Search

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- Web Soil Survey
- National Cooperative Soil Survey (NCSS)
- Archived Soil Surveys
- Status Maps
- Official Soil Series Descriptions (OSD)
- Soil Series Extent Mapping Tool
- Geospatial Data Gateway
- FOTG
- National Soil Characterization Data
- Soil Quality
- Soil Geography

Welcome to Soil Data Access

Soil Data Access is the name of a suite of web services and applications whose purpose is to meet requirements for requesting and delivering soil survey spatial and tabular data, that are not being met by the current Web Soil Survey and Geospatial Data Gateway websites. These requirements include:

- Provide a way to request data for an ad hoc area of interest of any size.
- Provide a way to obtain data in real-time.
- Provide a way to request selected tabular attributes.
- Provide a way to return tabular data where the organization of that data doesn't have to mirror that of the underlying source database.
- Provide a way to bundle results by request, rather than by survey area.

Our initial set of solutions addresses each of these requirements, at least to some degree.

The ad hoc area of interest requirement was addressed, at least in part, by providing web services and applications capable of processing requests for spatial and tabular data, where an area of interest can be expressed by either a variety of spatial filters, or by using a SQL query or Shape command capable of referencing spatial entities represented in the underlying tabular data.

The real-time requirement was addressed by providing web services and interfaces that are capable of servicing a request in real-time.

The selected tabular attributes and alternative organization requirements were addressed by requiring the use of SQL queries and Shape commands in order to request tabular data. This combination allows tabular results to be returned either as a single table or multiple tables.

I Want To...

- Submit a custom request for soil tabular data
- Subscribe to Soil Data Access News.
- Unsubscribe from Soil Data Access News.

I Want Help With...

- Creating my own custom database queries
- Using Soil Data Access web services
- Using the Soil Data Access website
- Citing Soil Data Access as a source of soils data.

The Soil Data Access

http://sdmdataaccess.nrcs.usda.gov

- The Soil Data Access facility is a suite of web services and applications
- Designed to meet user needs not met by other applications
  - Web based spatial and tabular queries
  - Services for other applications to interface with

Access tabular data where it doesn't have to mirror that of the source database.

Access spatial data in real-time

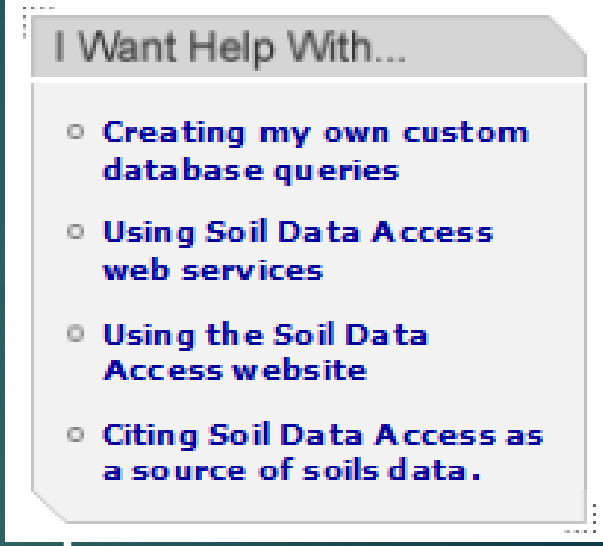
Access tabular data in real time

Access bundled results by request

Access tabular data for an ad hoc area of interest of any size

Access selected tabular attributes

- Help is available for
  - Writing queries
  - Understanding the table and column structure
  - Using the Web Services
  - Citing the source of the data



Soil Data Access Query Help

This page provides information one needs in order to effectively query the Soil Data Mart database.

Query Guide ▲

Soil Data Access Query Guide *(183K)*

The Soil Data Access Query Guide is composed of two major sections. The first section describes the general content of the Soil Data Mart database, and the conventions used in that database. The second section describes the capabilities and limitations of the web services and interfaces that allow a person to submit a query to be executed against the Soil Data Mart database.

Metadata Reports and Diagrams ▲

Domains Report *(584K)*

A column's values may be restricted to a fixed set of ASCII values, which we refer to as a domain. All domains for all columns associated with a domain, for all Soil Data Access related tables, are included in this report. The domains in this report are sorted in ascending order on the report field titled "Domain Name". The value that is actually stored in a column associated with that domain is the value in the report column titled "Choice Value". The metadata report titled "Tables and Columns" indicates the name of a domain associated with a column, if any.

Table Column Descriptions Report *(258K)*

For each Soil Data Access related table, this report includes a description of each column in that table. The entries in this report are sorted in ascending order on the report field titled "Table Physical Name" and table column sequence, although table column sequence is not displayed in this report.

