

Iowa_SouthCentral_2020_D20
Survey Report

Contract Number: G17PC00044
Task Order Number: 140F0220F0076



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Overview

Digital Aerial Solutions, LLC (DAS) with contract number G17PC00044 was contracted by the United States Geological Survey under task order number 140F0220F0076 collect a high-resolution LiDAR data set covering 10,238 square miles affecting Adair, Appanoose, Clarke, Davis, Decatur, Iowa, Jefferson, Keokuk, Lucas, Madison, Mahaska, Marion, Monroe, Poweshiek, Ringgold, Union, Van Buren, Wapello, Warren and Wayne in Counties in Iowa. in Iowa. Each of these categories was spread out as evenly as possible throughout the Area of Interest (AOI). The survey was completed using the Global Positioning System (GPS). Each observation was identified in the field and surveyed utilizing GPS receivers, collecting GNSS and GLONASS information and utilizing a Leica Smart-Net RTK network. In accordance with section C.1.e.(i)(c) of the task order, the spatial reference system used was:

Spatial Reference System:

Coordinate System: Universal Transverse Mercator UTM Zone 15

Horizontal Datum: North American Datum 1983 (2011)

Vertical Datum: North American Vertical Datum of 1988

Units: Meters

Geoid Model: Geoid 18

Section C.1.b.(viii) of the task order outlines the ground control minimum requirements and specifications for this LiDAR project. 63 Supplemental ground control points were collected and used to support the airborne GPS solution and positional accuracy. DAS also collected more than the required number of Non-Vegetated Vertical Accuracy (NVA) and Vegetated Vertical Accuracy (VVA) Quality Checkpoints as stated in the task order. These checkpoints serve as an independent delivery to the client and were not incorporated into the vertical solution.

Glossary of Terms

Term - Definition

ATTN	- Attention
BE	- Bare Earth Checkpoint (see NVA)
CTRL	- Control
DAS	- Digital Aerial Solutions, LLC
Ellip	- Ellipsoid Height
FIPS	- Federal Information Processing Standard
GPS	- Global Positioning Systems
UT	- Urban Terrain (see NVA)
HV	- High Vegetation (see VVA)
ID	- Identification
LV	- Low Vegetation (see VVA)
LiDAR	- Light Detection and Ranging
MV	- Medium Vegetation (see VVA)
NAD83	- North American Datum of 1983
NAVD88	- North American Vertical Datum of 1988
NGS	- National Geodetic Survey
NGTOC	- National Geospatial Technical Operations Center
NVA	- Non-Vegetated Vertical Accuracy
Ortho	- Orthometric Height
POC	- Point of Contact
RTK	- Real Time Kinematics
USGS	- United States Geological Survey
VP	- Vice President
VVA	- Vegetated Vertical Accuracy

Supplemental Ground Control

The Map shows the overall distribution of the Supplemental Ground Control throughout the AOI. The following tables contain a list of the control using Easting, Northing, and Orthometric height. The coordinate system displayed is Universal Transverse Mercator UTM Zone 15, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

IA_SouthCentral_2020_D20

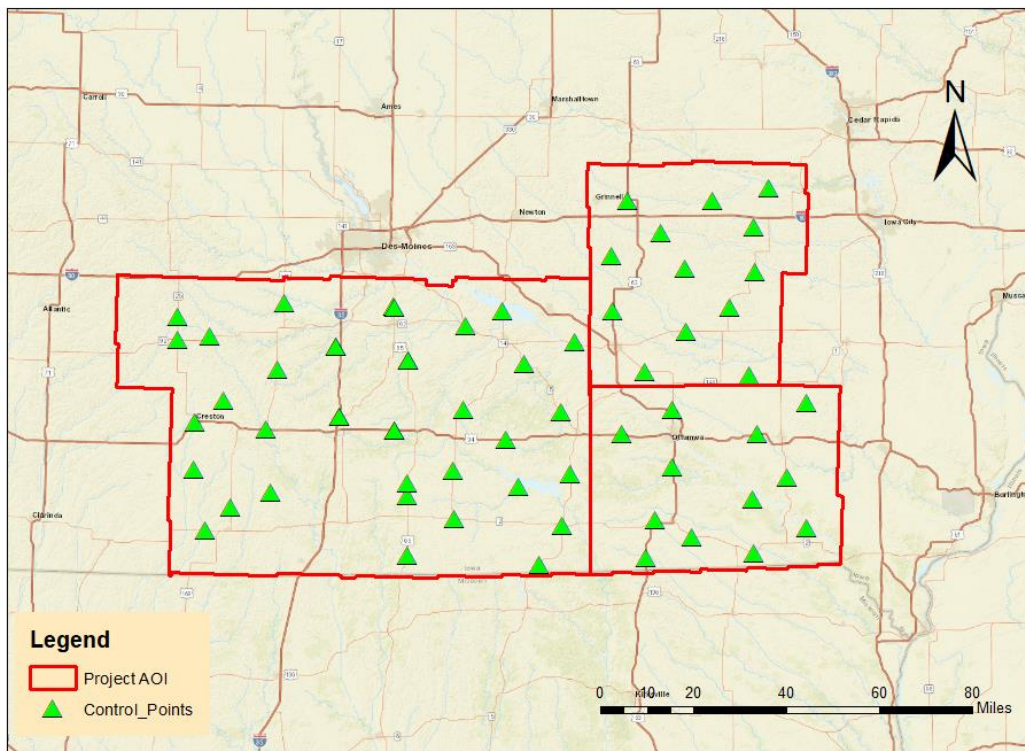


TABLE: Ground Control Points

Point ID	Easting	Northing	Ortho
1_GS0012	556209.105	4505364.98	261.872
1_GS0034	577330.902	4518414.378	228.924
1_GS0055	578685	4540701.557	230.952
1_GS0063	595710.117	4551681.882	211.535
1_GS0095	539835.709	4562501.822	249.011
1_GS0102	549501.194	4549126.447	254.416
1_GS0131	528783.118	4583265.841	252.562
1_GS0161	582611.196	4625990.884	232.349
1_GS0173	553769.16	4598044.591	253.028
1_GS0181	545414.006	4610502.648	261.108
1_GS0197	478127.51	4578069.426	273.362
1_GS0214	515638.591	4572472.237	230.866
1_GS0223	543358.917	4511233.137	261.239
1_GS0229	540281.636	4497957.335	256.525
1_GS0263	510771.739	4548360.335	291.839
1_GS0274	531928.297	4540749.819	220.87
1_GS0283	491728.253	4538746.83	305.698
1_GS0290	477311.128	4549058.438	309.51
1_GS0297	473518.681	4528112.921	316.318
1_GS0307	496135.414	4522787.11	306.834
1_GS0315	474043.859	4511710.73	320.942
1_GS0341	434169.863	4546914.8	302.538
1_GS0350	453184.374	4542258.183	324.318
1_GS0351	453184.868	4542224.69	323.375
1_GS0358	458054.799	4566424.103	282.024
1_GS0366	453134.358	4584751.215	278.101
1_GS0367	453174.74	4584709.458	276.993
1_GS0373	432968.293	4571192.967	315.138
1_GS0375	432967.962	4571214.753	316.164
1_GS0381	415310.909	4586297.368	325.558
1_GS0389	412731.245	4562938.915	338.868
2_GS0413	387764.806	4507583.738	335.606
2_GS0416	396759.91	4515370.711	359.64
2_GS0423	410384.461	4520808.679	363.701
2_GS0431	409127.159	4542588.989	365.469
2_GS0435	384063.475	4528485.605	382.659
2_GS0445	394079.661	4552256.312	368.399
2_GS0456	389654.447	4574698.512	393.034
2_GS0461	378466.42	4581346.567	407.297
1_GS0004	549353.226	4529257.98	253.008
1_GS0020	577521.689	4499815.081	239.536
1_GS0028	595792.27	4508181.676	212.04

