

## File Names

14:44 Monday, March 21, 2005 1

File #	Original File Name
1	PAC2001_CSRT_J-R_PAH_HIVOL_20010810D5_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	Sampling Frequency Of Data in Main Table	Quality Control Level	Organization Acronym	Organization Name	Data Usage Acknowledgement	Study Or Network Acronym	Study Or Network Name
NARSTO 2002/05/28 (2.301)	Rudolph ; Dr. Jochen	Centre for Atmospheric Chemistry, York University	PAHs_Ster_Hops_Alks ; PAHs, Sterane, Hopanes and N-alkanes measurement	Grab	Variable interval	1	YORKU	York University	Jochen Rudolph. Centre For Atmospheric Chemistry, York University, Steacie Building room 006. 4700Keele St., Toronto M3J 1P3	PAC2001	Pacific 2001

Country Code	State Or Province Code	Principal Investigator Contact Information	Co-investigator Name--last first	Co-investigator Affiliation	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	Companion File Name format And Version
CA (CANADA)	BC	Jochen Rudolph. Centre For Atmospheric Chemistry, York University, Steacie Building room 006. 4700Keele St., Toronto M3J 1P3	Gao ; Shidong	Centre for Atmospheric Chemistry, York University	Caroline How, Centre for Atmospheric Chemistry, York University	2002/05/22	MS Excel /2000	PACIFIC2001_QAPjP and QA Report_PAHs_Hopanes_n-alkanes.doc ; Microsoft Word 200

Date This File Generated archive Version Number	Table Explanation Of Zero Or Negative Values	Table Explanation Of Reported Detection Limit Values	Table Explanation Of Reported Uncertainty	Table User Note	Table User Note2	Table User Note3	Table User Note4	Table Name	Table Focus
2004/10/29 ; 1	No zero values or negative values appear in the data in this file.	Values below detection limit are replaced by the detection limit value for that analytical run and flagged V7 (Valid value but set equal to the detection limit (DL) because the measured value was below the DL).	The uncertainties reported represents the accuracy of the data.					PAHs_Ster_Hops_Alks_Meas	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	Site location setting	Measurement start date	Measurement end date	Co-incident measurements	Study site ID	Lat lon accuracy
PC01CABCCSTN	Cassiar Tunnel (North End)	BC	49.28389	-123.03194	1.6	-99.9	Mobile	Urban and center city	2001/08/09	2001/08/15	None	CSTS	15.0

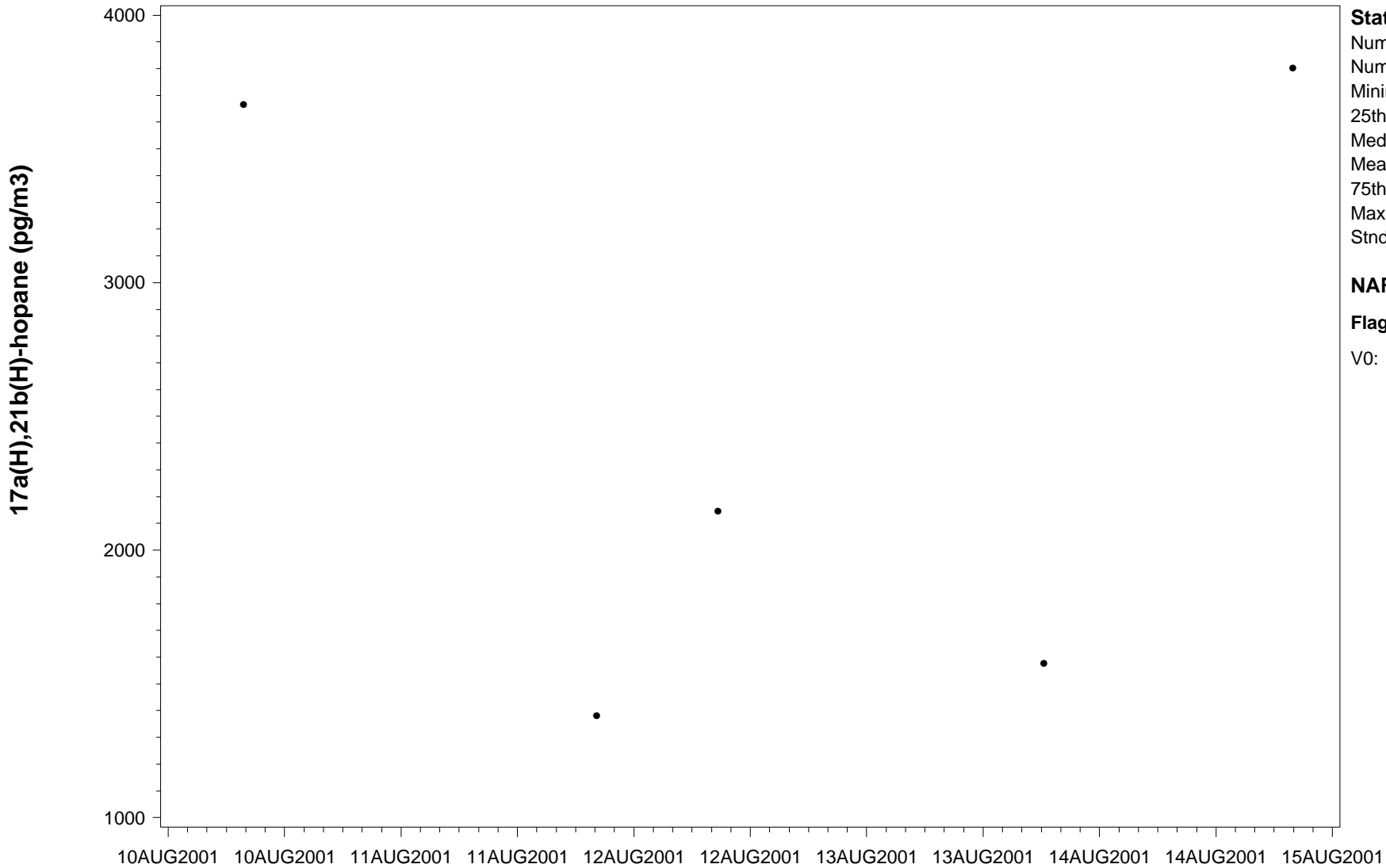
## NARSTO Standard Flags

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
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 (e.g., instrument malfunction, sample handling)
V7	Valid value but set equal to the detection limit (DL) because the measured value was below the DL

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **17a(H),21b(H)-hopane** Common Name: **17a** Units: **pg/m3** Sampling interval: **Grab** CAS ID: **C13849-96-2**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **38**  
 Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**  
 Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **1381.3412**  
 25th Percentile: **1578.1155**  
 Median: **2147.8072**  
 Mean: **2515.098**  
 75th Percentile: **3666.1603**  
 Maximum: **3802.0676**  
 Stnd Dev.: **1148.856**

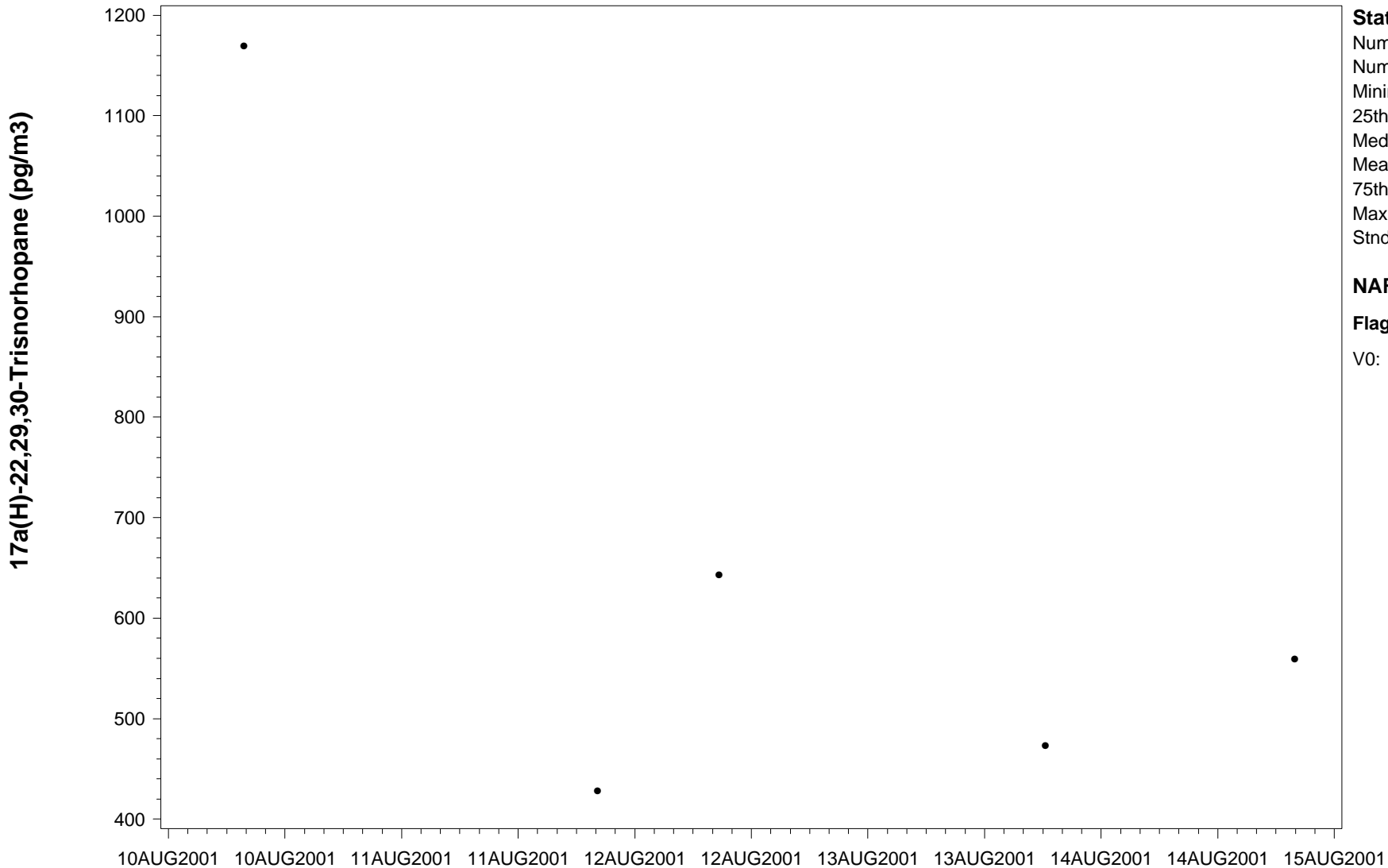
**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **5**

Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **17a(H)-22,29,30-Trisnorhopane** Common Name: **17a** Units: **pg/m3** Sampling interval: **Grab** CAS ID: **C53584-59-1**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **4.5**  
 Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**

Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **428.4151**  
 25th Percentile: **473.2275**  
 Median: **558.9863**  
 Mean: **654.551**  
 75th Percentile: **643.1429**  
 Maximum: **1168.9854**  
 Stnd Dev.: **299.133**