Tables and Columns Report *(203K)*

For each Soil Data Access related table, this report includes a row for each column in that table. For each table column, the following attributes are displayed:

- Column Sequence
- Column Physical Name
- Column Label
- Logical Data Type
- Physical Data Type
- Not Null?
- Units of Measure
- Associated Domain Name
- Minimum Allowable Value
- Maximum Allowable Value
- Field Size
- Precision

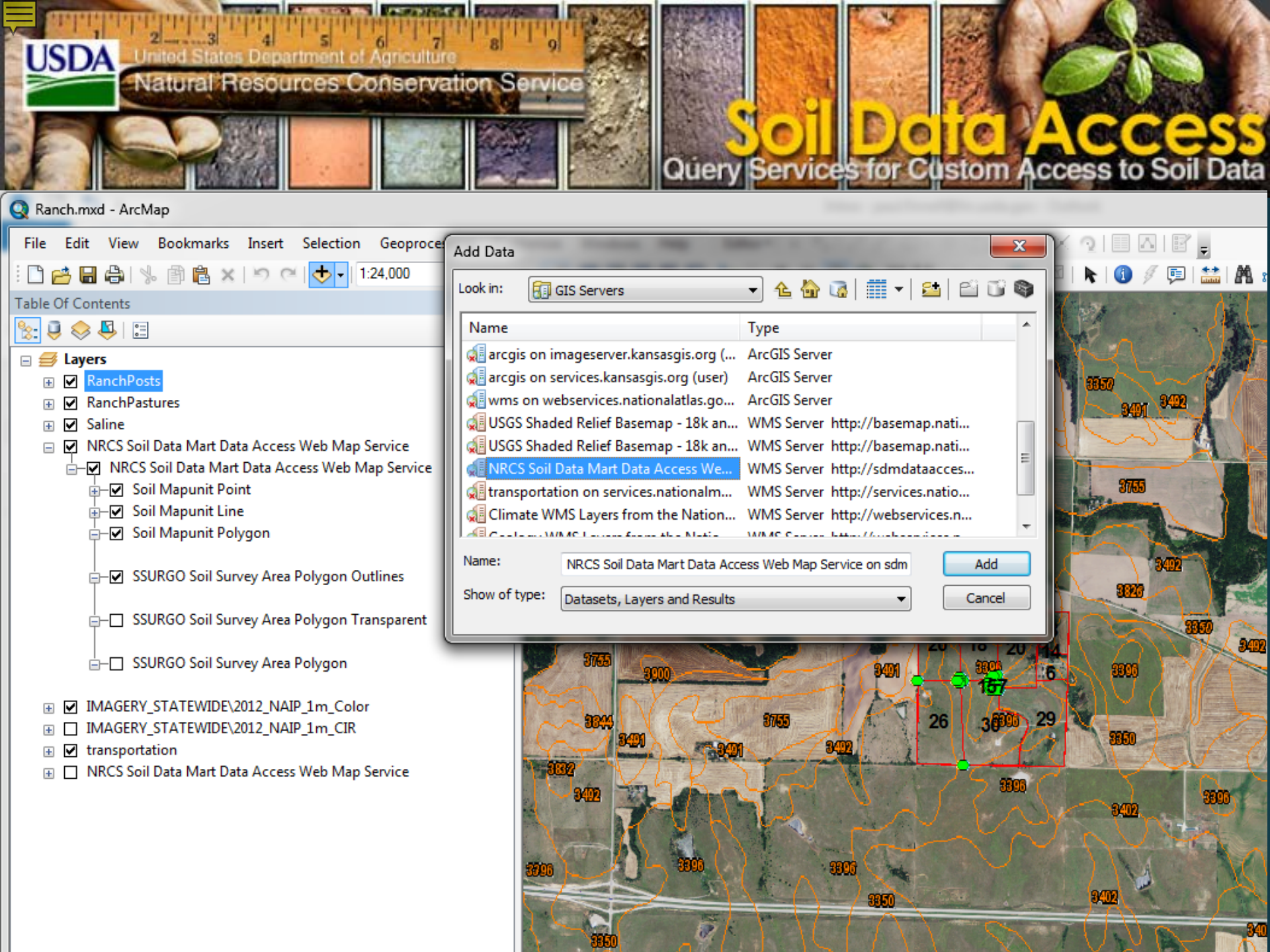
NASIS 6.0 Training Materials

Other SQL Help Material

- Chapter 8 – Examining the Project Object (PDF; 390 KB; 11/1/11)
- Chapter 9 – Examining the Point Data Objects (PDF; 661 KB; 11/1/11)
- Chapter 10 – Importing Soil Data (PDF; 458 KB; 11/1/11)
- Chapter 11 – Examining Other NASIS Tables (PDF; 382 KB; 11/1/11)
- Chapter 12 – Examining Calculations and Validations (PDF; 435 KB; 11/1/11)
- Chapter 13 – Managing Soil Survey Data (PDF; 1.24 MB; 11/1/11)
- Chapter 14 – Project Management (PDF; 2.53 MB; 1/8/14)
- Chapter 15 – Queries Explorer (PDF; 365 KB; 1/14/10)
- Chapter 16 – Reports Explorer (PDF; 375 KB; 1/14/10)
- Chapter 17 – Exports Explorer (PDF; 776 KB; 9/1/10)
- Chapter 18 – Query Writing (PDF; 2.54 MB; 5/15/12)
- Chapter 19 – Introducing Interpretations (PDF; 117 KB; 1/14/10)
- Chapter 20 – Reporting Interpretations (PDF; 265 KB; 1/14/10)
- Chapter 21 – Developing Interpretation Criteria (PDF; 1.3 MB; 1/14/10)
- Chapter 22 – Technical Soil Services Management (PDF; 391 KB; 11/7/12)
- Chapter 23 – Pedon Data Entry Guide (PDF; 3.98 MB; 11/13/12)