1_GS0045	589048.705	4525768.536	228.746
1_GS0070	576006.535	4561189.175	238.347
1_GS0079	569127.04	4584559.05	257.424
1_GS0086	554052.166	4576360.291	242.853
1_GS0112	578002.701	4596644.411	247.817
1_GS0118	577709.766	4612312.055	256.41
1_GS0135	528531.989	4602524.779	260.033
1_GS0146	534001.005	4621614.472	289.324
1_GS0153	563188.833	4621451.97	240.4
1_GS0189	490701.093	4583358.064	242.985
1_GS0205	498100.371	4565104.121	271.101
1_GS0238	511377.903	4509345.897	303.758
1_GS0246	503328.862	4495744.944	295.689
1_GS0255	514118.035	4526901.546	304.524
1_GS0324	457834.564	4498855.55	311.508
1_GS0330	457873.981	4519601.663	338.824
1_GS0335	457917.493	4523697.987	336.31
1_GS0342	434147.853	4546935.153	302.748
1_GS0357	458086.142	4566426.51	282.659
2_GS0440	384314.043	4544940.446	396.883
2_GS0451	378552.785	4573413.825	409.659

1_GS0012



Point ID: 1_GS0012

Northing: 4505364.98 Meters

Easting: 556209.105 Meters

Orthometric Height: 261.872 Meters

Latitude: 40 41 50.176278 N

Longitude: 92 20 4.879803 W

Ellipsoid Height: 229.007 Meters

1_GS0034



Point ID: 1_GS0034

Northing: 4518414.378 Meters

Easting: 577330.902 Meters

Orthometric Height: 228.924 Meters

Latitude: 40 48 47.166917 N

Longitude: 92 4 59.146855 W

Ellipsoid Height: 195.914 Meters

1_GS0055



Point ID: 1_GS0055

Northing: 4540701.557 Meters

Easting: 578685 Meters

Orthometric Height: 230.952 Meters

Latitude: 41 0 49.383844 N

Longitude: 92 3 51.179323 W

Ellipsoid Height: 198.072 Meters

1_GS0063



Point ID: 1_GS0063

Northing: 4551681.882 Meters

Easting: 595710.117 Meters

Orthometric Height: 211.535 Meters

Latitude: 41 6 38.840509 N

Longitude: 91 51 36.247680 W

Ellipsoid Height: 178.646 Meters

1_GS0095



Point ID: 1_GS0095

Northing: 4562501.822 Meters

Easting: 539835.709 Meters

Orthometric Height: 249.011 Meters

Latitude: 41 12 46.490679 N

Longitude: 92 31 29.302187 W

Ellipsoid Height: 216.531 Meters

1_GS0102



Point ID: 1_GS0102

Northing: 4549126.447 Meters

Easting: 549501.194 Meters

Orthometric Height: 254.416 Meters

Latitude: 41 5 30.845849 N

Longitude: 92 24 38.136574 W

Ellipsoid Height: 221.816 Meters

1_GS0131



Point ID: 1_GS0131

Northing: 4583265.841 Meters

Easting: 528783.118 Meters

Orthometric Height: 252.562 Meters

Latitude: 41 24 1.499448 N

Longitude: 92 39 20.395713 W

Ellipsoid Height: 220.313 Meters

1_GS0161



Point ID: 1_GS0161

Northing: 4625990.884 Meters

Easting: 582611.196 Meters

Orthometric Height: 232.349 Meters

Latitude: 41 46 53.285333 N

Longitude: 92 0 21.212288 W

Ellipsoid Height: 200.182 Meters

1_GS0173



Point ID: 1_GS0173

Northing: 4598044.591 Meters

Easting: 553769.16 Meters

Orthometric Height: 253.028 Meters

Latitude: 41 31 56.082410 N

Longitude: 92 21 19.629251 W

Ellipsoid Height: 220.884 Meters

1_GS0181



Point ID: 1_GS0181

Northing: 4610502.648 Meters

Easting: 545414.006 Meters

Orthometric Height: 261.108 Meters

Latitude: 41 38 41.897007 N

Longitude: 92 27 16.776460 W

Ellipsoid Height: 229.006 Meters

1_GS0197



Point ID: 1_GS0197

Northing: 4578069.426 Meters

Easting: 478127.51 Meters

Orthometric Height: 273.362 Meters

Latitude: 41 21 13.778024 N

Longitude: 93 15 41.312204 W

Ellipsoid Height: 241.648 Meters

1_GS0214



Point ID: 1_GS0214

Northing: 4572472.237 Meters

Easting: 515638.591 Meters

Orthometric Height: 230.866 Meters

Latitude: 41 18 12.797109 N

Longitude: 92 48 47.489074 W

Ellipsoid Height: 198.659 Meters

1_GS0223



Point ID: 1_GS0223

Northing: 4511233.137 Meters

Easting: 543358.917 Meters

Orthometric Height: 261.239 Meters

Latitude: 40 45 3.274865 N

Longitude: 92 29 10.951378 W

Ellipsoid Height: 228.549 Meters

1_GS0229



Point ID: 1_GS0229

Northing: 4497957.335 Meters

Easting: 540281.636 Meters

Orthometric Height: 256.525 Meters

Latitude: 40 37 53.300186 N

Longitude: 92 31 25.246657 W

Ellipsoid Height: 223.879 Meters

1_GS0263



Point ID: 1_GS0263

Northing: 4548360.335 Meters

Easting: 510771.739 Meters

Orthometric Height: 291.839 Meters

Latitude: 41 5 11.171630 N

Longitude: 92 52 18.307741 W

Ellipsoid Height: 259.682 Meters

1_GS0274



Point ID: 1_GS0274

Northing: 4540749.819 Meters

Easting: 531928.297 Meters

Orthometric Height: 220.87 Meters

Latitude: 41 1 2.372466 N

Longitude: 92 37 12.939730 W

Ellipsoid Height: 188.401 Meters

1_GS0283



Point ID: 1_GS0283

Northing: 4538746.83 Meters

Easting: 491728.253 Meters

Orthometric Height: 305.698 Meters

Latitude: 40 59 59.517142 N

Longitude: 93 5 54.074733 W

Ellipsoid Height: 273.854 Meters

1_GS0290



Point ID: 1_GS0290

Northing: 4549058.438 Meters

Easting: 477311.128 Meters

Orthometric Height: 309.51 Meters

Latitude: 41 5 32.927303 N

Longitude: 93 16 12.566471 W

Ellipsoid Height: 277.838 Meters

1_GS0297



Point ID: 1_GS0297

Northing: 4528112.921 Meters

Easting: 473518.681 Meters

Orthometric Height: 316.318 Meters

Latitude: 40 54 13.268311 N

Longitude: 93 18 51.896668 W

Ellipsoid Height: 284.621 Meters

1_GS0307



Point ID: 1_GS0307

Northing: 4522787.11 Meters

Easting: 496135.414 Meters

Orthometric Height: 306.834 Meters

Latitude: 40 51 22.060604 N

Longitude: 93 2 45.066768 W

Ellipsoid Height: 274.945 Meters

1_GS0315



Point ID: 1_GS0315

Northing: 4511710.73 Meters

Easting: 474043.859 Meters

Orthometric Height: 320.942 Meters

Latitude: 40 45 21.403364 N

Longitude: 93 18 26.989142 W

Ellipsoid Height: 289.215 Meters

1_GS0341



Point ID: 1_GS0341

Northing: 4546914.8 Meters

Easting: 434169.863 Meters

Orthometric Height: 302.538 Meters

Latitude: 41 4 14.959909 N

Longitude: 93 47 0.895041 W

Ellipsoid Height: 271.232 Meters

1_GS0350



Point ID: 1_GS0350

Northing: 4542258.183 Meters

Easting: 453184.374 Meters

Orthometric Height: 324.318 Meters

Latitude: 41 1 48.696187 N

Longitude: 93 33 24.872519 W

Ellipsoid Height: 292.816 Meters

1_GS0351



Point ID: 1_GS0351

Northing: 4542224.69 Meters

Easting: 453184.868 Meters

Orthometric Height: 323.375 Meters

Latitude: 41 1 47.610155 N

Longitude: 93 33 24.842243 W

Ellipsoid Height: 291.873 Meters

1_GS0358



Point ID: 1_GS0358

Northing: 4566424.103 Meters

Easting: 458054.799 Meters

Orthometric Height: 282.024 Meters

Latitude: 41 14 53.295231 N

Longitude: 93 30 2.254256 W

Ellipsoid Height: 250.557 Meters

1_GS0366



Point ID: 1_GS0366

Northing: 4584751.215 Meters

Easting: 453134.358 Meters

Orthometric Height: 278.101 Meters

Latitude: 41 24 46.601512 N

Longitude: 93 33 38.750670 W

Ellipsoid Height: 246.666 Meters

1_GS0367



Point ID: 1_GS0367

Northing: 4584709.458 Meters

Easting: 453174.74 Meters

Orthometric Height: 276.993 Meters

Latitude: 41 24 45.255982 N

Longitude: 93 33 36.999681 W

Ellipsoid Height: 245.557 Meters

1_GS0373



Point ID: 1_GS0373

Northing: 4571192.967 Meters

Easting: 432968.293 Meters

Orthometric Height: 315.138 Meters

Latitude: 41 17 21.837896 N

Longitude: 93 48 1.949418 W

Ellipsoid Height: 283.937 Meters

1_GS0375



Point ID: 1_GS0375

Northing: 4571214.753 Meters

Easting: 432967.962 Meters

Orthometric Height: 316.164 Meters

Latitude: 41 17 22.544196 N

Longitude: 93 48 1.972298 W

Ellipsoid Height: 284.963 Meters

1_GS0381



Point ID: 1_GS0381

Northing: 4586297.368 Meters

Easting: 415310.909 Meters

Orthometric Height: 325.558 Meters

Latitude: 41 25 25.587494 N

Longitude: 94 0 48.595695 W

Ellipsoid Height: 294.806 Meters

1_GS0389



Point ID: 1_GS0389

Northing: 4562938.915 Meters

Easting: 412731.245 Meters

Orthometric Height: 338.868 Meters