**NARSTO Flags**

**Flag Symbol Count**  
 V0: ● 5

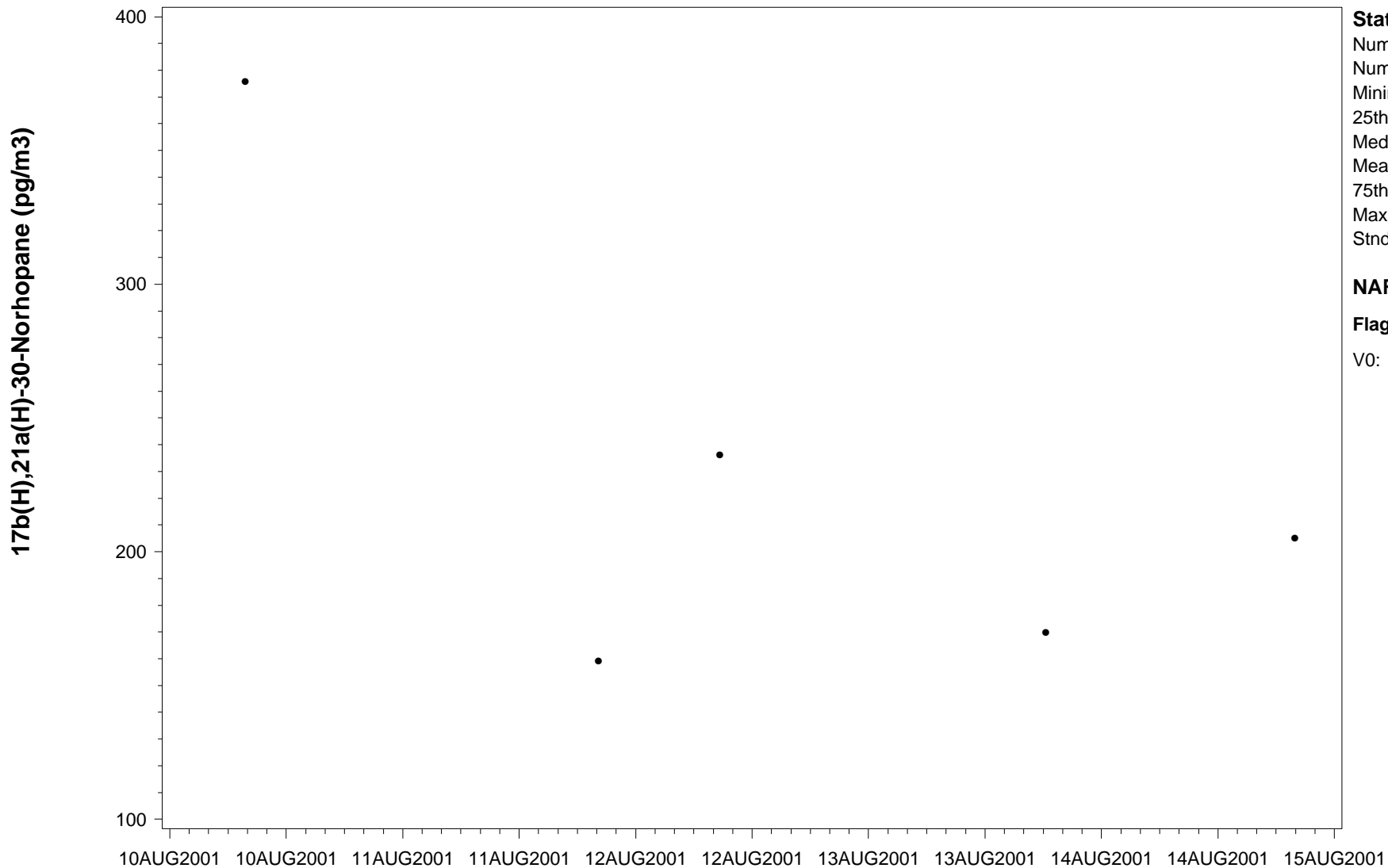
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **17b(H),21a(H)-30-Norhopane** Units: **pg/m3** Sampling interval: **Grab** CAS ID: **C3258-87-5** Observation type: **Particles**  
 Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Impactor**  
 Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS** Sample preparation: **Organic extraction**  
 Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **1.6**  
 Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **4.4**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**

Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **159.0665**  
 25th Percentile: **169.9968**  
 Median: **205.2265**  
 Mean: **229.254**  
 75th Percentile: **236.1194**  
 Maximum: **375.8627**  
 Stnd Dev.: **87.402**

**NARSTO Flags**

**Flag Symbol Count**  
 V0: ● 5

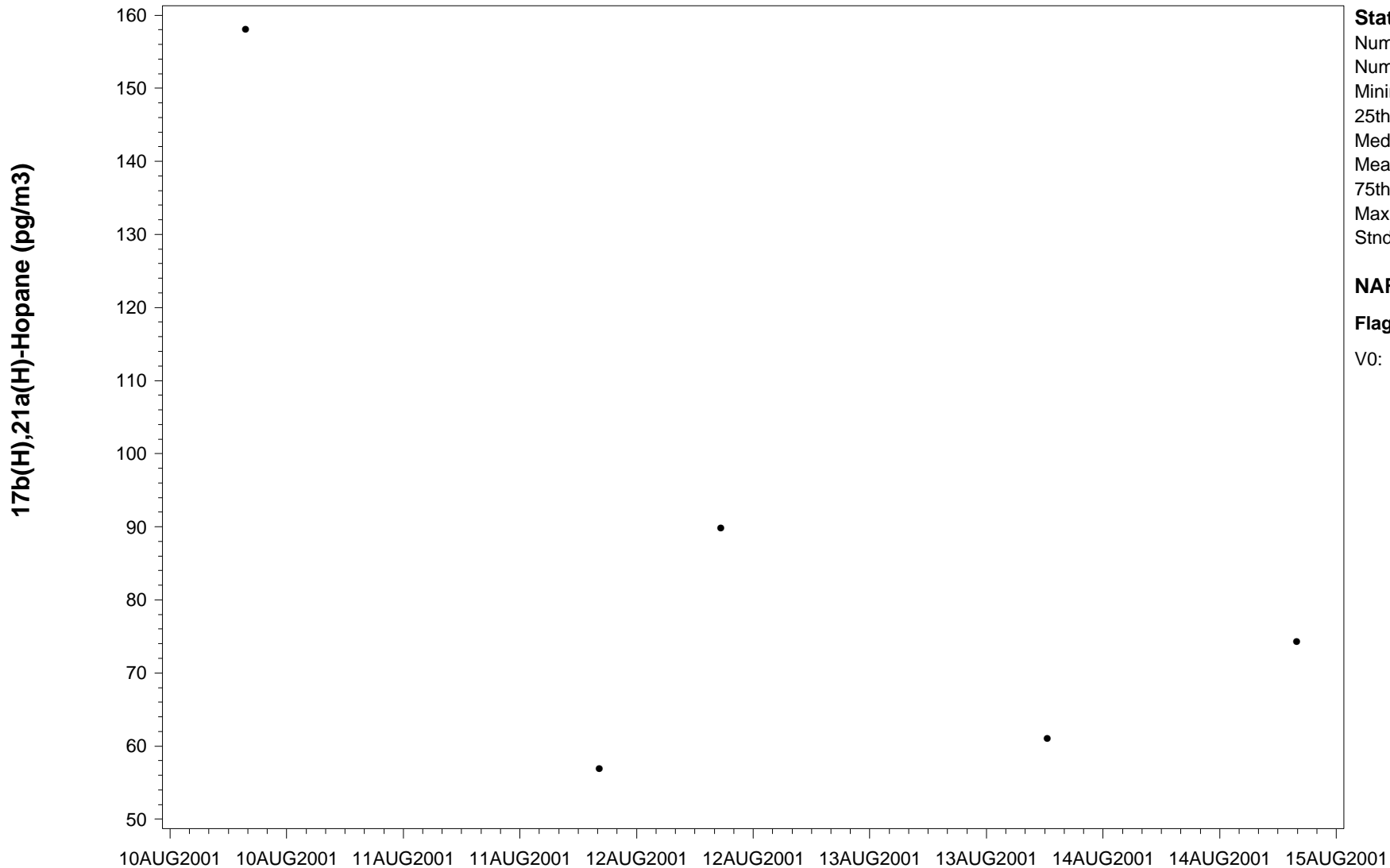
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **17b(H),21a(H)-Hopane** Units: **pg/m3** Sampling interval: **Grab** CAS ID: **C1176-44-9** Observation type: **Particles**  
 Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Impactor**  
 Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS** Sample preparation: **Organic extraction**  
 Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **1.6**  
 Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **3.4**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**  
 Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **56.8651**  
 25th Percentile: **61.0683**  
 Median: **74.2294**  
 Mean: **88.025**  
 75th Percentile: **89.827**  
 Maximum: **158.137**  
 Stnd Dev.: **41.252**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● 5

Time Zone: PDT

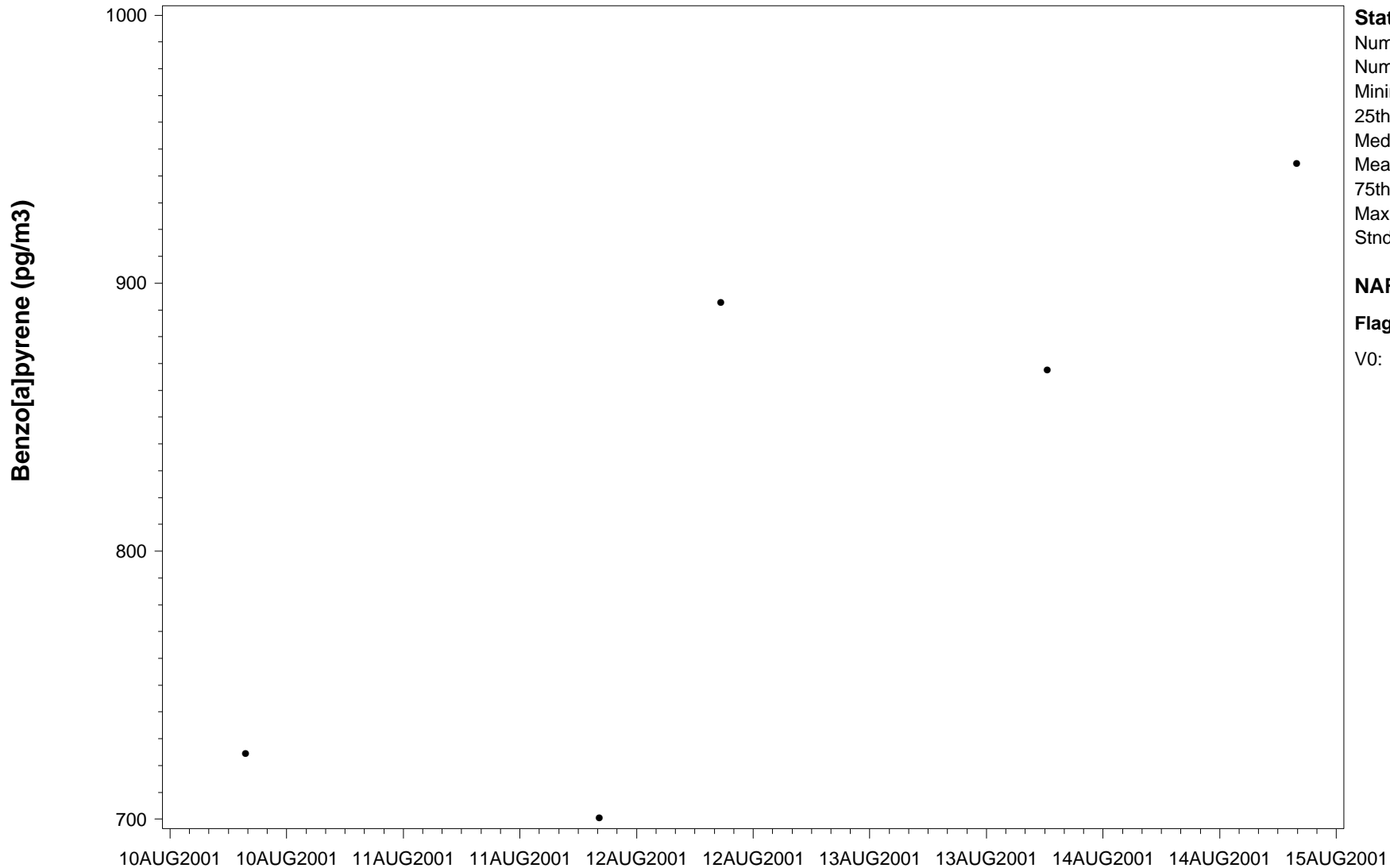


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Benzo[a]pyrene** Units: **pg/m3** Sampling interval: **Grab** CAS ID: **C50-32-8** Observation type: **Particles**  
 Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Impactor**  
 Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS** Sample preparation: **Organic extraction**  
 Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **1.6**  
 Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **2.3**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**  
 Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **700.3888**  
 25th Percentile: **724.6043**  
 Median: **867.7196**  
 Mean: **826.029**  
 75th Percentile: **892.7926**  
 Maximum: **944.6419**  
 Stnd Dev.: **107.630**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● **5**

