

File Names

File #	Original File Name
1	ENVCAN_STIFS_SIM_JRB_ORG+INORG_PARTISOL_2001_07_V1.csv

Dataset Key Phrases

Data Exchange Standard Version	Principal Investigator Name--last first	Principal Investigator Affiliation	File Contents Description--short long	Sampling Interval As Reported in Main Table
NARSTO 2002/05/28 (2.301)	Brook ; Jeffrey	Environment Canada, Meteorological Service of Canada	ORG+INORG ; Water soluble organics and inorganics	8 h day/16 h night

Dataset Key Phrases

Sampling Frequency Of Data in Main Table	Quality Control Level	Organization Acronym	Organization Name	Data Usage Acknowledgement	Study Or Network Acronym
2 times per day	1	ENVCAN_MSC	Environment Canada--Meteorological Service of Canada	Environment Canada, Meteorological Service of Canada, 4905 Dufferin St., Toronto, Ont. M3H 5T4	ENVCAN_STIFS

Dataset Key Phrases

Study Or Network Name	Country Code	State Or Province Code	Principal Investigator Contact Information	Co-investigator Name--last first	Co-investigator Affiliation
Environment Canada--Supersite Transboundary Intensive Field Study	CA	ON	Environment Canada, Meteorological Service of Canada, 4905 Dufferin St., Toronto, Ont. M3H 5T4	None ; None	None

Dataset Key Phrases

Name And Affiliation Of Person Who Generated This File	Date Of Last Modification To Data In Main Table	Name And Version Of Software Used To Create This File
Greg Skelton, SKELTON TECHNICAL SERVICES INC	2003/05/01	MS Excel/2002

Dataset Key Phrases

Companion File Name format And Version	Date This File Generated archive Version Number	Table Explanation Of Zero Or Negative Values
None ; 0	2004/07/20 ; 1	Blank corrections are performed after samples are compared to the DL and flagged accordingly. Only the variables that have a mean blank concentration that is >5% of the mean air concentration (in units of ug/filter) are corrected by subtracting the mean blank concentration (in ug/filter). In some cases this results in final concentrations in ug/m ³ that are negative or less than the stated detection limit (in ug/m ³). Such samples are not flagged as BDL because on a ug/filter basis before blank correction they were above the detection limit. The user may also choose to classify this samples as BDL.

Dataset Key Phrases

Table Explanation Of Reported Detection Limit Values	Table Explanation Of Reported Uncertainty	Table User Note	Table User Note2	Table User Note3	Table User Note4
Detection limits (DL) are based upon 3*SD of field blanks in ug/filter. Non blank-corrected laboratory analysis results in ug/filter for each sample are compared to this DL to determine if the sample is BDL and then flagged accordingly (V1 means BDL).	no uncertainty reported	None	None		

Dataset Key Phrases

Table Name	Table Focus
ORG+INORG	Surface--fixed

Site Information

Site ID	Name	State Province code	Latitude: decimal degree	Longitude: decimal degree	Sampling height above ground (m)	Ground elevation above sea level (m)	Site land use
STIFCAONSIM_	Simcoe	ON	42.85000	-80.26667	1.5	236.0	Agricultural

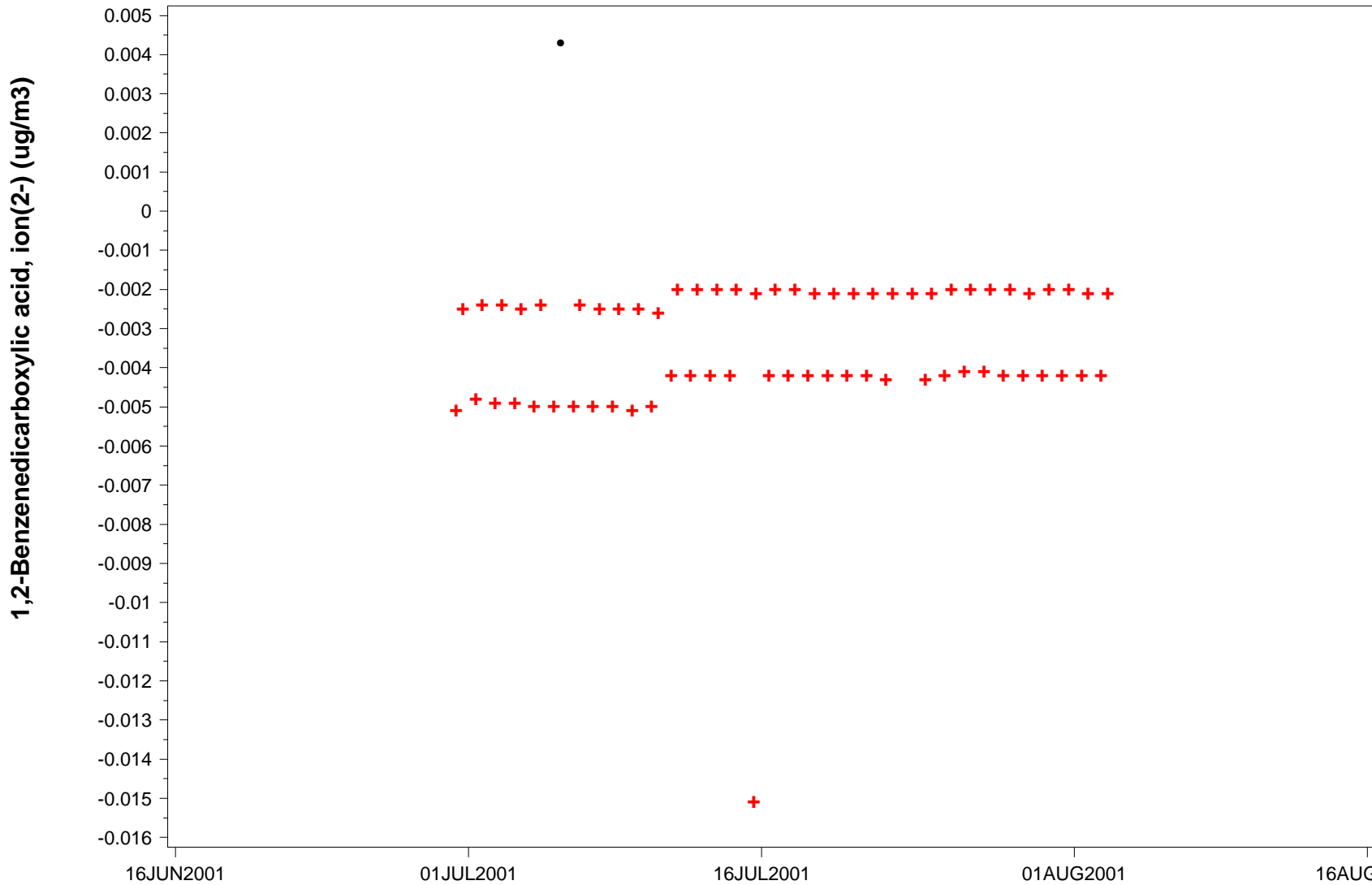
Site ID	Site location setting	Measurement start date	Measurement end date	Co-incident measurements	Study site ID	Lat lon accuracy
STIFCAONSIM_	Rural	2001/06/30	2001/08/02	None		.

NARSTO Standard Flags

Flag: NARSTO	Description
H1	Historical data that have not been assessed or validated
M1	Missing value because no value is available
M2	Missing value because invalidated by data originator
	Missing value because invalidated by Data Originator
	Missing value because invalidated by data originator
V0	Valid value
V1	Valid value but comprised wholly or partially of below detection limit data
V2	Valid estimated value
V3	Valid interpolated value
V4	Valid value despite failing to meet some QC or statistical criteria
V5	Valid value but qualified because of possible contamination (e.g., pollution source, laboratory contamination source)
V6	Valid value but qualified due to non-standard sampling conditions
	Valid value but qualified due to non-standard sampling conditions (e.g., instrument malfunction, sample handling)
	Valid value but qualified due to non-standard sampling conditions
V7	Valid value but set equal to the detection limit (DL) because the measured value was below the DL

Site ID: **STIFCAONSIM_** Variable name: **1,2-Benzenedicarboxylic acid, ion(2-)** Common Name: **Phthalic** Units: **ug/m3**
 Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day** CAS ID: **C3198-29-6** Observation type: **Particles**
 Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0151**
 25th Percentile: **-0.0042**
 Median: **-0.0026**
 Mean: **-0.003**
 75th Percentile: **-0.0021**
 Maximum: **0.0043**
 Stnd Dev.: **0.002**

NARSTO Flags
Flag Symbol Count
 M1: **1**
 V0: **1**
 V1: **66**

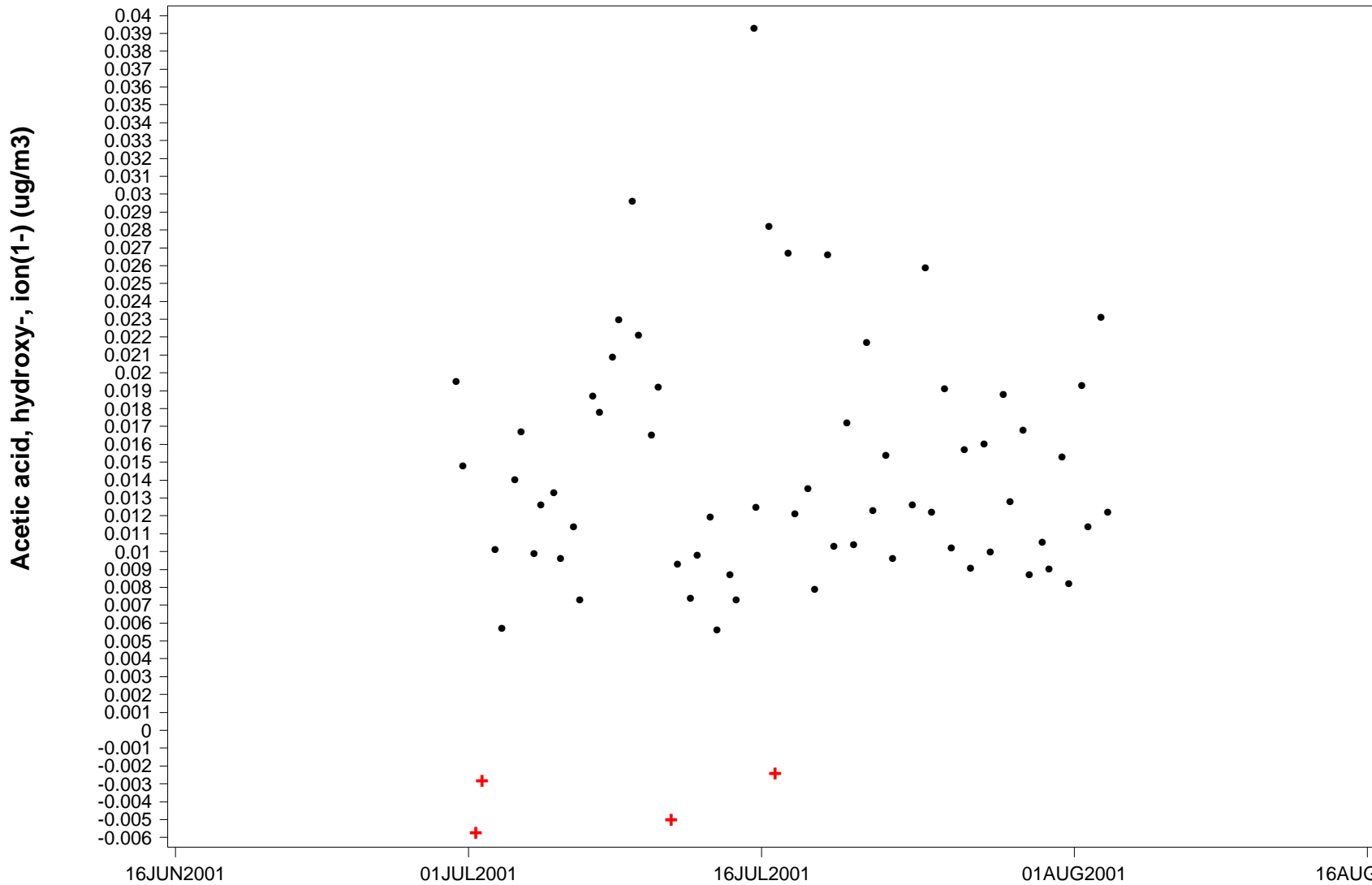
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Acetic acid, hydroxy-, ion(1-)** Common Name: **Glycolic** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C666-14-8** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0057**
 25th Percentile: **0.0096**
 Median: **0.0125**
 Mean: **0.014**
 75th Percentile: **0.0187**
 Maximum: **0.0393**
 Std Dev.: **0.008**

NARSTO Flags
Flag Symbol Count
 M1: **1**
 V0: ● **63**
 V1: + **4**

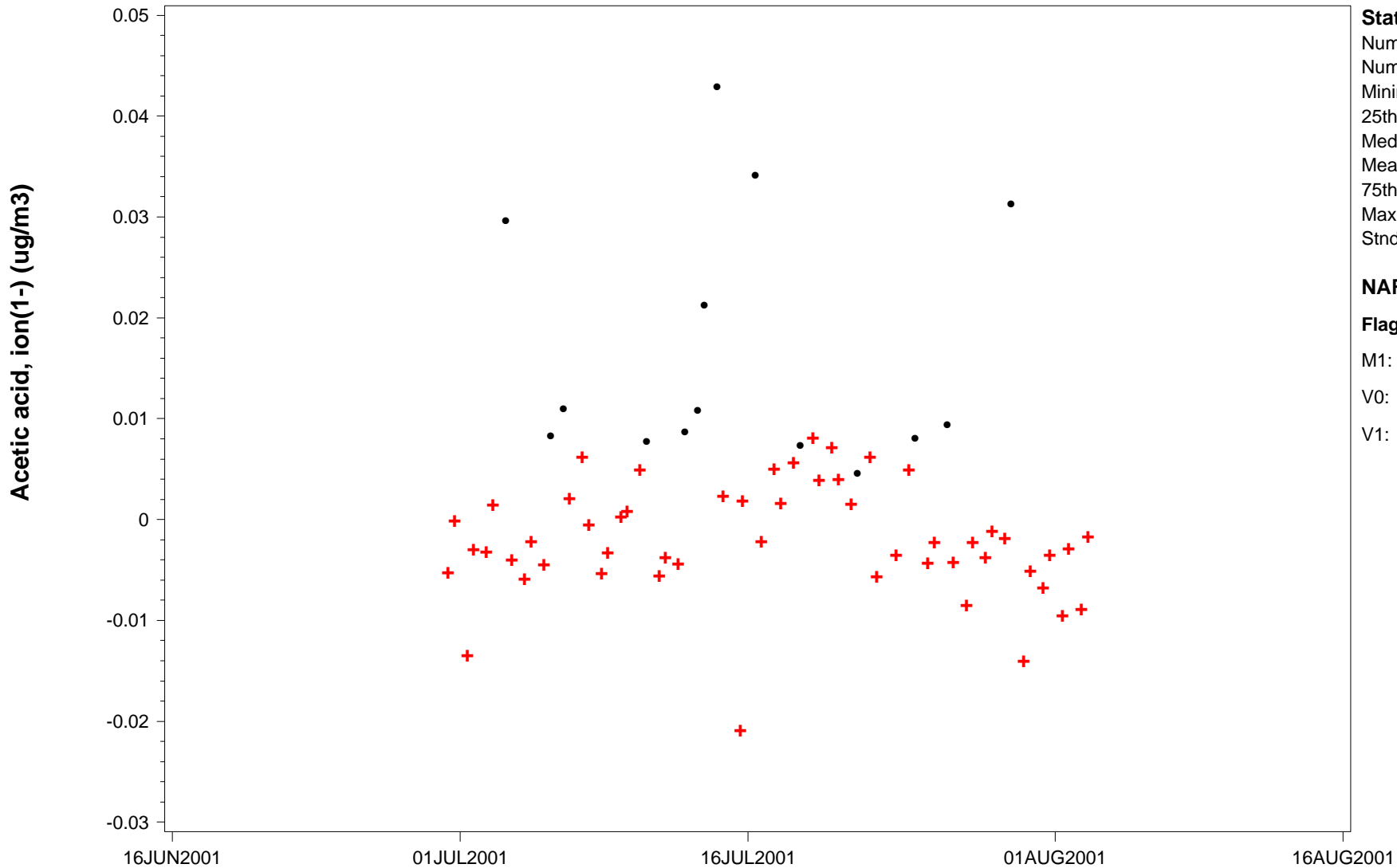
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Acetic acid, ion(1-)** Common Name: **Acetate** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C71-50-1** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0209**
 25th Percentile: **-0.0042**
 Median: **-0.0005**
 Mean: **0.002**
 75th Percentile: **0.0062**
 Maximum: **0.0429**
 Std Dev.: **0.011**

