

Creating a L-J Chart

1. Label the chart

- Name of the laboratory
- Name of the Instrument and Identifier #
- Name of Test
- Units
- Name & expiration date of the control material
- Assigned mean and standard deviation used on the chart
- Acceptable control limits
- Time period covered by the chart

2. Label the X-axis in terms of time period used or run

3. Scale the X-axis into evenly sized increments numbering sequentially

4. Label the Y-axis Control Value and for X , $\pm 1 SD$, $\pm 2 SD$, $\pm 3 SD$, $\pm 4 SD$

5. Scale the Y-axis from lowest to highest expected control values as follows using the assigned mean and standard deviation (SD) so that the mean is located at the center of your graph:

- Subtract the SD from the mean; this is the -1SD
- Add the SD to the mean; this is the +1SD
- Multiply the SD by 2, and then subtract that value from the mean. This is the -2SD
- Multiply the SD by 2 and then add that value to the mean. This is the +2SD
- Repeat this process for $\pm 3SD$, $\pm 4SD$ using a factor of 3 and 4 respectively.

6. Write the values obtained for X , $\pm 1 SD$, $\pm 2 SD$, $\pm 3 SD$, $\pm 4 SD$ next to the correct label on the chart.

7. Draw lines for mean and SDs

8. Begin plotting analyzed QC results.

Name of the Laboratory
Name and Identifier # of Instrument

Analyte: _____ Control Material: _____ Units: _____

Lot #: _____ Exp Date: _____ \bar{x} assign _____ SD assign _____

From: _____ Through: _____ Target _____ TEa _____

