GEOG Climate Science Lab

TEXAS A&M UNIVERSITY

North American Soil Moisture Database: soilmoisture.tamu.edu

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soilmoisture.tamu.edu

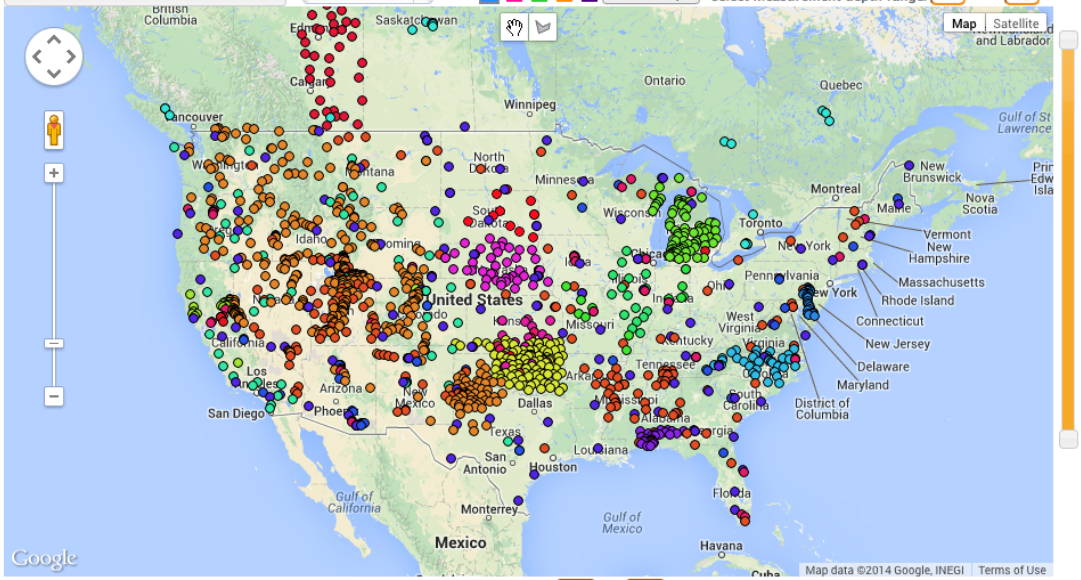
TAMU North American Soil Moisture Database

North American Soil Moisture Database Interactive Map

This interactive map allows you to view & download station data from the North American Soil Moisture Database.

Choose one or more networks from the dropdown list to see station data. Use the depth & year sliders to filter. Click the extract buttons to download station data.

Choose Network | Zoom to State | Delete Shape | select measurement depth range: 0 cm - 205 cm



Slide to select data year range: 1991 - 2013

Help me download this data!

1385 Stations have been selected

- Alberta Agriculture and Rural Development
- AmeriFlux
- Atmospheric Radiation Measurement
- Automated Weather Data Network
- Central Plains Experimental Range
- CHILI
- Climate Reference Network
- Cosmic Ray Soil Moisture Observing Station
- Delaware Environmental Observing System
- ECONET
- Fluxnet Canada
- GPS Soil Moisture
- Illinois Climate Network
- ISGMN
- MAW-Missouri
- MAWN
- NOAA HMT
- Oklahoma Mesonet
- SNOTEL
- Soil Climate Analysis Network
- Soilscape
- South Dakota Automated Weather Network
- TW Daniels Experimental Forest
- Water and Environmental Research Center
- West Texas Mesonet

North American Soil Moisture Database

- We have identified >1800 stations
- Currently 1456 stations are at:

  soilmoisture.tamu.edu

- Although many of these stations are only available since the 1990s, some are available prior to the 1950s

- Includes a variety of sensors, soil water variables, depths, sampling frequencies

North American Soil Moisture Database

- NASMD includes national, regional, state and local networks. It also includes in situ soil moisture data collected during field campaigns, and research projects.

- Comprehensive meta-data has been developed for all of the stations including sensor, soil characteristics, surface vegetation, and details on instrument calibration.