NARSTO Flags
Flag Symbol Count
 M1: **1**
 V0: **● 14**
 V1: **+ 53**

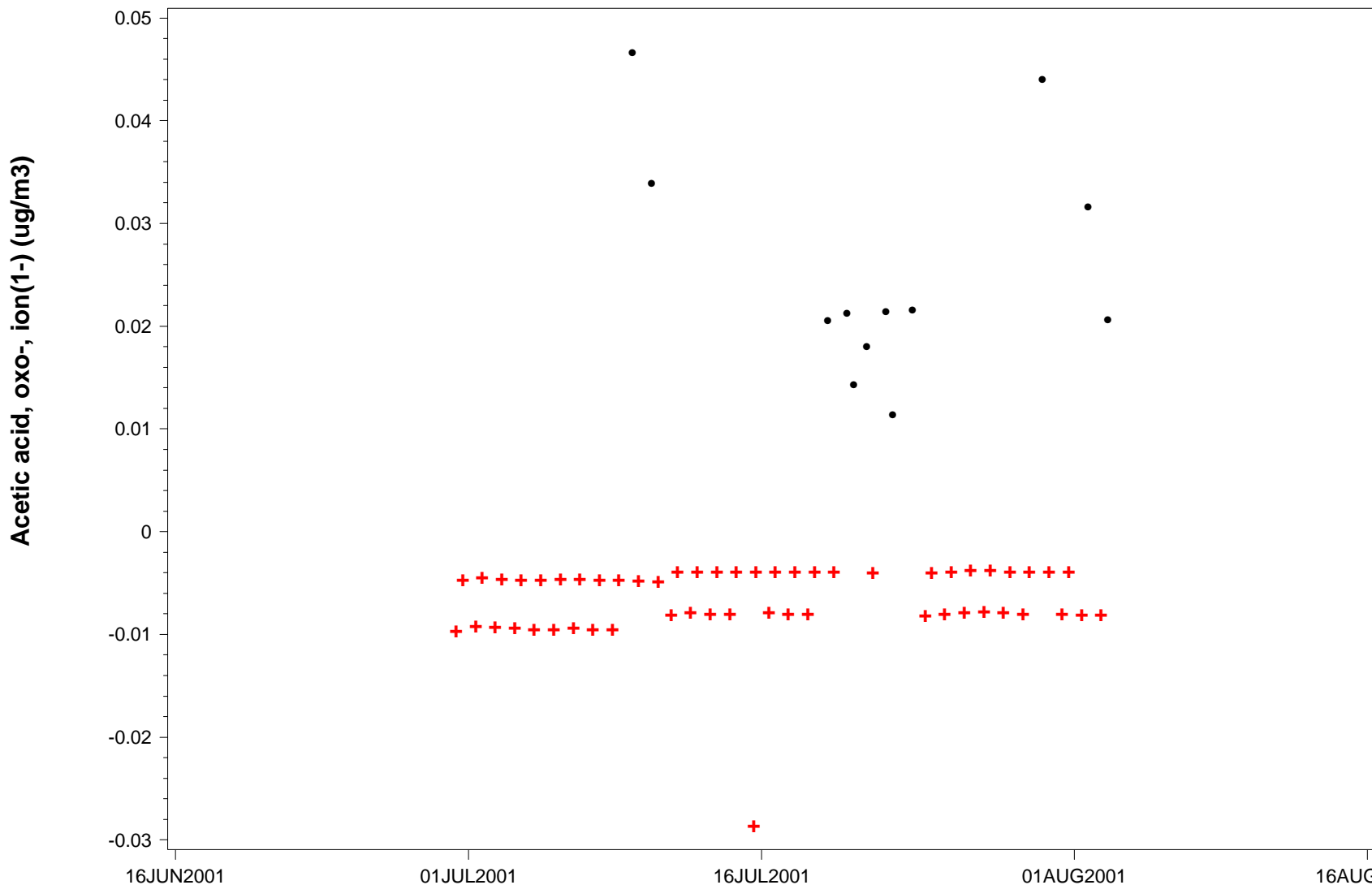
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Acetic acid, oxo-, ion(1-)** Common Name: **Glyoxylic** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C430-75-1** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **IC** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics

Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0287**
 25th Percentile: **-0.008**
 Median: **-0.0046**
 Mean: **-0.001**
 75th Percentile: **-0.0039**
 Maximum: **0.0466**
 Std Dev.: **0.014**

NARSTO Flags

Flag Symbol Count

M1: **1**
 V0: ● **12**
 V1: + **55**

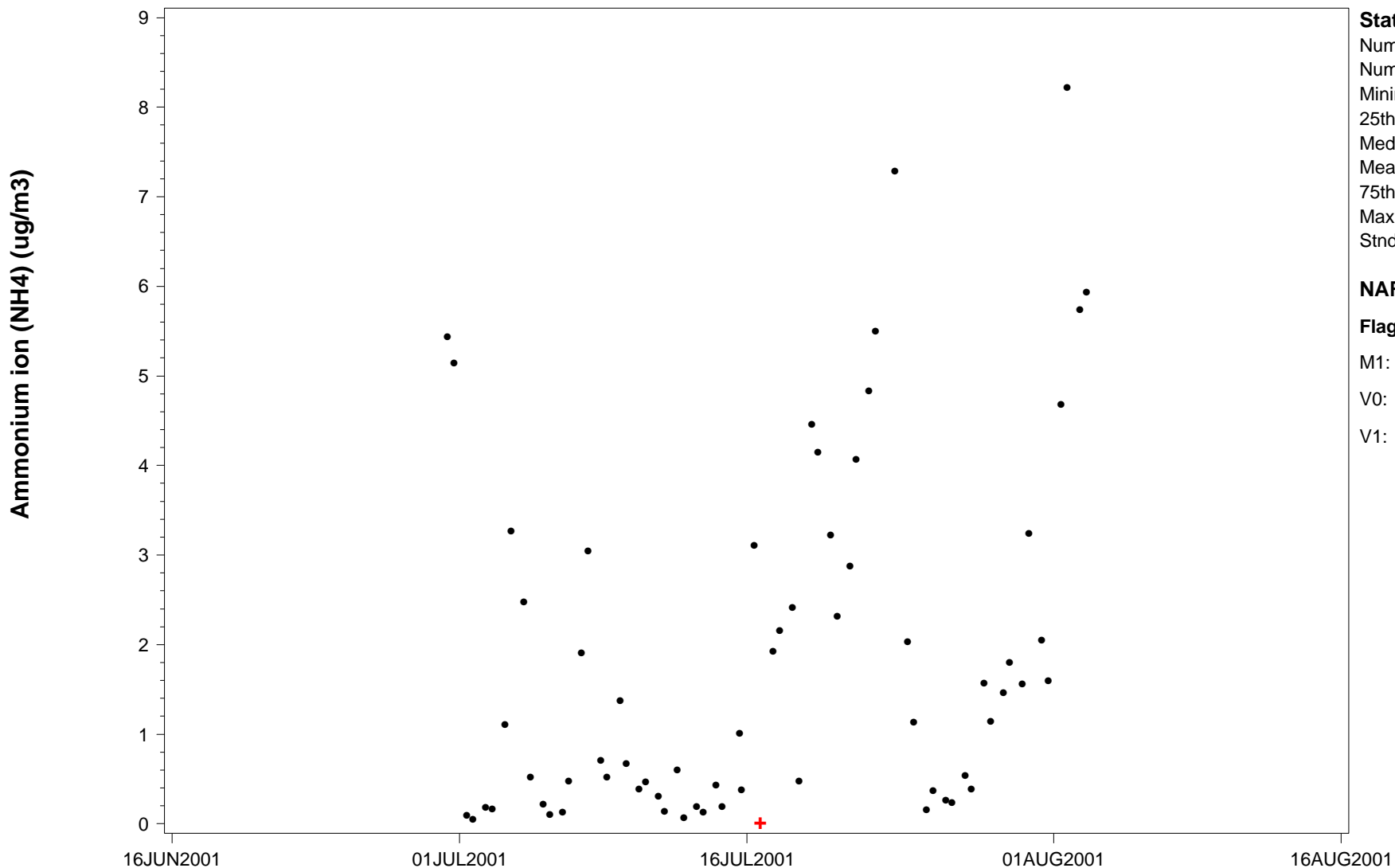
Time Zone: EST

NAtChem Time Series Plot

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Site ID: **STIFCAONSIM_** Variable name: **Ammonium ion (NH4)** Common Name: **NH4+** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C14798-03-9** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **IC** Sample preparation: **Water extraction** Blank Correction: **Not blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics

Number of obs: **68**
 Number of missing: **1**
 Minimum: **0.01**
 25th Percentile: **0.31**
 Median: **1.13**
 Mean: **1.864**
 75th Percentile: **3.05**
 Maximum: **8.22**
 Std Dev.: **1.991**

NARSTO Flags

Flag Symbol Count

M1: **1**
 V0: ● **66**
 V1: + **1**

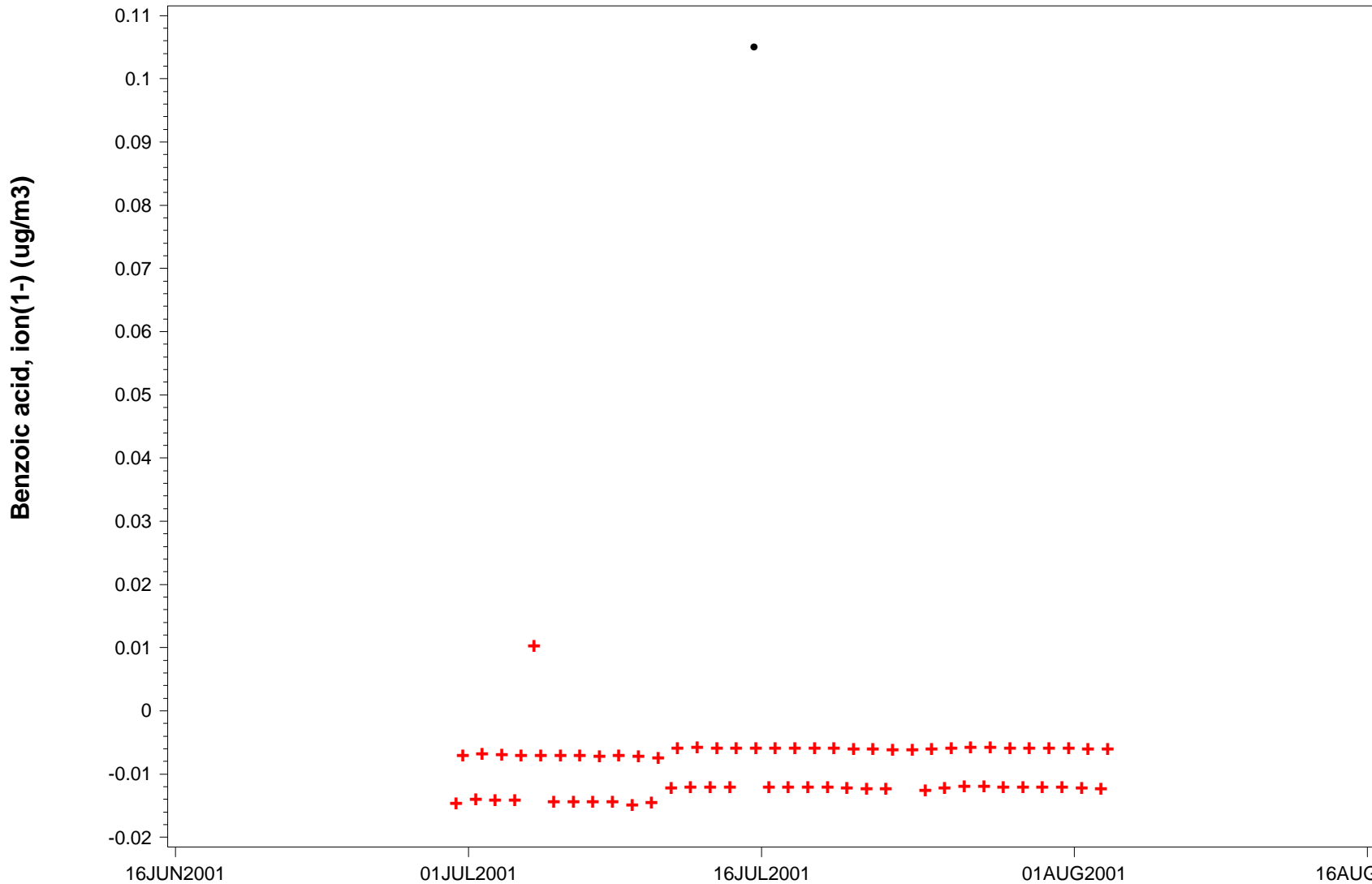
Time Zone: EST

NAtChem Time Series Plot

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Site ID: **STIFCAONSIM_** Variable name: **Benzoic acid, ion(1-)** Common Name: **benzoic acid anion** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C766-76-7** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **IC** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



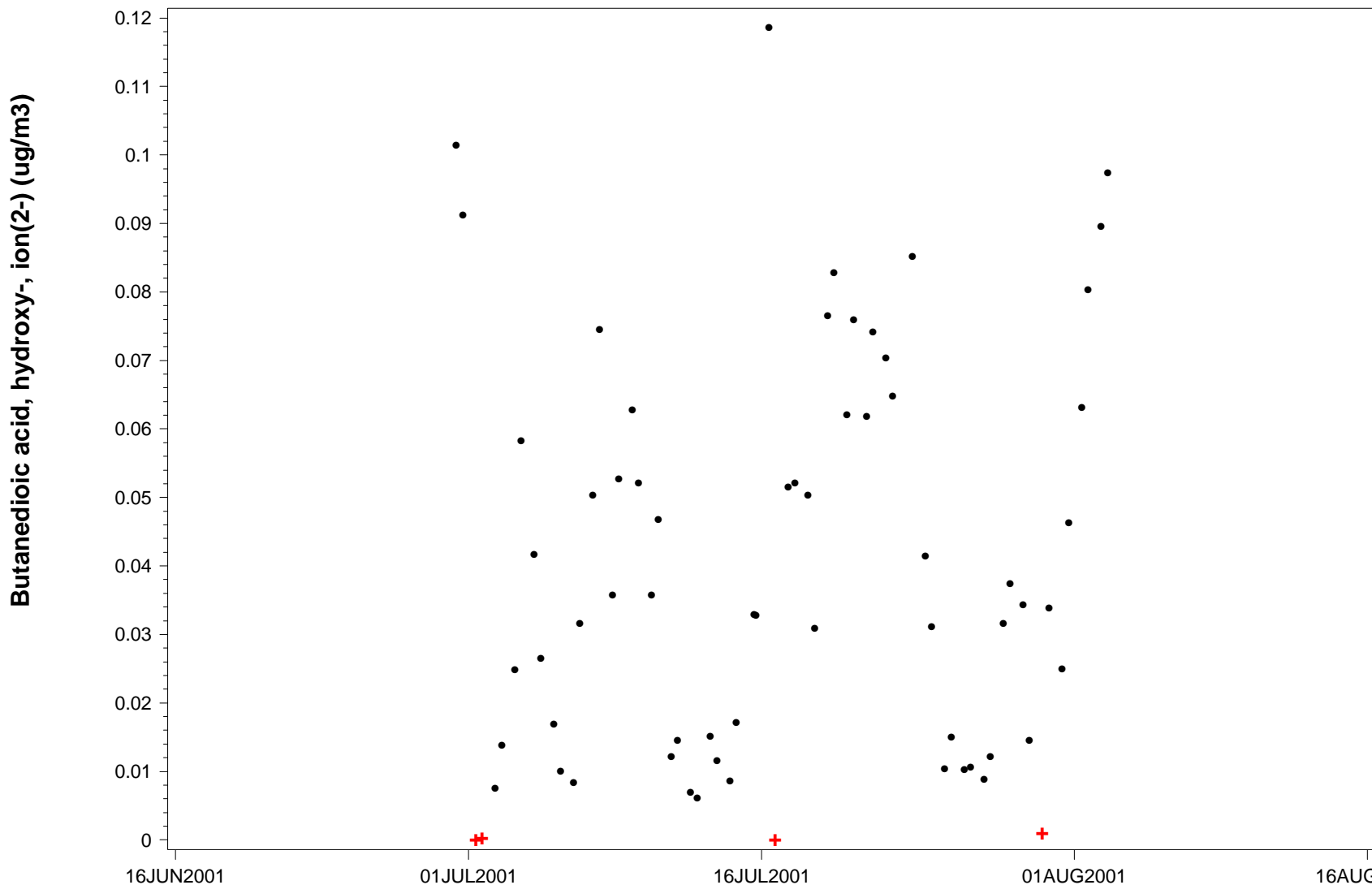
Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0148**
 25th Percentile: **-0.0122**
 Median: **-0.0072**
 Mean: **-0.007**
 75th Percentile: **-0.0059**
 Maximum: **0.1051**
 Std Dev.: **0.015**

NARSTO Flags
Flag Symbol Count
 M1: **1**
 V0: ● **1**
 V1: + **66**

Time Zone: EST

Site ID: **STIFCAONSIM_** Variable name: **Butanedioic acid, hydroxy-, ion(2-)** Common Name: **Malic** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C149-61-1** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Not blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics

Number of obs: **68**
 Number of missing: **1**
 Minimum: **0**
 25th Percentile: **0.0122**
 Median: **0.0338**
 Mean: **0.040**
 75th Percentile: **0.0621**
 Maximum: **0.1186**
 Stnd Dev.: **0.030**