- Chapter 24 – Populating Ecological Site Projects (PDF; 1.75 MB; 4/28/15)

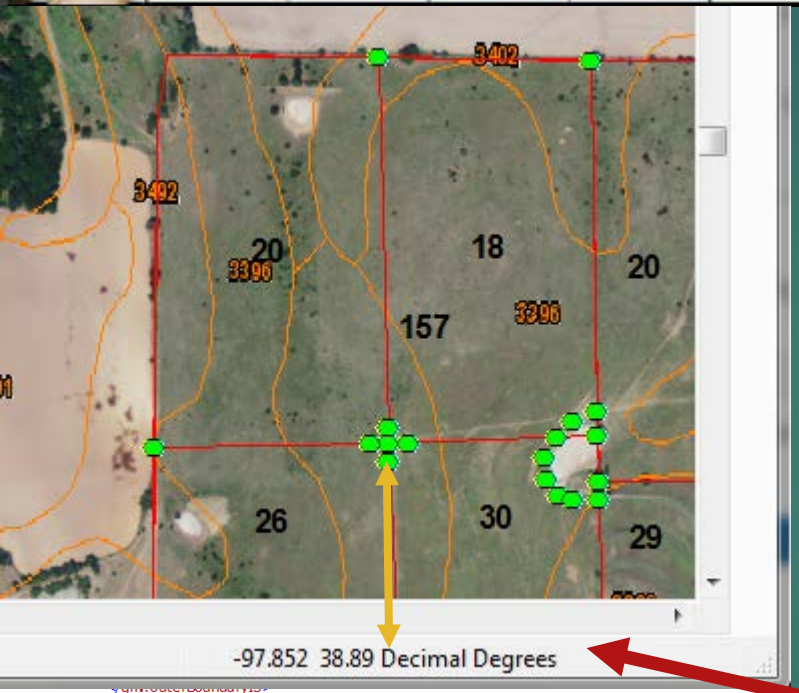
Web Services

SOIL DATA ACCESS


USDA
United States Department of Agriculture
Natural Resources Conservation Service
Soil Data Access
Query Services for Custom Access to Soil Data
Ranch.mxd - ArcMap
File Edit View Bookmarks Insert Selection Geoproce
1:24,000
Table Of Contents
Layers
RanchPosts
RanchPastures
Saline
NRCS Soil Data Mart Data Access Web Map Service
NRCS Soil Data Mart Data Access Web Map Service
Soil Mapunit Point
Soil Mapunit Line
Soil Mapunit Polygon
SSURGO Soil Survey Area Polygon Outlines
SSURGO Soil Survey Area Polygon Transparent
SSURGO Soil Survey Area Polygon
IMAGERY_STATEWIDE\2012_NAIP_1m_Color
IMAGERY_STATEWIDE\2012_NAIP_1m_CIR
transportation
NRCS Soil Data Mart Data Access Web Map Service
Add Data
Look in:
GIS Servers
Name
Type
arcgis on imageserver.kansasgis.org (...
ArcGIS Server
arcgis on services.kansasgis.org (user)
ArcGIS Server
wms on webservices.nationalatlas.go...
ArcGIS Server
USGS Shaded Relief Basemap - 18k an...
WMS Server http://basemap.nati...
USGS Shaded Relief Basemap - 18k an...
WMS Server http://basemap.nati...
NRCS Soil Data Mart Data Access We...
WMS Server http://sdmdataacces...
transportation on services.nationalm...
WMS Server http://services.natio...
Climate WMS Layers from the Nation...
WMS Server http://webservices.n...
Name:
NRCS Soil Data Mart Data Access Web Map Service on sdm
Add
Show of type:
Datasets, Layers and Results
Cancel