Latitude: 41 12 47.254617 N

Longitude: 94 2 27.644590 W

Ellipsoid Height: 307.905 Meters

2_GS0413



Point ID: 2_GS0413

Northing: 4507583.738 Meters

Easting: 387764.806 Meters

Orthometric Height: 335.606 Meters

Latitude: 40 42 41.503303 N

Longitude: 94 19 43.413346 W

Ellipsoid Height: 304.328 Meters

2_GS0416



Point ID: 2_GS0416

Northing: 4515370.711 Meters

Easting: 396759.91 Meters

Orthometric Height: 359.64 Meters

Latitude: 40 46 58.221190 N

Longitude: 94 13 24.758522 W

Ellipsoid Height: 328.447 Meters

2_GS0423



Point ID: 2_GS0423

Northing: 4520808.679 Meters

Easting: 410384.461 Meters

Orthometric Height: 363.701 Meters

Latitude: 40 50 0.304626 N

Longitude: 94 3 46.379532 W

Ellipsoid Height: 332.51 Meters

2_GS0431



Point ID: 2_GS0431

Northing: 4542588.989 Meters

Easting: 409127.159 Meters

Orthometric Height: 365.469 Meters

Latitude: 41 1 46.017482 N

Longitude: 94 4 51.548916 W

Ellipsoid Height: 334.373 Meters

2_GS0435



Point ID: 2_GS0435

Northing: 4528485.605 Meters

Easting: 384063.475 Meters

Orthometric Height: 382.659 Meters

Latitude: 40 53 57.325804 N

Longitude: 94 22 35.103661 W

Ellipsoid Height: 351.62 Meters

2_GS0445



Point ID: 2_GS0445

Northing: 4552256.312 Meters

Easting: 394079.661 Meters

Orthometric Height: 368.399 Meters

Latitude: 41 6 52.902152 N

Longitude: 94 15 41.794856 W

Ellipsoid Height: 337.528 Meters

2_GS0456



Point ID: 2_GS0456

Northing: 4574698.512 Meters

Easting: 389654.447 Meters

Orthometric Height: 393.034 Meters

Latitude: 41 18 58.354307 N

Longitude: 94 19 6.086457 W

Ellipsoid Height: 362.772 Meters

2_GS0461



Point ID: 2_GS0461

Northing: 4581346.567 Meters

Easting: 378466.42 Meters

Orthometric Height: 407.297 Meters

Latitude: 41 22 28.075959 N

Longitude: 94 27 11.945390 W

Ellipsoid Height: 377.808 Meters

1_GS0004



Point ID: 1_GS0004

Northing: 4529257.98 Meters

Easting: 549353.226 Meters

Orthometric Height: 253.008 Meters

Latitude: 40 54 46.584729 N

Longitude: 92 24 50.194213 W

Ellipsoid Height: 220.252 Meters

1_GS0020



Point ID: 1_GS0020

Northing: 4499815.081 Meters

Easting: 577521.689 Meters

Orthometric Height: 239.536 Meters

Latitude: 40 38 43.982441 N

Longitude: 92 4 59.293225 W

Ellipsoid Height: 206.51 Meters

1_GS0028



Point ID: 1_GS0028

Northing: 4508181.676 Meters

Easting: 595792.27 Meters

Orthometric Height: 212.04 Meters

Latitude: 40 43 8.366478 N

Longitude: 91 51 56.905717 W

Ellipsoid Height: 178.891 Meters

1_GS0045



Point ID: 1_GS0045

Northing: 4525768.536 Meters

Easting: 589048.705 Meters

Orthometric Height: 228.746 Meters

Latitude: 40 52 41.349992 N

Longitude: 91 56 35.263802 W

Ellipsoid Height: 195.703 Meters

1_GS0070



Point ID: 1_GS0070

Northing: 4561189.175 Meters

Easting: 576006.535 Meters

Orthometric Height: 238.347 Meters

Latitude: 41 11 54.610071 N

Longitude: 92 5 36.717840 W

Ellipsoid Height: 205.639 Meters

1_GS0079



Point ID: 1_GS0079

Northing: 4584559.05 Meters

Easting: 569127.04 Meters

Orthometric Height: 257.424 Meters

Latitude: 41 24 34.587643 N

Longitude: 92 10 22.492859 W

Ellipsoid Height: 225.08 Meters

1_GS0086



Point ID: 1_GS0086

Northing: 4576360.291 Meters

Easting: 554052.166 Meters

Orthometric Height: 242.853 Meters

Latitude: 41 20 12.897457 N

Longitude: 92 21 14.399024 W

Ellipsoid Height: 210.457 Meters

1_GS0112



Point ID: 1_GS0112

Northing: 4596644.411 Meters

Easting: 578002.701 Meters

Orthometric Height: 247.817 Meters

Latitude: 41 31 3.503659 N

Longitude: 92 3 54.614198 W

Ellipsoid Height: 215.404 Meters

1_GS0118



Point ID: 1_GS0118

Northing: 4612312.055 Meters

Easting: 577709.766 Meters

Orthometric Height: 256.41 Meters

Latitude: 41 39 31.583066 N

Longitude: 92 3 59.942227 W

Ellipsoid Height: 224.122 Meters

1_GS0135



Point ID: 1_GS0135

Northing: 4602524.779 Meters

Easting: 528531.989 Meters

Orthometric Height: 260.033 Meters

Latitude: 41 34 26.028358 N

Longitude: 92 39 27.928873 W

Ellipsoid Height: 227.892 Meters

1_GS0146



Point ID: 1_GS0146

Northing: 4621614.472 Meters

Easting: 534001.005 Meters

Orthometric Height: 289.324 Meters

Latitude: 41 44 44.243383 N

Longitude: 92 35 27.859936 W

Ellipsoid Height: 257.319 Meters

1_GS0153



Point ID: 1_GS0153

Northing: 4621451.97 Meters

Easting: 563188.833 Meters

Orthometric Height: 240.4 Meters

Latitude: 41 44 32.547052 N

Longitude: 92 14 24.260282 W

Ellipsoid Height: 208.31 Meters

1_GS0189



Point ID: 1_GS0189

Northing: 4583358.064 Meters

Easting: 490701.093 Meters

Orthometric Height: 242.985 Meters

Latitude: 41 24 6.151193 N

Longitude: 93 6 40.484810 W

Ellipsoid Height: 211.049 Meters

1_GS0205



Point ID: 1_GS0205

Northing: 4565104.121 Meters

Easting: 498100.371 Meters

Orthometric Height: 271.101 Meters

Latitude: 41 14 14.400521 N

Longitude: 93 1 21.607802 W

Ellipsoid Height: 239.104 Meters

1_GS0238



Point ID: 1_GS0238

Northing: 4509345.897 Meters

Easting: 511377.903 Meters

Orthometric Height: 303.758 Meters

Latitude: 40 44 5.900759 N

Longitude: 92 51 54.902213 W

Ellipsoid Height: 271.595 Meters

1_GS0246



Point ID: 1_GS0246

Northing: 4495744.944 Meters

Easting: 503328.862 Meters

Orthometric Height: 295.689 Meters

Latitude: 40 36 45.060462 N

Longitude: 92 57 38.333129 W

Ellipsoid Height: 263.588 Meters

1_GS0255



Point ID: 1_GS0255

Northing: 4526901.546 Meters

Easting: 514118.035 Meters

Orthometric Height: 304.524 Meters

Latitude: 40 53 35.087687 N

Longitude: 92 49 56.645892 W

Ellipsoid Height: 272.391 Meters

1_GS0324



Point ID: 1_GS0324

Northing: 4498855.55 Meters

Easting: 457834.564 Meters

Orthometric Height: 311.508 Meters

Latitude: 40 38 22.091255 N

Longitude: 93 29 55.158923 W

Ellipsoid Height: 279.86 Meters

1_GS0330



Point ID: 1_GS0330

Northing: 4519601.663 Meters

Easting: 457873.981 Meters

Orthometric Height: 338.824 Meters

Latitude: 40 49 34.893617 N

Longitude: 93 29 58.506205 W

Ellipsoid Height: 307.27 Meters

1_GS0335



Point ID: 1_GS0335

Northing: 4523697.987 Meters

Easting: 457917.493 Meters

Orthometric Height: 336.31 Meters

Latitude: 40 51 47.742580 N

Longitude: 93 29 57.645408 W

Ellipsoid Height: 304.766 Meters

1_GS0342



Point ID: 1_GS0342

Northing: 4546935.153 Meters

Easting: 434147.853 Meters

Orthometric Height: 302.748 Meters

Latitude: 41 4 15.613448 N

Longitude: 93 47 1.845973 W

Ellipsoid Height: 271.442 Meters

1_GS0357



Point ID: 1_GS0357

Northing: 4566426.51 Meters

Easting: 458086.142 Meters

Orthometric Height: 282.659 Meters

Latitude: 41 14 53.379149 N

Longitude: 93 30 0.908155 W

Ellipsoid Height: 251.192 Meters

2_GS0440



Point ID: 2_GS0440

Northing: 4544940.446 Meters

Easting: 384314.043 Meters

Orthometric Height: 396.883 Meters

Latitude: 41 2 50.926862 N

Longitude: 94 22 35.475370 W

Ellipsoid Height: 366.016 Meters

2_GS0451



Point ID: 2_GS0451

Northing: 4573413.825 Meters

Easting: 378552.785 Meters

Orthometric Height: 409.659 Meters

Latitude: 41 18 10.964646 N

Longitude: 94 27 2.517951 W

Ellipsoid Height: 379.7 Meters

Non-Vegetated Vertical Accuracy Checkpoints Bare Earth

The Map shows the overall distribution of the Non-Vegetated Vertical Accuracy Checkpoint, Bare Earth throughout the AOI. The following tables contain a list of the control using Easting, Northing, and Orthometric height. The coordinate system displayed is Universal Transverse Mercator UTM Zone 15, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

