OCSPP 850.2300 Chronic Avian Reproduction **Smithers Viscient**

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Sample ID:	15-2178-5041	**Code:**	48994002	**Client:**	CDM Smith
Sample Date:	16 Aug-11	**Material:**	Chlorophacinone	**Project:**	Rodenticide
Receive Date:	05 Mar-12	**Source:**	Liphatech Milwaukee, WI (Liphatech)		
Sample Age:	NA	**Station:**			

Batch Note: 067707 48994002
Sample Note: 067707 48994002

Comparison Summary

Analysis ID	Endpoint	NOEL	LOEL	TOEL	PMSD	TU	Method
20-2632-7588	01 Eggs Laid per Pen	0.96	>0.96	NA	29.9%		Wilcoxon/Bonferroni Adj Test
02-0581-5622	02 Eggs Not Cracked per E	0.96	>0.96	NA	2.92%		Wilcoxon/Bonferroni Adj Test
04-3099-8379	03 Viable Embryos per ES	0.96	>0.96	NA	18.5%		Wilcoxon/Bonferroni Adj Test
08-1805-6013	04 Live Embryos per ES	0.96	>0.96	NA	15.3%		Wilcoxon/Bonferroni Adj Test
06-2747-9309	05 Hatchlings per ES	0.096	0.96	0.3036	22.6%		Dunnett Multiple Comparison Test
00-2642-8249	06 14d Hatchlings per ES	0.096	0.96	0.3036	21.5%		Dunnett Multiple Comparison Test
09-2792-9345	07 Live Embryos per VE	0.96	>0.96	NA	4.19%		Wilcoxon/Bonferroni Adj Test
04-4689-6716	08 Hatchlings per LE	0.96	>0.96	NA	17.2%		Wilcoxon/Bonferroni Adj Test
10-9730-8306	09 14d Hatchlings per NH	0.096	0.96	0.3036	2.05%		Wilcoxon/Bonferroni Adj Test
01-1211-0435	10 Eggshell Thickness	0.96	>0.96	NA	4.53%		Dunnett Multiple Comparison Test
10-1977-8768	11 Hatchling Weight	0.096	0.96	0.3036	4.42%		Dunnett Multiple Comparison Test
16-2338-5545	11 Hatchling Weight	0.096	0.96	0.3036	3.69%		Williams Multiple Comparison Test
09-9263-5393	12 14d Survivor Weight	0.046	0.096	0.06645	5.79%		Dunnett Multiple Comparison Test
05-0272-5407	12 14d Survivor Weight	0.046	0.096	0.06645	4.84%		Williams Multiple Comparison Test
09-7643-4759	13 Mean Food Consumptio	0.96	>0.96	NA	9.63%		Dunnett Multiple Comparison Test
09-5317-7719	14 Weight Gain MALE adult	0.96	>0.96	NA	154.0%		Dunnett Multiple Comparison Test
01-1444-2189	15 Weight Gain FEMALE a	0.96	>0.96	NA	55.9%		Dunnett Multiple Comparison Test

OCSPP 850.2300 Chronic Avian Reproduction **Smithers Viscient**

01 Eggs Laid per Pen Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	16	47.4	34.3	60.4	0	68	6.13	24.5	51.8%	0.0%
0.046		16	61.3	56.4	66.2	36	70	2.28	9.13	14.9%	-29.4%
0.096		16	63.3	58.8	67.7	42	70	2.09	8.36	13.2%	-33.5%
0.96		16	29.6	16.5	42.6	0	64	6.12	24.5	82.8%	37.6%

03 Viable Embryos per ES Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	14	0.926	0.839	1	0.41	1	0.0403	0.151	16.3%	0.0%
0.046		16	0.889	0.759	1	0	1	0.0607	0.243	27.3%	3.99%
0.096		16	0.912	0.84	0.984	0.488	1	0.0339	0.135	14.9%	1.47%
0.96		12	0.835	0.676	0.995	0.136	1	0.0725	0.251	30.1%	9.77%

04 Live Embryos per ES Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	14	0.903	0.818	0.989	0.41	1	0.0395	0.148	16.3%	0.0%
0.046		15	0.936	0.903	0.969	0.759	1	0.0155	0.06	6.41%	-3.62%
0.096		16	0.894	0.821	0.966	0.465	1	0.0341	0.136	15.2%	1.1%
0.96		12	0.818	0.651	0.985	0.0909	1	0.0759	0.263	32.2%	9.5%

05 Hatchlings per ES Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	14	0.76	0.646	0.873	0.295	1	0.0523	0.196	25.8%	0.0%
0.046		15	0.82	0.75	0.89	0.609	0.955	0.0326	0.126	15.4%	-7.94%
0.096		16	0.802	0.71	0.894	0.326	1	0.0432	0.173	21.5%	-5.53%
0.96		12	0.544	0.343	0.745	0	0.932	0.0912	0.316	58.1%	28.4%

06 14d Hatchlings per ES Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	14	0.756	0.644	0.867	0.295	1	0.0516	0.193	25.5%	0.0%
0.046		15	0.812	0.741	0.882	0.578	0.939	0.033	0.128	15.7%	-7.42%
0.096		16	0.795	0.703	0.886	0.326	1	0.0429	0.172	21.6%	-5.16%
0.96		11	0.571	0.387	0.754	0.0909	0.915	0.0822	0.273	47.8%	24.5%

07 Live Embryos per VE Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	14	0.977	0.958	0.996	0.893	1	0.00896	0.0335	3.43%	0.0%
0.046		15	0.987	0.98	0.994	0.953	1	0.00336	0.013	1.32%	-1.05%
0.096		16	0.979	0.967	0.991	0.948	1	0.00547	0.0219	2.23%	-0.2%
0.96		12	0.955	0.896	1	0.667	1	0.027	0.0934	9.77%	2.24%

08 Hatchlings per LE Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	14	0.832	0.756	0.909	0.52	1	0.0354	0.133	15.9%	0.0%
0.046		15	0.874	0.813	0.936	0.673	1	0.0289	0.112	12.8%	-5.07%
0.096		16	0.89	0.835	0.944	0.672	1	0.0256	0.102	11.5%	-6.9%
0.96		12	0.683	0.501	0.865	0	1	0.0827	0.286	41.9%	17.9%

09 14d Hatchlings per NH Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	14	0.996	0.989	1	0.959	1	0.00313	0.0117	1.17%	0.0%
0.046		15	0.99	0.981	0.998	0.949	1	0.00397	0.0154	1.55%	0.61%
0.096		16	0.991	0.985	0.998	0.971	1	0.00297	0.0119	1.2%	0.43%
0.96		11	0.959	0.928	0.989	0.867	1	0.0137	0.0455	4.74%	3.7%

10 Eggshell Thickness Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	13	0.361	0.35	0.372	0.34	0.39	0.005	0.018	4.99%	0.0%
0.046		16	0.356	0.345	0.368	0.33	0.4	0.00539	0.0216	6.05%	1.25%
0.096		16	0.362	0.352	0.371	0.34	0.4	0.0044	0.0176	4.86%	-0.31%
0.96		11	0.358	0.346	0.37	0.32	0.39	0.00536	0.0178	4.97%	0.72%

11 Hatchling Weight Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	14	35.6	34.2	37	30	38	0.644	2.41	6.77%	0.0%
0.046		15	34.2	33.4	35	32	37	0.368	1.42	4.16%	3.86%
0.096		16	34.9	33.8	36	32	38	0.512	2.05	5.86%	1.78%
0.96		11	33.6	32.9	34.3	32	35	0.31	1.03	3.05%	5.44%

12 14d Survivor Weight Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	14	299	283	314	254	341	7.29	27.3	9.13%	0.0%
0.046		15	287	277	296	262	312	4.35	16.8	5.88%	4.03%
0.096		16	281	270	291	246	317	5.01	20	7.14%	5.99%
0.96		11	271	262	280	248	294	4.03	13.4	4.93%	9.16%

13 Mean Food Consumption (Adult) Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	16	89.2	83.2	95.1	64	104	2.8	11.2	12.5%	0.0%
0.046		16	94.2	87.7	101	77	116	3.06	12.2	13.0%	-5.61%
0.096		16	88.6	83.9	93.2	69	101	2.16	8.66	9.77%	0.7%
0.96		16	82.9	75.7	90.2	58	101	3.39	13.5	16.3%	7.01%

14 Weight Gain MALE adult Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	16	65	14.7	115	-95.5	270	23.6	94.4	145.0%	0.0%
0.046		16	17.3	-36.9	71.5	-217	185	25.4	102	588.0%	73.4%
0.096		16	-7.93	-52.3	36.5	-189	127	20.8	83.3	-1050.0%	112.0%
0.96		6	90.4	-50.9	232	-64.1	221	55	135	149.0%	-39.1%

