

AProcessing Record for this file:
(Make notes here unique for this file)

Loading from 2015-04-01 - 2015-05-01

Data taken from DMF, untarred, unzipped and renamed back to original file names

It was noted that BOTH TEI 42i's lost their internal Mass Flow Meters. This was not consequential as the inlet has much better Mass Flow Controllers.

Ambient data appear valid.

Diurnal cycles of all three species are readily apparent.

Multiple large (>100 ppbv) excursions noted. These correlate very well with CO excursions. They are very fast and so the NO₂ values (which depend on a difference measurement) are not valid. It is nearly impossible to discriminate these periods. It is concluded that these periods MAY be due to local generator emissions and the associated variability with instrument/pump restarts.

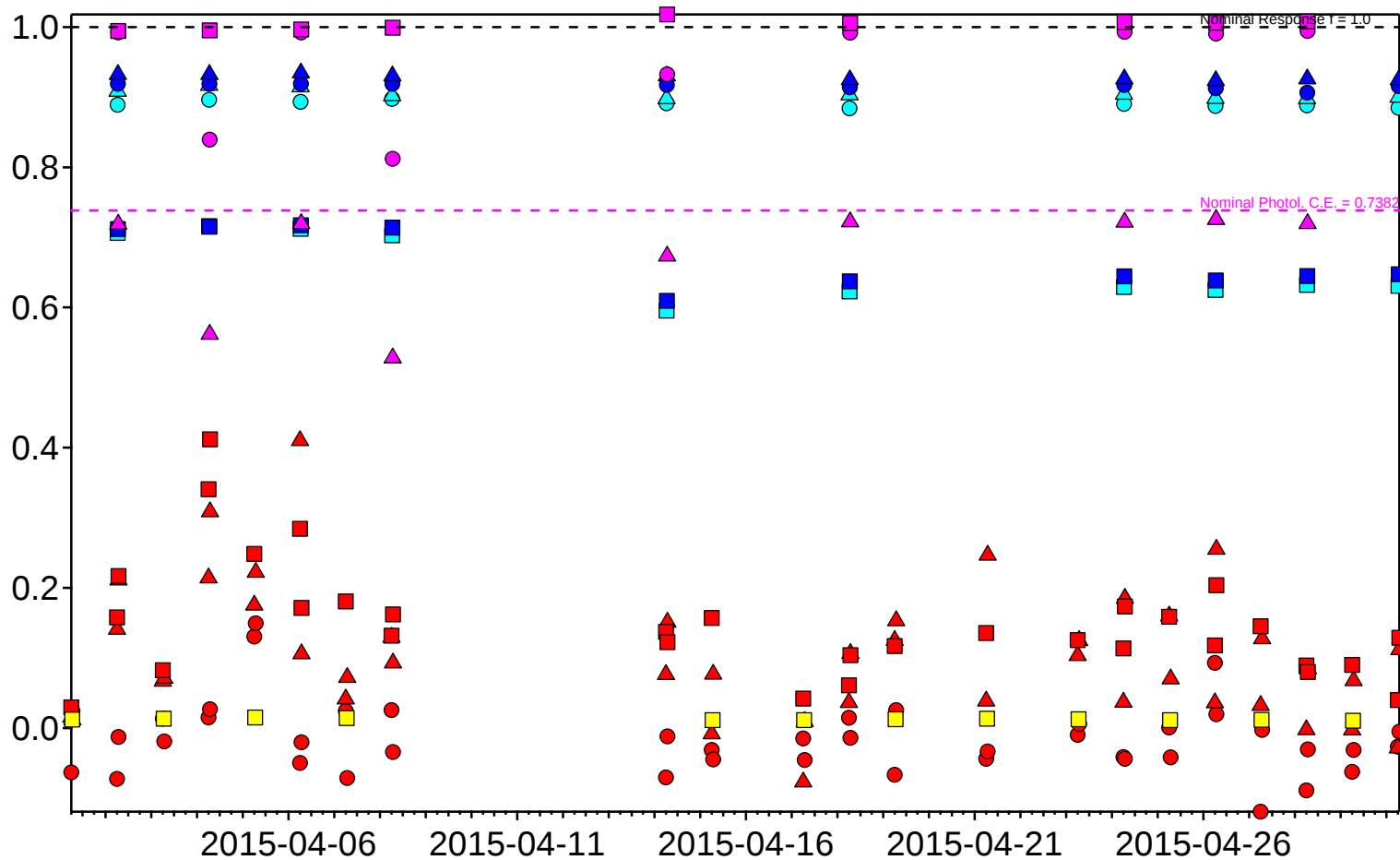
NO_x photolysis cell appears spot on with conversion efficiency. NO_y detector efficiency appears to be about 60% of nominal. No correction was done.

2015-04-09 03:45:00, 2015-04-13 17:11:00 DQR D150501.3 Instrument data system failed to start after unexpected power failure. Unit was restarted upon observing failure.

2015-04-09 00:00:00, 2015-04-11 23:59:59 DQR: D150527.1 Standard addition turned off (or ran out). Data unaffected.

