Animal Feed Scheme
Pig Feed, Medicated
Test Material Code # 201823

Method Summary Report

(Precision Report Follows)

 # Methods Reported: 384
 # Labs Reporting: 194
Issue Date : 04/30/2018

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value Robust Mean	AAFCO PT ffp - Robust sd	Uncertainty (U) - Robust	% RSD - Robust	Average Range (R-bar)	Horwitz %RSD
000.02	Urea, As protein, Colorimetric (%)	1	1	0.15000							
001.00	Loss on Drying, Vac 95°C 5 hr (%)	5	4	8.3579	0.11020	8.3579	0.11020	0.06888	1.32%	0.02975	2.91%
001.02	Loss on Drying, Vac on sand (%)	1	1	7.4800							
001.03	Loss on Drying, Low temp. methods (%)	4	4	8.3200	0.13478	8.3200	0.13478	0.08424	1.62%	0.04000	2.91%
001.05	Loss on Drying, LECO (%)	2	2	8.0825	0.51265						
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	42	40	8.2735	0.24285	8.2674	0.20367	0.04025	2.46%	0.11105	2.91%
001.99	Loss on Drying, Miscellaneous (%)	21	20	8.0058	0.62194	8.0676	0.49390	0.13805	6.12%	0.10650	2.92%
002.00	Protein, Crude, Crude (%)	2	2	17.981	0.93974						
002.01	Protein, Crude, Auto Kjel-Foss (%)	15	14	18.486	0.26013	18.461	0.23457	0.07837	1.27%	0.11957	2.33%
002.02	Protein, Crude, Semiauto Autoanalyzer (%)	5	4	18.474	0.09934	18.474	0.09934	0.06209	0.54%	0.09348	2.33%
002.04	Protein, Crude, Copper Catalyst (%)	4	4	19.170	2.1175	19.170	2.1175	1.3234	11.05%	0.16500	2.28%
002.05	Protein, Crude, Copper, Boric Acid (%)	32	32	18.316	0.56088	18.398	0.26364	0.05826	1.43%	0.13653	2.33%
002.06	Protein, Crude, Combustion Nitrogen Analyzer (%)	127	124	18.688	0.29645	18.681	0.26001	0.02919	1.39%	0.19006	2.31%
002.08	Protein, Crude, Cu/Ti (%)	2	2	18.351	0.14934						
002.10	Protein, Crude, Block dig/distillation (%)	1	1	18.195							
002.11	Protein, Crude, NIR (%)	8	8	20.907	2.0363	21.085	1.3351	0.59003	6.33%	0.13288	2.18%
002.99	Protein, Crude, Miscellaneous (%)	1	1	18.575							
003.00	Fat, Crude, Diethyl Ether Ext., Direct (%)	17	17	3.5669	0.46533	3.6052	0.43816	0.13284	12.15%	0.09435	3.30%
003.01	Fat, Crude, Diethyl Ether Ext (13th ed.), Indirect (%)	1	1	3.3900							
003.06	Fat, Crude, Pet Ether (%)	19	18	3.6786	0.23952	3.6779	0.22507	0.06631	6.12%	0.07286	3.29%
003.09	Fat, Crude, Randall, Diethyl Ether Ext (%)	16	16	3.5637	0.29457	3.5770	0.30532	0.09541	8.54%	0.08376	3.30%
003.10	Fat, Crude, Randall, Pet Ether (%)	33	33	3.2884	0.34775	3.3300	0.27162	0.05910	8.16%	0.07820	3.34%
003.11	Fat, Crude, NIR (%)	7	7	3.8401	1.5558	3.7120	1.4578	0.68875	39.27%	0.06387	3.28%
003.12	Fat, Crude, Hexane Ext (%)	4	3	3.4350	0.14465	3.4350	0.14465	0.10439	4.21%	0.02333	3.32%
003.13	Fat, Crude, Randall, Hexane Ext. (%)	6	6	3.4900	0.20070	3.4900	0.22759	0.11614	6.52%	0.06000	3.31%
003.14	Fat, Crude, Ankom (%)	45	44	2.9192	0.43679	2.9152	0.46519	0.08766	15.96%	0.13051	3.40%
003.99	Fat, Crude, Miscellaneous (%)	5	5	3.5720	0.63310	3.5720	0.63310	0.35391	17.72%	0.13200	3.30%
004.00	Fiber, Crude, Asbestos Free (%)	19	19	3.6912	0.34201	3.6637	0.24038	0.06893	6.56%	0.20049	3.29%
004.03	Fiber, Crude, Fritted Glass (%)	8	8	3.7606	0.55405	3.7606	0.62830	0.27767	16.71%	0.18375	3.28%
004.06	Fiber, Crude, Fibertec (%)	24	24	3.8365	0.24474	3.8198	0.23736	0.06056	6.21%	0.10535	3.27%
004.07	Fiber, Crude, ANKOM (%)	65	63	3.9482	0.59155	3.8665	0.47082	0.07415	12.18%	0.19777	3.26%
004.11	Fiber, Crude, NIR (%)	6	6	3.9454	0.74817	4.1284	0.37692	0.19234	9.13%	0.06815	3.23%

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004.99	Fiber, Crude, Miscellaneous (%)	6	6	3.5175	0.36477	3.5784	0.26187	0.13364	7.32%	0.12500	3.30%
005.00	Ash, 2h @ 600°C (%)	94	93	14.693	0.67584	14.761	0.59332	0.07691	4.02%	0.15702	2.60%
005.02	Ash, LECO (%)	1	1	15.190							
005.03	Ash, Microwave furnace (%)	1	1	14.600							
005.05	Ash, 3h @ 550°C (%)	34	33	15.314	0.41809	15.335	0.29619	0.06445	1.93%	0.10958	2.55%
005.11	Ash, NIR (%)	7	7	10.563	3.5062	10.563	3.9760	1.8785	37.64%	0.11719	2.81%
005.99	Ash, Miscellaneous (%)	10	10	15.297	0.43399	15.366	0.30098	0.11897	1.96%	0.13900	2.55%
006.00	Total Sugars, As sucrose (%)	1	1	5.2900							
006.01	Total Sugars, Mod. Fehling Soln (%)	2	2	5.8400	0.04243						
006.99	Total Sugars, Miscellaneous (%)	3	3	5.3569	1.1743	5.3569	1.1743	0.84748	21.92%	0.78783	3.11%
008.02	Fiber, Acid Detergent, Crucible (%)	19	18	5.3013	0.79340	5.1811	0.55990	0.16496	10.81%	0.13757	3.12%
008.05	Fiber, Acid Detergent, Acid Detergent-Hach (%)	1	1	5.6200							
008.08	Fiber, Acid Detergent, Filter Bag - ANKOM (%)	36	34	5.3592	0.76165	5.2879	0.62724	0.13446	11.86%	0.20109	3.11%
008.99	Fiber, Acid Detergent, Miscellaneous (%)	4	4	4.7738	1.2586	4.7738	1.2586	0.78663	26.36%	0.15750	3.16%
009.04	Fiber, Neutral Detergent, Neutral Det-No ENZ Pretreat (%)	1	1	9.3300							
009.07	Fiber, Neutral Detergent, AOAC -ENZ Pretreat (%)	16	16	11.051	1.0541	11.026	0.96320	0.30100	8.74%	0.31602	2.79%
009.09	Fiber, Neutral Detergent, Filter Bag - ANKOM (%)	38	38	10.499	1.0627	10.370	0.81309	0.16488	7.84%	0.33079	2.81%
009.99	Fiber, Neutral Detergent, Miscellaneous (%)	3	3	9.6567	2.4911	9.6567	2.4911	1.7978	25.80%	0.16667	2.84%
010.03	Moisture, Karl-Fischer (%)	2	2	8.0225	0.55508						
010.11	Moisture, NIR (%)	8	8	9.0676	0.76920	9.0676	0.87227	0.38549	9.62%	0.07725	2.87%
010.99	Moisture, Miscellaneous (%)	20	20	8.3896	0.54660	8.3989	0.43321	0.12109	5.16%	0.11680	2.90%
011.01	Loss on Drying, 135°C 2hr (%)	65	64	9.0537	0.42567	9.1066	0.32519	0.05081	3.57%	0.09168	2.87%
011.02	Loss on Drying, 130°C for 2 hours (%)	2	2	9.0200	0.14849						
011.99	Loss on Drying, High Temp. Methods Miscellaneous (%)	2	2	9.8200	1.0889						
012.00	Starch, Polarimetric (Ewers) (%)	17	17	30.470	2.0896	30.869	1.1424	0.34634	3.70%	0.18019	1.80%
012.01	Starch, Enzymatic-Colorimetric Method (Megazyme) (%)	10	10	29.298	3.3449	29.533	3.2273	1.2757	10.93%	0.80969	1.84%
012.03	Starch, Enzymatic-Colorimetric Method, Miscellaneous (%)	6	6	30.443	2.9218	30.045	2.3360	1.1921	7.78%	0.52833	1.82%
012.04	Starch, Enzymatic-Enzyme Membrane Technology (YSI) (%)	5	5	29.549	1.3109	29.549	1.3109	0.73282	4.44%	0.49800	1.84%
012.11	Starch, NIR (%)	5	5	32.301	2.9566	32.301	2.9566	1.6528	9.15%	0.12280	1.76%
013.00	Fat, Acid Pretreat, Acid hydrolysis (%)	20	19	4.2448	0.46791	4.2246	0.48503	0.13909	11.48%	0.12211	3.22%
013.02	Fat, Acid Pretreat, Mojonnier, Bak Ext (%)	18	18	4.8998	0.29870	4.8979	0.32521	0.09581	6.64%	0.18374	3.15%
013.08	Fat, Base Pretreat, Roese-Gottlieb Modified (%)	1	1	4.1564							
013.10	Fat, Acid Pretreat, Soxtec-Acid Hydrolysis (%)	4	4	4.1232	0.19167	4.1232	0.19167	0.11979	4.65%	0.16068	3.23%
013.12	Fat, Acid Pretreat, NIR- Acid Hydrolysis (%)	1	1	3.8104							
013.13	Fat, Acid Pretreat, Ankom- Acid Hydrolysis (%)	7	7	4.1019	0.32856	4.1019	0.37259	0.17603	9.08%	0.21714	3.23%
015.41	Aluminum, ICP, Dry ash (mg / kg (ppm))	4	3	260.83	3.5473	260.83	3.5473	2.5600	1.36%	5.7333	6.92%
015.42	Aluminum, ICP, Open vessel (mg / kg (ppm))	1	1	234.60							
015.43	Aluminum, ICP, Microwave (mg / kg (ppm))	6	6	215.67	15.137	215.67	17.165	8.7595	7.96%	9.8746	7.13%
015.52	Aluminum, ICP-MS, Open vessel (mg / kg (ppm))	1	1	203.50							
015.53	Aluminum, ICP-MS, Microwave (mg / kg (ppm))	1	1	280.50							