- All data has gone through our customized QA/QC algorithm. Measurements failing the QC tests are flagged and further analysis.

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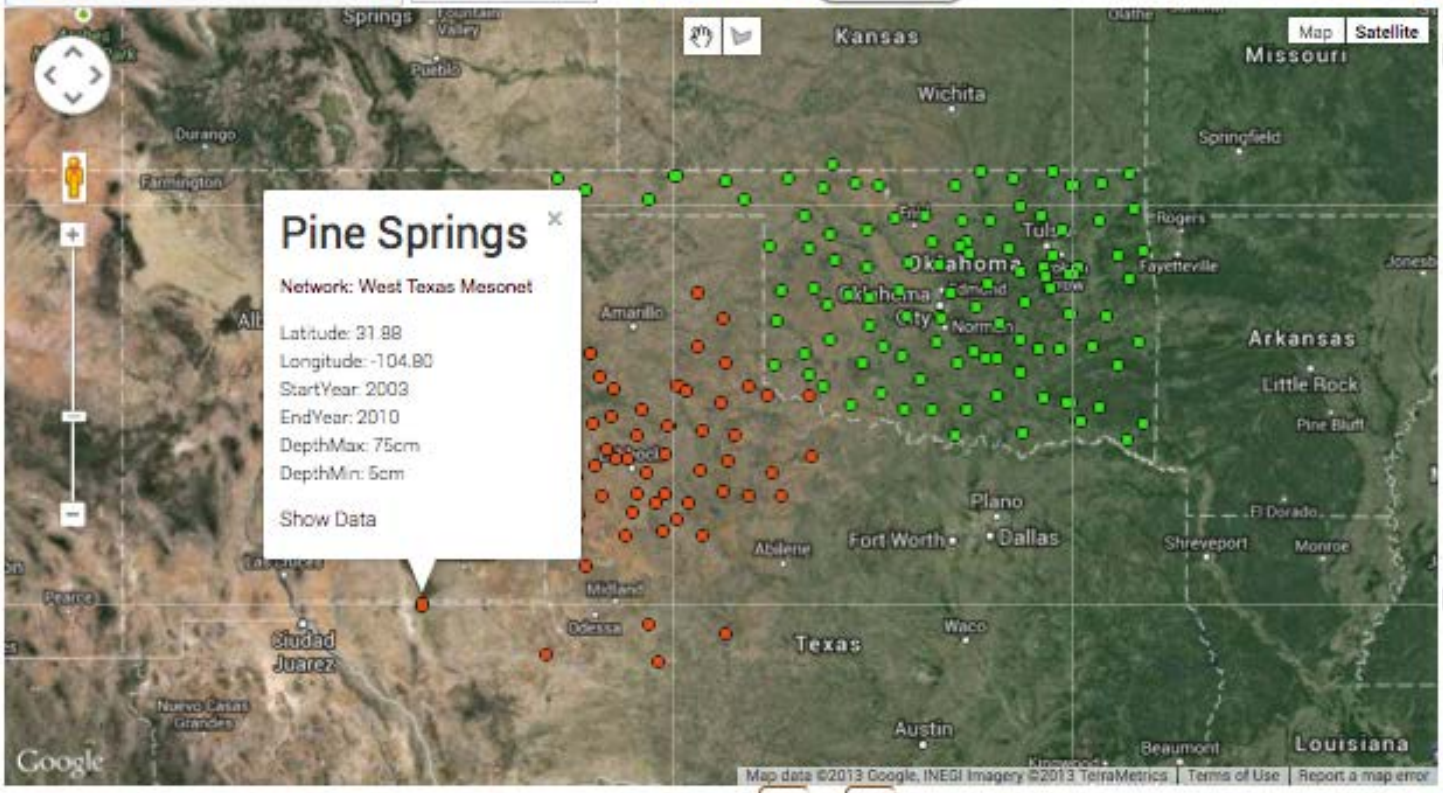
Choose Network | Texas | Delete Shape | select measurement depth range: 0 cm - 205 cm