○ - NO Channel ; △ - NO_x Channel; □ - NO_y Channel
 Zero Air Equivalent Signal (ppbv)
 S.A. #1 (calibrated sig/dilution conc: [SA#1] = 21.51 ppbv)
 S.A. #2 (calibrated sig/dilution conc: [SA#2] = 85.01 ppbv)
 GPT + SA #2 (NO: frac titr., NO_x: Photol. C.E. (nom=0.7382), NO_y: Mo C.E. (nom=1.0085))
 HNO₃ cal. (calibrated sig/perm conc: [HNO₃] = 73.9 ppbv)

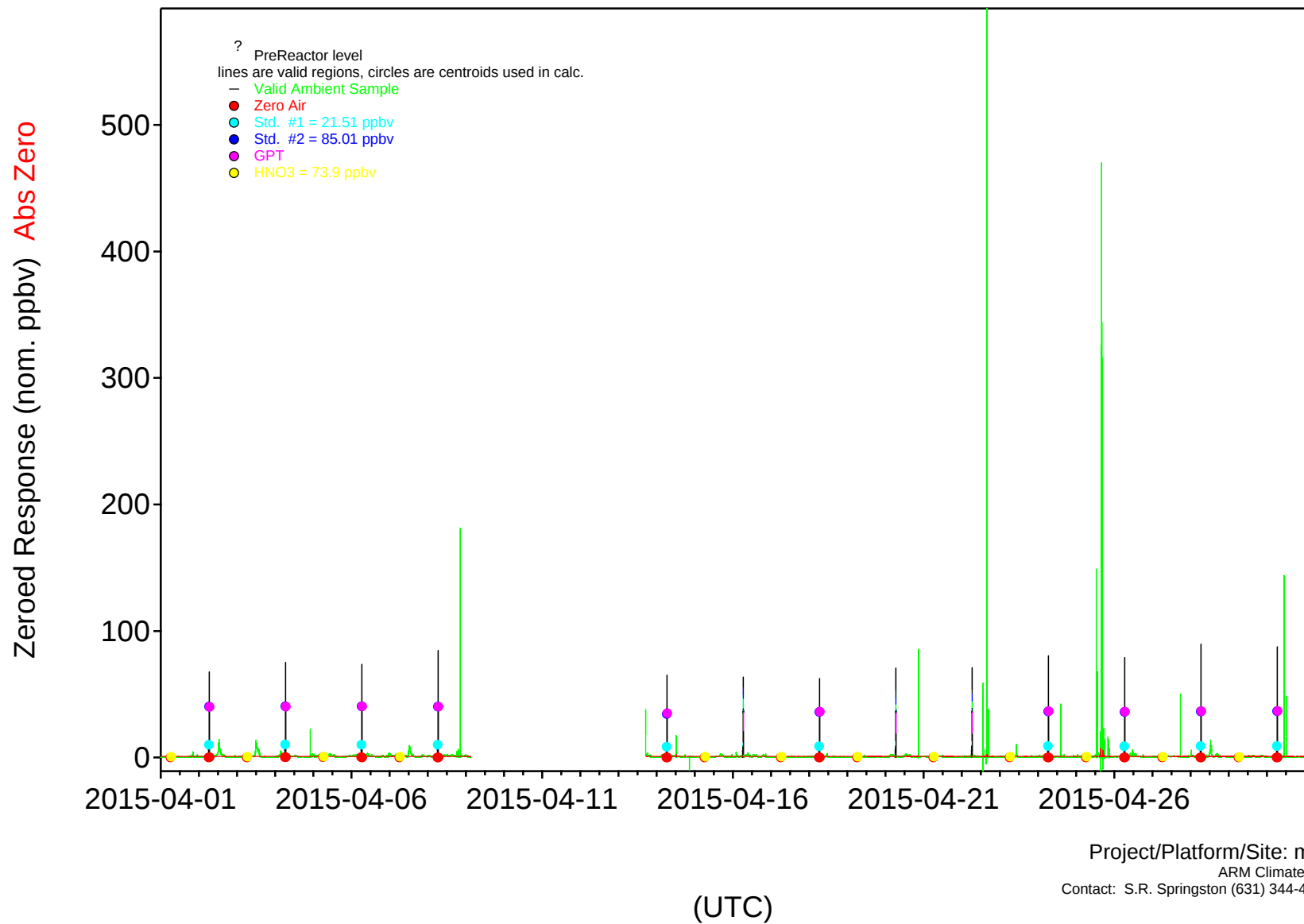