15 Weight Gain FEMALE adult Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Min	Max	Std Err	Std Dev	CV%	%Effect
0	Negative Control	16	163	102	223	-46.8	359	28.5	114	70.2%	0.0%
0.046		16	125	98.1	152	44.5	204	12.6	50.4	40.3%	23.1%
0.096		16	177	127	227	20.4	320	23.5	94.2	53.3%	-8.75%
0.96		6	107	24	190	-24.1	212	32.4	79.3	73.9%	34.0%

OCSPP 850.2300 Chronic Avian Reproduction **Smithers Viscient**

01 Eggs Laid per Pen Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	62	0	63	63	44	62	45	1	59	68
		0	66	61	54	65	45				
0.046		60	66	48	65	70	70	68	63	69	36
		55	61	57	69	59	65				
0.096		69	70	70	49	64	61	42	70	68	59
		69	60	67	68	70	56				
0.96		26	10	0	40	0	52	64	54	49	3
		64	26	36	0	49	0				

03 Viable Embryos per ES Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	0.982	0.982	0.948	0.895	0.964	0.95	1	1	0.968	0.41
		0.964	0.96	0.983	0.952						
0.046		0	0.983	0.909	0.983	0.985	0.891	0.984	1	0.968	0.905
		0.92	1	0.944	0.969	0.796	0.982				
0.096		0.969	0.969	1	0.488	0.983	0.691	0.947	0.985	0.903	0.982
		0.938	0.906	1	0.984	0.891	0.958				
0.96		1	0.875	0.944	0.918	0.966	0.714	0.136	1	0.983	0.913
		0.969	0.605								

04 Live Embryos per ES Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	0.965	0.877	0.948	0.895	0.945	0.925	1	1	0.968	0.41
		0.911	0.94	0.983	0.881						
0.046			0.967	0.909	0.967	0.985	0.891	0.984	1	0.952	0.905
		0.9	0.981	0.926	0.953	0.759	0.964				
0.096		0.953	0.969	1	0.465	0.932	0.691	0.947	0.938	0.903	0.964
		0.891	0.887	1	0.984	0.855	0.917				
0.96		1	0.875	0.917	0.918	0.966	0.673	0.0909	1	0.983	0.87
		0.938	0.581								

05 Hatchlings per ES Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	0.93	0.456	0.897	0.789	0.745	0.85	1	0.907	0.905	0.295
		0.696	0.8	0.767	0.595						
0.046			0.933	0.864	0.933	0.955	0.609	0.934	0.914	0.714	0.667
		0.74	0.66	0.926	0.906	0.667	0.875				
0.096		0.859	0.969	1	0.326	0.847	0.618	0.947	0.631	0.823	0.839
		0.828	0.717	1	0.797	0.727	0.896				
0.96		0.87	0.5	0.778	0.51	0.914	0.265	0.0909	0	0.932	0.696
		0.625	0.349								

06 14d Hatchlings per ES Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	0.93	0.456	0.879	0.789	0.745	0.85	1	0.87	0.905	0.295
		0.696	0.8	0.767	0.595						
0.046			0.933	0.841	0.917	0.939	0.578	0.918	0.914	0.714	0.667
		0.72	0.66	0.926	0.906	0.667	0.875				
0.096		0.844	0.969	0.985	0.326	0.847	0.6	0.921	0.631	0.823	0.839
		0.828	0.698	1	0.781	0.727	0.896				
0.96		0.826	0.5	0.75	0.51	0.879	0.245	0.0909		0.915	0.696
		0.563	0.302								

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07 Live Embryos per VE Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	0.982	0.893	1	1	0.981	0.974	1	1	1	1
		0.944	0.979	1	0.925						
0.046		0.983	1	0.983	1	1	1	1	0.984	1	0.978
		0.981	0.98	0.984	0.953	0.982					
0.096		0.984	1	1	0.952	0.948	1	1	0.953	1	0.982
		0.95	0.979	1	1	0.959	0.957				
0.96		1	1	0.971	1	1	0.943	0.667	1	1	0.952
		0.968	0.962								

08 Hatchlings per LE Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	0.964	0.52	0.945	0.882	0.788	0.919	1	0.907	0.934	0.72
		0.765	0.851	0.78	0.676						
0.046		0.966	0.95	0.966	0.969	0.684	0.95	0.914	0.75	0.737	0.822
		0.673	1	0.951	0.878	0.907					
0.096		0.902	1	1	0.7	0.909	0.895	1	0.672	0.911	0.87
		0.93	0.809	1	0.81	0.851	0.977				
0.96		0.87	0.571	0.848	0.556	0.946	0.394	1	0	0.948	0.8
		0.667	0.6								

09 14d Hatchlings per NH Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	1	1	0.981	1	1	1	1	0.959	1	1
		1	1	1	1						
0.046		1	0.974	0.982	0.984	0.949	0.982	1	1	1	0.973
		1	1	1	1	1					
0.096		0.982	1	0.985	1	1	0.971	0.972	1	1	1
		1	0.974	1	0.98	1	1				
0.96		0.95	1	0.964	1	0.962	0.923	1	0.982	1	0.9
		0.867									

10 Eggshell Thickness Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	0.37		0.34	0.35	0.37	0.35	0.34		0.35	0.39
			0.36	0.34	0.39	0.36	0.38				
0.046		0.34	0.34	0.4	0.33	0.37	0.34	0.33	0.35	0.37	0.34
		0.38	0.37	0.37	0.38	0.33	0.36				
0.096		0.34	0.36	0.37	0.38	0.35	0.36	0.4	0.38	0.35	0.35
		0.36	0.39	0.35	0.34	0.36	0.35				
0.96		0.36	0.36		0.32		0.36	0.36	0.36	0.37	
		0.35	0.34	0.37		0.39					

11 Hatchling Weight Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	36		37	30	33	38	37	34	34	38
			37	37	36	33	38				
0.046			33	36	32	34	35	35	33	33	34
		35	33	34	33	37	36				
0.096		33	36	34	38	35	35	38	35	34	32
		32	38	36	36	35	32				
0.96		32	32		33		33	34	34	34	
		34	34	35		35					

12 14d Survivor Weight Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	310		329	291	281	296	341	256	254	338
			311	313	301	276	284				
0.046			312	279	262	268	283	286	294	269	278
		299	312	299	303	262	293				
0.096		281	306	266	283	294	317	250	305	272	246
		265	284	289	284	290	260				
0.96		268	288		279		294	266	271	279	
		248	262	272		257					

13 Mean Food Consumption (Adult) Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	93	86	99	84	90	92	97	70	95	75
		64	104	95	87	100	96				
0.046		80	77	87	90	105	100	84	110	79	98
		111	89	86	92	116	103				
0.096		85	97	93	93	85	96	78	87	88	69
		96	101	78	95	94	82				
0.96		72	71	58	94	80	95	101	101	96	68
		93	78	76	81	95	68				

14 Weight Gain MALE adult Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	48.1	270	-9.6	17.8	-32.8	85.6	210	-95.5	-52.3	65.4
		87.8	96.3	150	12.1	95.1	92.8				
0.046		62.8	185	-71.8	86.1	32.3	2.7	-102	57.1	-64.6	81
		80.6	-217	-72.2	103	-6.7	121				
0.096		116	-29	-139	33.2	-50.5	127	-26.6	-189	0.2	27.7
		-79.5	2.2	44.3	66.4	11.9	-42.2				
0.96							10.9	199		-37.8	
				221		-64.1	213				

15 Weight Gain FEMALE adult Detail

C-mg/kg diet	Control Type	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Rep 6	Rep 7	Rep 8	Rep 9	Rep 10
0	Negative Control	184	110	36.8	321	359	213	120	282	47.8	269
		248	149	86.1	172	-46.8	51.5				
0.046		64.7	186	107	204	80.7	160	164	73.3	140	104
		62.3	166	44.5	187	117	140				
0.096		20.4	79.4	121	223	315	218	193	172	109	275
		76.7	320	164	252	45.2	247				
0.96		-24.1			88	85.9			133		
			212	149							

OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	20-2632-7588	**Endpoint:**	01 Eggs Laid per Pen	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Nonparametric-Multiple Comparison	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	29.9%	0.96	>0.96	NA	

Wilcoxon/Bonferroni Adj Test

Control	vs	C-mg/kg diet	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		0.046	-1.98	1.64	6	30	1.0000	Asymp	Non-Significant Effect
		0.096	-2.55	1.64	3	30	1.0000	Asymp	Non-Significant Effect
		0.96	2.08	1.64	2	30	0.0563	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	11640.88	3880.292	3	11.5	<0.0001	Significant Effect
Error	20312.13	338.5354	60			
Total	31953		63			

