	A	B	C	D	E	F	G	H	I	J	K	L
1	**UCL Statistics for Uncensored Full Data Sets**											
2												
3	User Selected Options											
4	Date/Time of Computation			7/30/2013 9:02:32 AM								
5	From File			WorkSheet.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	mber of Bootstrap Operations			2000								
9												
10												
11	**PCDD**											
12												
13	**General Statistics**											
14	Total Number of Observations					32	Number of Distinct Observations					32
15							Number of Missing Observations					0
16	Minimum					0.00563	Mean					0.06
17	Maximum					0.168	Median					0.036
18	SD					0.0536	Std. Error of Mean					0.00948
19	Coefficient of Variation					0.895	Skewness					0.814
20												
21	**Normal GOF Test**											
22	Shapiro Wilk Test Statistic					0.842	**Shapiro Wilk GOF Test**					
23	5% Shapiro Wilk Critical Value					0.93	Data Not Normal at 5% Significance Level					
24	Lilliefors Test Statistic					0.194	**Lilliefors GOF Test**					
25	5% Lilliefors Critical Value					0.157	Data Not Normal at 5% Significance Level					
26	**Data Not Normal at 5% Significance Level**											
27												
28	**Assuming Normal Distribution**											
29	**95% Normal UCL**						**95% UCLs (Adjusted for Skewness)**					
30	95% Student's-t UCL					0.076	95% Adjusted-CLT UCL (Chen-1995)					0.077
31							95% Modified-t UCL (Johnson-1978)					0.0763
32												
33	**Gamma GOF Test**											
34	A-D Test Statistic					0.755	**Anderson-Darling Gamma GOF Test**					
35	5% A-D Critical Value					0.771	etected data appear Gamma Distributed at 5% Significance Lev					
36	K-S Test Statistic					0.124	**Kolmogrov-Smirnoff Gamma GOF Test**					
37	5% K-S Critical Value					0.159	etected data appear Gamma Distributed at 5% Significance Lev					
38	**Detected data appear Gamma Distributed at 5% Significance Level**											
39												
40	**Gamma Statistics**											
41	k hat (MLE)					1.198	k star (bias corrected MLE)					1.106
42	Theta hat (MLE)					0.0501	Theta star (bias corrected MLE)					0.0542
43	nu hat (MLE)					76.65	nu star (bias corrected)					70.8
44	MLE Mean (bias corrected)					0.06	MLE Sd (bias corrected)					0.057
45							Approximate Chi Square Value (0.05)					52.42
46	Adjusted Level of Significance					0.0416	Adjusted Chi Square Value					51.58
47												
48	**Assuming Gamma Distribution**											
49	95% Approximate Gamma UCL (use when n>=50)					0.081	95% Adjusted Gamma UCL (use when n<50)					0.0823
50												
51	**Lognormal GOF Test**											
52	Shapiro Wilk Test Statistic					0.932	**Shapiro Wilk Lognormal GOF Test**					
53	5% Shapiro Wilk Critical Value					0.93	Data appear Lognormal at 5% Significance Level					
54	Lilliefors Test Statistic					0.1	**Lilliefors Lognormal GOF Test**					
55	5% Lilliefors Critical Value					0.157	Data appear Lognormal at 5% Significance Level					
56	**Data appear Lognormal at 5% Significance Level**											
57												
58	**Lognormal Statistics**											
59	Minimum of Logged Data					-5.18	Mean of logged Data					-3.286
60	Maximum of Logged Data					-1.782	SD of logged Data					1.052
61												
62	**Assuming Lognormal Distribution**											

	A	B	C	D	E	F	G	H	I	J	K	L
63					95% H-UCL	0.104				90% Chebyshev (MVUE) UCL		0.105
64				95% Chebyshev (MVUE) UCL		0.123				97.5% Chebyshev (MVUE) UCL		0.149
65				99% Chebyshev (MVUE) UCL		0.2						
66												
67					**Nonparametric Distribution Free UCL Statistics**							
68					**Data appear to follow a Discernible Distribution at 5% Significance Level**							
69												
70					**Nonparametric Distribution Free UCLs**							
71					95% CLT UCL	0.0756				95% Jackknife UCL		0.076
72				95% Standard Bootstrap UCL		0.0758				95% Bootstrap-t UCL		0.0782
73				95% Hall's Bootstrap UCL		0.0763				95% Percentile Bootstrap UCL		0.0764
74				95% BCA Bootstrap UCL		0.0754						
75				90% Chebyshev(Mean, Sd) UCL		0.0884				95% Chebyshev(Mean, Sd) UCL		0.101
76				97.5% Chebyshev(Mean, Sd) UCL		0.119				99% Chebyshev(Mean, Sd) UCL		0.154
77												
78					**Suggested UCL to Use**							
79				95% Adjusted Gamma UCL		0.0823						
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												