Method Abstract #60
Turbidity

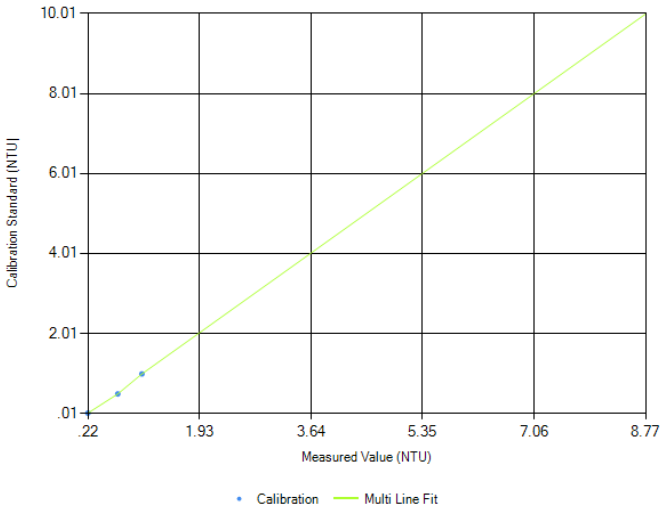
Scope and Application

This method conforms to Standard Method 2130 B, ASTM D1889 and EPA 180.1 (White Light), ISO 7027 and EN 27027 (Infrared). It determines the amount of suspended particles in a solution, measured in nephelometric turbidity units (NTU) or nephelometric formazin units (NFU), and is used as a general indicator of the quality of water.

Method Summary

This method employs the use of a turbidity meter with a tungsten white light source to meet US EPA requirements. The method involves shining light into a sample and recording the light scattered at 90 degrees to the light path. Alternatively, to minimize the influence of color in a solution, an infrared (IR) turbidity meter may be used. Use of an IR light source is required to conform to ISO 7027/EN 27027.

Sample Calibration Curve



Method Performance

Parameter	Specification
Measuring Range *	0 – 10,000 NTU
MDL**	0.01 NTU
RSD @ 0.03 NTU	11.82% or ± 0.004 NTU
RSD @ 0.5 NTU	2.59% or +/- 0.013 NTU
RSD @ 1 NTU	1.77% or +/- 0.017 NTU
RSD @ 5 NTU	0.88% or +/- 0.044 NTU
RSD @ 10 NTU	0.26% or +/- 0.026 NTU

*This measuring range was determined by analyzing laboratory-prepared standards. The reporting limits were determined based on data obtaining a coefficient of variance better than 30%. Results may differ depending on laboratory practices and sample matrix.

**The Method Detection Limit (MDL) refers to the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL calculation procedure was obtained from US EPA 40 CFR Appendix B to Part 136 - Definition and Procedure for the Determination of the Method Detection Limit.