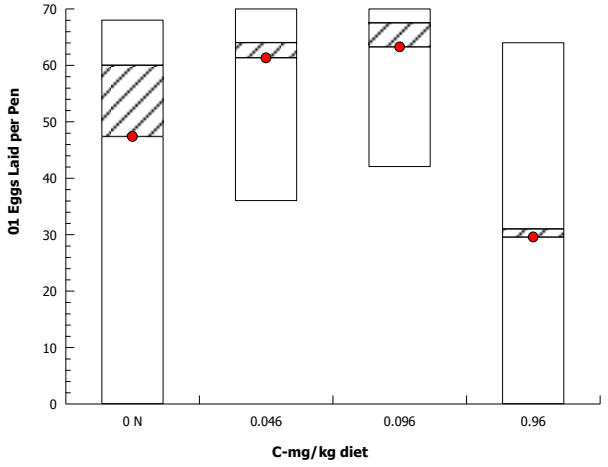
Distributional Tests

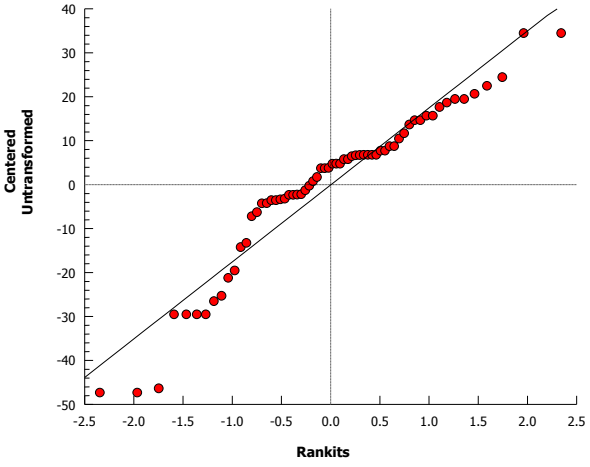
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	26.8	11.3	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.927	0.949	0.0010	Non-normal Distribution

01 Eggs Laid per Pen Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	16	47.4	34.3	60.4	60	0	68	6.13	51.8%	0.0%
0.046		16	61.3	56.4	66.2	64	36	70	2.28	14.9%	-29.4%
0.096		16	63.3	58.8	67.7	67.5	42	70	2.09	13.2%	-33.5%
0.96		16	29.6	16.5	42.6	31	0	64	6.12	82.8%	37.6%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	02-0581-5622	**Endpoint:**	02 Eggs Not Cracked per EL	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Nonparametric-Multiple Comparison	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	2.92%	0.96	>0.96	NA	

Wilcoxon/Bonferroni Adj Test

Control vs	C-mg/kg diet	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Negative Control	0.046	1.15	1.64	1	28	0.3730	Asymp	Non-Significant Effect
	0.096	1.63	1.64	1	28	0.1531	Asymp	Non-Significant Effect
	0.96	0.955	1.64	1	24	0.5096	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.002559536	0.0008531787	3	0.742	0.5318	Non-Significant Effect
Error	0.06210543	0.001150101	54			
Total	0.06466497		57			

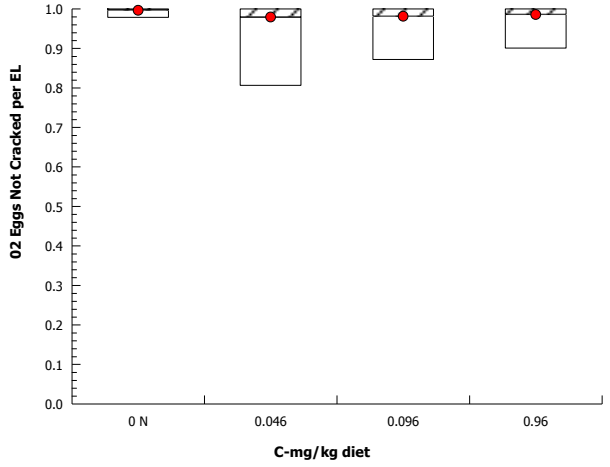
Distributional Tests

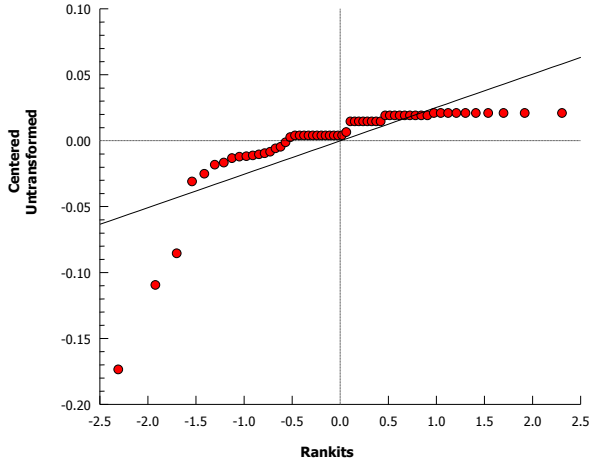
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	30.6	11.3	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.586	0.944	<0.0001	Non-normal Distribution

02 Eggs Not Cracked per EL Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	0.996	0.992	1	1	0.978	1	0.00207	0.78%	0.0%
0.046		16	0.979	0.953	1	1	0.806	1	0.0121	4.96%	1.71%
0.096		16	0.981	0.963	0.999	1	0.871	1	0.00832	3.39%	1.52%
0.96		12	0.986	0.967	1	1	0.9	1	0.0084	2.95%	1.07%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	04-3099-8379	**Endpoint:**	03 Viable Embryos per ES	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Nonparametric-Multiple Comparison	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	18.5%	0.96	>0.96	NA	

Wilcoxon/Bonferroni Adj Test

Control	vs	C-mg/kg diet	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		0.046	0.0833	1.64	4	28	1.0000	Asymp	Non-Significant Effect
		0.096	0.312	1.64	2	28	1.0000	Asymp	Non-Significant Effect
		0.96	1.06	1.64	2	24	0.4366	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.06107045	0.02035682	3	0.511	0.6762	Non-Significant Effect
Error	2.1501	0.03981667	54			
Total	2.211171		57			

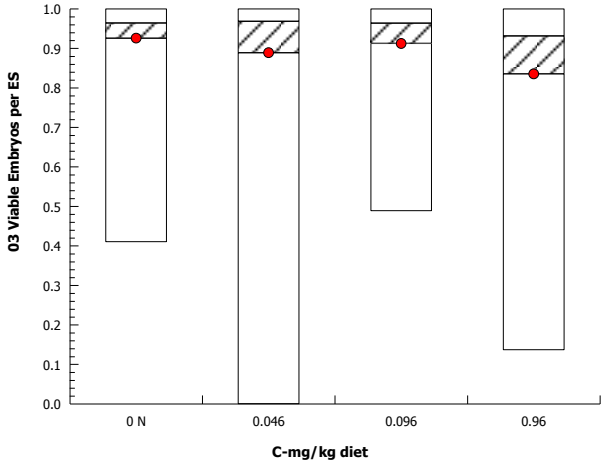
Distributional Tests

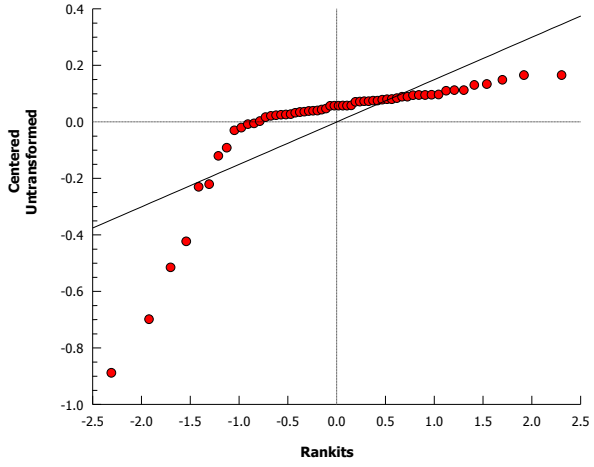
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	7.69	11.3	0.0529	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.591	0.944	<0.0001	Non-normal Distribution

03 Viable Embryos per ES Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	0.926	0.839	1	0.964	0.41	1	0.0403	16.3%	0.0%
0.046		16	0.889	0.759	1	0.969	0	1	0.0607	27.3%	3.99%
0.096		16	0.912	0.84	0.984	0.964	0.488	1	0.0339	14.9%	1.47%
0.96		12	0.835	0.676	0.995	0.931	0.136	1	0.0725	30.1%	9.77%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	08-1805-6013	**Endpoint:**	04 Live Embryos per ES	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Nonparametric-Multiple Comparison	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	15.3%	0.96	>0.96	NA	

