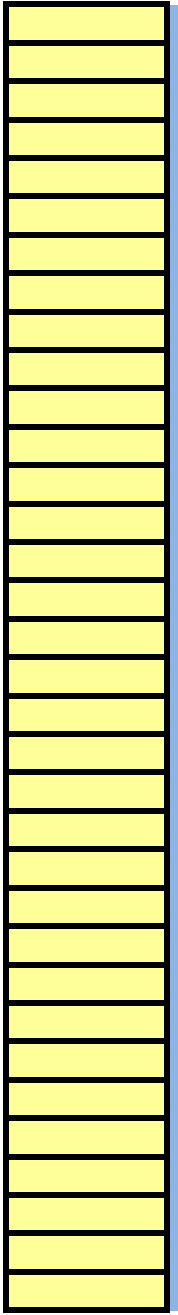


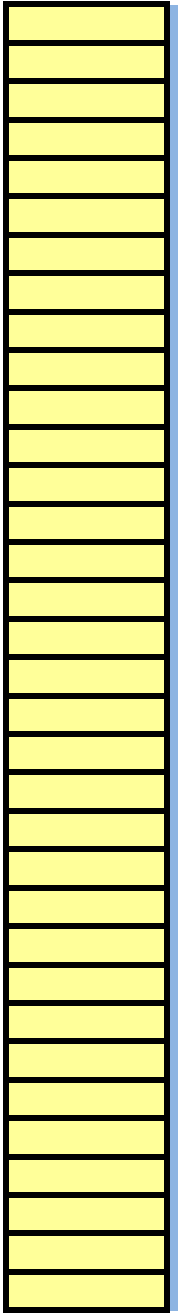
## CALCULATING THE 95th PERCENTILE AND PREDICTING POSSIBLE OUTLIERS

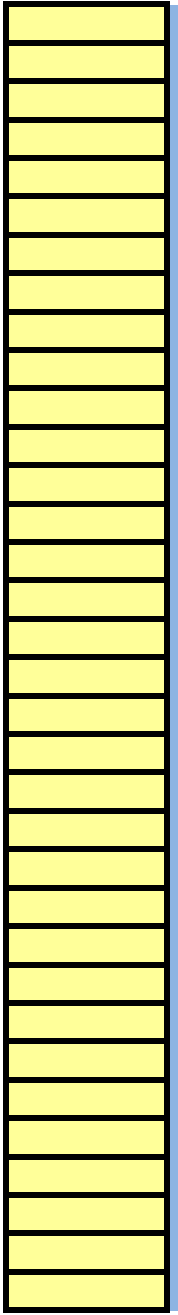
Data Set	ln(x)		
32	3.466		
0		Number of Data Points*	52
49.2	3.896		
15.1	2.715	Enter Percentile	0.95
2.64	0.971		(Note: Enter in decimal form, e.g. 0.95)
36.4	3.595	Allowable Limit**	128.550
5.45	1.696		" For a normal distribution"
18.2	2.901	ln(x) value at percentile	4.860083
1.1	0.095		
6.4	1.856	Allowable Limit**	129.035
32.3	3.475		"For a lognormal distribution"
47	3.85		
20.2	3.006	*Enter the data in column A starting with Cell A5; the spreadsheet will count the number of entries.	
3.6	1.281	Enter up to 200 data points. Data can be entered at random in any cell in the column.	
4.49	1.502		
17.9	2.885	**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.	
9.7	2.272		
111	4.71		
1.69	0.525		
51.5	3.942	***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.	
15.8	2.76		
1.2	0.182		
3.4	1.224		
6.1	1.808		
32.8	3.49	Permit Engineer: _____	Date: _____
21.4	3.063		
18.4	2.912		
3.5	1.253	Reviewing Engineer: _____	Date: _____
150	5.011		
155	5.043	DATA SOURCE: _____	

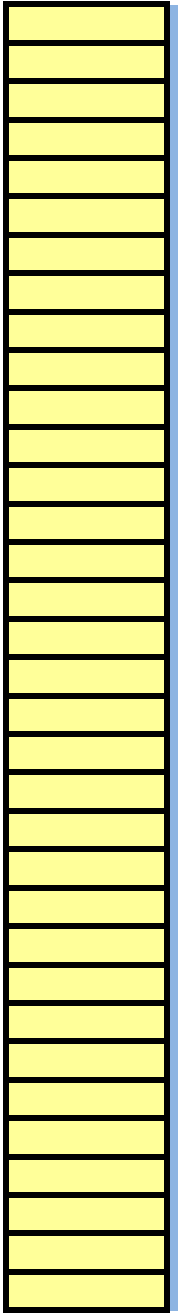
COLOR KEY  
 User Inputs











## ***E OUTLIERS***

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

Mean = 37.03

Std Dev ( $\sigma$ ) = 40.83

Min Value = 0

Mean -  $2\sigma$  = -44.6

Max Value = 180

Mean +  $2\sigma$  = 118.7