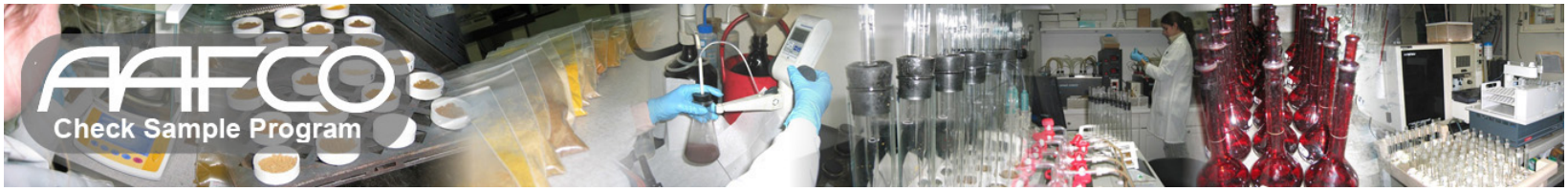


2015 AAFCO Check Sample Mycotoxins Program

Samples Engineered to Contain Relevant Concentrations of Significant Mycotoxins.

The Samples

Source the base feed.

Materials thoroughly processed with regard to particle size and blending.

70,000 lb
Masters Collection

- Carefully sourced feeds naturally contaminated with Mycotoxins.
- Incubated to raise concentration.

- Homogenous Samples for distribution.
- Certificate of Analysis and homogeneity data.

3 Samples Since San Antonio

Number of Labs Participating

Code	Analyte (ppb)	Dog Food 201464 (21 Labs)	Dairy Feed 201561 (33 Labs)	Cattle Feed 201562 (31 Labs)
600	**Total Aflatoxin**	**17**	**25**	**23**
601	**AB1**	**8**	**14**	**12**
602	**AB2**	**8**	**12**	**11**
603	**AG1**	**8**	**14**	**10**
604	**AG2**	**8**	**12**	**10**

3 Samples Since San Antonio

Number of Labs Participating

Code	Analyte (ppb)	Dog Food 201464 (21 Labs)	Dairy Feed 201561 (33 Labs)	Cattle Feed 201562 (31 Labs)
620	**Total Fumonisin**	**11**	**16**	**15**
621	**FB1**	**4**	**7**	**5**
622	**FB2**	**4**	**7**	**4**
623	**FB3**	**2**	**3**	**2**

3 Samples Since San Antonio

Number of Labs Participating

Code	Analyte (ppb)	Dog Food 201464 (21 Labs)	Dairy Feed 201561 (33 Labs)	Cattle Feed 201562 (31 Labs)
610	Deoxynivalenol	17	29	25
630	Ochratoxin A	7	14	12
640	T-2	7	10	8
641	HT-2	-	1	1
642	T-2 & HT-2	-	3	2
650	Zearalenone	12	20	17

In San Antonio at The January Meeting: I proposed a revision of the statistical approach.

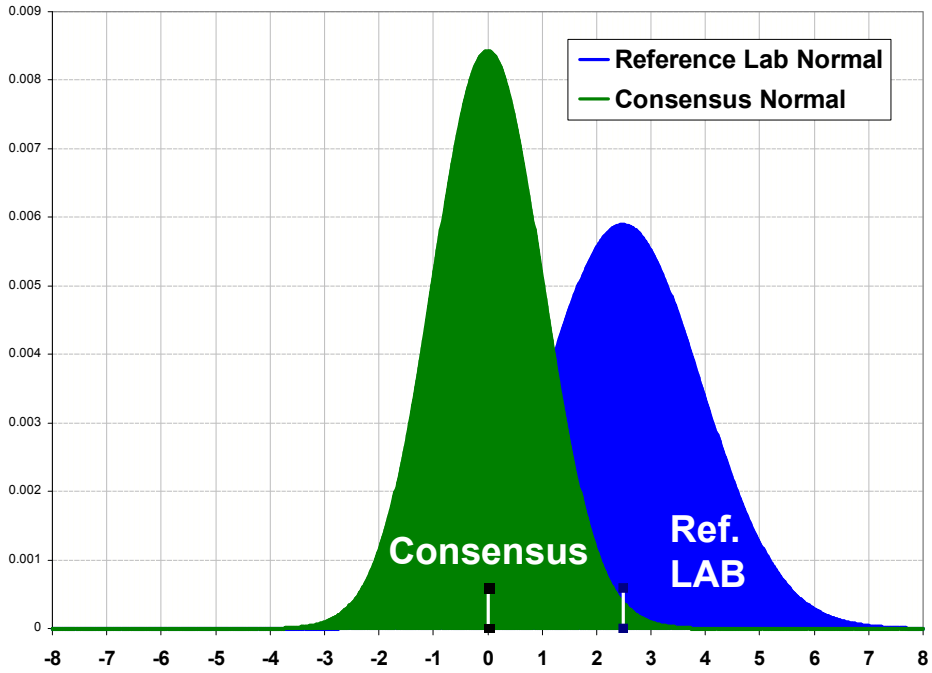
Recommendations

- Use Robust Consensus to Calculate Z Scores.
- Where There is Minimal Data, Use Reference Lab to Calculate Z Scores.
- Continue to Collect Reference Lab Homogeneity Data.
- Continue to Use Horwitz Relationship to Estimate σ_p (fit for purpose).
- Continue to Calculate Probability of Detection for Non Detects.

Revised Statistical Approach
For Samples 201464, 201561 & 201562

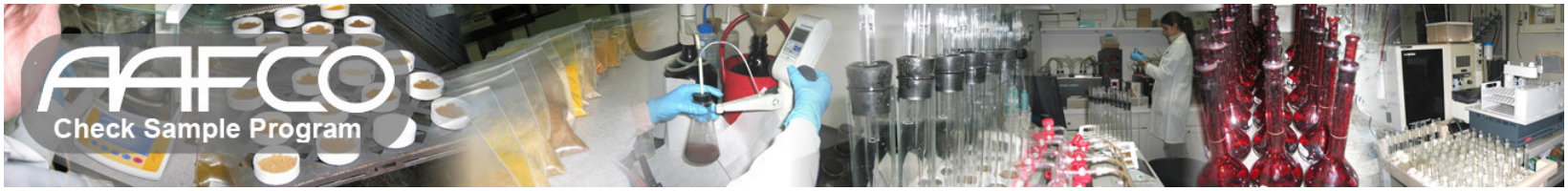
Z-Scores Based on Consensus of Participating Labs

Dispersion Still Based on Modified Horwitz



Tracking Z Scores:

Sample 201464 (206 Detects)	
Poultry Feed	
Compliant Z	72.2%
Warning Z	10.1%
Actionable Z	17.7%
Sample 201561 (365 Detects)	
Swine Feed	
Compliant Z	75.9%
Warning Z	13.1%
Actionable Z	11.0%
Sample 201562 (302 Detects)	
Cattle Feed	
Compliant Z	78.4%
Warning Z	11.3%
Actionable Z	10.3%



201562 Mycotoxin CSP

Analyte Report Ordered by Z Score

Mycotoxin Proficiency Testing

Issue Date: 07/31/2015

Analytes for Sample # 201562 Poultry Feed

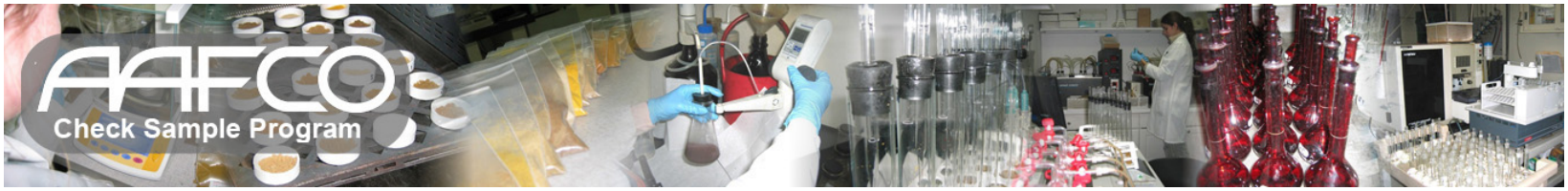
Lab #	Code	Analyte	Method	Result 1	Result 2	Detect ? D1	Detect ? D2	LOD	Probability of Detection	Z Score	Assigned Value	Horwitz
0010	600.14	Total Aflatoxin (ppb)	Vicam Aflatest	9.8	10	Y	Y		100%	-1.70	15.807	3.478
0958	600.98	Total Aflatoxin (ppb)	Other Rapid Test Kit	10.9	10.5	Y	Y		100%	-1.47	15.807	3.478
0027	600.21	Total Aflatoxin (ppb)	LC-PCD Fl	11.39	11.85	Y	Y		100%	-1.20	15.807	3.478
0033	600.01	Total Aflatoxin (ppb)	Neogen Veratox Aflatoxin	12.6	10.9	Y	Y		100%	-1.17	15.807	3.478
0013	600.22	Total Aflatoxin (ppb)	Vicam Aflatest, LC-Fl	11.6	11.9	Y	Y		100%	-1.17	15.807	3.478
0957	600.98	Total Aflatoxin (ppb)	Other Rapid Test Kit	13.6	10.5	Y	Y		100%	-1.08	15.807	3.478
0208	600.01	Total Aflatoxin (ppb)	Neogen Veratox Aflatoxin	13.2	11.6	Y	Y		100%	-0.98	15.807	3.478
0202	600.12	Total Aflatoxin (ppb)	r-Biopharm Ridascreen FAST Afl	13.8	13	Y	Y		100%	-0.69	15.807	3.478
2098	600.01	Total Aflatoxin (ppb)	Neogen Veratox Aflatoxin	13	13.9	Y	Y		100%	-0.68	15.807	3.478
0034	600.01	Total Aflatoxin (ppb)	Neogen Veratox Aflatoxin	13.9	13.8	Y	Y		100%	-0.56	15.807	3.478
0003	600.01	Total Aflatoxin (ppb)	Neogen Veratox Aflatoxin	13	15.3	Y	Y		100%	-0.48	15.807	3.478
0870	600.02	Total Aflatoxin (ppb)	Neogen Veratox Aflatoxin HS	14.4	14.2	Y	Y		100%	-0.43	15.807	3.478
2096	600.01	Total Aflatoxin (ppb)	Neogen Veratox Aflatoxin	8.9	19.8	Y	Y		100%	-0.42	15.807	3.478
0004	600.14	Total Aflatoxin (ppb)	Vicam Aflatest	16	14	Y	Y		100%	-0.23	15.807	3.478
0042	600.20	Total Aflatoxin (ppb)	LC	14	16	Y	Y		100%	-0.23	15.807	3.478
0010	600.21	Total Aflatoxin (ppb)	LC-PCD Fl	14.4	15.8	Y	Y		100%	-0.20	15.807	3.478
0009	600.21	Total Aflatoxin (ppb)	LC-PCD Fl	14.69	17.48	Y	Y		100%	0.08	15.807	3.478
2050	600.01	Total Aflatoxin (ppb)	Neogen Veratox Aflatoxin	17.1	16.3	Y	Y		100%	0.26	15.807	3.478
0297	600.01	Total Aflatoxin (ppb)	Neogen Veratox Aflatoxin	16.6	18.2	Y	Y		100%	0.46	15.807	3.478
0227	600.01	Total Aflatoxin (ppb)	Neogen Veratox Aflatoxin	18	20	Y	Y		100%	0.92	15.807	3.478
2066	600.12	Total Aflatoxin (ppb)	r-Biopharm Ridascreen FAST Afl	19.3	19.8	Y	Y		100%	1.08	15.807	3.478
0407	600.13	Total Aflatoxin (ppb)	r-Biopharm Ridascreen FAST Afl SC	21.12	21.56	Y	Y		100%	1.59	15.807	3.478
0035	600.20	Total Aflatoxin (ppb)	LC	20.966	22.382	Y	Y		100%	1.69	15.807	3.478
2066	600.20	Total Aflatoxin (ppb)	LC	20.2	23.7	Y	Y		100%	1.77	15.807	3.478
0218	600.24	Total Aflatoxin (ppb)	LC-MS/MS	22.4	21.8	Y	Y		100%	1.81	15.807	3.478
0035	600.13	Total Aflatoxin (ppb)	r-Biopharm Ridascreen FAST Afl SC	24.799	25.108	Y	Y		100%	2.63	15.807	3.478
2033	601.23	AB1 (ppb)	LC-MS/MS	11.1	9.07	Y	Y		100%	-1.40	14.587	3.209
0553	601.23	AB1 (ppb)	LC-MS/MS	9.01	11.61	Y	Y		100%	-1.33	14.587	3.209
0027	601.21	AB1 (ppb)	LC-PCD Fl	10.369	10.773	Y	Y		100%	-1.25	14.587	3.209
0959	601.99	AB1 (ppb)	Miscellaneous	11	10.8	Y	Y		100%	-1.15	14.587	3.209
0013	601.24	AB1 (ppb)	Vicam Aflatest, LC-Fl	11.6	11.9	Y	Y		100%	-0.88	14.587	3.209
0009	601.21	AB1 (ppb)	LC-PCD Fl	12.53	15.02	Y	Y		100%	-0.25	14.587	3.209
0913	601.20	AB1 (ppb)	LC	14.82	13.69	Y	Y		100%	-0.10	14.587	3.209
2023	601.24	AB1 (ppb)	Vicam Aflatest, LC-Fl	15.1	15.1	Y	Y		100%	0.16	14.587	3.209
0035	601.20	AB1 (ppb)	LC	15.983	14.483	Y	Y		100%	0.20	14.587	3.209
0913	601.23	AB1 (ppb)	LC-MS/MS	17.1	16.8	Y	Y		100%	0.74	14.587	3.209
0218	601.23	AB1 (ppb)	LC-MS/MS	19.6	20	Y	Y		100%	1.62	14.587	3.209
0918	601.23	AB1 (ppb)	LC-MS/MS	20.3	19.9	Y	Y		100%	1.72	14.587	3.209