Slide to select data year range: 1991 - 2013

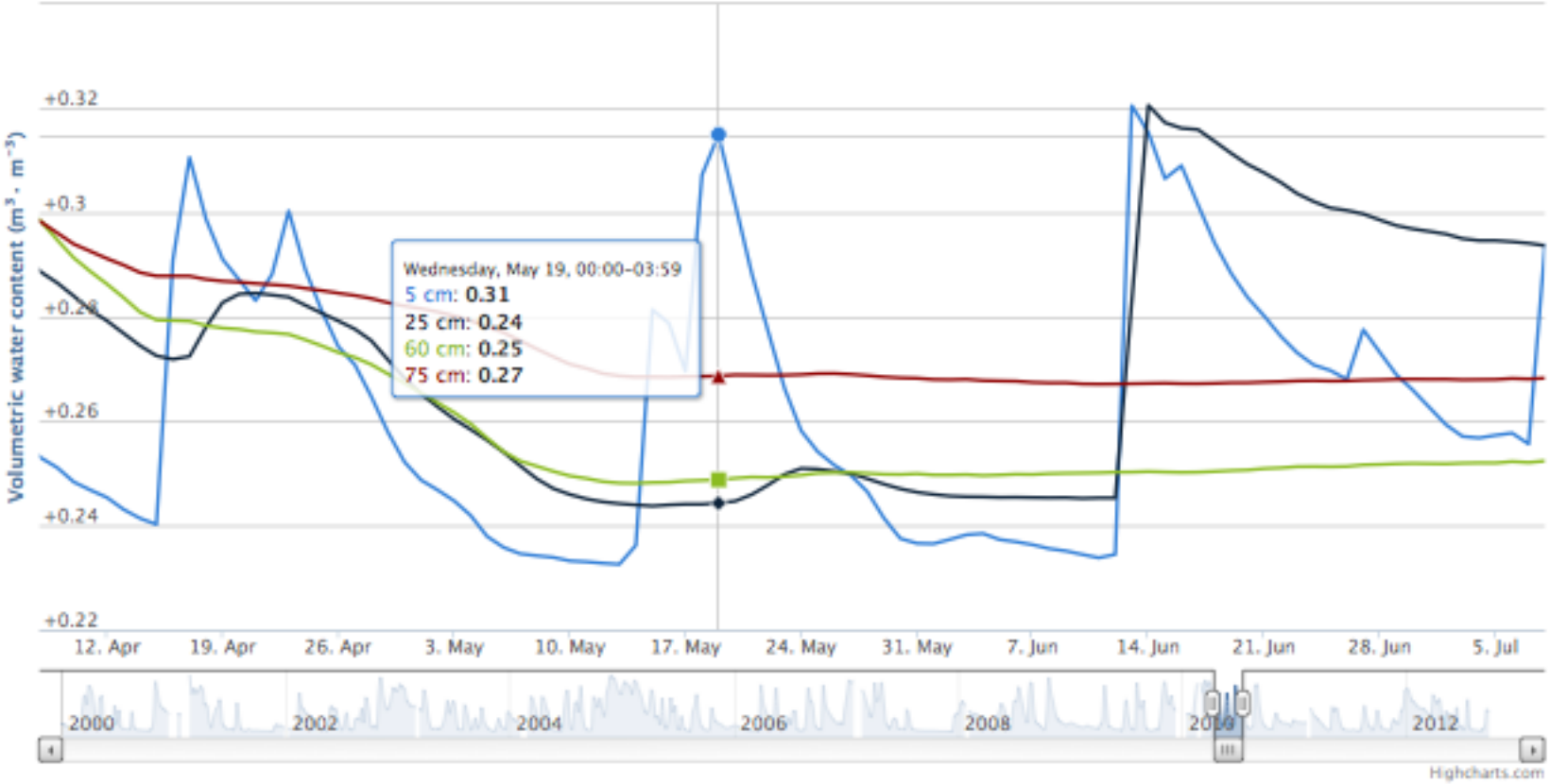
163 Stations have been selected

No.	All	Station	Network	Location	State
1	☐	Norman	Oklahoma Mesonet	Norman	Oklahoma
2	☐	Acme	Oklahoma Mesonet	Rush Springs	Oklahoma
3	☐	Ada	Oklahoma Mesonet	Ada	Oklahoma