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017.41	Boron, ICP, Dry ash (mg / kg (ppm))	4	4	12.594	1.0997	12.594	1.0997	0.68731	8.73%	0.48250	10.93%
017.42	Boron, ICP, Open vessel (mg / kg (ppm))	6	6	14.397	3.4236	13.601	1.8436	0.94079	13.55%	0.63333	10.80%
017.43	Boron, ICP, Microwave (mg / kg (ppm))	5	5	12.014	3.4553	12.014	3.4553	1.9316	28.76%	0.52400	11.00%
017.53	Boron, ICP-MS, Microwave (mg / kg (ppm))	1	1	12.450							
019.00	Calcium, Ox-Mn04 Vol. (%)	11	11	4.0287	0.16206	4.0156	0.13438	0.05065	3.35%	0.07623	3.24%
019.02	Calcium, Hach Method (%)	2	2	4.2960	0.79762						
019.03	Calcium, Semiauto (Autoanalyzer) (%)	1	1	4.1129							
019.08	Calcium, EDTA (%)	15	14	4.0135	0.12177	4.0061	0.11988	0.04005	2.99%	0.04349	3.25%
019.09	Calcium, Ion-selective electrode (%)	1	1	4.0695							
019.31	Calcium, AAS, Dry ash (%)	22	21	3.9207	0.29624	3.9456	0.26931	0.07346	6.83%	0.06738	3.25%
019.32	Calcium, AAS, Open vessel (%)	3	3	4.1905	0.10763	4.1905	0.10763	0.07768	2.57%	0.07967	3.22%
019.33	Calcium, AAS, Microwave (%)	1	1	4.2900							
019.41	Calcium, ICP, Dry ash (%)	28	28	4.0309	0.17326	4.0284	0.17819	0.04209	4.42%	0.10578	3.24%
019.42	Calcium, ICP, Open vessel (%)	21	20	3.9718	0.28513	3.9857	0.26699	0.07463	6.70%	0.08587	3.25%
019.43	Calcium, ICP, Microwave (%)	32	32	4.0726	0.30693	4.0480	0.26221	0.05794	6.48%	0.12040	3.24%
019.52	Calcium, ICP-MS, Open vessel (%)	3	3	4.2285	0.17511	4.2285	0.17511	0.12637	4.14%	0.09487	3.22%
019.53	Calcium, ICP-MS, Microwave (%)	2	2	4.1300	0.02828						
019.99	Calcium, Miscellaneous (%)	8	8	3.8420	0.52981	3.8573	0.56598	0.25013	14.67%	0.04163	3.26%
021.31	Cobalt, AAS, Dry ash (mg / kg (ppm))	2	2	1.7700	0.45255						
021.41	Cobalt, ICP, Dry ash (mg / kg (ppm))	2	2	1.9415	0.61306						
021.42	Cobalt, ICP, Open vessel (mg / kg (ppm))	3	3	1.2575	0.50702	1.2575	0.50702	0.44815	40.32%	0.03033	15.45%
021.43	Cobalt, ICP, Microwave (mg / kg (ppm))	6	6	1.7287	0.29164	1.7287	0.33072	0.16877	19.13%	0.06677	14.73%
021.52	Cobalt, ICP-MS, Open vessel (mg / kg (ppm))	2	2	1.2025	0.32173						
021.53	Cobalt, ICP-MS, Microwave (mg / kg (ppm))	4	4	1.8298	0.40605	1.8298	0.40605	0.25378	22.19%	0.09080	14.61%
021.99	Cobalt, Miscellaneous (mg / kg (ppm))	1		3.5000							
022.31	Copper, AAS, Dry ash (mg / kg (ppm))	15	15	183.95	13.297	185.29	11.384	3.6743	6.14%	4.6582	7.29%
022.32	Copper, AAS, Open vessel (mg / kg (ppm))	4	4	191.49	13.887	191.49	13.887	8.6794	7.25%	10.708	7.25%
022.33	Copper, AAS, Microwave (mg / kg (ppm))	2	2	194.20	14.570						
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	23	22	174.13	27.067	177.29	14.795	3.9430	8.35%	7.0016	7.34%
022.42	Copper, ICP, Open vessel (mg / kg (ppm))	21	21	197.64	23.951	200.49	13.419	3.6603	6.69%	6.7704	7.20%
022.43	Copper, ICP, Microwave (mg / kg (ppm))	25	24	197.91	15.320	198.46	15.743	4.0169	7.93%	4.4443	7.21%
022.52	Copper, ICP-MS, Open vessel (mg / kg (ppm))	2	2	167.80	17.961						
022.53	Copper, ICP-MS, Microwave (mg / kg (ppm))	2	2	208.75	13.081						
022.99	Copper, Miscellaneous (mg / kg (ppm))	6	6	168.31	57.281	184.96	21.177	10.807	11.45%	4.4150	7.29%
023.01	Fluorine, Ion Sel Elect (mg / kg (ppm))	1	1	58.700							
024.03	Iodine, Ion-selective electrode (mg / kg (ppm))	1	1	2.7000							
024.99	Iodine, Miscellaneous (mg / kg (ppm))	1	1	3.5550							
025.31	Iron, AAS, Dry ash (mg / kg (ppm))	17	17	1,240.3	120.64	1,233.5	95.503	28.954	7.74%	30.433	5.48%
025.32	Iron, AAS, Open vessel (mg / kg (ppm))	3	3	869.52	468.25	869.52	468.25	337.93	53.85%	54.473	5.78%
025.33	Iron, AAS, Microwave (mg / kg (ppm))	1	1	1,410.5							

