

**OKLAHOMA MESONET / ARS / OKCnet  
QUALITY ASSURANCE REPORT**

December 2008

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- Mesonet technicians performed scheduled rotations of 12 fasttherms, 1 pyranometer, 6 rain gauges, 4 temperature and relative humidity sensors, 2 wind vanes, 6 wind sentries, and 2 barometers
- Temperature aspirators were installed at 10 sites
- Aspirator fan at Ninnekah Mesonet site reported 0 rpm from November 28 – December 12, 2008, air temperature flagged as suspect
- Datalogger at Beaver Mesonet Site caused errant soil moisture and soil temperature data from November 29 – December 18, 2008.
- Air temperature, relative humidity and solar radiation sensors were removed from 3 ARS sites, soil temperature transitioned to 5, 25, and 45cm.

**Mesonet QA Report for Standard Variables**

| Variable | Status   | Ticket | Site | Remarks                                      |
|----------|----------|--------|------|--|
| TAIR     |          |        |      |  |
| RELH     |          |        |      |  |
| WSPD     |          |        |      |  |
| WDIR     | Current  | 17991  | WATO | Wind direction has a 20-30 degree high bias  |
| PRES     |          |        |      |  |
| SRAD     | Resolved | 17913  | KENT | Sensor developed a high bias                 |
| RAIN     |          |        |      |  |
| TA9M     | Current  | 17835  | GRA2 | Reporting -273.1C                            |
|          | Resolved | 17938  | BRIS | Sensor reporting temperatures 3-20 deg C low |
| WS2M     | Resolved | 17992  | TALI | Spikes in WS2M during low wind speeds        |

|             |                 |              |             |   |
|-------------|-----------------|--------------|-------------|---|
|             |                 |              |             |   |
| <b>TS10</b> |                 |              |             |   |
|             |                 |              |             |   |
| <b>TB10</b> | <b>Current</b>  | <b>18035</b> | <b>COPA</b> | <b>Sensor has developed a low bias</b>        |
|             |                 |              |             |   |
| <b>TS05</b> | <b>Resolved</b> | <b>17814</b> | <b>NEWP</b> | <b>Tighten loose wire</b>                     |
|             |                 |              |             |   |
| <b>TB05</b> | <b>Resolved</b> | <b>17885</b> | <b>CAMA</b> | <b>Sensor reporting large negative values</b> |
|             |                 |              |             |   |
| <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>TAIR</b>     | <b>Current</b> | <b>16985</b>  | <b>A144</b> | <b>Sensor failed</b>         |
|                 |                |               |             |                              |
| <b>RELH</b>     | <b>Current</b> | <b>17177</b>  | <b>A152</b> | <b>RELH has a high bias</b>  |
|                 |                |               |             |                              |
| <b>SRAD</b>     |                |               |             |                              |
|                 |                |               |             |                              |
| <b>RAIN</b>     |                |               |             |                              |
|                 |                |               |             |                              |
| <b>TS05</b>     | <b>Current</b> | <b>17677</b>  | <b>A152</b> | <b>Sensor has a low bias</b> |
|                 |                |               |             |                              |
| <b>TS10</b>     |                |               |             |                              |
|                 |                |               |             |                              |
| <b>TS15</b>     |                |               |             |                              |
|                 |                |               |             |                              |
| <b>TS30</b>     |                |               |             |                              |
|                 |                |               |             |                              |
| <b>VW05</b>     |                |               |             |                              |

|      |  |
|------|--|
|      |  |
| VW25 |  |
|      |  |
| VW45 |  |
|      |  |
| V05T |  |
|      |  |
| V25T |  |
|      |  |
| V45T |  |
|      |  |

**ARS Ft. Cobb Watershed QA Report**

| Variable | Status  | Ticket | Site | Remarks                      |
|----------|---------|--------|------|------------------------------|
| TAIR     |         |        |      |                              |
|          |         |        |      |                              |
| RELH     |         |        |      |                              |
|          |         |        |      |                              |
| SRAD     |         |        |      |                              |
|          |         |        |      |                              |
| RAIN     |         |        |      |                              |
|          |         |        |      |                              |
| TS05     | Current | 17325  | F110 | Sensor developed a low bias  |
|          |         |        |      |                              |
|          |         |        |      |                              |
| TS10     |         |        |      |                              |
|          |         |        |      |                              |
| TS15     | Current | 18016  | F105 | Sensor developed a high bias |
|          |         |        |      |                              |
|          |         |        |      |                              |
| TS30     |         |        |      |                              |
|          |         |        |      |                              |
| VW05     |         |        |      |                              |
|          |         |        |      |                              |
| VW25     |         |        |      |                              |
|          |         |        |      |                              |
| VW45     |         |        |      |                              |
|          |         |        |      |                              |

## Oklahoma City Micronet QA Report

| Variable | Status  | Ticket | Site   | Remarks                                   |
|----------|---------|--------|--------|---|
| TAIR     |         |        |        |   |
| RELH     | Current | 17886  | KSW108 | Sensor has become susceptible to moisture |
| PRES     |         |        |        |   |
| RAIN     |         |        |        |   |
| WSPD     |         |        |        |   |
| WDIR     |         |        |        |   |

“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                         |