Station Data

Zoom 1m 3m 6m YTD 1y All

From Apr 7, 2010 To Jul 7, 2010



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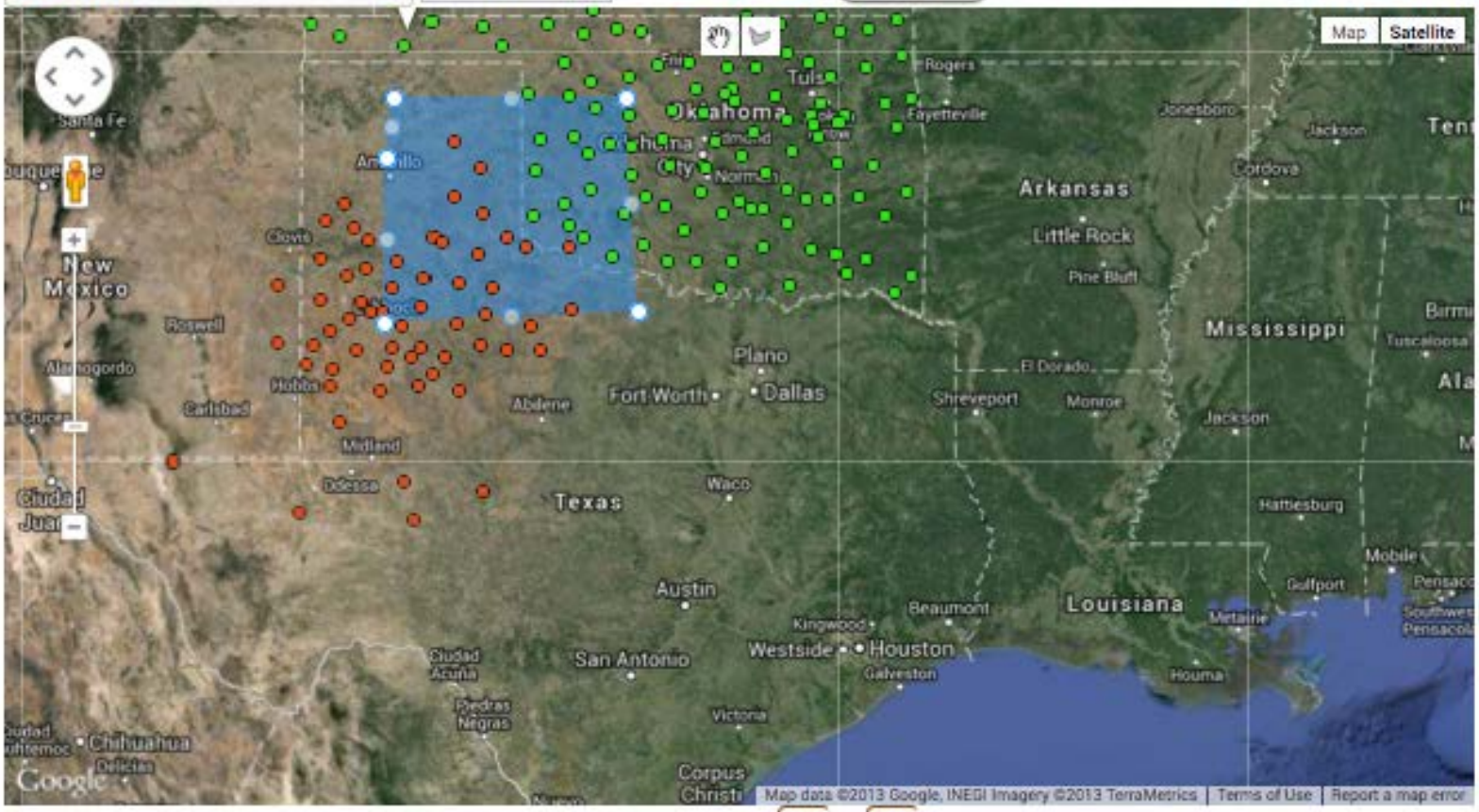
Choose Network | Zoom to State | Delete Shape | select measurement depth range: 0 cm - 205 cm