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025.41	Iron, ICP, Dry ash (mg / kg (ppm))	23	22	1,105.3	260.96	1,168.3	83.722	22.312	7.17%	18.878	5.53%
025.42	Iron, ICP, Open vessel (mg / kg (ppm))	15	14	1,067.4	290.50	1,145.3	110.55	36.931	9.65%	48.218	5.54%
025.43	Iron, ICP, Microwave (mg / kg (ppm))	23	22	1,194.5	130.69	1,205.8	95.830	25.539	7.95%	40.667	5.50%
025.52	Iron, ICP-MS, Open vessel (mg / kg (ppm))	1	1	794.65							
025.53	Iron, ICP-MS, Microwave (mg / kg (ppm))	1	1	1,180.0							
025.99	Iron, Miscellaneous (mg / kg (ppm))	5	5	1,097.7	180.01	1,097.7	180.01	100.63	16.40%	44.510	5.58%
027.31	Magnesium, AAS, Dry ash (%)	16	16	0.21831	0.01574	0.21538	0.00801	0.00250	3.72%	0.00616	5.04%
027.32	Magnesium, AAS, Open vessel (%)	4	3	0.21237	0.00251	0.21237	0.00251	0.00181	1.18%	0.00453	5.05%
027.33	Magnesium, AAS, Microwave (%)	2	2	1,166.1	1,648.8						
027.41	Magnesium, ICP, Dry ash (%)	24	23	0.21717	0.01189	0.21771	0.01062	0.00277	4.88%	0.00463	5.03%
027.42	Magnesium, ICP, Open vessel (%)	20	20	0.21304	0.01319	0.21469	0.01104	0.00309	5.14%	0.00867	5.04%
027.43	Magnesium, ICP, Microwave (%)	25	25	0.21534	0.01545	0.21475	0.01513	0.00378	7.05%	0.00763	5.04%
027.52	Magnesium, ICP-MS, Open vessel (%)	2	2	0.22655	0.02199						
027.53	Magnesium, ICP-MS, Microwave (%)	2	2	0.22025	0.01167						
027.99	Magnesium, Miscellaneous (%)	5	4	0.21250	0.01258	0.21250	0.01258			0.00000	5.05%
028.31	Manganese, AAS, Dry ash (mg / kg (ppm))	16	16	180.70	11.717	182.85	5.6559	1.7675	3.09%	3.1129	7.30%
028.32	Manganese, AAS, Open vessel (mg / kg (ppm))	4	4	184.67	22.077	184.67	22.077	13.798	11.95%	10.427	7.29%
028.33	Manganese, AAS, Microwave (mg / kg (ppm))	1	1	185.28							
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	22	22	173.75	15.126	176.02	9.6923	2.5830	5.51%	6.9123	7.35%
028.42	Manganese, ICP, Open vessel (mg / kg (ppm))	20	20	186.71	16.423	185.37	11.214	3.1343	6.05%	8.1881	7.29%
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	27	26	181.13	13.782	182.57	9.8110	2.4051	5.37%	6.1117	7.31%
028.52	Manganese, ICP-MS, Open vessel (mg / kg (ppm))	2	2	168.20	36.487						
028.53	Manganese, ICP-MS, Microwave (mg / kg (ppm))	3	3	183.00	10.759	183.00	10.759	7.7646	5.88%	13.933	7.30%
028.99	Manganese, Miscellaneous (mg / kg (ppm))	6	6	191.74	14.867	191.74	16.860	8.6037	8.79%	3.7783	7.25%
031.00	Phosphorus, Vol (%)	1	1	1.1750							
031.01	Phosphorus, Photometric (%)	49	47	1.1323	0.03809	1.1324	0.03824	0.00697	3.38%	0.02831	3.93%
031.02	Phosphorus, GQMP (AOAC 935.13-Extraction) (%)	3	3	1.1660	0.02287	1.1660	0.02287	0.01651	1.96%	0.01200	3.91%
031.03	Phosphorus, Autoanalyzer (%)	3	3	1.1733	0.06521	1.1733	0.06521	0.04706	5.56%	0.02697	3.90%
031.06	Phosphorus, Hach Method (%)	2	2	1.0453	0.01379						
031.41	Phosphorus, ICP, Dry ash (%)	26	25	1.1420	0.05258	1.1430	0.05279	0.01320	4.62%	0.02099	3.92%
031.42	Phosphorus, ICP, Open vessel (%)	21	20	1.1195	0.06066	1.1228	0.05354	0.01497	4.77%	0.03282	3.93%
031.43	Phosphorus, ICP, Microwave (%)	30	30	1.1529	0.07971	1.1484	0.07025	0.01603	6.12%	0.03790	3.92%
031.52	Phosphorus, ICP-MS, Open vessel (%)	2	2	1.1615	0.01202						
031.53	Phosphorus, ICP-MS, Microwave (%)	2	2	1.2800	0.12021						
031.99	Phosphorus, Miscellaneous (%)	7	7	1.0661	0.12646	1.0704	0.13341	0.06303	12.46%	0.02286	3.96%
032.02	Potassium, Flame Emission (%)	3	3	0.81833	0.21624	0.81833	0.21624	0.15606	26.42%	0.01667	4.12%
032.31	Potassium, AAS, Dry ash (%)	17	17	0.90678	0.05308	0.90707	0.05847	0.01773	6.45%	0.01609	4.06%
032.32	Potassium, AAS, Open vessel (%)	2	2	0.93750	0.09546						
032.41	Potassium, ICP, Dry ash (%)	25	24	0.91991	0.03323	0.91961	0.03704	0.00945	4.03%	0.01836	4.05%
032.42	Potassium, ICP, Open vessel (%)	20	20	0.92152	0.03932	0.92061	0.04257	0.01190	4.62%	0.02960	4.05%

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032.43	Potassium, ICP, Microwave (%)	26	25	0.93104	0.04215	0.93108	0.04257	0.01064	4.57%	0.02022	4.04%
032.52	Potassium, ICP-MS, Open vessel (%)	2	2	0.98408	0.06092						
032.53	Potassium, ICP-MS, Microwave (%)	2	2	1.0598	0.21249						
032.99	Potassium, Miscellaneous (%)	6	6	0.84597	0.34112	0.90363	0.16668	0.08506	18.45%	0.03773	4.06%
033.00	Salt as chloride, Sol Cl (%)	23	23	1.9597	0.11463	1.9552	0.11532	0.03006	5.90%	0.02730	3.62%
033.01	Salt as chloride, Poten Cl (%)	31	31	2.0466	0.04538	2.0448	0.04300	0.00965	2.10%	0.02435	3.59%
033.03	Salt as chloride, Quantab (%)	5	5	2.0080	0.21945	2.0080	0.21945	0.12268	10.93%	0.05600	3.60%
033.05	Salt as chloride, Ion Sel Electrode (%)	4	4	1.7713	0.44338	1.7713	0.44338	0.27711	25.03%	0.04750	3.67%
033.99	Salt, Miscellaneous (%)	11	10	1.9548	0.26722	1.9887	0.13684	0.05409	6.88%	0.02920	3.61%
034.04	Selenium, AA, Hydride (mg / kg (ppm))	6	6	1.8219	0.43351	1.8678	0.38025	0.19405	20.36%	0.11817	14.56%
034.41	Selenium, ICP, Dry ash (mg / kg (ppm))	1	1	2.8050							
034.42	Selenium, ICP, Open vessel (mg / kg (ppm))	1	1	3.2500							
034.43	Selenium, ICP, Microwave (mg / kg (ppm))	2	2	2.4853	0.58655						
034.52	Selenium, ICP-MS, Open vessel (mg / kg (ppm))	4	4	1.9538	0.46947	1.9538	0.46947	0.29342	24.03%	0.08250	14.46%
034.53	Selenium, ICP-MS, Microwave (mg / kg (ppm))	6	6	2.4162	0.38584	2.3455	0.26021	0.13279	11.09%	0.08842	14.07%
034.99	Selenium, Miscellaneous (mg / kg (ppm))	2	1	2.4100							
035.01	Sodium, Ion-selective electrode (%)	2	2	0.71150	0.05303						
035.02	Sodium, Em Spect (%)	1	1	0.71500							
035.05	Sodium, Flame Emission (%)	5	4	0.77500	0.01826	0.77500	0.01826	0.01141	2.36%	0.01000	4.16%
035.31	Sodium, AAS, Dry ash (%)	20	19	0.72118	0.04591	0.72242	0.04923	0.01412	6.82%	0.01484	4.20%
035.32	Sodium, AAS, Open vessel (%)	2	2	0.65750	0.02475						
035.33	Sodium, AAS, Microwave (%)	1	1	0.69000							
035.41	Sodium, ICP, Dry ash (%)	24	24	0.73207	0.03468	0.73360	0.03419	0.00872	4.66%	0.01557	4.19%
035.42	Sodium, ICP, Open vessel (%)	17	17	0.72581	0.04266	0.72569	0.04811	0.01459	6.63%	0.02852	4.20%
035.43	Sodium, ICP, Microwave (%)	25	25	0.73912	0.04878	0.73948	0.05248	0.01312	7.10%	0.01827	4.19%
035.52	Sodium, ICP-MS, Open vessel (%)	2	2	0.75028	0.04140						
035.53	Sodium, ICP-MS, Microwave (%)	2	2	0.76525	0.00177						
035.99	Sodium, Miscellaneous (%)	7	7	0.76270	0.02945	0.76183	0.03139	0.01483	4.12%	0.02883	4.17%
036.00	Sulfur, Gravimetric (%)	1	1	0.14500							
036.04	Sulfur, LECO (%)	3	3	0.27667	0.04481	0.27667	0.04481	0.03234	16.20%	0.02000	4.85%
036.42	Sulfur, ICP, Open vessel (%)	20	20	0.30103	0.03744	0.29703	0.02809	0.00785	9.46%	0.01076	4.80%
036.43	Sulfur, ICP, Microwave (%)	16	16	0.30170	0.03356	0.30125	0.03197	0.00999	10.61%	0.00951	4.79%
036.52	Sulfur, ICP-MS, Open vessel (%)	2	2	0.28235	0.01506						
036.53	Sulfur, ICP-MS, Microwave (%)	1	1	0.31800							
036.99	Sulfur, Miscellaneous (%)	2	2	0.29570	0.02022						
037.31	Zinc, AAS, Dry ash (mg / kg (ppm))	17	17	584.59	139.59	621.75	31.688	9.6068	5.10%	11.330	6.08%
037.32	Zinc, AAS, Open vessel (mg / kg (ppm))	4	3	617.89	14.652	617.89	14.652	10.574	2.37%	38.431	6.08%
037.33	Zinc, AAS, Microwave (mg / kg (ppm))	3	3	725.40	58.369	725.40	58.369	51.591	8.05%	48.337	5.94%
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	23	23	617.05	60.498	626.26	36.071	9.4016	5.76%	15.779	6.07%
037.42	Zinc, ICP, Open vessel (mg / kg (ppm))	18	17	654.78	54.897	652.08	41.142	12.473	6.31%	22.685	6.03%

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037.43	Zinc, ICP, Microwave (mg / kg (ppm))	26	26	640.47	58.688	636.15	52.135	12.781	8.20%	18.543	6.05%
037.52	Zinc, ICP-MS, Open vessel (mg / kg (ppm))	2	2	444.83	244.20						
037.53	Zinc, ICP-MS, Microwave (mg / kg (ppm))	2	2	676.00	24.749						
037.99	Zinc, Miscellaneous (mg / kg (ppm))	7	7	618.69	91.975	627.56	82.834	39.135	13.20%	11.567	6.07%
038.41	Molybdenum, ICP, Dry ash (mg / kg (ppm))	3	3	1.7618	0.25282	1.7618	0.25282	0.18246	14.35%	0.01633	14.69%
038.42	Molybdenum, ICP, Open vessel (mg / kg (ppm))	4	3	2.2767	0.63217	2.2767	0.63217	0.55876	27.77%	0.00667	14.13%
038.43	Molybdenum, ICP, Microwave (mg / kg (ppm))	8	7	2.0606	0.46660	2.0606	0.52913	0.24999	25.68%	0.04610	14.35%
038.52	Molybdenum, ICP-MS, Open vessel (mg / kg (ppm))	2	2	1.9400	0.26163						
038.53	Molybdenum, ICP-MS, Microwave (mg / kg (ppm))	3	3	2.1058	0.27309	2.1058	0.27309	0.24138	12.97%	0.14240	14.30%
038.99	Molybdenum, Miscellaneous (mg / kg (ppm))	1		100.00							
040.42	Barium, ICP, Open vessel (mg / kg (ppm))	1	1	4.9400							
040.53	Barium, ICP-MS, Microwave (mg / kg (ppm))	1	1	4.2307							
041.53	Vanadium, ICP-MS, Microwave (mg / kg (ppm))	1	1	4.1500							
042.00	Chloride, Titrimetric (%)	3	3	1.2530	0.08525	1.2530	0.08525	0.06152	6.80%	0.04667	3.87%
042.01	Chloride, Ion-selective electrode (%)	1	1	1.2200							
101.00	Choline Chloride, Microbiological (mg / kg (ppm))	2	2	1,747.9	1,077.8						
101.01	Choline Chloride, Chem (mg / kg (ppm))	1	1	2,243.5							
101.99	Choline Chloride, Miscellaneous (mg / kg (ppm))	1	1	2,510.0							
102.01	Niacin, Microbiological (mg / kg (ppm))	1	1	187.00							
102.02	Niacin, LC (mg / kg (ppm))	1	1	113.00							
103.01	Pantothenic Acid, Microbiological (mg / kg (ppm))	1	1	86.100							
103.02	Pantothenic Acid, LC (mg / kg (ppm))	1	1	133.50							
104.00	Riboflavin, Fluorometric (mg / kg (ppm))	2	2	34.625	0.45962						
104.03	Riboflavin, LC (mg / kg (ppm))	3	3	27.864	6.7985	27.864	6.7985	4.9064	24.40%	1.6768	9.70%
105.00	Thiamine, LC (mg / kg (ppm))	3	3	6.3083	3.9058	6.3083	3.9058	2.8188	61.92%	0.53000	12.12%
105.01	Thiamine, Fluorometer (mg / kg (ppm))	1	1	8.7700							
106.00	Vitamin A, Color (KU / kg)	2	2	34.855	0.43134						
106.01	Vitamin A, UV (KU / kg)	1	1	16.300							
106.02	Vitamin A, LC (KU / kg)	19	19	23.847	6.2901	23.634	5.6582	1.6226	23.94%	3.5625	
107.00	Vitamin B12, Microbiological (µg / kg (ppb))	1	1	75.750							
107.99	Vitamin B12, Miscellaneous (µg / kg (ppb))	1	1	92.500							
108.02	Vitamin D3, LC (KU / kg)	5	5	3.6590	0.60643	3.6590	0.60643	0.33900	16.57%	1.4460	
109.02	Vitamin E, LC (IU / kg)	16	16	129.23	44.081	121.80	26.039	8.1372	21.38%	4.8839	
109.99	Vitamin E, Miscellaneous (IU / kg)	1	1	91.295							
112.01	Pyridoxine, LC (µg / g)	2	2	1.7775	2.1956						
113.01	Folic Acid, Micro (mg / kg (ppm))	1	1	1.6500							
113.02	Folic acid, LC (mg / kg (ppm))	1	1	1.9250							
114.01	Biotin, Microbiological (mg / kg (ppm))	1	1	0.25250							
114.99	Biotin, Miscellaneous (mg / kg (ppm))	1	1	0.22000							
115.00	Non Protein N (NPN), Urea + Am, Urease method (%)	1	1	0.33500							

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120.00	Alanine, Post-col Ninhydrin Der (%)	19	18	0.92821	0.05315	0.91919	0.02722	0.00802	2.96%	0.01001	4.05%
120.02	Alanine, Post-col OPA Der (%)	1	1	0.91600							
120.05	Alanine, Pre-col AQC Der (%)	6	5	0.91530	0.05218	0.91530	0.05218	0.02917	5.70%	0.00980	4.05%
120.99	Alanine, Miscellaneous (%)	2	2	0.79400	0.14284						
121.00	Arginine, Post-col Ninhydrin Der (%)	19	19	1.1828	0.04100	1.1843	0.03413	0.00979	2.88%	0.02500	3.90%
121.02	Arginine, Post-col OPA Der (%)	1	1	1.1660							
121.05	Arginine, Pre-col AQC Der (%)	6	6	1.1731	0.06573	1.1731	0.07454	0.03804	6.35%	0.04717	3.90%
121.99	Arginine, Miscellaneous (%)	1	1	1.2100							
122.00	Aspartic, Post-col Ninhydrin Der (%)	19	19	1.8291	0.06366	1.8256	0.05184	0.01487	2.84%	0.02837	3.65%
122.02	Aspartic, Post-col OPA Der (%)	1	1	1.8555							
122.05	Aspartic, Pre-col AQC Der (%)	6	6	1.8314	0.01700	1.8314	0.01928	0.00984	1.05%	0.07083	3.65%
122.99	Aspartic, Miscellaneous (%)	2	2	1.2900	0.64347						
124.00	Cysteine/Cystine, PAO Post-col Ninhydri (%)	19	19	0.29297	0.02161	0.29537	0.01857	0.00532	6.29%	0.00891	4.81%
124.02	Cysteine/Cystine, PAO Post-col OPA Der (%)	1	1	0.30650							
124.05	Cysteine/Cystine, PAO Pre-col AQC Der (%)	6	6	0.32400	0.03847	0.32400	0.04363	0.02226	13.46%	0.02000	4.74%
124.99	Cysteine/Cystine, Miscellaneous (%)	3	3	0.78833	0.82851	0.78833	0.82851	0.73231	105.10%	0.03000	4.15%
125.00	Glutamic, Post-col Ninhydrin Der (%)	19	18	3.3536	0.16036	3.3344	0.11098	0.03270	3.33%	0.04008	3.34%
125.02	Glutamic, Post-col OPA Der (%)	1	1	3.3410							
125.05	Glutamic, Pre-col AQC Der (%)	6	6	3.3738	0.12573	3.3738	0.14258	0.07276	4.23%	0.07900	3.33%
125.99	Glutamic, Miscellaneous (%)	2	2	2.5600	0.43841						
126.00	Glycine, Post-col Ninhydrin Der (%)	19	18	0.79241	0.03069	0.79358	0.03202	0.00943	4.03%	0.00981	4.14%
126.02	Glycine, Post-col OPA Der (%)	1	1	0.79600							
126.05	Glycine, Pre-col AQC Der (%)	6	6	0.85200	0.17006	0.83465	0.15085	0.07698	18.07%	0.03433	4.11%
126.99	Glycine, Miscellaneous (%)	2	2	0.65650	0.14637						
127.00	Histidine, Post-col Ninhydrin Der (%)	19	18	0.48696	0.03795	0.48397	0.01784	0.00526	3.69%	0.00759	4.46%
127.02	Histidine, Post-col OPA Der (%)	1	1	0.47050							
127.05	Histidine, Pre-col AQC Der (%)	6	6	0.46267	0.03502	0.46267	0.03972	0.02027	8.58%	0.01967	4.49%
127.99	Histidine, Miscellaneous (%)	2	2	0.46900	0.02263						
128.00	Isoleucine, Post-col Ninhydrin Der (%)	19	19	0.74958	0.05432	0.75768	0.03863	0.01108	5.10%	0.02001	4.17%
128.02	Isoleucine, Post-col OPA Der (%)	1	1	0.74000							
128.05	Isoleucine, Pre-col AQC Der (%)	6	5	0.77870	0.04675	0.77870	0.04675	0.02613	6.00%	0.00660	4.15%
128.99	Isoleucine, Miscellaneous (%)	2	2	0.68650	0.03323						
129.00	Leucine, Post-col Ninhydrin Der (%)	19	18	1.5168	0.05302	1.5156	0.03815	0.01124	2.52%	0.01491	3.76%
129.02	Leucine, Post-col OPA Der (%)	1	1	1.5040							
129.05	Leucine, Pre-col AQC Der (%)	6	6	1.5363	0.08037	1.5349	0.08798	0.04490	5.73%	0.02583	3.75%
129.99	Leucine, Miscellaneous (%)	2	2	1.4055	0.03465						
130.00	L-Lysine, Post-col Ninhydrin Der (%)	20	20	1.0803	0.05272	1.0842	0.04427	0.01237	4.08%	0.01957	3.95%
130.02	L-Lysine, Post-col OPA Der (%)	1	1	1.1280							
130.05	L-Lysine, Pre-col AQC Der (%)	8	8	1.0918	0.02685	1.0918	0.03044	0.01345	2.79%	0.05488	3.95%
130.99	L-Lysine, Miscellaneous (%)	5	4	1.1419	0.10571	1.1419	0.10571	0.06607	9.26%	0.01625	3.92%

