

# OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

April 2017

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- Mesonet technicians completed scheduled rotations of 11 batteries (BATV), 13 dataloggers (LOGG), 7 barometers (PRES), 13 humidity sensors (RELH), 5 pyranometers (SRAD), 2 thermometers (TAIR), 11 rain gauges (RAIN), and 4 wind sentries (WS2M).
- Datalogger problem at the A253 Micronet Site caused errant spikes in soil temperature. Replaced Datalogger. Data were flagged.
- A lightning strike at the Stigler Mesonet Site (STIG) caused the site to lose data.
- A lightning strike at the Red Rock Mesonet Site (REDR) caused the site to lose data.

## Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR				
RELH	Resolved	MIAM	31496	Sensor is reporting -49%. Replaced.
	Current	WEST	31698	Sensor reports 10-50% higher than expected.
WSPD				
WDIR	Resolved	WASH	31506	Sensor had a 1.5-degree bias.
PRES				
SRAD				
RAIN	Resolved	ELRE	31539	Alter shield obstructs primary gauge.

	Resolved	LANE	31501	Primary gauge miss tips at beginning of light rain events.
	Resolved	MIAM	31502	Primary gauge stopped reporting.
	Resolved	NOWA	31588	Secondary gauge stopped reporting. Replaced.
	Current	ALV2	31687	Secondary gauge misses tips at beginning of rain events.
TA9M				
WS2M	Resolved	BEAV	31503	2m reports 0 when 10m reports 4 m/s. Replaced.
TB10	Current	BEAV	31707	Old sensor has a large diurnal variation.
	Current	PAWN	31716	Sensor has little diurnal variation.
TS05	Resolved	ACME	31572	Sensor has little diurnal variation. Reburied.
	Current	GRA2	31709	Sensor has little diurnal variation.
	Current	PORT	31577	Sensor has similar variation to TS10.
	Current	TULN	31702	Sensor has similar variation to TS10.
TS10				
TS25				
TS60				
TR05	Resolved	NEWP	31611	Sensor responds slow to moisture. Replaced.
	Current	NINN	31138	Final temperature increased from 15C to 28C.

TRB10	Current	MAYR	31583	Final temperature is over 100C or -7999.
TRS10	Resolved	ACME	31544	Sensor does not heat. Replaced.
	Resolved	STIG	31636	Saturated values are drifting. Replaced.
TR25	Resolved	STUA	31493	Sensor reports -7999. Replaced.
TR60				

### ARS Little Washita Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN	Resolved	A235	31534	Rain gauge reported zero.
VW05	Resolved	A124	31604	Sensor reports values lower than expected. Replaced.
VW25				
VW45	Current	A148	31723	Sensor is having small, short spikes.
V05T				
V25T				
V45T				

## ARS Fort Cobb Watershed QA Report

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

“Current” tickets are unresolved tickets as of the last day of the month OR tickets added after Monthly QA analysis.  
 “Resolved” tickets are the sensor problems 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
TB10	Soil temperature measured at 10 cm under bare sod
TS05	Soil temperature measured at 5 cm under native soil
TS10	Soil temperature measured at 10 cm under native sod
TS25	Soil temperature measured at 25 cm under native soil
TS60	Soil temperature measured at 60 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 5cm under native sod

V25T	Soil Temperature measured at 25cm under native sod
V45T	Soil Temperature measured at 45cm under native sod