IA_SouthCentral_2020_D20

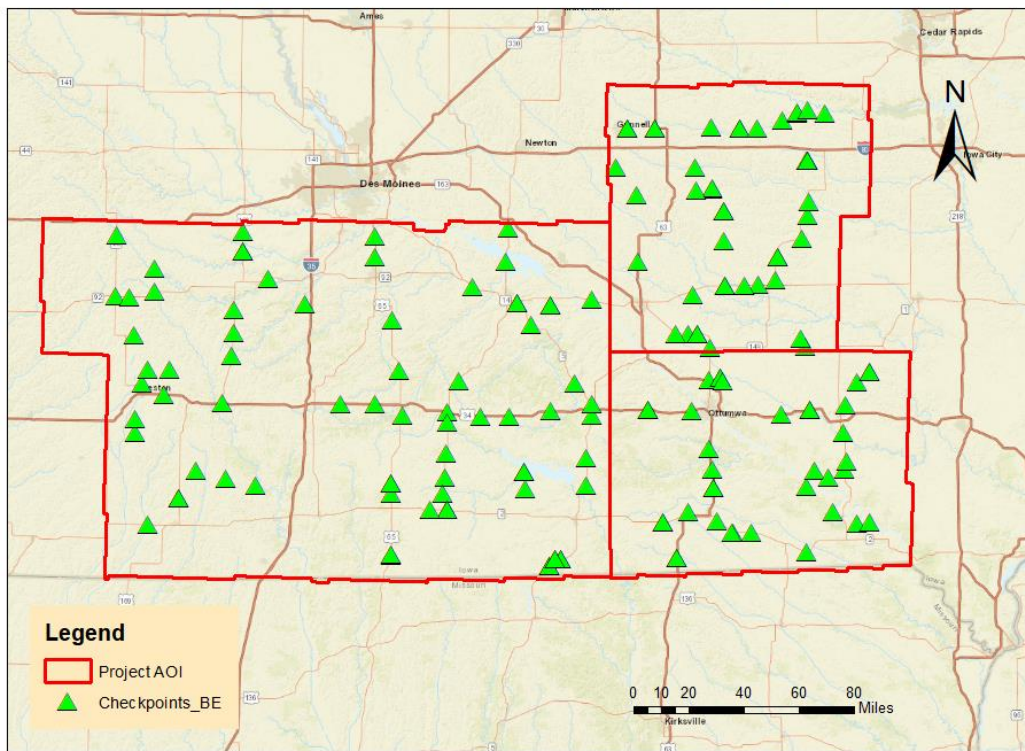


TABLE: Bare Earth

Point ID	Easting	Northing	Ortho
1_GS0006	549397.842	4529259.376	255.122
1_GS0008	550666.09	4518218.615	260.063
1_GS0009	550641.591	4518221.555	259.679
1_GS0011	551648.8	4508503.95	265.57
1_GS0013	556193.648	4505394.892	262.287
1_GS0014	556168.055	4505407.575	262.361
1_GS0017	561779.655	4505418.328	253.756
1_GS0022	577507.493	4499790.589	239.118
1_GS0027	591981.998	4508055.118	212.173
1_GS0029	595760.324	4508187.586	212.522
1_GS0033	585051.737	4511287.633	178.76
1_GS0036	577405.955	4518415.678	230.366
1_GS0038	579722.706	4523024.437	233.143
1_GS0041	583763.682	4521239.093	225.093
1_GS0042	588512.687	4523422.585	226.017
1_GS0047	589022.537	4525794.849	228.938
1_GS0049	588040.95	4534003.119	204.441
1_GS0053	570286.863	4539382.686	230.708
1_GS0056	578634.355	4540697.133	231.154
1_GS0057	578607.86	4540694.523	231.281
1_GS0059	588590.379	4542106.56	234.364
1_GS0061	592009.498	4548656.801	213.212
1_GS0064	595740.102	4551681.503	211.752
1_GS0065	595773.025	4551681.21	212.039
1_GS0069	577129.309	4558914.779	237.307
1_GS0071	575977.881	4561183.613	238.184
1_GS0077	568477.949	4578081.075	223.714
1_GS0080	569178.57	4584540.967	257.911
1_GS0081	569210.291	4584541.852	258.081
1_GS0083	563704.498	4576657.657	238.437
1_GS0085	559677.505	4576356.864	233.691
1_GS0087	554034.365	4576337.369	243.008
1_GS0089	554006.089	4576301.792	244.129
1_GS0091	544875.802	4573743.039	245.616
1_GS0093	543381.295	4562519.247	252.813
1_GS0097	539855.762	4562539.938	249.184
1_GS0099	549674.442	4558532.095	245.777
1_GS0103	549470.646	4549125.602	254.412
1_GS0104	552709.715	4549786.967	230.794
1_GS0105	552705.545	4549818.022	232.073
1_GS0107	553526.11	4548947.624	244.112
1_GS0111	576107.742	4589799.682	255.155

1_GS0113	578006.09	4596674.264	248.058
1_GS0117	578056.02	4600660.344	249.214
1_GS0119	577735.153	4612319.329	255.207
1_GS0120	577707.168	4612352.457	255.977
1_GS0121	577672.653	4612326.494	257.411
1_GS0122	577697.518	4612288.141	256.306
1_GS0125	546127.099	4562458.27	252.951
1_GS0126	546132.13	4562482.676	253.251
1_GS0132	528789.233	4583296.375	252.653
1_GS0138	528508.168	4602530.482	260.131
1_GS0140	522782.181	4610401.436	294.375
1_GS0141	525877.799	4621607.937	295.68
1_GS0142	525884.618	4621584.744	295.596
1_GS0147	534006.881	4621584.319	288.221
1_GS0148	534035.397	4621619.029	289.039
1_GS0150	550158.269	4621833.642	249.148
1_GS0151	558234.445	4621799.796	258.084
1_GS0152	558230.125	4621821.282	258.949
1_GS0156	563177.862	4621541.018	242.02
1_GS0158	570441.33	4623987.794	233.002
1_GS0159	574889.577	4626120.827	229.889
1_GS0160	574887.357	4626149.519	230.195
1_GS0163	582647.169	4626026.666	232.536
1_GS0165	577743.219	4626898.632	228.07
1_GS0172	553826.377	4589161.172	265.308
1_GS0174	553784.004	4598021.808	252.871
1_GS0175	553814.39	4598014.568	252.368
1_GS0177	550518.669	4604290.624	277.664
1_GS0178	550519.589	4604319.746	279.124
1_GS0180	545818.604	4603923.501	287.759
1_GS0184	545390.232	4610487.113	262.122
1_GS0188	491537.562	4592844.014	266.8
1_GS0191	490751.003	4583350.03	242.776
1_GS0202	481388.77	4575969.731	282.273
1_GS0203	494167.114	4571523.793	271.574
1_GS0204	494175.023	4571498.528	271.192
1_GS0208	498118.79	4565039.882	273.987
1_GS0209	503673.783	4570752.782	254.113
1_GS0210	503706.597	4570750.956	253.777
1_GS0216	515639.517	4572535.873	232.548
1_GS0222	550548.083	4523431.625	246.777
1_GS0224	543371.669	4511261.843	260.65
1_GS0231	540246.271	4497952.902	255.339
1_GS0232	540218.331	4497953.195	254.126

1_GS0233	536226.738	4508385.458	286.034
1_GS0236	536161.68	4508384.534	287.22
1_GS0243	506914.864	4497748.087	313.876
1_GS0244	506915.558	4497717.15	314.137
1_GS0247	503322.47	4495718.89	295.114
1_GS0249	503292.625	4495761.626	294.481
1_GS0251	505174.016	4497656.599	313.275
1_GS0252	505173.978	4497713.461	314.451
1_GS0254	514052.363	4518954.603	297.875
1_GS0256	514113.623	4526871.422	304.456
1_GS0260	515675.738	4538888.519	293.089
1_GS0261	515711.503	4542305.931	289.536
1_GS0266	510804.813	4548343.354	291.446
1_GS0272	544347.625	4540315.542	205.988
1_GS0275	531929.003	4540710.601	221.743
1_GS0276	531930.254	4540677.517	222.836
1_GS0280	503686.384	4540240.983	297.076
1_GS0284	491728.379	4538827.973	302.772
1_GS0286	483710.612	4538794.9	313.609
1_GS0292	477316.285	4548987.27	311.127
1_GS0294	474061.06	4539873.369	303.492
1_GS0296	474140.112	4537188.89	291.583
1_GS0299	473550.947	4528159.649	314.784
1_GS0302	473215.947	4521111.771	325.677
1_GS0304	472818.937	4516670.828	322.662
1_GS0305	496633.304	4517871.587	308.423
1_GS0309	496135.95	4522757.737	306.289
1_GS0310	496142.424	4522727.15	305.343
1_GS0316	474040.034	4511743.254	321.384
1_GS0317	474039.913	4511780.717	322.568
1_GS0320	468940.972	4511837.458	330.246
1_GS0325	457830.187	4498825.412	311.868
1_GS0326	457771.763	4498853.91	311.508
1_GS0328	457897.392	4516369.63	333.165
1_GS0332	457897.951	4519654.69	338.572
1_GS0333	457938.378	4519603.897	338.361
1_GS0338	461190.221	4539008.579	283.889
1_GS0348	443382.443	4542366.192	337.945
1_GS0352	453186.437	4542194.587	323.264
1_GS0354	460169.239	4551849.711	315.251
1_GS0360	458137.179	4566421.534	286.073
1_GS0368	453194.852	4584687.343	276.659
1_GS0370	453356.352	4590431.858	284.379
1_GS0376	432991.342	4571191.833	314.923

