

OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

March 2011

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- Mesonet technicians performed scheduled rotations of 4 dataloggers (LOGG), 7 raingauges (RAIN), 1 wind monitor (WDIR) and 1 wind monitor body.
- 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 multiplexer at the Oklahoma City West (OKCW) site caused errant spikes in soil moisture and soil temperature data beginning 3 March 2011.
- The battery at Little Washita ARS site A256 dies each night causing data to be lost from 2 March 2011 – 7 March 2011, all data is flagged as erroneous.

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR	Resolved	20819	KIN2	Sensor damaged by cattle
RELH	Resolved	20813	KIN2	Sensor disconnected by cattle
	Resolved	20848	GUTH	Sensor had a low bias during high humidity
	Current	21281	GUTH	Relative humidity has a low bias
WSPD	Resolved	20772	MANG	
WDIR				
PRES				
SRAD	Resolved	20812	KIN2	Sensor disconnected by cattle
	Current	21071	FREE	Sensor reports negative values overnight
RAIN				
TA9M				
WS2M				

TS10	Current	20794	SHAW	Sensor has a high bias
	Current	21075	STIG	Sensor has a low bias
	Current	21077	WEAT	Sensors at 5cm and 10cm are cross wired
TB10	Resolved	20815	TISH	Bare plot sensors at incorrect depth
	Resolved	20817	OILT	Bare plot sensors 3cm too shallow
	Resolved	20840	MADI	Bare plot sensors 1cm too shallow
	Resolved	20849	HOOK	Bare plot covered in tumble weeds
	Current	21282	WALT	Bare plot temperature has large diurnal cycle
	Current	20801	MIAM	Bare plot sensors are cross wired
	Current	20814	STIG	Bare plot temperature has large diurnal cycle
	Current	20816	SPEN	Bare plot temperature has large diurnal cycle
TS05	Current	21080	NINN	Sensor has a high bias
TB05	Current	20811	BLAC	Sensor has a low bias
TS30	Current	21284	CLAY	Sensor has a low bias
	Current	21076	WEBR	Sensor has a low bias
	Current	21081	WIST	Sensor reporting errant spikes in temperature
TR05				
TR25				
TR60				
TR75				

ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN	Current	21285	A152	Rain gauge did not report any rainfall in March
VW05				
VW25				
VW45	Resolved	20790	A133	Soil moisture reported errant spikes in data
V05T				
V25T				
V45T				

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN				
VW05	Current	21283	F113	Faulty sensor caused communications to fail
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 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