Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
1992	alkalinity	discrete or composite	VT DEC	2320-B	APHA 1989		
1993	alkalinity	discrete or composite, unfiltered	VT DEC	2320-B	APHA 1989	titrimetric, pH 4.5	
1994	alkalinity	discrete or composite, unfiltered	VT DEC	2320-B	APHA 1989	titrimetric, pH 4.5	
1995	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1989	titrimetric, pH 4.5	
1996	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1989	titrimetric, pH 4.5	
1997	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1989	titrimetric, pH 4.5	
1998	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1989	titrimetric, pH 4.5	
1999	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1989	titrimetric	
2000	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1989	titrimetric	
2001	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1989	titrimetric	
2002	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1989	titrimetric	
2003	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1989	titrimetric	
2004	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1998	titrimetric	
2005	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1998	titrimetric	
2006	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1998	titrimetric	
2007	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1998	titrimetric	
2008	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1998	titrimetric	
2009	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 1998	titrimetric	
2010	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 2005	titrimetric	
2011	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 2005	titrimetric	
2012	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 2005	titrimetric	
2013	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 2005	titrimetric	
2014	alkalinity	composite, unfiltered	VT DEC	2320-B	APHA 2005	titrimetric	
2015	alkalinity	composite, unfiltered	VAEL	2320-B	APHA 2005	titrimetric	
2016	alkalinity	composite, unfiltered	VAEL	2320-B	APHA 2005	titrimetric	
2017	alkalinity	composite, unfiltered	VAEL	2320-B	APHA 2005	titrimetric	
2018	alkalinity	composite, unfiltered	VAEL	2320-B	APHA 2005	titrimetric	
2019	alkalinity	composite, unfiltered	VAEL	2320-B	APHA 2005	titrimetric	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	alkalinity	composite, unfiltered	VAEL	2320-B	APHA 2005	titrimetric	
2016	aluminum	composite, unfiltered, digested	VAEL	SW-6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	Aluminum added in 2016
2017	aluminum	composite, unfiltered, digested	VAEL	SW-6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2018	aluminum	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2019	aluminum	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2020	aluminum	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
1992	benthos	core or grab	NYS Bio Survey			microscope, gridded dish	
1993	benthos	core or grab	NYS Bio Survey			microscope, gridded dish	
1994	benthos	core or grab, sieved, formalin	NYS Bio Survey			microscope, gridded dish	
1995	benthos	Ekman dredge, 500 um sieve, formalin	NYS Bio Survey			microscope, gridded dish	
1996	benthos	Ekman dredge, 500 um sieve, formalin	NYS Bio Survey			microscope, gridded dish	
1997	benthos	Ekman dredge, 500 um sieve, formalin	NYS Bio Survey			microscope, gridded dish	
1992	calcium	discrete or composite	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1993	calcium	discrete or composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1994	calcium	discrete or composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1995	calcium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1996	calcium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1997	calcium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1998	calcium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1999	calcium	composite, unfiltered	VT DEC	6010B	EPA SW-846 3rd ed. 1986, and 1996	ICP-atomic emission spectrometry	
2000	calcium	composite, unfiltered	VT DEC	6010B, 7140	EPA SW-846 1996	atomic emission spectrometry, atomic absorption	
2001	calcium	composite, unfiltered	VT DEC	6010B, 7140	EPA SW-846 1996	atomic emission spectrometry, atomic absorption	
2002	calcium	composite, unfiltered	VT DEC	7140	EPA SW-846 1996	atomic absorption, direct aspiration	
2003	calcium	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2004	calcium	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2005	calcium	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	calcium on a 5yr schedule after 2005. Next collection occurs in 2010
2010	calcium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	Calcium on a 5yr schedule after 2005.
2011	calcium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	Calcium on a 5yr schedule after 2005.
2012	calcium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	
2013	calcium	composite, unfiltered, digested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	
2014	calcium	composite, unfiltered, digested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	
2015	calcium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2016	calcium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2017	calcium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2018	calcium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2019	calcium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	calcium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2000	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 1989	automated ferricyanide	
2001	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 1989	automated ferricyanide	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2002	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 1989	automated ferricyanide	
2003	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 1989	automated ferricyanide	
2004	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 1998	automated ferricyanide	
2005	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 1998	automated ferricyanide	
2006	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 1998	automated ferricyanide	
2007	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 1998	automated ferricyanide	
2008	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 1998	automated ferricyanide	
2009	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 1998	automated ferricyanide	
2010	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 2005	automated ferricyanide	
2011	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 2005	automated ferricyanide	
2012	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 2005	automated ferricyanide	
2013	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 2005	automated ferricyanide	
2014	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VT DEC	4500-Cl-(G)	APHA 2005	automated ferricyanide	
2015	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VAEL	4500-Cl-(G)	APHA 2005	automated ferricyanide	
2016	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VAEL	4500-Cl-(G)	APHA 2005	automated ferricyanide	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2017	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VAEL	4500-Cl-(G)	APHA 2005	automated ferricyanide	