Soil Data Access

Query Services for Custom Access to Soil Data

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<gml:LinearRing>
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97.848582,38.888123 -97.849341,38.888230 -97.849502,38.888204 -97.849727,38
97.849234,38.887066 -97.849046,38.887064 -97.848794,38.887107</gml:coordinates>
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</gml:Polygon>
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</gml:MultiPolygon>
</ms:msGeometry>
<ms:areasymbol>KS169</ms:areasymbol>
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<ms:mukey>1382167</ms:mukey>
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<ms:slopegradwta>5</ms:slopegradwta>
<ms:brockdepmin>82</ms:brockdepmin>
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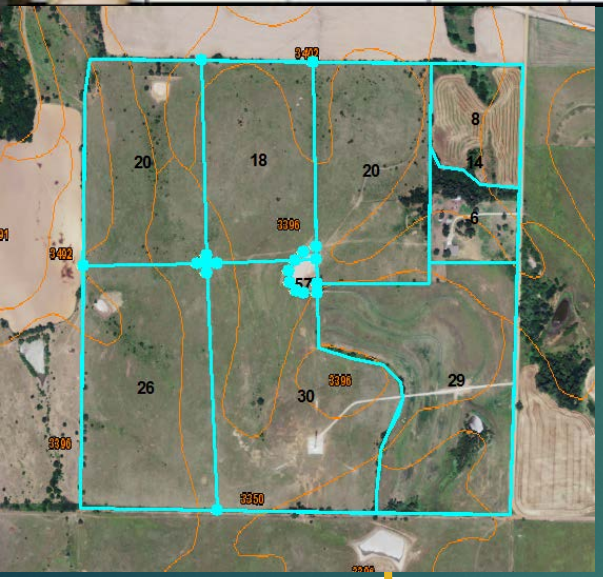
<ms:pondfreqprs>0</ms:pondfreqprs>
```

WFS for a specific point?

Want attribute information on a specific point? Using the Web Service you can modify coordinates to retrieve additional soil properties and interpretation data on a specific point. Change the -97.852,38.89 coordinates in these URLs to fit your point.

- POINT WITH DATA
  http://sdmdataaccess.nrcs.usda.gov/Spatial/SDMNAD83Geographic.wfs?service=WFS&version=1.0.0&outputformat=GML2&typename=MapunitPolyExtended&request=GetFeature&Filter=%3CFilter%3E%3CDWithin%3E%3CPropertyName%3EGeometry%3C/PropertyName%3E%3Cgml:Point%3E%3Cgml:coordinates%3E-97.852,38.89%3C/gml:coordinates%3E%3C/gml:Point%3E%3CDistance%20units='m'%3E0%3C/Distance%3E%3C/DWithin%3E%3C/Filter%3E

- This URL will provide an XML file containing "muaggatt" data based on the coordinates. Save the resulting file as an XML file and import it into Access.



WFS for a specific BBOX?

Want attribute information on a specific box? Using the Web Service you can modify coordinates to retrieve additional soil properties and interpretation data on a specific point. Change to BBOX coordinates in these URLs to fit your point.

- POINT WITH DATA
  http://SDMDataAccess.nrcs.usda.gov/Spatial/SDMNAD83UTM.wfs
  ?SERVICE=WFS&VERSION=1.1.0&REQUEST=GetFeature
  &TYPENAME=MapunitPoly&FILTER=<Filter> <BBOX>
  <PropertyName>Geometry</PropertyName> <Box
  srsName='EPSG:4236'> <coordinates=-97.857,38.885,-97.845,38.895</coordinates> </Box></BBOX></Filter>
  &SRSNAME=EPSG:26910&OUTPUTFORMAT=GML2

- This URL will provide an XML file containing "muaggatt" data based on the coordinates. Save the resulting file as an XML file and import it into Access.