1_GS0378	422517.215	4578235.573	309.011
1_GS0380	415256.122	4586297.013	326.037
1_GS0382	415342.602	4586297.636	325.474
1_GS0384	415036.067	4591916.207	321.198
1_GS0388	412661.44	4569414.903	351.924
1_GS0392	412679.939	4562977.53	338.821
1_GS0394	412033.643	4556294.548	345.184
2_GS0415	387753.452	4507606.905	335.731
2_GS0417	396783.69	4515360.919	357.983
2_GS0419	396720.534	4515366.53	360.15
2_GS0421	401671.416	4523236.033	370.664
2_GS0424	410383.538	4520777.781	363.491
2_GS0426	418936.345	4518920.704	308.276
2_GS0432	409126.644	4542559.68	365.277
2_GS0433	392391.665	4544812.81	368.81
2_GS0437	384214.922	4534205.235	382.862
2_GS0438	384223.113	4538016.175	385.021
2_GS0442	386031.879	4548409.826	398.343
2_GS0444	387727.078	4552323.343	384.248
2_GS0447	394113.811	4552234.545	366.454
2_GS0448	383737.673	4562020.728	396.323
2_GS0450	378534.895	4573388.583	408.575
2_GS0453	382593.152	4573205.812	400.893
2_GS0455	389609.083	4574699.605	389.814
2_GS0458	389797.271	4581450.953	364.984
2_GS0459	378690.145	4590890.455	384.977