Slide to select data year range: 1991 - 2013

32 Stations have been selected

No.	All	Station	Network	Location	State
1	☐	Altus	Oklahoma Mesonet	Altus	Oklahoma
2	☐	Arnett	Oklahoma Mesonet	Arnett	Oklahoma

32 Stations have been selected

No.	All	Station	Network	Location	State
1	☑	Altus	Oklahoma Mesonet	Altus	Oklahoma
2	☑	Arnett	Oklahoma Mesonet	Arnett	Oklahoma
3	☑	Bessie	Oklahoma Mesonet	Bessie	Oklahoma
4	☑	Butler	Oklahoma Mesonet	Butler	Oklahoma
5	☑	Camargo	Oklahoma Mesonet	Camargo	Oklahoma
6	☑	Cheyenne	Oklahoma Mesonet	Cheyenne	Oklahoma
7	☑	Erick	Oklahoma Mesonet	Erick	Oklahoma
8	☑	Grandfield	Oklahoma Mesonet	Grandfield	Oklahoma
9	☑	Hobart	Oklahoma Mesonet	Hobart	Oklahoma
10	☑	Hollis	Oklahoma Mesonet	Gould	Oklahoma
11	☑	Mangum	Oklahoma Mesonet	Mangum	Oklahoma
12	☑	Medicine Park	Oklahoma Mesonet	Medicine Park	Oklahoma
13	☑	Putnam	Oklahoma Mesonet	Putnam	Oklahoma
14	☑	Tipton	Oklahoma Mesonet	Tipton	Oklahoma
15	☑	Weatherford	Oklahoma Mesonet	Weatherford	Oklahoma
16	☑	Abernathy	West Texas Mesonet	Abernathy	Texas
17	☑	Childress	West Texas Mesonet	Childress	Texas
18	☑	Clarendon	West Texas Mesonet	Clarendon	Texas
19	☑	Floydada	West Texas Mesonet	Floydada	Texas
20	☑	Goodlett	West Texas Mesonet	Goodlett	Texas

Extract Checked Stations

Extract All Selected Stations

No.	All	Station	Network	Location	State
1	☑	AURO	ECONET	Aurora	North Carolina
2	☑	BEAR	ECONET	Hendersonville	North Carolina
3	☐	BOON	ECONET	Boone	North Carolina
4	☐	BUCK	ECONET	Buckland	North Carolina
5	☐	BURN	ECONET	Burnsville	North Carolina
6	☐	CAST		[illegible]yne	North Carolina
7	☐	CLA2			North Carolina
8	☐	CLAY			North Carolina
9	☐	CLIN			North Carolina
10	☐	DURH			North Carolina
11	☐	FLET			North Carolina
12	☐	GOLD		[illegible]o	North Carolina
13	☐	HAML	ECONET	Hamlet	North Carolina
14	☐	HIGH	ECONET	High Point	North Carolina
15	☐	JACK	ECONET	Jackson Springs	North Carolina
16	☐	KINS	ECONET	Kinston	North Carolina
17	☐	LAKE	ECONET	Raleigh	North Carolina
18	☐	LAUR	ECONET	Laurel Springs	North Carolina
19	☐	LEWS	ECONET	Lewiston	North Carolina
20	☐	LILE	ECONET	Lilesville	North Carolina

Extract Checked Stations

Extract All Selected Stations

Extract request queued. You will receive an email shortly.

OK

More Information

Website: soilmoisture.tamu.edu

Quiring, S., T. Ford, J. Wang, A. Khong, E. Harris, T. Lindgren, D. Goldberg, and Z. Li, 2015: The North American Soil Moisture Database: Development and Applications. Bull. Amer. Meteor. Soc. doi:10.1175/BAMS-D-13-00263.1, in press.

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