

OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

July 2012

Prepared by **Alexandria McCombs**
gamgr@mesonet.org

- Mesonet technicians performed scheduled rotations of 1 Aspirator Fan, 1 Data Logger (LOGG), 2 Pyranometers (SRAD), and 1 Temperature and Relative Humidity Sensor (RELH).
- Current Excitation at the Breckinridge (BREC) site caused all soil moisture sensors to stop heating, appropriate data flagged as erroneous from 19 July 2012 through 2 August 2012.
- The Data Logger (LOGG) at the Wynona (WYNO) site had a bad pulse port causing wind speed at 10m (WSPD) and wind direction at 10m (WDIR) to be stuck at 0 for extended periods of time; appropriate data flagged as erroneous from 12 July 2012 through 1 August 2012.
- Data logger (LOGG) at Fort Cobb ARS site F105 caused errant spikes in soil temperature data, appropriate data flagged from 16 February 2012 through 15 August 2012.

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR				
RELH	Resolved	23715	SALL	Sensor had a low bias during high humidity
	Resolved	23716	HOLD	Sensor had a low bias during high humidity
	Resolved	23717	WILB	Sensor had a low bias during high humidity
	Resolved	23505	CAMA	Sensor had a low bias during high humidity
	Resolved	23510	MCAL	Sensor had a low bias during high humidity
	Resolved	23528	STUA	Sensor had a low bias during high humidity
	Resolved	23516	KIN2	Sensor had a low bias compared to neighbors
WSPD	Resolved	23723	WYNO	Sensor reported 0 for extended periods
WDIR	Resolved	23725	WDIR	Sensor reported 0 wind direction
PRES	Current	23772	CHEY	Sensor has a high bias compared to neighbors

SRAD	Resolved	23453	WASH	Sensor had a low bias
	Resolved	23454	CLOU	Sensor had a low bias
RAIN				
TA9M				
WS2M	Resolved	23653	MCAL	Sensor had a starting threshold problem
	Resolved	23680	BOWL	Sensor had a starting threshold problem
	Resolved	23725	WYNO	Sensor had starting threshold problem
	Resolved	23648	BURB	Sensor had a starting threshold problem
TS10	Resolved	23432	OILT	Sensor reported errant spikes in data
	Resolved	23711	MEDI	Sensor had a low bias
	Resolved	23713	FREE	Sensor had a low bias
	Resolved	23731	MEDF	Sensor had a 5 deg C low bias
TB10	Resolved	23733	WAL2	Sensor was too deep
	Resolved	23707	HINT	Sensor had a low bias
	Resolved	23769	NEWK	Sensor had a low bias
	Current	23787	MAYR	Bare plot has large diurnal cycle
	Current	23788	RETR	Sensor has a low bias
	Current	23789	TAHL	Sensor has a low bias
	Current	23790	OKEM	Bare plot has a large diurnal cycle
TS05	Resolved	23712	COPA	Sensor had a low bias
	Resolved	23703	BREC	High bias due to cracks in ground
TB05	Resolved	23706	CAMA	Bare plot had large diurnal cycle
	Resolved	23710	STUA	Bare plot sensors 1cm too shallow
	Resolved	23718	APAC	Bare plot sensors were too shallow
TS30	Resolved	23771	NEWK	Sensor had a low bias

TR05	Resolved	23448	TAHL	Sensor reporting errant spikes in data
	Resolved	23700	BREC	Errant spikes in soil moisture data
	Current	23739	WOOD	Sensor is no longer heating causing errant data
	Current	23762	BREC	Sensor reports errant spikes in data
TR25	Resolved	23704	ARNE	Soil moisture reporting errant values
	Resolved	23753	TISH	Soil moisture reporting errant values
TR60	Current	23752	BOIS	Sensor is reporting errant values

ARS Little Washita Watershed QA Report

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

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN				
VW05	Resolved	23452	F101	Sensor reported errant spikes in data
	Resolved	23719	F105	Soil temperature had a low bias
	Current	23720	F115	Sensor causing errant spikes in data
	Current	23756	F112	Errant spikes in soil moisture data
VW25	Current	23740	F108	Errant spikes in soil moisture data
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
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