Ground NO_x Analyzer Calibration Data



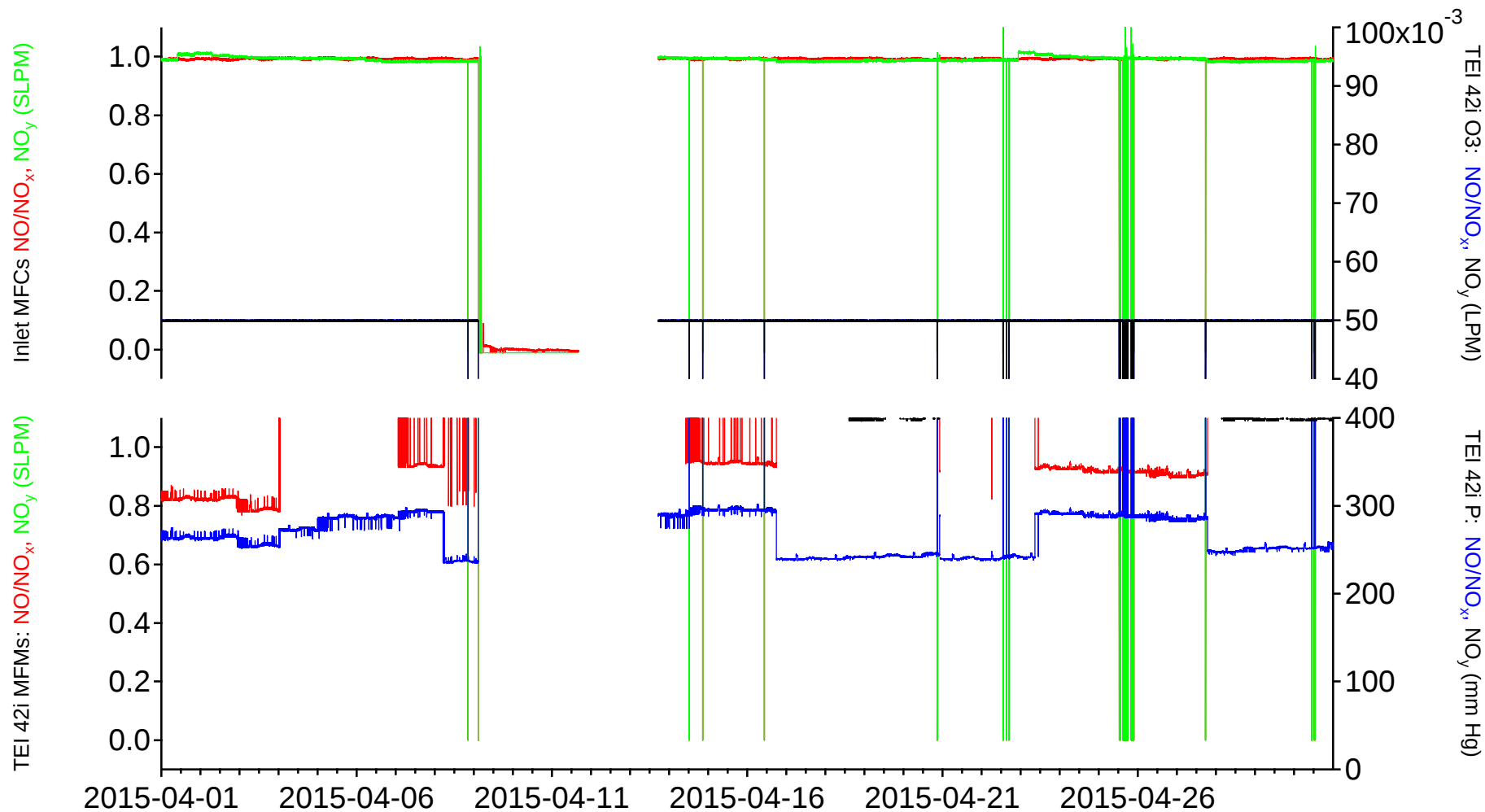
Project/Platform/Site: maomaosas1
 ARM Climate Research Facility
 Contact: S.R. Springston (631) 344-4477, srs@bnl.gov

(UTC)

Ground NO_x Analyzer Parsed NO_y Channel Data



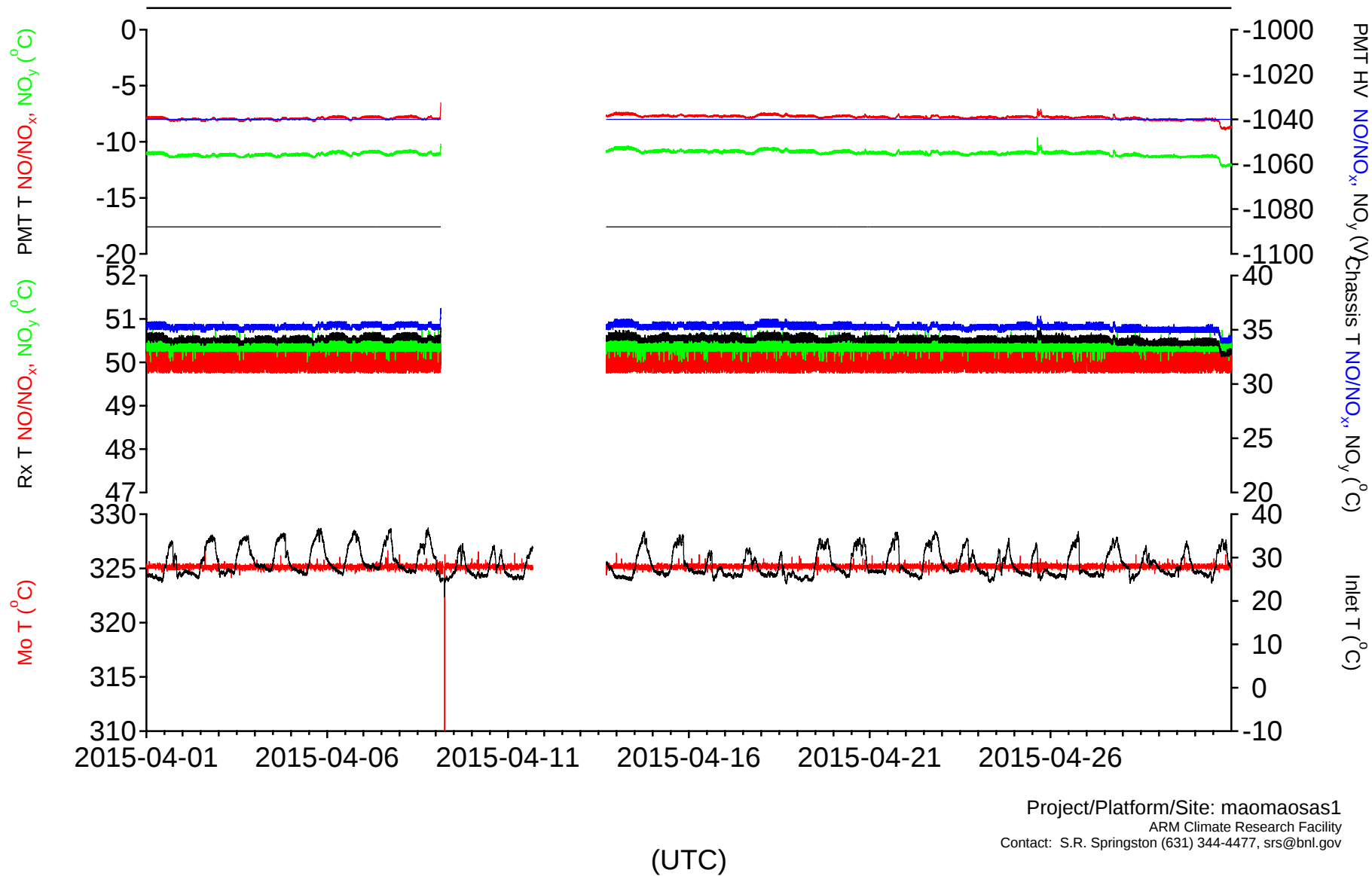
Ground-Based NO_x Analyzer
Housekeeping 1
Flows & Pressures



