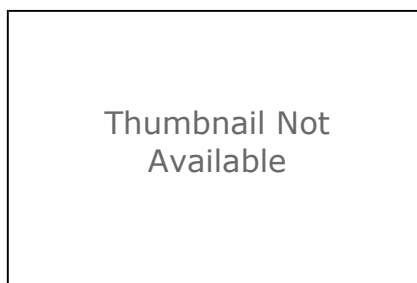


## Soil\_Vol\_Moisture

### File Geodatabase Table



#### Tags

SMAPVEX12, soil moisture, volumetric, gravimetric

#### Summary

This table was generated for use in analysis and validation associated with the SMAPVEX12 (Soil Moisture Active-Passive Validation Experiment 2012) project.

#### Description

This table presents volumetric soil moisture data. Data were collected during the course of the SMAPVEX12 field campaign between June 7 and July 19. Volumetric soil moisture based on moist and oven-dry soil, and gravimetric moisture were calculated from field samples.

#### Credits

Grant Wiseman Senior Geomatics Scientist – Scientifique principal en géomatique Agriculture and Agri-Food Canada – Agriculture et Agroalimentaire Canada Telephone - Téléphone: 204-984-4080 Cellular - Cellulaire: 204-293-6074 Facsimile - Télécopieur: 204-983-2178 200-303 Main Street, Winnipeg, MB R3C 3G7 grant.wiseman@agr.gc.ca

#### Use limitations

All SMAPVEX12 data (except those already on public domain servers) will be placed on the University of Sherbrooke site. Access will be limited by password that will be provided to principle investigators and co-investigators listed below. It will be up to the principle investigators and co-investigators to ensure that staff, graduate students and post docs respect the terms of the agreement on usage and distribution. Access to the website will be restricted until July 1, 2013 for preliminary research and quality control. After July 1, 2013 all data will be transferred to a SMAP DAAC. Principle Investigators Heather McNairn, Agriculture and Agri-Food Canada Tom Jackson, USDA, ARS Hydrology and Remote Sensing Laboratory Co-Investigators Aaron Berg, University of Guelph Amine Merzouki, Agriculture and Agri-Food Canada Andreas Colliander, JPL Anne Walker, Environment Canada Brenda Toth, Environment Canada/MSCHAL Catherine Champagne, Agriculture and Agri-Food Canada Craig Smith, Environment Canada Dara Entekhabi, MIT Eni Njoku, JPL Grant Wiseman, Agriculture and Agri-Food Canada Jarrett Powers, Agriculture and Agri-Food Canada Jiali Shang, Agriculture and Agri-Food Canada John Fitzmaurice, Agriculture and Agri-Food Canada Mahta Moghaddam, University Southern California Mike Cosh, USDA, ARS Hydrology and Remote Sensing Laboratory Narendra Das, JPL Paul Bullock, University of Manitoba Peggy O'Neill, NASA GSFC Ramata Magagi, University of Sherbrooke Rotimi Ojo, University of Manitoba Sab Kim, JPL Stéphane Bélair, Environment Canada - NWP and Data Assimilation Alicia Joseph, NASA GSFC Erika Podest, JPL John Kimball, University of Montana Kalifa Goïta, University of Sherbrooke Marco Carrera, Environment Canada, Meteorological Research Division Steven Chan, JPL Vanessa Escobar, NASA GSFC

#### ArcGIS Metadata ►

#### Topics and Keywords ►

THEMES OR CATEGORIES OF THE RESOURCE environment, geoscientificInformation

\* CONTENT TYPE Downloadable Data

[Hide Topics and Keywords ▲](#)

## Citation ►

\* TITLE Soil\_Vol\_Moisture

PRESENTATION FORMATS \* digital table

RESOURCE IDENTIFIER

VALUE Soil\_Vol\_Moisture

[Hide Citation ▲](#)

## Resource Details ►

DATASET LANGUAGES \* English (CANADA)

DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

SPATIAL REPRESENTATION TYPE \* text table

\* PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; ESRI ArcGIS 10.0.5.4400

### CREDITS

Grant Wiseman  
 Senior Geomatics Scientist – Scientifique principal en géomatique  
 Agriculture and Agri-Food Canada – Agriculture et Agroalimentaire Canada  
 Telephone - Téléphone: 204-984-4080  
 Cellular - Cellulaire: 204-293-6074  
 Facsimile - Télécopieur: 204-983-2178  
 200-303 Main Street, Winnipeg, MB R3C 3G7  
 grant.wiseman@agr.gc.ca

### ARCGIS ITEM PROPERTIES

\* NAME Soil\_Vol\_Moisture

\* LOCATION file:///\\mbwinnfs106\gis\data8\projects\land\soil\SMAPVEX12\data\Geodatabase\SMAPVEX\_MASTER.gdb

\* ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

## Resource Points of Contact ►

### POINT OF CONTACT

INDIVIDUAL'S NAME Grant Wiseman

ORGANIZATION'S NAME Agriculture and Agri-Food Canada – Agriculture et Agroalimentaire Canada

CONTACT'S POSITION Senior Geomatics Scientist – Scientifique principal en géomatique

CONTACT'S ROLE point of contact

### CONTACT INFORMATION ►

#### PHONE

VOICE 204-984-4080

FAX 204-983-2178

**ADDRESS**

TYPE both  
 DELIVERY POINT 200-303 Main Street  
 CITY Winnipeg  
 ADMINISTRATIVE AREA Manitoba  
 POSTAL CODE R3C 3G7  
 COUNTRY Canada  
 E-MAIL ADDRESS grant.wiseman@agr.gc.ca

*Hide Contact information ▲*

*Hide Resource Points of Contact ▲*

## Resource Maintenance ►

**RESOURCE MAINTENANCE**

UPDATE FREQUENCY as needed

*Hide Resource Maintenance ▲*

## Resource Constraints ►

**CONSTRAINTS****LIMITATIONS OF USE**

All SMAPVEX12 data (except those already on public domain servers) will be placed on the University of Sherbrooke site. Access will be limited by password that will be provided to principle investigators and co-investigators listed below. It will be up to the principle investigators and co-investigators to ensure that staff, graduate students and post docs respect the terms of the agreement on usage and distribution. Access to the website will be restricted until July 1, 2013 for preliminary research and quality control. After July 1, 2013 all data will be transferred to a SMAP DAAC.

**Principle Investigators**

Heather McNairn, Agriculture and Agri-Food Canada  
 Tom Jackson, USDA, ARS Hydrology and Remote Sensing Laboratory

**Co-Investigators**

Aaron Berg, University of Guelph  
 Amine Merzouki, Agriculture and Agri-Food Canada  
 Andreas Colliander, JPL  
 Anne Walker, Environment Canada  
 Brenda Toth, Environment Canada/MS/CHAL  
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Ramata Magagi, University of Sherbrooke  
 Rotimi Ojo, University of Manitoba  
 Sab Kim, JPL  
 Stéphane Bélair, Environment Canada - NWP and Data Assimilation  
 Alicia Joseph, NASA GSFC  
 Erika Podest, JPL  
 John Kimball, University of Montana  
 Kalifa Goïta, University of Sherbrooke  
 Marco Carrera, Environment Canada, Meteorological Research Division  
 Steven Chan, JPL  
 Vanessa Escobar, NASA GSFC

[Hide Resource Constraints ▲](#)

## Data Quality ►

SCOPE OF QUALITY INFORMATION ►

RESOURCE LEVEL non-geographic dataset

[Hide Scope of quality information ▲](#)

[Hide Data Quality ▲](#)

## Distribution ►

DISTRIBUTION FORMAT

\* NAME File Geodatabase Table

[Hide Distribution ▲](#)

## Fields ►

DETAILS FOR OBJECT [Soil\\_Vol\\_Moisture](#) ►

\* TYPE Table

\* ROW COUNT 838

DEFINITION

Volumetric soil moisture data calculated from moist and oven-dry soil collected during the course of the SMAPVEX12 field campaign.

DEFINITION SOURCE

AAFC

FIELD [OBJECTID](#) ►

\* ALIAS OBJECTID

\* DATA TYPE OID

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

\* FIELD DESCRIPTION

Internal feature number.

\* DESCRIPTION SOURCE

ESRI

\* DESCRIPTION OF VALUES Sequential unique whole numbers that are automatically generated.

[Hide Field OBJECTID ▲](#)

FIELD [Sample\\_Date ►](#)

\* ALIAS Sample\_Date  
 \* DATA TYPE Date  
 \* WIDTH 8  
 \* PRECISION 0  
 \* SCALE 0

FIELD DESCRIPTION

Date of observation.

DESCRIPTION SOURCE

AAFC

[Hide Field Sample\\_Date ▲](#)

FIELD [Site\\_ID ►](#)

\* ALIAS Site\_ID  
 \* DATA TYPE String  
 \* WIDTH 255  
 \* PRECISION 0  
 \* SCALE 0

FIELD DESCRIPTION

Identification number of site at which observation was recorded.

DESCRIPTION SOURCE

AAFC

[Hide Field Site\\_ID ▲](#)

FIELD [Vol\\_Moist\\_m3 ►](#)

\* ALIAS Vol\_Moist\_m3  
 \* DATA TYPE Double  
 \* WIDTH 8  
 \* PRECISION 0  
 \* SCALE 0

FIELD DESCRIPTION

Volumetric soil moisture content (m3 water/m3 oven-dry soil). Calculated from the mass of water in each soil core (converted to volume) divided by the volume of the individual core.