Wilcoxon/Bonferroni Adj Test

Control	vs	C-mg/kg diet	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		0.046	-0.546	1.64	2	27	1.0000	Asymp	Non-Significant Effect
		0.096	0.27	1.64	2	28	1.0000	Asymp	Non-Significant Effect
		0.96	0.85	1.64	2	24	0.5931	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0974833	0.03249443	3	1.25	0.2995	Non-Significant Effect
Error	1.373105	0.02590764	53			
Total	1.470588		56			

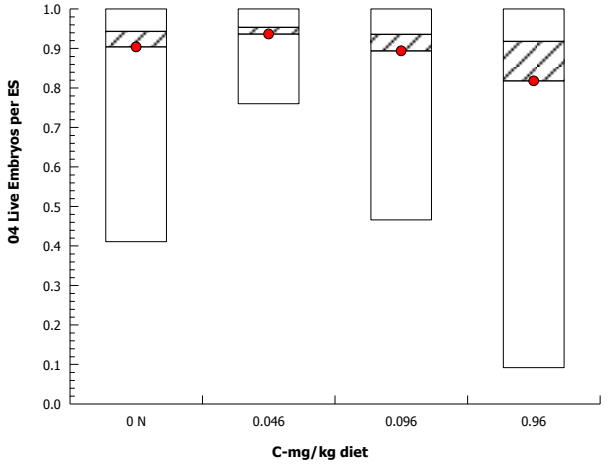
Distributional Tests

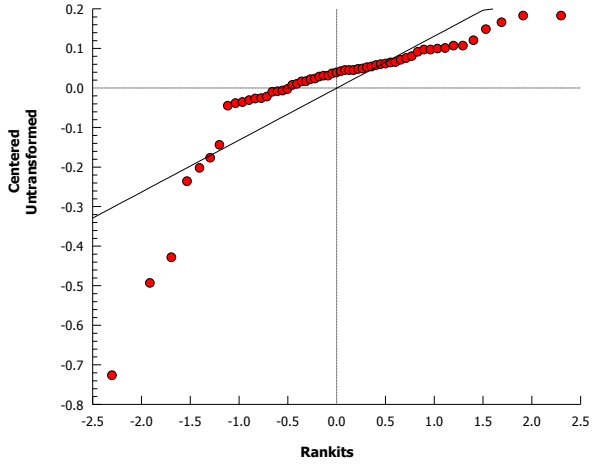
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	23.3	11.3	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.697	0.943	<0.0001	Non-normal Distribution

04 Live Embryos per ES Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	0.903	0.818	0.989	0.943	0.41	1	0.0395	16.3%	0.0%
0.046		15	0.936	0.903	0.969	0.953	0.759	1	0.0155	6.41%	-3.62%
0.096		16	0.894	0.821	0.966	0.935	0.465	1	0.0341	15.2%	1.1%
0.96		12	0.818	0.651	0.985	0.918	0.0909	1	0.0759	32.2%	9.5%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	06-2747-9309	**Endpoint:**	05 Hatchlings per ES	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	22.6%	0.096	0.96	0.3036	

Dunnett Multiple Comparison Test

Control vs	C-mg/kg diet	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control	0.046	-0.785	2.11	0.162	27	0.9411	CDF	Non-Significant Effect
	0.096	-0.555	2.11	0.16	28	0.9039	CDF	Non-Significant Effect
	0.96*	2.65	2.11	0.172	24	0.0143	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.6218251	0.207275	3	4.85	0.0047	Significant Effect
Error	2.266611	0.04276625	53			
Total	2.888436		56			

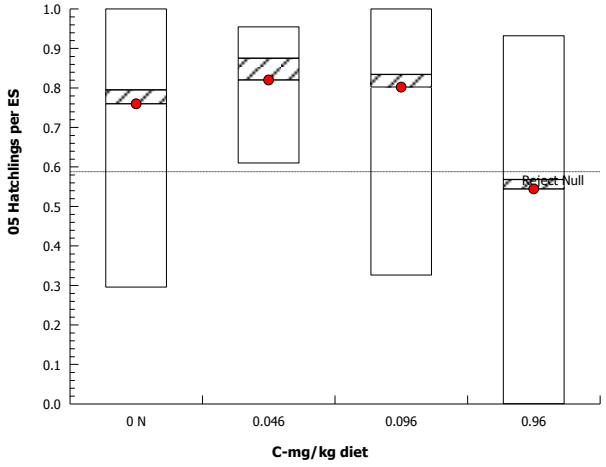
Distributional Tests

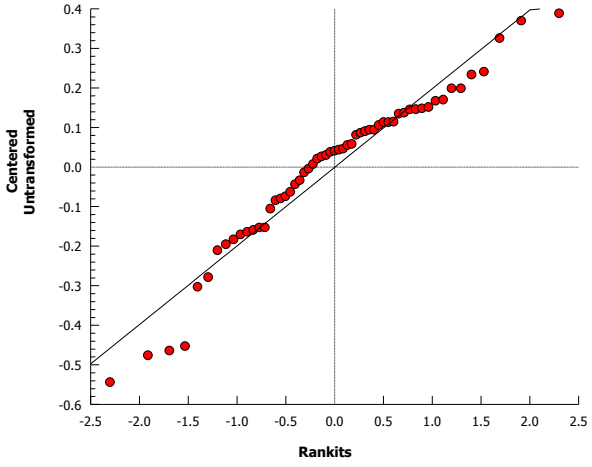
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	11	11.3	0.0120	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.948	0.943	0.0165	Normal Distribution

05 Hatchlings per ES Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	0.76	0.646	0.873	0.795	0.295	1	0.0523	25.8%	0.0%
0.046		15	0.82	0.75	0.89	0.875	0.609	0.955	0.0326	15.4%	-7.94%
0.096		16	0.802	0.71	0.894	0.834	0.326	1	0.0432	21.5%	-5.53%
0.96		12	0.544	0.343	0.745	0.568	0	0.932	0.0912	58.1%	28.4%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	00-2642-8249	**Endpoint:**	06 14d Hatchlings per ES	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	21.5%	0.096	0.96	0.3036	

Dunnett Multiple Comparison Test

Control vs	C-mg/kg diet	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control	0.046	-0.79	2.11	0.15	27	0.9428	CDF	Non-Significant Effect
	0.096	-0.558	2.11	0.148	28	0.9058	CDF	Non-Significant Effect
	0.96*	2.4	2.11	0.163	23	0.0261	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.4421183	0.1473728	3	4.04	0.0118	Significant Effect
Error	1.898879	0.03651689	52			
Total	2.340997		55			

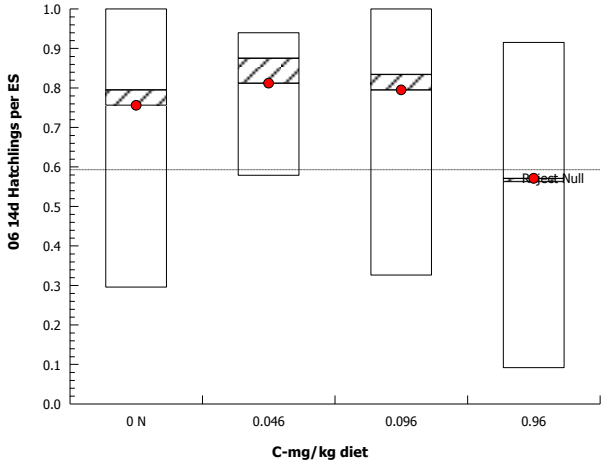
Distributional Tests

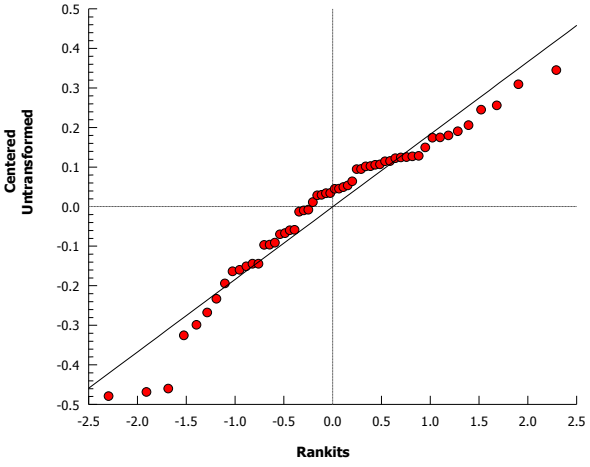
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	6.9	11.3	0.0753	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.945	0.943	0.0125	Normal Distribution

06 14d Hatchlings per ES Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	0.756	0.644	0.867	0.795	0.295	1	0.0516	25.5%	0.0%
0.046		15	0.812	0.741	0.882	0.875	0.578	0.939	0.033	15.7%	-7.42%
0.096		16	0.795	0.703	0.886	0.834	0.326	1	0.0429	21.6%	-5.16%
0.96		11	0.571	0.387	0.754	0.563	0.0909	0.915	0.0822	47.8%	24.5%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	09-2792-9345	**Endpoint:**	07 Live Embryos per VE	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Nonparametric-Multiple Comparison	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	4.19%	0.96	>0.96	NA	