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131.00	Methionine, PAO Post-col Ninhydrin Der (%)	19	19	0.27564	0.02667	0.27081	0.01318	0.00378	4.87%	0.00882	4.87%
131.02	Methionine, PAO Post-col OPA Der (%)	1	1	0.26100							
131.05	Methionine, PAO Pre-col AQC Der (%)	6	6	0.25858	0.08092	0.25920	0.09032	0.04609	34.85%	0.01050	4.90%
131.99	Methionine, Miscellaneous (%)	5	4	0.27900	0.03769	0.27900	0.03769	0.02720	13.51%	0.01600	4.85%
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	19	19	0.88949	0.04704	0.88749	0.03400	0.00975	3.83%	0.01594	4.07%
132.02	Phenylalanine, Post-col OPA Der (%)	1	1	0.86700							
132.05	Phenylalanine, Pre-col AQC Der (%)	6	6	0.87300	0.05062	0.87300	0.05740	0.02929	6.57%	0.03867	4.08%
132.99	Phenylalanine, Miscellaneous (%)	2	2	0.82500	0.02828						
133.00	Proline, Post-col Ninhydrin Der (%)	19	18	1.0562	0.06447	1.0558	0.06949	0.02047	6.58%	0.02968	3.97%
133.05	Proline, Pre-col AQC Der (%)	6	6	1.1516	0.09167	1.1516	0.10396	0.05305	9.03%	0.05350	3.92%
133.99	Proline, Miscellaneous (%)	2	2	1.1055	0.09263						
134.00	Serine, Post-col Ninhydrin Der (%)	19	19	0.89867	0.05831	0.90068	0.05267	0.01510	5.85%	0.01438	4.06%
134.02	Serine, Post-col OPA Der (%)	1	1	0.87450							
134.05	Serine, Pre-col AQC Der (%)	6	6	0.89642	0.05406	0.89642	0.06130	0.03128	6.84%	0.03583	4.07%
134.99	Serine, Miscellaneous (%)	2	2	0.82550	0.10536						
135.00	Threonine, Post-col Ninhydrin Der (%)	19	19	0.70732	0.03374	0.70486	0.02981	0.00855	4.23%	0.01063	4.22%
135.02	Threonine, Post-col OPA Der (%)	1	1	0.70400							
135.05	Threonine, Pre-col AQC Der (%)	6	6	0.70333	0.04343	0.70142	0.04474	0.02283	6.38%	0.02900	4.22%
135.99	Threonine, Miscellaneous (%)	3	3	0.68300	0.01058	0.68300	0.01058	0.00764	1.55%	0.01800	4.24%
136.00	Tryptophan, Alka-Hydrol Post-col Ninhyd (%)	5	5	0.21011	0.02823	0.21011	0.02823	0.01578	13.44%	0.00830	5.06%
136.01	Tryptophan, Alka-Hydrol Rev Phase LC UV (%)	3	3	0.22800	0.01486	0.22800	0.01486	0.01072	6.52%	0.00200	5.00%
136.02	Tryptophan, Alka-Hydrol Post-col OPA De (%)	1	1	0.21200							
136.03	Tryptophan, Alka-Hydrol + IS RP LC Fl (%)	4	4	0.23025	0.00670	0.23025	0.00670	0.00419	2.91%	0.00500	4.99%
136.99	Tryptophan, Miscellaneous (%)	3	3	0.19933	0.04733	0.19933	0.04733	0.04183	23.74%	0.00400	5.10%
137.00	Tyrosine, Post-col Ninhydrin Der (%)	11	11	0.58257	0.07693	0.59883	0.03664	0.01381	6.12%	0.02661	4.32%
137.02	Tyrosine, Post-col OPA Der (%)	2	2	0.52580	0.10988						
137.05	Tyrosine, Pre-col AQC Der (%)	6	6	0.65400	0.08254	0.65439	0.09268	0.04730	14.16%	0.04333	4.26%
137.99	Tyrosine, Miscellaneous (%)	3	3	0.59600	0.19430	0.59600	0.19430	0.14022	32.60%	0.02933	4.32%
138.00	Valine, Post-col Ninhydrin Der (%)	19	18	0.86124	0.04971	0.86668	0.04339	0.01279	5.01%	0.01352	4.09%
138.02	Valine, Post-col OPA Der (%)	1	1	0.86800							
138.05	Valine, Pre-col AQC Der (%)	6	6	0.85692	0.05132	0.85692	0.05820	0.02970	6.79%	0.02283	4.09%
138.99	Valine, Miscellaneous (%)	2	2	0.77500	0.07778						
139.00	Taurine, Post-col Ninhydrin Der (%)	1	1	0.16000							
139.02	Taurine, Post-col OPA Der (%)	1		0.01000							
139.99	Taurine, Miscellaneous (%)	1		0.01000							
150.00	Phytase, Colorimetric (Units / kg)	3	3	1,848.0	326.33	1,848.0	326.33	235.51	17.66%	102.00	
150.99	Phytase, Miscellaneous (Units / kg)	1	1	4,537.0							
160.99	Fructose, Miscellaneous (%)	4	3	0.21647	0.03349	0.21647	0.03349	0.02417	15.47%	0.00893	5.04%
162.99	Glucose, Miscellaneous (%)	4	4	0.23001	0.07131	0.23001	0.07131	0.04457	31.00%	0.08378	4.99%
163.99	Lactose, Miscellaneous (%)	5	4	1.1246	0.01954	1.1246	0.01954	0.01221	1.74%	0.06923	3.93%

