

## OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

February 2011

Prepared by **Alex McCombs**  
[gamgr@mesonet.org](mailto:gamgr@mesonet.org)

- Mesonet technicians performed scheduled rotations of 9 dataloggers (LOGG), 1 fasttherm (TA9M), 2 fasttherms (TAIR), and 5 wind monitor bodies.
- Data logger at Fort Cobb (FTCB) site caused errant spikes in soil moisture and soil temperature data from 17 February 2011 – 1 March 2011.
- A loose connection to the multiplexer at the Bristow (BRIS) site caused errant spikes in soil moisture and soil temperature data from 22 January 2011 – 1 March 2011.
- The battery at Little Washita ARS site A256 dies each night causing data to be lost beginning 2 March 2011, all data is flagged as erroneous.

### Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
<b>TAIR</b>	Resolved	20819	KIN2	Sensor damaged by cattle
<b>RELH</b>	Resolved	20782	PERK	Sensor had a low bias during high humidity
	Resolved	20781	SALL	Sensor had a low bias during high humidity
	Resolved	20780	TALI	Sensor had a low bias during high humidity
	Resolved	20783	VINI	Sensor had a low bias during high humidity
	Resolved	20813	KIN2	Sensor unplugged by cattle
	Current	20848	GUTH	Sensor has a low bias during high humidity
<b>WSPD</b>	Resolved	20772	MANG	Sensor had a starting threshold problem
	Resolved	20791	FOR A	Loose wire caused sensor to report 0mps.
<b>WDIR</b>				
<b>PRES</b>				

<b>SRAD</b>	Resolved	20812	KIN2	Sensor damaged by cattle
<b>RAIN</b>				
<b>TA9M</b>				
<b>WS2M</b>				
<b>TS10</b>	Current	20794	SHAW	Sensor has a high bias
<b>TB10</b>	Resolved	20799	STUA	Bare plot sensors were at incorrect depth
	Resolved	20796	MCAL	Bare plot sensors were at incorrect depth
	Resolved	20792	CLAY	Bare plot sensors were at incorrect depth
	Resolved	20802	TALI	Bare plot sensors were at incorrect depth
	Resolved	20800	WIST	Bare plot sensors were at incorrect depth
	Resolved	20797	MIAM	Bare plot sensors were at incorrect depth
	Resolved	20793	CLOU	Bare plot sensors were at incorrect depth
	Resolved	20803	HUGO	Bare plot sensors were at incorrect depth
	Resolved	20795	LANE	Bare plot sensors were at incorrect depth
	Resolved	20785	DURA	Sensor had a low bias
	Resolved	20840	MADI	Bare plot sensors were at incorrect depth
	Resolved	20815	TISH	Bare plot sensors were at incorrect depth
	Current	20801	MIAM	Bare plot sensors have been cross wired
	Current	20814	STIG	Bare plot has a large diurnal cycle
	Current	20816	SPEN	Bare plot has a large diurnal cycle
	Current	20817	OILT	Bare plot has a large diurnal cycle
Current	20849	HOOK	Bare plot has a large diurnal cycle	
<b>TS05</b>				
<b>TB05</b>	Current	20811	BLAC	Sensor has a low bias
<b>TS30</b>				

<b>TR05</b>	
<b>TR25</b>	
<b>TR60</b>	
<b>TR75</b>	

### ARS Little Washita Watershed QA Report

<b>Variable</b>	<b>Status</b>	<b>Ticket</b>	<b>Site</b>	<b>Remarks</b>
<b>RAIN</b>				
<b>VW05</b>				
<b>VW25</b>				
<b>VW45</b>	<b>Current</b>	<b>20790</b>	<b>A133</b>	<b>Soil moisture reporting errant spikes in data</b>
<b>V05T</b>				
<b>V25T</b>				
<b>V45T</b>				

## ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
<b>RAIN</b>	<b>Resolved</b>	<b>20777</b>	<b>F112</b>	<b>Rain gauge has a high bias</b>
<b>VW05</b>	<b>Resolved</b>	<b>20762</b>	<b>F110</b>	<b>Soil moisture reporting errant spikes in data</b>
<b>VW25</b>				
<b>VW45</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.

Variable	Description
TAIR	Air temperature measured at 1.5 meters
RELH	Relative humidity measured at 1.5 meters
WDIR	Wind direction measured at 10 meters
WSPD	Wind speed measured at 10 meters
PRES	Pressure
SRAD	Incident solar radiation
RAIN	Rainfall
TA9M	Air temperature measured at 9 meters
WS2M	Wind speed measured at 2 meters
TS10	Soil temperature measured at 10 cm under native sod
TB10	Soil temperature measured at 10 cm under bare soil
TS05	Soil temperature measured at 5 cm under native sod
TB05	Soil temperature measured at 5 cm under bare soil
TS15	Soil temperature measured at 15 cm under native sod
TS30	Soil temperature measured at 30 cm under native sod
TR05	Soil moisture: Calibrated DeltaT measured at 5 cm under native sod
TR25	Soil moisture: Calibrated DeltaT measured at 25 cm under native sod
TR60	Soil moisture: Calibrated DeltaT measured at 60 cm under native sod
TR75	Soil moisture: Calibrated DeltaT measured at 75 cm under native sod
VW05	Soil moisture: Volumetric water content measured at 5 cm under native sod
VW25	Soil moisture: Volumetric water content measured at 25 cm under native sod
VW45	Soil moisture: Volumetric water content measured at 45 cm under native sod
V05T	Soil Temperature measured at 5 cm under native sod
V25T	Soil Temperature measured at 25cm under native sod
V45T	Soil Temperature measured at 45cm under native sod