Wilcoxon/Bonferroni Adj Test

Control	vs	C-mg/kg diet	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		0.046	-0.457	1.64	2	27	1.0000	Asymp	Non-Significant Effect
		0.096	0.11	1.64	2	28	1.0000	Asymp	Non-Significant Effect
		0.96	0.357	1.64	1	24	1.0000	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.007269179	0.00242306	3	1.07	0.3698	Non-Significant Effect
Error	0.120044	0.002264981	53			
Total	0.1273132		56			

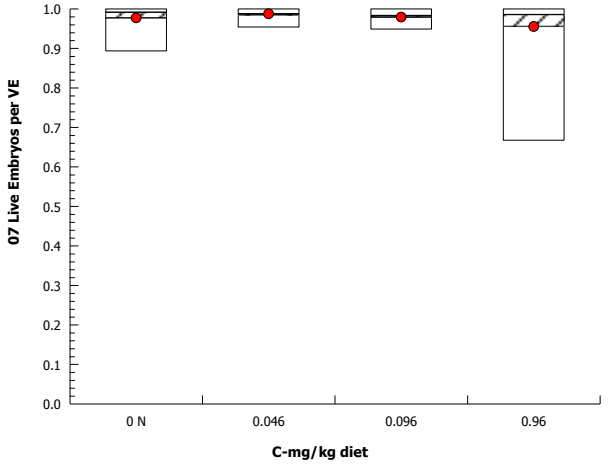
Distributional Tests

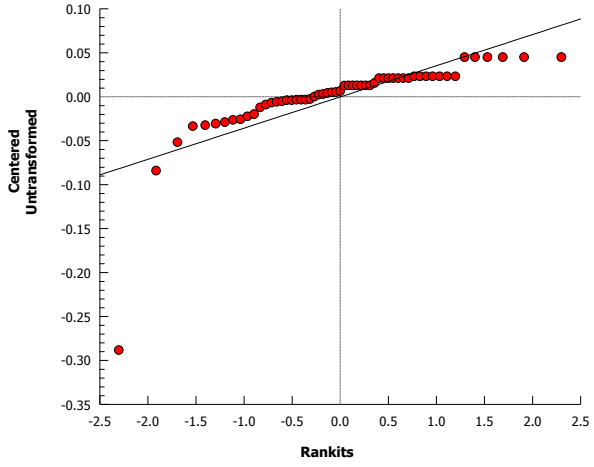
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	52.3	11.3	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.592	0.943	<0.0001	Non-normal Distribution

07 Live Embryos per VE Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	0.977	0.958	0.996	0.991	0.893	1	0.00896	3.43%	0.0%
0.046		15	0.987	0.98	0.994	0.984	0.953	1	0.00336	1.32%	-1.05%
0.096		16	0.979	0.967	0.991	0.983	0.948	1	0.00547	2.23%	-0.2%
0.96		12	0.955	0.896	1	0.985	0.667	1	0.027	9.77%	2.24%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	04-4689-6716	**Endpoint:**	08 Hatchlings per LE	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Nonparametric-Multiple Comparison	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	17.2%	0.96	>0.96	NA	

Wilcoxon/Bonferroni Adj Test

Control	vs	C-mg/kg diet	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		0.046	-1.03	1.64	2	27	1.0000	Asymp	Non-Significant Effect
		0.096	-1.17	1.64	2	28	1.0000	Asymp	Non-Significant Effect
		0.96	1.18	1.64	1	24	0.3551	Asymp	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.3445244	0.1148415	3	4.16	0.0102	Significant Effect
Error	1.462827	0.02760051	53			
Total	1.807351		56			

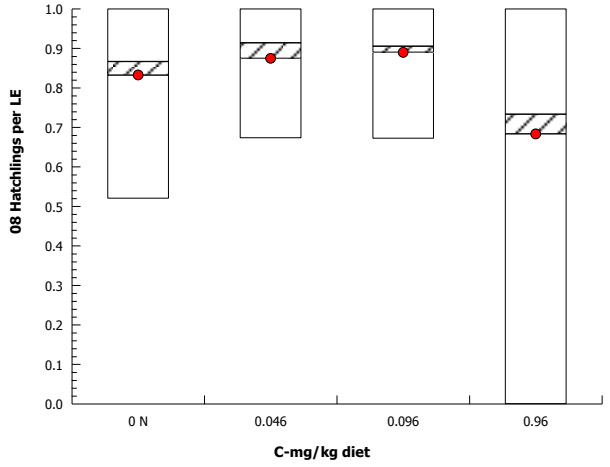
Distributional Tests

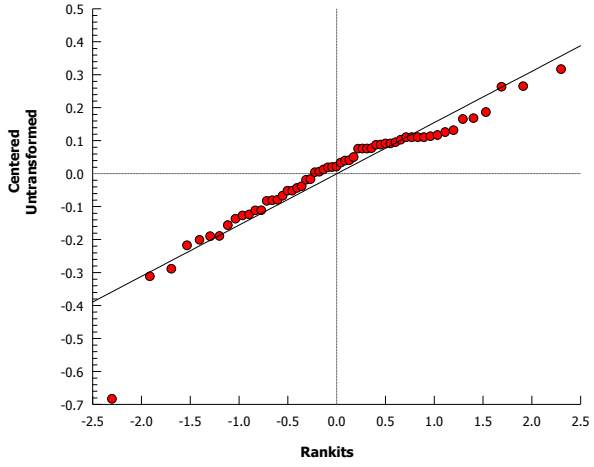
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	18.9	11.3	0.0003	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.912	0.943	0.0005	Non-normal Distribution

08 Hatchlings per LE Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	0.832	0.756	0.909	0.867	0.52	1	0.0354	15.9%	0.0%
0.046		15	0.874	0.813	0.936	0.914	0.673	1	0.0289	12.8%	-5.07%
0.096		16	0.89	0.835	0.944	0.905	0.672	1	0.0256	11.5%	-6.9%
0.96		12	0.683	0.501	0.865	0.733	0	1	0.0827	41.9%	17.9%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	10-9730-8306	**Endpoint:**	09 14d Hatchlings per NH	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Nonparametric-Multiple Comparison	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	2.05%	0.096	0.96	0.3036	

Wilcoxon/Bonferroni Adj Test

Control	vs	C-mg/kg diet	Test Stat	Critical	Ties	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		0.046	1.36	1.64	1	27	0.2621	Asymp	Non-Significant Effect
		0.096	1.25	1.64	1	28	0.3143	Asymp	Non-Significant Effect
		0.96*	102	NA	1	23	0.0083	Exact	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.01005144	0.00335048	3	6.25	0.0010	Significant Effect
Error	0.02786383	0.0005358428	52			
Total	0.03791527		55			

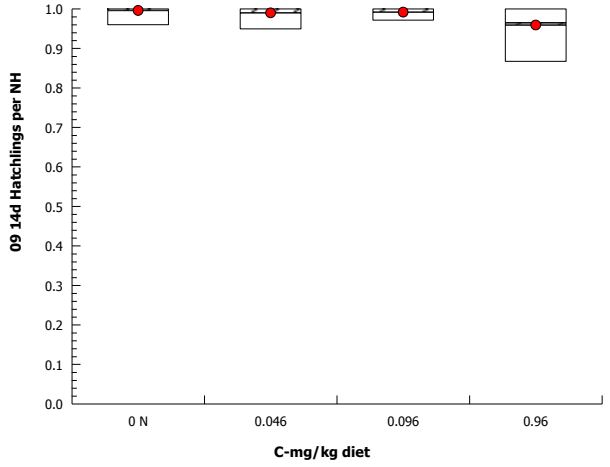
Distributional Tests

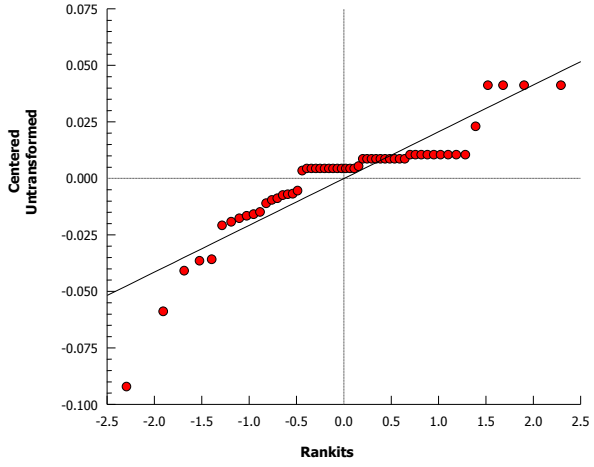
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	34.6	11.3	<0.0001	Unequal Variances
Distribution	Shapiro-Wilk W Normality	0.833	0.943	<0.0001	Non-normal Distribution