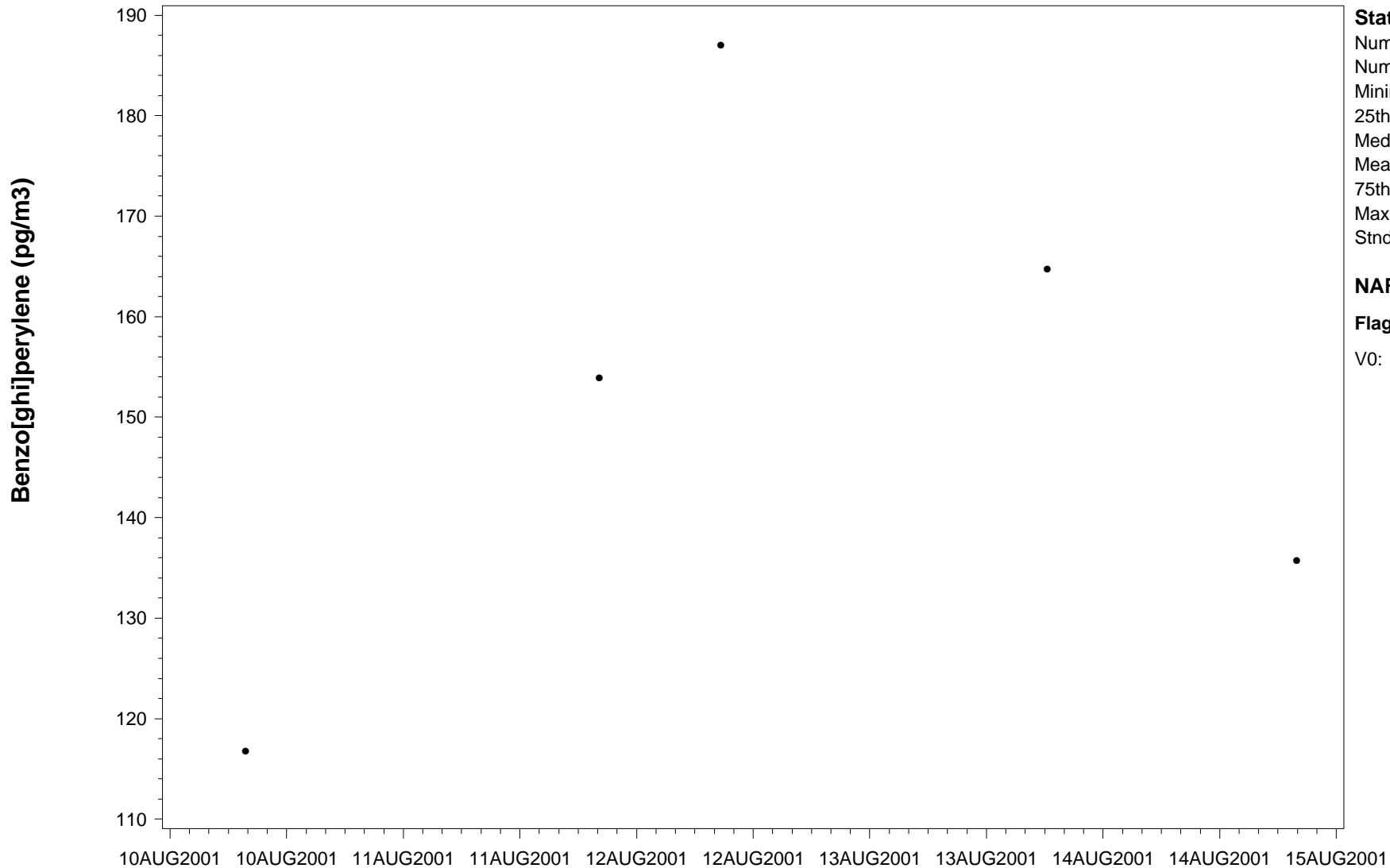
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Benzo[ghi]perylene** Units: **pg/m3** Sampling interval: **Grab** CAS ID: **C191-24-2** Observation type: **Particles**  
 Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Impactor**  
 Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS** Sample preparation: **Organic extraction**  
 Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **1.6**  
 Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **4.1**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**

Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **116.7796**  
 25th Percentile: **135.7213**  
 Median: **153.8823**  
 Mean: **151.641**  
 75th Percentile: **164.7811**  
 Maximum: **187.0386**  
 Stnd Dev.: **26.923**

**NARSTO Flags**

**Flag Symbol Count**  
 V0: ● **5**

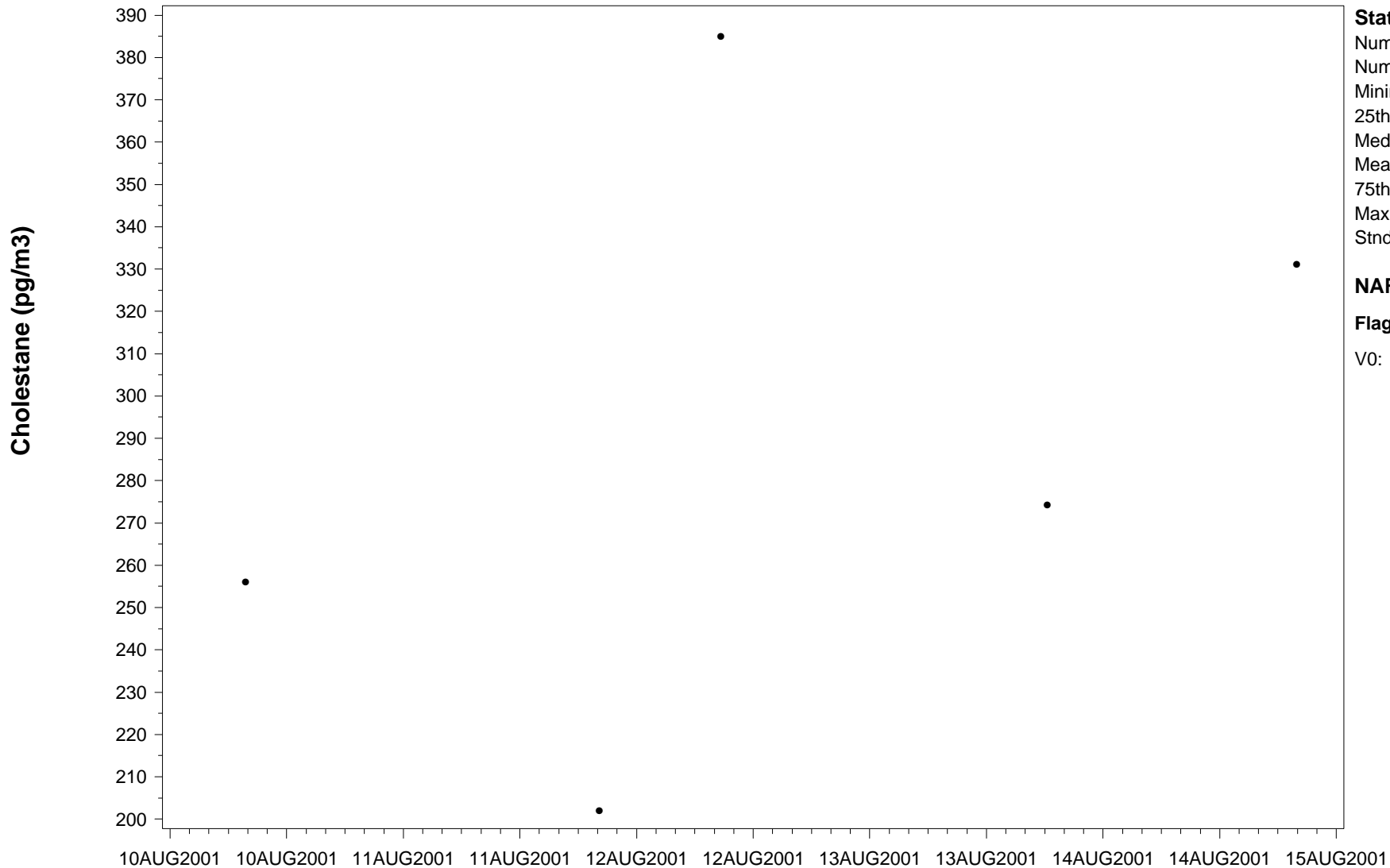
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Cholestane** Units: **pg/m3** Sampling interval: **Grab** CAS ID: **C481-21-0** Observation type: **Particles**  
 Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Impactor**  
 Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS** Sample preparation: **Organic extraction**  
 Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **1.6**  
 Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **2.9**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**

Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **202.0176**  
 25th Percentile: **256.0015**  
 Median: **274.3634**  
 Mean: **289.708**  
 75th Percentile: **331.1414**  
 Maximum: **385.0143**  
 Stnd Dev.: **70.465**

**NARSTO Flags**

**Flag Symbol Count**  
 V0: ● **5**

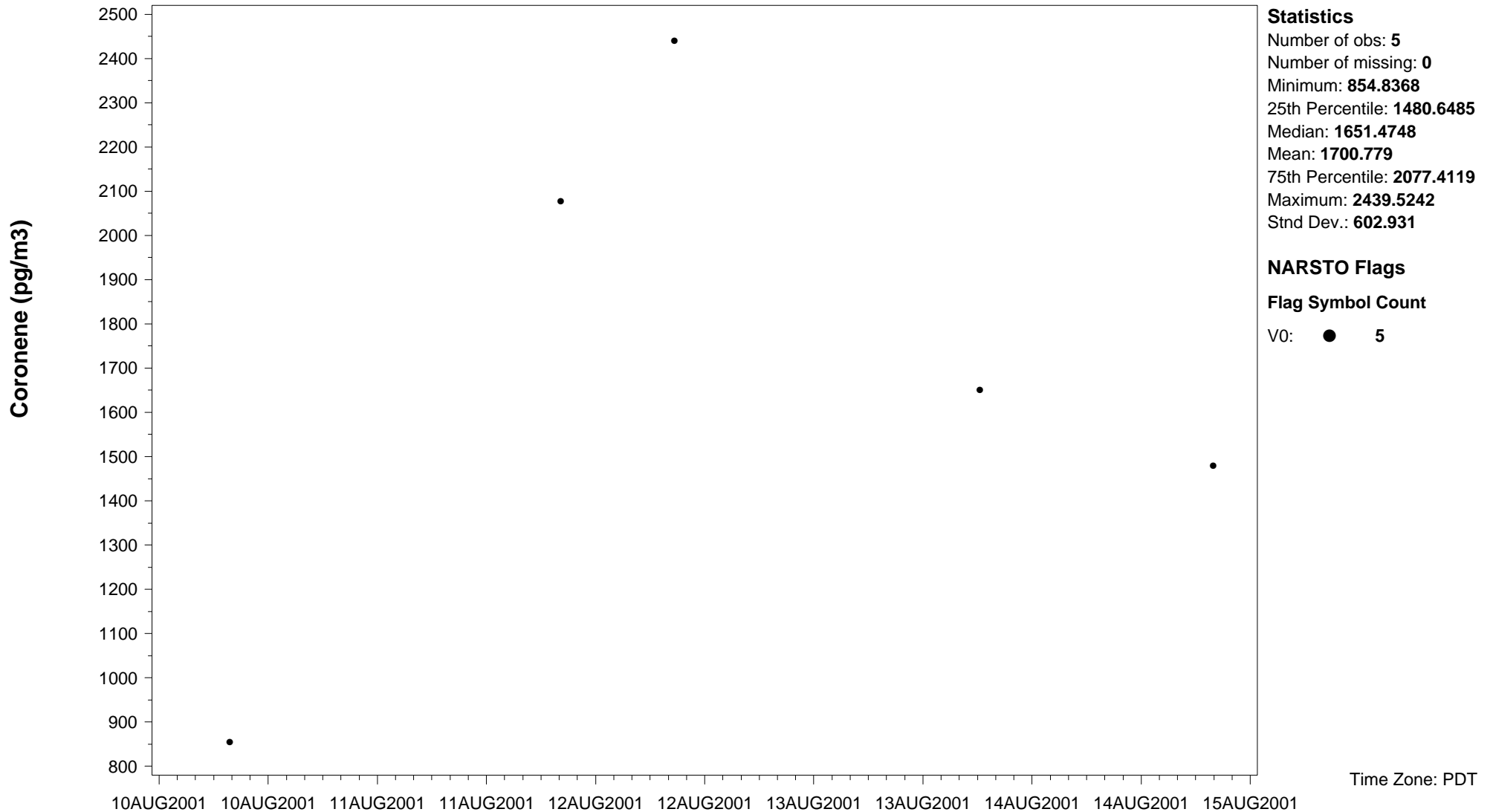
Time Zone: PDT

### NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Coronene** Units: **pg/m3** Sampling interval: **Grab** CAS ID: **C191-07-1** Observation type: **Particles**  
Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Impactor**  
Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS** Sample preparation: **Organic extraction**  
Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **1.6**  
Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **2.0**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**

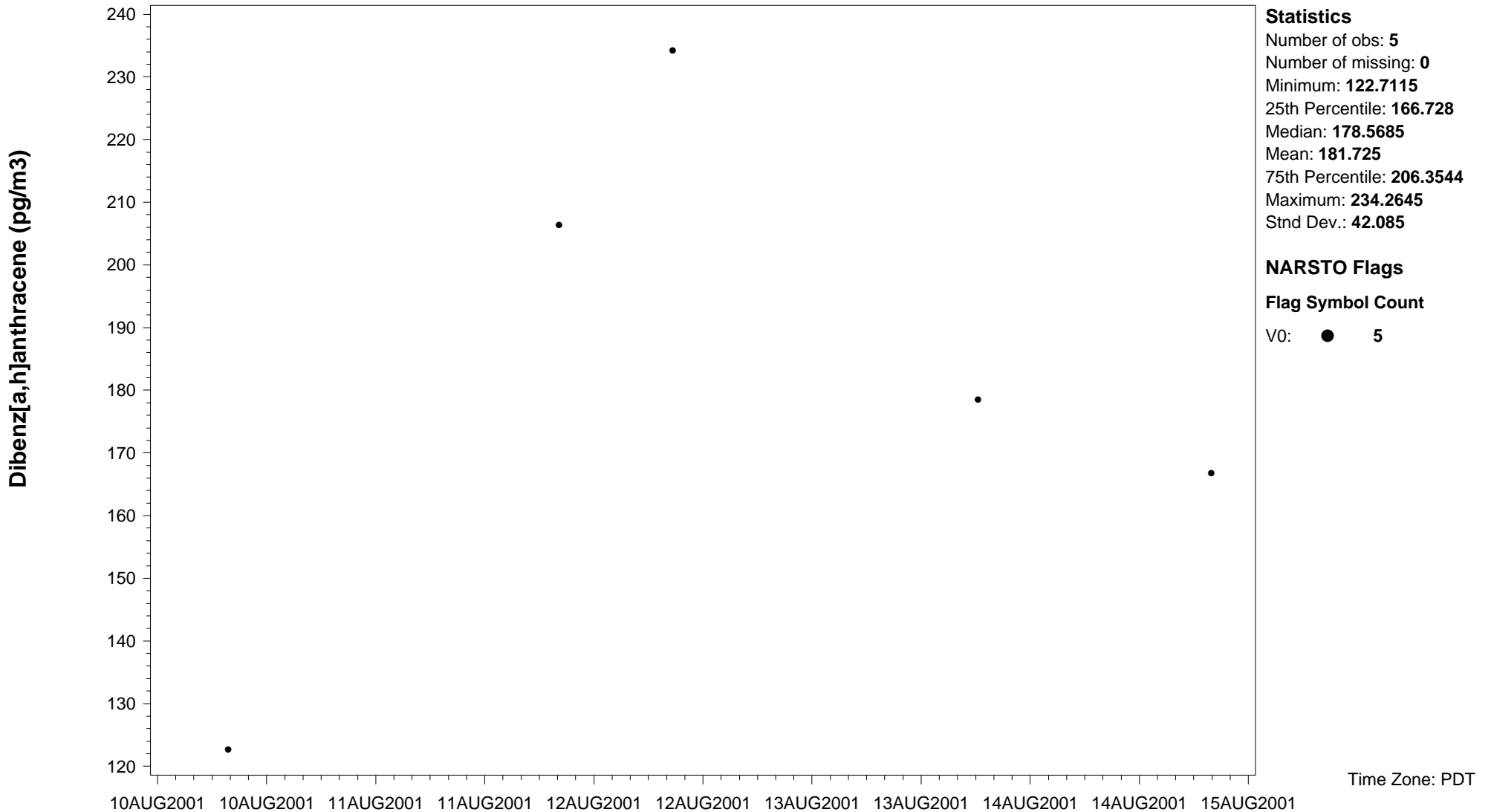


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Dibenz[a,h]anthracene** Units: **pg/m3** Sampling interval: **Grab** CAS ID: **C53-70-3** Observation type: **Particles**  
 Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Impactor**  
 Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS** Sample preparation: **Organic extraction**  
 Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **1.6**  
 Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.61**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**

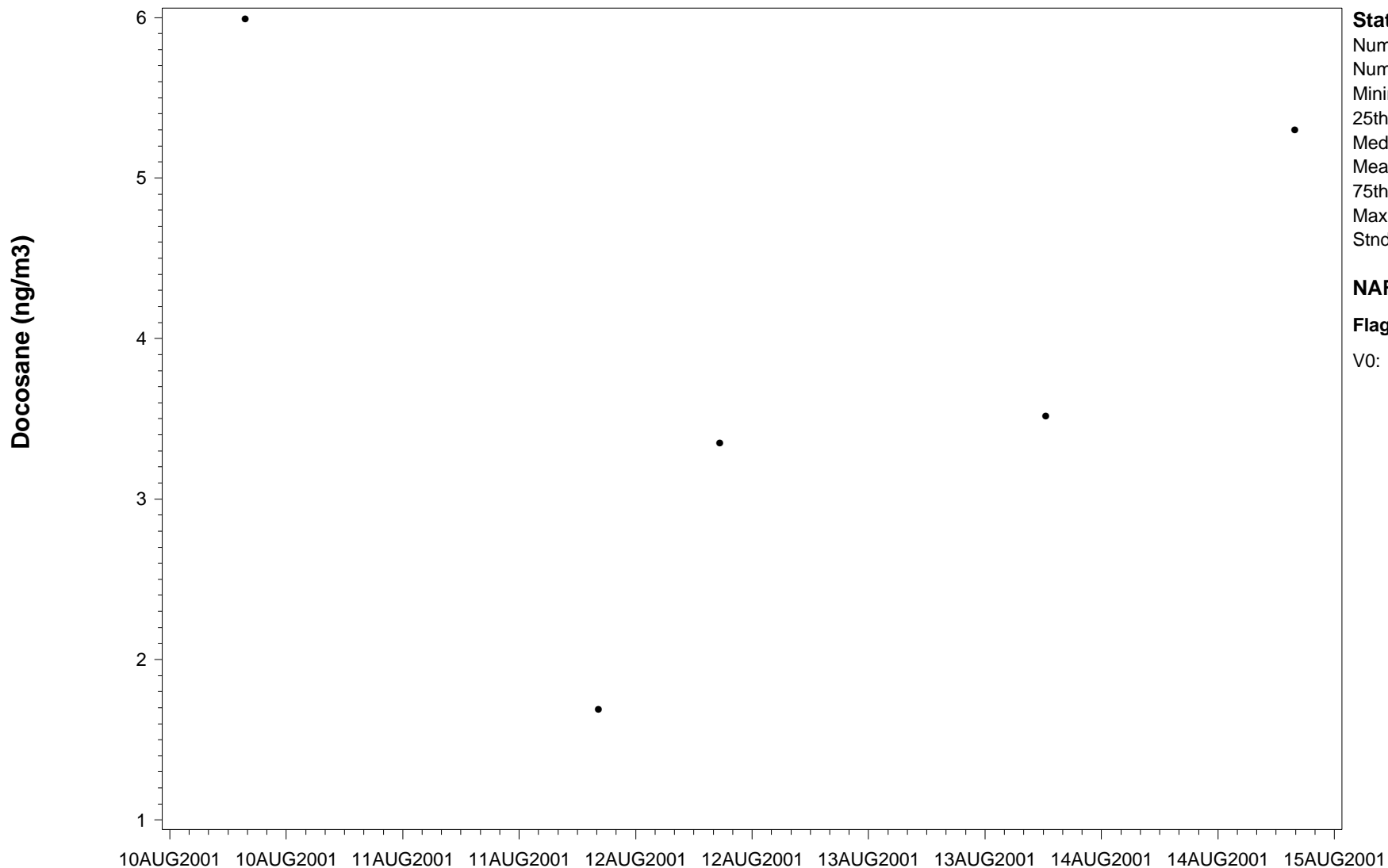


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Docosane** Common Name: **n-Docosane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C629-97-0**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.032**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**

Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **1.6897**  
 25th Percentile: **3.351**  
 Median: **3.5202**  
 Mean: **3.970**  
 75th Percentile: **5.301**  
 Maximum: **5.99**  
 Stnd Dev.: **1.706**

**NARSTO Flags**

**Flag Symbol Count**

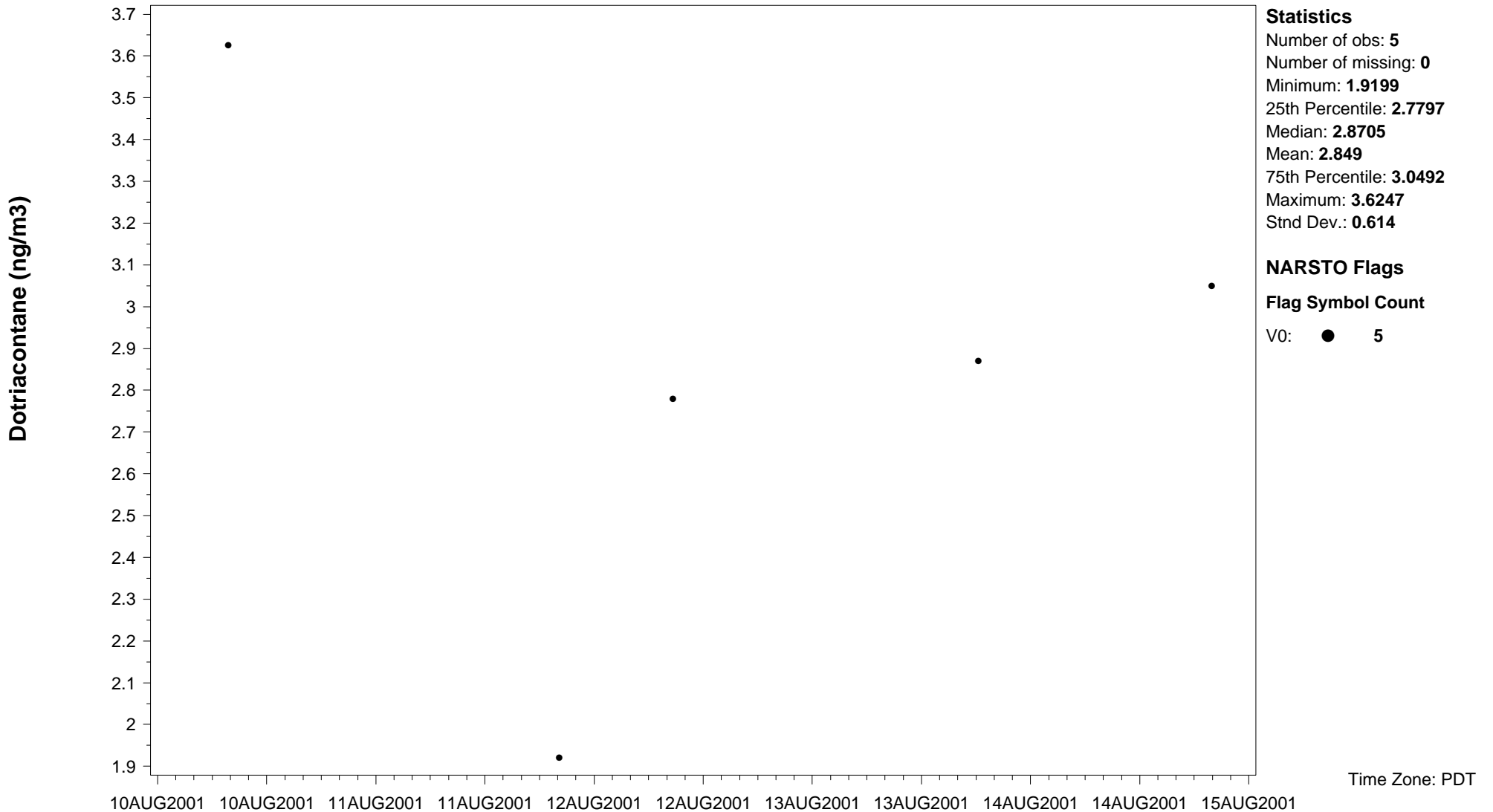
V0: ● 5

Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Dotriacontane** Common Name: **n-Dotriacontane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C544-85-4**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.14**  
 Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**

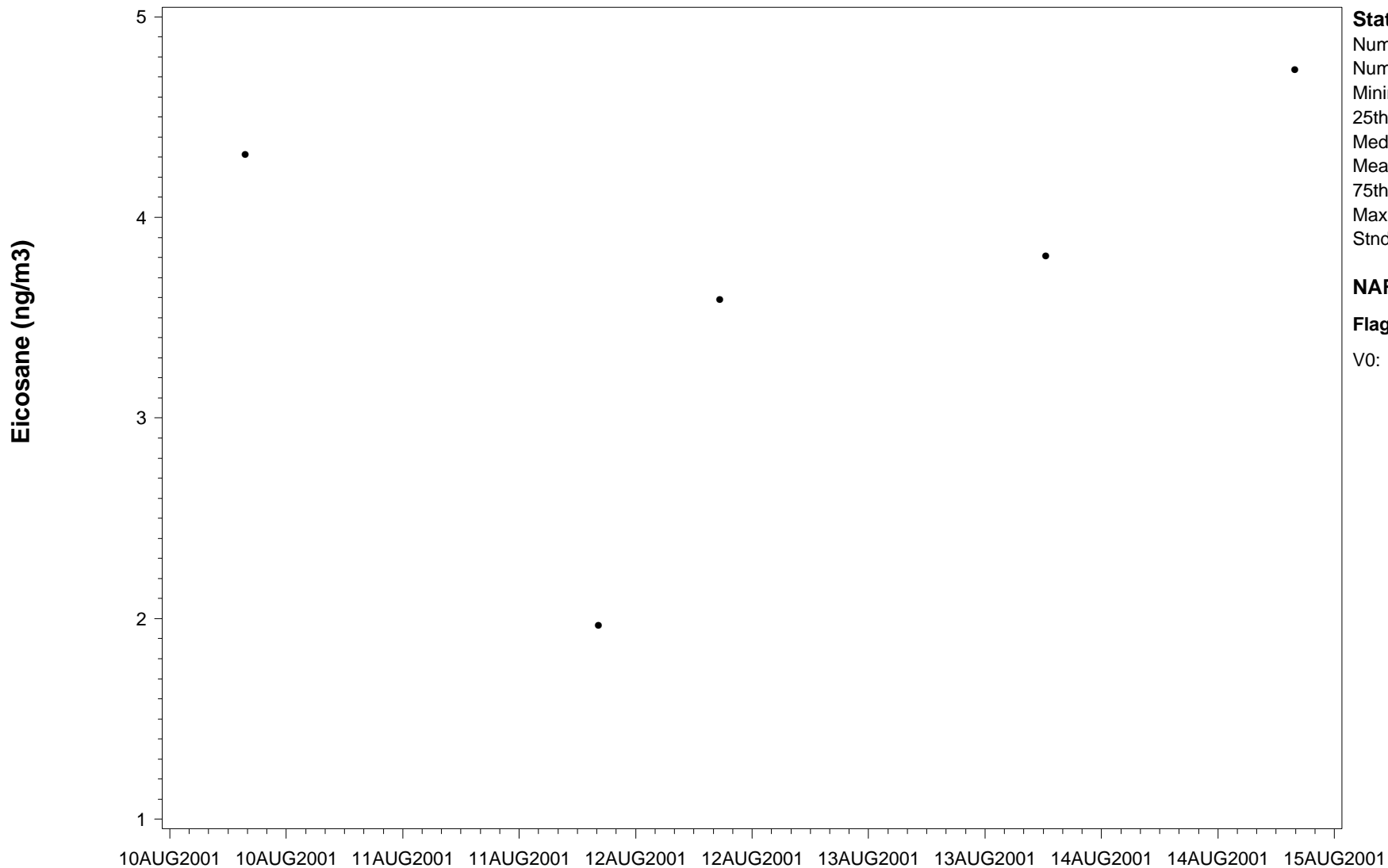


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Eicosane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C112-95-8** Observation type: **Particles**  
 Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Impactor**  
 Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS** Sample preparation: **Organic extraction**  
 Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **1.6**  
 Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.06**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**  
 Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **1.968**  
 25th Percentile: **3.5879**  
 Median: **3.8088**  
 Mean: **3.683**  
 75th Percentile: **4.3121**  
 Maximum: **4.7364**  
 Stnd Dev.: **1.057**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● 5

Time Zone: PDT

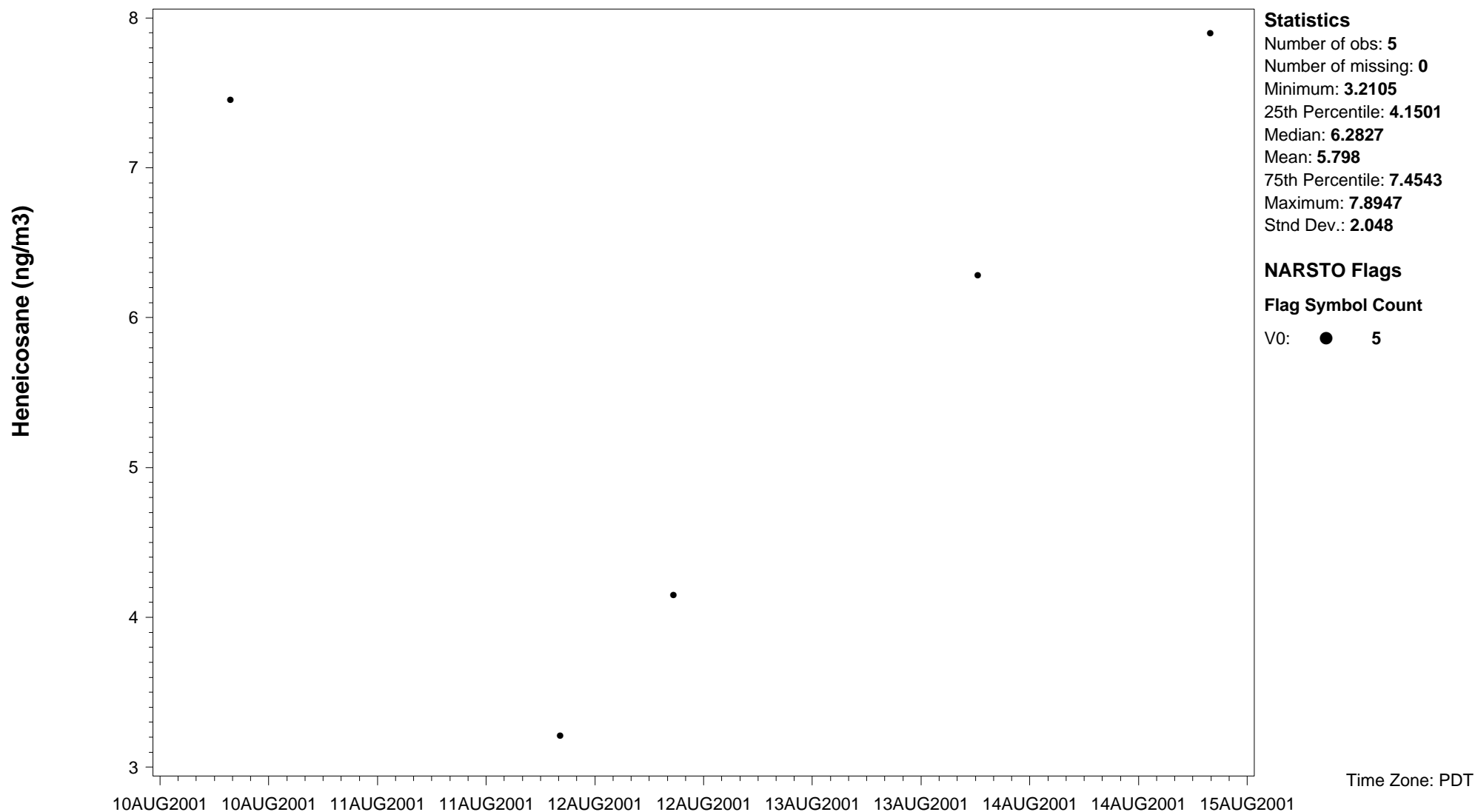


### NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Heneicosane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C629-94-7** Observation type: **Particles**  
Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Impactor**  
Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS** Sample preparation: **Organic extraction**  
Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **1.6**  
Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.044**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**

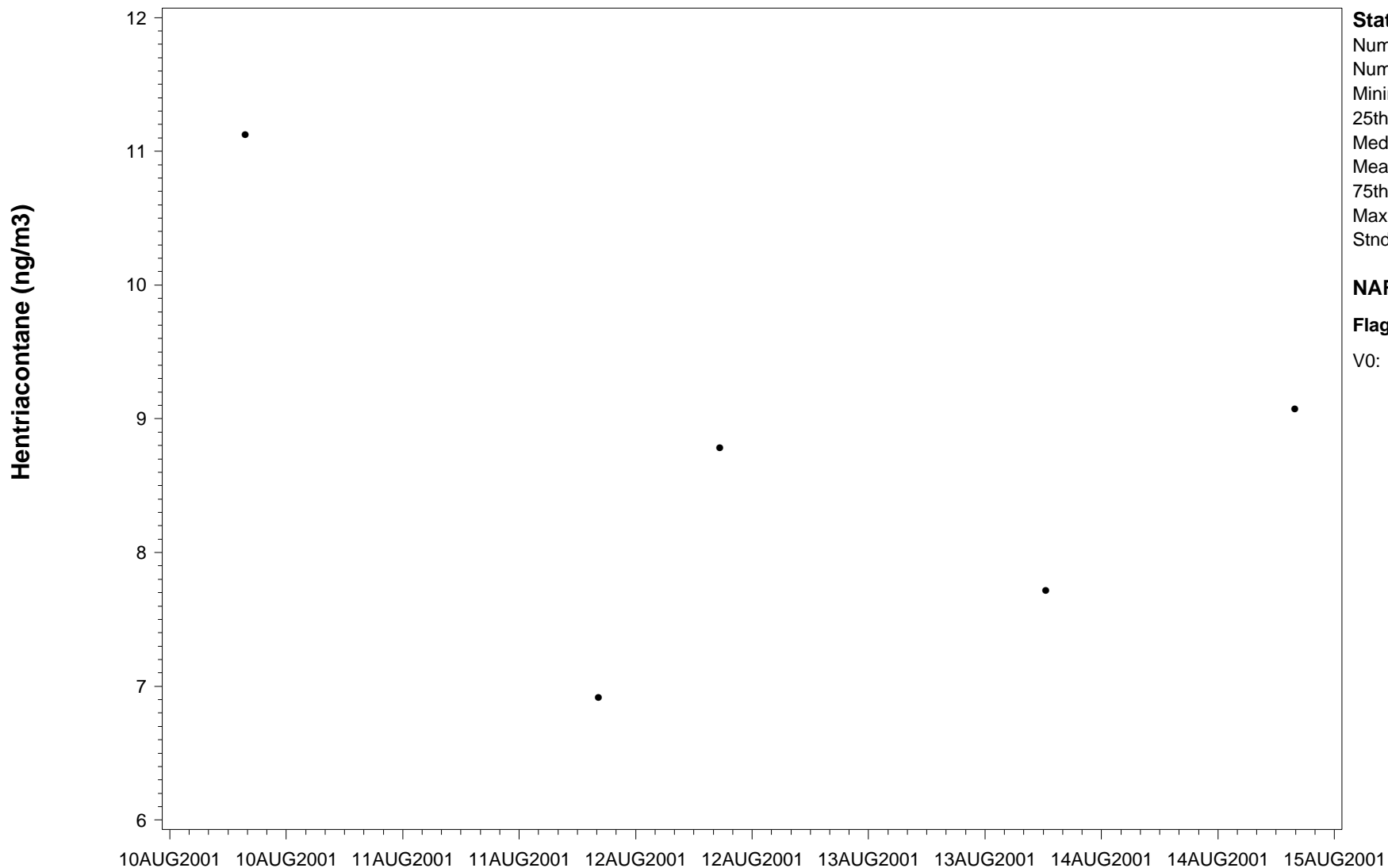


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Hentriacontane** Common Name: **n-Hentriacontane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C630-04-6**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.27**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**

Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **6.9147**  
 25th Percentile: **7.7145**  
 Median: **8.7845**  
 Mean: **8.722**  
 75th Percentile: **9.0758**  
 Maximum: **11.1222**  
 Stnd Dev.: **1.595**

**NARSTO Flags**

**Flag Symbol Count**

V0: ● 5

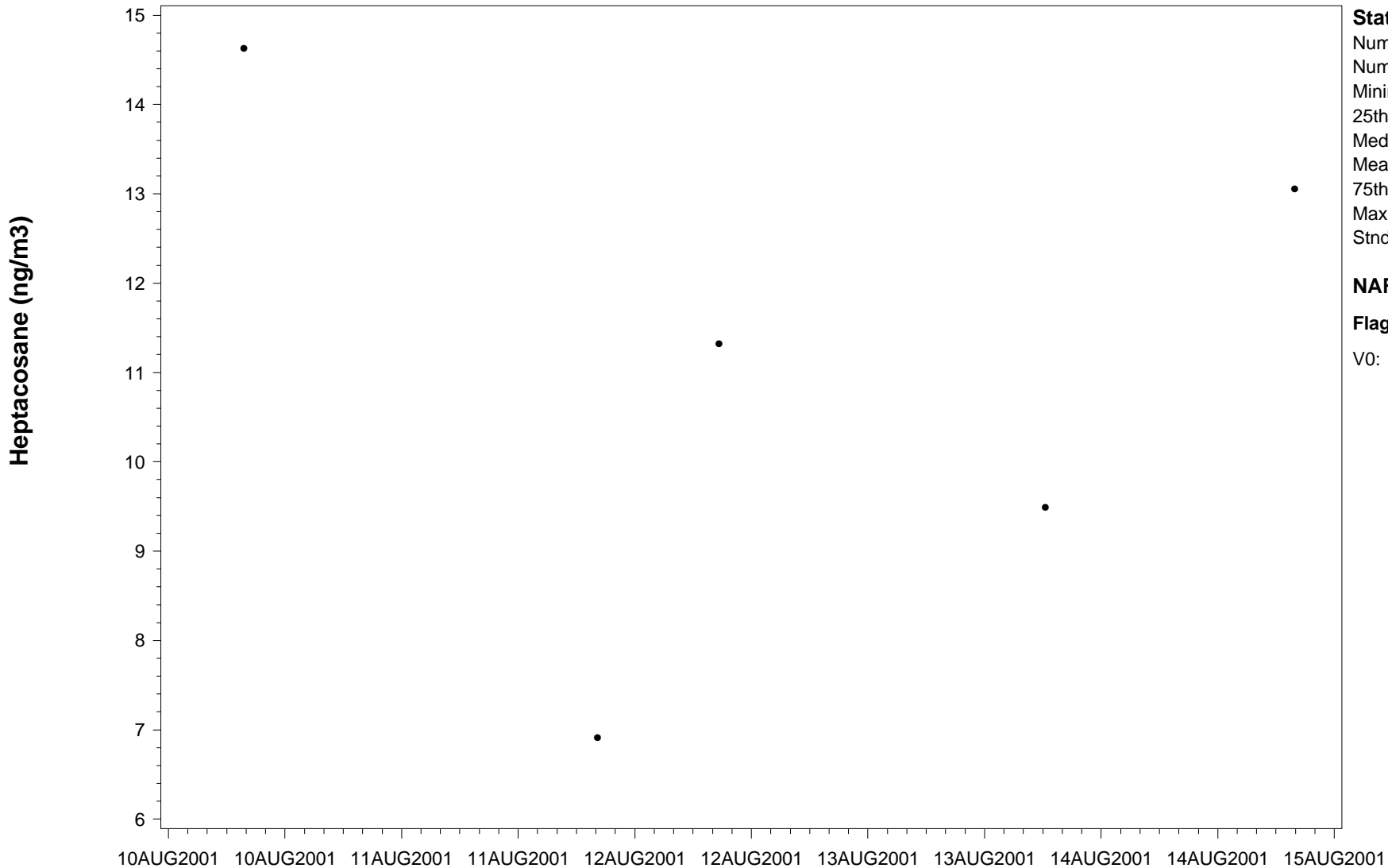
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Heptacosane** Common Name: **n-Heptacosane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C593-49-7**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.16**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**  
 Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **6.9137**  
 25th Percentile: **9.4857**  
 Median: **11.3208**  
 Mean: **11.081**  
 75th Percentile: **13.0548**  
 Maximum: **14.6315**  
 Stnd Dev.: **3.020**

**NARSTO Flags**  
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 V0: ● 5

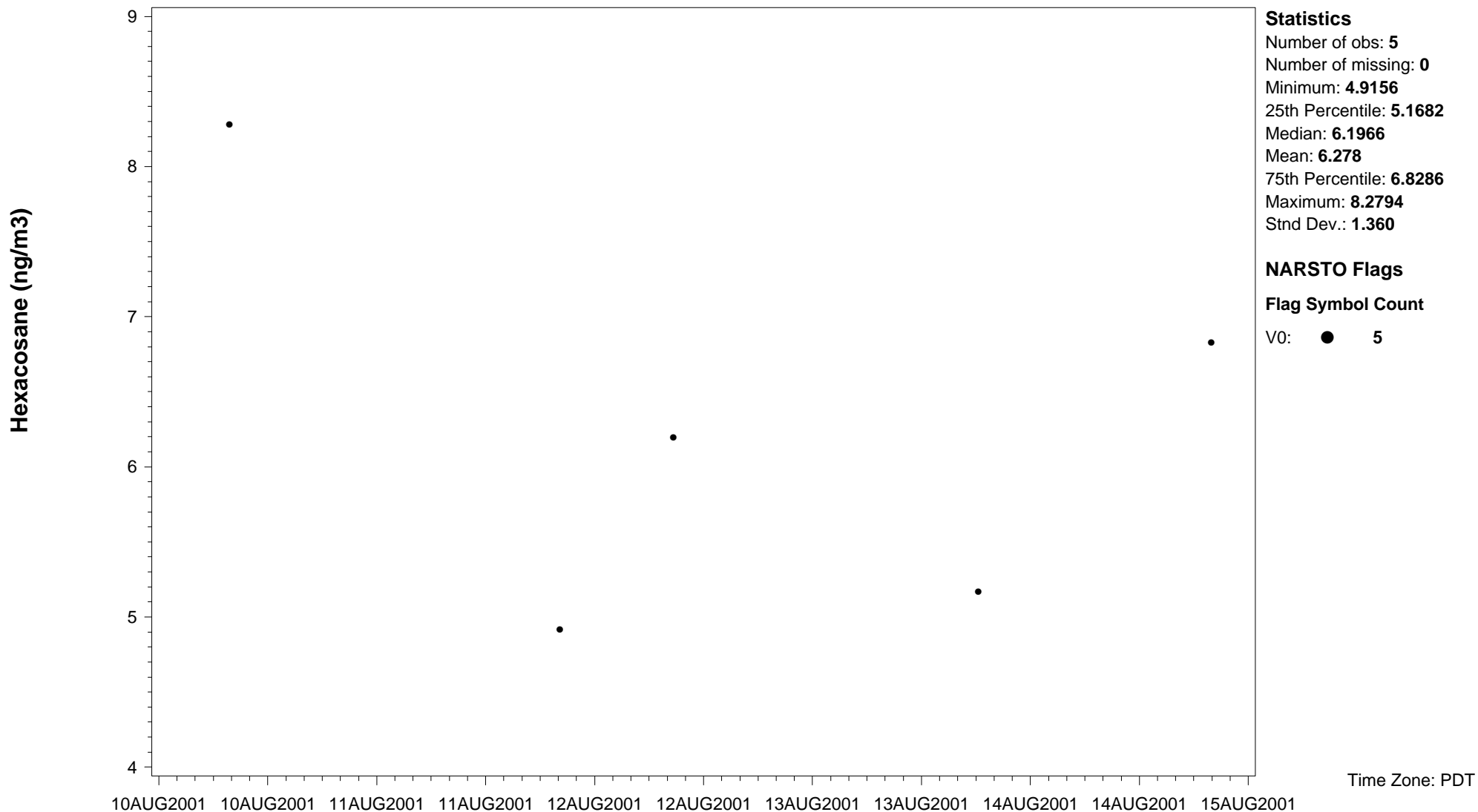
Time Zone: PDT

### NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Hexacosane** Common Name: **n-Hexacosane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C630-01-3**  
Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.088**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**

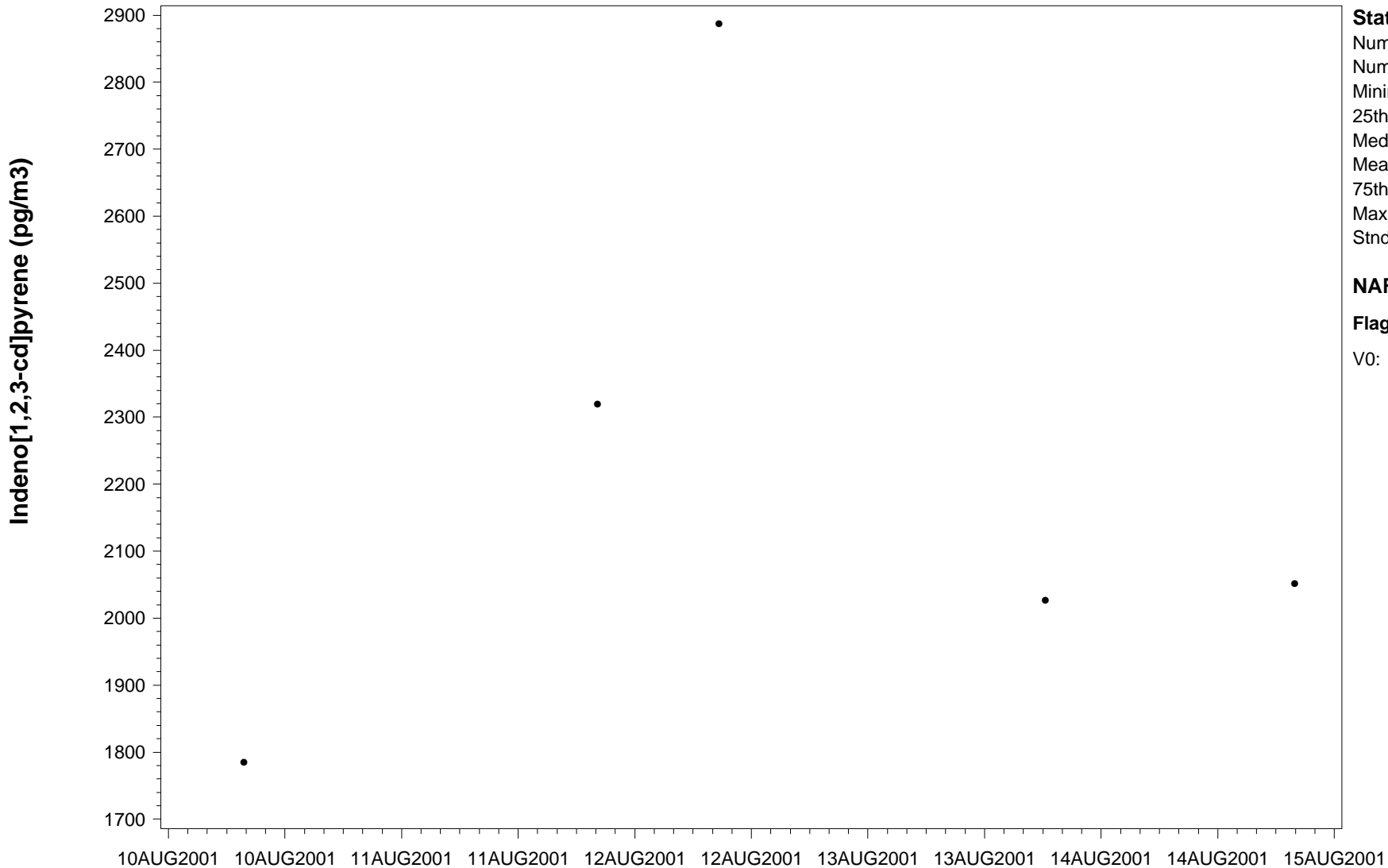


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Indeno[1,2,3-cd]pyrene** Units: **pg/m3** Sampling interval: **Grab** CAS ID: **C193-39-5** Observation type: **Particles**  
 Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5** Field sampling or measurement principle: **Impactor**  
 Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS** Sample preparation: **Organic extraction**  
 Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure** Sampling Height above ground (m): **1.6**  
 Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **3.9**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**

Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **1785.142**  
 25th Percentile: **2026.9717**  
 Median: **2051.8867**  
 Mean: **2213.954**  
 75th Percentile: **2318.7137**  
 Maximum: **2887.0576**  
 Stnd Dev.: **421.056**

**NARSTO Flags**

**Flag Symbol Count**

V0: ● 5

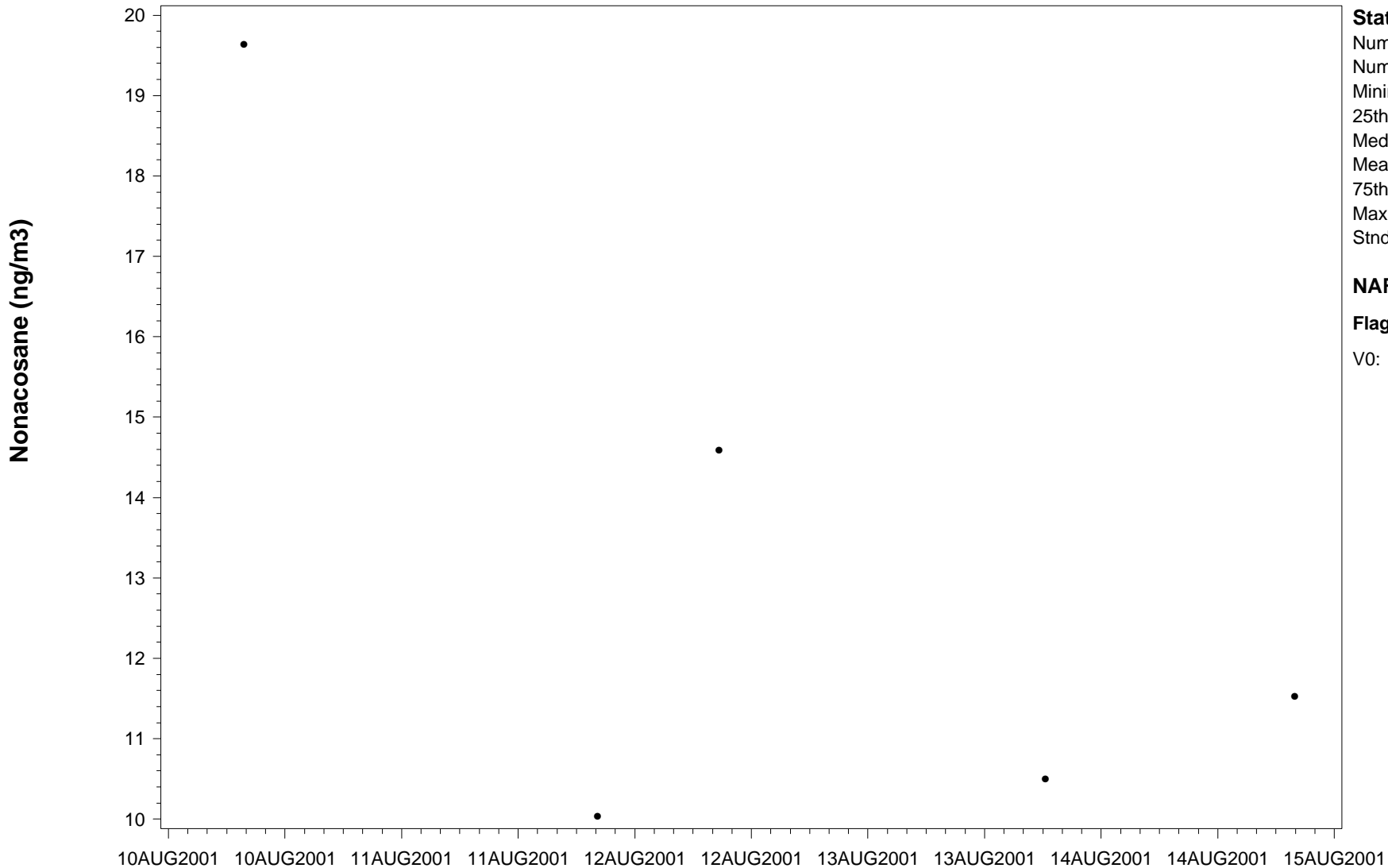
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Nonacosane** Common Name: **n-Nonacosane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C630-03-5**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.22**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**  
 Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **10.0371**  
 25th Percentile: **10.4963**  
 Median: **11.5233**  
 Mean: **13.255**  
 75th Percentile: **14.588**  
 Maximum: **19.6309**  
 Stnd Dev.: **3.981**

**NARSTO Flags**  
**Flag Symbol Count**  
 V0: ● 5

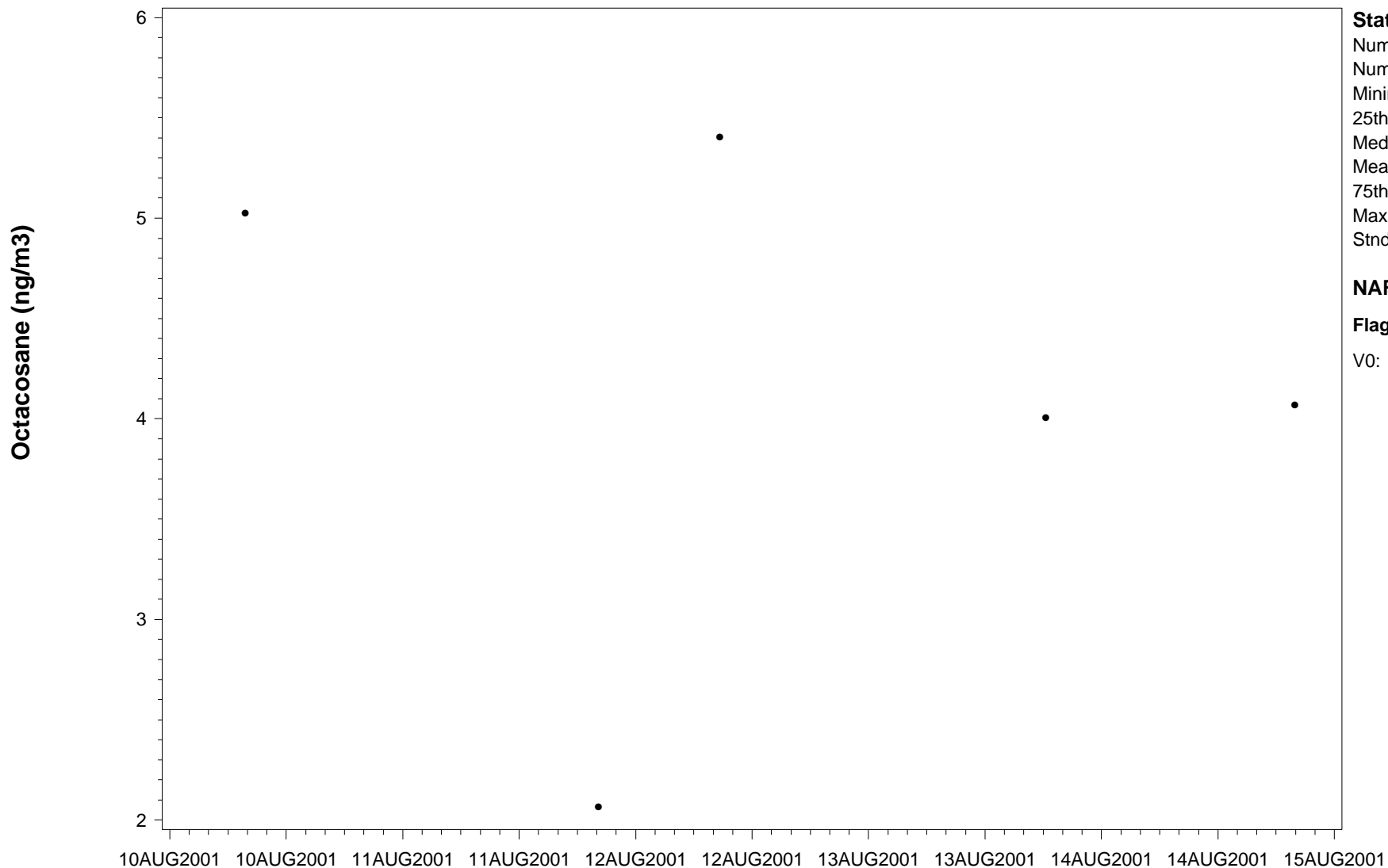
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Octacosane** Common Name: **n-Octacosane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C630-02-4**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.21**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**

Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **2.0654**  
 25th Percentile: **4.0048**  
 Median: **4.0717**  
 Mean: **4.114**  
 75th Percentile: **5.0241**  
 Maximum: **5.4052**  
 Stnd Dev.: **1.295**

**NARSTO Flags**

**Flag Symbol Count**

V0: ● 5

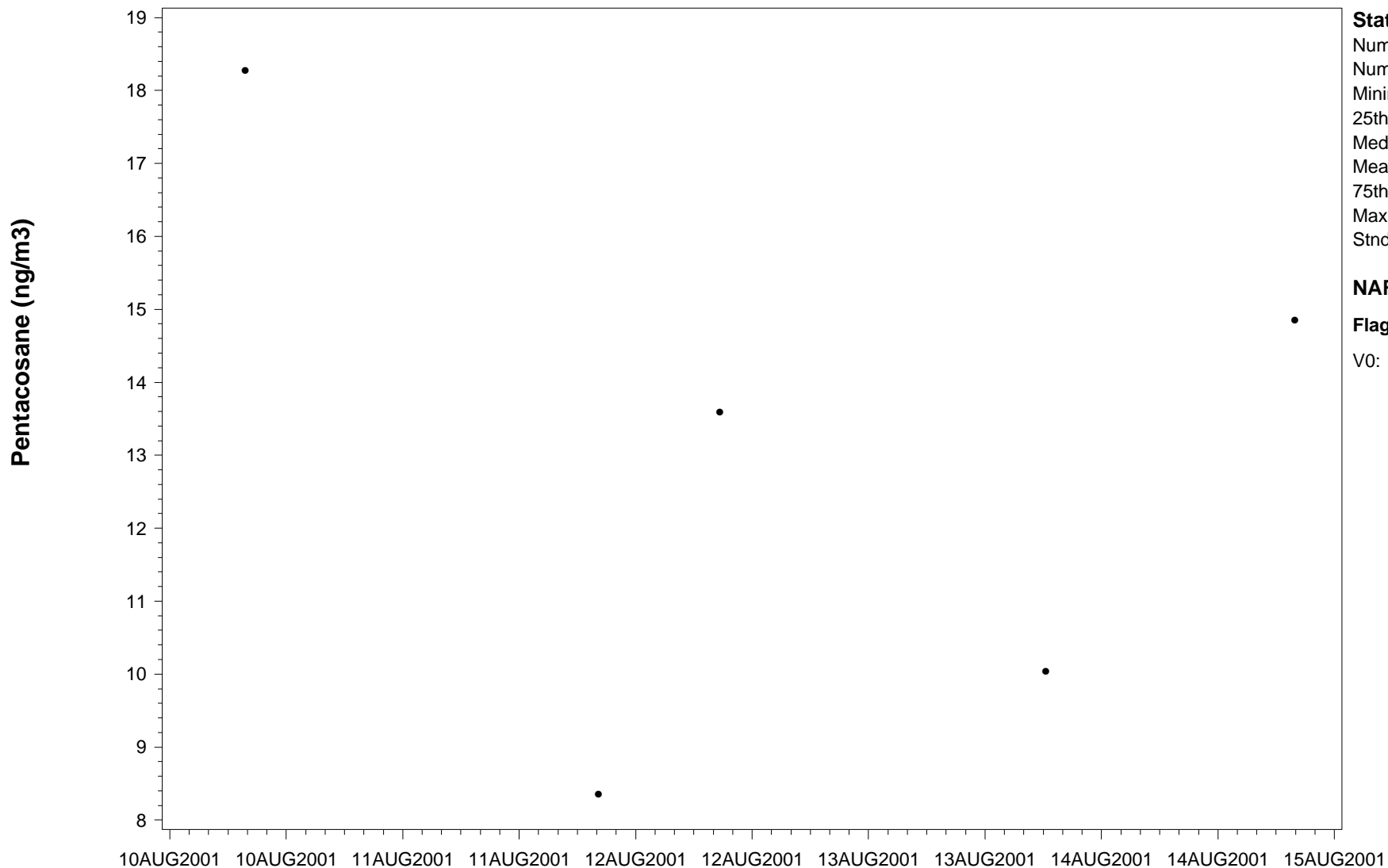
Time Zone: PDT

NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Pentacosane** Common Name: **n-Pentacosane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C629-99-2**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.12**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



**Statistics**

Number of obs: **5**  
 Number of missing: **0**  
 Minimum: **8.3504**  
 25th Percentile: **10.0361**  
 Median: **13.5934**  
 Mean: **13.019**  
 75th Percentile: **14.8468**  
 Maximum: **18.2698**  
 Stnd Dev.: **3.935**

**NARSTO Flags**

**Flag Symbol Count**

V0: ● 5

Time Zone: PDT

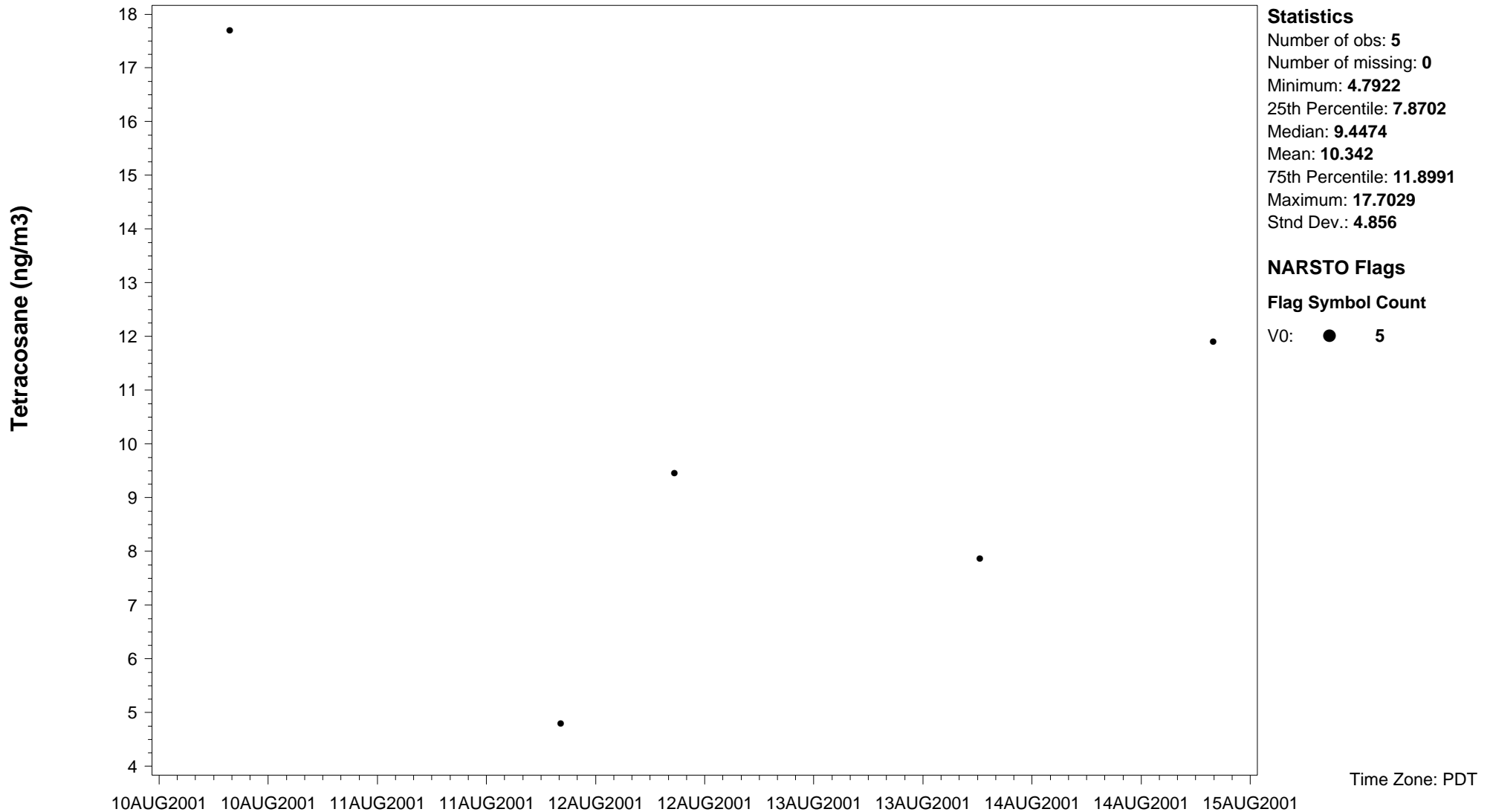


### NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Tetracosane** Common Name: **n-Tetracosane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C646-31-1**  
Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.21**