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164.99	Maltose, Miscellaneous (%)	5	3	0.53767	0.40119	0.53767	0.40119	0.35461	74.62%	0.14673	4.39%
165.99	Sucrose, Miscellaneous (%)	5	4	2.9163	0.24904	2.9163	0.24904	0.15565	8.54%	0.08250	3.40%
166.99	Raffinose, Miscellaneous (%)	1	1	0.43000							
167.99	Stachyose, Miscellaneous (%)	1	1	1.3600							
348.01	Bacitracin, Plate, methanol extraction (mg/kg (ppm))	1	1	168.69							
350.01	Carbadox, LC (UV or FL) (mg/kg (ppm))	4	3	21.483	1.8509	21.483	1.8509	1.3358	8.62%	0.76667	10.08%
350.02	Carbadox, LC-MS (mg/kg (ppm))	1	1	26.250							
351.00	Chlortetracycline, Plate (mg/kg (ppm))	6	6	77.871	17.965	75.553	14.696	7.4993	19.45%	3.7748	8.34%
351.03	Chlortetracycline, LC (UV or FL) (mg/kg (ppm))	10	10	71.680	13.962	71.680	15.833	6.2584	22.09%	2.3880	8.41%
351.04	Chlortetracycline, LC-MS (mg/kg (ppm))	1	1	62.500							
351.05	Chlortetracycline, LC-MS/MS (mg/kg (ppm))	4	4	62.081	23.223	62.081	23.223	14.514	37.41%	6.2575	8.59%
357.01	Ethoxyquin, LC (mg/kg (ppm))	1	1	0.32000							
377.01	Pyrantel Tartrate, LC (UV or FL) (mg/kg (ppm))	2	2	66.318	40.068						
377.02	Pyrantel Tartrate, LC-MS (mg/kg (ppm))	1	1	56.500							
382.00	Sulfamethazine, Spectrophotometer (mg/kg (ppm))	1	1	70.070							
382.01	Sulfamethazine, LC (mg/kg (ppm))	2	2	94.525	20.117						
382.02	Sulfamethazine, LC-PCD (mg/kg (ppm))	1	1	78.050							
382.03	Sulfamethazine, LC-MS (mg/kg (ppm))	2	2	92.775	49.886						
386.00	Tiamulin, LC (mg/kg (ppm))	4	4	145.39	20.648	145.39	20.648	12.905	14.20%	3.6400	7.56%
386.01	Tiamulin, LC-MS (mg/kg (ppm))	1	1	150.50							
386.02	Tiamulin, LC-MS/MS (mg/kg (ppm))	2	2	138.64	52.669						
400.01	Water Activity, Aqualab chilled mirror (Units)	7	7	0.50492	0.02014	0.50492	0.02284	0.01079	4.52%	0.00481	
400.99	Water Activity, Miscellaneous (Units)	2	2	0.46675	0.02652						
412.01	Starch, Dietary, Enzymatic-Colorimetric (%)	1	1	30.040							
516.00	Arsenic, Total, AA, Hydride (mg / kg (ppm))	2	2	0.42275	0.00530						
516.52	Arsenic, Total, ICP-MS, Open vessel (mg / kg (ppm))	2	2	0.43175	0.02369						
516.53	Arsenic, Total, ICP-MS, Microwave (mg / kg (ppm))	4	4	0.51725	0.05550	0.51725	0.05550	0.03469	10.73%	0.01435	17.67%
518.41	Cadmium, ICP, Dry ash (mg / kg (ppm))	1	1	0.32500							
518.52	Cadmium, ICP-MS, Open vessel (mg / kg (ppm))	2	2	0.24875	0.02652						
518.53	Cadmium, ICP-MS, Microwave (mg / kg (ppm))	4	4	0.27909	0.01795	0.27909	0.01795	0.01122	6.43%	0.02358	19.38%
520.41	Chromium, ICP, Dry ash (mg / kg (ppm))	1	1	4.5100							
520.42	Chromium, ICP, Open vessel (mg / kg (ppm))	2	2	6.9250	1.2374						
520.43	Chromium, ICP, Microwave (mg / kg (ppm))	2	2	8.5025	0.11667						
520.52	Chromium, ICP-MS, Open vessel (mg / kg (ppm))	1	1	4.6250							
520.53	Chromium, ICP-MS, Microwave (mg / kg (ppm))	3	3	7.1181	1.1996	7.1181	1.1996	0.86574	16.85%	1.2042	11.91%
526.41	Lead, ICP, Dry ash (mg / kg (ppm))	1	1	0.71050							
526.52	Lead, ICP-MS, Open vessel (mg / kg (ppm))	2	2	0.31675	0.03076						
526.53	Lead, ICP-MS, Microwave (mg / kg (ppm))	5	4	0.32874	0.01623	0.32874	0.01623	0.01014	4.94%	0.00928	18.91%
539.41	Nickel, ICP, Dry ash (mg / kg (ppm))	1	1	3.1430							
539.52	Nickel, ICP-MS, Open vessel (mg / kg (ppm))	1	1	3.0800							

Test Material Code # 201823 **Issue Date : 04/30/2018**

Method Code	Analyte and Method	Total # Labs Submitting	# Labs in Robust Calcs	Raw Mean	Raw SD	Assigned Value Robust Mean	AAFCO PT ffp - Robust sd	Uncertainty (U) - Robust	% RSD - Robust	Average Range (R-bar)	Horwitz %RSD
539.53	Nickel, ICP-MS, Microwave (mg / kg (ppm))	2	2	4.1277	0.27252						
702.00	Butyric Acid (4:0), Miscellaneous GC (%)	1		0.01000							
703.00	Valeric Acid (5:0), Miscellaneous GC (%)	1	1	0.17000							
704.00	Caproic Acid (6:0) , Miscellaneous GC (%)	1	1	0.25000							
706.99	Caprylic acid (8:0), Miscellaneous (% (w/w))	1	1	0.00210							
708.01	Capric acid (10:0), Direct Methylation by Alkali Hydrolysis & GC (% (w/w))	1	1	0.00145							
710.99	Lauric Acid (12:0), Miscellaneous (% (w/w))	3	3	0.00507	0.00428	0.00507	0.00428	0.00309	84.42%	0.00013	
714.99	Myristic Acid (14:0), Miscellaneous (% (w/w))	3	3	0.02260	0.00416	0.02260	0.00416	0.00300	18.41%	0.00440	
716.99	Palmitic Acid (16:0), Miscellaneous (% (w/w))	3	3	0.72358	0.08395	0.72358	0.08395	0.06059	11.60%	0.05577	
718.99	Palmitoleic Acid (9c-16:1), Miscellaneous (% (w/w))	4	4	0.03366	0.00935	0.03366	0.00935	0.00584	27.78%	0.00778	
720.99	Margaric acid (17:0), Miscellaneous (% (w/w))	1	1	0.00745							
722.99	Stearic Acid (18:0), Miscellaneous (% (w/w))	3	3	0.18168	0.02696	0.18168	0.02696	0.01946	14.84%	0.01610	
724.99	Oleic Acid (9c-18:1), Miscellaneous (% (w/w))	3	3	1.1371	0.20773	1.1371	0.20773	0.14992	18.27%	0.07080	
726.99	Linoleic Acid (9c,12c-18:2), Miscellaneous (% (w/w))	4	4	1.5796	0.05164	1.5796	0.05164	0.03228	3.27%	0.11775	
728.99	alpha-Linolenic Acid (9c,12c,15c-18:3), Miscellaneous (% (w/w))	4	4	0.10526	0.01870	0.10526	0.01870	0.01169	17.77%	0.00758	
730.99	Arachidic Acid (20:0), Miscellaneous (% (w/w))	2	2	0.01595	0.00488						
732.99	Gondoic Acid (11c-20:1), Miscellaneous (% (w/w))	2	2	0.01798	0.00788						
738.99	Mead Acid (11c,14c,17c-20:3), Miscellaneous (% (w/w))	1		0.01000							
740.99	Eicosapentaenoic Acid EPA (5c,8c,11c,14c,17c-20:5), Miscellaneous (% (w/w	2	1	0.00260							
742.99	Behenic Acid (22:0), Miscellaneous (% (w/w))	3	3	0.01007	0.00130	0.01007	0.00130	0.00094	12.91%	0.00060	
744.99	Erucic Acid (13c-22:1), Miscellaneous (% (w/w))	2		0.00000							
746.99	Docosapentaenoic Acid n-3 DPA (7c,10c,13c,16c,19c-22:5), Miscellaneous (%	2		0.00000							
748.99	Lignoceric Acid (24:0), Miscellaneous (% (w/w))	2	2	0.00868	0.00131						
750.99	Docosahexaenoic Acid DHA (4c,7c,10c,13c,16c,19c-22:6), Miscellaneous (%	2		0.00000							
752.99	Nervonic Acid (24:1) isomers, Miscellaneous (% (w/w))	2		0.00000							
754.99	Total n-3 Polyunsaturated (Omega-3) Fatty Acids, Miscellaneous (% (w/w))	2	2	0.12500	0.00000						
756.99	Total n-6 Polyunsaturated (Omega-6) Fatty Acids, Miscellaneous (% (w/w))	2	2	1.6125	0.01061						
758.99	Total Saturated Fatty Acids, Miscellaneous (% (w/w))	1	1	0.98000							
762.99	Total Monounsaturated Fatty Acids, Miscellaneous (% (w/w))	1	1	1.1500							
766.99	Total Polyunsaturated Fatty Acids, Miscellaneous (% (w/w))	1	1	1.7650							
770.99	Total Fat (equivalent to NLEA), Miscellaneous (% (w/w))	1	1	4.1100							
772.99	Total Fatty Acids, Miscellaneous (% (w/w))	2	2	3.7542	0.24858						

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.