Lab #	Code	Analyte	Method	Result 1	Result 2	Detect ? D1	Detect ? D2	LOD	Probability of Detection	Z Score	Assigned Value	Horwitz
2066	601.20	AB1 (ppb)	LC	19.1	22.5	Y	Y		100%	1.94	14.587	3.209
2033	602.23	AB2 (ppb)	LC-MS/MS	0.98	1.04	Y	Y		100%	-1.79	1.669	0.367
0027	602.21	AB2 (ppb)	LC-PCD FI	1.021	1.077	Y	Y		100%	-1.69	1.669	0.367
2066	602.20	AB2 (ppb)	LC	1.14	1.22	Y	Y		100%	-1.33	1.669	0.367
0553	602.23	AB2 (ppb)	LC-MS/MS	1.23	1.84	Y	Y		100%	-0.36	1.669	0.367
0913	602.20	AB2 (ppb)	LC	1.61	1.58	Y	Y		100%	-0.20	1.669	0.367
0035	602.20	AB2 (ppb)	LC	1.652	1.642	Y	Y		100%	-0.06	1.669	0.367
0218	602.23	AB2 (ppb)	LC-MS/MS	1.8	1.8	Y	Y		100%	0.36	1.669	0.367
0913	602.23	AB2 (ppb)	LC-MS/MS	2.3	1.8	Y	Y		100%	1.04	1.669	0.367
0009	602.21	AB2 (ppb)	LC-PCD FI	2.16	2.46	Y	Y		100%	1.75	1.669	0.367
0918	602.23	AB2 (ppb)	LC-MS/MS	2.63	2.39	Y	Y		100%	2.29	1.669	0.367
2023	602.24	AB2 (ppb)	Vicam Aflatest, LC-Fl	3.6	4.4	Y	Y		100%	6.35	1.669	0.367
0013	602.24	AB2 (ppb)	Vicam Aflatest, LC-Fl			N	N	1.6	57.41%	NoZ	1.669	0.367
0918	603.23	AG1* (ppb)	LC-MS/MS	0.6	0.6	Y	Y		100%	22.73	0.1	0.022
0218	603.23	AG1* (ppb)	LC-MS/MS	1		Y	N	1	0.00%	40.91	0.1	0.022
0035	603.20	AG1* (ppb)	LC	3.331	2.335	Y	Y		100%	124.23	0.1	0.022
0913	603.20	AG1* (ppb)	LC			N	N	1	0.00%	NoZ	0.1	0.022
2066	603.20	AG1* (ppb)	LC			N	N	0.14	3.45%	NoZ	0.1	0.022
0553	603.23	AG1* (ppb)	LC-MS/MS			N	N	1	0.00%	NoZ	0.1	0.022
0913	603.23	AG1* (ppb)	LC-MS/MS			N	N	1	0.00%	NoZ	0.1	0.022
2033	603.23	AG1* (ppb)	LC-MS/MS			N	N	1	0.00%	NoZ	0.1	0.022
0013	603.24	AG1* (ppb)	Vicam Aflatest, LC-Fl			N	N	2	0.00%	NoZ	0.1	0.022
2023	603.24	AG1* (ppb)	Vicam Aflatest, LC-Fl			N	N	0.6	0.00%	NoZ	0.1	0.022
0035	604.20	AG2* (ppb)	LC		3.921	N	Y	1			ND (0.5)	
0913	604.20	AG2* (ppb)	LC			N	N	1			ND (0.5)	
2066	604.20	AG2* (ppb)	LC			N	N	0.14			ND (0.5)	
0218	604.23	AG2* (ppb)	LC-MS/MS			N	N	1			ND (0.5)	
0553	604.23	AG2* (ppb)	LC-MS/MS			N	N	1			ND (0.5)	
0913	604.23	AG2* (ppb)	LC-MS/MS			N	N	1			ND (0.5)	
0918	604.23	AG2* (ppb)	LC-MS/MS			N	N	0.03			ND (0.5)	
2033	604.23	AG2* (ppb)	LC-MS/MS			N	N	1			ND (0.5)	
0013	604.24	AG2* (ppb)	Vicam Aflatest, LC-Fl			N	N	0.9			ND (0.5)	
2023	604.24	AG2* (ppb)	Vicam Aflatest, LC-Fl			N	N	0.6			ND (0.5)	
0958	610.98	Deoxynivalenol (ppb)	Other Rapid Test Kit	3.2	3.3	Y	Y		100%	-7.19	2,551	354.4
0553	610.23	Deoxynivalenol (ppb)	LC-MS/MS	1,326	1,100	Y	Y		100%	-3.78	2,551	354.4
0913	610.20	Deoxynivalenol (ppb)	LC	1,840	2,050	Y	Y		100%	-1.71	2,551	354.4
0913	610.23	Deoxynivalenol (ppb)	LC-MS/MS	2,100	2,100	Y	Y		100%	-1.27	2,551	354.4
0009	610.07	Deoxynivalenol (ppb)	r-Biopharm Ridascreen FAST DON	2,000	2,390	Y	Y		100%	-1.00	2,551	354.4
0218	610.25	Deoxynivalenol (ppb)	GC-MS	2,060	2,337	Y	Y		100%	-0.99	2,551	354.4
0227	610.01	Deoxynivalenol (ppb)	Neogen Veratox for DON	2,200	2,500	Y	Y		100%	-0.57	2,551	354.4
2033	610.23	Deoxynivalenol (ppb)	LC-MS/MS	2,473	2,408	Y	Y		100%	-0.31	2,551	354.4
0027	610.01	Deoxynivalenol (ppb)	Neogen Veratox for DON	2,700	2,300	Y	Y		100%	-0.14	2,551	354.4
2098	610.01	Deoxynivalenol (ppb)	Neogen Veratox for DON	2,400	2,600	Y	Y		100%	-0.14	2,551	354.4
0918	610.23	Deoxynivalenol (ppb)	LC-MS/MS	2,210	2,850	Y	Y		100%	-0.06	2,551	354.4
2052	610.23	Deoxynivalenol (ppb)	LC-MS/MS	2,464	2,642	Y	Y		100%	0.01	2,551	354.4
0003	610.01	Deoxynivalenol (ppb)	Neogen Veratox for DON	2,600	2,600	Y	Y		100%	0.14	2,551	354.4

Lab #	Code	Analyte	Method	Result 1	Result 2	Detect ? D1	Detect ? D2	LOD	Probability of Detection	Z Score	Assigned Value	Horwitz
0208	610.01	Deoxynivalenol (ppb)	Neogen Veratox for DON	2,660	2,710	Y	Y		100%	0.38	2,551	354.4
2023	610.20	Deoxynivalenol (ppb)	LC	2,721	2,649	Y	Y		100%	0.38	2,551	354.4
0202	610.06	Deoxynivalenol (ppb)	r-Biopharm Ridascreen DON	2,600	2,900	Y	Y		100%	0.56	2,551	354.4
0407	610.07	Deoxynivalenol (ppb)	r-Biopharm Ridascreen FAST DON	2,817	2,852	Y	Y		100%	0.80	2,551	354.4
0870	610.01	Deoxynivalenol (ppb)	Neogen Veratox for DON	2,800	2,900	Y	Y		100%	0.84	2,551	354.4
0035	610.08	Deoxynivalenol (ppb)	r-Biopharm Ridascreen FAST DON SC	2,925	2,811	Y	Y		100%	0.89	2,551	354.4
0033	610.01	Deoxynivalenol (ppb)	Neogen Veratox for DON	3,000	2,800	Y	Y		100%	0.99	2,551	354.4
2050	610.01	Deoxynivalenol (ppb)	Neogen Veratox for DON	3,400	2,400	Y	Y		100%	0.99	2,551	354.4
2066	610.07	Deoxynivalenol (ppb)	r-Biopharm Ridascreen FAST DON	3,200	2,640	Y	Y		100%	1.04	2,551	354.4
2096	610.01	Deoxynivalenol (ppb)	Neogen Veratox for DON	3,100	2,900	Y	Y		100%	1.27	2,551	354.4
0297	610.01	Deoxynivalenol (ppb)	Neogen Veratox for DON	3,100	3,200	Y	Y		100%	1.69	2,551	354.4
0959	610.99	Deoxynivalenol (ppb)	Miscellaneous	2,900	4,600	Y	Y		100%	3.38	2,551	354.4
0957	610.98	Deoxynivalenol (ppb)	Other Rapid Test Kit	5,800	2,100	Y	Y		100%	3.95	2,551	354.4
2023	620.21	Total Fumonisin (ppb)	LC-Fl OPA der.	266	266	Y	Y		100%	-4.63	1,017	162.3
0407	620.09	Total Fumonisin (ppb)	r-Biopharm Ridascreen FAST FUM	605.5	618.5	Y	Y		100%	-2.50	1,017	162.3
0042	620.01	Total Fumonisin (ppb)	Neogen Veratox Fumonisin	700	800	Y	Y		100%	-1.64	1,017	162.3
2050	620.01	Total Fumonisin (ppb)	Neogen Veratox Fumonisin	870	630	Y	Y		100%	-1.64	1,017	162.3
0009	620.09	Total Fumonisin (ppb)	r-Biopharm Ridascreen FAST FUM	1,100	900	Y	Y		100%	-0.10	1,017	162.3
0004	620.11	Total Fumonisin (ppb)	Vicam Fumonitest	900	1,100	Y	Y		100%	-0.10	1,017	162.3
0027	620.01	Total Fumonisin (ppb)	Neogen Veratox Fumonisin	900	1,300	Y	Y		100%	0.51	1,017	162.3
0202	620.09	Total Fumonisin (ppb)	r-Biopharm Ridascreen FAST FUM	1,100	1,100	Y	Y		100%	0.51	1,017	162.3
0013	620.11	Total Fumonisin (ppb)	Vicam Fumonitest	1,150	1,250	Y	Y		100%	1.13	1,017	162.3
0035	620.09	Total Fumonisin (ppb)	r-Biopharm Ridascreen FAST FUM	1,210	1,211	Y	Y		100%	1.19	1,017	162.3
0870	620.02	Total Fumonisin (ppb)	Neogen Veratox Fumonisin 5/10	1,310	1,380	Y	Y		100%	2.02	1,017	162.3
2098	620.02	Total Fumonisin (ppb)	Neogen Veratox Fumonisin 5/10	1,440	1,400	Y	Y		100%	2.48	1,017	162.3
0227	620.01	Total Fumonisin (ppb)	Neogen Veratox Fumonisin	1,000	2,000	Y	Y		100%	2.98	1,017	162.3
0033	620.01	Total Fumonisin (ppb)	Neogen Veratox Fumonisin	1,600	1,500	Y	Y		100%	3.29	1,017	162.3
0208	620.20	Total Fumonisin (ppb)	LC			N	N	2000	0.00%	NoZ	1,017	162.3
0160	621.23	FB1 (ppb)	LC-MS/MS	1.2	1	Y	Y		100%	-5.92	707	119.2
2033	621.23	FB1 (ppb)	LC-MS/MS	702.5	755	Y	Y		100%	0.18	707	119.2
0913	621.20	FB1 (ppb)	LC	650	810	Y	Y		100%	0.19	707	119.2
0013	621.20	FB1 (ppb)	LC	900	950	Y	Y		100%	1.83	707	119.2
0913	621.23	FB1 (ppb)	LC-MS/MS	1,200	1,100	Y	Y		100%	3.72	707	119.2
0553	621.23	FB1 (ppb)	LC-MS/MS	1,442	1,011	Y	Y		100%	4.36	707	119.2
0553	622.23	FB2 (ppb)	LC-MS/MS	214.2	188.1	Y	Y		100%	-1.14	259.1	50.796
0913	622.20	FB2 (ppb)	LC	230	240	Y	Y		100%	-0.48	259.1	50.796
0013	622.20	FB2 (ppb)	LC	250	300	Y	Y		100%	0.31	259.1	50.796
2033	622.23	FB2 (ppb)	LC-MS/MS	264.1	305	Y	Y		100%	0.50	259.1	50.796
0913	622.23	FB2 (ppb)	LC-MS/MS	300	300	Y	Y		100%	0.80	259.1	50.796
0553	623.23	FB3 (ppb)	LC-MS/MS	108.6	90.21	Y	Y		100%	-0.09	101.5	22.322
0913	623.23	FB3 (ppb)	LC-MS/MS	100	100	Y	Y		100%	-0.07	101.5	22.322
0913	623.20	FB3 (ppb)	LC	90	120	Y	Y		100%	0.16	101.5	22.322
2098	630.01	Ochratoxin A (ppb)	Neogen Veratox Ochratoxin	49	55	Y	Y		100%	-1.53	78.482	17.266
0870	630.06	Ochratoxin A (ppb)	Vicam OchraTest	58	56	Y	Y		100%	-1.24	78.482	17.266
0918	630.23	Ochratoxin A (ppb)	LC-MS/MS	56.9	57.2	Y	Y		100%	-1.24	78.482	17.266
2033	630.23	Ochratoxin A (ppb)	LC-MS/MS	64.8	59.9	Y	Y		100%	-0.93	78.482	17.266

