

**Table C-1. Summary of Commonly Used Static Test Methods**

<b>Static Test Method</b>	<b>Reference</b>	<b>Comments</b>
Sobek	Sobek et al. (1978)	AP uses sulfur speciation and Leco analyzer. NP uses fizz test and heated HCl that dissolves carbonates and most silicate minerals; NaOH titration endpoint of 7.0. This is an aggressive test that provides "best case" values.
Modified Sobek NP	Lawrence and Wang (1997)	NP uses fizz test and HCl at ambient temperature that dissolves carbonates and reactive silicate minerals; NaOH titration endpoint of 8.3. Less aggressive test due to use of ambient temperature acid. Lapakko (1992) suggested that the alkaline titration endpoint may lead to overly optimistic estimates of NP.
Sobek NP Siderite Correction	Skousen et al. (1997)	NP uses fizz test and heated HCl; hydrogen peroxide added prior to titration to oxidize ferrous iron from dissolved siderite. Yields less alkaline NP than standard Sobek method when siderite is abundant.
BCRI Initial	Duncan and Bruynesteyn (1979)	AP uses total sulfur by Leco furnace or wet chemistry. NP uses H <sub>2</sub> SO <sub>4</sub> added to pH 3.5 at ambient temperature that dissolves carbonates and possibly limonite and chlorite; gives "most likely case" values.
Lapakko NP	Lapakko (1994)	NP uses H <sub>2</sub> SO <sub>4</sub> added to pH 6.0 at ambient temperature for up to 1 week that dissolves carbonates; gives "worst case" value.
Net Acid Generation (NAG)	Miller et al. (1997)	Crushed sample is boiled with hydrogen peroxide then titrated to pH 4.5 with NaOH. NAG value, expressed in units of kg H <sub>2</sub> SO <sub>4</sub> /tonne, provides indication of potential for net acidification.
Carbonate Carbon	ASTM (1997)	Samples are either dissolved in acid or combusted and the amount of CO <sub>2</sub> gas evolved is measured and converted to CaCO <sub>3</sub> equivalent.
Paste pH	Sobek et al. (1978) Page et al. (1982)	Sample is mixed with water and pH measured by meter. pH value provides indication of potential for net acidification.
Summaries include information from Mills (1998a and 1998b).		