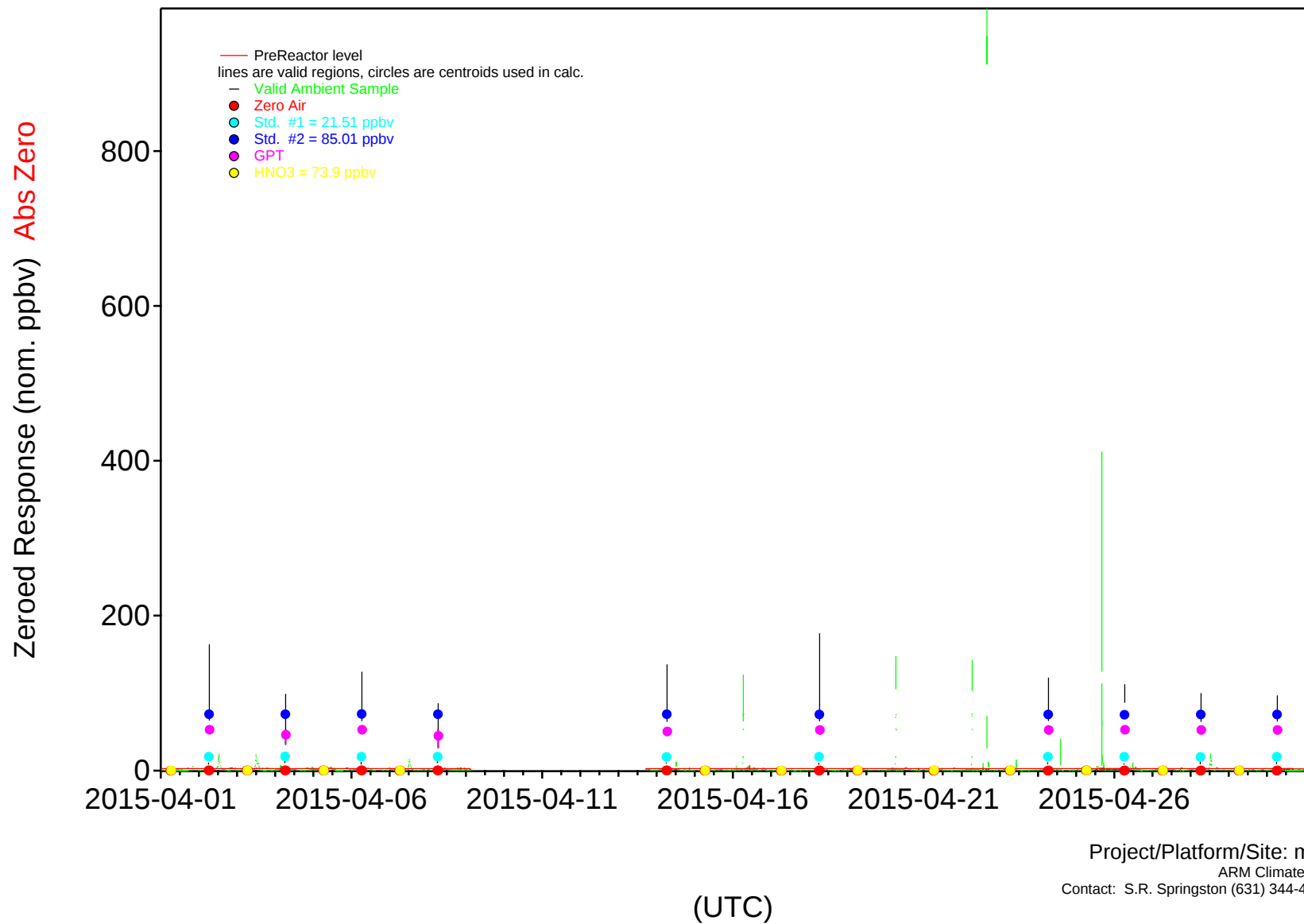
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(UTC)