NARSTO Flags

Flag Symbol Count

M1: **1**
 V0: ● **63**
 V1: + **4**

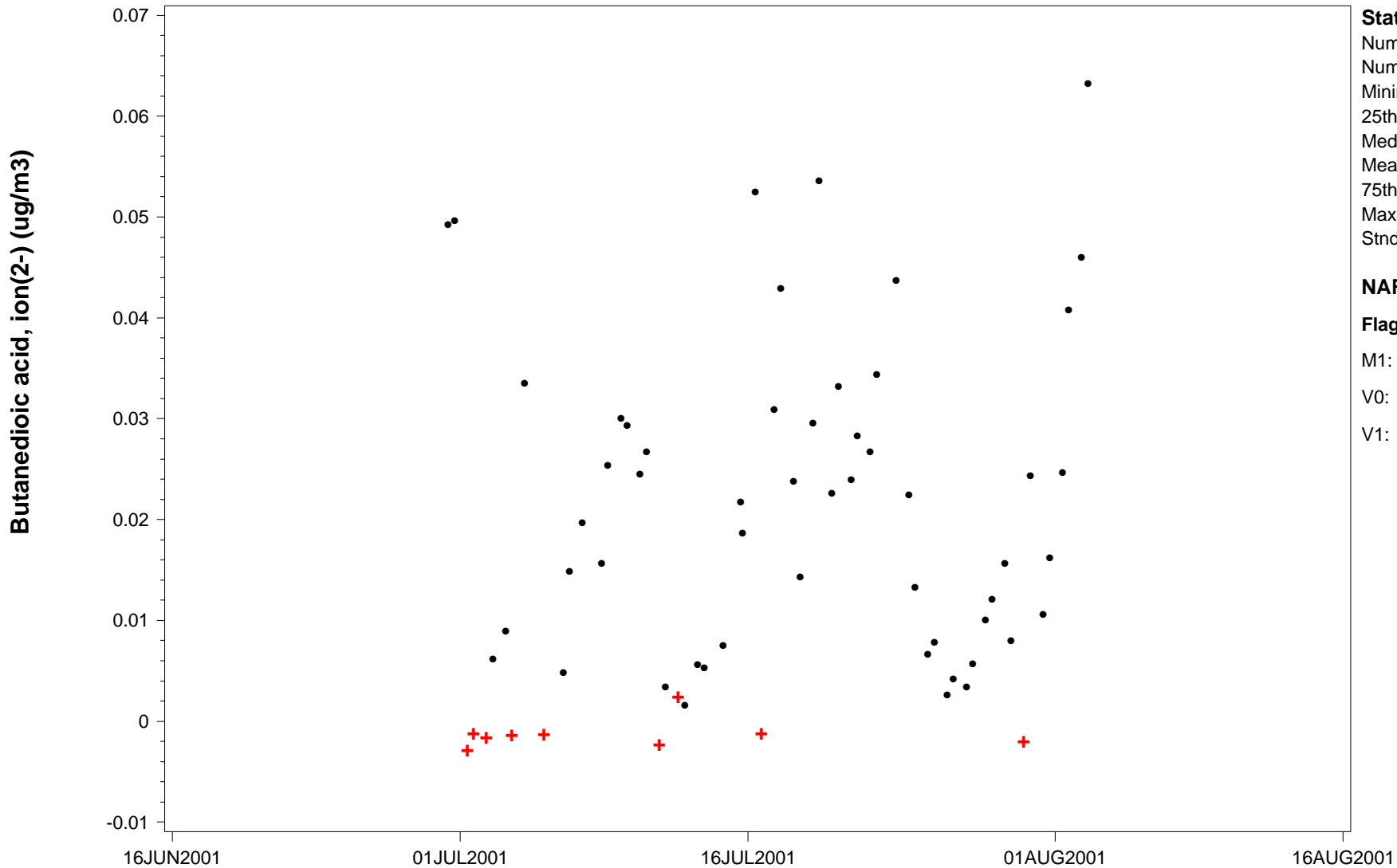
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Butanedioic acid, ion(2-)** Common Name: **Succinic** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C56-14-4** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics

Number of obs: **68**
 Number of missing: **5**
 Minimum: **-0.0029**
 25th Percentile: **0.0053**
 Median: **0.0157**
 Mean: **0.019**
 75th Percentile: **0.0293**
 Maximum: **0.0632**
 Std Dev.: **0.017**

NARSTO Flags

Flag Symbol Count

M1:	5
V0:	● 54
V1:	+ 9

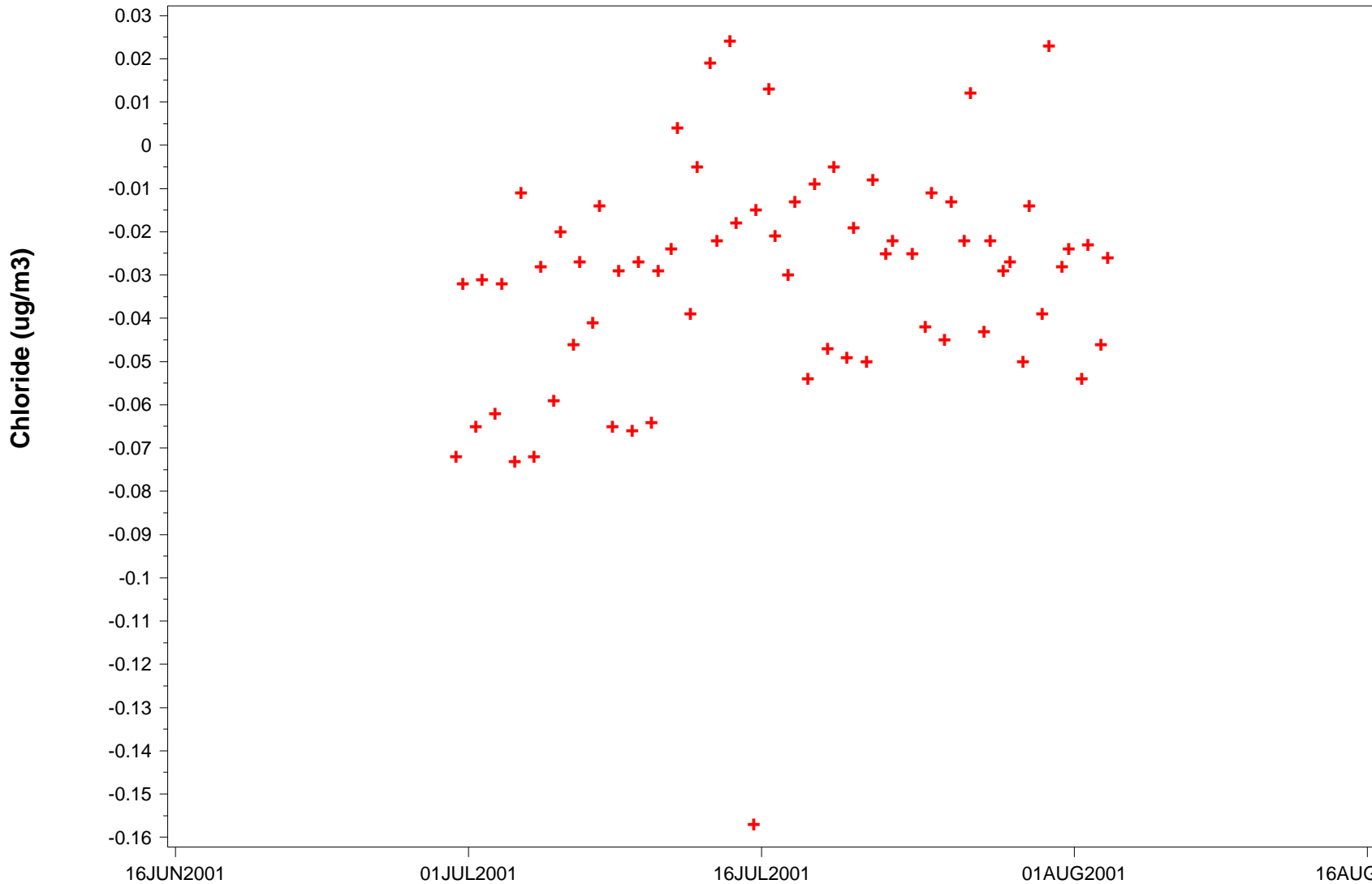
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Chloride** Units: **ug/m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 CAS ID: **C16887-00-6** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



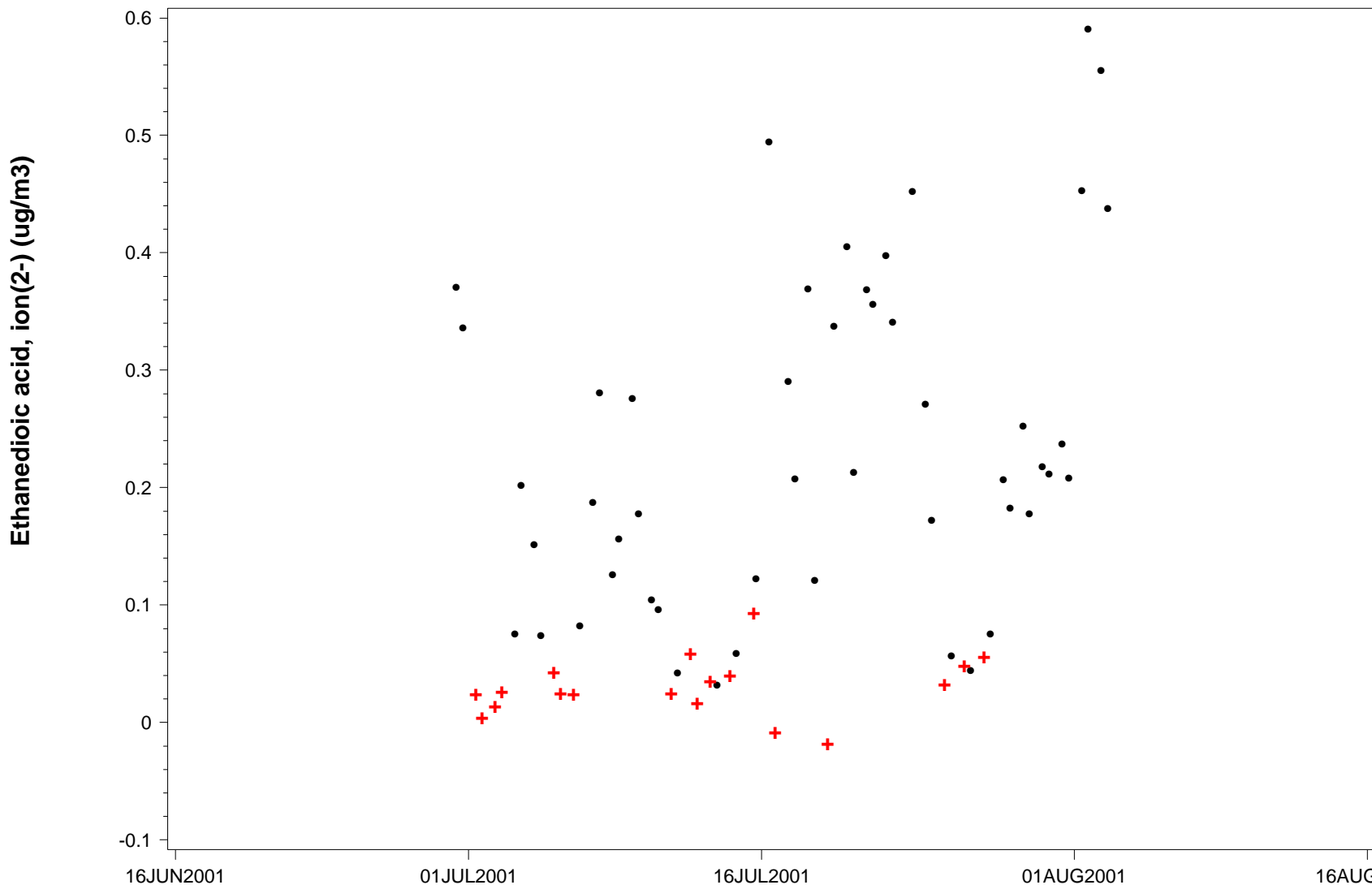
Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.157**
 25th Percentile: **-0.046**
 Median: **-0.027**
 Mean: **-0.031**
 75th Percentile: **-0.015**
 Maximum: **0.024**
 Std Dev.: **0.028**

NARSTO Flags
Flag Symbol Count
 M1: **1**
 V1: **+ 67**

Time Zone: EST

Site ID: **STIFCAONSIM_** Variable name: **Ethanedioic acid, ion(2-)** Common Name: **Oxalic acid, ion** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C338-70-5** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **IC** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics

Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0185**
 25th Percentile: **0.0441**
 Median: **0.1568**
 Mean: **0.182**
 75th Percentile: **0.2804**
 Maximum: **0.5903**
 Std Dev.: **0.154**

NARSTO Flags

Flag Symbol Count

M1: **1**
 V0: ● **49**
 V1: + **18**

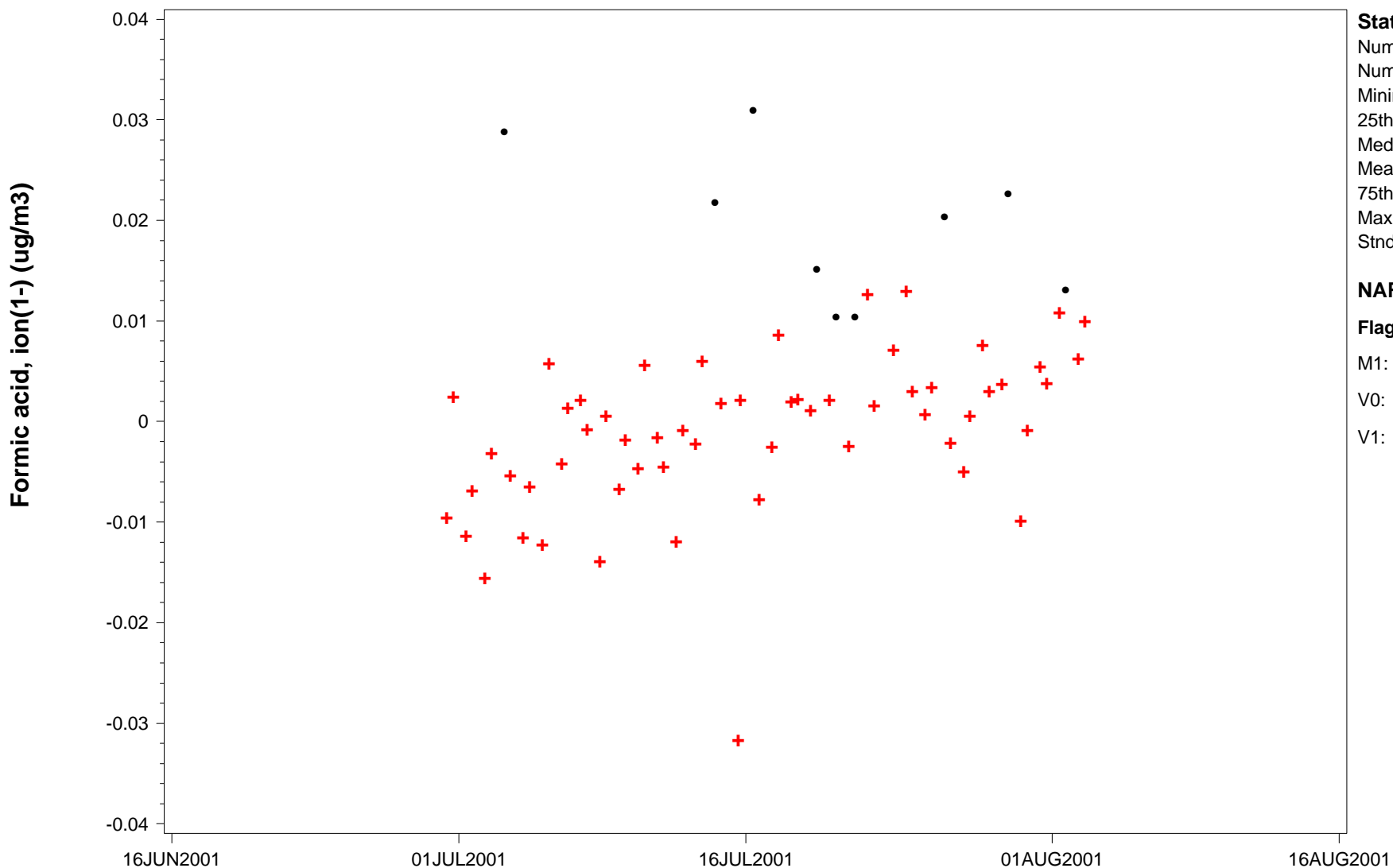
Time Zone: EST

NATchem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Formic acid, ion(1-)** Common Name: **Formate** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C71-47-6** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0317**
 25th Percentile: **-0.0045**
 Median: **0.0015**
 Mean: **0.002**
 75th Percentile: **0.0062**
 Maximum: **0.0309**
 Std Dev.: **0.010**