2018	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VAEL	4500-Cl-(G)	APHA 2005	automated ferricyanide	
2019	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VAEL	4500-Cl-(G)	APHA 2005	automated ferricyanide	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	chloride - dissolved	composite, filtered, 0.45 um cellulose nitrate filter	VAEL	4500-Cl-(G)	APHA 2005	automated ferricyanide	
1992	chloride - total	discrete or composite, unfiltered	VT DEC	4500-Cl-(E)	APHA 1989	automated ferricyanide	
1993	chloride - total	discrete or composite, unfiltered	VT DEC/NYSDOH	4500-Cl-(E)	APHA 1989	automated ferricyanide	
1994	chloride - total	discrete or composite, unfiltered	VT DEC	4500-Cl-(E)	APHA 1989	automated ferricyanide	
1995	chloride - total	composite, unfiltered	VT DEC/NYSDOH	4500-Cl-(E)	APHA 1989	automated ferricyanide	
1996	chloride - total	composite, unfiltered	VT DEC/NYSDOH	4500-Cl-(E)	APHA 1989	automated ferricyanide	
1997	chloride - total	composite, unfiltered	VT DEC/NYSDOH	4500-Cl-(E)	APHA 1989	automated ferricyanide	
1998	chloride - total	composite, unfiltered	VT DEC/NYSDOH	4500-Cl-(E)	APHA 1989	automated ferricyanide	
1999	chloride - total	composite, unfiltered	VT DEC	4500-Cl-(E)	APHA 1989	automated ferricyanide	
1992	chlorophyll	10mL, 0.45 um glass fiber filter	NYS Bio Survey/VTDEC	10200-H	APHA	acetone, fluorometer	
1993	chlorophyll	10mL, 0.45 µm glass fiber filter	NYS Bio Survey	10200-H	APHA	acetone, fluorometer	
1994	chlorophyll	10mL, 0.45 µm glass fiber filter	NYS Bio Survey	10200-H	APHA	acetone, fluorometer	
1995	chlorophyll	integrated, 10mL, GF/C glass fiber filters	NYS Bio Survey/VTDEC	10200-H	APHA	acetone, fluorometer	
1996	chlorophyll	integrated, 10mL, GF/C glass fiber filters	NYS Bio Survey/VTDEC	10200-H	APHA	acetone, fluorometer	
1997	chlorophyll	integrated, 10mL, GF/C glass fiber filters	NYS Bio Survey/VTDEC	10200-H	APHA	acetone, fluorometer	
1998	chlorophyll	integrated, 100 mL, GF/C glass fiber filter	VT DEC/NYSDEC (Darrin Freshwater Institute)	10200-H	APHA	acetone, fluorometer	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
1999	chlorophyll	integrated, 10-100 mL, GF/A or Gelman AE glass fiber filter	VT DEC/NYSDEC (Darrin Freshwater Institute)	10200-H	APHA	acetone, fluorometer	
2000	chlorophyll	integrated, 50, 150 mL, GF/C or GF/A filters	VT DEC/NYSDEC (Darrin Freshwater Institute)	10200-H	APHA	acetone, fluorometer	
2001	chlorophyll	Integrated, 50, 150 mL, GF/A or GF/C glass fiber filters	VT DEC	445	USEPA 1997	acetone, fluorometer	Fluorometer failure at VT DEC - immediate replacement required
2002	chlorophyll	Integrated, 50, 150 mL, GF/A or GF/C glass fiber filters	VT DEC	445	USEPA 1997	acetone, fluorometer	
2003	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2004	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2005	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2006	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	beginning in 2006, chlorophyll collected in lake only
2007	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2008	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2009	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2010	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2011	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2012	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2013	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2014	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2015	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter	VAEL	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2016	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter. VT-Hydrolab chlorophyll-a probe	VAEL. VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2017	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter. VT-Hydrolab chlorophyll-a probe	VAEL. VT DEC	445	USEPA 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2018	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter. VT-Hydrolab chlorophyll-a probe	VAEL. VT DEC	445	USEPA 1997 Hydrolab 1997	in-vivo chlorophyll and pheophytin by fluorescence	
2019	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter. VT-Hydrolab chlorophyll-a probe	VAEL. VT DEC	445	USEPA 1997 Hydrolab 1997	in-vivo chlorophyll and pheophytin by fluorescence	Sampling site Station 51 changed to 53. See Program Description for further information.
2020	chlorophyll	integrated hose, 100 mL, filtered GF/A glass fiber filter. VT-Hydrolab chlorophyll-a probe	VAEL. VT DEC	445	USEPA 1997 Hydrolab 1997	in-vivo chlorophyll and pheophytin by fluorescence	
1992	conductivity	discrete or composite	field	NY = hydrolab, VT = meter			
1993	conductivity	discrete or composite, unfiltered	field	NY = hydrolab, VT = meter			
1994	conductivity	discrete or composite, unfiltered	field	NY = hydrolab, VT = meter			
1995	conductivity	composite, unfiltered	field	NY = hydrolab, VT = meter			
1996	conductivity	composite, unfiltered	field	NY = hydrolab, VT = meter			
1997	conductivity	composite, unfiltered	field	NY = hydrolab, VT = meter			

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
1998	conductivity	composite, unfiltered	field	NY = hydrolab, VT = meter			
1999	conductivity	composite, unfiltered	field	NY = hydrolab, VT = meter			
2000	conductivity	composite, unfiltered	field	NY = hydrolab, VT = meter			
2001	conductivity	composite, unfiltered	field	NY = hydrolab, VT = meter			
2002	conductivity	composite, unfiltered	field	NY = hydrolab, VT = meter			
2003	conductivity	composite, unfiltered	field	NY = hydrolab, VT = meter			
2004	conductivity	composite, unfiltered	field	NY = hydrolab, VT = meter			
2005	conductivity	composite, unfiltered	field	NY = hydrolab, VT = meter			
2006	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			Vermont use of MS5 hydrolab new in 2006
2007	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2008	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2009	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2010	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2011	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2012	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2013	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2014	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2015	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2016	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2017	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2018	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter	VT DEC 2012 YSI 1998 Hydrolab 1997		

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2019	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter	VT DEC 2012 YSI 1998 Hydrolab 1997		Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	conductivity	composite, unfiltered	field	lake = hydrolab, tributaries = meter	VT DEC 2012 YSI 1998 Hydrolab 1997		
1992	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
1993	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
1994	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
1995	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
1996	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