```
97.855028,38.883365 -97.8546[illegible]0,38.883245 -97.854238,38.882898 -97.853942,38.8
97.853109,38.883292 -97.8529[illegible]3,38.883652 -97.852952,38.884138 -97.852877,38.8
97.851951,38.885318 -97.8519[illegible]4,38.885670 -97.852180,38.886176 -97.852316,38.8
97.852649,38.889172 -97.8529[illegible]5,38.889473 -97.853172,38.889781 -97.853173,38.8
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  - <gml:innerBoundaryIs>
    - <gml:LinearRing>
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        97.849234,38.887066 -97.849046,38.887064 -97.848794,38.887107</gml:coordinates>
      </gml:LinearRing>
    </gml:innerBoundaryIs>
  </gml:Polygon>
</gml:polygonMember>
</gml:MultiPolygon>
</ms:msGeometry>
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<ms:musym>3350</ms:musym>
<ms:nationalmusym>2tpw8</ms:nationalmusym>
<ms:mukey>1382167</ms:mukey>
<ms:spatialversion>3</ms:spatialversion>
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<ms:mustatus />
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<ms:slopegradwta>5</ms:slopegradwta>
<ms:brockdepmin>82</ms:brockdepmin>
<ms:wtdepannmin />
<ms:wtdepaprjunmin />
<ms:flodfreqdcd>None</ms:flodfreqdcd>
<ms:flodfreqmax>None</ms:flodfreqmax>
<ms:pondfreqprs>0</ms:pondfreqprs>
```

WMS for a specific BBOX?

- http://sdmdataaccess.nrcs.usda.gov/Spatial/SDM.wms?SERVICE=WMS&VERSION=1.1.1&REQUEST=GetMap&LAYERS=SurveyAreaPoly,MapunitPoly&STYLES=&SRS=EPSG:4326&BBOX=-97.857,38.885,-97.845,38.895&WIDTH=600&HEIGHT=400&FORMAT=image/png&TRANSPARENT=TRUE&BGCOLOR=rgba(255, 255, 255, .4)&EXCEPTIONS=Application/VND.OGC.SE_XML

Tabular Queries

SOIL DATA ACCESS

Submit your own SQL or SQL Data Shaping query to retrieve data from the Soil Data Mart. You can choose to view the r
volumes of data, you can choose to submit the query to be queued and run in background. Information about the queries
queries, can be found on the Query Help page.

If you choose to view the results immediately, they will be displayed in a separate browser window. In order to view the
SDMTabularService.RunQuery web method is used to run the query, therefore this is a good place to test any queries th
Further information is available on the Web Service Help page.

If you choose to subm
or into a single XML f
information about arc
requested.

For immediate queries
seconds but return m
number of record

f the XML option was selected, with all files then placed in a WinZip® archive (see the Downloa
es). You will be notified via e-mail when the results are ready to be downloaded, and that e-mail

he timeout is 30 seconds and no more than 10,000 records can be returned to a browser. Imm
than 10,000 records must be submitted as a queued request. For queued queries, the timeout
e returned.

I Want To...

- **Submit a custom request for soil tabular data**
- Subscribe to Soil Data Access News.
- Unsubscribe from Soil Data Access News.

Please enter your SQL query:

```
SELECT areasymbol, musym, muname
FROM legend
INNER JOIN mapunit on legend.lkey=mapunit.lkey
WHERE musym IN ('3755', '3396', '3350', '3402') and areasymbol like 'KS169'
```

Please select the time frame and format in which you would like to see the results:

- ( ) Immediate / XML (same format returned in the SDMTabularService.RunQuery web method response)
- (•) Immediate / HTML (results displayed in tables for easier viewing)
- ( ) Queued / XML
- ( ) Queued / Text

[ ] First row contains column names

Field Delimiter: Vertical Bar

Text Delimiter: Double Quote

Please enter your e-mail address:

Please confirm your e-mail address:

If the e-mail account entered above is protected by spam blocking software, you will need to authorize e-mail from SoilDataAccess@nrcs.usda.gov in order to receive e-mail notification once your query has been processed.

Submit Query

Submit your own SQL or SQL Data Shaping query to retrieve data from the Soil Data Mart. You can choose to view the r volumes of data, you can choose to submit the query to be queued and run in background. Information about the queries queries, can be found on the Query Help page.

If you choose to view the results immediately, they will be displayed in a separate browser window. In order to view the SDMTabularService.RunQuery web method is used to run the query, therefore this is a good place to test any queries th Further information is available on the Web Service Help page.

If you choose to subm or into a single XML f f the XML option was selected, with all files then placed in a WinZip® archive (see the Downloa information about arc es). You will be notified via e-mail when the results are ready to be downloaded, and that e-mail requested.

For immediate queries e timeout is 30 seconds and no more than 10,000 records can be returned to a browser. Imm seconds but return m than 10,000 records must be submitted as a queued request. For queued queries, the timeout number of record e returned.

Please enter your SQL query:

