	6.50%	3.012
027.31	Magnesium, AAS, Dry ash (%)	11	10	0.1313	0.0087	0.0089	0.0024	0.0093	6.81%	1.85%	7.06%	3.808
027.41	Magnesium, ICP, Dry ash (%)	22	22	0.1301	0.0068	0.0064	0.0030	0.0071	4.94%	2.32%	5.45%	2.355
027.42	Magnesium, ICP, Open vessel (%)	21	19	0.1405	0.0169	0.0087	0.0058	0.0105	6.24%	4.13%	7.48%	1.813
027.43	Magnesium, ICP, Microwave (%)	32	29	0.1298	0.0263	0.0100	0.0036	0.0107	7.48%	2.71%	7.96%	2.940
027.44	Magnesium, ICP, Dry ash (%)	19	17	0.1293	0.0042	0.0023	0.0021	0.0031	1.80%	1.61%	2.42%	1.501
028.31	Manganese, AAS, Dry ash (ppm)	12	12	43.92	11.12	11.08	1.194	11.15	25.23%	2.72%	25.38%	9.334
028.41	Manganese, ICP, Dry ash (ppm)	21	18	48.27	3.144	2.463	0.7698	2.580	5.04%	1.58%	5.29%	3.352
028.42	Manganese, ICP, Open vessel (ppm)	21	19	52.08	3.425	3.214	1.613	3.596	6.15%	3.09%	6.88%	2.229
028.43	Manganese, ICP, Microwave (ppm)	30	27	50.96	2.545	2.442	0.7881	2.566	4.81%	1.55%	5.06%	3.256
028.44	Manganese, ICP, Dry ash (ppm)	14	12	46.59	3.288	3.284	0.6235	3.343	7.04%	1.34%	7.17%	5.361
028.53	Manganese, ICP-MS, Microwave (ppm)	6	6	48.67	4.753	4.665	1.282	4.838	9.59%	2.63%	9.94%	3.774
031.01	Phosphorus, Photometric (%)	34	31	0.9652	0.0436	0.0342	0.0088	0.0353	3.53%	0.90%	3.64%	4.029
031.41	Phosphorus, ICP, Dry ash (%)	25	24	0.9738	0.0382	0.0368	0.0143	0.0395	3.78%	1.47%	4.06%	2.760
031.42	Phosphorus, ICP, Open vessel (%)	22	20	1.011	0.0849	0.0546	0.0477	0.0725	5.49%	4.79%	7.29%	1.520
031.43	Phosphorus, ICP, Microwave (%)	35	33	1.012	0.0681	0.0541	0.0155	0.0563	5.38%	1.55%	5.60%	3.621
031.44	Phosphorus, ICP, Dry ash (%)	22	21	0.9542	0.0533	0.0427	0.0264	0.0502	4.45%	2.75%	5.23%	1.903
031.99	Phosphorus, Miscellaneous (%)	5	5	0.9460	0.0818	0.0816	0.0077	0.0820	8.63%	0.82%	8.67%	10.58
032.31	Potassium, AAS, Dry ash (%)	10	10	0.7218	0.0665	0.0659	0.0129	0.0671	9.13%	1.79%	9.30%	5.203
032.41	Potassium, ICP, Dry ash (%)	24	24	0.7465	0.0316	0.0297	0.0151	0.0333	3.98%	2.03%	4.46%	2.205
032.42	Potassium, ICP, Open vessel (%)	19	16	0.8241	0.1234	0.0422	0.0286	0.0510	5.29%	3.58%	6.38%	1.783
032.43	Potassium, ICP, Microwave (%)	35	32	0.7662	0.1632	0.0363	0.0124	0.0383	4.69%	1.60%	4.95%	3.089
032.44	Potassium, ICP, Dry ash (%)	19	17	0.7269	0.0219		0.0187			2.58%		
033.00	Salt as chloride, Sol Cl (%)	16	15	0.8929	0.1009	0.0464	0.0100	0.0474	5.07%	1.09%	5.18%	4.740
033.01	Salt as chloride, Poten Cl (%)	24	20	0.9667	0.0272	0.0214	0.0092	0.0233	2.21%	0.96%	2.41%	2.522
033.99	Salt, Miscellaneous (%)	12	10	0.9086	0.2103	0.2139	0.0333	0.2165	23.95%	3.73%	24.23%	6.505
034.53	Selenium, Total (Se), ICP-MS, Microwave (ppm)	7	6	0.8374	0.2779	0.1281	0.0217	0.1300	17.26%	2.93%	17.51%	5.976
035.31	Sodium, AAS, Dry ash (%)	10	9	0.2248	0.0337	0.0218	0.0074	0.0230	9.33%	3.19%	9.86%	3.090
035.41	Sodium, ICP, Dry ash (%)	44	40	0.2383	0.0083	0.0076	0.0045	0.0089	3.21%	1.89%	3.72%	1.970
035.42	Sodium, ICP, Open vessel (%)	19	17	0.2667	0.0636	0.0426	0.0060	0.0430	16.67%	2.34%	16.84%	7.193

