

## CALCULATING THE 95th PERCENTILE AND PREDICTING POSSIBLE

Data Set	ln(x)		
356	5.875		
503	6.221	Number of Data Points* <input style="width: 50px;" type="text" value="53"/>	COLOR KEY <span style="background-color: yellow; border: 1px solid black; display: inline-block; width: 20px; height: 10px;"></span> User Inputs
748	6.617		
767	6.642	Enter Percentile <input style="width: 50px;" type="text" value="0.95"/>	(Note: Enter in decimal form, e.g. 0.95)
75.5	4.324		
671	6.509	Allowable Limit** <input style="width: 50px;" type="text" value="755.600"/>	" For a normal distribution"
158	5.063		
176	5.17	ln(x) value at percentile <input style="width: 50px;" type="text" value="6.627437"/>	
977	6.884		
309	5.733	Allowable Limit** <input style="width: 50px;" type="text" value="755.543"/>	"For a lognormal distribution"
346	5.846		
489	6.192		
378	5.935	*Enter the data in column A starting with Cell A5; the spreadsheet will count the number of entries.	
227	5.425	Enter up to 200 data points. Data can be entered at random in any cell in the column.	
155	5.043		
225	5.416	**This calculated value indicates the limit which will have the entered percentage (percentile) of data points below the "Allowable Limit". In other words, this limit represents the "confidence" that a permittee will be capable of compliance based on the percentile.	
661	6.494		
291	5.673		
116	4.754		
79.3	4.373	***Possible Outliers: Any Data Set values more than two standard deviations from the Mean (Ref: Chauvenet's criterion) will be formatted with a RED BACKGROUND. These values should be reviewed for possible exclusion from the data.	
354	5.869		
241	5.485		
396	5.981		
154	5.037		
369	5.911	Permit Engineer: _____	Date: _____
202	5.308		
206	5.328		
58.1	4.062	Reviewing Engineer: _____	Date: _____
635	6.454		
271	5.602	DATA SOURCE: _____	

449	6.107
373	5.922
332	5.805
403	5.999
67.8	4.217
250	5.521
180	5.193
150	5.011
200	5.298
210	5.347
1200	7.09
320	5.768
480	6.174
550	6.31
120	4.787
160	5.075
420	6.04
89	4.489
83	4.419
55	4.007
72	4.277
220	5.394
180	5.193

## ***E OUTLIERS***

***Outliers\*\*\****

Mean = 323.7

Std Dev ( $\sigma$ ) = 237.2

Min Value = 55

Mean -  $2\sigma$  = -151

Max Value = 1200

Mean +  $2\sigma$  = 798.2