```
SELECT areasymbol, musym, muname
FROM legend
INNER JOIN mapunit on legend.lkey=mapunit.lkey
WHERE musym IN ('3755', '3396', '3350', '3402') and areasymbol like 'KS169'
```

Please select the time me and format in which

- Immediate / XML e format returned in th
- Immediate / HTML sults displayed in tabl
- Queued / XML
- Queued / Text

First row con s column na

Please enter your e-mail address:

Please confirm your e-mail address:

If the e-mail account entered above is protected mail notification once your query has been proce

I Want To...

- **Submit a custom request for soil tabular data**
- Subscribe to Soil Data Access News.
- Unsubscribe from Soil Data Access News.

areasymbol	musym	muname
KS169	3350	Edalgo clay loam, 3 to 7 percent slopes
KS169	3396	Lancaster-Hedville complex, 3 to 20 percent slopes
KS169	3402	Longford silt loam, 3 to 7 percent slopes
KS169	3491	Wells loam, 1 to 3 percent slopes
KS169	3492	Wells loam, 3 to 7 percent slopes
KS169	3755	Hord silt loam, rarely flooded

Generic SQL

```
SELECT m.mukey, c.cokey, compname, comppct_r, hzname, hzdept_r,
hzdepb_r, kffact, hydgrp, tfact, texture

FROM legend l

INNER JOIN mapunit m on l.lkey=m.lkey and areasymbol like 'KS169'

INNER JOIN  component c on m.mukey=c.mukey and c.cokey = (SELECT
TOP 1 component.cokey FROM component WHERE
component.mukey=m.mukey ORDER BY component.comppct_r DESC)

INNER JOIN chorizon ch ON c.cokey = ch.cokey and  hzdept_r = (select
MIN(hzdept_r) FROM chorizon WHERE hzname not like 'O%' and
chorizon.cokey = ch.cokey )

INNER JOIN chtexturegrp on ch.chkey=chtexturegrp.chkey and rvindicator
= 'yes'

INNER JOIN chtexture on chtexture.chtgkey=chtexturegrp.chtgkey

ORDER by mukey
```

Generic SQL

SELECT m.mukey, c.cokey, compname, comppct_r, hzname, hzdept_r, hzdepb_r, kffact, hydgrp, tfact, texture

mukey	cokey	compname	comppct_r	hzname	hzdept_r	hzdepb_r	kffact	hydgrp	tfact	texture
1382154	10554138	Bavaria	60	Ap	0	15	.43	C	2	SIL
1382155	10554202	Bridgeport	95	Ap	0	16	.37	B	5	SIL
1382156	10554117	Cass	89	A	0	46	.20	A	3	FSL
1382157	10554140	Clime	100	A	0	20	.32	D	3	SICL
1382158	10554133	Clime	100	A	0	23	.24	D	3	SIC
1382159	10554142	Cozad	100	A	0	36	.43	B	5	SIL
1382166	10554135	Detroit	100	Ap	0	18	.37	C	5	SICL
1382167	10554195	Edalgo	85	Ap	0	18	.28	D	3	CL
1382170	10554122	Hobbs	100	Ap	0	20	.37	B	5	SIL
1382171	10554203	Hord	90	Ap	0	18	.43	B	5	SIL

ORDER by mukey

SDA Changes coming in July

User-visible changes:

- New “user defined functions” have been added to the SDM database. These allow limited spatial data retrieval and identification
- The WMS will support a GetStyles request to be used in conjunction with the new WMS GetMap request’s “SLD_BODY” (available via POST only).
- The tabular service will support REST/POST submission of SQL queries with data returned in either XML or JSON format.
- The “Service” specification is no longer required in any of the WMS or WFS requests.
- For WFS GetCapabilities and GetFeature requests the version is optional and now defaults to the newly-added value of 1.1.0.
- For WMS DescribeLayer, GetFeatureInfo and GetMap requests the version number is now optional.
- For WMS GetMap requests the Format now defaults to SVG, has PNG, and GIF has been dropped.

- Given a key, return the spatial boundary:

  SDA_Get_AreasymbolWKTWgs84_from_Areasymbol,
  SDA_Get_AreasymbolWKTWm_from_Areasymbol,
  SDA_Get_MupolygonWktWgs84_from_Mukey,
  SDA_Get_MupolygonWktWm_from_Mukey,
  SDA_Get_MupointWktWgs84_from_Mukey,
  SDA_Get_MupointWktWm_from_Mukey,
  SDA_Get_MulineWktWgs84_from_Mukey
  SDA_Get_MulineWktWm_from_Mukey.

- Given a spatial boundary, return the keys:

  SDA_Get_Areasymbol_from_intersection_with_WktWgs84,
  SDA_Get_Areasymbol_from_intersection_with_WktWm,
  SDA_Get_Mukey_from_intersection_with_WktWgs84 and
  SDA_Get_Mukey_from_intersection_with_WktWm.

Given a key, return the spatial boundary

SDA_Get_AreasymbolWKTWgs84_from_Areasymbol

Please enter your SQL query:

```
select * from SDA_Get_AreasymbolWKTWgs84_from_Areasymbol('KS001')
```

sdmdataaccessha.dev.sc.egov.usda.gov/QueryResults.aspx - Google Chrome

sdmdataaccessha.dev.sc.egov.usda.gov/QueryResults.aspx

This XML file does not appear to have any style information associated with it. The document tree is shown below.