Method Code	Analyte and Method	Total # Labs Submitting	# Labs used in Precision Calcs	Precision Mean	Precision SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
035.43	Sodium, ICP, Microwave (%)	31	26	0.2432	0.0616	0.0300	0.0048	0.0303	12.23%	1.95%	12.39%	6.346
036.04	Sulfur, LECO (%)	6	5	0.3262	0.0200	0.0198	0.0039	0.0202	6.08%	1.20%	6.19%	5.181
036.42	Sulfur, ICP, Open vessel (%)	18	17	0.3109	0.0424	0.0197	0.0099	0.0221	6.52%	3.29%	7.31%	2.221
036.43	Sulfur, ICP, Microwave (%)	20	18	0.3117	0.0840	0.0387	0.0107	0.0401	11.76%	3.25%	12.20%	3.754
037.31	Zinc, AAS, Dry ash (ppm)	11	11	171.4	16.14	15.55	6.129	16.71	9.07%	3.58%	9.75%	2.727
037.41	Zinc, ICP, Dry ash (ppm)	25	24	173.1	13.35	10.52	5.477	11.86	6.02%	3.14%	6.79%	2.165
037.42	Zinc, ICP, Open vessel (ppm)	20	18	202.0	20.34	18.76	8.419	20.57	9.22%	4.14%	10.10%	2.443
037.43	Zinc, ICP, Microwave (ppm)	33	30	200.6	14.69	9.348	2.874	9.780	4.73%	1.45%	4.95%	3.403
038.43	Molybdenum, ICP, Microwave (ppm)	6	5	8.554	19.12	0.1380	0.1844	0.2303	18.44%	24.64%	30.77%	1.249
042.00	Chloride, Titrimetric (%)	9	7	0.6296	0.0863	0.0531	0.0046	0.0533	8.78%	0.77%	8.81%	11.49
106.02	Vitamin A, LC (KU / kg)	11	10	5.497	1.367	1.327	0.4653	1.406	24.13%	8.46%	25.57%	3.022
108.02	Vitamin D3, LC (KU / kg)	6	5	1.090	0.8815	0.2064	0.2668	0.3373	27.72%	35.84%	45.31%	1.264
109.02	Vitamin E, LC (IU / kg)	12	11	290.9	96.42	95.20	21.62	97.63	32.73%	7.43%	33.56%	4.515
120.00	Alanine, Post-col Ninhydrin Der (%)	15	13	1.730	0.0606	0.0417	0.0157	0.0445	2.43%	0.91%	2.59%	2.835
120.05	Alanine, Pre-col AQC Der (%)	11	11	1.649	0.1414	0.1404	0.0232	0.1423	8.52%	1.41%	8.63%	6.125
121.00	Arginine, Post-col Ninhydrin Der (%)	15	13	1.511	0.0884	0.0513	0.0283	0.0586	3.35%	1.85%	3.83%	2.069
121.05	Arginine, Pre-col AQC Der (%)	11	10	1.510	0.1277	0.1275	0.0099	0.1279	8.44%	0.65%	8.47%	12.95
122.00	Aspartic, Post-col Ninhydrin Der (%)	15	13	1.992	0.0530	0.0347	0.0133	0.0372	1.75%	0.67%	1.87%	2.788
122.05	Aspartic, Pre-col AQC Der (%)	11	10	1.948	0.1246	0.1238	0.0206	0.1255	6.36%	1.06%	6.44%	6.084
124.00	Cysteine/Cystine, PAO Post-col Ninhydrin Der (%)	15	15	0.3214	0.0236	0.0234	0.0043	0.0238	7.28%	1.33%	7.40%	5.549
124.05	Cysteine/Cystine, PAO Pre-col AQC Der (%)	11	10	0.3218	0.0901	0.0484	0.0152	0.0508	16.22%	5.10%	17.00%	3.331
125.00	Glutamic, Post-col Ninhydrin Der (%)	15	12	3.319	0.1111	0.0835	0.0156	0.0849	2.53%	0.47%	2.57%	5.430
125.05	Glutamic, Pre-col AQC Der (%)	11	10	3.227	0.2842	0.2987	0.0305	0.3003	9.26%	0.95%	9.31%	9.843
126.00	Glycine, Post-col Ninhydrin Der (%)	15	14	1.744	0.0456	0.0445	0.0136	0.0466	2.55%	0.78%	2.67%	3.423
126.05	Glycine, Pre-col AQC Der (%)	11	9	1.728	0.1932	0.2040	0.0140	0.2045	11.84%	0.81%	11.87%	14.60
127.00	Histidine, Post-col Ninhydrin Der (%)	15	13	0.6830	0.0359	0.0261	0.0121	0.0288	3.80%	1.76%	4.19%	2.377
127.05	Histidine, Pre-col AQC Der (%)	11	11	0.6823	0.0691	0.0684	0.0136	0.0697	10.02%	1.99%	10.22%	5.136
128.00	Isoleucine, Post-col Ninhydrin Der (%)	15	14	0.8532	0.0562	0.0579	0.0094	0.0587	6.79%	1.10%	6.88%	6.248
128.05	Isoleucine, Pre-col AQC Der (%)	11	10	0.8359	0.0703	0.0702	0.0065	0.0705	8.39%	0.78%	8.43%	10.82
129.00	Leucine, Post-col Ninhydrin Der (%)	15	14	2.077	0.0559	0.0545	0.0173	0.0572	2.62%	0.83%	2.75%	3.301
129.05	Leucine, Pre-col AQC Der (%)	11	10	2.015	0.1027	0.1023	0.0137	0.1032	5.08%	0.68%	5.12%	7.549
130.00	L-Lysine, Post-col Ninhydrin Der (%)	18	16	1.327	0.0813	0.0628	0.0117	0.0639	4.69%	0.87%	4.77%	5.478
130.05	L-Lysine, Pre-col AQC Der (%)	11	10	1.304	0.0855	0.0852	0.0104	0.0858	6.53%	0.80%	6.58%	8.265
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	15	14	0.4330	0.0182	0.0164	0.0071	0.0178	3.76%	1.63%	4.10%	2.511
131.05	Methionine, PAO Pre-col AQC Der (%)	11	9	0.4407	0.0574	0.0596	0.0048	0.0598	13.63%	1.09%	13.67%	12.49
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	15	13	1.140	0.0317	0.0212	0.0085	0.0228	1.87%	0.75%	2.02%	2.693
132.05	Phenylalanine, Pre-col AQC Der (%)	11	11	1.079	0.0471	0.0463	0.0122	0.0478	4.29%	1.13%	4.43%	3.936
133.00	Proline, Post-col Ninhydrin Der (%)	15	13	1.465	0.1071	0.1052	0.0193	0.1069	7.22%	1.33%	7.34%	5.541
133.05	Proline, Pre-col AQC Der (%)	11	10	1.472	0.1453	0.1496	0.0177	0.1507	10.11%	1.20%	10.18%	8.513
134.00	Serine, Post-col Ninhydrin Der (%)	15	14	1.114	0.0605	0.0453	0.0121	0.0469	4.03%	1.08%	4.17%	3.874
134.05	Serine, Pre-col AQC Der (%)	11	11	1.105	0.0976	0.0971	0.0141	0.0981	8.78%	1.28%	8.88%	6.960
135.00	Threonine, Post-col Ninhydrin Der (%)	15	13	0.9558	0.0276	0.0213	0.0084	0.0229	2.23%	0.88%	2.40%	2.720
135.05	Threonine, Pre-col AQC Der (%)	11	11	0.9357	0.0717	0.0714	0.0084	0.0719	7.63%	0.90%	7.69%	8.511
136.03	Tryptophan, Alka-Hydrol + IS RP LC FI (%)	7	6	0.2933	0.0348	0.0159	0.0023	0.0160	5.64%	0.80%	5.69%	7.090
137.00	Tyrosine, Post-col Ninhydrin Der (%)	12	12	0.7051	0.0790	0.0787	0.0103	0.0793	11.16%	1.46%	11.25%	7.713
137.05	Tyrosine, Pre-col AQC Der (%)	10	10	0.7013	0.1142	0.1138	0.0122	0.1145	16.23%	1.74%	16.32%	9.383