Lab #	Code	Analyte	Method	Result 1	Result 2	Detect ? D1	Detect ? D2	LOD	Probability of Detection	Z Score	Assigned Value	Horwitz
0553	630.23	Ochratoxin A (ppb)	LC-MS/MS	68.99	69.63	Y	Y		100%	-0.53	78.482	17.266
2023	630.20	Ochratoxin A (ppb)	LC	76.4	76.3	Y	Y		100%	-0.12	78.482	17.266
2066	630.20	Ochratoxin A (ppb)	LC	80.5	79.99	Y	Y		100%	0.10	78.482	17.266
0407	630.05	Ochratoxin A (ppb)	r-Biopharm Ridascreen FAST Och A	84	85.55	Y	Y		100%	0.36	78.482	17.266
0003	630.01	Ochratoxin A (ppb)	Neogen Veratox Ochratoxin	89	93	Y	Y		100%	0.73	78.482	17.266
0913	630.20	Ochratoxin A (ppb)	LC	85.67	105.6	Y	Y		100%	0.99	78.482	17.266
0218	630.23	Ochratoxin A (ppb)	LC-MS/MS	95.7	98.7	Y	Y		100%	1.08	78.482	17.266
0913	630.23	Ochratoxin A (ppb)	LC-MS/MS	107.2	97.8	Y	Y		100%	1.39	78.482	17.266
0227	630.01	Ochratoxin A (ppb)	Neogen Veratox Ochratoxin	110	114	Y	Y		100%	1.94	78.482	17.266
0918	640.23	T-2 (ppb)	LC-MS/MS	32.7	35.4	Y	Y		100%	-2.85	91.241	20.073
0553	640.23	T-2 (ppb)	LC-MS/MS	40.77	36.43	Y	Y		100%	-2.62	91.241	20.073
2033	640.23	T-2 (ppb)	LC-MS/MS	92	84.5	Y	Y		100%	-0.15	91.241	20.073
0407	640.05	T-2 (ppb)	r-Biopharm Ridascreen FAST T-2	99.75	99.8	Y	Y		100%	0.43	91.241	20.073
0913	640.23	T-2 (ppb)	LC-MS/MS	110.9	105.5	Y	Y		100%	0.84	91.241	20.073
0913	640.24	T-2 (ppb)	GC-ECD	111.2	114.8	Y	Y		100%	1.08	91.241	20.073
0218	640.23	T-2 (ppb)	LC-MS/MS	113.8	112.5	Y	Y		100%	1.09	91.241	20.073
0202	640.05	T-2 (ppb)	r-Biopharm Ridascreen FAST T-2	133.8	136	Y	Y		100%	2.18	91.241	20.073
0227	640.98	T-2 (ppb)	Other Rapid Test Kit	979	1,043	Y	Y		100%	45.82	91.241	20.073
0913	641.23	HT-2* (ppb)	LC-MS/MS	114.7	113.8	Y	Y		100%	-0.08	116.3	25.586
0913	641.24	HT-2* (ppb)	GC-ECD	137.4	153.5	Y	Y		100%	1.14	116.3	25.586
2098	642.98	T-2 + HT-2* (ppb)	Other Rapid Test Kit	368.2	372.6	Y	Y		100%	3.04	230.5	45.985
0870	642.98	T-2 + HT-2* (ppb)	Other Rapid Test Kit	382.8	401	Y	Y		100%	3.51	230.5	45.985
0918	650.24	Zearalenone (ppb)	LC-MS/MS	259	217	Y	Y		100%	-3.56	613.9	105.7
0553	650.24	Zearalenone (ppb)	LC-MS/MS	298.5	337.8	Y	Y		100%	-2.80	613.9	105.7
0003	650.01	Zearalenone (ppb)	Neogen Veratox Zearalenone	322	340	Y	Y		100%	-2.68	613.9	105.7
0227	650.01	Zearalenone (ppb)	Neogen Veratox Zearalenone	479	479	Y	Y		100%	-1.28	613.9	105.7
2098	650.01	Zearalenone (ppb)	Neogen Veratox Zearalenone	501	505.8	Y	Y		100%	-1.05	613.9	105.7
2066	650.06	Zearalenone (ppb)	r-Biopharm Ridascreen FAST ZON	520.4	523.8	Y	Y		100%	-0.87	613.9	105.7
0870	650.01	Zearalenone (ppb)	Neogen Veratox Zearalenone	546.4	512.4	Y	Y		100%	-0.80	613.9	105.7
0033	650.01	Zearalenone (ppb)	Neogen Veratox Zearalenone	509	586	Y	Y		100%	-0.63	613.9	105.7
0009	650.06	Zearalenone (ppb)	r-Biopharm Ridascreen FAST ZON	608.8	554.3	Y	Y		100%	-0.31	613.9	105.7
0202	650.06	Zearalenone (ppb)	r-Biopharm Ridascreen FAST ZON	631.6	632.2	Y	Y		100%	0.17	613.9	105.7
0407	650.07	Zearalenone (ppb)	r-Biopharm Ridascreen FAST ZON SC	653.9	667.7	Y	Y		100%	0.44	613.9	105.7
0027	650.01	Zearalenone (ppb)	Neogen Veratox Zearalenone	867	599	Y	Y		100%	1.13	613.9	105.7
2033	650.24	Zearalenone (ppb)	LC-MS/MS	752.5	770	Y	Y		100%	1.39	613.9	105.7
0913	650.20	Zearalenone (ppb)	LC	743.1	797	Y	Y		100%	1.48	613.9	105.7
0218	650.24	Zearalenone (ppb)	LC-MS/MS	813.2	795.8	Y	Y		100%	1.80	613.9	105.7
0913	650.24	Zearalenone (ppb)	LC-MS/MS	888.8	849.2	Y	Y		100%	2.41	613.9	105.7
2023	650.20	Zearalenone (ppb)	LC	900	910	Y	Y		100%	2.75	613.9	105.7
0035	650.07	Zearalenone (ppb)	r-Biopharm Ridascreen FAST ZON SC	986.2	980	Y	Y		100%	3.49	613.9	105.7

Notes: Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). If only 1 of 2 results detected Z for that is Grey and Probability of Detection is for the Non-Detect (see documentation). A Red NoZ indicates both results Not Detected with a Probability Of Detecting a single value. Where the Assigned Value is ND then the LOD follows as (LOD) in the Analyte units. An astrix on the Analyte name indicates Reference Lab Value Used as Assigned Value.

