

Data Quality Objectives for Measurement Data - Sediment Study

PARAMETER	UNITS	MATRIX	METHOD	STORET	MAL	PRECISION of laboratory duplicates RPD	ACCURACY of lab matrix spikes %Rec.	COMPLETE %	PERFORMING ANALYSIS
Field Parameters (Water Column)									
pH	pH. units	water	EPA 150.1and TNRCC SOP	00400	1.0	NA	NA	90	GBRA Field Personnel
Dissolved Oxygen	mg/L	water	EPA 360.1and TNRCC SOP	00300	1.0	NA	NA	90	GBRA Field Personnel
Conductivity	uS/cm	water	EPA 120.1and TNRCC SOP	00094	1	NA	NA	90	GBRA Field Personnel
Temperature	° C	water	EPA 170.1and TNRCC SOP	00010	NA	NA	NA	90	GBRA Field Personnel
Flow	cfs	water	TNRCC SOP	00061	NA	NA	NA	90	GBRA Field Personnel
Sediment									
% Total Solids	%	sediment	Modified EPA 160.2	81373	0.1	10	NA	90	GBRA
% Volatile Solids	%	sediment	Modified EPA 160.1		0.1	10	NA	90	GBRA
Sieve Analysis	% particle size	sediment	TNRCC SOP 160	*	0.1	NA	NA	NA	GBRA
Total Organic Carbon	mg/Kg	sediment	modified** Std. Method 5310 C	81951	1.0	10	80-120	90	GBRA
Total Kjeldahl Nitrogen	mg/Kg dry weight	sediment	modified** EPA 350.1	00627	0.1	10	80-120	90	GBRA
Total Phosphorus	mg/Kg dry weight	sediment	modified** EPA 365.3	00668	0.01	10	80-120	90	GBRA

* Clay-82009, Silt-82008, Sand-89991, Gravel-80256

** Methods modified for sediment analysis to report dry weight

References:

United States Environmental Protection Agency (US EPA) "Methods for Chemical Analysis of Water and Wastes", Manual #EPA-600/4-79-020, 18th Edition Standard Methods for the Examination of Water and Wastewater, 1989.

TNRCC SOP - TNRCC Surface Water Quality Monitoring Procedures Manual, June, 1999 or subsequent editions.

United States Environmental Protection Agency(US EPA): Field and Laboratory Methods Applicable to Overburden and Minesoils, Feb. 1978 EPA/600/2-78-054