DESCRIPTION SOURCE

AAFC

[Hide Field Vol\\_Moist\\_m3 ▲](#)

FIELD [Vol\\_Moist\\_2 ►](#)

\* ALIAS Vol\_Moist\_2  
 \* DATA TYPE Double  
 \* WIDTH 8  
 \* PRECISION 0  
 \* SCALE 0

FIELD DESCRIPTION

Second volumetric soil moisture content (m3 water/m3 oven-dry soil). Derived from the gravimetric soil moisture content multiplied by the field average bulk density of

the soil.

DESCRIPTION SOURCE  
AAFC

[Hide Field Vol\\_Moist\\_2 ▲](#)

FIELD [Gravimet\\_soil\\_moist\\_g\\_g ►](#)

\* ALIAS Gravimet\_soil\_moist\_g\_g  
\* DATA TYPE Double  
\* WIDTH 8  
\* PRECISION 0  
\* SCALE 0

FIELD DESCRIPTION

Gravimetric soil moisture content (g water/g oven-dry soil). Calculated by subtracting the oven-dry soil mass from the moist soil mass, then dividing the derived soil moisture mass by the oven-dry soil mass.

DESCRIPTION SOURCE  
AAFC

[Hide Field Gravimet\\_soil\\_moist\\_g\\_g ▲](#)

[Hide Details for object Soil\\_Vol\\_Moisture ▲](#)

[Hide Fields ▲](#)

## Metadata Details ►

\* METADATA LANGUAGE English (CANADA)  
METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

METADATA IDENTIFIER 79D0655D-515A-4D2D-A7C0-D186F212FD90

SCOPE OF THE DATA DESCRIBED BY THE METADATA \* non-geographic dataset  
SCOPE NAME \* dataset

\* LAST UPDATE 2013-01-10

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0  
METADATA STYLE FGDC CSDGM Metadata  
STANDARD OR PROFILE USED TO EDIT METADATA NAP

CREATED IN ARCGIS FOR THE ITEM 2012-12-20 12:37:01  
LAST MODIFIED IN ARCGIS FOR THE ITEM 2013-01-10 16:12:22

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes  
LAST UPDATE 2013-01-10 16:12:22

[Hide Metadata Details ▲](#)

## Metadata Maintenance ►

MAINTENANCE  
UPDATE FREQUENCY as needed

[Hide Metadata Maintenance ▲](#)

## FGDC Metadata (read-only) ►

### Entities and Attributes ►

#### DETAILED DESCRIPTION

##### ENTITY TYPE

ENTITY TYPE LABEL Soil\_Vol\_Moisture

##### ENTITY TYPE DEFINITION

Volumetric soil moisture data calculated from moist and oven-dry soil collected during the course of the SMAPVEX12 field campaign.

ENTITY TYPE DEFINITION SOURCE AAFC

##### ATTRIBUTE

ATTRIBUTE LABEL OBJECTID

##### ATTRIBUTE DEFINITION

Internal feature number.

ATTRIBUTE DEFINITION SOURCE ESRI

##### ATTRIBUTE DOMAIN VALUES

##### UNREPRESENTABLE DOMAIN

Sequential unique whole numbers that are automatically generated.

##### ATTRIBUTE

ATTRIBUTE LABEL Sample\_Date

##### ATTRIBUTE DEFINITION

Date of observation.

ATTRIBUTE DEFINITION SOURCE AAFC

##### ATTRIBUTE

ATTRIBUTE LABEL Site\_ID

##### ATTRIBUTE DEFINITION

Identification number of site at which observation was recorded.

ATTRIBUTE DEFINITION SOURCE AAFC

##### ATTRIBUTE

ATTRIBUTE LABEL Vol\_Moist\_m3

##### ATTRIBUTE DEFINITION

Volumetric soil moisture content (m3 water/m3 oven-dry soil). Calculated from the mass of water in each soil core (converted to volume) divided by the volume of the individual core.

ATTRIBUTE DEFINITION SOURCE AAFC

##### ATTRIBUTE

ATTRIBUTE LABEL Vol\_Moist\_2

##### ATTRIBUTE DEFINITION

Second volumetric soil moisture content (m3 water/m3 oven-dry soil). Derived from the gravimetric soil moisture content multiplied by the field average bulk density of the soil.

ATTRIBUTE DEFINITION SOURCE AAFC

##### ATTRIBUTE

ATTRIBUTE LABEL Gravimet\_soil\_moist\_g\_g

##### ATTRIBUTE DEFINITION

Gravimetric soil moisture content (g water/g oven-dry soil). Calculated by subtracting the oven-dry soil mass from the moist soil mass, then dividing the derived soil moisture mass

by the oven-dry soil mass.  
ATTRIBUTE DEFINITION SOURCE AAFC

*Hide Entities and Attributes ▲*