

Oklahoma Mesonet / ARS Quality Assurance Report

January 2020

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- The battery voltage at the Lane Mesonet site (LANE) was briefly too low to record observations. This caused data loss on 12-Jan. Battery was replaced.

Mesonet QA Report for Standard Variables

| Variable | Status | Site | Ticket | Remarks |
|----------|---------|------|--------|---|
| TAIR | | | | |
| RELH | | | | |
| WSPD | | | | |
| WDIR | | | | |
| PRES | | | | |
| SRAD | Current | MANG | 41697 | Pyranometer dirty. Rain events mostly cleaned it off, but data are still about 10 percent low after multiple rain events. |
| RAIN | | | | |
| TA9M | | | | |
| WS2M | | | | |
| TB10 | Current | KENT | 41715 | More diurnal variation than neighbors. Suspect sensor too shallow. |
| TS05 | Current | PUTN | 41710 | TS05 has more diurnal variation than expected. Suspect sensor too shallow. Rebury sensor. |

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|--------------|-----------------|-------------|--------------|--|
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| TS10 | | | | |
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| TS25 | | | | |
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| TS60 | | | | |
| | | | | |
| TR05 | | | | |
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| TRB10 | Current | KIN2 | 41706 | 10cm bare soil temperature and starting final soil moisture temperature report errant values. |
| | | | | |
| TRS10 | Resolved | CENT | 40865 | 10-cm under sod sensor does not heat properly. Replaced. |
| | Current | KIN2 | 41703 | 10cm sod soil temperature and starting final soil moisture temperature report errant values. |
| | Current | MEDI | 41720 | Sensor heating cycles are often inconsistent between observations. Suspect failing heater. Please replace sensor. |
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| TR25 | | | | |
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| TR60 | Resolved | FTCB | 40205 | Sensor not heating. Final temperature same as starting temperature. Replaced. |
| | Current | WIST | 41733 | 60 cm final temperature is slightly less than expected, resulting in errantly high Fractional Water index. Please replace sensor. |
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ARS QA Report for Standard Variables

| Variable | Status | Site | Ticket | Remarks |
|-------------|--------|------|--------|---------|
| | | | | |
| RAIN | | | | |
| | | | | |
| VW05 | | | | |
| | | | | |
| VW25 | | | | |
| | | | | |
| VW45 | | | | |

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|-------------|--|
| | |
| V05T | |
| | |
| V25T | |
| | |
| V45T | |
| | |

FCARS QA Report for Standard Variables

| Variable | Status | Site | Ticket | Remarks |
|-------------|--------|------|--------|---------|
| | | | | |
| RAIN | | | | |
| | | | | |
| VW05 | | | | |
| | | | | |
| VW25 | | | | |
| | | | | |
| VW45 | | | | |
| | | | | |
| V05T | | | | |
| | | | | |
| V25T | | | | |
| | | | | |
| V45T | | | | |
| | | | | |

'Current' tickets are the unresolved tickets as of the last day of the month OR those tickets added based on the Monthly QA analysis.
 'Resolved' tickets are the sensor problems that were fixed during the entire month.

| Variable | Description |
|-----------------|--|
| TAIR | Air temperature at 1.5 meters |
| RELH | Relative humidity at 1.5 meters |
| WDIR | Wind direction at 10 meters |
| WSPD | Wind speed at 10 meters |
| PRES | Air pressure |
| SRAD | Incident solar radiation |
| RAIN | Rainfall |
| TA9M | Air temperature at 9 meters |
| WS2M | Wind speed at 2 meters |
| TB10 | Soil temperature at 10 cm under bare soil |
| TS05 | Soil temperature at 5 cm under native sod |
| TS10 | Soil temperature at 10 cm under native sod |
| TS25 | Soil temperature at 25 cm under native sod |
| TS60 | Soil temperature at 60 cm under native sod |
| TR05 | Soil moisture: Calibrated DeltaT at 5 cm under native sod |
| TRB10 | Soil moisture: Calibrated DeltaT at 10 cm under bare soil |
| TRS10 | Soil moisture: Calibrated DeltaT at 10 cm under native sod |
| TR25 | Soil moisture: Calibrated DeltaT at 25 cm under native sod |
| TR60 | Soil moisture: Calibrated DeltaT at 60 cm under native sod |
| VW05 | Soil moisture: Volumetric water content at 5 cm under native sod |
| VW25 | Soil moisture: Volumetric water content at 25 cm under native sod |
| VW45 | Soil moisture: Volumetric water content at 45 cm under native sod |
| V05T | Soil temperature at 5 cm under native sod |
| V25T | Soil temperature at 25 cm under native sod |
| V45T | Soil temperature at 45 cm under native sod |