NARSTO Flags
Flag Symbol Count
 M1: **1**
 V0: **● 9**
 V1: **+ 58**

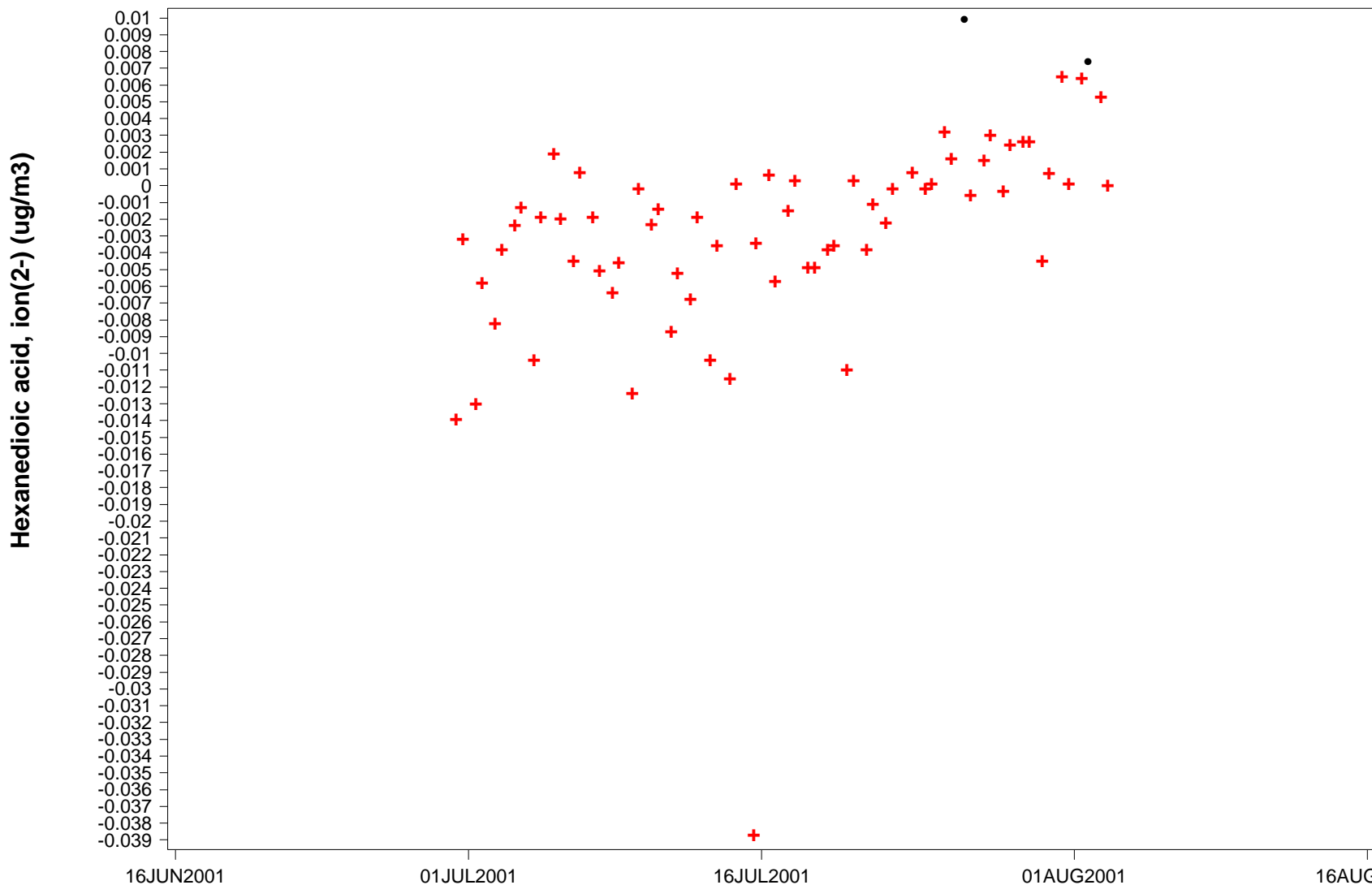
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Hexanedioic acid, ion(2-)** Common Name: **Adipic** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C764-65-8** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics

Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0387**
 25th Percentile: **-0.0049**
 Median: **-0.0019**
 Mean: **-0.003**
 75th Percentile: **0.0006**
 Maximum: **0.0099**
 Stnd Dev.: **0.007**

NARSTO Flags

Flag Symbol Count

M1: **1**
 V0: ● **2**
 V1: + **65**

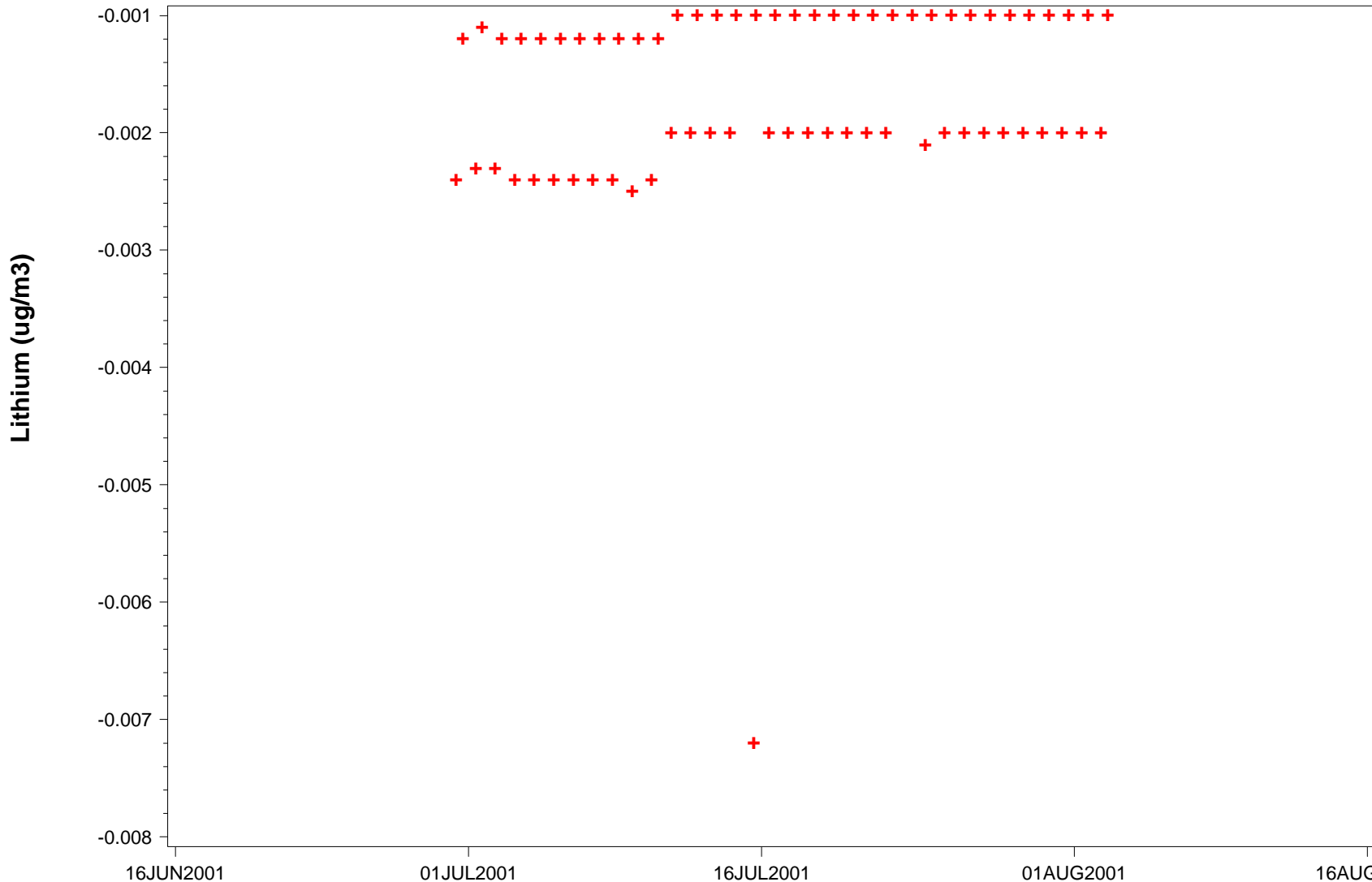
Time Zone: EST

NATchem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Lithium** Units: **ug/m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 CAS ID: **C7439-93-2** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0072**
 25th Percentile: **-0.002**
 Median: **-0.0012**
 Mean: **-0.002**
 75th Percentile: **-0.001**
 Maximum: **-0.001**
 Std Dev.: **0.001**

NARSTO Flags
Flag Symbol Count
 M1: **1**
 V1: **+ 67**

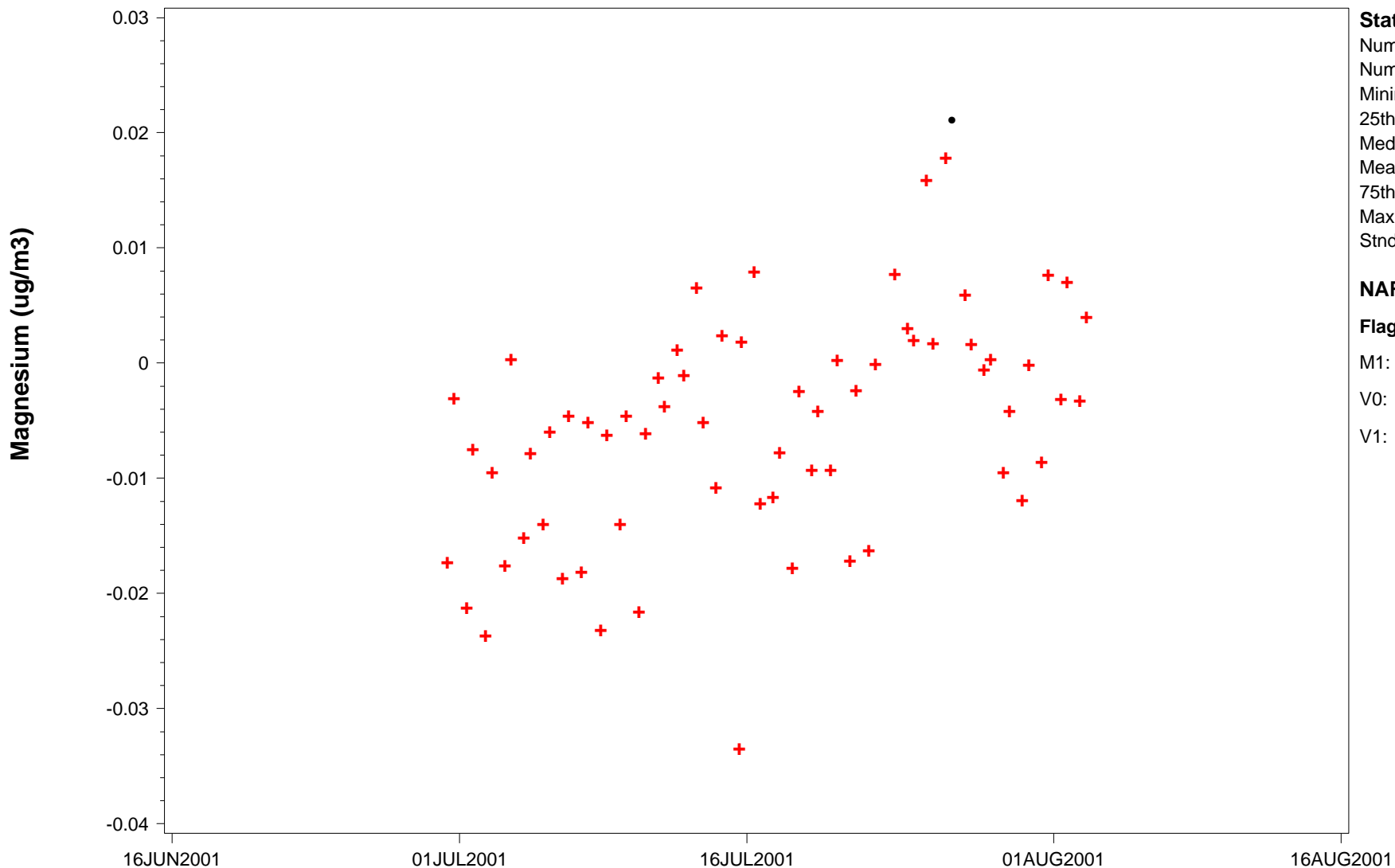
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Magnesium** Units: **ug/m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 CAS ID: **C7439-95-4** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



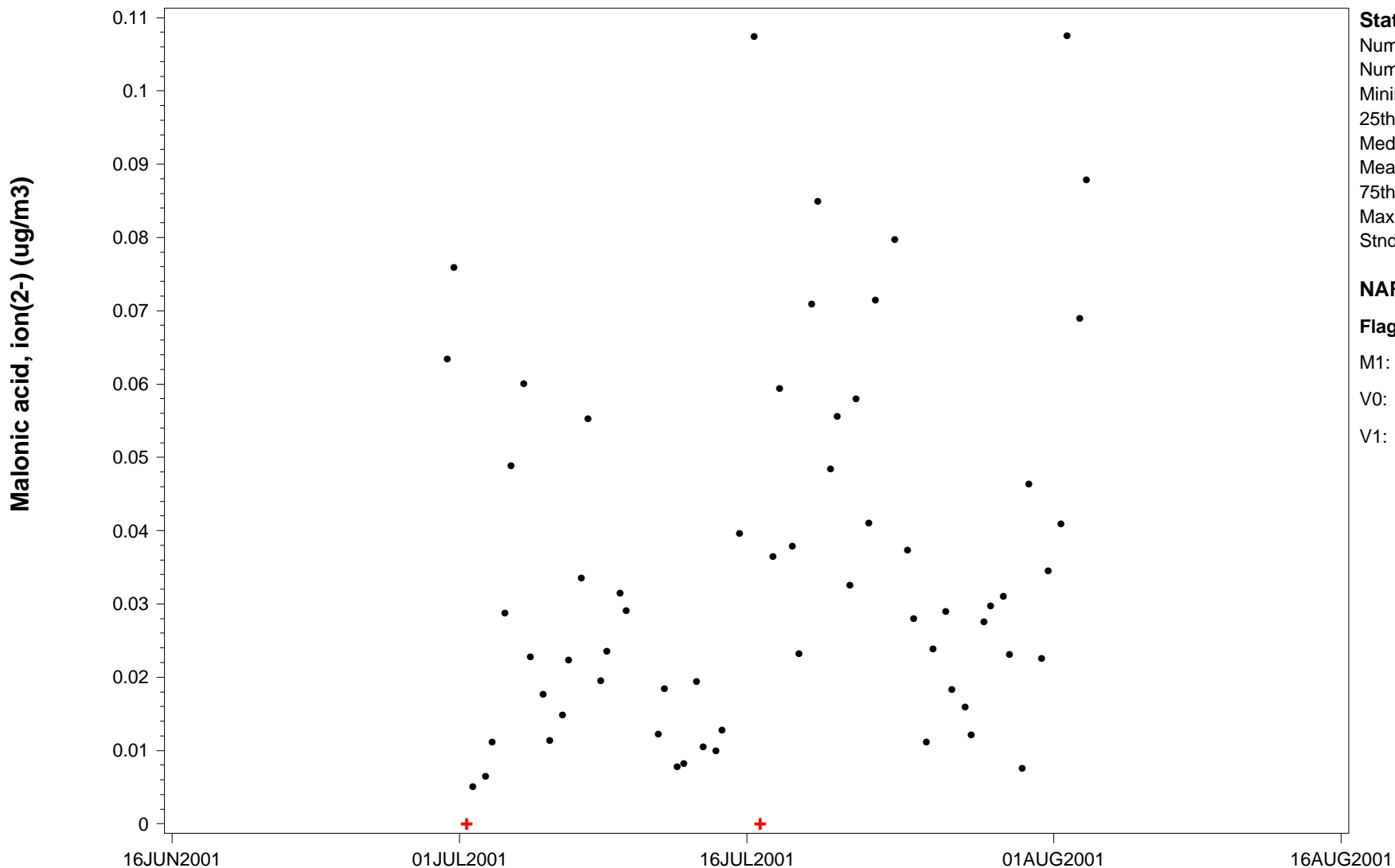
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Malonic acid, ion(2-)** Common Name: **Malonic** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C156-80-9** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Not blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics

Number of obs: **68**
 Number of missing: **4**
 Minimum: **0**
 25th Percentile: **0.01535**
 Median: **0.0288**
 Mean: **0.035**
 75th Percentile: **0.0486**
 Maximum: **0.1076**
 Std Dev.: **0.026**

