## EmisALD2_Anthro



Zero throughout domain kg/m2/s

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisALK4_Anthro



Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisBCPI_Anthro



Zero throughout domain kg/m2/s

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain
$\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$ kg/m2/s

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisBCPO_Anthro



Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisBENZ_Anthro



Zero throughout domain kg/m2/s

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisC2H2_Anthro



Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisC2H4_Anthro



Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisC2H6_Anthro



Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisC3H8_Anthro



Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisCH2O_Anthro



Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisCO2_Anthro



Zero throughout domain kg/m2/s


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio



Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


## EmisCO_Anthro



Zero throughout domain kg/m2/s

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain
$\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisDST1_Anthro



Zero throughout domain kg/m2/s

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisEOH_Anthro



Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisHCOOH_Anthro



Zero throughout domain kg/m2/s

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisMEK_Anthro



Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisMOH_Anthro



Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisNAP_Anthro



Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio



Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


## EmisNH3_Anthro



Zero throughout domain kg/m2/s

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain
$\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisNO_Anthro



Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisOCPI_Anthro



Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisOCPO_Anthro



Zero throughout domain kg/m2/s

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain
$\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$ kg/m2/s

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmispFe_Anthro



Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisPOG1_Anthro



Zero throughout domain kg/m2/s


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio



Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


## EmisPOG2_Anthro



Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$


Zero throughout domain kg/m2/s

Ratio



Zero throughout domain kg/m2/s

Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


## EmisPRPE_Anthro



Zero throughout domain kg/m2/s

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain
$\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$ kg/m2/s

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisSO2_Anthro



Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisSO4_Anthro



Zero throughout domain kg/m2/s

Ratio


Ref and Dev equal throughout domain unitless

Raw GEOS-FP input, 3-hr winds (Dev)


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisSOAP_Anthro



Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisTOLU_Anthro



Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Dynamic Range


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

## EmisXYLE_Anthro



Zero throughout domain $\mathrm{kg} / \mathrm{m} 2 / \mathrm{s}$

Ratio


Ref and Dev equal throughout domain unitless


Difference
Dev - Ref, Restricted Range [5\%,95\%]


Zero throughout domain kg/m2/s

Ratio
Dev/Ref, Fixed Range


Ref and Dev equal throughout domain unitless