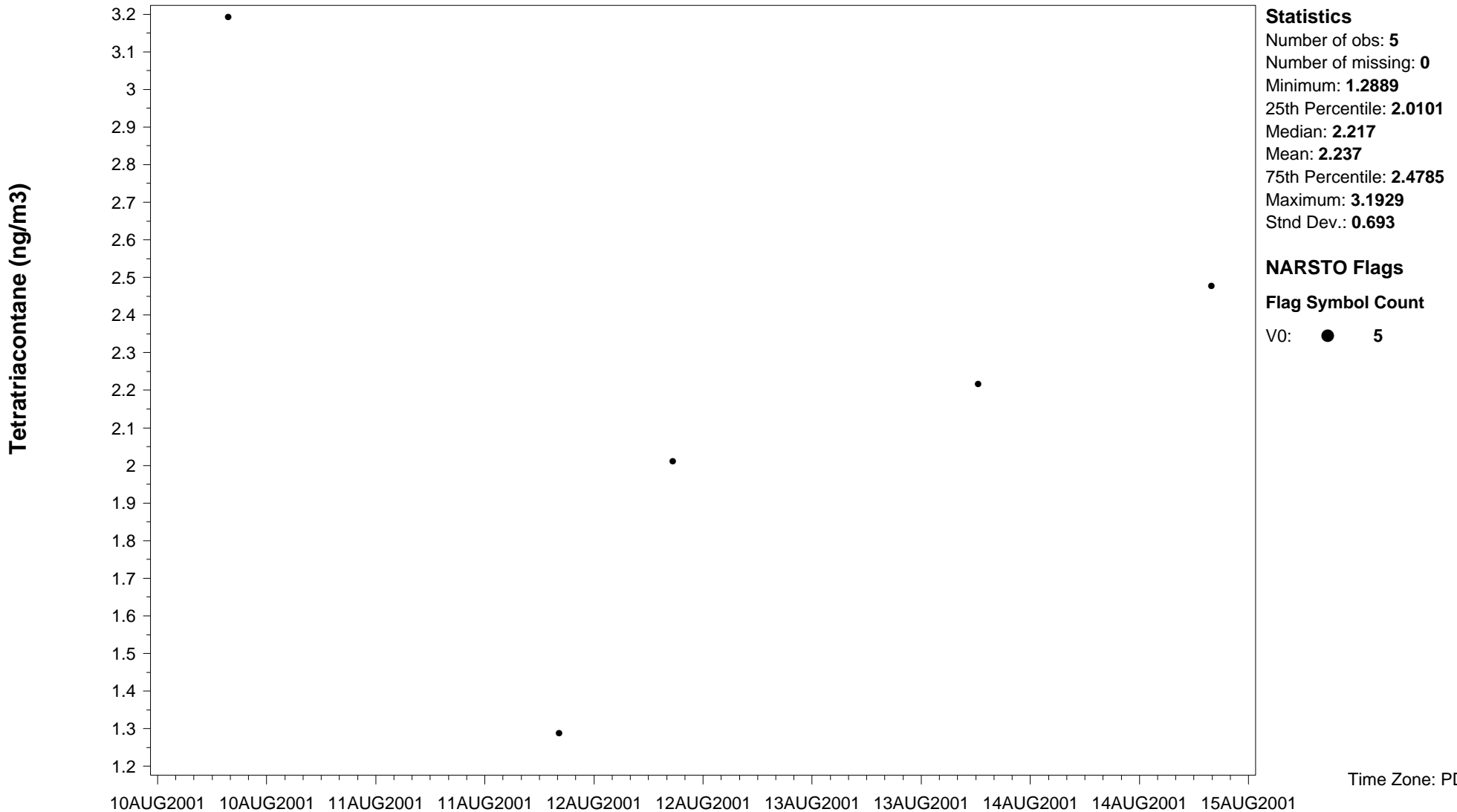
Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Tetratriacontane** Common Name: **n-Tetratriacone** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C14167-59-0**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.092**  
 Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**

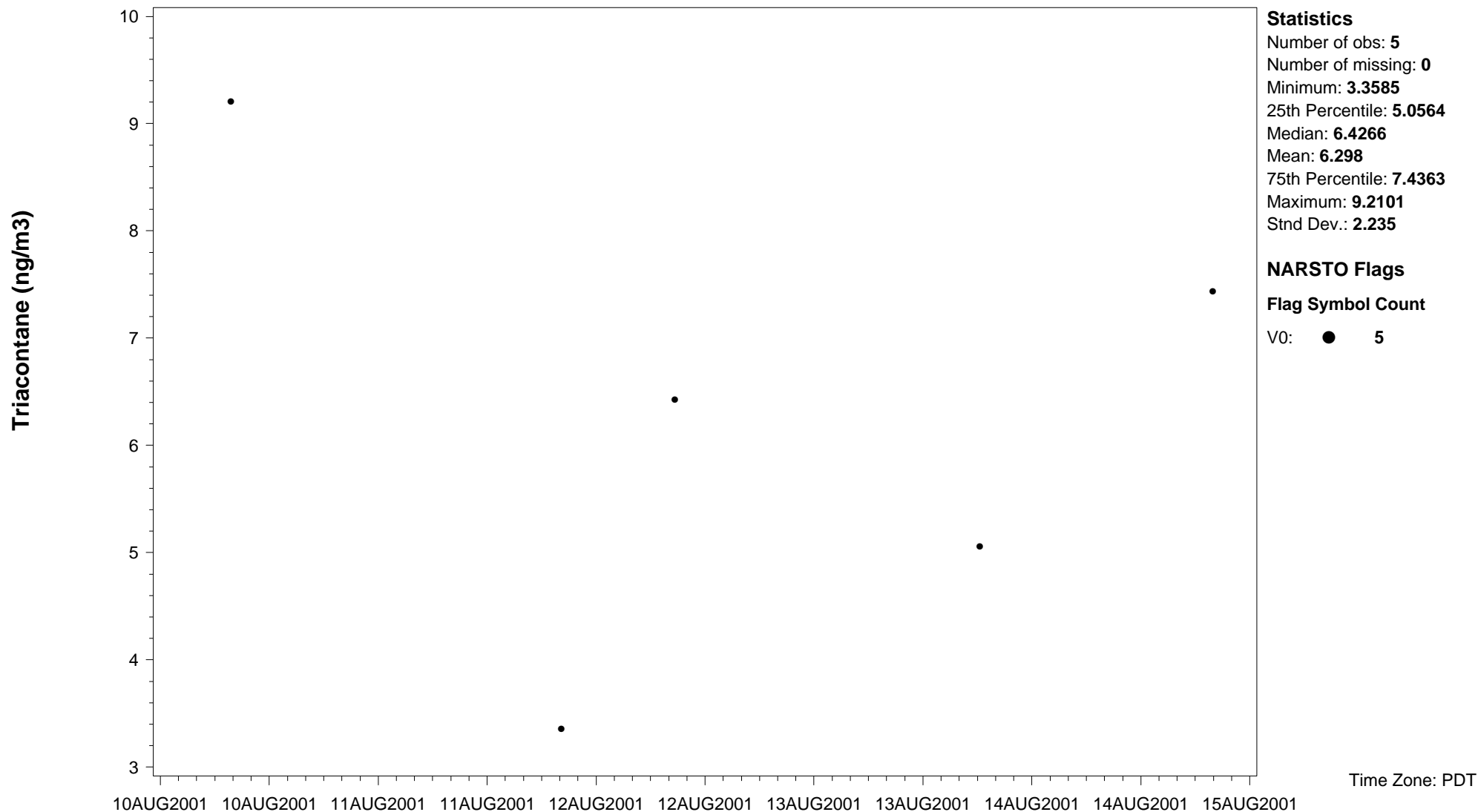


### NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Triacontane** Common Name: **n-Triacontane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C638-68-6**  
Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.30**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**

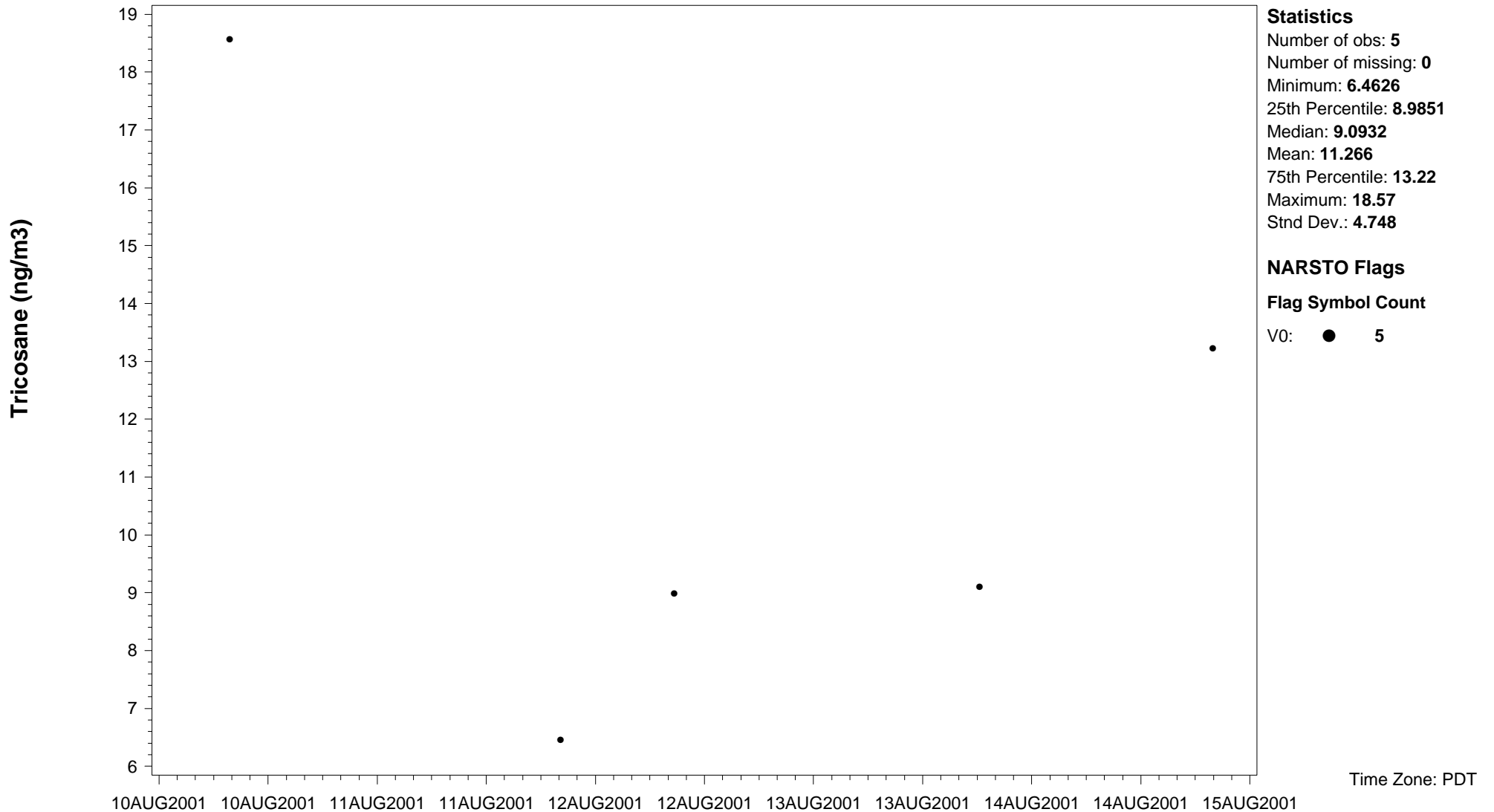


NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Tricosane** Common Name: **n-Tricosane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C638-67-5**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.057**

Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**



NAtChem Time Series Plot

21MAR2005

Site ID: **PC01CABCCSTN** Variable name: **Tritriacontane** Common Name: **n-Tritriacontane** Units: **ng/m3** Sampling interval: **Grab** CAS ID: **C630-05-7**  
 Observation type: **Particles** Particle diameter--lower bound (UM): **Undetermined** Particle diameter--upper bound (UM): **2.5**  
 Field sampling or measurement principle: **Impactor** Medium: **Quartz** Inlet type: **Impactor--direct** Laboratory analytical method: **GC/MS**  
 Sample preparation: **Organic extraction** Blank Correction: **Blank corrected** Volume standardization: **Ambient temperature and pressure**  
 Sampling Height above ground (m): **1.6** Instrument name and model number: **HIVOL TE-6070-BL with PM2.5 Impactor** Detection Limit: **0.10**  
 Site Name: **Cassiar Tunnel (North End), British Columbia** Latitude: **49.28389 deg.** Longitude: **-123.03194 deg.** Start Date: **2001-08-09** End Date: **2001-08-15**