1_GS0006



Point ID: 1_GS0006

Northing: 4529259.376 Meters

Easting: 549397.842 Meters

Orthometric Height: 255.122 Meters

Latitude: 40 54 46.620327 N

Longitude: 92 24 48.286617 W

Ellipsoid Height: 222.366 Meters

1_GS0008



Point ID: 1_GS0008

Northing: 4518218.615 Meters

Easting: 550666.09 Meters

Orthometric Height: 260.063 Meters

Latitude: 40 48 48.304107 N

Longitude: 92 23 57.310628 W

Ellipsoid Height: 227.264 Meters

1_GS0009



Point ID: 1_GS0009

Northing: 4518221.555 Meters

Easting: 550641.591 Meters

Orthometric Height: 259.679 Meters

Latitude: 40 48 48.404891 N

Longitude: 92 23 58.355485 W

Ellipsoid Height: 226.88 Meters

1_GS0011



Point ID: 1_GS0011

Northing: 4508503.95 Meters

Easting: 551648.8 Meters

Orthometric Height: 265.57 Meters

Latitude: 40 43 33.045668 N

Longitude: 92 23 18.256236 W

Ellipsoid Height: 232.761 Meters

1_GS0013



Point ID: 1_GS0013

Northing: 4505394.892 Meters

Easting: 556193.648 Meters

Orthometric Height: 262.287 Meters

Latitude: 40 41 51.150088 N

Longitude: 92 20 5.528744 W

Ellipsoid Height: 229.422 Meters

1_GS0014



Point ID: 1_GS0014

Northing: 4505407.575 Meters

Easting: 556168.055 Meters

Orthometric Height: 262.361 Meters

Latitude: 40 41 51.567654 N

Longitude: 92 20 6.615121 W

Ellipsoid Height: 229.496 Meters

1_GS0017



Point ID: 1_GS0017

Northing: 4505418.328 Meters

Easting: 561779.655 Meters

Orthometric Height: 253.756 Meters

Latitude: 40 41 50.470658 N

Longitude: 92 16 7.512316 W

Ellipsoid Height: 220.828 Meters

1_GS0022



Point ID: 1_GS0022

Northing: 4499790.589 Meters

Easting: 577507.493 Meters

Orthometric Height: 239.118 Meters

Latitude: 40 38 43.193029 N

Longitude: 92 4 59.908469 W

Ellipsoid Height: 206.092 Meters

1_GS0027



Point ID: 1_GS0027

Northing: 4508055.118 Meters

Easting: 591981.998 Meters

Orthometric Height: 212.173 Meters

Latitude: 40 43 5.826707 N

Longitude: 91 54 39.354912 W

Ellipsoid Height: 179.041 Meters

1_GS0029



Point ID: 1_GS0029

Northing: 4508187.586 Meters

Easting: 595760.324 Meters

Orthometric Height: 212.522 Meters

Latitude: 40 43 8.571455 N

Longitude: 91 51 58.263889 W

Ellipsoid Height: 179.373 Meters

1_GS0033



Point ID: 1_GS0033

Northing: 4511287.633 Meters

Easting: 585051.737 Meters

Orthometric Height: 178.76 Meters

Latitude: 40 44 53.326466 N

Longitude: 91 59 33.124624 W

Ellipsoid Height: 145.661 Meters

1_GS0036



Point ID: 1_GS0036

Northing: 4518415.678 Meters

Easting: 577405.955 Meters

Orthometric Height: 230.366 Meters

Latitude: 40 48 47.183622 N

Longitude: 92 4 55.943021 W

Ellipsoid Height: 197.355 Meters

1_GS0038



Point ID: 1_GS0038

Northing: 4523024.437 Meters

Easting: 579722.706 Meters

Orthometric Height: 233.143 Meters

Latitude: 40 51 15.829665 N

Longitude: 92 3 14.942271 W

Ellipsoid Height: 200.141 Meters

1_GS0041



Point ID: 1_GS0041

Northing: 4521239.093 Meters

Easting: 583763.682 Meters

Orthometric Height: 225.093 Meters

Latitude: 40 50 16.487799 N

Longitude: 92 0 23.235994 W

Ellipsoid Height: 192.051 Meters

1_GS0042



Point ID: 1_GS0042

Northing: 4523422.585 Meters

Easting: 588512.687 Meters

Orthometric Height: 226.017 Meters

Latitude: 40 51 25.491841 N

Longitude: 91 56 59.364312 W

Ellipsoid Height: 192.962 Meters

1_GS0047



Point ID: 1_GS0047

Northing: 4525794.849 Meters

Easting: 589022.537 Meters

Orthometric Height: 228.938 Meters

Latitude: 40 52 42.213426 N

Longitude: 91 56 36.368083 W

Ellipsoid Height: 195.895 Meters

1_GS0049



Point ID: 1_GS0049

Northing: 4534003.119 Meters

Easting: 588040.95 Meters

Orthometric Height: 204.441 Meters

Latitude: 40 57 8.746360 N

Longitude: 91 57 14.107774 W

Ellipsoid Height: 171.462 Meters

1_GS0053



Point ID: 1_GS0053

Northing: 4539382.686 Meters

Easting: 570286.863 Meters

Orthometric Height: 230.708 Meters

Latitude: 41 0 9.381136 N

Longitude: 92 9 51.239024 W

Ellipsoid Height: 197.865 Meters

1_GS0056



Point ID: 1_GS0056

Northing: 4540697.133 Meters

Easting: 578634.355 Meters

Orthometric Height: 231.154 Meters

Latitude: 41 0 49.257998 N

Longitude: 92 3 53.349427 W

Ellipsoid Height: 198.274 Meters

1_GS0057



Point ID: 1_GS0057

Northing: 4540694.523 Meters

Easting: 578607.86 Meters

Orthometric Height: 231.281 Meters

Latitude: 41 0 49.182560 N

Longitude: 92 3 54.484835 W

Ellipsoid Height: 198.401 Meters

1_GS0059



Point ID: 1_GS0059

Northing: 4542106.56 Meters

Easting: 588590.379 Meters

Orthometric Height: 234.364 Meters

Latitude: 41 1 31.280380 N

Longitude: 91 56 46.428916 W

Ellipsoid Height: 201.452 Meters

1_GS0061



Point ID: 1_GS0061

Northing: 4548656.801 Meters

Easting: 592009.498 Meters

Orthometric Height: 213.212 Meters