```
▼<NewDataSet>
  ▼<Table>
    ▼<AreasymbolWkt84>
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       -95.361889421661189 38.0384508768683, -95.359369485275053 38.038407458284645,
       -95.346841888498659 38.038232445032662, -95.345159138132317 38.038196402700343,
       -95.337816923758155 38.038168910294388, -95.335252060404542 38.038147787963219,
       -95.329055150004777 38.03807117827467, -95.327624357741982 38.038079895029725, -95.3214054866066
       38.038148124437889, -95.3137833173908 38.038128510721371, -95.311595638949 38.038071178646909,
       -95.309860752184264 38.038060282728075, -95.30867622217589 38.038078387818558,
       -95.297674299201532 38.038061121787742, -95.29666964444732 38.038056762988546, -95.2952437143789
```

SDA_Get_MupolygonWktWgs84_from_Mukey

Submit your own SQL or SQL Data Shaping query to retrieve data from the Soil Data Mart. You can choose to view the results of the query immediately or, for larger volumes of data, you can choose to su
queued and run in background. Information about the queries that

If you choose to view the results immediately, they will be displaye
the query, therefore this is a good place to test any queries that yo

If you choose to submit the query to be queued and run in backgr
selected, with all files then placed in a WinZip® archive (see the D
and that e-mail will include an FTP link for retrieving the data you r

For immediate queries, the timeout is 30 seconds and no more tha
submitted as a queued request. For queued queries, the timeout i

Please enter your SQL query:

```
select * from SDA_Get_MupolygonWktWgs84_from_Mukey (1382196)
```

Please select the time frame and format in which you would like to

- ( ) Immediate / XML (same format returned in the SDMTabularSer
- (•) Immediate / HTML (results displayed in tables for easier viewin
- ( ) Queued / XML
- ( ) Queued / Text
- [ ] First row contains column names

Please enter your e-mail address:

Please confirm your e-mail address:

If the e-mail account entered above is protected by spam blockin
processed.

Mozilla Firefox

File Edit View History Bookmarks Tools Help

sdmdataaccessha.dev.sc.egov.usda.gov/QueryResults.aspx

MupolygonWktWgs84
POLYGON ((-97.696008551365836 38.888877659974995, -97.696065715723819 38.889022499697205, -97.696298397150173 38.889223330512365, -97.6966232798679 38.889389124125394, -97.696710116143137 38.8894011945319, -97.696904911520335 38.88942835115941, -97.697107921672426 38.8894035408104, -97.697634975734246 38.889229197440358, -97.697852905339232 38.889294744090371, -97.698390018303158 38.889796316727235, -97.698484063609143 38.890013575732191, -97.698416505501271 38.89043635959991, -97.698278539075858 38.890804325055868, -97.6978897859618 38.891620052173955, -97.697550318867556 38.892283060639315, -97.696882784709615 38.8932037292273, -97.696373500014644 38.893900935807622, -97.696148529555614 38.893907306367254, -97.695525250677008 38.894134623457809, -97.695552072441984 38.893927757947488, -97.695611248620125 38.893378743574921, -97.695733624830623 38.892758315163739, -97.695877961627531 38.892192201244541, -97.696028164936266 38.891698339167441, -97.69606755973436 38.891437494027308, -97.695799842006423 38.891146139515058, -97.695571518242389 38.890783034951724, -97.6955275974386 38.890467204903622, -97.695666233640893 38.890261512650639, -97.6958124140762 38.889947694239488, -97.69581476109677 38.88919080850328, -97.696008551365836 38.888877659974995))
POLYGON ((-97.8581898810057 38.900715918440795, -97.857872205920287 38.9002103219001, -97.857694342551937 38.899927180937027, -97.8576217553332 38.899692152251255, -97.857712112437923 38.899539936735358, -97.857935238663472 38.899424936994293, -97.85837780310888 38.899375149128772, -97.859155141004 38.899941430231515, -97.859161176218024 38.899968587914991, -97.85955931589784 38.900540233128, -97.859833907273384 38.900678031756463, -97.859955110429112 38.900692784317187, -97.860074804141092 38.90070736844541, -97.860535640955618 38.900549789025156, -97.861005195085809 38.900211830076977, -97.861102760940739 38.900059615300812, -97.861537445993434 38.899739426225082, -97.861901388024023 38.899607830367117,

SDA_Get_MupointWktWgs84_from_Mukey

- Extracts information for the map unit point data, not to be confused with pedon points.

SDA_Get_MulineWktWgs84_from_Mukey

- Extracts information for the map unit line data.

Given a spatial boundary, return the keys:

SDA_Get_Areasymbol_from_intersection_with_WktWgs84

Please enter your SQL query:

