

# Oklahoma Mesonet / ARS

## Quality Assurance Report

December 2022

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- Mesonet technicians completed scheduled rotations of 6 batteries 1 dataloggers 3 barometers 4 relative humidity sensors (RELH), 3 pyranometers (SRAD), 3 PRT thermometers (TAIR/TA9M), 1 rain gauge (RTIP/TIP2), 1 wind direction sensor (WDIR), 2 wind sentries (WS2M), 4 wind monitor nose cones (WSPD), 2 current excitations (XXXX), and 1 CDM (XXXX).
- FCARS Site F109 Logger: tech fixed wiring issue that prevented well data measurements.
- Guthrie Mesonet (GUTH) Battery (BATV): tech replaced failed battery. Data were not recorded from 2022-12-12 00:40 UTC through 2022-12-12 15:40 UTC.
- Broken Bow Mesonet (BROK) Aspirator Battery (BVAS): tech replaced failed batteries. Data were not affected.

### Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
<b>TAIR</b>				
<b>RELH</b>	<b>Resolved</b>	<b>CLOU</b>	<b>46521</b>	<b>Replaced sensor that reported humidity over 116%.</b>
	<b>Current</b>	<b>SPEN</b>	<b>47054</b>	<b>Humidity sometimes reports &gt;106 percent.</b>
<b>WSPD</b>				
<b>WDIR</b>				
<b>PRES</b>				
<b>SRAD</b>				

<b>RAIN</b>	<b>Resolved</b>	<b>IDAB</b>	<b>46508</b>	<b>Replaced gauge cover that was blown off by tornado.</b>
<b>TA9M</b>				
<b>WS2M</b>	<b>Current</b>	<b>CAMA</b>	<b>47002</b>	<b>2m wind has starting threshold problem.</b>
<b>TB10</b>				
<b>TS05</b>				
<b>TS10</b>				
<b>TS25</b>				
<b>TS60</b>				
<b>TR05</b>				
<b>TRB10</b>	<b>Resolved</b>	<b>SHAW</b>	<b>46502</b>	<b>Filled in hole over bare plot.</b>
	<b>Current</b>	<b>TALI</b>	<b>46584</b>	<b>Sensor heater failing.</b>
	<b>Current</b>	<b>WEB3</b>	<b>46443</b>	<b>Vegetation on bare plot.</b>
<b>TRS10</b>	<b>Resolved</b>	<b>KIN2</b>	<b>46554</b>	<b>Replaced sensor that had bad heater.</b>
<b>TR25</b>				
<b>TR60</b>				

### ARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
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<b>RAIN</b>	<b>Resolved</b>	<b>A152</b>	<b>46514</b>	<b>Replaced rain cover that had peeling paint.</b>
<b>VW05</b>				
<b>VW25</b>	<b>Current</b>	<b>A133</b>	<b>47086</b>	<b>First voltage reports -7999.</b>
<b>VW45</b>				
<b>V05T</b>				
<b>V25T</b>				
<b>V45T</b>				

### FCARS QA Report for Standard Variables

<b>Variable</b>	<b>Status</b>	<b>Site</b>	<b>Ticket</b>	<b>Remarks</b>
<b>RAIN</b>				
<b>VW05</b>				
<b>VW25</b>				
<b>VW45</b>	<b>Resolved</b>	<b>F109</b>	<b>46512</b>	<b>Voltages 1-3 near zero.</b>
<b>V05T</b>				
<b>V25T</b>				
<b>V45T</b>				

'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.

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