

Oklahoma Mesonet / ARS Quality Assurance Report

June 2018

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- Oklahoma Mesonet technicians completed scheduled rotations of 4 batteries, 1 barometer (PRES), 1 relative humidity sensor (RELH), 1 PRT thermometer (TAIR/TA9M), 1 wind sentry (WS2M), and 1 current excitation.
- Battery voltage at the Mangum Mesonet site (MANG) was too low to record observations, which caused data loss on June 3. Battery was replaced.
- The Yukon Mesonet site (YUKO) was commissioned on June 18.

MESO QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR				
RELH	Current	PUTN	35559	Relative humidity and slow air temperature report errant values.
WSPD				
WDIR				
PRES				
SRAD				
RAIN	Resolved	WASH	35428	Primary gauge sometimes reports less than expected. Replaced gauge.
	Resolved	ELRE	35553	Secondary rain gauge reports 0 during rain events. Corrected TIP2 level.
	Resolved	TALI	35147	TIP2 sometimes misses the beginning of rain events. Replaced sensor.
	Current	NOWA	35557	Secondary rain gauge reports less than expected.

TA9M				
WS2M				
TB10				
TS05	Current	KIN2	35373	5cm sod temperature has less diurnal variation than 10cm sod and much less variation than neighbors.
TS10	Resolved	BURN	35159	10 cm sod soil temperature has more diurnal variation than 5cm sod and neighbors. Reburied sensor.
	Current	ELRE	35540	10 cm under sod reports either -7999 or errant values.
TS25				
TS60				
TR05	Resolved	CENT	35378	Sensor not heating properly. Replaced sensor and conduit.
	Current	BURB	35568	5 cm under sod reports either -7999 or errantly high value.
TRB10	Resolved	ARD2	35381	Sensor reports large errant values when soil temperature above ~30C. Replaced sensor and conduit.
	Current	BESS	35567	Sensor reports errantly high values during afternoon hours when temperatures are above ~35C.
	Current	OKCE	35332	Sensor is reporting either -7999 or errant values.
	Current	SEIL	35359	Sensor stopped heating.
TRS10				
TR25	Current	WAUR	35462	Sensor stopped heating.
TR60	Current	PERK	35563	Sensor stopped heating.

ARS QA Report for Standard Variables

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

FCARS QA Report for Standard Variables

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