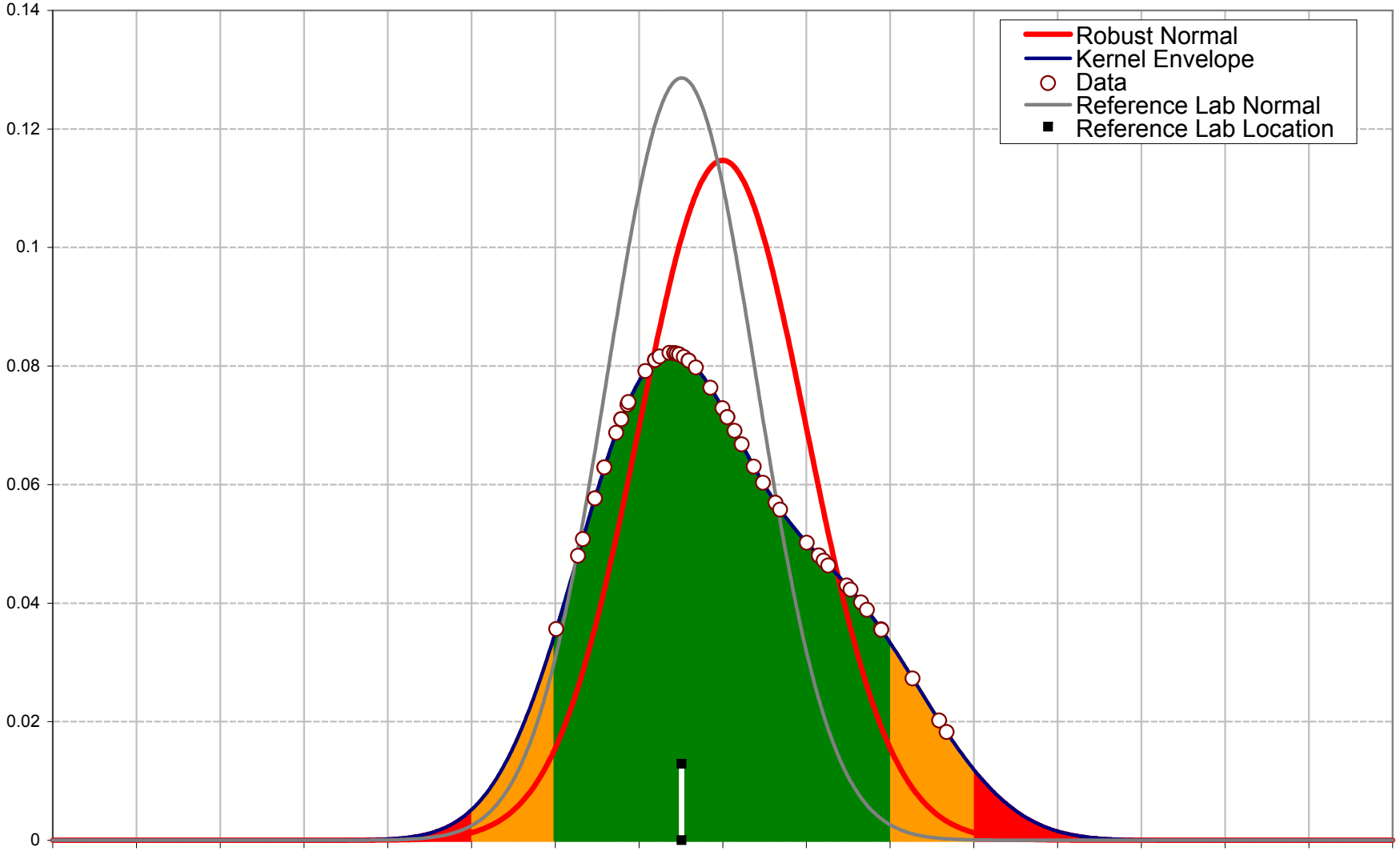


201562 Mycotoxin CSP
Working Charts

Total Aflatoxin (ppb) Code: 600 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-12.02		-5.06		1.90		8.85		15.81		22.76		29.72		36.68		43.63

Assigned Value 15.807 (µg / kg (ppb))
Horwitz SD .48 (µg / kg (ppb))

Reference Lab 14.100 (µg / kg (ppb))
Horwitz SD .10 (µg / kg (ppb))

Methods Used 10
Kernel Bandwidth 2.61 (µg / kg (ppb))
Number of Non-Detects 0
Number of Detects 52
Participating Labs 23

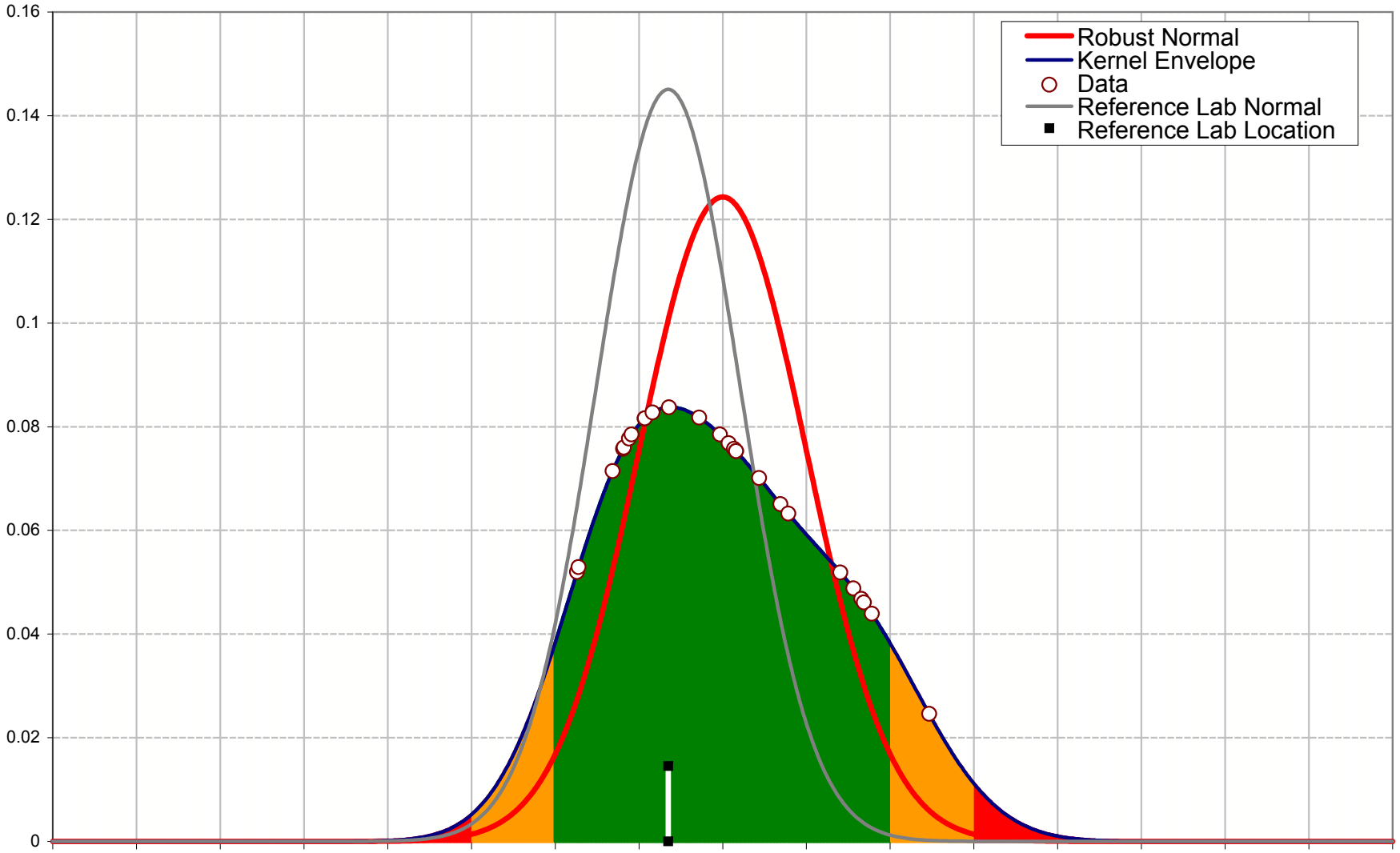
Unique LOD's at:

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

AB1 (ppb) Code: 601 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-11.09		-4.67		1.75		8.17		14.59		21.01		27.42		33.84		40.26

Methods Used 5

Assigned Value 14.587 (µg / kg (ppb))

Horwitz SD .21 (µg / kg (ppb))

Reference Lab 12.500 (µg / kg (ppb))

Horwitz SD .75 (µg / kg (ppb))

Kernel Bandwidth 2.41 (µg / kg (ppb))

Number of Non-Detects 0

Number of Detects 26

Participating Labs 12

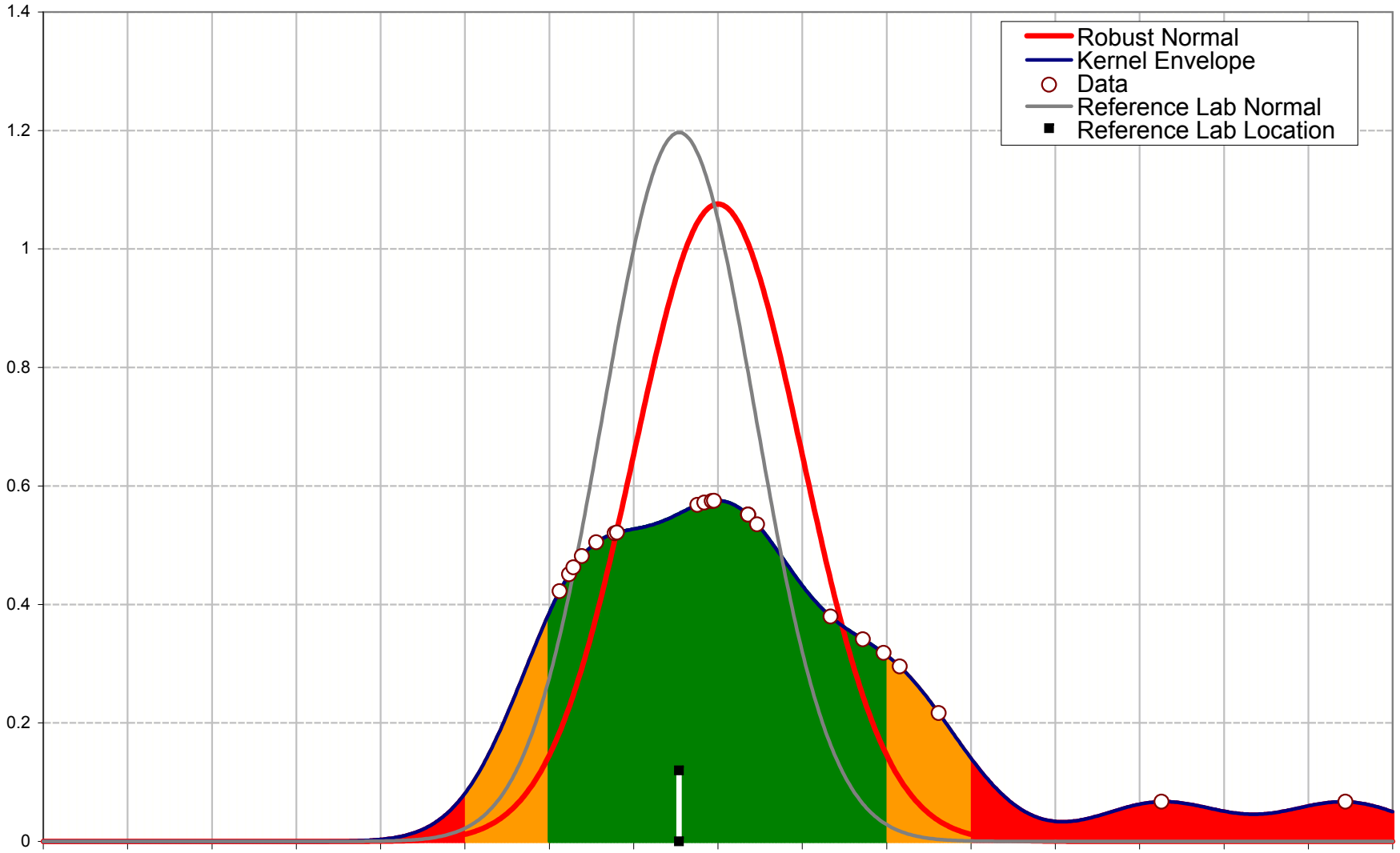
Unique LOD's at:

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

AB2 (ppb) Code: 602 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Methods Used 4

Assigned Value 1.669 (µg / kg (ppb))

Horwitz SD .37 (µg / kg (ppb))

Kernel Bandwidth 0.28 (µg / kg (ppb))

Unique LOD's at: 1.6 (µg / kg (ppb))

Number of Non-Detects 2

Reference Lab 1.500 (µg / kg (ppb))

Horwitz SD .33 (µg / kg (ppb))