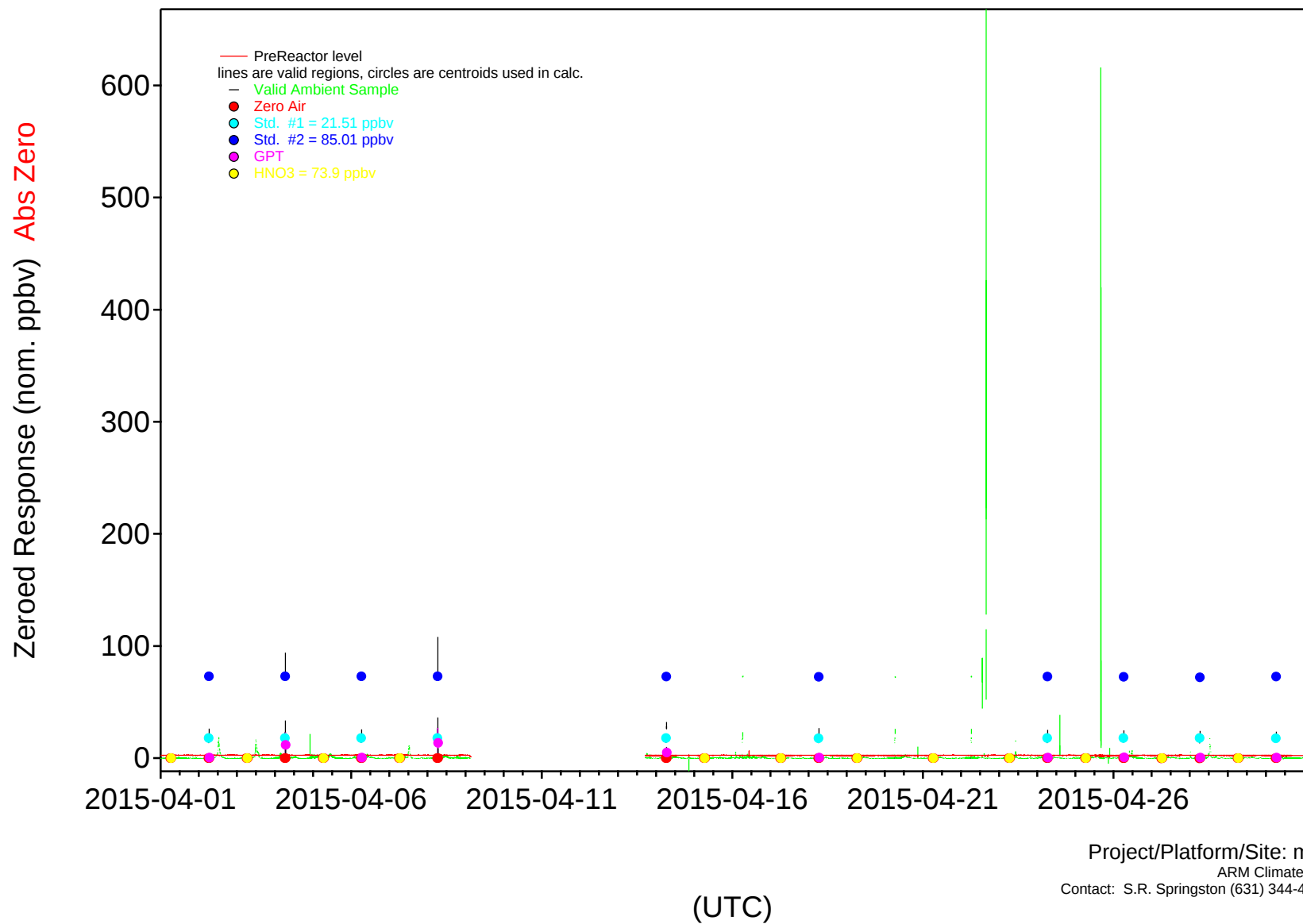
Ground-Based NO_x Analyzer
Housekeeping 2
Temperatures



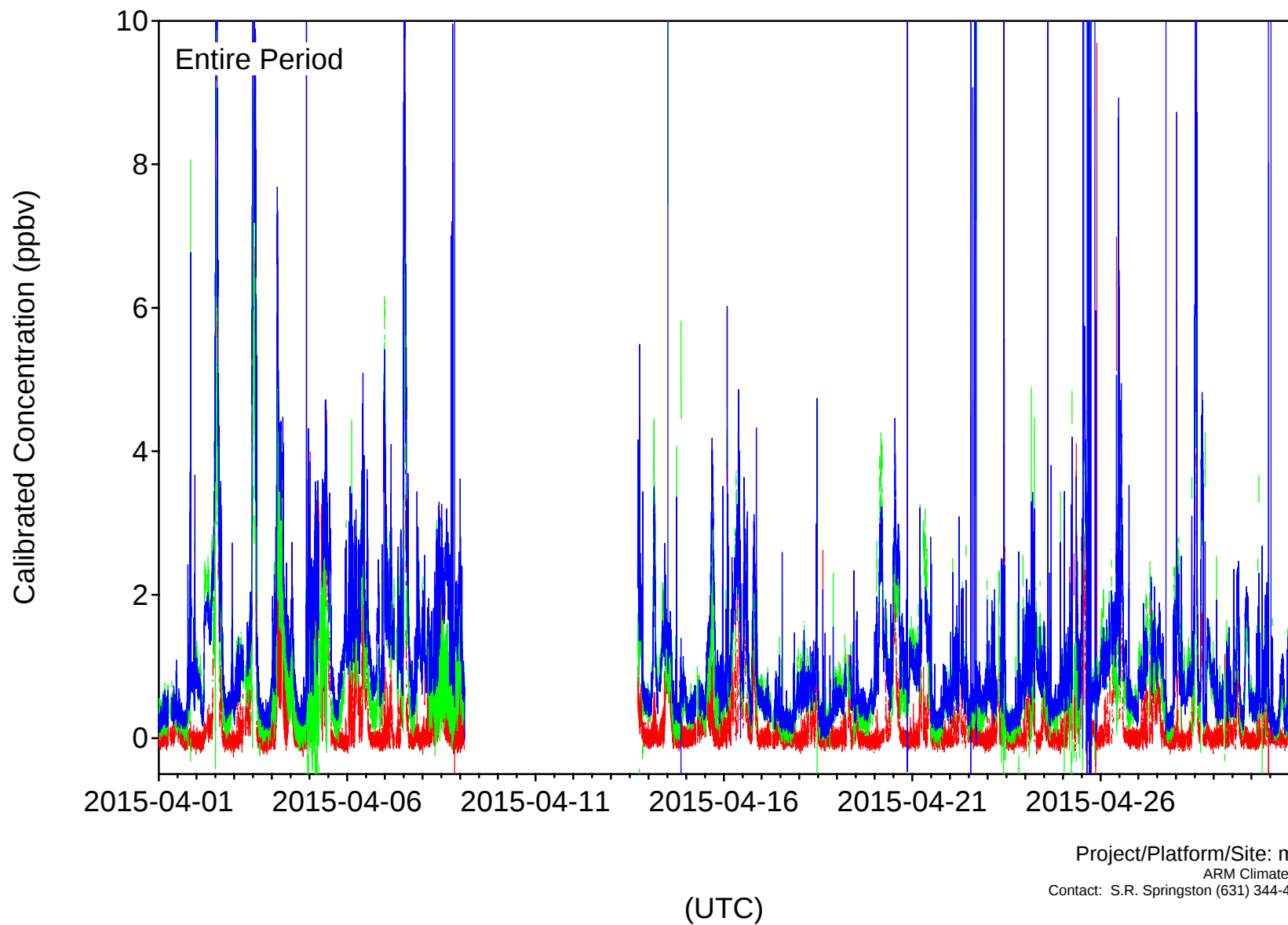
Ground NO_x Analyzer Parsed NOx Channel Data