NARSTO Flags

Flag Symbol Count

M1: **4**
 V0: ● **62**
 V1: + **2**

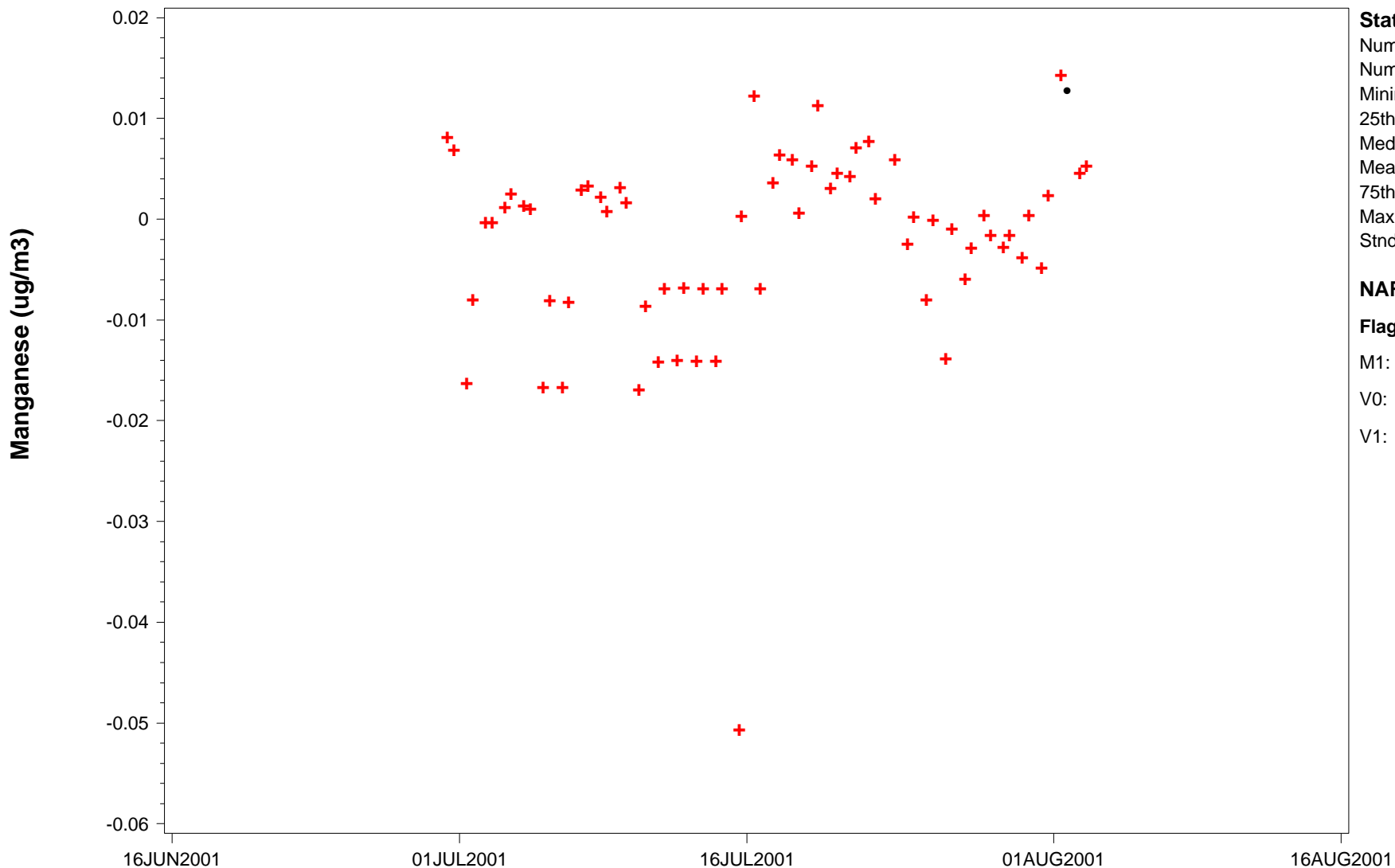
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Manganese** Units: **ug/m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 CAS ID: **C7439-96-5** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics

Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0507**
 25th Percentile: **-0.0069**
 Median: **0.0003**
 Mean: **-0.002**
 75th Percentile: **0.0036**
 Maximum: **0.0143**
 Std Dev.: **0.010**

NARSTO Flags

Flag Symbol Count

M1:		1
V0:	●	1
V1:	+	66

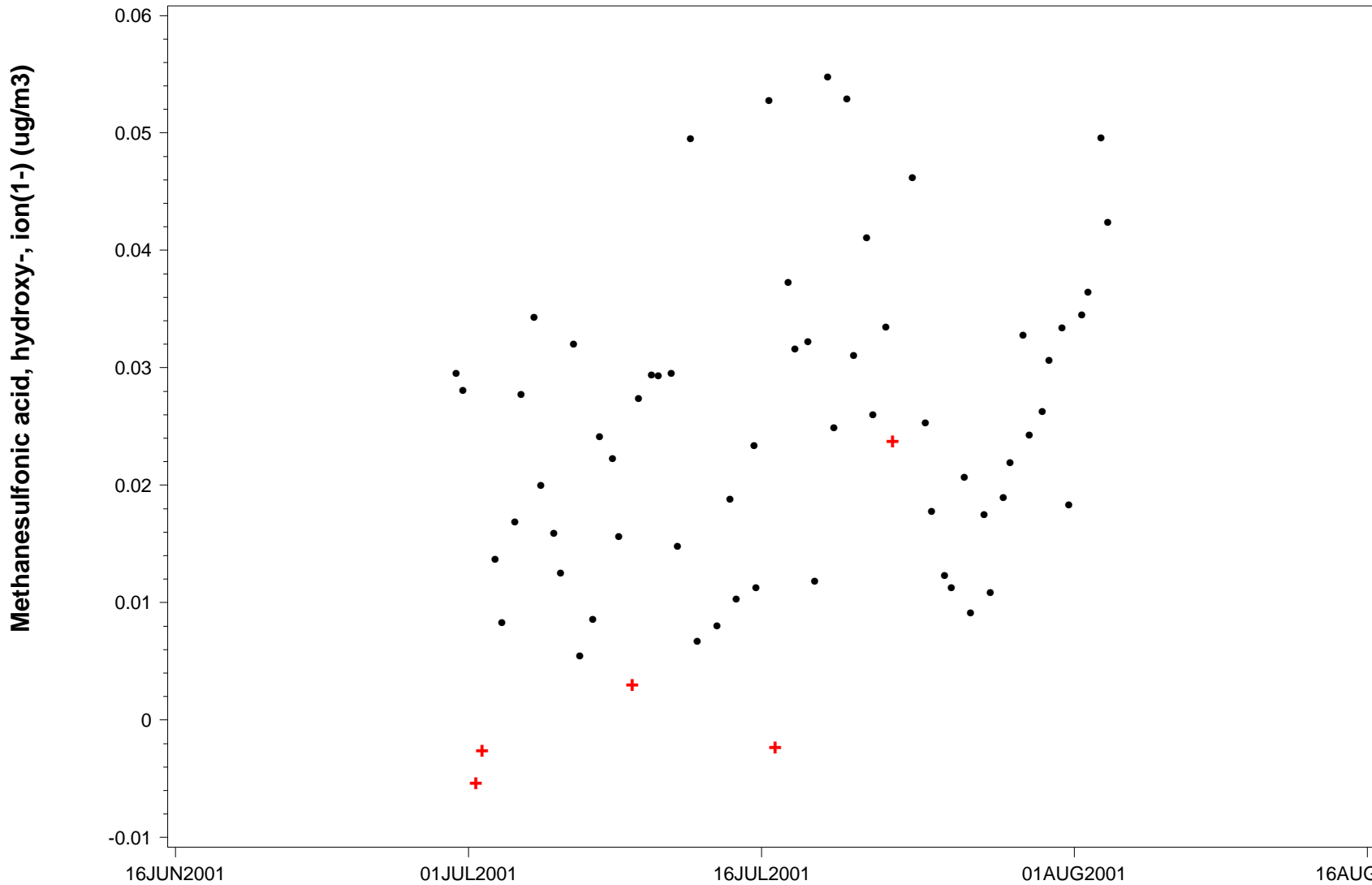
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Methanesulfonic acid, hydroxy-, ion(1-)** Common Name: **HMSA** Units: **ug/m3**
 Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day** CAS ID: **C7494-19-1** Observation type: **Particles**
 Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **2**
 Minimum: **-0.0054**
 25th Percentile: **0.0125**
 Median: **0.0239**
 Mean: **0.024**
 75th Percentile: **0.032**
 Maximum: **0.0548**
 Std Dev.: **0.014**

NARSTO Flags
Flag Symbol Count
 M1: **2**
 V0: ● **61**
 V1: + **5**

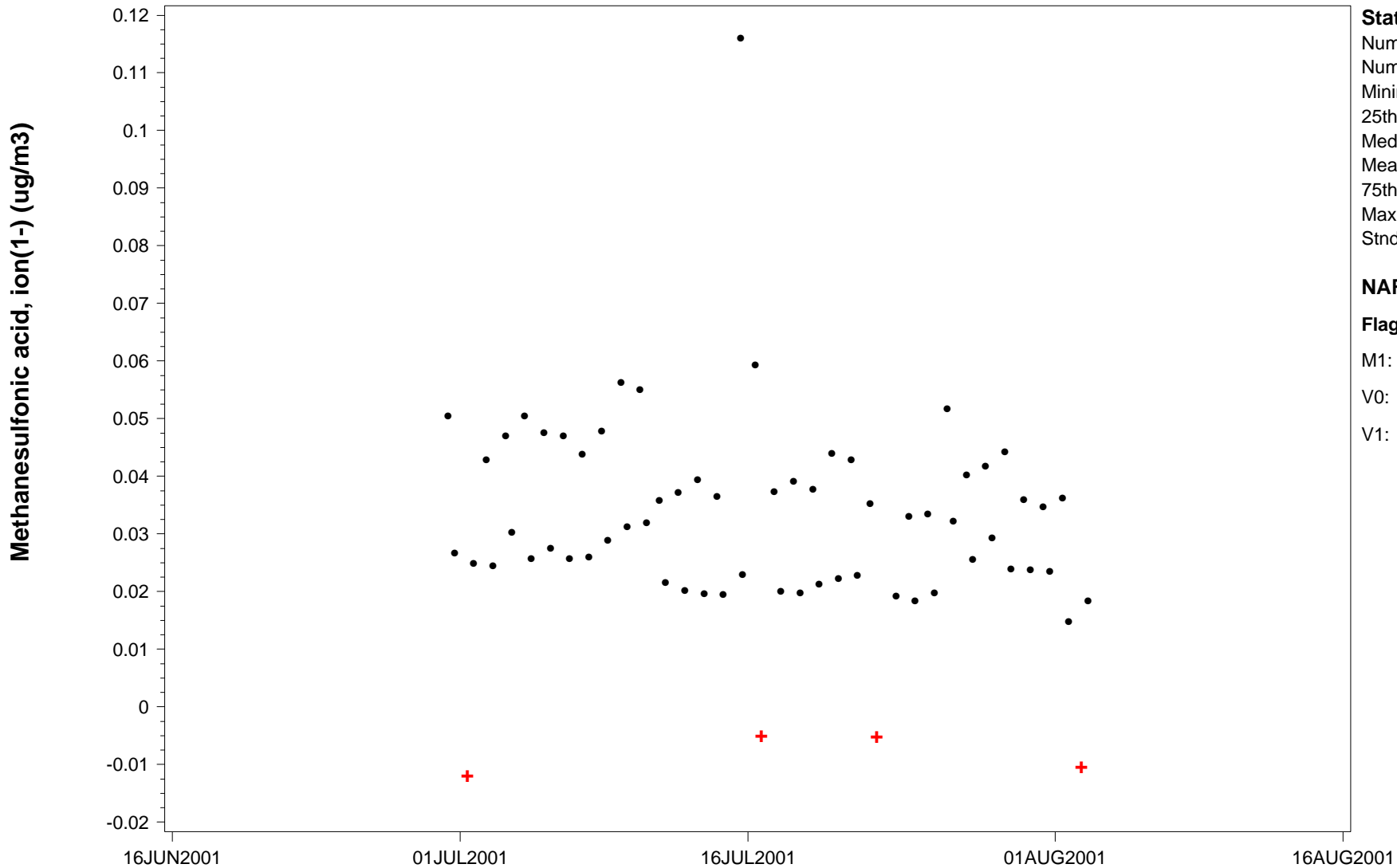
Time Zone: EST

NATchem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Methanesulfonic acid, ion(1-)** Common Name: **MSA** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C16053-58-0** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **IC** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.012**
 25th Percentile: **0.0223**
 Median: **0.0313**
 Mean: **0.032**
 75th Percentile: **0.0418**
 Maximum: **0.116**
 Std Dev.: **0.018**

NARSTO Flags
Flag Symbol Count
 M1: **1**
 V0: ● **63**
 V1: + **4**

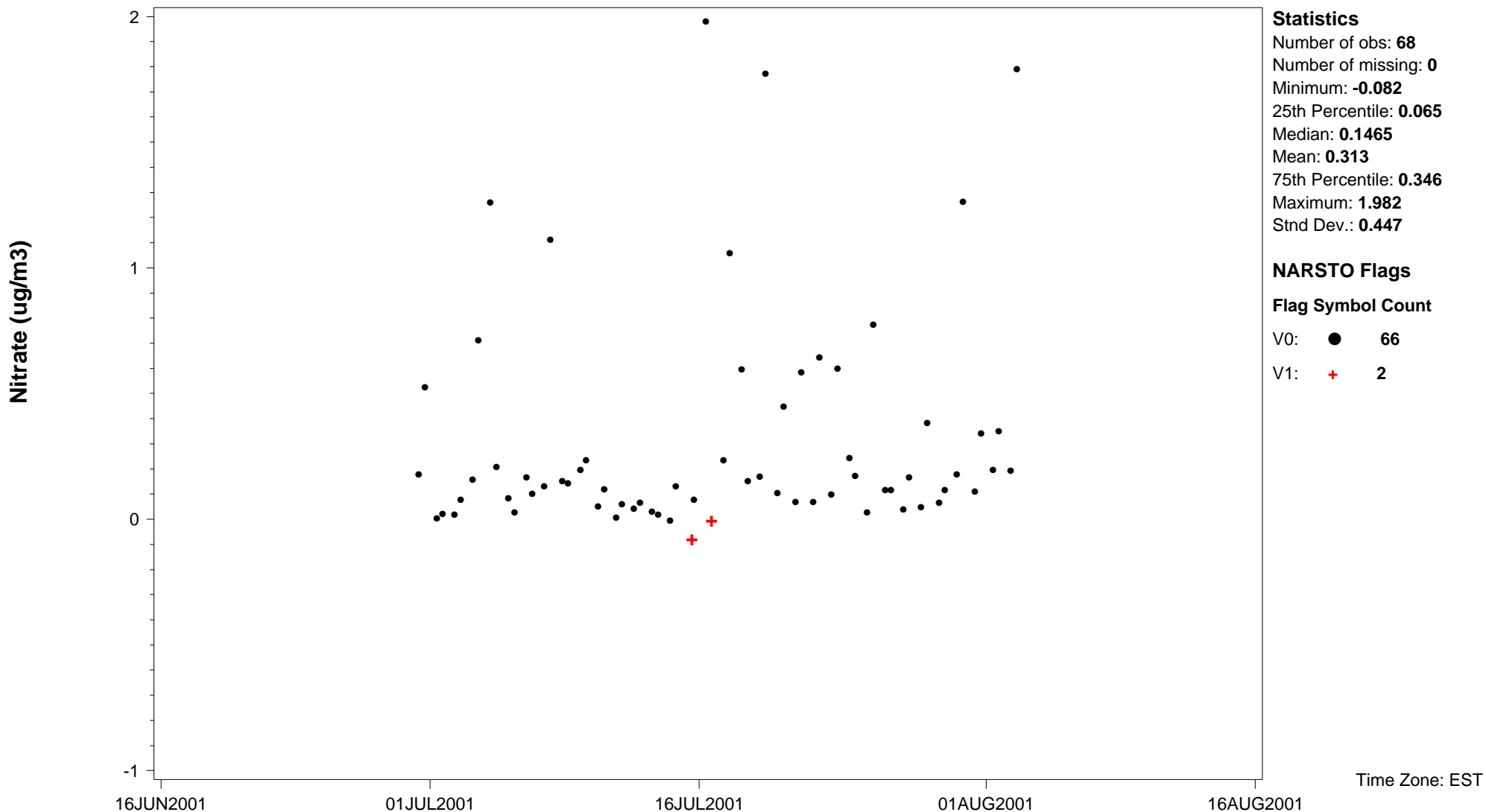
Time Zone: EST

NATchem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Nitrate** Units: **ug/m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 CAS ID: **C14797-55-8** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Nylon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**

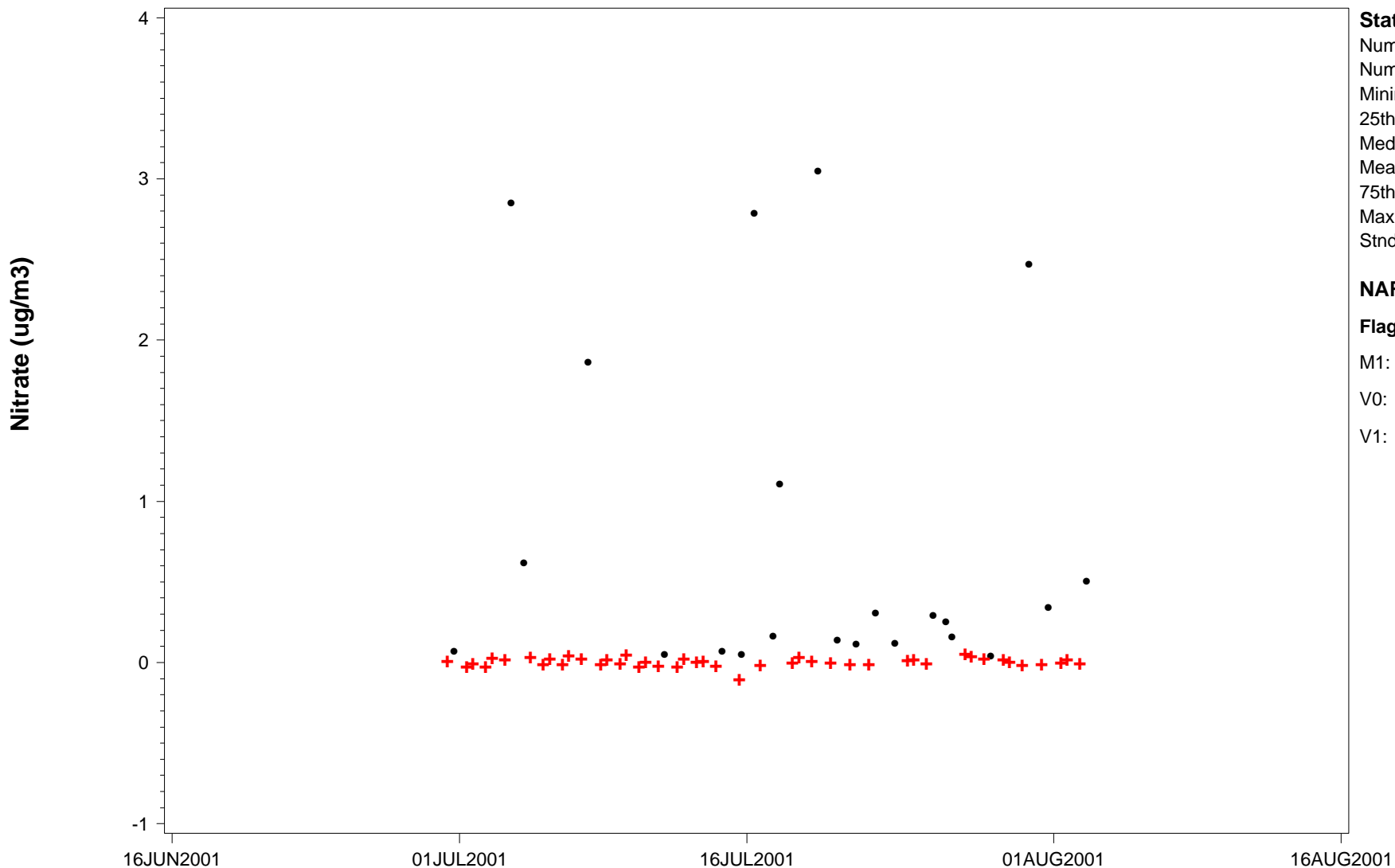


NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Nitrate** Units: **ug/m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 CAS ID: **C14797-55-8** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**