```
select * from SDA_Get_Areasymbol_from_intersection_with_WktWgs84( 'polygon((
-97.865878 38.900033,
-97.817433 38.900097,
-97.817433 38.878385,
-97.861999 38.871060,
-97.865878 38.900033))')
```

Please select the time frame

- Immediate / XML (same
- Immediate / HTML (resul
- Queued / XML
- Queued / Text

First row contains colu

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areasymbol
KS169

SDA_Get_Mukey_from_intersection_with_WktWgs84

Please enter your SQL query:

```
select * from SDA_Get_Mukey_from_intersection_with_WktWgs84 ( 'polygon((
-97.865878 38.900033,
-97.817433 38.900097,
-97.817433 38.878385,
-97.861999 38.871060,
-97.865878 38.900033))')
```

Please select the time frame and format in which you would like to see the

- ○ Immediate / XML (same format returned in the SDMTabularService.Run
- ◉ Immediate / HTML (results displayed in tables for easier viewing)
- ○ Queued / XML
- ○ Queued / Text
  - ☐ First row contains column names

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sdmdataaccess

mukey
1382196
1382194
2668814
1382197
1382167
1382187
2768299
2668978

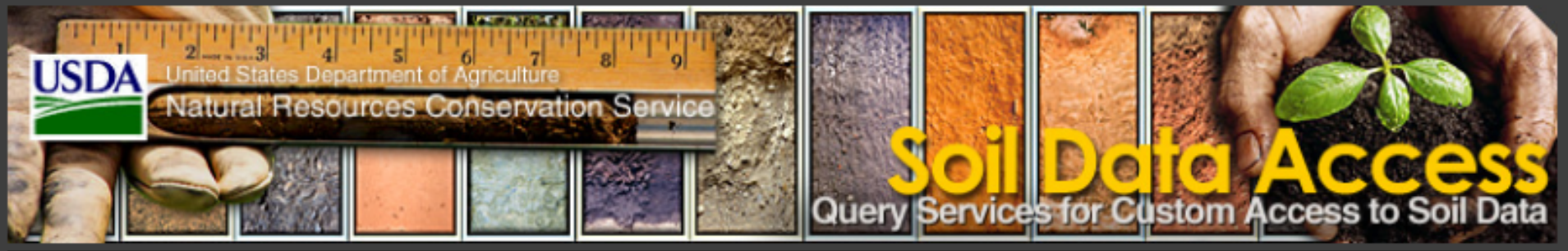
SDA_Get_Mukey_from_intersection_with_WktWgs84

```
select S.mukey, M.musym, M.muname,
M.farmlndcl,c.cokey,c.comppct_r,c.compname,loc
alphase,case when nirrcapscl is null then nirrcapcl
else nirrcapcl + nirrcapscl end as capclass,
c.slope_r,hydgrp, taxclname from
SDA_Get_Mukey_from_intersection_with_WktWgs84('
polygon((-97.865878 38.900033,-97.817433
38.900097,-97.817433 38.878385,-97.861999
38.871060,-97.865878 38.900033))') as S,legend as
L,mapunit M,component c where c.mukey=
M.mukey and M.mukey = S.mukey and M.lkey =
L.lkeyorder by areasymbol, S.mukey, comppct_r
desc
```

mukey	musym	muname	farmlndcl	cokey	comppct_r	compname	localphase	capclass	slope_r	hydgrp	taxclname
1382167	3350	Edalgo clay loam, 3 to 7 percent slopes	Farmland of statewide importance	10554195	85	Edalgo		4e	5	D	Fine, mixed, superactive, mesic Udic Argiustolls
1382167	3350	Edalgo clay loam, 3 to 7 percent slopes	Farmland of statewide importance	10554196	0	Aquolls	occasionally ponded	3w	0	D	Fine, mesic Aquolls
1382171	3755	Hord silt loam, rarely flooded	All areas are prime farmland	10554203	90	Hord	rarely flooded	2c	1	B	Fine-silty, mixed, superactive, mesic Cumulic Haplustolls
1382187	3900	Ortello fine sandy loam, 3 to 7 percent slopes	All areas are prime farmland	10554149	100	Ortello		3e	4	A	Coarse-loamy, mixed, mesic Udic

Citing SDA Services

SOIL DATA ACCESS



For SSURGO data: Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database. Available online at http://sdmdataaccess.nrcs.usda.gov/. Accessed [month/day/year].

For STATSGO data: Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. U.S. General Soil Map (STATSGO2). Available online at http://sdmdataaccess.nrcs.usda.gov/. Accessed [month/day/year].