Number of Detects 22

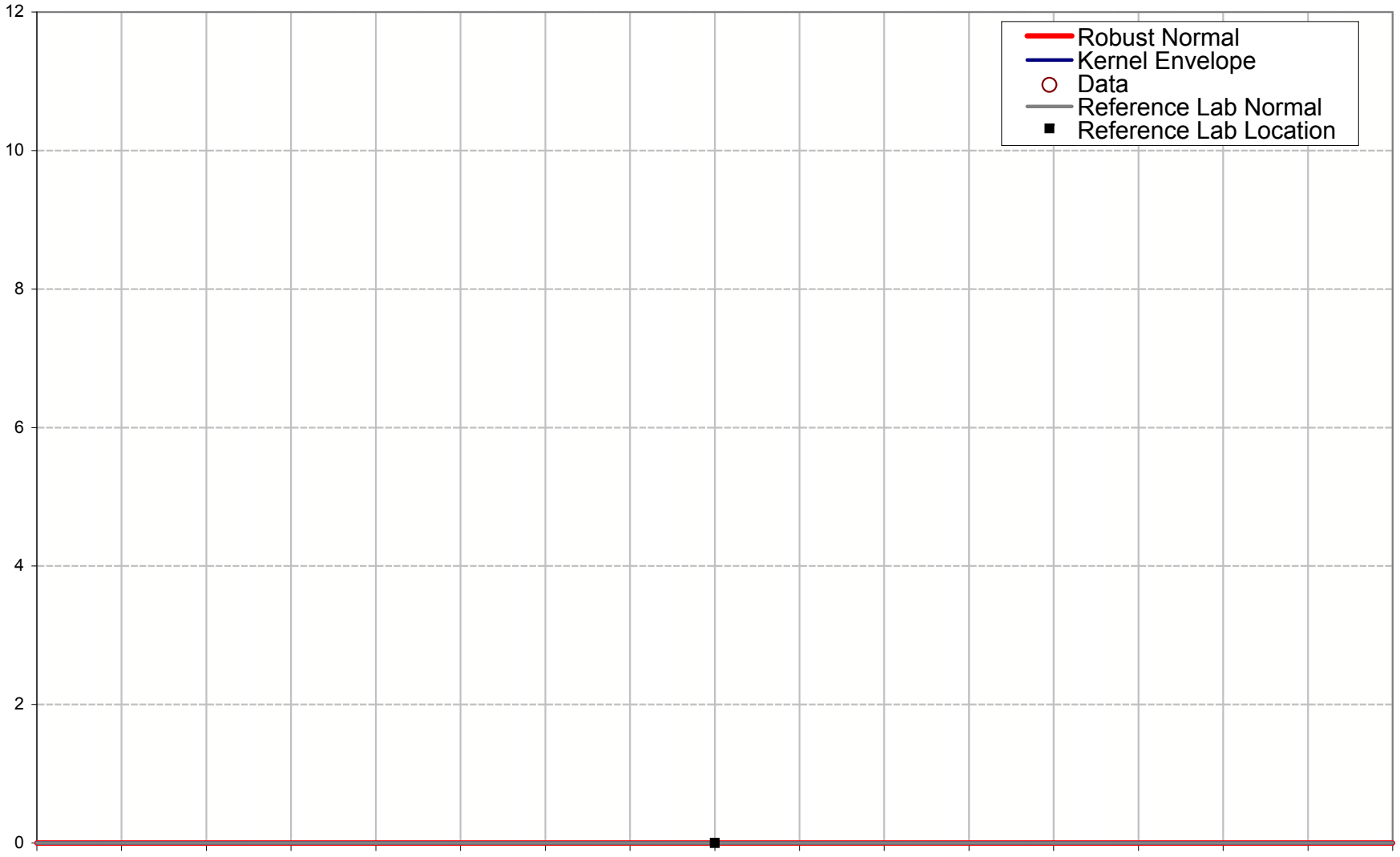
Participating Labs 11

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

AG1* (ppb) Code: 603 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-0.08		-0.03		0.01		0.06		0.10		0.14		0.19		0.23		0.28

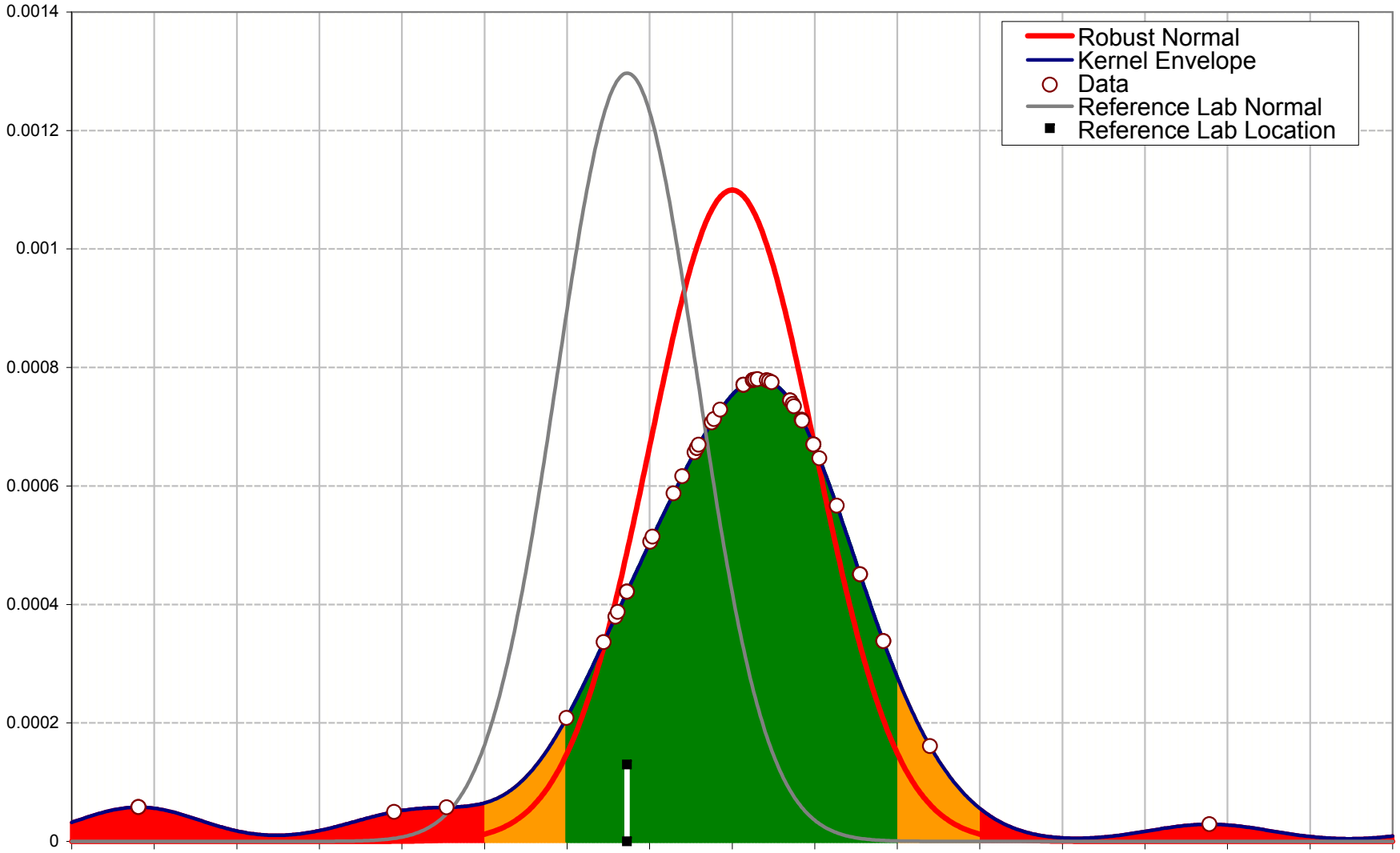
	# Methods Used	3	
Assigned Value 0.1 (µg / kg (ppb))	Kernel Bandwidth 0.02 (µg / kg (ppb))		Unique LOD's at: 0.14 (µg / kg (ppb))
Horwitz SD .02 (µg / kg (ppb))	Number of Non-Detects	15	0.6 (µg / kg (ppb))
Reference Lab 0.1 (µg / kg (ppb))	**Number of Detects**	**5**	1 (µg / kg (ppb))
Horwitz SD .02 (µg / kg (ppb))	**Participating Labs**	**9**	2 (µg / kg (ppb))

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

Deoxynivalenol (ppb) Code: 610 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-284.20		424.60		1,133.40		1,842.20		2,551.00		3,259.80		3,968.60		4,677.40		5,386.20

Methods Used 9

Assigned Value 2551 (µg / kg (ppb))

Horwitz SD .40 (µg / kg (ppb))

Kernel Bandwidth 35.80 (µg / kg (ppb))

Number of Non-Detects 0

Unique LOD's at:

Reference Lab 2100 (µg / kg (ppb))

Horwitz SD .44 (µg / kg (ppb))

Number of Detects 52

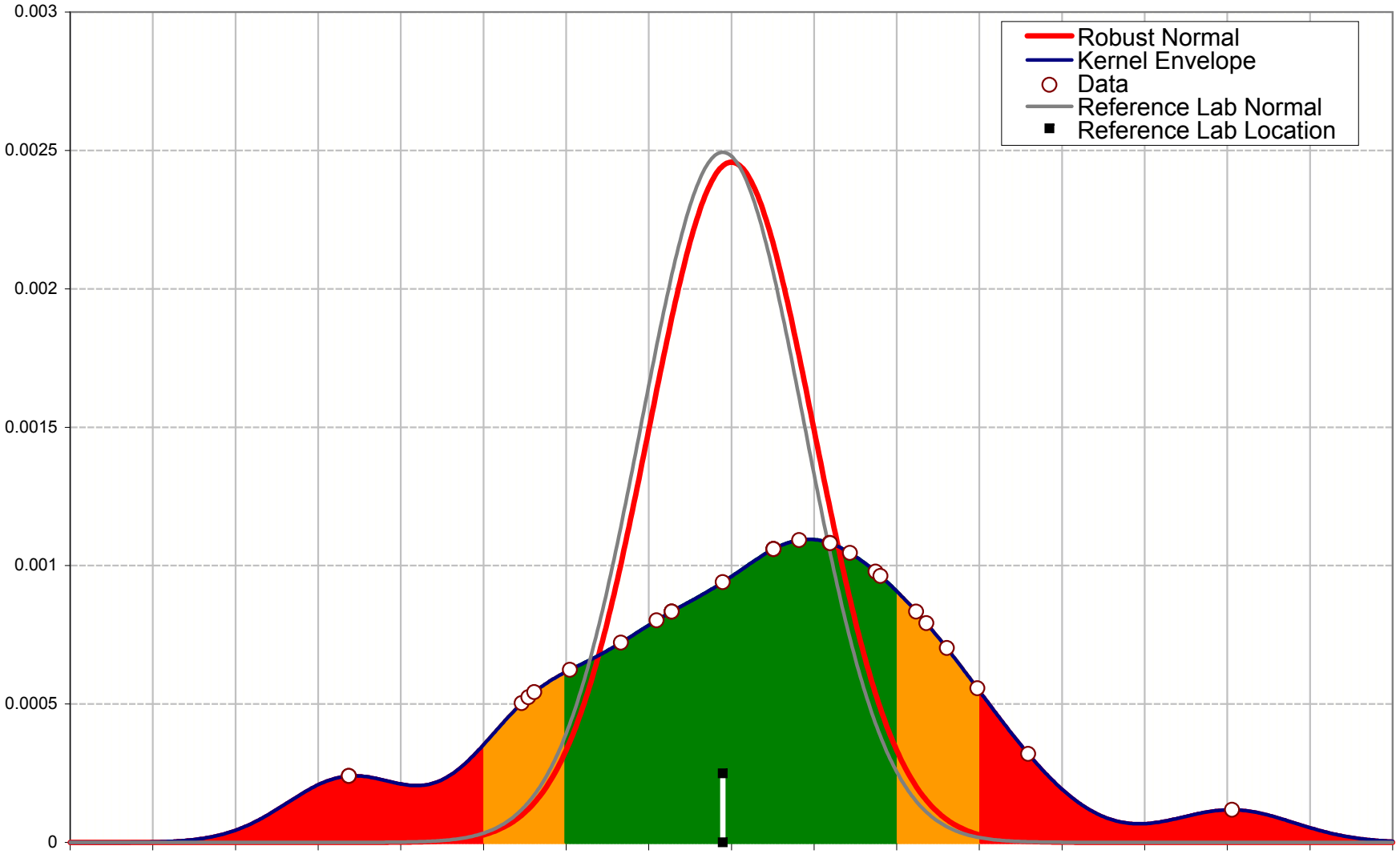
Participating Labs 25

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

Total Fumonisin (ppb) Code: 620 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-281.40		43.20		367.80		692.40		1,017.00		1,341.60		1,666.20		1,990.80		2,315.40