Ground NO_x Analyzer Parsed NO Channel Data

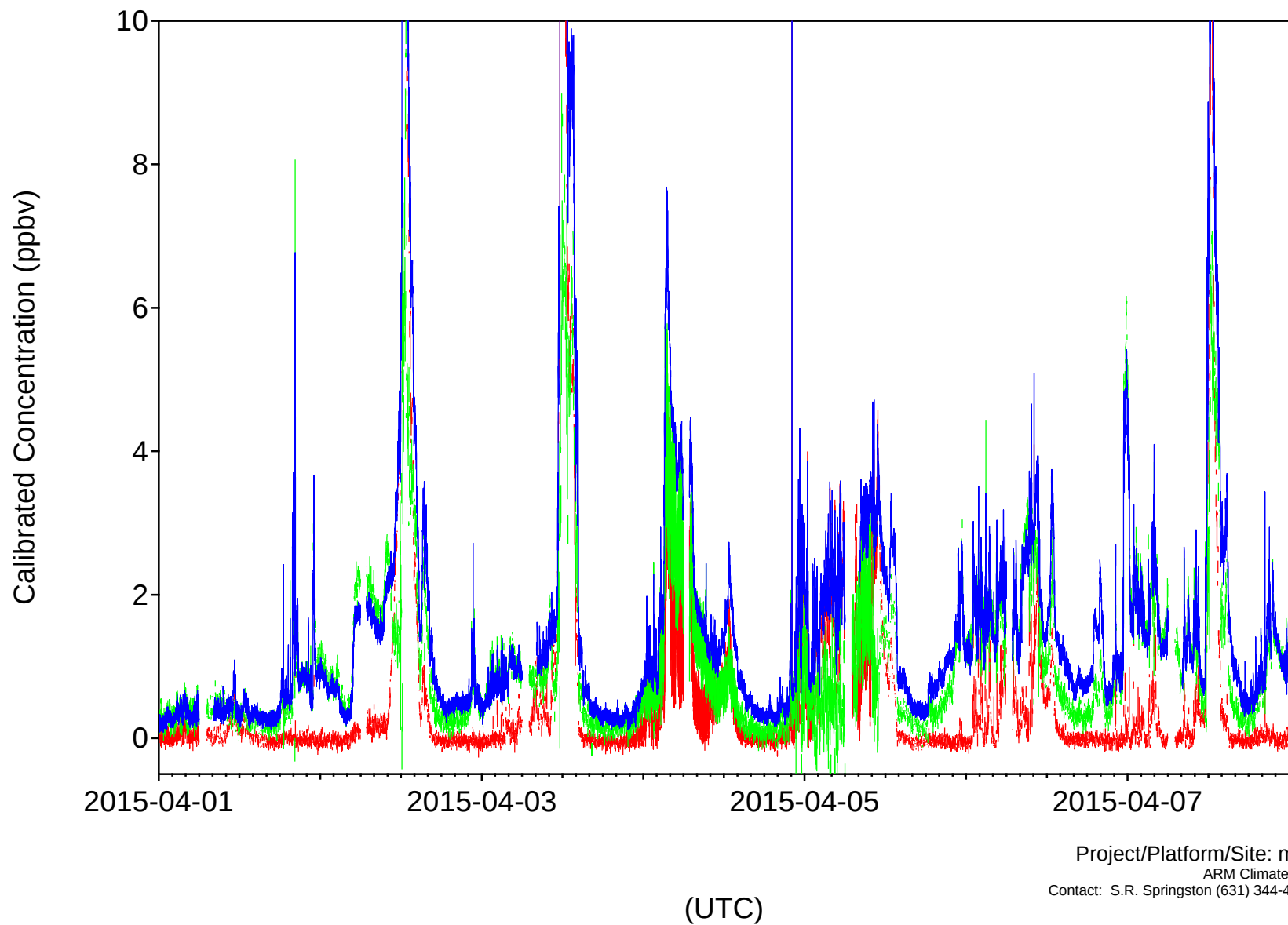


Calibration Factors Used:
NO: 1.07 ([calibrated]/[inst. reported])
NO₂: 1.087 ([calibrated]/[inst. reported]), C.E. = 0.7382
NO_x: 1.506 ([calibrated]/[inst. reported]), C.E. = 1.0085