1997	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
1998	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
1999	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
2000	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
2001	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
2002	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
2003	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1989	Winkler titration, azide modification	
2004	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1998	Winkler titration, azide modification	
2005	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1998	Winkler titration, azide modification	
2006	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1998	Winkler titration, azide modification	Vermont using hydrolab LDO probe and winklers titration in 2006, Vermont use of MS5 hydrolab new in 2006
2007	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1998	Winkler titration, azide modification	
2008	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1998	Winkler titration, azide modification	
2009	dissolved oxygen	discrete	field, VT DEC	NY = hydrolab, VT = 4500-O-C	APHA 1998	Winkler titration, azide modification	
2010	dissolved oxygen	discrete	field, VT DEC	NY, VT = hydrolab, VT = 4500-O-C	APHA 2005	Winkler titration, azide modification	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2011	dissolved oxygen	discrete	field, VT DEC	NY, VT = hydrolab, VT = 4500-O-C	APHA 2005	Winkler titration	
2012	dissolved oxygen	discrete	field, VT DEC	NY, VT = hydrolab, VT = 4500-O-C	APHA 2005	Winkler titration	
2013	dissolved oxygen	discrete	field, VT DEC	NY, VT = hydrolab, VT = 4500-O-C	APHA 2005	Winkler titration	
2014	dissolved oxygen	discrete	field, VT DEC	NY, VT = hydrolab, VT = 4500-O-C	APHA 2005	Winkler titration	
2015	dissolved oxygen	discrete	field, VAEL	NY, VT = hydrolab, VT = 4500-O-C	APHA 2005	Winkler titration	
2016	dissolved oxygen	discrete	field, VAEL	NY, VT = hydrolab, VT = 4500-O-C	APHA 2005	Winkler titration	
2017	dissolved oxygen	discrete	field, VAEL	NY, VT = hydrolab, VT = 4500-O-C	APHA 2005	Winkler titration	
2018	dissolved oxygen	discrete	field, VAEL	NY, VT = hydrolab, VT = 4500-O-C	APHA 2005	Winkler titration or field probe	
2019	dissolved oxygen	discrete	field, VAEL	NY, VT = hydrolab, VT = 4500-O-C	APHA 2005	Winkler titration or field probe	
2020	dissolved oxygen	discrete	field, VAEL	NY, VT = hydrolab, VT = 4500-O-C	APHA 2005	Winkler titration or field probe	
1992	inorganic carbon - dissolved	discrete or composite, unfiltered	NYS DOH	4500-CO2(C)	APHA 1989	titrimetric method for free CO_2	
1993	inorganic carbon - dissolved	discrete or composite, unfiltered	NYS DOH	4500-CO2(C)	APHA 1989	titrimetric method for free CO_2	
1994	inorganic carbon - dissolved	discrete or composite, unfiltered	NYS DOH	4500-CO2(C)	APHA 1989	titrimetric method for free CO_2	
1992	inorganic carbon (soluble)	discrete or composite	NYS DOH				
1992	iron	discrete or composite	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1993	iron	discrete or composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1994	iron	discrete or composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1995	iron	composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1996	iron	composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1997	iron	composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1998	iron	composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
1999	iron	composite, unfiltered	VT DEC	6010B	EPA SW-846 3rd ed. 1986, and 1996	ICP-atomic emission spectrometry	
2000	iron	composite, unfiltered	VT DEC	6010B, 7380	EPA SW-846 1996	ICP-atomic emission spectrometry, atomic absorption, direct aspiration	
2001	iron	composite, unfiltered	VT DEC	7380	EPA SW-846 (1996)	AA, direct aspiration	
2002	iron	composite, unfiltered	VT DEC	7380	EPA SW-846 (1996)	AA, direct aspiration	
2003	iron	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2004	iron	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2005	iron	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	iron on a 5yr schedule after 2005. Next collection occurs in 2010
2010	iron	composite, unfiltered	VT DEC	3005A, 6020A	EPA - test methods for evaluating solid wastes	ICP/MS	iron on a 5yr schedule after 2005.
2016	iron	composite, unfiltered	VAEL	SW 6020A	EPA - test methods for evaluating solid wastes	ICP/MS	Iron added in 2016
2017	iron	composite, unfiltered	VAEL	SW 6020A	EPA - test methods for evaluating solid wastes	ICP/MS	
2018	iron	composite, unfiltered	VAEL	6020A	EPA - test methods for evaluating solid wastes	ICP/MS	
2019	iron	composite, unfiltered	VAEL	6020A	EPA - test methods for evaluating solid wastes	ICP/MS	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	iron	composite, unfiltered	VAEL	6020A	EPA - test methods for evaluating solid wastes	ICP/MS	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
1992	lead	discrete or composite	NYS DOH (Columbia)	200.7(W)	USEPA 1979	atomic absorption, furnace	
1993	lead	discrete or composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	atomic absorption, furnace	
1994	lead	discrete or composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	atomic absorption, furnace	
1995	lead	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	atomic absorption, furnace	
1996	lead	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	atomic absorption, furnace	
1997	lead	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	atomic absorption, furnace	
1998	lead	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	atomic absorption, furnace	lead discontinued after 1998
1992	magnesium	discrete or composite	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1993	magnesium	discrete or composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1994	magnesium	discrete or composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1995	magnesium	composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1996	magnesium	composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1997	magnesium	composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1998	magnesium	composite, unfiltered	NYS DEC (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1999	magnesium	composite, unfiltered	VT DEC	6010B	EPA SW-846 3rd ed. 1986, and 1996	ICP-atomic emission spectrometry	
2000	magnesium	composite, unfiltered	VT DEC	6010B, 7450	EPA SW-846 3rd ed. 1986, and 1996	ICP-atomic emission spectrometry, atomic absorption, direct aspiration	
2001	magnesium	composite, unfiltered	VT DEC	6010B, 7450	EPA SW-846 3rd ed. 1986, and 1996	ICP-atomic emission spectrometry, atomic absorption, direct aspiration	
2002	magnesium	composite, unfiltered	VT DEC	7450	EPA SW-846 3rd ed. 1986, and 1996	ICP/MS	
2003	magnesium	composite, unfiltered	VT DEC	6020	EPA SW-846 (1996)	ICP/MS	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2004	magnesium	composite, unfiltered	VT DEC	6020	EPA SW-846 (1996)	ICP/MS	
2005	magnesium	composite, unfiltered	VT DEC	6020	EPA SW-846 (1996)	ICP/MS	magnesium on a 5yr schedule after 2005. Next collection occurs in 2010
2010	magnesium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846 (1996)	ICP	magnesium on a 5yr schedule after 2005.
