

Appendix A National Trends Network (NTN) Equipment Requirements

A.1 Field Site Equipment

Precipitation Collector

Two wet deposition collectors meet current NADP specifications. They are the Aerochem Metrics 301 and the LODA 2001 (see sections 2.3 and 3.1). Section 7.4 lists contact information for the manufacturers.

Recording Rainage Equipped with Event Recorder

The Belfort B5-780 recording rainage equipped with an event recorder is the only rainage that meets NTN requirements (see Sections 2.3 and 3.1). The B5-780 is available only from Belfort Instruments while the NADP event recorder is available from either of the approved collector manufacturers. Section 7.4 lists contact information for the manufacturers.

A.2 Field Laboratory Equipment

Products listed below are examples of equipment which meet NTN requirements. Being listed does not constitute endorsement by the National Atmospheric Deposition Program. Listed items may vary considerably in cost, in serviceability, and in level of expertise required for proper use.

Balance

Requirements: 15 kg capacity, 1g sensitivity/readability

Examples:

- Mettler SB-16000 (top-loading electronic)
- Ohaus CHAMP CQ25R31 (top-loading electronic)
- Ohaus Model 1119-D0 (open beam mechanical)

Specific Conductance Meters

Many models of conductance meters and cells have proprietary cabling. Make certain the meter or cell you order will connect to your existing equipment or purchase the meter and cell together.

Requirements: 0.1-1,000 $\mu\text{S}/\text{cm}$ range and readability to 0.1 $\mu\text{S}/\text{cm}$

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Examples:

Cole Parmer Catalog Number EW-19050-00
Oakton Model CON 500
VWR Model 2052
VWR Catalog Number 23226-501 (used only with VWR Catalog Number 23226-524 conduc-
tance cell)

Specific Conductance Cells

Requirements: Cell constant of 1.0 and a sample volume requirement of < 10 mL.

Examples:

VWR Cat. No. 23226-524 and 23198-020
YSI Model 3403 and 3417

pH Meters

Requirements: Read 0-14 pH units, digital display with readability to 0.01 pH units, micro-processor controlled with buffer recognition and auto-read capability.

Examples:

Beckman - Model F250	Fisher - Model Accumet AB15
Cole Parmer - Model A-59330-00	Oakton - Model pH 510
Corning - Models 430	
Orion - Models 250A, 410A	
VWR - SB20 Symphony	

pH Electrodes

The CAL supplies a Broadley-James Combination Electrode Model E1439-EC2-AO3. Sites are discouraged from providing their own electrode.

Suggested Labware

500 mL squeeze bottle
disposable laboratory wipes or lint free tissues
distilled or reagent water with conductivity below 5 μ S/cm
electrode holder or ring stand
small flat bottomed dishpan

Note: The CAL provides other lab supplies, including a training video or CD-ROM. Contact the CAL at 1-800-952-7353 for additional information.