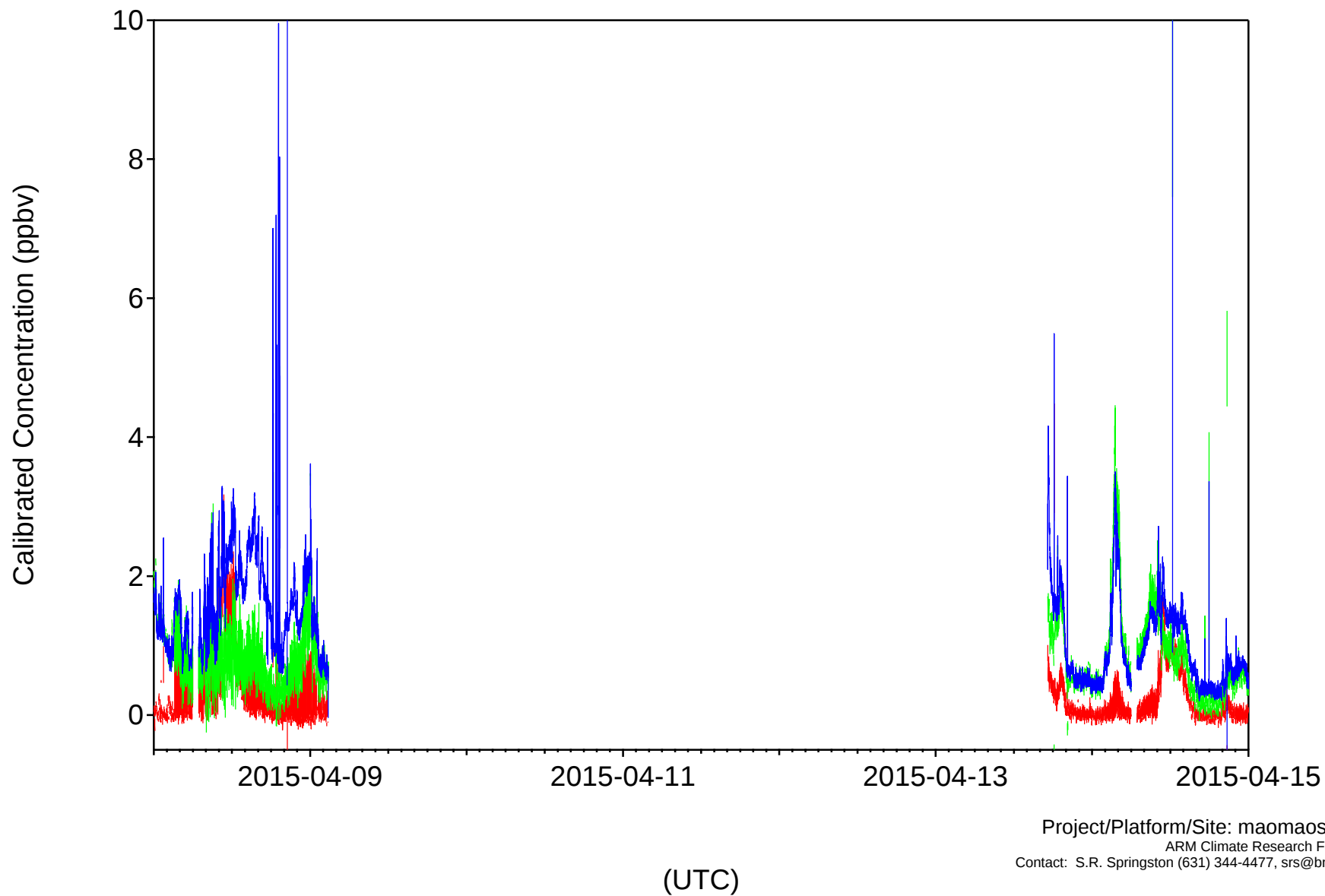


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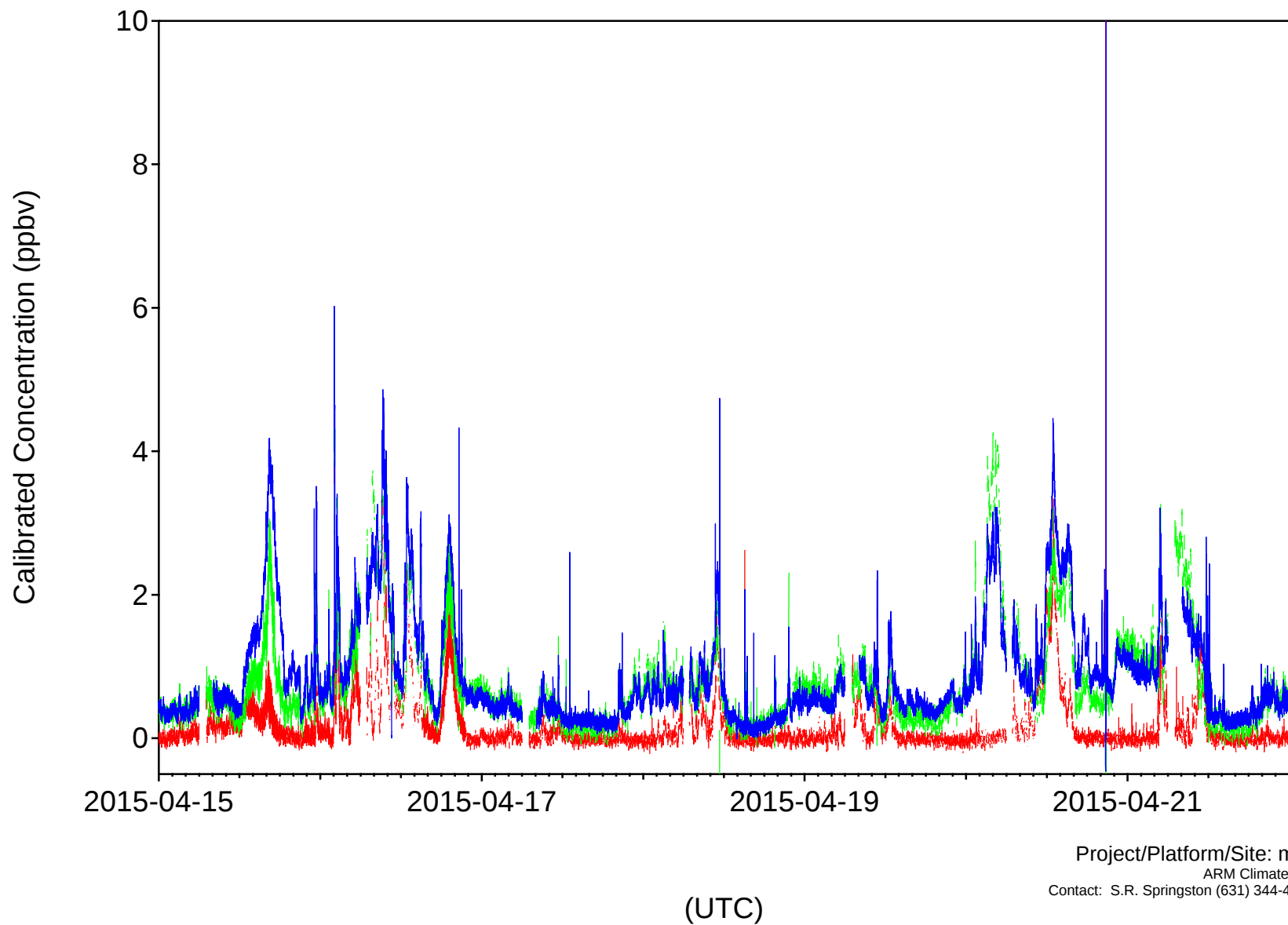