Methods Used 6

Assigned Value 1017 (µg / kg (ppb))

Horwitz SD .30 (µg / kg (ppb))

Reference Lab 1000 (µg / kg (ppb))

Horwitz SD .97 (µg / kg (ppb))

Kernel Bandwidth 21.73 (µg / kg (ppb))

Number of Non-Detects 2

Number of Detects 28

Participating Labs 15

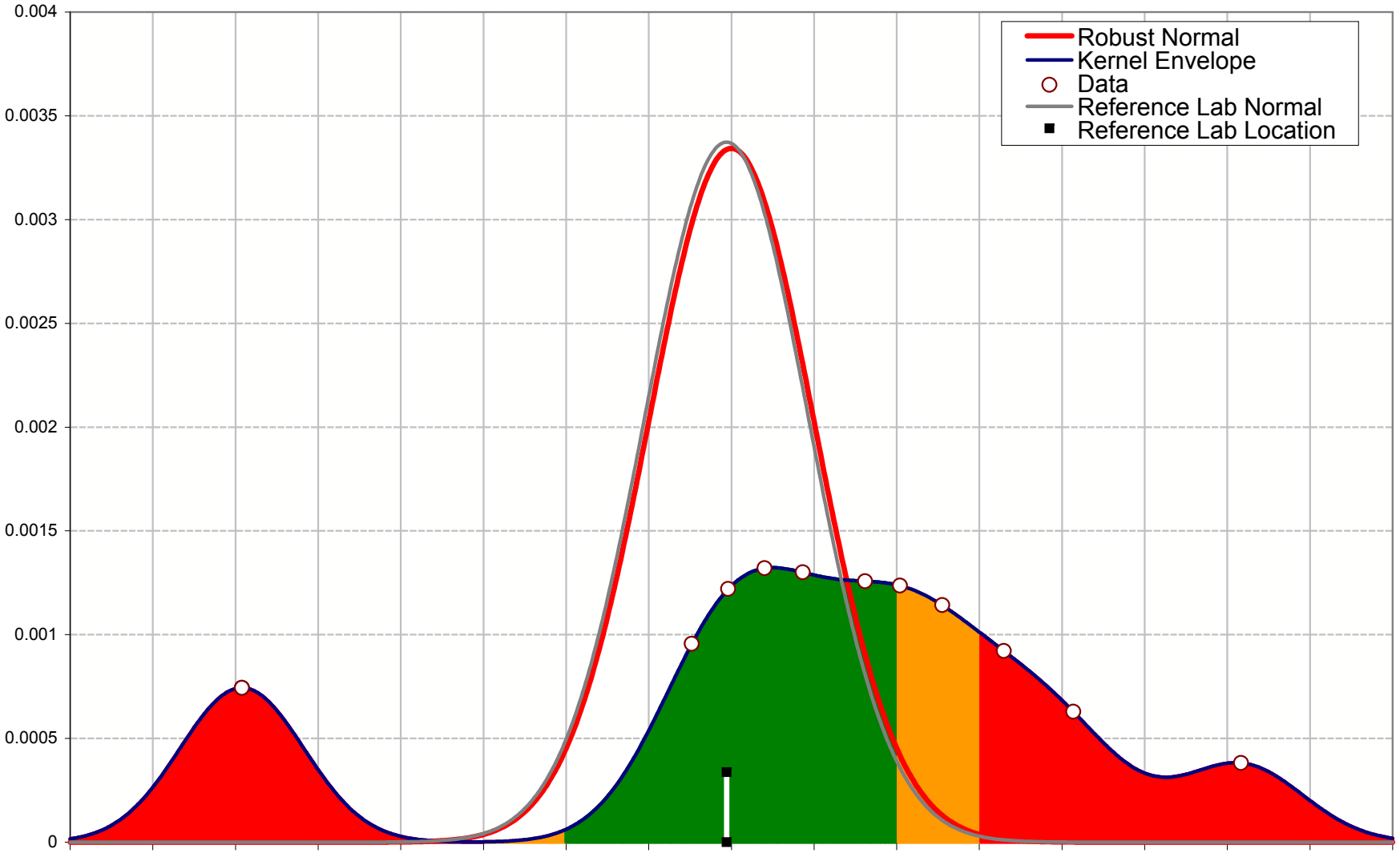
Unique LOD's at: 2000 (µg / kg (ppb)

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

FB1 (ppb) Code: 621 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-246.60		-8.20		230.20		468.60		707.00		945.40		1,183.80		1,422.20		1,660.60

Assigned Value 707 (µg / kg (ppb))

Horwitz SD .20 (µg / kg (ppb))

Reference Lab 700 (µg / kg (ppb))

Horwitz SD .15 (µg / kg (ppb))

# Methods Used	2
Kernel Bandwidth	9.40 (µg / kg (ppb))
Number of Non-Detects	0
Number of Detects	**12**
Participating Labs	**5**

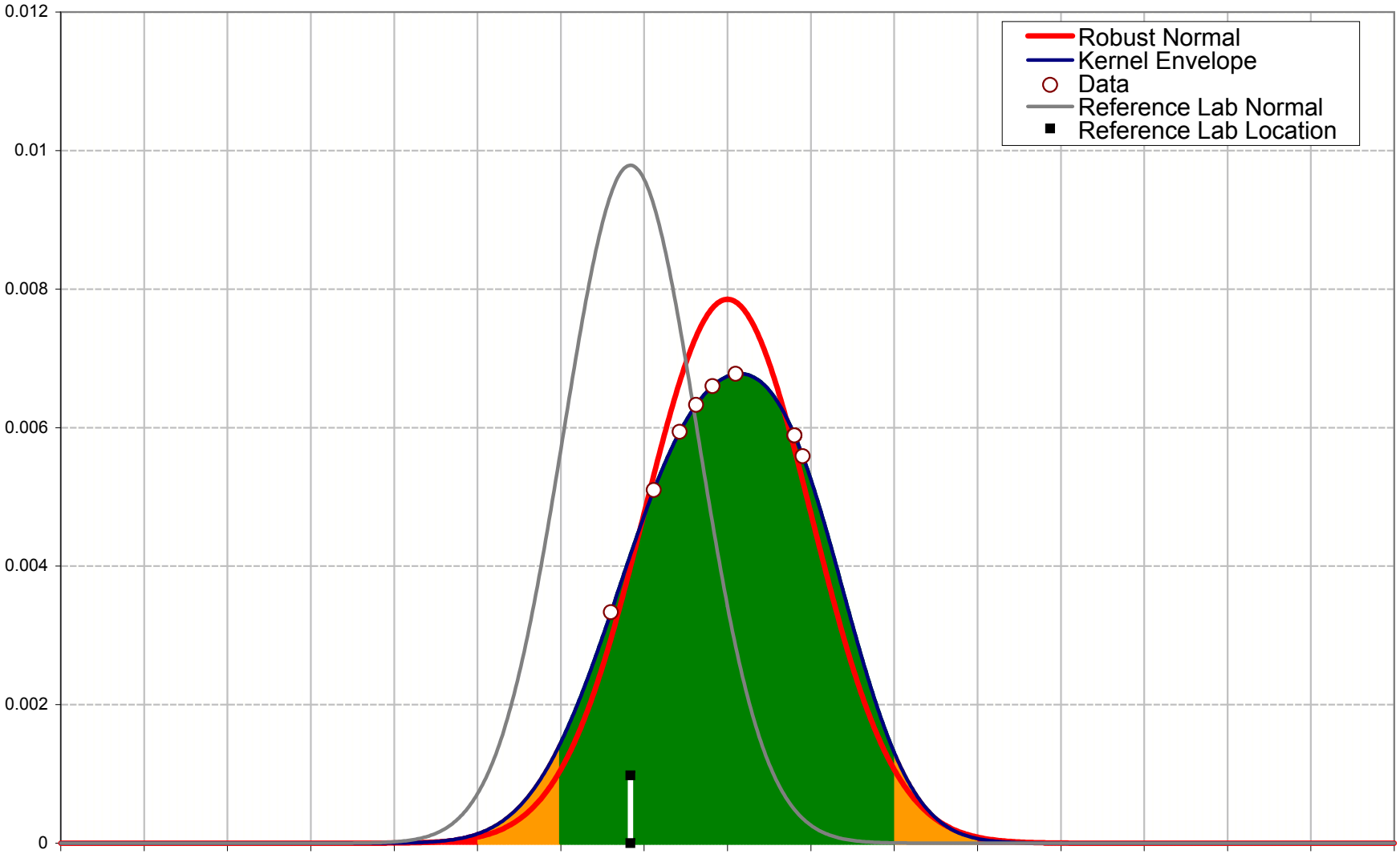
Unique LOD's at:

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

FB2 (ppb) Code: 622 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-147.27		-45.68		55.92		157.51		259.10		360.69		462.28		563.88		665.47

Assigned Value 259.1 (µg / kg (ppb))

Horwitz SD .80 (µg / kg (ppb))

Reference Lab 200.0 (µg / kg (ppb))

Horwitz SD .76 (µg / kg (ppb))

# Methods Used	2
Kernel Bandwidth	8.10 (µg / kg (ppb))
Number of Non-Detects	0
Number of Detects	**10**
Participating Labs	**4**

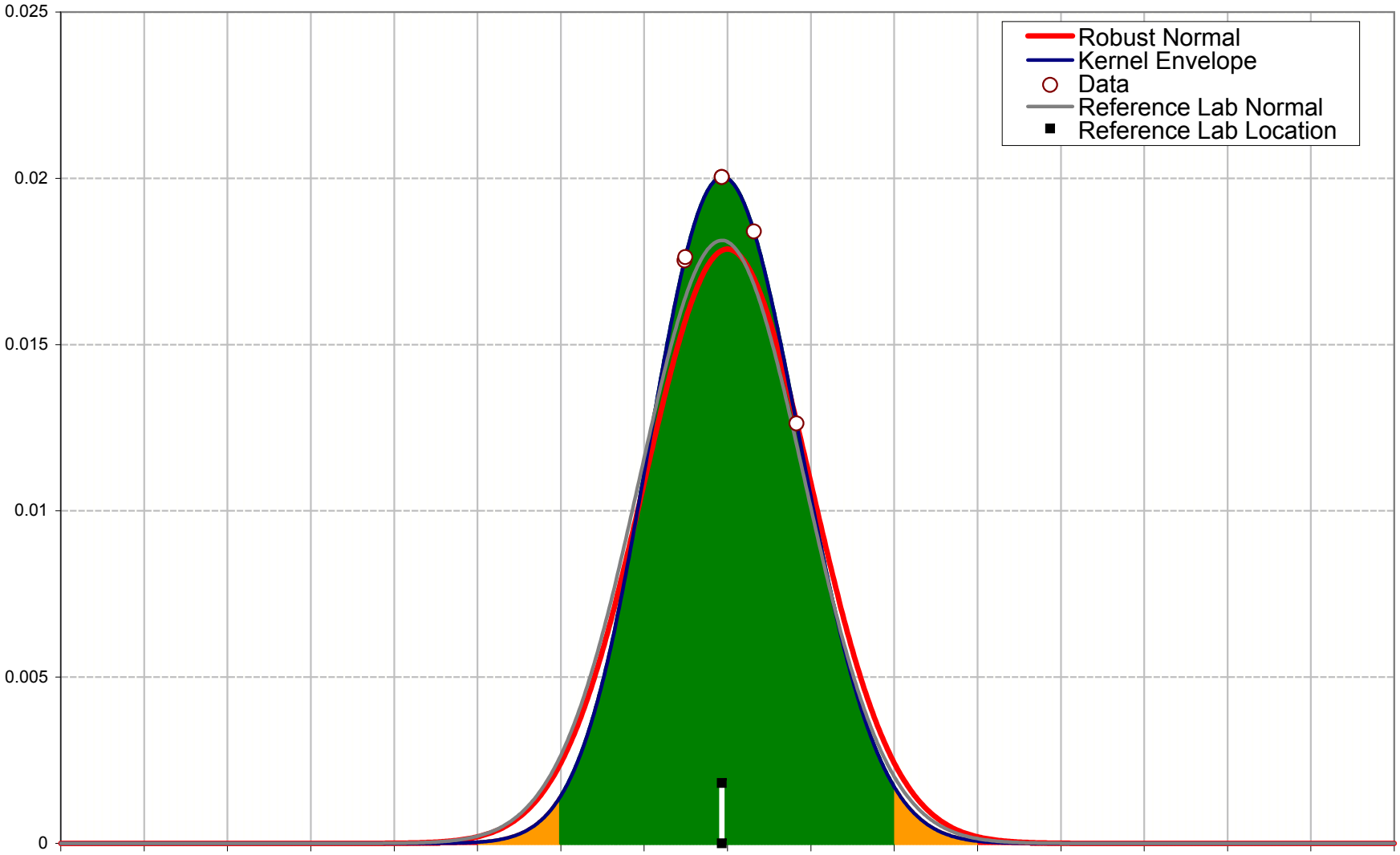
Unique LOD's at:

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

FB3 (ppb) Code: 623 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-77.08		-32.43		12.21		56.86		101.50		146.14		190.79		235.43		280.08

Assigned Value 101.5 (µg / kg (ppb))

Horwitz SD .32 (µg / kg (ppb))

Reference Lab 100.0 (µg / kg (ppb))

Horwitz SD .00 (µg / kg (ppb))

# Methods Used	2
Kernel Bandwidth	6.74 (µg / kg (ppb))
Number of Non-Detects	0
Number of Detects	**6**
Participating Labs	**2**

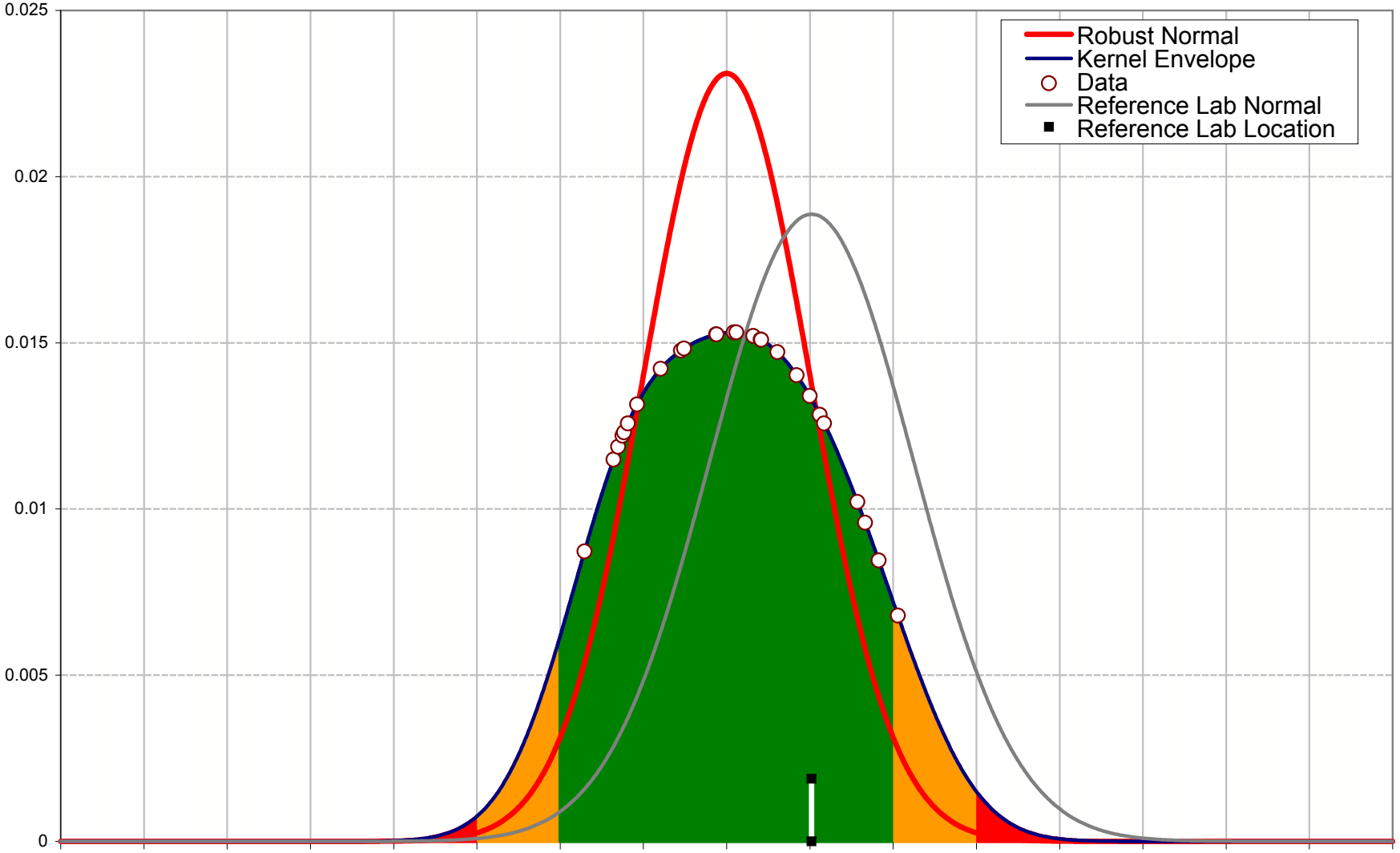
Unique LOD's at:

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

Ochratoxin A (ppb) Code: 630 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-59.65		-25.11		9.42		43.95		78.48		113.01		147.55		182.08		216.61

Methods Used 5

Assigned Value 78.482 (µg / kg (ppb))

Horwitz SD .27 (µg / kg (ppb))

Reference Lab 96.100 (µg / kg (ppb))

Horwitz SD .14 (µg / kg (ppb))

Kernel Bandwidth 2.95 (µg / kg (ppb))

Number of Non-Detects 0

Number of Detects 26

Participating Labs 12

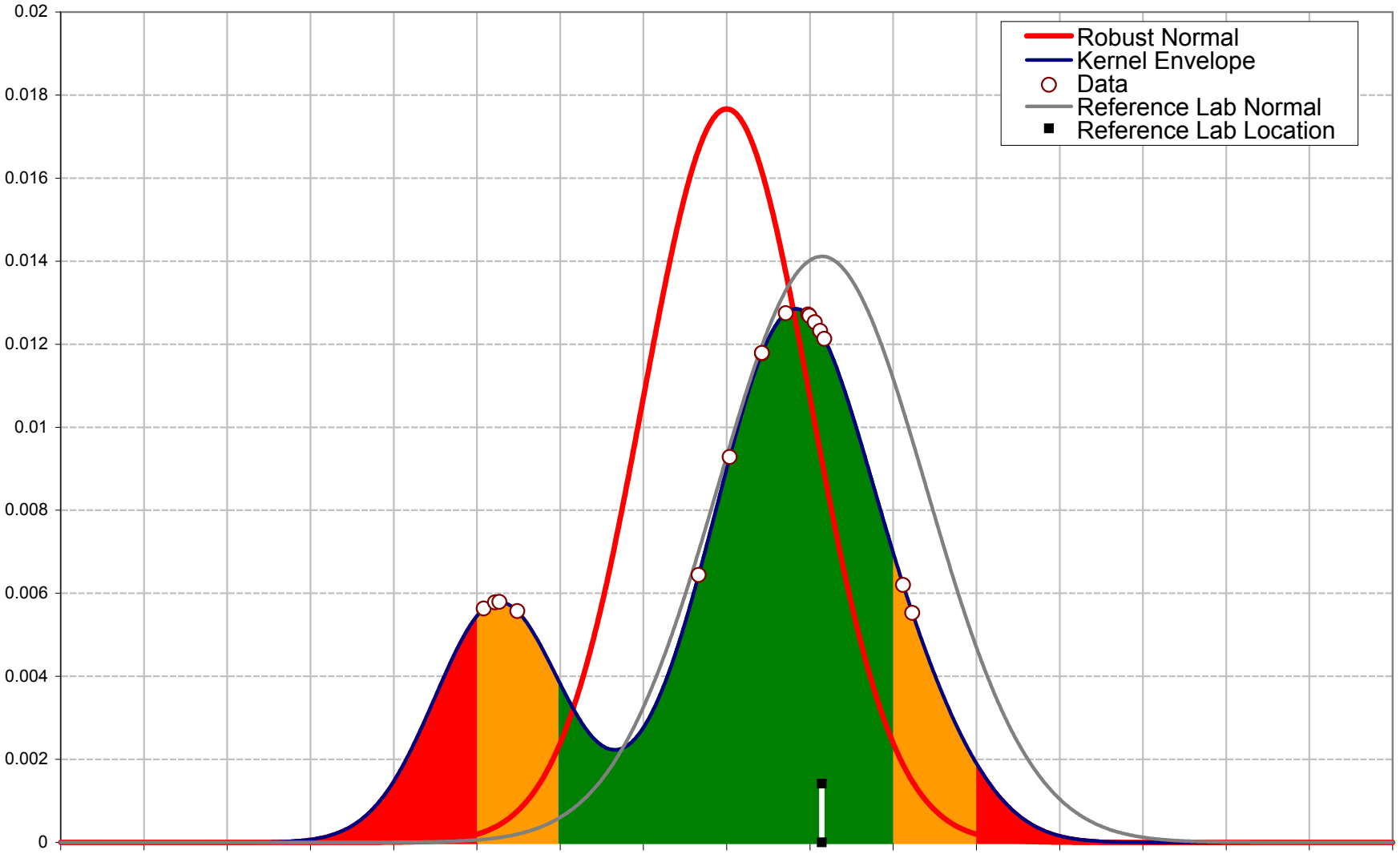
Unique LOD's at:

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

T-2 (ppb) Code: 640 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-69.34		-29.20		10.95		51.10		91.24		131.39		171.53		211.68		251.83

Methods Used 4

Assigned Value 91.241 (µg / kg (ppb))

Horwitz SD .07 (µg / kg (ppb))

Reference Lab 114.200 (µg / kg (ppb))

Horwitz SD .12 (µg / kg (ppb))

Kernel Bandwidth 5.05 (µg / kg (ppb))