2011	magnesium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846 (1996)	ICP	magnesium on a 5yr schedule after 2005.
2012	magnesium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846 (1996)	ICP	
2013	magnesium	composite, unfiltered, digested	VT DEC	6010C	EPA SW-846 (1996)	ICP	
2014	magnesium	composite, unfiltered, digested	VT DEC	6010C	EPA SW-846 (1996)	ICP	
2015	magnesium	composite, unfiltered, digested	VAEL	6020C	EPA SW-846 (1996)	ICP/MS	
2016	magnesium	composite, unfiltered, digested	VAEL	SW 6020A	EPA SW-846 (1996)	ICP/MS	
2017	magnesium	composite, unfiltered, digested	VAEL	SW 6020A	EPA SW-846 (1996)	ICP/MS	
2018	magnesium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2019	magnesium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	magnesium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
1992	mysids	vertical tow, sieved, formalin	NYS Bio Survey			microscope, gridded dish	
1993	mysids	vertical tow, formalin	NYS Bio Survey			microscope, gridded dish	
1994	mysids	vertical tow, formalin	NYS Bio Survey			microscope, gridded dish	
1995	mysids	vertical bongo tow, 200 um mesh, ethanol	NYS Bio Survey			microscope, gridded dish	
1996	mysids	vertical bongo tow, 200 um mesh, ethanol	NYS Bio Survey			microscope, gridded dish	
1997	mysids	vertical bongo tow, 200 um mesh, formalin	NYS Bio Survey			microscope, gridded dish	
1998	mysids	vertical bongo tow, 200 um mesh, formalin	NYS DEC			microscope, gridded dish	
1999	mysids	vertical bongo tow, 200 um mesh, formalin	NYS DEC			microscope, gridded dish	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2000	mysids	vertical bongo tow, 200 um mesh, formalin	NYS DEC			microscope, gridded dish	
2001	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2002	mysids	vertical bongo tow, 253 um mesh, formalin	NYS DEC			microscope, gridded dish	
2003	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2004	mysids	vertical bongo tow, 253 um mesh, formalin	NYS DEC			microscope, gridded dish	
2005	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2006	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	beginning in 2006, sampling only at 3 maintenance sites (10, 12, 62)
2007	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2008	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2009	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2010	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2011	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2012	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2013	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2014	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2015	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2017	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2018	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2019	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
2020	mysids	vertical bongo tow, 253 um mesh	NYS DEC			microscope, gridded dish	
1992	nitrogen - ammonia	discrete or composite	NYS DOH	USEPA 350.1	USEPA 1979	ammonia (as nitrogen), colorimetric	
1993	nitrogen - ammonia	discrete or composite, unfiltered	NYS DOH/VTDEC	USEPA 350.1	USEPA 1979	ammonia (as nitrogen), colorimetric	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
1994	nitrogen - ammonia	discrete or composite, unfiltered	NYS DOH/VTDEC	USEPA 350.1	USEPA 1979	ammonia (as nitrogen), colorimetric	
1992	nitrogen - nitrate/nitrite	discrete or composite	NYS DOH	USEPA 353.2	USEPA 1979	nitrate-nitrite by automated colorimetry	
1993	nitrogen - nitrate/nitrite	discrete or composite, unfiltered	NYS DOH/VTDEC	USEPA 353.2	USEPA 1979	nitrate-nitrite by automated colorimetry	
1994	nitrogen - nitrate/nitrite	discrete or composite, unfiltered	NYS DOH/VTDEC	USEPA 353.2	USEPA 1979	nitrate-nitrite by automated colorimetry	
1992	nitrogen - total	discrete or composite, unfiltered	VT DEC		Ebina 1983	peroxodisulfate digestion	
1993	nitrogen - total	discrete or composite, unfiltered	VT DEC		Ebina 1983	peroxodisulfate digestion	
1994	nitrogen - total	discrete or composite, unfiltered	VT DEC		Ebina 1983	peroxodisulfate digestion	
1995	nitrogen - total	composite, unfiltered	VT DEC		Ameel et al(1993)	persulfate digestion	
1996	nitrogen - total	composite, unfiltered	VT DEC		Ameel et al(1993)	persulfate digestion	
1997	nitrogen - total	composite, unfiltered	VT DEC		Ameel et al(1993)	persulfate digestion	
1998	nitrogen - total	composite, unfiltered	VT DEC		Ameel et al(1993)	persulfate digestion	
1999	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 1998	automated, persulfate digestion	
2000	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 1998	automated, persulfate digestion	
2001	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 1998	automated, persulfate digestion	
2002	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 1998	automated, persulfate digestion	
2003	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 1998	automated, persulfate digestion	
2004	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 1998	automated, persulfate digestion	
2005	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 1998	automated, persulfate digestion	
2006	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 1998	automated, persulfate digestion	
2007	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 1998	automated, persulfate digestion	
2008	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 1998	automated, persulfate digestion	
2009	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 1998	automated, persulfate digestion	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2010	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 2005	automated, persulfate digestion	
2011	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 2005	automated, persulfate digestion	
2012	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 2005	automated, persulfate digestion	
2013	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 2005	automated, persulfate digestion	
2014	nitrogen - total	composite, unfiltered	VT DEC	APHA 4500-N-C	APHA 2005	automated, persulfate digestion	
2015	nitrogen - total	composite, unfiltered	VAEL	APHA 4500-N-C	APHA 2005	automated, persulfate digestion	
2016	nitrogen - total	composite, unfiltered	VAEL	SM 4500-N C Modified	APHA 2005	automated, persulfate digestion	
2017	nitrogen - total	composite, unfiltered	VAEL	SM 4500-N C Modified	APHA 2005	automated, persulfate digestion	
2018	nitrogen - total	composite, unfiltered	VAEL	SM 4500-N C Modified	APHA 2005	automated, persulfate digestion	
2019	nitrogen - total	composite, unfiltered	VAEL	SM 4500-N C Modified	APHA 2005	automated, persulfate digestion	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	nitrogen - total	composite, unfiltered	VAEL	SM 4500-N C Modified	APHA 2005	automated, persulfate digestion	
1992	nitrogen - total kjehldahl	discrete or composite	NYS DOH	USEPA 351.2	USEPA 1979		
1993	nitrogen - total kjehldahl	discrete or composite, unfiltered	NYS DOH	USEPA 351.2	USEPA 1979	nitrogen, total Kjehldahl, colorimetric	
1994	nitrogen - total kjehldahl	discrete or composite, unfiltered	NYS DOH	USEPA 351.2	USEPA 1979	nitrogen, total Kjehldahl, colorimetric	
1992	organic carbon - dissolved	discrete or composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2 (low level)	USEPA 1979	organic carbon, total - UV promoted	
1993	organic carbon - dissolved	discrete or composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2 (low level)	USEPA 1979	organic carbon, total - UV promoted	
1994	organic carbon - dissolved	discrete or composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2 (low level)	USEPA 1979	organic carbon, total - UV promoted	
1995	organic carbon - dissolved	composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2	USEPA 1979	organic carbon, total - UV promoted	
1996	organic carbon - dissolved	composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2	USEPA 1979	organic carbon, total - UV promoted	
1997	organic carbon - dissolved	composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2	USEPA 1979	organic carbon, total - UV promoted	
1998	organic carbon - dissolved	composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2	USEPA 1979	organic carbon, total - UV promoted	
1999	organic carbon - dissolved	composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2	EPA/600/4-79/020	organic carbon, total - UV promoted	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2019	organic carbon - dissolved	composite, filtered	VAEL	APHA (2005)	5310B	DOC	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	organic carbon - dissolved	composite, filtered	VAEL	APHA (2005)	5310B	NPOC	
1992	organic carbon (soluble)	discrete or composite	NYS DOH				
1992	organic carbon (total)	discrete or composite	NYS DEC (Columbia)	USEPA 415.2 (low level)	USEPA 1979	organic carbon, total - UV promoted	
1993	organic carbon (total)	discrete or composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2 (low level)	USEPA 1979	organic carbon, total - UV promoted	
1994	organic carbon (total)	discrete or composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2 (low level)	USEPA 1979	organic carbon, total - UV promoted	
1995	organic carbon (total)	composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2	USEPA 1979	organic carbon, total - UV promoted	
1996	organic carbon (total)	composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2	USEPA 1979	organic carbon, total - UV promoted	
1997	organic carbon (total)	composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2	USEPA 1979	organic carbon, total - UV promoted	
1998	organic carbon (total)	composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2	USEPA 1979	organic carbon, total - UV promoted	
1999	organic carbon (total)	composite, unfiltered	NYS DEC (Columbia)	USEPA 415.2	EPA/600/4-79/020	organic carbon, total - UV promoted	
2019	inorganic carbon, dissovled	composite, filtered	VAEL	APHA (2005)	5310B	DIC	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2019	Non Purgeable Organic Carbon	composite, filtered	VAEL	APHA (2005)	SM 5310 B NPOC	NPOC	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
1992	pH	discrete or composite	field	NY = hydrolab, VT = meter			
1993	pH	discrete or composite, unfiltered	field	NY = hydrolab, VT = meter			
1994	pH	discrete or composite, unfiltered	field	NY = hydrolab, VT = meter			
1995	pH	composite, unfiltered	field	NY = hydrolab, VT = meter			
1996	pH	composite, unfiltered	field	NY = hydrolab, VT = meter			
1997	pH	composite, unfiltered	field	NY = hydrolab, VT = meter			
1998	pH	composite, unfiltered	field	NY = hydrolab, VT = meter			
1999	pH	composite, unfiltered	field	NY = hydrolab, VT = meter			

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2000	pH	composite, unfiltered	field	NY = hydrolab, VT = meter			
2001	pH	composite, unfiltered	field	NY = hydrolab, VT = meter			
2002	pH	composite, unfiltered	field	NY = hydrolab, VT = meter			
2003	pH	composite, unfiltered	field	NY = hydrolab, VT = meter			
2004	pH	composite, unfiltered	field	NY = hydrolab, VT = meter			
2005	pH	composite, unfiltered	field	NY = hydrolab, VT = meter			
2006	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			Vermont use of MS5 hydrolab new in 2006
2007	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2008	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2009	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2010	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2011	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2012	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2013	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2014	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2015	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2016	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2017	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter			
2018	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter	VT DEC 2012 YSI 1998 Hydrolab 1997		
2019	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter	VT DEC 2012 YSI 1998 Hydrolab 1997		Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	pH	composite, unfiltered	field	lake = hydrolab, tributaries = meter	VT DEC 2012 YSI 1998 Hydrolab 1997		

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
1992	phosphorus - dissolved	discrete or composite	VT DEC/NYDOH	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
1993	phosphorus - dissolved	discrete or composite, 0.45 um cellulose nitrate filter	VT DEC/NYDOH	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
1994	phosphorus - dissolved	discrete or composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
1995	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC/NYSDOH	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
1996	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC/NYSDOH	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
1997	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC/NYSDOH	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
1998	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
1999	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC/NYSDOH	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
2000	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
2001	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
2002	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
2003	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
2004	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-F	APHA 1989	persulfate digestion, automated ascorbic reduction,	
2005	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-H	APHA 1998	persulfate digestion, automated ascorbic acid method	
2006	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-H	APHA 1998	persulfate digestion, automated ascorbic acid method	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2007	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-H	APHA 1998	persulfate digestion, automated ascorbic acid method	
2008	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-H	APHA 1998	persulfate digestion, automated ascorbic acid method	
2009	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-H	APHA 1998	persulfate digestion, automated ascorbic acid method	
2010	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2011	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2012	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2013	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2014	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2015	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VAEL	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2017	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VAEL	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2018	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VAEL	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2019	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VAEL	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	phosphorus - dissolved	composite, 0.45 um cellulose nitrate filter	VAEL	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
1992	phosphorus - ortho	discrete or composite	VT DEC/NYDOH	4500-P-F	APHA 1989	automated ascorbic reduction	
1993	phosphorus - ortho	discrete or composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-F	APHA 1989	automated ascorbic reduction	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
1994	phosphorus - ortho	discrete or composite, 0.45 um cellulose nitrate filter	VT DEC	4500-P-F	APHA 1989	automated ascorbic reduction	
1992	phosphorus - total	discrete or composite	VT DEC/NYSDOH	4500-P-F	APHA 1989	automated ascorbic reduction	
1993	phosphorus - total	discrete or composite, unfiltered	VT DEC/NYSDOH	4500-P-F	APHA 1989	automated ascorbic reduction	
1994	phosphorus - total	discrete or composite, unfiltered	VT DEC	4500-P-F	APHA 1989	automated ascorbic reduction	
1995	phosphorus - total	composite, unfiltered	VT DEC/NYSDOH	4500-P-F	APHA 1989	automated ascorbic reduction	
1996	phosphorus - total	composite, unfiltered	VT DEC/NYSDOH	4500-P-F	APHA 1989	automated ascorbic reduction	
1997	phosphorus - total	composite, unfiltered	VT DEC/NYSDOH	4500-P-F	APHA 1989	automated ascorbic reduction	
1998	phosphorus - total	composite, unfiltered	VT DEC	4500-P-F	APHA 1989	automated ascorbic reduction	
1999	phosphorus - total	composite, unfiltered	VT DEC/NYSDOH	4500-P-F	APHA 1989	automated ascorbic reduction	
2000	phosphorus - total	composite, unfiltered	VT DEC	4500-P-F	APHA 1989	automated ascorbic reduction	
2001	phosphorus - total	composite, unfiltered	VT DEC	4500-P-F	APHA 1989	automated ascorbic reduction	
2002	phosphorus - total	composite, unfiltered	VT DEC	4500-P-F	APHA 1989	automated ascorbic reduction	
2003	phosphorus - total	composite, unfiltered	VT DEC	4500-P-F	APHA 1989	automated ascorbic reduction	
2004	phosphorus - total	composite, unfiltered	VT DEC	4500-P-F	APHA 1989	automated ascorbic reduction	
2005	phosphorus - total	composite, unfiltered	VT DEC	4500-P-H	APHA 1998	persulfate digestion, automated ascorbic acid method	
2006	phosphorus - total	composite, unfiltered	VT DEC	4500-P-H	APHA 1998	persulfate digestion, automated ascorbic acid method	
2007	phosphorus - total	composite, unfiltered	VT DEC	4500-P-H	APHA 1998	persulfate digestion, automated ascorbic acid method	
2008	phosphorus - total	composite, unfiltered	VT DEC	4500-P-H	APHA 1998	persulfate digestion, automated ascorbic acid method	
2009	phosphorus - total	composite, unfiltered	VT DEC	4500-P-H	APHA 1998	persulfate digestion, automated ascorbic acid method	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2010	phosphorus - total	composite, unfiltered	VT DEC	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2011	phosphorus - total	composite, unfiltered	VT DEC	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2012	phosphorus - total	composite, unfiltered	VT DEC	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2013	phosphorus - total	composite, unfiltered	VT DEC	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2014	phosphorus - total	composite, unfiltered	VT DEC	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2015	phosphorus - total	composite, unfiltered	VAEL	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2016	phosphorus - total	composite, unfiltered	VAEL	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2017	phosphorus - total	composite, unfiltered	VAEL	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2018	phosphorus - total	composite, unfiltered	VAEL	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2019	phosphorus - total	composite, unfiltered	VAEL	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	phosphorus - total	composite, unfiltered	VAEL	4500-P-H	APHA 2005	persulfate digestion, automated ascorbic acid method	
2006	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	VT DEC			settling chambers or Sedgewick Rafter cells	
2007	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	VT DEC			settling chambers or Sedgewick Rafter cells	
2008	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	VT DEC			settling chambers or Sedgewick Rafter cells	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2010	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	VT DEC	10200-F2a, 2c1	APHA 2005	settling chambers or Sedgewick Rafter cells	
2011	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	VT DEC	10200-F2a, 2c1	APHA 2005	settling chambers or Sedgewick Rafter cells	
2012	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	VT DEC	10200-F2a, 2c1	APHA 2005	settling chambers or Sedgewick Rafter cells	
2013	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	VT DEC	10200-F2a, 2c1	APHA 2005	settling chambers or Sedgewick Rafter cells	
2014	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	VT DEC	10200-F2a, 2c2	APHA 2005	settling chambers or Sedgewick Rafter cells	
2015	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	VT DEC	10200-F2a, 2c2	APHA 2005	settling chambers or Sedgewick Rafter cells	
2016	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	VT DEC	10200-F2a, 2c2	APHA 2005	settling chambers or Sedgewick Rafter cells	2016 phytoplankton analyses were not completed due to an initially undiscovered field error
2017	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	Lake Champlain Research Institute	10200-F2a, 2c2	APHA 2005	settling chambers or Sedgewick Rafter cells	In 2017, SUNY Plattsburgh took over the collection and analysis of phytoplankton from VTDEC
2018	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	Lake Champlain Research Institute	10200-F2a, 2c2	APHA 2005	settling chambers or Sedgewick Rafter cells	
2019	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	Lake Champlain Research Institute	10200-F2a, 2c2	APHA 2005	settling chambers or Sedgewick Rafter cells	
2020	phytoplankton	2x secchi by integrated hose or by 63 um net tow, lugols preserved samples	Lake Champlain Research Institute	10200-F2a, 2c2	APHA 2005	settling chambers or Sedgewick Rafter cells	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
1992	potassium	discrete or composite	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1993	potassium	discrete or composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1994	potassium	discrete or composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1995	potassium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1996	potassium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1997	potassium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1998	potassium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1999	potassium	composite, unfiltered	VT DEC	258.1	EPA SW-846 3rd ed. 1986, and 1996	atomic absorption	
2000	potassium	composite, unfiltered	VT DEC	6010B, 7610	EPA SW-846 1996	ICP-atomic emission spectrometry, atomic absorption	
2001	potassium	composite, unfiltered	VT DEC	6010B, 7610	EPA SW-846 (1996)	ICP-atomic emission spectrometry, atomic absorption	
2002	potassium	composite, unfiltered	VT DEC	7610	EPA SW-846 (1996)	atomic absorption, direct aspiration	
2003	potassium	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2004	potassium	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2005	potassium	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	potassium on a 5yr schedule after 2005. Next collection occurs in 2010
2010	potassium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	potassium on a 5yr schedule after 2005.
2011	potassium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	potassium on a 5yr schedule after 2005.
2012	potassium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2013	potassium	composite, unfiltered, digested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	
2014	potassium	composite, unfiltered, digested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	
2015	potassium	composite, unfiltered, digested	VAEL	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2016	potassium	composite, unfiltered, digested	VAEL	SW-6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2017	potassium	composite, unfiltered, digested	VAEL	SW-6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2018	potassium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2019	potassium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2019	potassium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
1992	silica - dissolved reactive	discrete or composite	VT DEC	4500-Si(F)	APHA 1989	automated method for molybdate reactive Si	
1993	silica - dissolved reactive	discrete or composite, 0.45 um cellulose nitrate filter	VT DEC/NYSDOH	4500-Si(F)	APHA 1989	automated method for molybdate reactive Si	
1994	silica - dissolved reactive	discrete or composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si(F)	APHA 1989	automated method for molybdate reactive Si	
1995	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC/NYSDOH	4500-Si(F)	APHA 1989	automated method for molybdate reactive Si	
1996	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC/NYSDOH	4500-Si(F)	APHA 1989	automated method for molybdate reactive Si	
1997	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si(F)	APHA 1989	automated method for molybdate reactive Si	
1998	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC/NYDOH	4500-Si(F)	APHA 1989	automated method for molybdate reactive Si	
1999	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 1998	automated method for molybdate reactive Si	
2000	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 1998	automated method for molybdate reactive Si	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2001	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 1998	automated method for molybdate reactive Si	
2002	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 1998	automated method for molybdate reactive Si	
2003	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 1998	automated method for molybdate reactive Si	
2004	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 1998	automated method for molybdate reactive Si	
2005	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 1998	automated method for molybdate reactive Si	silica on a 5yr schedule after 2005. Next collection occurs in 2010
2010	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 2005	automated method for molybdate reactive Si	silica on a 5yr schedule after 2005.
2011	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 2005	automated method for molybdate reactive Si	silica on a 5yr schedule after 2005.
2012	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 2005	automated method for molybdate reactive Si	
2013	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 2005	automated method for molybdate reactive Si	
2014	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VT DEC	4500-Si02(F)	APHA 2005	automated method for molybdate reactive Si	
2015	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VAEL	4500-Si02(F)	APHA 2005	automated method for molybdate reactive Si	
2016	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VAEL	4500-Si02(F)	APHA 2005	automated method for molybdate reactive Si	
2017	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VAEL	4500-Si02(F)	APHA 2005	automated method for molybdate reactive Si	
2018	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VAEL	4500-Si02(F)	APHA 2005	automated method for molybdate reactive Si	
2019	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VAEL	4500-Si02(F)	APHA 2005	automated method for molybdate reactive Si	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	silica - dissolved reactive	composite, 0.45 um cellulose nitrate filter	VAEL	4500-Si02(F)	APHA 2005	automated method for molybdate reactive Si	
1992	sodium	discrete or composite	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1993	sodium	discrete or composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1994	sodium	discrete or composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1995	sodium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1996	sodium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1997	sodium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
1998	sodium	composite, unfiltered	NYS DOH (Columbia)	200.7(W)	USEPA 1979	ICP/atomic emission spectrometry	
1999	sodium	composite, unfiltered	VT DEC	6010B	EPA SW-846 3rd ed. 1986, and 1996	ICP-atomic emission spectrometry	
2000	sodium	composite, unfiltered	VT DEC	6010B, 7770	EPA SW-846 1996	ICP-atomic emission spectrometry, atomic absorption, direct aspiration	
2001	sodium	composite, unfiltered	VT DEC	6010B, 7770	EPA SW-846 1996	ICP-atomic emission spectrometry, atomic absorption, direct aspiration	
2002	sodium	composite, unfiltered	VT DEC	7770	EPA SW-846 1996	atomic absorption, direct aspiration	
2003	sodium	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2004	sodium	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2005	sodium	composite, unfiltered	VT DEC	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	sodium on a 5yr schedule after 2005. Next collection occurs in 2010
2010	sodium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	sodium on a 5yr schedule after 2005.
2011	sodium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	sodium on a 5yr schedule after 2005.
2012	sodium	composite, unfiltered, undigested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	
2013	sodium	composite, unfiltered, digested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	
2014	sodium	composite, unfiltered, digested	VT DEC	6010C	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP	
2015	sodium	composite, unfiltered, digested	VAEL	6020	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2016	sodium	composite, unfiltered, digested	VAEL	SW-6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2017	sodium	composite, unfiltered, digested	VAEL	SW-6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2018	sodium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
2019	sodium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	Sampling site on Little Otter Creek moved upstream. Sampling site Station 51 changed to 53. See Program Description for further information.
2020	sodium	composite, unfiltered, digested	VAEL	6020A	EPA SW-846, Rev. 1 (1992) and Rev.0 (1994)	ICP/MS	
1992	total suspended solids	discrete or composite	VT DEC	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	
1993	total suspended solids	discrete or composite, unfiltered	VT DEC	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	
1994	total suspended solids	discrete or composite, unfiltered	VT DEC	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	
1995	total suspended solids	composite, unfiltered	VT DEC/NYSDOH (SUNY)	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	
1996	total suspended solids	composite, unfiltered	VT DEC/NYSDOH (SUNY)	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	
1997	total suspended solids	composite, unfiltered	VT DEC/NYSDOH (SUNY)	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	
1998	total suspended solids	composite, unfiltered	VT DEC/NYSDOH (SUNY)	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	
1999	total suspended solids	composite, unfiltered	VT DEC/NYSDOH (SUNY)	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	
2000	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	
2001	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	
2002	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2003	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 1989	total suspended solids, dried at 103 - 105 degrees C	
2004	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 1998	solids dried at 103 - 105 degrees C	
2005	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 1998	solids dried at 103 - 105 degrees C	
2006	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 1998	solids dried at 103 - 105 degrees C	beginning in 2006, TSS collected in tributaries only
2007	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 1998	solids dried at 103 - 105 degrees C	
2008	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 1998	solids dried at 103 - 105 degrees C	
2009	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 1998	solids dried at 103 - 105 degrees C	
2010	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 2005	solids dried at 103 - 105 degrees C	
2011	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 2005	solids dried at 103 - 105 degrees C	
2012	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 2005	solids dried at 103 - 105 degrees C	
2013	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 2005	solids dried at 103 - 105 degrees C	
2014	total suspended solids	composite, unfiltered	VT DEC	2540-D	APHA 2005	solids dried at 103 - 105 degrees C	
2015	total suspended solids	composite, unfiltered	VAEL	2540-D	APHA 2005	solids dried at 103 - 105 degrees C	
2016	total suspended solids	composite, unfiltered	VAEL	2540-D	APHA 2005	solids dried at 103 - 105 degrees C	
2017	total suspended solids	composite, unfiltered	VAEL	2540-D	APHA 2005	solids dried at 103 - 105 degrees C	
2018	total suspended solids	composite, unfiltered	VAEL	2540-D	APHA 2005	solids dried at 103 - 105 degrees C	
2019	total suspended solids	composite, unfiltered	VAEL	2540-D	APHA 2005	solids dried at 103 - 105 degrees C	Sampling site on Little Otter Creek moved upstream. See Program Description for further information.
2019	total suspended solids	composite, unfiltered	VAEL	2540-D	APHA 2005	solids dried at 103 - 105 degrees C	
1994	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults surveyed by snorkel	VT DEC		Marsden 1992	microscope, SR cell or dish	
1995	zebra mussels	sq meter grid, artificial substrates	NYS Bio Survey			enamel tray	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
1995	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults surveyed by snorkel	VT DEC		Marsden 1992	microscope, SR cell or dish	
1996	zebra mussels	square meter quadrates, artificial substrates	NYS Bio Survey			enamel tray	
1996	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults surveyed by snorkel	VT DEC		Marsden 1992	microscope, SR cell or dish	
1997	zebra mussels	sq meter grid, scraped from unionids	NYS Bio Survey			enamel tray	
1997	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults surveyed by snorkel	VT DEC		Marsden 1992	microscope, SR cell or dish	
1998	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults by scuba or scraping	VT DEC		Marsden 1992	microscope, SR cell or dish	
1999	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults by scuba or scraping	VT DEC		Marsden 1992	microscope, SR cell or dish	
2000	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults surveyed by snorkel	VT DEC		Marsden 1992	microscope, SR cell or dish	
2001	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults surveyed by snorkel	VT DEC		Marsden 1992	microscope, SR cell or dish	
2002	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults surveyed by snorkel	VT DEC		Marsden 1992	microscope, SR cell or dish	
2003	zebra mussels	veligers by 63µm net or peristaltic pump, settled juveniles by PVC plate, adults surveyed by snorkel	VT DEC		Marsden 1992	microscope, SR cell or dish	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2004	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults surveyed by snorkel	VT DEC		Marsden 1992	microscope, SR cell or dish	
2005	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults surveyed by snorkel and collected by scuba	VT DEC		Marsden 1992	microscope, SR cell or dish	
2006	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults surveyed by shoreline observation	VT DEC		Marsden 1992	microscope, SR cell or dish	
2007	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate, adults surveyed by shoreline observation	VT DEC		Marsden 1992	microscope, SR cell or dish	
2008	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	
2009	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	
2010	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	
2011	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	In 2011, VTDEC will discontinue sampling for veligers at nearshore stations, and will sample for veligers at all openwater stations previously sampled in 2005.
2012	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	
2013	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	
2014	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	
2015	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2016	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	
2017	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	
2018	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	
2019	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	
2019	zebra mussels	veligers by 63µm net, settled juveniles by PVC plate	VT DEC		Marsden 1992	microscope, SR cell or dish	
2000	zooplankton	vertical tow, No.20 mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, gridded dish	
2001	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2002	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2003	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2004	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2005	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2006	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2007	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2008	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2009	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2010	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2011	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2012	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2013	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2014	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2015	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2016	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2017	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	

Year	Parameter	Lake or Field Methodology (as noted in QAPP)	Labor-atory	Method (as noted in QAPP)	reference (as noted in QAPP)	Description	Pertinent information
2018	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2019	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	
2020	zooplankton	vertical tow, 153 um mesh, carbonated water, formalin	Lake Champlain Research Institute			microscope, SR cell	