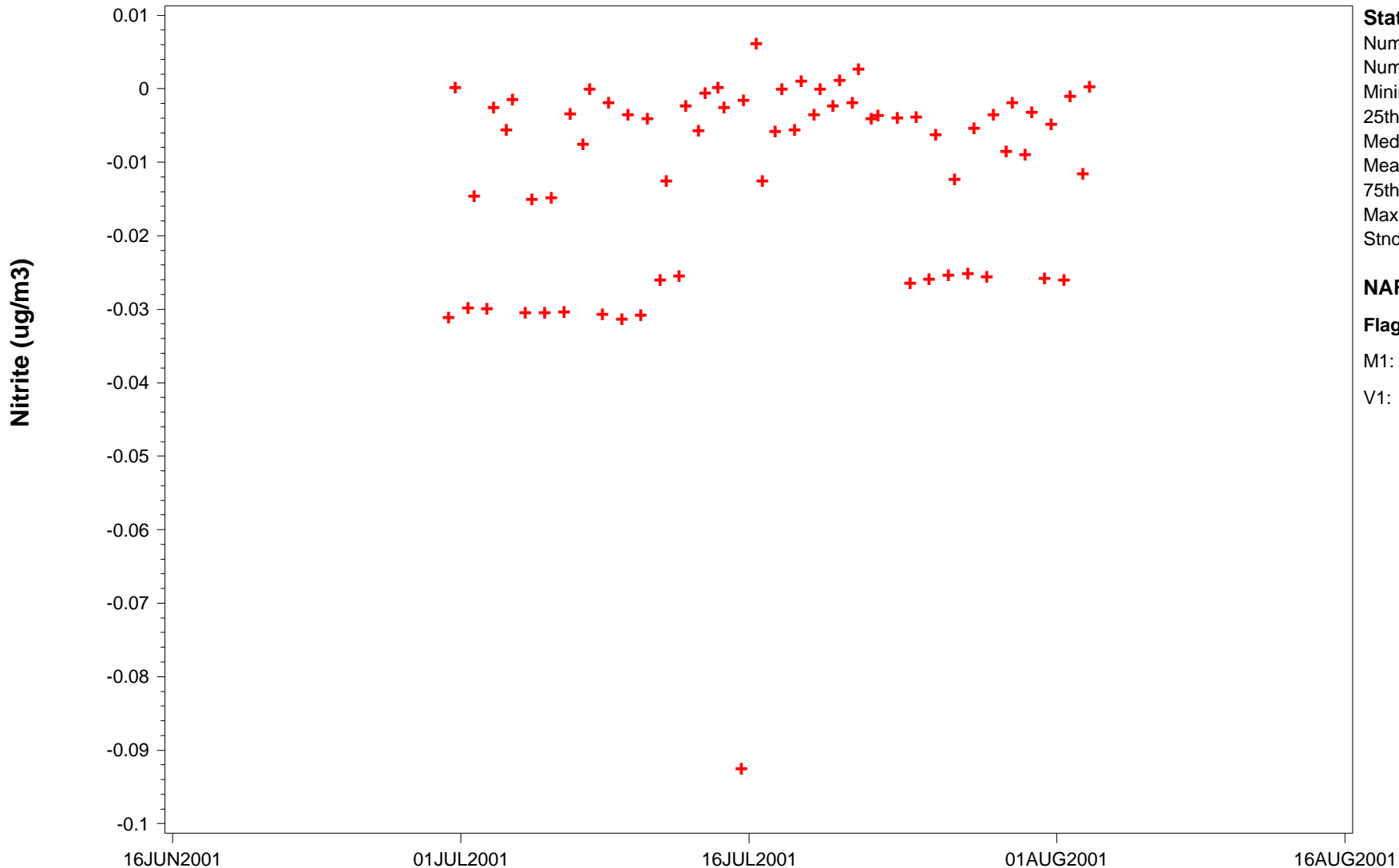


NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Nitrite** Units: **ug/m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 CAS ID: **C14797-65-0** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0925**
 25th Percentile: **-0.0255**
 Median: **-0.0056**
 Mean: **-0.012**
 75th Percentile: **-0.0019**
 Maximum: **0.0062**
 Std Dev.: **0.015**

NARSTO Flags
Flag Symbol Count
 M1: **1**
 V1: **+ 67**

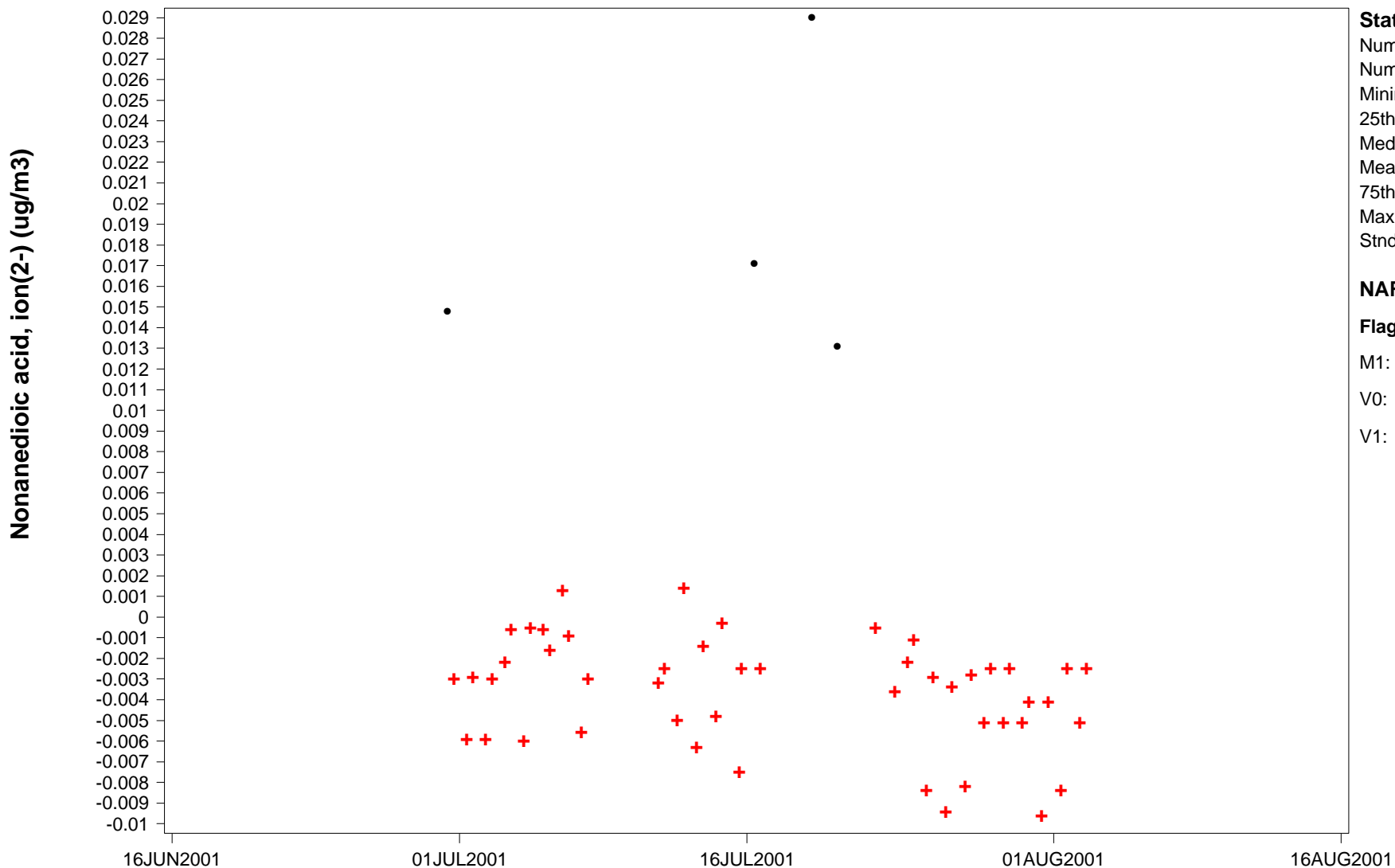
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Nonanedioic acid, ion(2-)** Common Name: **Azelaic** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C13479-16-8** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics

Number of obs: **68**
 Number of missing: **16**
 Minimum: **-0.0096**
 25th Percentile: **-0.0051**
 Median: **-0.0029**
 Mean: **-0.002**
 75th Percentile: **-0.00125**
 Maximum: **0.029**
 Std Dev.: **0.007**

NARSTO Flags

Flag Symbol Count

M1:		16
V0:	●	4
V1:	+	48

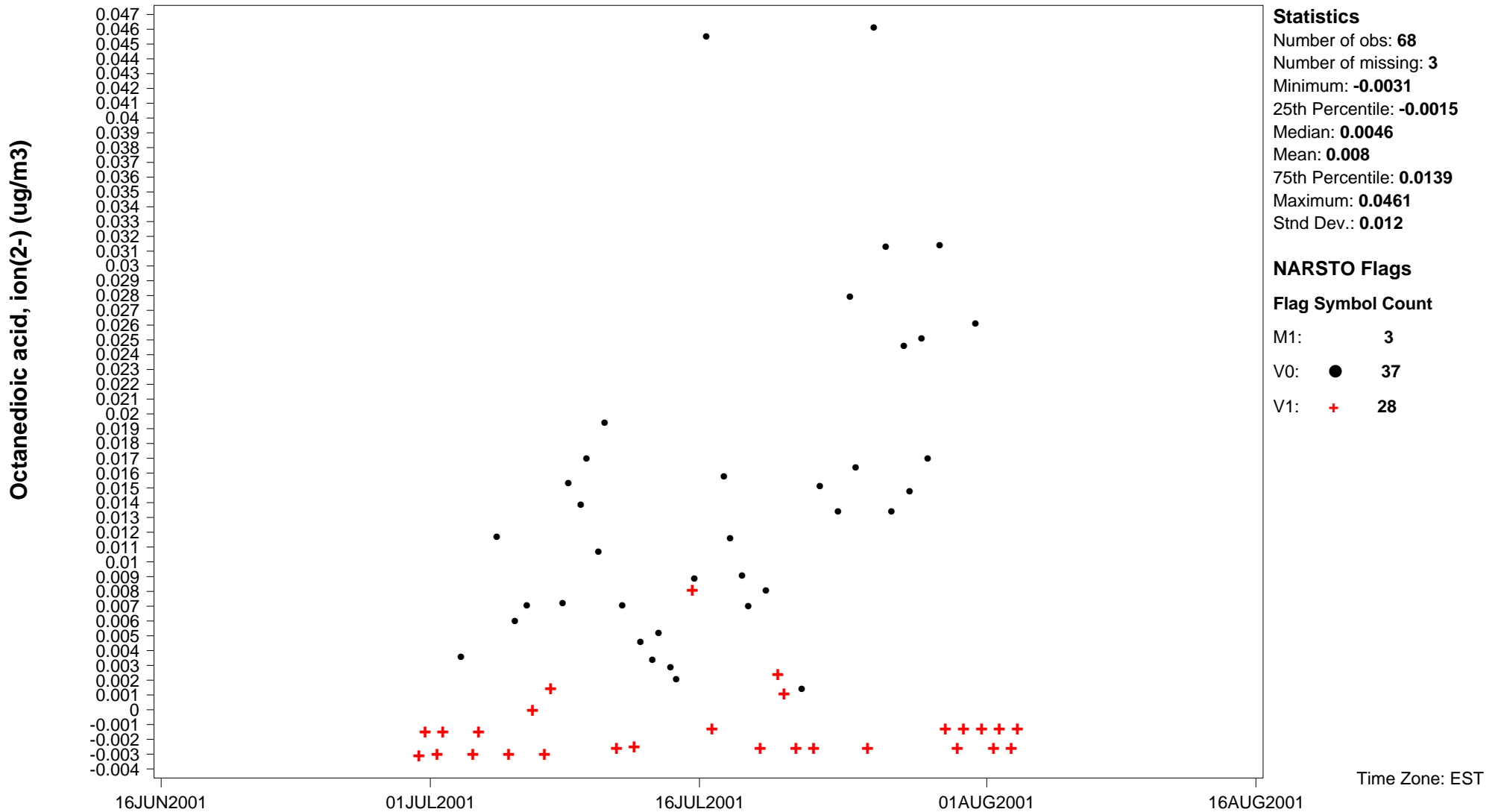
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Octanedioic acid, ion(2-)** Common Name: **Suberic** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C764-55-6** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**

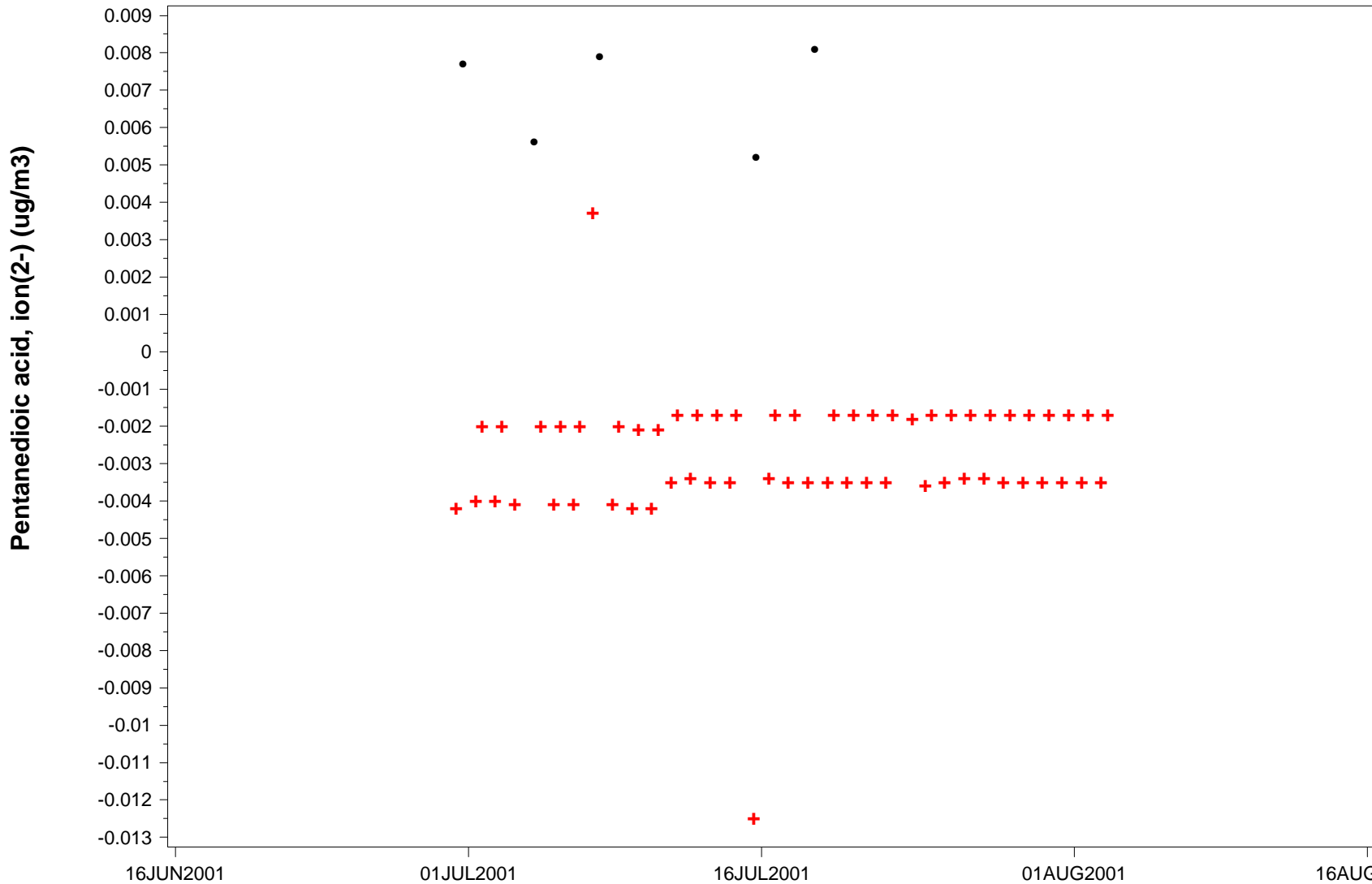


NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Pentanedioic acid, ion(2-)** Common Name: **Glutaric** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C56-16-6** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **2**
 Minimum: **-0.0125**
 25th Percentile: **-0.0035**
 Median: **-0.00205**
 Mean: **-0.002**
 75th Percentile: **-0.0017**
 Maximum: **0.0081**
 Std Dev.: **0.003**