09 14d Hatchlings per NH Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	0.996	0.989	1	1	0.959	1	0.00313	1.17%	0.0%
0.046		15	0.99	0.981	0.998	1	0.949	1	0.00397	1.55%	0.61%
0.096		16	0.991	0.985	0.998	1	0.971	1	0.00297	1.2%	0.43%
0.96		11	0.959	0.928	0.989	0.964	0.867	1	0.0137	4.74%	3.7%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	01-1211-0435	**Endpoint:**	10 Eggshell Thickness	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	4.53%	0.96	>0.96	NA	

Dunnett Multiple Comparison Test

Control vs	C-mg/kg diet	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control	0.046	0.639	2.11	0.015	27	0.4752	CDF	Non-Significant Effect
	0.096	-0.156	2.11	0.015	27	0.7981	CDF	Non-Significant Effect
	0.96	0.333	2.11	0.016	22	0.6106	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	0.0002967345	9.891151E-05	3	0.275	0.8429	Non-Significant Effect
Error	0.01867469	0.0003591287	52			
Total	0.01897143		55			

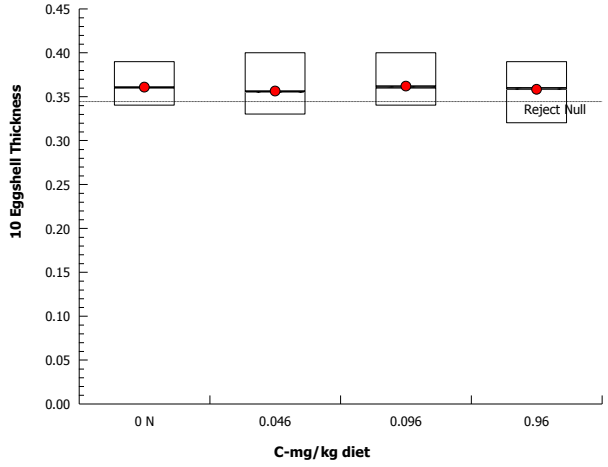
Distributional Tests

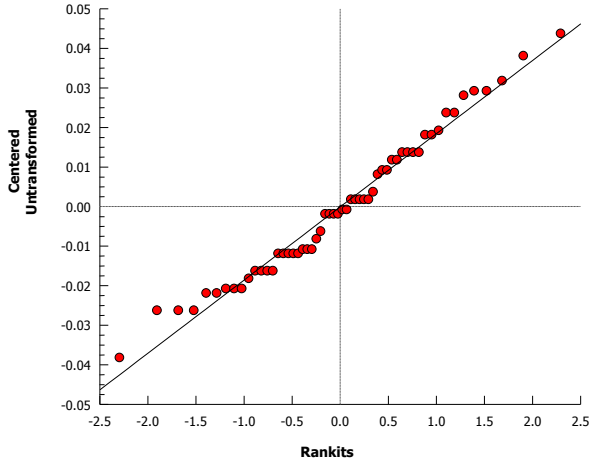
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	0.814	11.3	0.8460	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.976	0.943	0.3360	Normal Distribution

10 Eggshell Thickness Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	13	0.361	0.35	0.372	0.36	0.34	0.39	0.005	4.99%	0.0%
0.046		16	0.356	0.345	0.368	0.355	0.33	0.4	0.00539	6.05%	1.25%
0.096		16	0.362	0.352	0.371	0.36	0.34	0.4	0.0044	4.86%	-0.31%
0.96		11	0.358	0.346	0.37	0.36	0.32	0.39	0.00536	4.97%	0.72%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	10-1977-8768	**Endpoint:**	11 Hatchling Weight	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	4.42%	0.096	0.96	0.3036	

Dunnett Multiple Comparison Test

Control vs	C-mg/kg diet	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control	0.046	2	2.11	1.45	27	0.0633	CDF	Non-Significant Effect
	0.096	0.938	2.11	1.43	28	0.3511	CDF	Non-Significant Effect
	0.96*	2.6	2.11	1.57	23	0.0162	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	27.54562	9.181872	3	2.69	0.0555	Non-Significant Effect
Error	177.3115	3.409837	52			
Total	204.8571		55			

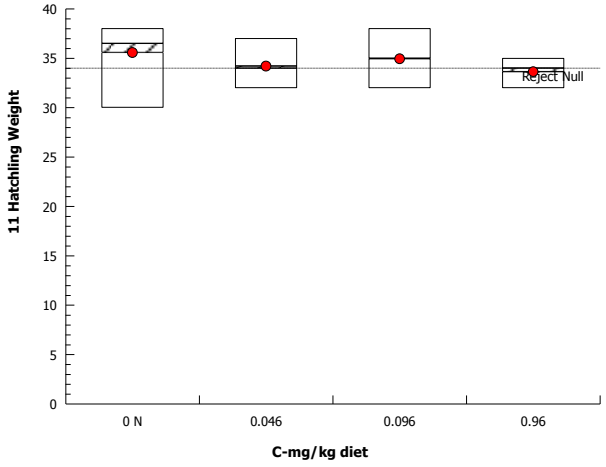
Distributional Tests

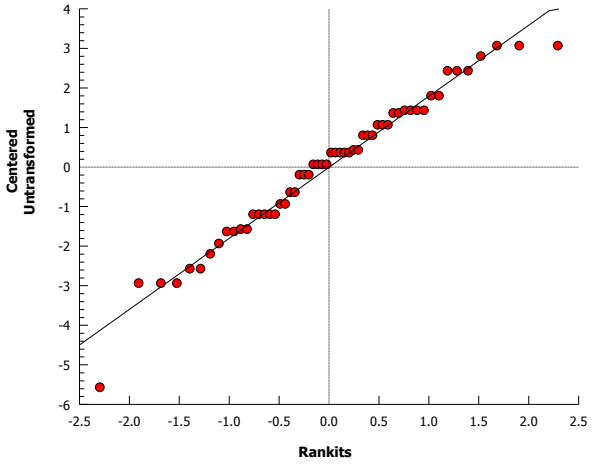
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	8.7	11.3	0.0336	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.972	0.943	0.2195	Normal Distribution

11 Hatchling Weight Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	35.6	34.2	37	36.5	30	38	0.644	6.77%	0.0%
0.046		15	34.2	33.4	35	34	32	37	0.368	4.16%	3.86%
0.096		16	34.9	33.8	36	35	32	38	0.512	5.86%	1.78%
0.96		11	33.6	32.9	34.3	34	32	35	0.31	3.05%	5.44%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	16-2338-5545	**Endpoint:**	11 Hatchling Weight	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:03	**Analysis:**	Parametric-Control vs Ord.Treatments	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	3.69%	0.096	0.96	0.3036	

Williams Multiple Comparison Test

Control vs	C-mg/kg diet	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control	0.046	2	1.67	1.15	27	>0.05	CDF	Non-Significant Effect
	0.096	1.47	1.75	1.18	28	>0.05	CDF	Non-Significant Effect
	0.96*	2.6	1.77	1.31	23	<0.05	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	27.54562	9.181872	3	2.69	0.0555	Non-Significant Effect
Error	177.3115	3.409837	52			
Total	204.8571		55			

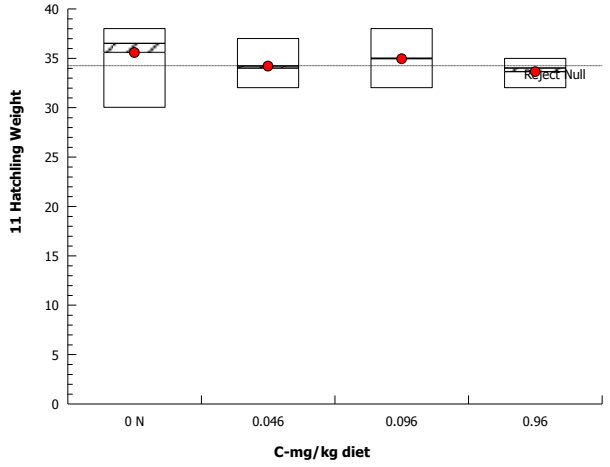
Distributional Tests

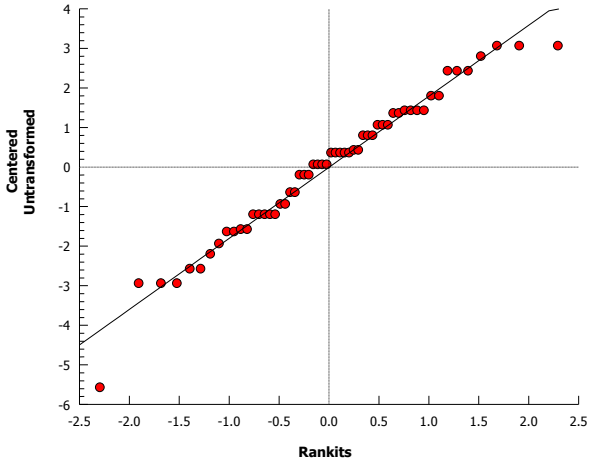
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	8.7	11.3	0.0336	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.972	0.943	0.2195	Normal Distribution

