USDA/ARS Methods Catalog

MethodID	CSWO_WO2.0MEC
Method Name	Determination of Orthophosphate in Waters by Flow Injection Analysis Colorimetry
Media	water
Method Type	Laboratory
Method Subcategory	Inorganic
Method Source	Lachat Instruments
Source Citation	Lachat Instruments, QuikChem method 10-115-01-1-A (Revision 28 Aug. 2000)
Method Summary	Analyzed outside by MEC: Ammonium molybdate plus potassium antimony tartrate under acidic conditions in the presence of phosphate (PO43-) form a complex that is reduced with ascorbic acid. This results in a blue complex that absorbs at 880 nm; as described in QuikChem method 10-115-01-1-A
Instrument	Automated Spectrophotometer
Detection Limit Type	
DLNote	Any value below the detection limit is reported as 0.0.
Scope - Application	This method is applicable to orthophosphate determination in drinking, ground, waste and surface water.
Concentration Range	
Concentration Units	mg/L
Intereferences	High silicate concentrations can produce a positive interference and high ferric iron can yield a negative interference;
Precision Notes	
QA Requirements	daily calibration; check standard every 15 samples; matrix spikes (90-110% recovery); duplicates within 10% RPD
Sampling Handling	Samples are collected in glass or plastic solvent rinsed bottles and stored at 4° C.
Max Holding Time	28 days
Sample Prep Methods	
Link To Full Method	This method is proprietary. www.lachatinstruments.com
Method Contact	USDA/ARS Bettina.Coggeshall@ars.usda.gov

Analytes using this Method:

USDA/ARS Methods Catalog

Analyte: **Orthophosphate** MethodID: CSWQ_WQ2.0MEC

Detection level: 0.005 mg/L

	Instrument	Matrix
Accuracy		
Precision		

False Positive Value: False Positive Value:

Accuracy/Precision Concetration Used: