NH3-N ISE worksheet for calculating results when using three calibration standards

DNR Template Version 02NOV15

Laboratory:

| Initial Estimated Values | | | |
|--------------------------|-------|------|--|
| Eo = | 117.5 | mV | |
| Slope = | -60.0 | mV/D | |
| Blank = | 0.0 | Conc | |

| ID for each Calibration Std | Calibration Std Concentrations (mg/L) | Measured mV | Calculated mV |
|--------------------------------|------------------------------------------|-------------|---------------|
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| | | | |
| | | | |

| Analysis Date: | Overall Slope must be | Slope |
|----------------|-----------------------|---------|
| Analyst: | -54 to - 60 mV | Failure |

| | Calculated | | | Final Conc | |
|----------------------|---------------|-------------|------------|------------|----|
| Unique Sample ID | Concentration | Measured mV | Dil Factor | (mg/L) | QC |
| (Initial Vol / Final | (mg/L) | measured mv | | (1119/12) | |
| Calibration Std 1 | | 0 | 1 | | |
| Calibration Std 2 | | 0 | 1 | | |
| Calibration Std 3 | | 0 | 1 | | |
| Method Blank | | | 1 | | |
| LCS | | | 1 | | |
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| CCV | | | 1 | | |
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| Final Calibration Values | | | | |
|--------------------------|------------------|----------------------|---------|--------------------------------------------|
| Eo = | 117.5 | mV | | |
| Slope = | -60.0 | mV/D | | |
| Blank = | 0.000 | Conc | | best curves |
| | | Calculated Values | | are when both are between 54 - 60 |
| | Eo Estimate = | | slope 1 | 0.00 |
| | Slope Estimate = | | slope 2 | 0.00 |
| | Blank Estimate = | 0 | | • |

| Standard volumes used (mL) ** | |
|-------------------------------|--|
| Sample volumes used (mL) ** | |

** note anytime different from this value

| Water source used for method blank | |
|---------------------------------------|--|
| ISA buffer volume used on all (mL) ** | |
| ISA buffer solution ID | |
| LCS standard ID | |
| LCS standard Concentration (mg/L) | |
| CCV standard Concentration (mg/L) | |
| LOD (mg/L) | |
| LCS recovery must be 90-110% | |

Instructions

- 1. Enter calibration curve standard concentrations and measured mV into the orange cells.
- 2. Click the "Run Solver" button below and then Click on "OK" to accept the results.
- 3. The green cells show the standard concentrations using the calculated calibration.
- 4. Enter the sample and QC mV measurements into the yellow cells
- 5. The calculated concentration from these measurements are in the purple cells
- 6. Enter other analysis required information in the other yellow cells

Caution: Because this spreadsheet uses the Solver function cells cannot be locked and protected. Be careful not to change formulas.

LCS recovery must be 90-110%

| Comments: | | |
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