11 Hatchling Weight Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	35.6	34.2	37	36.5	30	38	0.644	6.77%	0.0%
0.046		15	34.2	33.4	35	34	32	37	0.368	4.16%	3.86%
0.096		16	34.9	33.8	36	35	32	38	0.512	5.86%	1.78%
0.96		11	33.6	32.9	34.3	34	32	35	0.31	3.05%	5.44%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	09-9263-5393	**Endpoint:**	12 14d Survivor Weight	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	5.79%	0.046	0.096	0.06645	

Dunnett Multiple Comparison Test

Control	vs	C-mg/kg diet	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		0.046	1.6	2.11	15.9	27	0.1353	CDF	Non-Significant Effect
		0.096*	2.41	2.11	15.7	28	0.0258	CDF	Significant Effect
		0.96*	3.34	2.11	17.3	23	0.0022	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5005.718	1668.573	3	4.04	0.0117	Significant Effect
Error	21454	412.5768	52			
Total	26459.71		55			

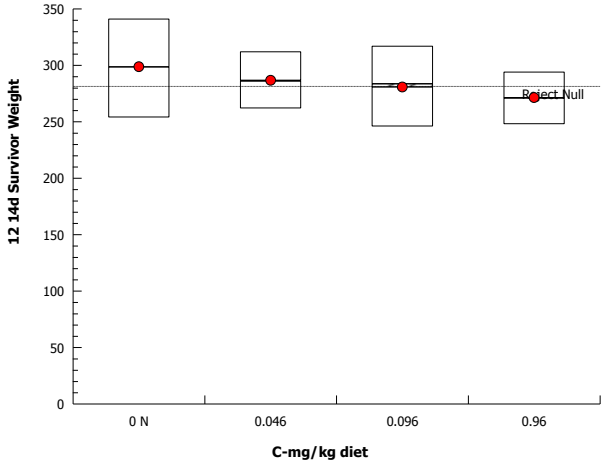
Distributional Tests

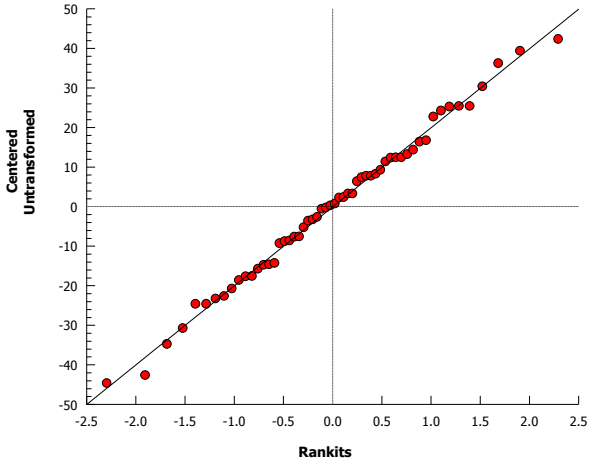
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	6.15	11.3	0.1045	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.991	0.943	0.9567	Normal Distribution

12 14d Survivor Weight Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	299	283	314	299	254	341	7.29	9.13%	0.0%
0.046		15	287	277	296	286	262	312	4.35	5.88%	4.03%
0.096		16	281	270	291	284	246	317	5.01	7.14%	5.99%
0.96		11	271	262	280	271	248	294	4.03	4.93%	9.16%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	05-0272-5407	**Endpoint:**	12 14d Survivor Weight	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:03	**Analysis:**	Parametric-Control vs Ord.Treatments	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	4.84%	0.046	0.096	0.06645	

Williams Multiple Comparison Test

Control	vs	C-mg/kg diet	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control		0.046	1.6	1.67	12.6	27	>0.05	CDF	Non-Significant Effect
		0.096*	2.41	1.75	13	28	<0.05	CDF	Significant Effect
		0.96*	3.34	1.77	14.5	23	<0.05	CDF	Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	5005.718	1668.573	3	4.04	0.0117	Significant Effect
Error	21454	412.5768	52			
Total	26459.71		55			

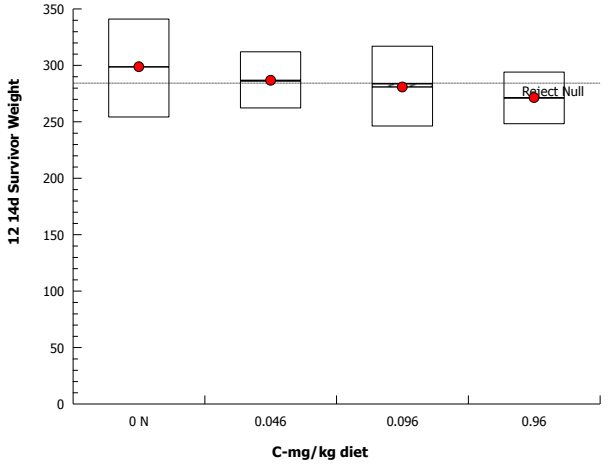
Distributional Tests

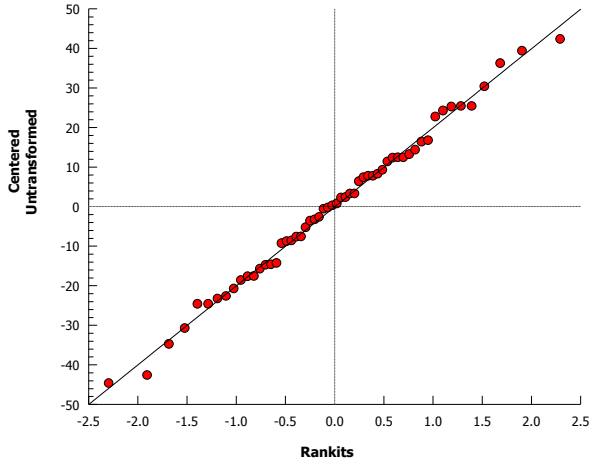
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	6.15	11.3	0.1045	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.991	0.943	0.9567	Normal Distribution

12 14d Survivor Weight Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	14	299	283	314	299	254	341	7.29	9.13%	0.0%
0.046		15	287	277	296	286	262	312	4.35	5.88%	4.03%
0.096		16	281	270	291	284	246	317	5.01	7.14%	5.99%
0.96		11	271	262	280	271	248	294	4.03	4.93%	9.16%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	09-7643-4759	**Endpoint:**	13 Mean Food Consumption (Adult)	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	9.63%	0.96	>0.96	NA	

Dunnett Multiple Comparison Test

Control vs	C-mg/kg diet	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control	0.046	-1.22	2.1	8.59	30	0.9806	CDF	Non-Significant Effect
	0.096	0.153	2.1	8.59	30	0.6915	CDF	Non-Significant Effect
	0.96	1.53	2.1	8.59	30	0.1501	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	1017.188	339.0625	3	2.54	0.0647	Non-Significant Effect
Error	8003.75	133.3958	60			
Total	9020.938		63			

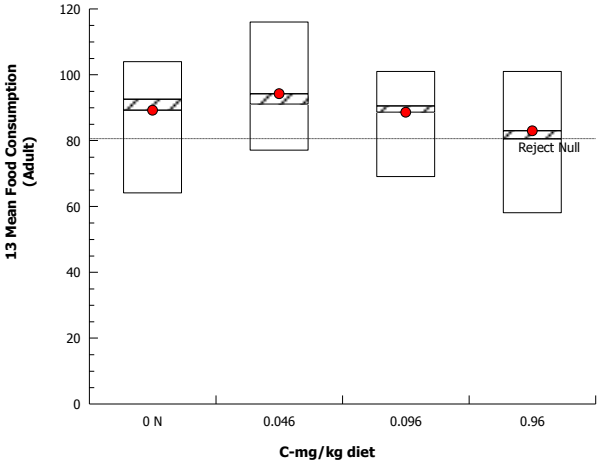
Distributional Tests

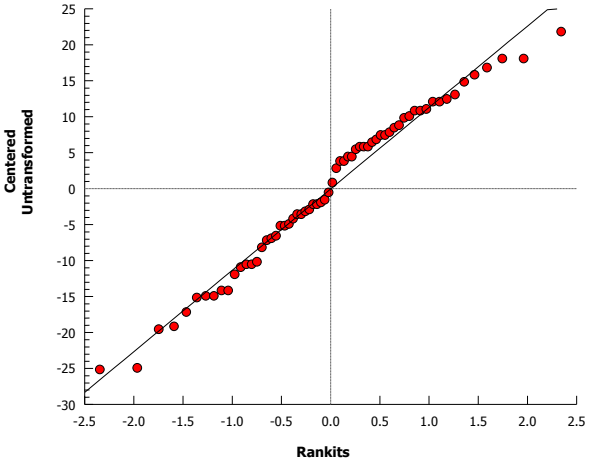
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	2.98	11.3	0.3941	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.977	0.949	0.2822	Normal Distribution