Test Material Code # 202326

Issue Date : 07/31/2023

Method Code	Analyte and Method	Total # Labs Submitting	# Labs used in Precision Calcs	Precision Mean	Precision SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
138.00	Valine, Post-col Ninhydrin Der (%)	15	14	1.227	0.0551	0.0540	0.0152	0.0561	4.40%	1.24%	4.57%	3.699
138.05	Valine, Pre-col AQC Der (%)	11	9	1.214	0.0689	0.0649	0.0087	0.0655	5.30%	0.71%	5.35%	7.502
400.01	Water Activity, Aqualab chilled mirror (Units)	9	8	0.5094	0.0467	0.0106	0.0040	0.0113	2.02%	0.75%	2.16%	2.855
754.99	Total n-3 Polyunsaturated (Omega-3) Fatty Acids, Miscellaneous (% (w/w))	6	6	0.1258	0.0221	0.0220	0.0034	0.0222	17.46%	2.68%	17.67%	6.604
756.99	Total n-6 Polyunsaturated (Omega-6) Fatty Acids, Miscellaneous (% (w/w))	6	5	2.463	0.1705	0.1880	0.0171	0.1887	7.60%	0.69%	7.63%	11.07

Notes: Precision Calculations provided for methods with 5 or more labs contributing to calculations.