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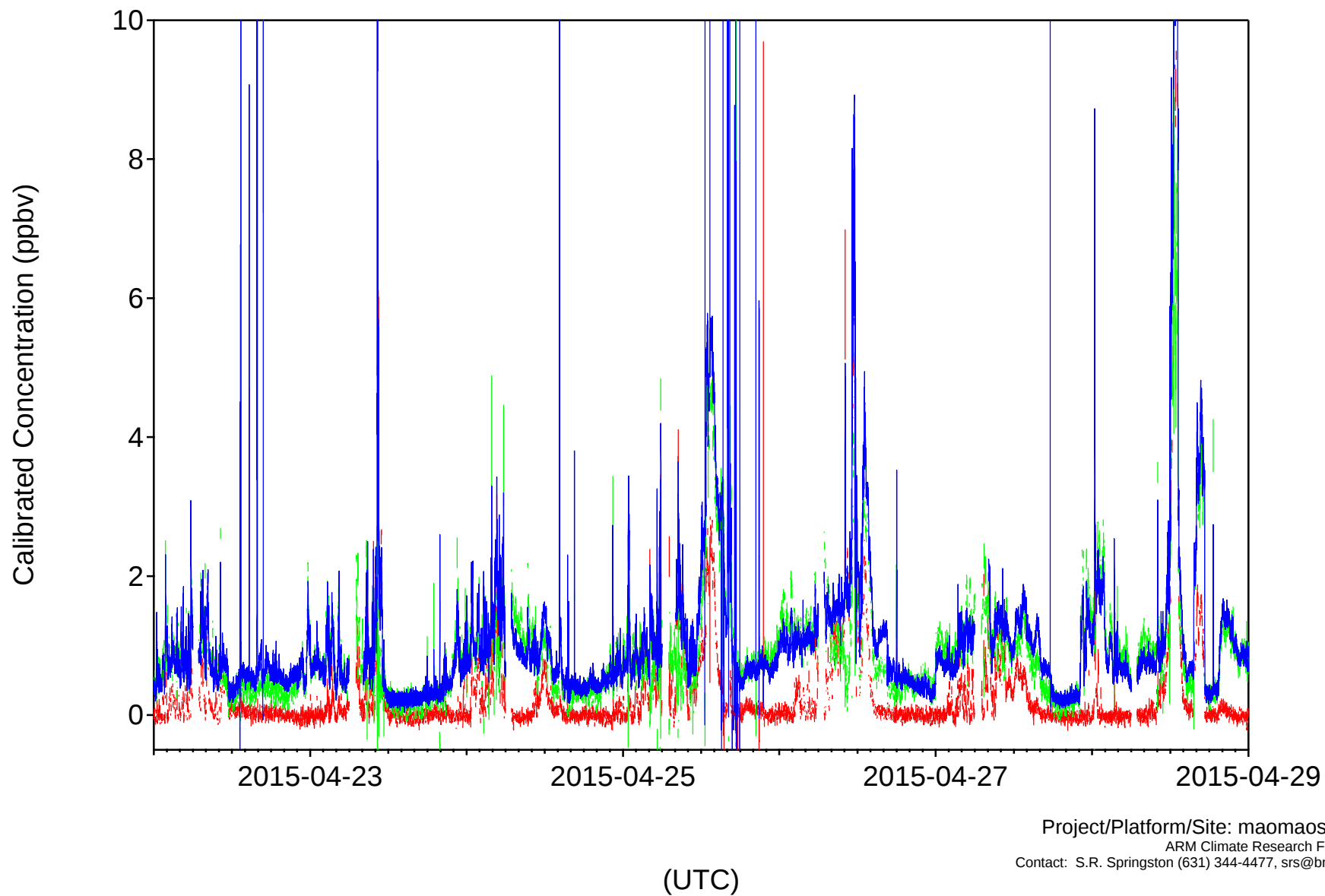
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