NARSTO Flags
Flag Symbol Count
 M1: **2**
 V0: **● 5**
 V1: **+ 61**

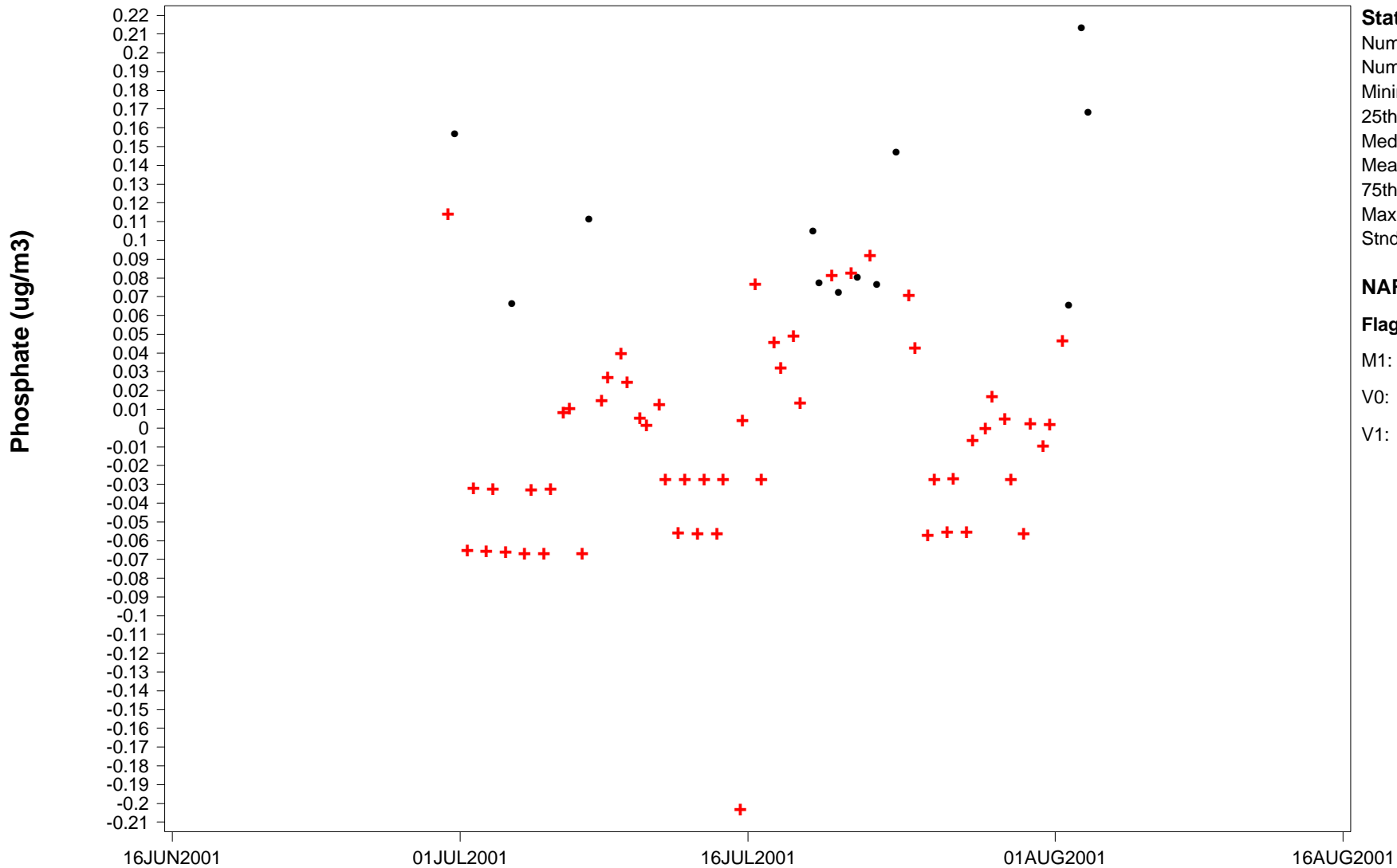
Time Zone: EST

NATchem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Phosphate** Common Name: **Phosphate** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C14265-44-2** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **IC** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.2032**
 25th Percentile: **-0.0324**
 Median: **0.0047**
 Mean: **0.013**
 75th Percentile: **0.0662**
 Maximum: **0.2135**
 Stnd Dev.: **0.070**

NARSTO Flags
Flag Symbol Count
 M1: 1
 V0: ● 12
 V1: + 55

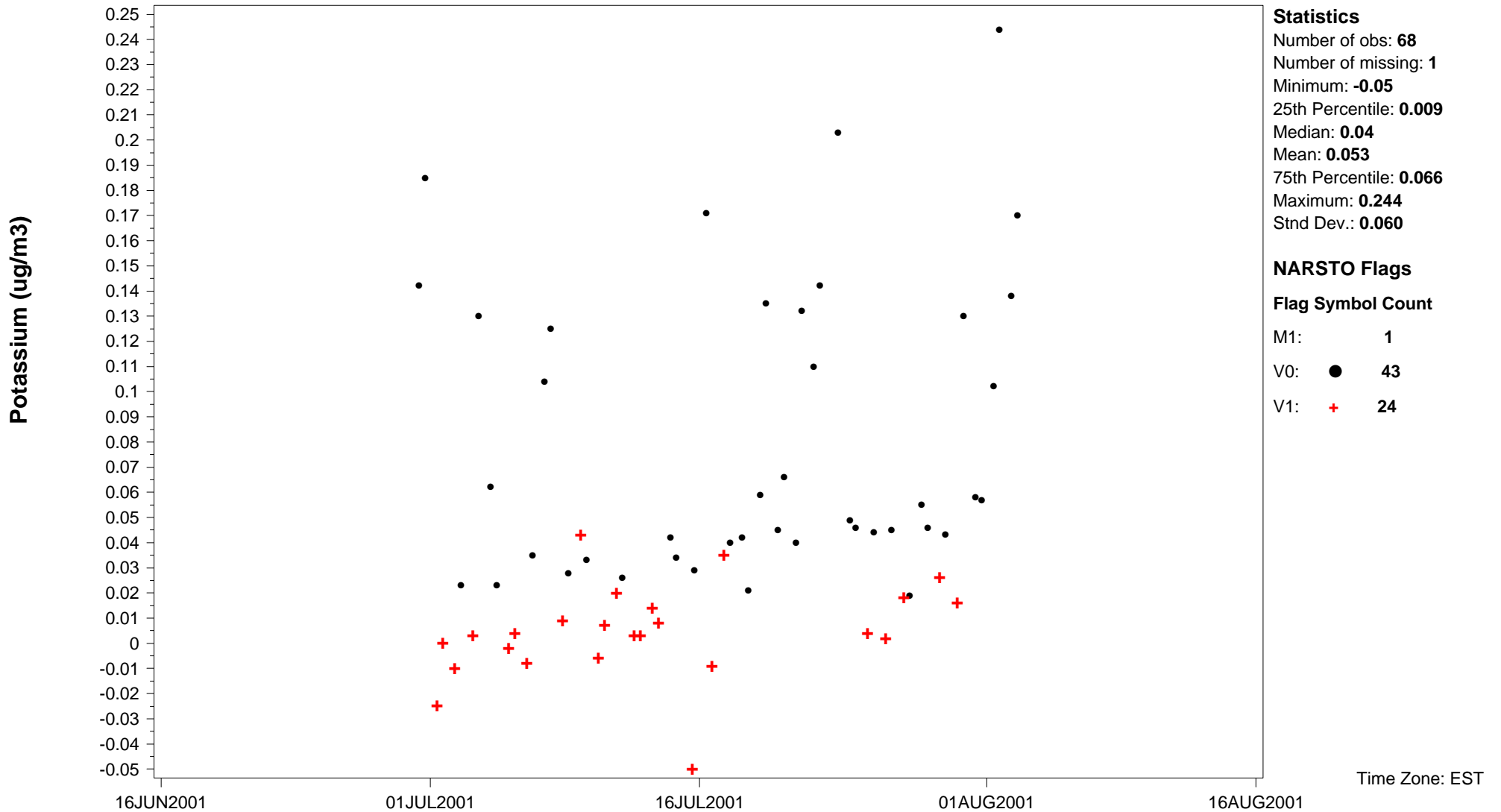
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Potassium** Units: **ug/m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 CAS ID: **C7440-09-7** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**

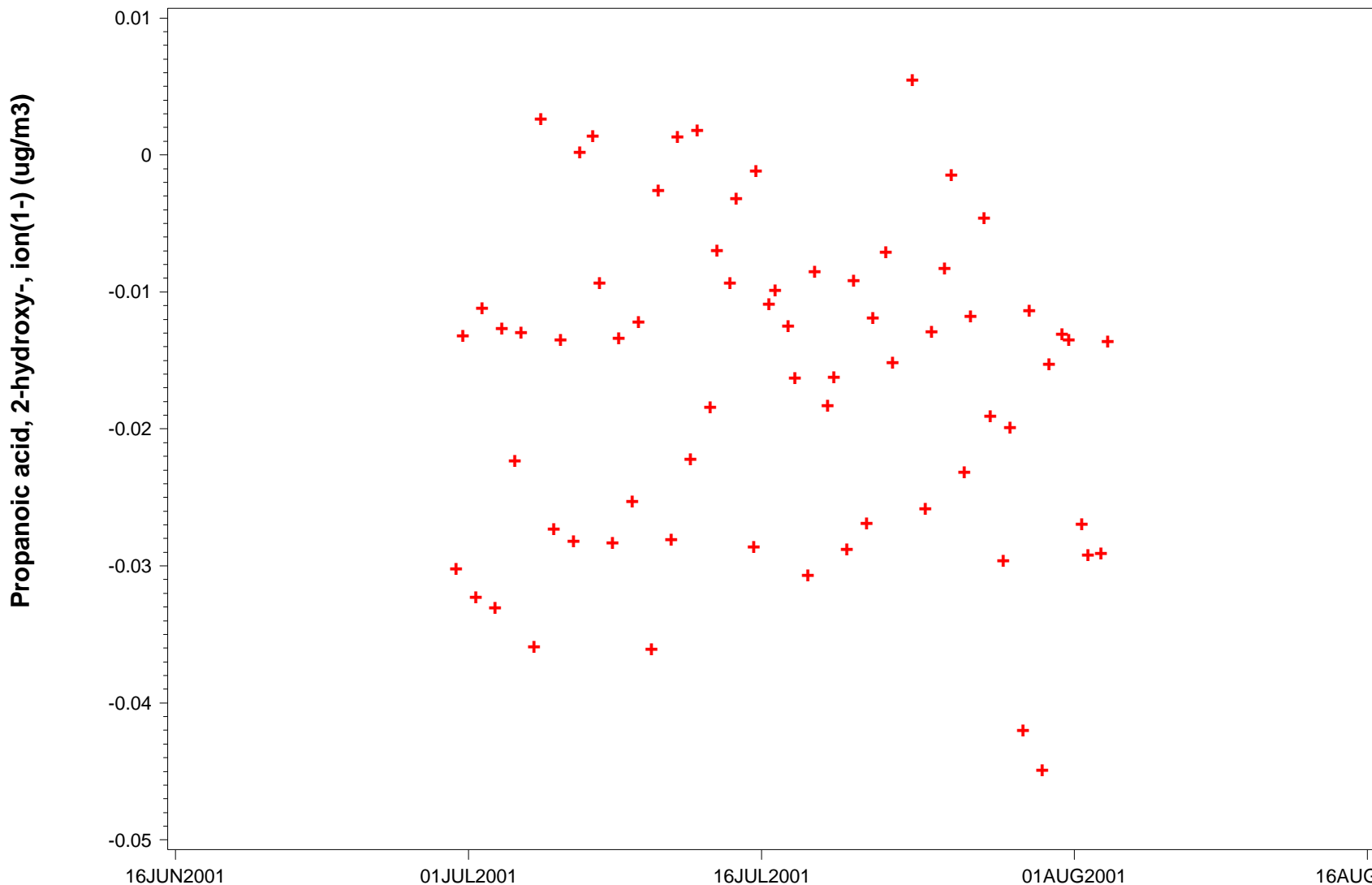


NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Propanoic acid, 2-hydroxy-, ion(1-)** Common Name: **Lactic** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C113-21-3** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **Capillary electrophoresis** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics

Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0449**
 25th Percentile: **-0.0273**
 Median: **-0.0135**
 Mean: **-0.017**
 75th Percentile: **-0.0094**
 Maximum: **0.0055**
 Std Dev.: **0.012**

NARSTO Flags

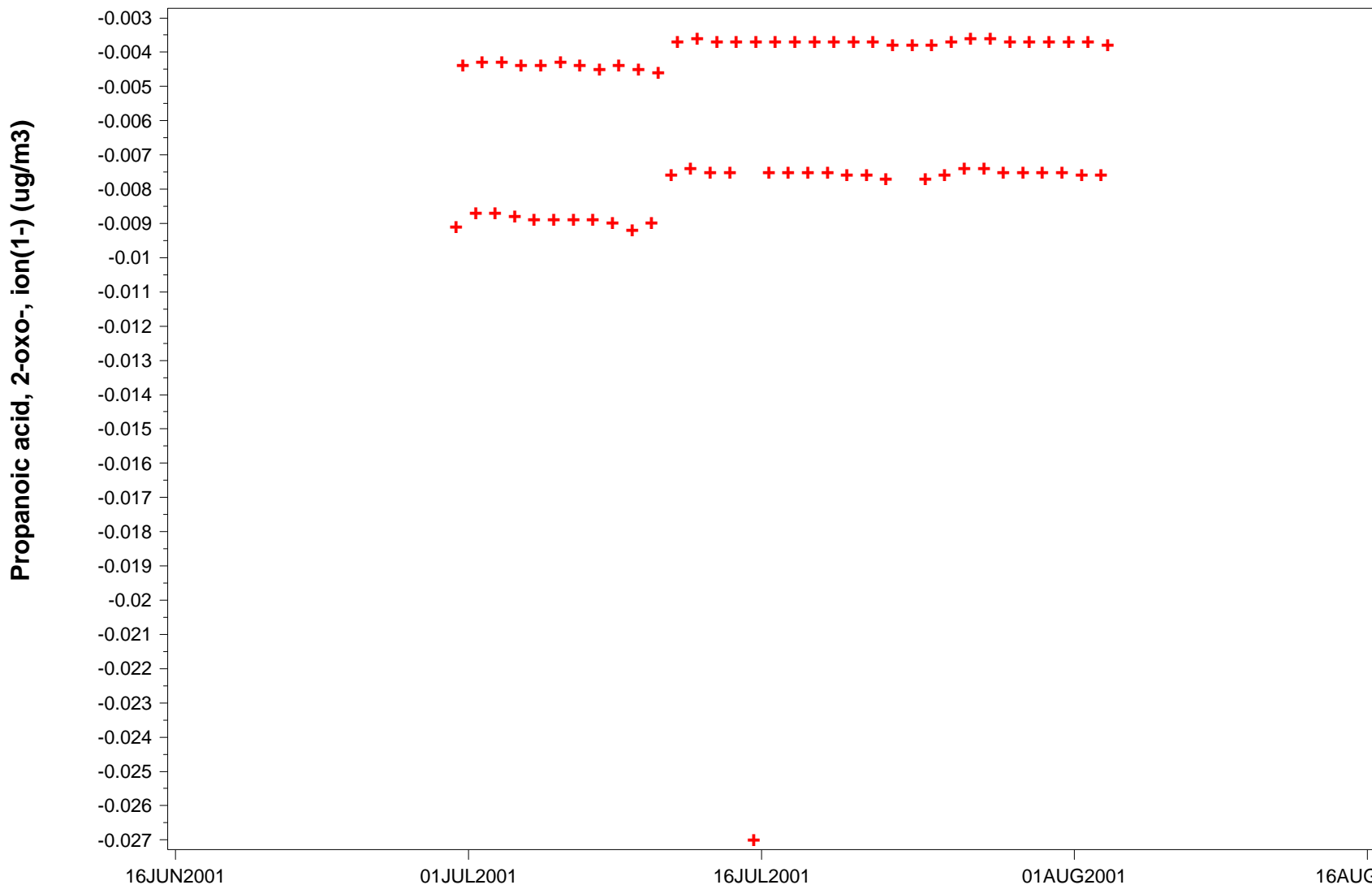
Flag Symbol Count

M1: **1**
 V1: **+ 67**

Time Zone: EST

Site ID: **STIFCAONSIM_** Variable name: **Propanoic acid, 2-oxo-, ion(1-)** Common Name: **Pyruvic** Units: **ug/m3** Sampling interval: **8 h day/16 h night**
 Sampling frequency: **2 times per day** CAS ID: **C57-60-3** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined**
 Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone**
 Laboratory analytical method: **IC** Sample preparation: **Water extraction** Blank Correction: **Blank corrected**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook** Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.027**
 25th Percentile: **-0.0076**
 Median: **-0.0046**
 Mean: **-0.006**
 75th Percentile: **-0.0037**
 Maximum: **-0.0036**
 Std Dev.: **0.003**