Number of Non-Detects 0

Number of Detects 18

Participating Labs 8

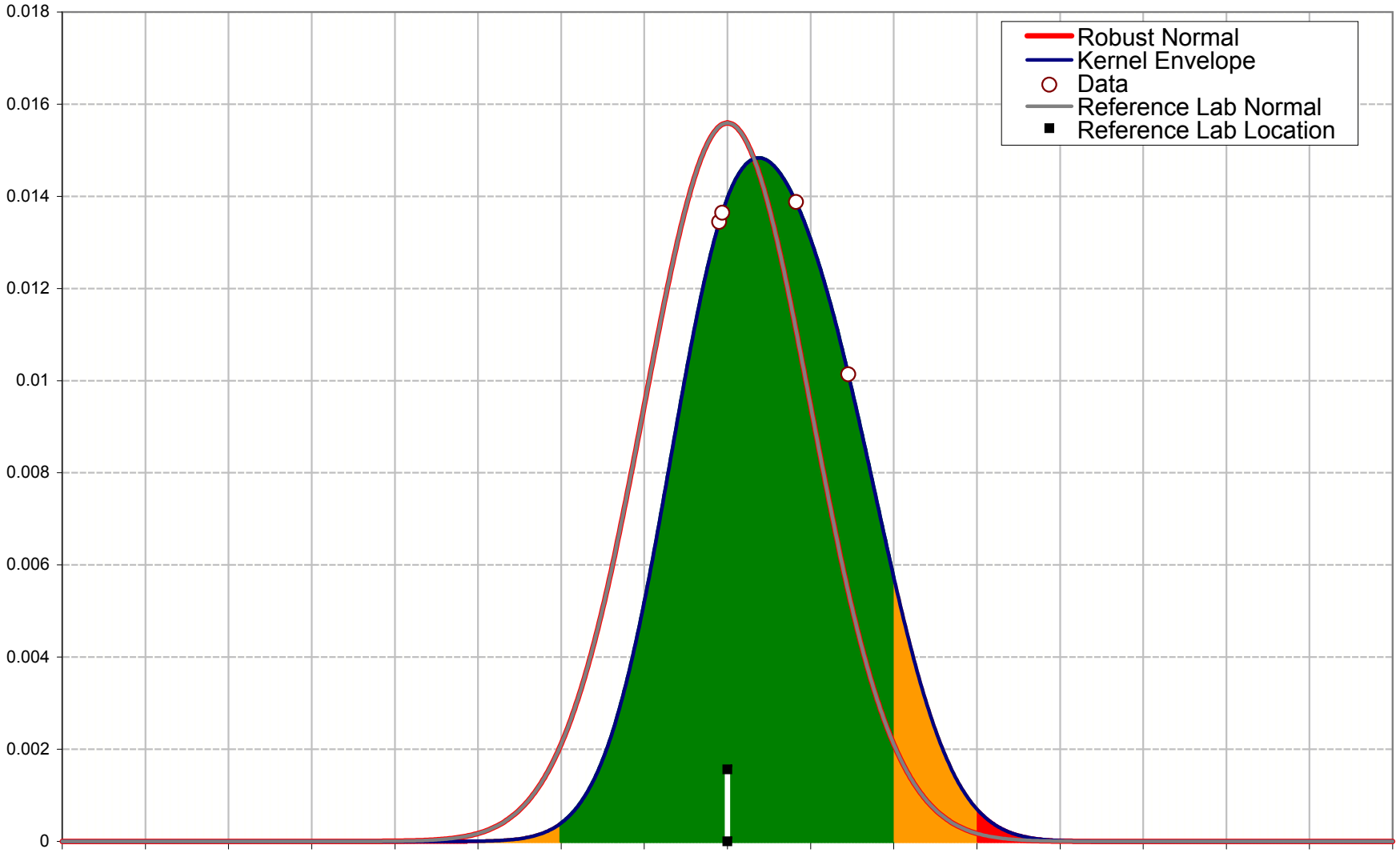
Unique LOD's at:

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

HT-2* (ppb) Code: 641 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-88.39		-37.22		13.96		65.13		116.30		167.47		218.64		269.82		320.99

Methods Used 2

Assigned Value 116.3 (µg / kg (ppb))

Horwitz SD .59 (µg / kg (ppb))

Kernel Bandwidth 9.19 (µg / kg (ppb))

Number of Non-Detects 0

Unique LOD's at:

Reference Lab 116.3 (µg / kg (ppb))

Horwitz SD .59 (µg / kg (ppb))

Number of Detects 4

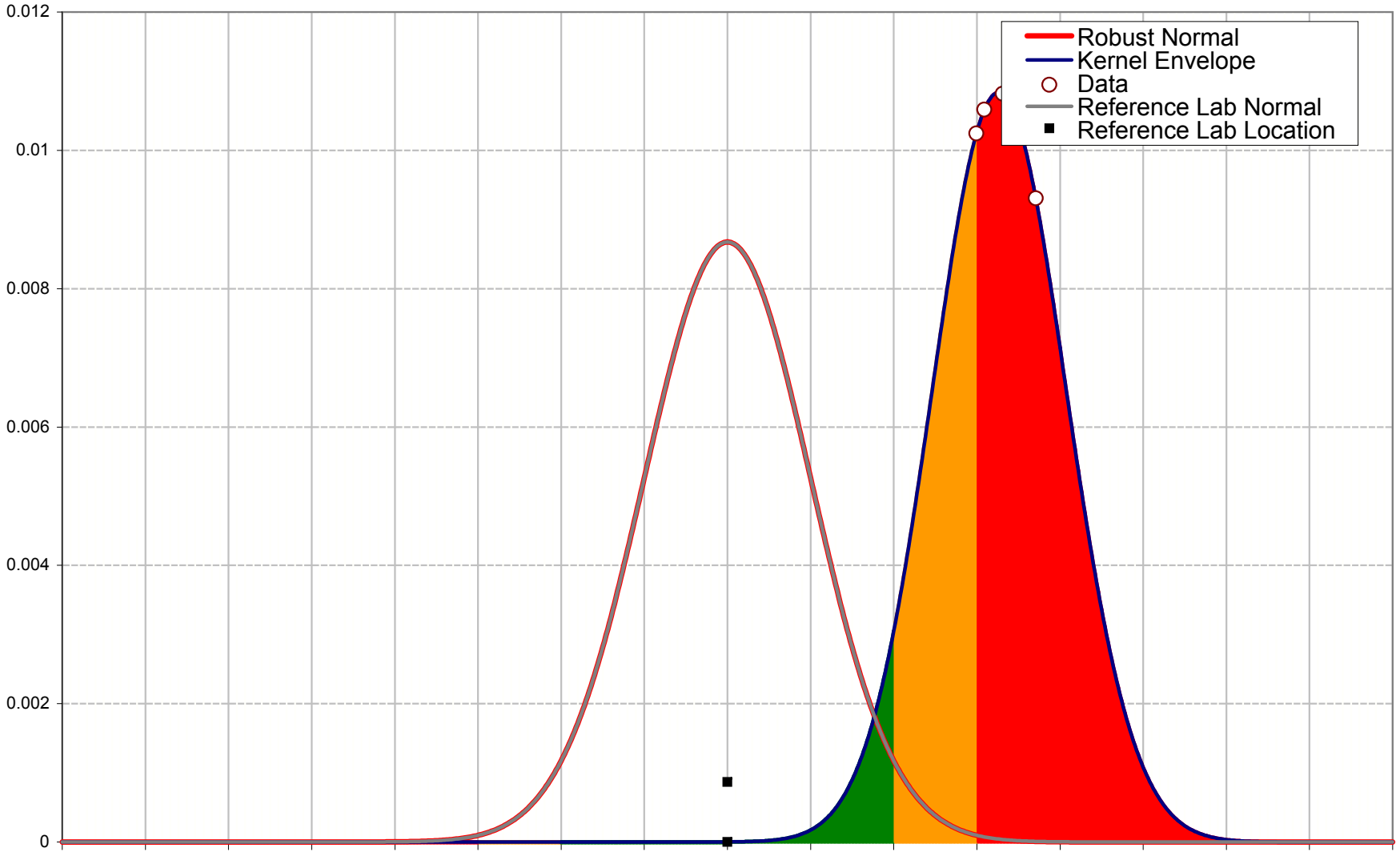
Participating Labs 1

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

T-2 + HT-2* (ppb) Code: 642 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-137.38		-45.41		46.56		138.53		230.50		322.47		414.44		506.41		598.38

Assigned Value 230.5 (µg / kg (ppb))

Horwitz SD .99 (µg / kg (ppb))

Reference Lab 230.5 (µg / kg (ppb))

Horwitz SD .99 (µg / kg (ppb))

# Methods Used	1
Kernel Bandwidth	4.49 (µg / kg (ppb))
Number of Non-Detects	0
Number of Detects	**4**
Participating Labs	**2**

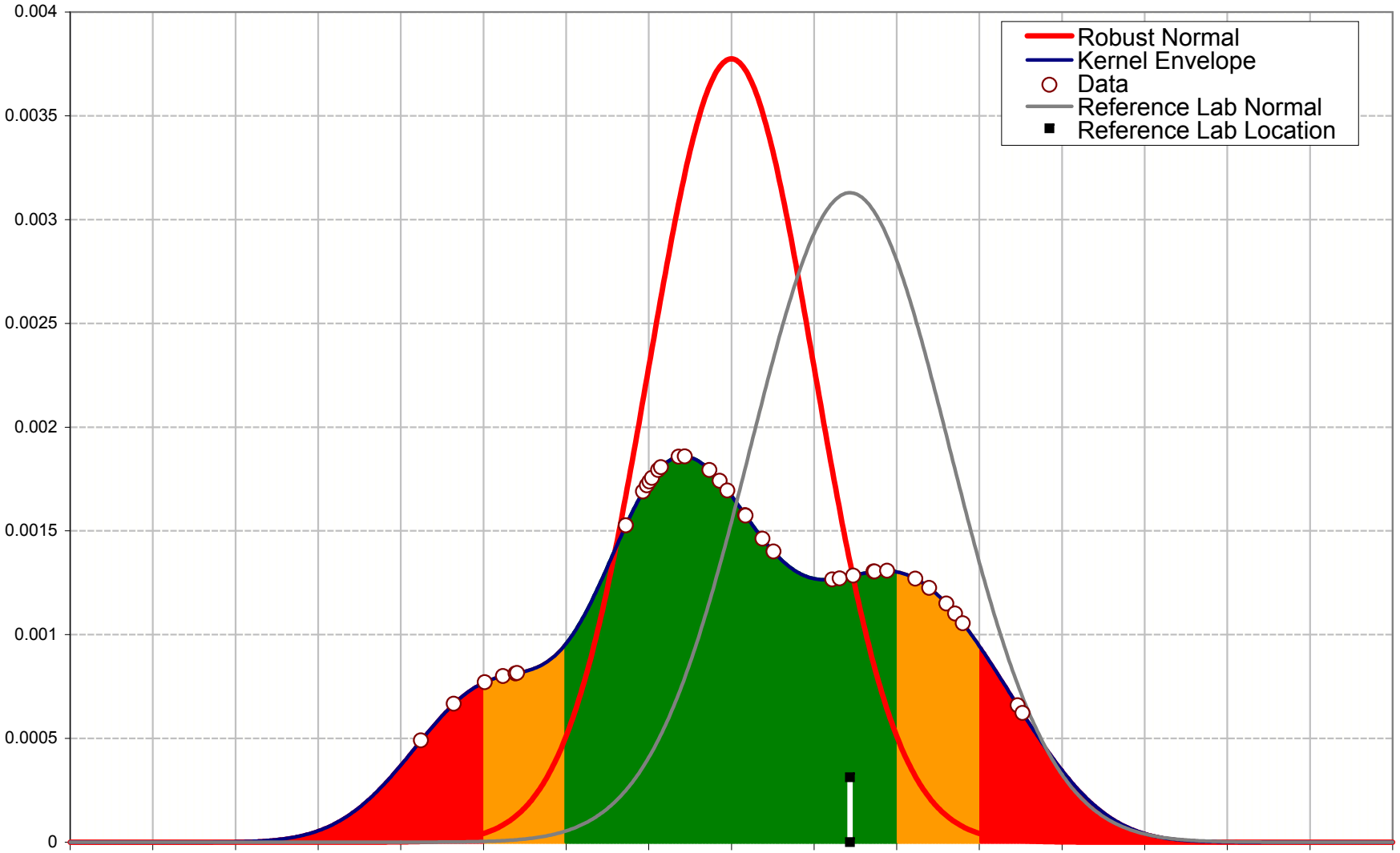
Unique LOD's at:

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.

Zearalenone (ppb) Code: 650 - In Sample # 201562, Poultry Feed

Kernel Density Envelope Detected Values Relative to Normal Horwitz Curve

Issue Date: 07/31/2015



Z	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	7	8
g (ppb)	-231.70		-20.30		191.10		402.50		613.90		825.30		1,036.70		1,248.10		1,459.50

Methods Used 5

Assigned Value 613.9 (µg / kg (ppb))

Horwitz SD .70 (µg / kg (ppb))

Reference Lab 765.5 (µg / kg (ppb))

Horwitz SD .48 (µg / kg (ppb))

Kernel Bandwidth 9.28 (µg / kg (ppb))

Number of Non-Detects 0

Number of Detects 36

Participating Labs 17

Unique LOD's at:

Note: Area Under the Kernel Envelope is Identical to Area Under Horwitz Normal Curve within the chart.