Animal Feed Scheme
Pig Feed, Medicated
Test Material Code # 201823

Method Precision Report

 # Methods Reported: 92
 # Labs Reporting: 194
Issue Date : 04/30/2018

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
001.07	Loss on Drying, 104°C 3 hr, in malt (%)	42	38	8.2735	0.24285	0.17529	0.10030	0.20196	2.12%	1.213%	2.44%	2.0136
001.99	Loss on Drying, Miscellaneous (%)	21	19	8.0058	0.62194	0.49888	0.09839	0.50849	6.17%	1.216%	6.28%	5.1680
002.01	Protein, Crude, Auto Kjel-Foss (%)	15	13	18.486	0.26013	0.18372	0.10691	0.21256	1.00%	0.580%	1.15%	1.9883
002.05	Protein, Crude, Copper, Boric Acid (%)	32	31	18.316	0.56088	0.28986	0.12796	0.31685	1.58%	0.695%	1.72%	2.4762
002.06	Protein, Crude, Combustion Nitrogen Analyzer (%)	127	119	18.688	0.29645	0.23499	0.15902	0.28374	1.26%	0.851%	1.52%	1.7843
002.11	Protein, Crude, NIR (%)	8	8	20.907	2.0363	2.0345	0.12058	2.0381	9.73%	0.577%	9.75%	16.902
003.00	Fat, Crude, Diethyl Ether Ext., Direct (%)	17	17	3.5669	0.46533	0.46111	0.08843	0.46952	12.93%	2.479%	13.16%	5.3094
003.06	Fat, Crude, Pet Ether (%)	19	18	3.6786	0.23952	0.23457	0.06849	0.24436	6.38%	1.862%	6.64%	3.5678
003.09	Fat, Crude, Randall, Diethyl Ether Ext (%)	16	16	3.5637	0.29457	0.28602	0.09964	0.30288	8.03%	2.796%	8.50%	3.0398
003.10	Fat, Crude, Randall, Pet Ether (%)	33	31	3.2884	0.34775	0.29043	0.07231	0.29929	8.75%	2.178%	9.01%	4.1391
003.14	Fat, Crude, Ankom (%)	45	44	2.9192	0.43679	0.42839	0.12056	0.44503	14.68%	4.130%	15.25%	3.6913
004.00	Fiber, Crude, Asbestos Free (%)	19	18	3.6912	0.34201	0.22407	0.17532	0.28451	6.16%	4.820%	7.82%	1.6228
004.03	Fiber, Crude, Fritted Glass (%)	8	8	3.7606	0.55405	0.54339	0.15299	0.56452	14.45%	4.068%	15.01%	3.6899
004.06	Fiber, Crude, Fibertec (%)	24	23	3.8365	0.24474	0.20074	0.09456	0.22189	5.27%	2.482%	5.82%	2.3467
004.07	Fiber, Crude, ANKOM (%)	65	58	3.9482	0.59155	0.41601	0.17802	0.45250	10.83%	4.633%	11.78%	2.5419
005.00	Ash, 2h @ 600°C (%)	94	91	14.693	0.67584	0.61964	0.14789	0.63704	4.21%	1.004%	4.32%	4.3076
005.05	Ash, 3h @ 550°C (%)	34	29	15.314	0.41809	0.30043	0.08110	0.31118	1.96%	0.529%	2.03%	3.8370
005.99	Ash, Miscellaneous (%)	10	9	15.297	0.43399	0.20578	0.13113	0.24401	1.33%	0.851%	1.58%	1.8608
008.02	Fiber, Acid Detergent, Crucible (%)	19	16	5.3013	0.79340	0.55193	0.11395	0.56357	10.67%	2.202%	10.89%	4.9457
008.08	Fiber, Acid Detergent, Filter Bag - ANKOM (%)	36	32	5.3592	0.76165	0.64459	0.17212	0.66717	12.11%	3.234%	12.54%	3.8762
009.07	Fiber, Neutral Detergent, AOAC -ENZ Pretreat (%)	16	15	11.051	1.0541	1.0730	0.24510	1.1007	9.73%	2.223%	9.98%	4.4907
009.09	Fiber, Neutral Detergent, Filter Bag - ANKOM (%)	38	36	10.499	1.0627	0.78918	0.27805	0.83673	7.58%	2.669%	8.03%	3.0093
010.99	Moisture, Miscellaneous (%)	20	18	8.3896	0.54660	0.43750	0.10033	0.44885	5.16%	1.184%	5.30%	4.4740
011.01	Loss on Drying, 135°C 2hr (%)	65	61	9.0537	0.42567	0.36441	0.07608	0.37226	4.01%	0.838%	4.10%	4.8932
012.00	Starch, Polarimetric (Ewers) (%)	17	15	30.470	2.0896	1.1447	0.12877	1.1519	3.70%	0.417%	3.73%	8.9454
012.01	Starch, Enzymatic-Colorimetric Method (Megazyme) (%)	10	10	29.298	3.3449	3.3071	0.70888	3.3822	11.29%	2.420%	11.54%	4.7712
013.00	Fat, Acid Pretreat, Acid hydrolysis (%)	20	18	4.2448	0.46791	0.44302	0.10530	0.45536	10.53%	2.503%	10.83%	4.3246
013.02	Fat, Acid Pretreat, Mojonnier, Bak Ext (%)	18	18	4.8998	0.29870	0.27707	0.15783	0.31887	5.65%	3.221%	6.51%	2.0203
019.00	Calcium, Ox-Mn04 Vol. (%)	11	10	4.0287	0.16206	0.10318	0.05806	0.11840	2.58%	1.455%	2.97%	2.0391
019.08	Calcium, EDTA (%)	15	14	4.0135	0.12177	0.11763	0.04453	0.12577	2.93%	1.109%	3.13%	2.8247
019.31	Calcium, AAS, Dry ash (%)	22	20	3.9207	0.29624	0.23695	0.06512	0.24574	5.98%	1.645%	6.21%	3.7734
019.41	Calcium, ICP, Dry ash (%)	28	28	4.0309	0.17326	0.15894	0.09754	0.18648	3.94%	2.420%	4.63%	1.9119
019.42	Calcium, ICP, Open vessel (%)	21	20	3.9718	0.28513	0.27876	0.08478	0.29136	7.02%	2.134%	7.34%	3.4368
019.43	Calcium, ICP, Microwave (%)	32	30	4.0726	0.30693	0.23986	0.10274	0.26094	5.92%	2.535%	6.44%	2.5399
022.31	Copper, AAS, Dry ash (mg / kg (ppm))	15	13	183.95	13.297	7.6207	3.2646	8.2906	4.06%	1.738%	4.41%	2.5395

