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**1.0 Data Set Overview:**

BEACHON-ROCS Field Project, Project P.I.: Alex Guenther, National Center for Atmospheric Chemistry, Time period covered: 8/01/2010 through 8/31/2010

Data includes TOGA and whole air canister measurements from the 30-m Tower at the Manitou Forest Observatory at the US Forest Service’s Manitou Experimental Forest located at 589 F.S. Road 391 Woodland Park, CO.

<https://www2.acom.ucar.edu/beachon>

**2.0 Instrument Description:**

The Trace Organic Gas Analyzer (TOGA) is a fast online Gas Chromatograph/Mass Spectrometer (GC/MS), with a measurement frequency of approximately one 30s sample every 5 minutes, capable of measuring up to 70 or more different volatile organic compounds (VOCs), including selected C3-C10 hydrocarbons, C1-C4 oxygenated VOCs, halogenated VOCs, DMS, CH3CN, and halogenated VOCs.

The canister were shipped and subsequently analyzed at the University of New Hampshire by gas chromatography (GC) with flame ionization, electron capture, and mass spectrometric detection.

**4.0 Data Format:**

Data are in ASCII format, and all data are in pptv (parts per trillion by volume).

For the TOGA\_Sample\_Height column, the reported height corresponds to the following:

|  |  |
| --- | --- |
| Sample\_Height | Description |
| 80 | EC line - approx. 80' |
| 48 | cherry picker height 1 (top 48') |
| 35 | Middle of tower - next to canister line, approx. 35' |
| 24 | cherry picker height 2 (middle/24' ) |
| 12 | cherry picker height 3 (low 12') |
| 10 | Bottom of tower - approx. 10' |
| 5 | short line out the back of the seatainer, or ZAG |
| 4 | 35' line, approx. 4' off ground, between seatainer and tower |
| 0 | cherry picker, ground (about 4') |
| -9 | Not sampling |
| -99999 | TOGA system not running |

**5.0 Data Remarks:**

Please contact Instrument P.I. (Eric Apel) prior to use.

**6.0 References:**

Recent publications:

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