13 Mean Food Consumption (Adult) Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	16	89.2	83.2	95.1	92.5	64	104	2.8	12.5%	0.0%
0.046		16	94.2	87.7	101	91	77	116	3.06	13.0%	-5.61%
0.096		16	88.6	83.9	93.2	90.5	69	101	2.16	9.77%	0.7%
0.96		16	82.9	75.7	90.2	80.5	58	101	3.39	16.3%	7.01%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	09-5317-7719	**Endpoint:**	14 Weight Gain MALE adult	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	154.0%	0.96	>0.96	NA	

Dunnett Multiple Comparison Test

Control vs	C-mg/kg diet	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control	0.046	1.37	2.13	74.1	30	0.2041	CDF	Non-Significant Effect
	0.096	2.1	2.13	74.1	30	0.0537	CDF	Non-Significant Effect
	0.96	-0.54	2.13	100	20	0.9169	CDF	Non-Significant Effect

ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	66841.09	22280.36	3	2.3	0.0882	Non-Significant Effect
Error	483619.5	9672.39	50			
Total	550460.6		53			

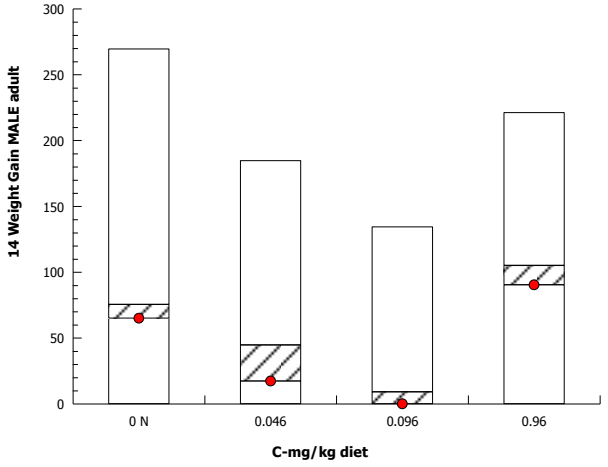
Distributional Tests

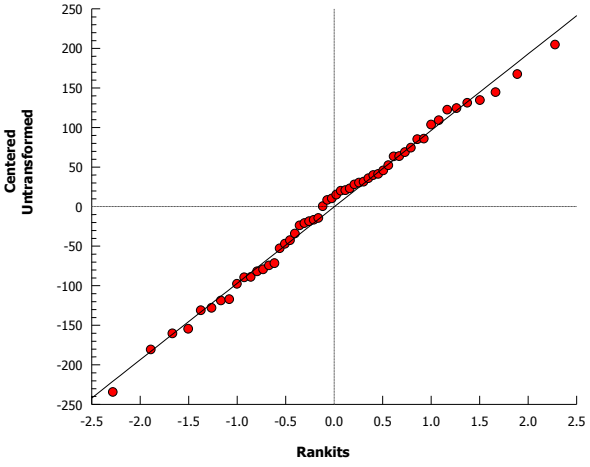
Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	1.97	11.3	0.5782	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.991	0.941	0.9651	Normal Distribution

14 Weight Gain MALE adult Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	16	65	14.7	115	75.5	-95.5	270	23.6	145.0%	0.0%
0.046		16	17.3	-36.9	71.5	44.7	-217	185	25.4	588.0%	73.4%
0.096		16	-7.93	-52.3	36.5	1.2	-189	127	20.8	-1050.0%	112.0%
0.96		6	90.4	-50.9	232	105	-64.1	221	55	149.0%	-39.1%

Graphics





OCSPP 850.2300 Chronic Avian Reproduction — **Smithers Viscient**

Analysis ID:	01-1444-2189	**Endpoint:**	15 Weight Gain FEMALE adult	**CETIS Version:**	CETISv1.8.7
Analyzed:	24 Jul-13 14:02	**Analysis:**	Parametric-Control vs Treatments	**Official Results:**	Yes

Batch ID:	16-9554-6551	**Test Type:**	Chronic Avian Repro	**Analyst:**	
Start Date:	16 Aug-11	**Protocol:**	OCSPP 850.2300 Chronic Bird	**Diluent:**	Not Applicable
Ending Date:	05 Mar-12	**Species:**	Colinus virginianus	**Brine:**	Not Applicable
Duration:	202d 0h	**Source:**	Canvasback Kennel, Camden, SC	**Age:**	21wk

Data Transform	Zeta	Alt Hyp	Trials	Seed	PMSD	NOEL	LOEL	TOEL	TU
Untransformed	NA	C > T	NA	NA	55.9%	0.96	>0.96	NA	

Dunnett Multiple Comparison Test

Control vs	C-mg/kg diet	Test Stat	Critical	MSD	DF	P-Value	P-Type	Decision(α:5%)
Negative Control	0.046	1.19	2.13	67.2	30	0.2647	CDF	Non-Significant Effect
	0.096	-0.451	2.13	67.2	30	0.8998	CDF	Non-Significant Effect
	0.96	1.3	2.13	91	20	0.2284	CDF	Non-Significant Effect

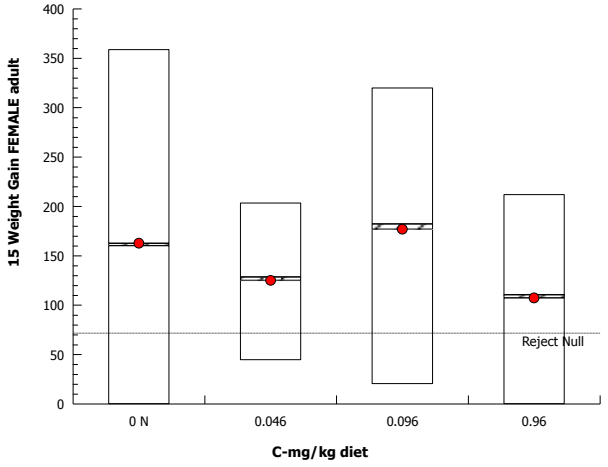
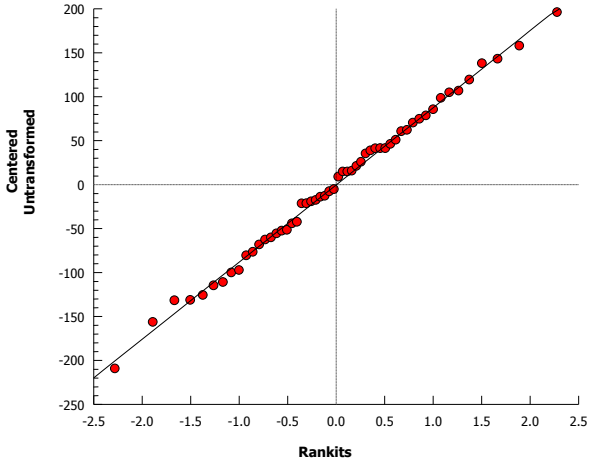
ANOVA Table

Source	Sum Squares	Mean Square	DF	F Stat	P-Value	Decision(α:5%)
Between	35031.13	11677.04	3	1.47	0.2346	Non-Significant Effect
Error	397800.3	7956.005	50			
Total	432831.4		53			

Distributional Tests

Attribute	Test	Test Stat	Critical	P-Value	Decision(α:1%)
Variances	Bartlett Equality of Variance	8.92	11.3	0.0304	Equal Variances
Distribution	Shapiro-Wilk W Normality	0.995	0.941	0.9990	Normal Distribution

15 Weight Gain FEMALE adult Summary

C-mg/kg diet	Control Type	Count	Mean	95% LCL	95% UCL	Median	Min	Max	Std Err	CV%	%Effect
0	Negative Control	16	163	102	223	160	-46.8	359	28.5	70.2%	0.0%
0.046		16	125	98.1	152	129	44.5	204	12.6	40.3%	23.1%
0.096		16	177	127	227	182	20.4	320	23.5	53.3%	-8.75%
0.96		6	107	24	190	111	-24.1	212	32.4	73.9%	34.0%

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