Latitude: 41 5 2.297263 N

Longitude: 91 54 16.520421 W

Ellipsoid Height: 180.328 Meters

1_GS0064



Point ID: 1_GS0064

Northing: 4551681.503 Meters

Easting: 595740.102 Meters

Orthometric Height: 211.752 Meters

Latitude: 41 6 38.815503 N

Longitude: 91 51 34.962504 W

Ellipsoid Height: 178.863 Meters

1_GS0065



Point ID: 1_GS0065

Northing: 4551681.21 Meters

Easting: 595773.025 Meters

Orthometric Height: 212.039 Meters

Latitude: 41 6 38.792022 N

Longitude: 91 51 33.551268 W

Ellipsoid Height: 179.15 Meters

1_GS0069



Point ID: 1_GS0069

Northing: 4558914.779 Meters

Easting: 577129.309 Meters

Orthometric Height: 237.307 Meters

Latitude: 41 10 40.481918 N

Longitude: 92 4 49.550307 W

Ellipsoid Height: 204.579 Meters

1_GS0071



Point ID: 1_GS0071

Northing: 4561183.613 Meters

Easting: 575977.881 Meters

Orthometric Height: 238.184 Meters

Latitude: 41 11 54.439426 N

Longitude: 92 5 37.950415 W

Ellipsoid Height: 205.477 Meters

1_GS0077



Point ID: 1_GS0077

Northing: 4578081.075 Meters

Easting: 568477.949 Meters

Orthometric Height: 223.714 Meters

Latitude: 41 21 4.744562 N

Longitude: 92 10 53.083554 W

Ellipsoid Height: 191.27 Meters

1_GS0080



Point ID: 1_GS0080

Northing: 4584540.967 Meters

Easting: 569178.57 Meters

Orthometric Height: 257.911 Meters

Latitude: 41 24 33.985386 N

Longitude: 92 10 20.280937 W

Ellipsoid Height: 225.567 Meters

1_GS0081



Point ID: 1_GS0081

Northing: 4584541.852 Meters

Easting: 569210.291 Meters

Orthometric Height: 258.081 Meters

Latitude: 41 24 34.004237 N

Longitude: 92 10 18.914414 W

Ellipsoid Height: 225.736 Meters

1_GS0083



Point ID: 1_GS0083

Northing: 4576657.657 Meters

Easting: 563704.498 Meters

Orthometric Height: 238.437 Meters

Latitude: 41 20 20.000599 N

Longitude: 92 14 19.026458 W

Ellipsoid Height: 206.003 Meters

1_GS0085



Point ID: 1_GS0085

Northing: 4576356.864 Meters

Easting: 559677.505 Meters

Orthometric Height: 233.691 Meters

Latitude: 41 20 11.357268 N

Longitude: 92 17 12.386460 W

Ellipsoid Height: 201.272 Meters

1_GS0087



Point ID: 1_GS0087

Northing: 4576337.369 Meters

Easting: 554034.365 Meters

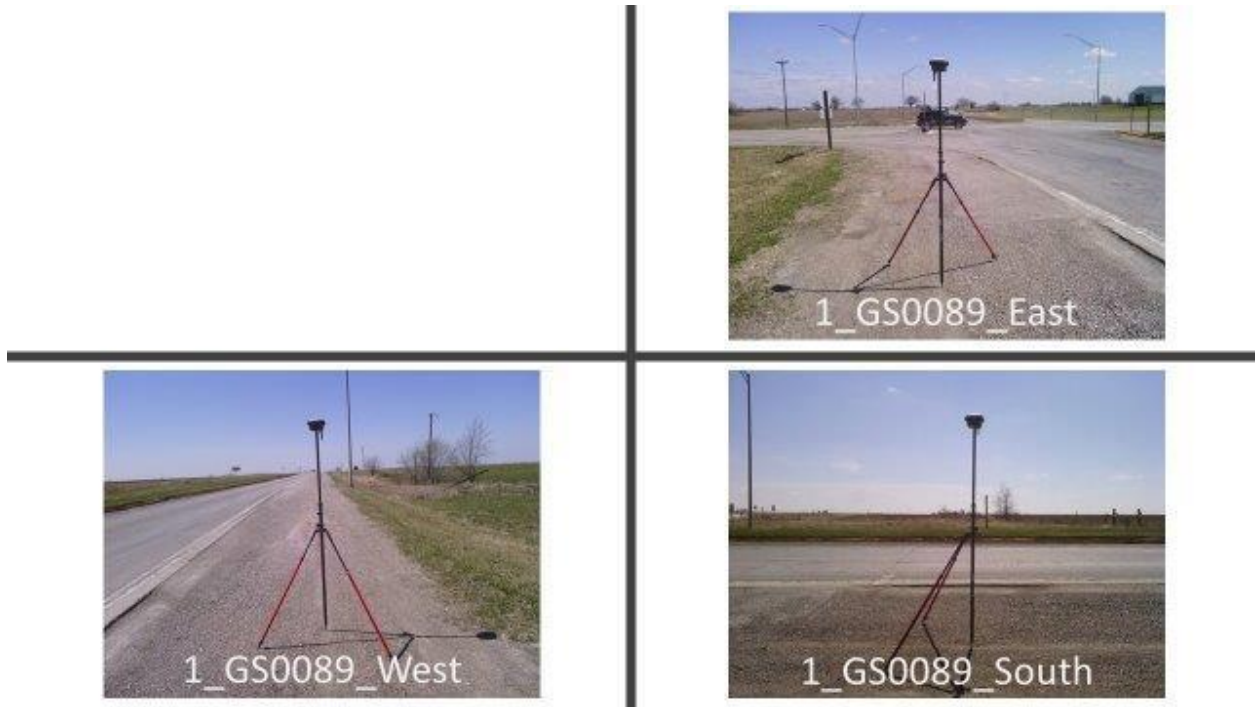
Orthometric Height: 243.008 Meters

Latitude: 41 20 12.158504 N

Longitude: 92 21 15.172197 W

Ellipsoid Height: 210.612 Meters

1_GS0089



Point ID: 1_GS0089

Northing: 4576301.792 Meters

Easting: 554006.089 Meters

Orthometric Height: 244.129 Meters

Latitude: 41 20 11.011726 N

Longitude: 92 21 16.400090 W

Ellipsoid Height: 211.732 Meters

1_GS0091



Point ID: 1_GS0091

Northing: 4573743.039 Meters

Easting: 544875.802 Meters

Orthometric Height: 245.616 Meters

Latitude: 41 18 50.057252 N

Longitude: 92 27 49.890713 W

Ellipsoid Height: 213.211 Meters

1_GS0093



Point ID: 1_GS0093

Northing: 4562519.247 Meters

Easting: 543381.295 Meters

Orthometric Height: 252.813 Meters

Latitude: 41 12 46.399474 N

Longitude: 92 28 57.042417 W

Ellipsoid Height: 220.321 Meters

1_GS0097



Point ID: 1_GS0097

Northing: 4562539.938 Meters

Easting: 539855.762 Meters

Orthometric Height: 249.184 Meters

Latitude: 41 12 47.723111 N

Longitude: 92 31 28.432109 W

Ellipsoid Height: 216.704 Meters

1_GS0099



Point ID: 1_GS0099

Northing: 4558532.095 Meters

Easting: 549674.442 Meters

Orthometric Height: 245.777 Meters

Latitude: 41 10 35.806331 N

Longitude: 92 24 27.969349 W

Ellipsoid Height: 213.233 Meters

1_GS0103



Point ID: 1_GS0103

Northing: 4549125.602 Meters

Easting: 549470.646 Meters

Orthometric Height: 254.412 Meters

Latitude: 41 5 30.825131 N

Longitude: 92 24 39.446207 W

Ellipsoid Height: 221.812 Meters

1_GS0104



Point ID: 1_GS0104

Northing: 4549786.967 Meters

Easting: 552709.715 Meters

Orthometric Height: 230.794 Meters

Latitude: 41 5 51.538355 N

Longitude: 92 22 20.407420 W

Ellipsoid Height: 198.171 Meters

1_GS0105



Point ID: 1_GS0105

Northing: 4549818.022 Meters

Easting: 552705.545 Meters

Orthometric Height: 232.073 Meters

Latitude: 41 5 52.546358 N

Longitude: 92 22 20.576584 W

Ellipsoid Height: 199.45 Meters

1_GS0107



Point ID: 1_GS0107

Northing: 4548947.624 Meters

Easting: 553526.11 Meters

Orthometric Height: 244.112 Meters

Latitude: 41 5 24.128740 N

Longitude: 92 21 45.674850 W

Ellipsoid Height: 211.476 Meters

1_GS0111



Point ID: 1_GS0111

Northing: 4589799.682 Meters

Easting: 576107.742 Meters

Orthometric Height: 255.155 Meters

Latitude: 41 27 22.234876 N

Longitude: 92 5 19.472434 W

Ellipsoid Height: 222.747 Meters

1_GS0113



Point ID: 1_GS0113

Northing: 4596674.264 Meters

Easting: 578006.09 Meters

Orthometric Height: 248.058 Meters

Latitude: 41 31 4.470358 N

Longitude: 92 3 54.454064 W