Test Material Code # 201823 **Issue Date : 04/30/2018**

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
022.41	Copper, ICP, Dry ash (mg / kg (ppm))	23	20	174.13	27.067	11.370	5.6823	12.711	6.42%	3.208%	7.18%	2.2369
022.42	Copper, ICP, Open vessel (mg / kg (ppm))	21	20	197.64	23.951	13.058	5.6718	14.236	6.46%	2.808%	7.05%	2.5100
022.43	Copper, ICP, Microwave (mg / kg (ppm))	25	24	197.91	15.320	15.064	3.9377	15.571	7.61%	1.990%	7.87%	3.9543
025.31	Iron, AAS, Dry ash (mg / kg (ppm))	17	16	1,240.3	120.64	86.230	28.413	90.791	7.07%	2.329%	7.44%	3.1954
025.41	Iron, ICP, Dry ash (mg / kg (ppm))	23	20	1,105.3	260.96	147.31	15.275	148.10	12.78%	1.325%	12.85%	9.6954
025.42	Iron, ICP, Open vessel (mg / kg (ppm))	15	12	1,067.4	290.50	162.59	40.836	167.64	14.32%	3.596%	14.76%	4.1053
025.43	Iron, ICP, Microwave (mg / kg (ppm))	23	21	1,194.5	130.69	103.79	35.560	109.71	8.57%	2.936%	9.06%	3.0852
027.31	Magnesium, AAS, Dry ash (%)	16	15	0.21831	0.01574	0.00740	0.00546	0.00920	3.44%	2.542%	4.28%	1.6836
027.41	Magnesium, ICP, Dry ash (%)	24	21	0.21717	0.01189	0.00923	0.00435	0.01020	4.22%	1.988%	4.67%	2.3474
027.42	Magnesium, ICP, Open vessel (%)	20	19	0.21304	0.01319	0.00942	0.00790	0.01229	4.38%	3.681%	5.72%	1.5553
027.43	Magnesium, ICP, Microwave (%)	25	24	0.21534	0.01545	0.01498	0.00633	0.01626	6.94%	2.933%	7.53%	2.5691
028.31	Manganese, AAS, Dry ash (mg / kg (ppm))	16	15	180.70	11.717	4.1748	2.7349	4.9908	2.28%	1.491%	2.72%	1.8249
028.41	Manganese, ICP, Dry ash (mg / kg (ppm))	22	21	173.75	15.126	7.5515	6.3883	9.8911	4.28%	3.621%	5.61%	1.5483
028.42	Manganese, ICP, Open vessel (mg / kg (ppm))	20	20	186.71	16.423	15.238	8.6647	17.529	8.16%	4.641%	9.39%	2.0230
028.43	Manganese, ICP, Microwave (mg / kg (ppm))	27	25	181.13	13.782	8.7200	5.0844	10.094	4.76%	2.776%	5.51%	1.9853
031.01	Phosphorus, Photometric (%)	49	46	1.1323	0.03809	0.03271	0.02601	0.04179	2.89%	2.294%	3.69%	1.6070
031.41	Phosphorus, ICP, Dry ash (%)	26	24	1.1420	0.05258	0.05215	0.01613	0.05459	4.57%	1.414%	4.78%	3.3838
031.42	Phosphorus, ICP, Open vessel (%)	21	18	1.1195	0.06066	0.04779	0.02922	0.05601	4.24%	2.590%	4.96%	1.9169
031.43	Phosphorus, ICP, Microwave (%)	30	29	1.1529	0.07971	0.06149	0.03296	0.06977	5.37%	2.881%	6.10%	2.1165
032.31	Potassium, AAS, Dry ash (%)	17	17	0.90678	0.05308	0.05226	0.01308	0.05388	5.76%	1.442%	5.94%	4.1188
032.41	Potassium, ICP, Dry ash (%)	25	23	0.91991	0.03323	0.03226	0.01477	0.03548	3.51%	1.607%	3.86%	2.4017
032.42	Potassium, ICP, Open vessel (%)	20	19	0.92152	0.03932	0.03564	0.02690	0.04465	3.87%	2.918%	4.84%	1.6601
032.43	Potassium, ICP, Microwave (%)	26	25	0.93104	0.04215	0.04015	0.01818	0.04407	4.31%	1.953%	4.73%	2.4237
033.00	Salt as chloride, Sol Cl (%)	23	22	1.9597	0.11463	0.11005	0.02332	0.11249	5.64%	1.194%	5.76%	4.8247
033.01	Salt as chloride, Poten Cl (%)	31	30	2.0466	0.04538	0.03669	0.02199	0.04278	1.80%	1.077%	2.09%	1.9449
033.99	Salt, Miscellaneous (%)	11	9	1.9548	0.26722	0.13986	0.02483	0.14204	6.90%	1.224%	7.00%	5.7215
035.31	Sodium, AAS, Dry ash (%)	20	18	0.72118	0.04591	0.04511	0.01041	0.04629	6.28%	1.449%	6.44%	4.4461
035.41	Sodium, ICP, Dry ash (%)	24	24	0.73207	0.03468	0.03323	0.01403	0.03607	4.54%	1.917%	4.93%	2.5701
035.42	Sodium, ICP, Open vessel (%)	17	16	0.72581	0.04266	0.03512	0.02654	0.04402	4.81%	3.635%	6.03%	1.6585
035.43	Sodium, ICP, Microwave (%)	25	24	0.73912	0.04878	0.04825	0.01724	0.05124	6.52%	2.331%	6.93%	2.9718
036.42	Sulfur, ICP, Open vessel (%)	20	18	0.30103	0.03744	0.02347	0.00946	0.02531	8.00%	3.222%	8.62%	2.6762
036.43	Sulfur, ICP, Microwave (%)	16	15	0.30170	0.03356	0.03120	0.00729	0.03204	10.46%	2.445%	10.74%	4.3940
037.31	Zinc, AAS, Dry ash (mg / kg (ppm))	17	15	584.59	139.59	53.051	9.3557	53.870	8.65%	1.526%	8.78%	5.7580
037.41	Zinc, ICP, Dry ash (mg / kg (ppm))	23	21	617.05	60.498	32.266	13.286	34.894	5.13%	2.113%	5.55%	2.6263
037.42	Zinc, ICP, Open vessel (mg / kg (ppm))	18	16	654.78	54.897	37.062	21.898	43.048	5.74%	3.393%	6.67%	1.9658
037.43	Zinc, ICP, Microwave (mg / kg (ppm))	26	25	640.47	58.688	44.089	16.501	47.076	6.97%	2.607%	7.44%	2.8529
106.02	Vitamin A, LC (KU / kg)	19	19	23.847	6.2901	5.8670	3.2073	6.6865	24.60%	13.450%	28.04%	2.0848
109.02	Vitamin E, LC (IU / kg)	16	15	129.23	44.081	21.799	4.4426	22.247	18.23%	3.715%	18.61%	5.0078
120.00	Alanine, Post-col Ninhydrin Der (%)	19	15	0.92821	0.05315	0.02753	0.00451	0.02790	2.99%	0.491%	3.03%	6.1799
121.00	Arginine, Post-col Ninhydrin Der (%)	19	17	1.1828	0.04100	0.03660	0.01486	0.03950	3.10%	1.260%	3.35%	2.6581
122.00	Aspartic, Post-col Ninhydrin Der (%)	19	18	1.8291	0.06366	0.04998	0.02583	0.05626	2.75%	1.419%	3.09%	2.1782
124.00	Cysteine/Cystine, PAO Post-col Ninhydri (%)	19	18	0.29297	0.02161	0.01618	0.00693	0.01760	5.46%	2.341%	5.94%	2.5379
125.00	Glutamic, Post-col Ninhydrin Der (%)	19	16	3.3536	0.16036	0.11306	0.03183	0.11745	3.41%	0.960%	3.54%	3.6900

Test Material Code # 201823 **Issue Date : 04/30/2018**

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
126.00	Glycine, Post-col Ninhydrin Der (%)	19	18	0.79241	0.03069	0.02997	0.00932	0.03139	3.78%	1.177%	3.96%	3.3668
127.00	Histidine, Post-col Ninhydrin Der (%)	19	17	0.48696	0.03795	0.02054	0.00679	0.02163	4.28%	1.415%	4.51%	3.1875
128.00	Isoleucine, Post-col Ninhydrin Der (%)	19	17	0.74958	0.05432	0.03649	0.01406	0.03910	4.82%	1.858%	5.17%	2.7817
129.00	Leucine, Post-col Ninhydrin Der (%)	19	17	1.5168	0.05302	0.03993	0.01143	0.04153	2.65%	0.758%	2.75%	3.6321
130.00	L-Lysine, Post-col Ninhydrin Der (%)	20	19	1.0803	0.05272	0.04974	0.01549	0.05210	4.62%	1.440%	4.84%	3.3625
130.05	L-Lysine, Pre-col AQC Der (%)	8	8	1.0918	0.02685		0.04983			4.564%		
131.00	Methionine, PAO Post-col Ninhydrin Der (%)	19	18	0.27564	0.02667	0.01042	0.00792	0.01309	3.86%	2.931%	4.85%	1.6532
132.00	Phenylalanine, Post-col Ninhydrin Der (%)	19	18	0.88949	0.04704	0.03536	0.01518	0.03848	4.01%	1.720%	4.36%	2.5349
133.00	Proline, Post-col Ninhydrin Der (%)	19	18	1.0562	0.06447	0.06163	0.02673	0.06718	5.84%	2.531%	6.36%	2.5134
134.00	Serine, Post-col Ninhydrin Der (%)	19	17	0.89867	0.05831	0.04403	0.01140	0.04548	4.88%	1.263%	5.04%	3.9891
135.00	Threonine, Post-col Ninhydrin Der (%)	19	19	0.70732	0.03374	0.03304	0.00967	0.03442	4.67%	1.368%	4.87%	3.5587
137.00	Tyrosine, Post-col Ninhydrin Der (%)	11	9	0.58257	0.07693	0.02336	0.01881	0.02999	3.89%	3.133%	4.99%	1.5941
138.00	Valine, Post-col Ninhydrin Der (%)	19	18	0.86124	0.04971	0.04909	0.01103	0.05031	5.70%	1.281%	5.84%	4.5606
351.03	Chlortetracycline, LC (UV or FL) (mg/kg (ppm))	10	10	71.680	13.962	13.877	2.1797	14.047	19.36%	3.041%	19.60%	6.4442

Notes: Precision Calculations provided for methods with 8 or more labs used in calculations.