NARSTO Flags
Flag Symbol Count
 M1: **1**
 V1: **+ 67**

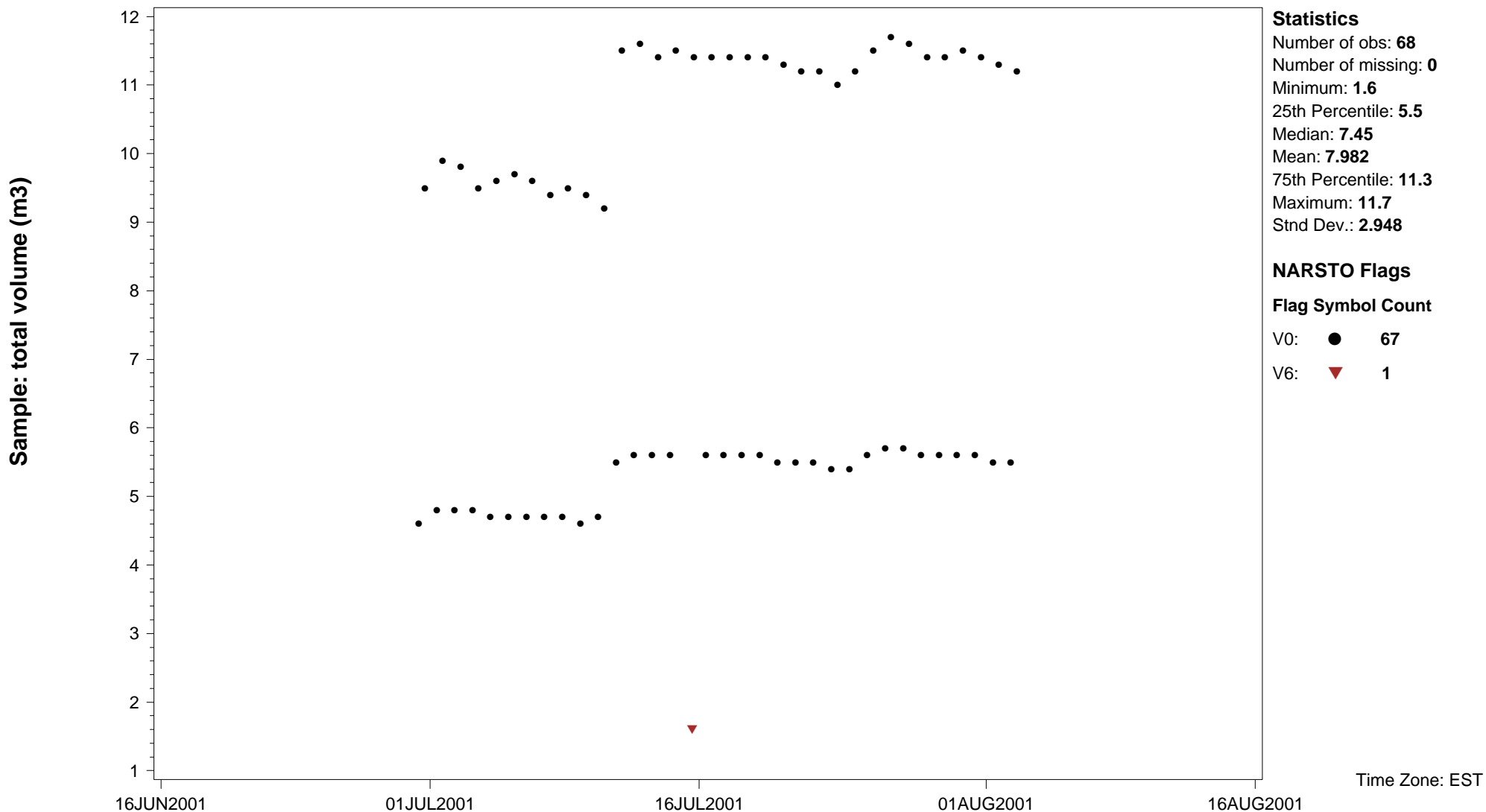
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Sample: total volume** Units: **m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 Observation type: **Flow** Field sampling or measurement principle: **Mass flow controller** Inlet type: **Cyclone**
 Volume standardization: **25 deg. C; 1 atmosphere** Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400**
 Measurement principal investigator: **Jeffrey Brook**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**

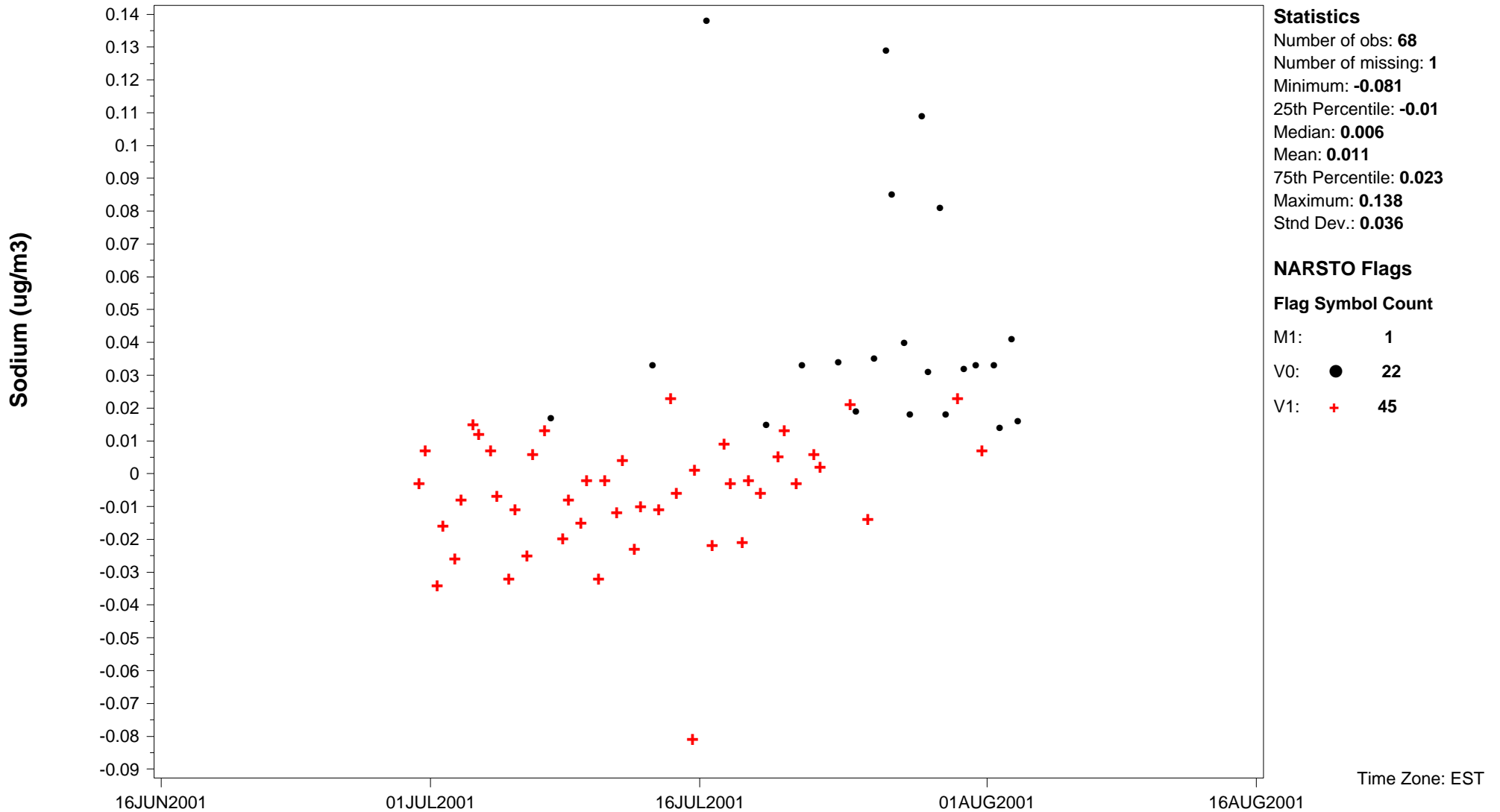


NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Sodium** Units: **ug/m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 CAS ID: **C7440-23-5** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**

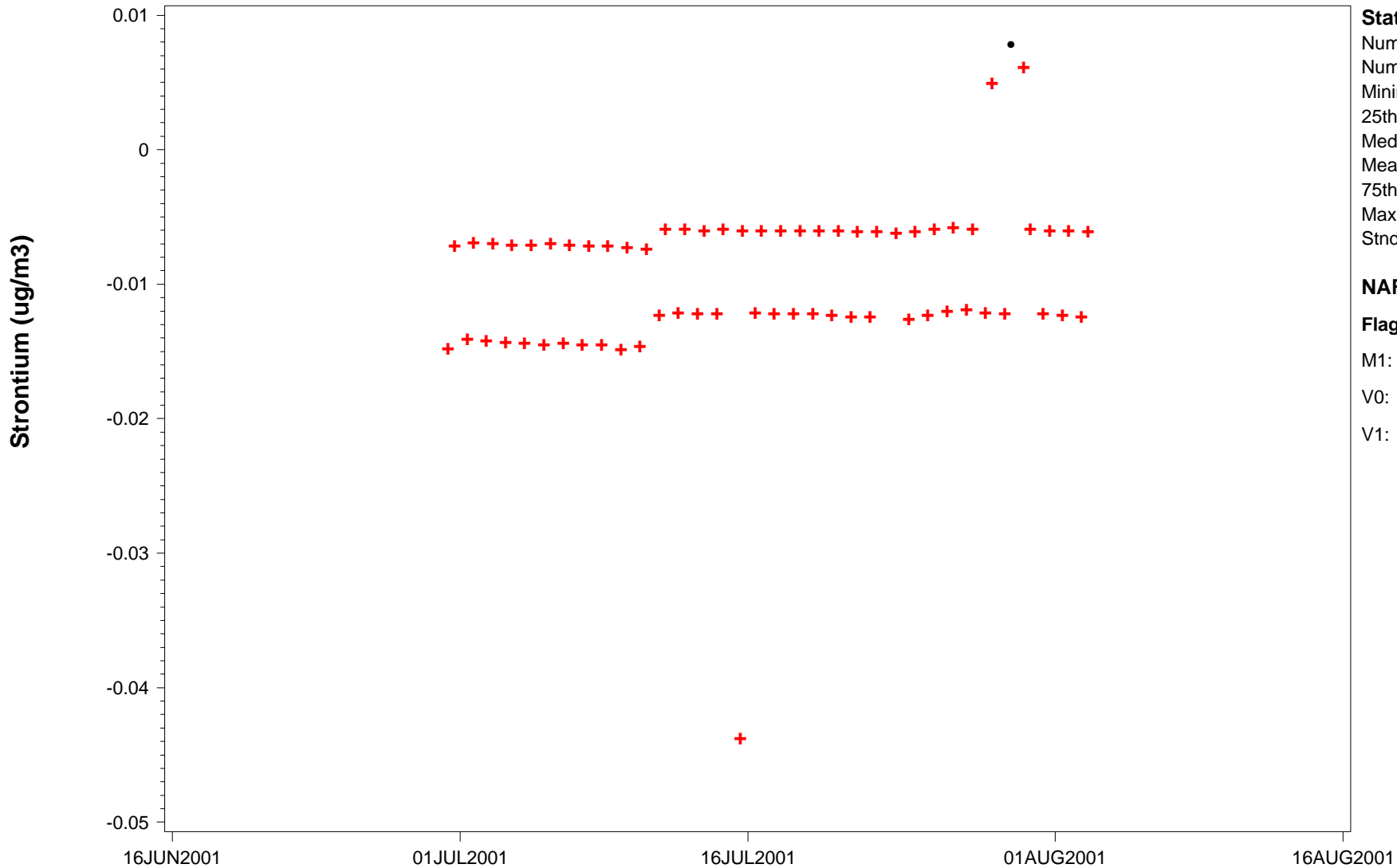


NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Strontium** Units: **ug/m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 CAS ID: **C7440-24-6** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics
 Number of obs: **68**
 Number of missing: **1**
 Minimum: **-0.0438**
 25th Percentile: **-0.0123**
 Median: **-0.0073**
 Mean: **-0.009**
 75th Percentile: **-0.006**
 Maximum: **0.0078**
 Std Dev.: **0.006**

NARSTO Flags
Flag Symbol Count
 M1: **1**
 V0: ● **1**
 V1: + **66**

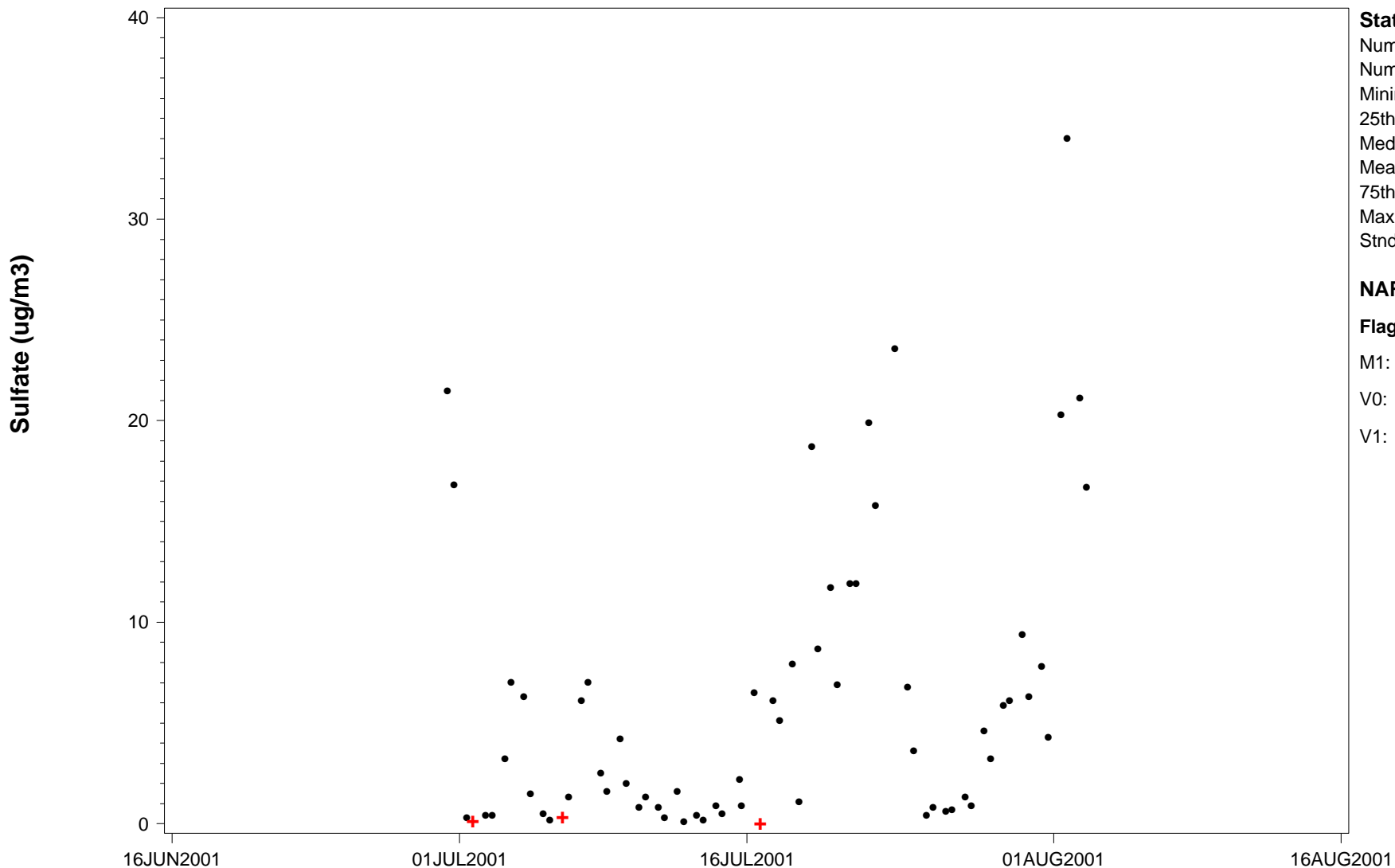
Time Zone: EST

NAtChem Time Series Plot

21SEP2004

Site ID: **STIFCAONSIM_** Variable name: **Sulfate** Units: **ug/m3** Sampling interval: **8 h day/16 h night** Sampling frequency: **2 times per day**
 CAS ID: **C14808-79-8** Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**
 Field sampling or measurement principle: **Single filter** Medium: **Teflon** Inlet type: **Cyclone** Laboratory analytical method: **IC**
 Sample preparation: **Water extraction** Blank Correction: **Not blank corrected** Volume standardization: **25 deg. C; 1 atmosphere**
 Sampling Height above ground (m): **2** Instrument name and model number: **RAAS2.5-400** Measurement principal investigator: **Jeffrey Brook**
 Detection Limit: **Varies--see Detection lim**

Site Name: **Simcoe, Ontario** Latitude: **42.85 deg.** Longitude: **-80.26667 deg.** Start Date: **2001-06-30** End Date: **2001-08-02**



Statistics

Number of obs: **68**
 Number of missing: **1**
 Minimum: **0**
 25th Percentile: **0.8**
 Median: **3.2**
 Mean: **6.027**
 75th Percentile: **7.8**
 Maximum: **34**
 Std Dev.: **7.256**

NARSTO Flags

Flag Symbol Count

M1:		1
V0:	●	64
V1:	+	3

Time Zone: EST