Ellipsoid Height: 215.645 Meters

1_GS0117



Point ID: 1_GS0117

Northing: 4600660.344 Meters

Easting: 578056.02 Meters

Orthometric Height: 249.214 Meters

Latitude: 41 33 13.690743 N

Longitude: 92 3 50.437294 W

Ellipsoid Height: 216.814 Meters

1_GS0119



Point ID: 1_GS0119

Northing: 4612319.329 Meters

Easting: 577735.153 Meters

Orthometric Height: 255.207 Meters

Latitude: 41 39 31.809993 N

Longitude: 92 3 58.841268 W

Ellipsoid Height: 222.918 Meters

1_GS0120



Point ID: 1_GS0120

Northing: 4612352.457 Meters

Easting: 577707.168 Meters

Orthometric Height: 255.977 Meters

Latitude: 41 39 32.893898 N

Longitude: 92 4 0.035602 W

Ellipsoid Height: 223.689 Meters

1_GS0121



Point ID: 1_GS0121

Northing: 4612326.494 Meters

Easting: 577672.653 Meters

Orthometric Height: 257.411 Meters

Latitude: 41 39 32.064241 N

Longitude: 92 4 1.539979 W

Ellipsoid Height: 225.123 Meters

1_GS0122



Point ID: 1_GS0122

Northing: 4612288.141 Meters

Easting: 577697.518 Meters

Orthometric Height: 256.306 Meters

Latitude: 41 39 30.812050 N

Longitude: 92 4 0.482919 W

Ellipsoid Height: 224.017 Meters

1_GS0125



Point ID: 1_GS0125

Northing: 4562458.27 Meters

Easting: 546127.099 Meters

Orthometric Height: 252.951 Meters

Latitude: 41 12 43.875566 N

Longitude: 92 26 59.148778 W

Ellipsoid Height: 220.448 Meters

1_GS0126



Point ID: 1_GS0126

Northing: 4562482.676 Meters

Easting: 546132.13 Meters

Orthometric Height: 253.251 Meters

Latitude: 41 12 44.665926 N

Longitude: 92 26 58.926125 W

Ellipsoid Height: 220.749 Meters

1_GS0132



Point ID: 1_GS0132

Northing: 4583296.375 Meters

Easting: 528789.233 Meters

Orthometric Height: 252.653 Meters

Latitude: 41 24 2.488787 N

Longitude: 92 39 20.127102 W

Ellipsoid Height: 220.405 Meters

1_GS0138



Point ID: 1_GS0138

Northing: 4602530.482 Meters

Easting: 528508.168 Meters

Orthometric Height: 260.131 Meters

Latitude: 41 34 26.216330 N

Longitude: 92 39 28.956547 W

Ellipsoid Height: 227.99 Meters

1_GS0140



Point ID: 1_GS0140

Northing: 4610401.436 Meters

Easting: 522782.181 Meters

Orthometric Height: 294.375 Meters

Latitude: 41 38 42.100168 N

Longitude: 92 43 35.136156 W

Ellipsoid Height: 262.308 Meters

1_GS0141



Point ID: 1_GS0141

Northing: 4621607.937 Meters

Easting: 525877.799 Meters

Orthometric Height: 295.68 Meters

Latitude: 41 44 45.133651 N

Longitude: 92 41 19.565263 W

Ellipsoid Height: 263.706 Meters

1_GS0142



Point ID: 1_GS0142

Northing: 4621584.744 Meters

Easting: 525884.618 Meters

Orthometric Height: 295.596 Meters

Latitude: 41 44 44.380804 N

Longitude: 92 41 19.273678 W

Ellipsoid Height: 263.622 Meters

1_GS0147



Point ID: 1_GS0147

Northing: 4621584.319 Meters

Easting: 534006.881 Meters

Orthometric Height: 288.221 Meters

Latitude: 41 44 43.264766 N

Longitude: 92 35 27.611709 W

Ellipsoid Height: 256.216 Meters

1_GS0148



Point ID: 1_GS0148

Northing: 4621619.029 Meters

Easting: 534035.397 Meters

Orthometric Height: 289.039 Meters

Latitude: 41 44 44.385821 N

Longitude: 92 35 26.369956 W

Ellipsoid Height: 257.034 Meters

1_GS0150



Point ID: 1_GS0150

Northing: 4621833.642 Meters

Easting: 550158.269 Meters

Orthometric Height: 249.148 Meters

Latitude: 41 44 48.268584 N

Longitude: 92 23 48.264386 W

Ellipsoid Height: 217.11 Meters

1_GS0151



Point ID: 1_GS0151

Northing: 4621799.796 Meters

Easting: 558234.445 Meters

Orthometric Height: 258.084 Meters

Latitude: 41 44 45.187567 N

Longitude: 92 17 58.620230 W

Ellipsoid Height: 226.018 Meters

1_GS0152



Point ID: 1_GS0152

Northing: 4621821.282 Meters

Easting: 558230.125 Meters

Orthometric Height: 258.949 Meters

Latitude: 41 44 45.885337 N

Longitude: 92 17 58.799701 W

Ellipsoid Height: 226.884 Meters

1_GS0156



Point ID: 1_GS0156

Northing: 4621541.018 Meters

Easting: 563177.862 Meters

Orthometric Height: 242.02 Meters

Latitude: 41 44 35.437342 N

Longitude: 92 14 24.701203 W

Ellipsoid Height: 209.931 Meters

1_GS0158



Point ID: 1_GS0158

Northing: 4623987.794 Meters

Easting: 570441.33 Meters

Orthometric Height: 233.002 Meters

Latitude: 41 45 52.567463 N

Longitude: 92 9 9.215900 W

Ellipsoid Height: 200.906 Meters

1_GS0159



Point ID: 1_GS0159

Northing: 4626120.827 Meters

Easting: 574889.577 Meters

Orthometric Height: 229.889 Meters

Latitude: 41 47 0.257325 N

Longitude: 92 5 55.618479 W

Ellipsoid Height: 197.789 Meters

1_GS0160



Point ID: 1_GS0160

Northing: 4626149.519 Meters

Easting: 574887.357 Meters

Orthometric Height: 230.195 Meters

Latitude: 41 47 1.188336 N

Longitude: 92 5 55.701609 W

Ellipsoid Height: 198.096 Meters

1_GS0163



Point ID: 1_GS0163

Northing: 4626026.666 Meters

Easting: 582647.169 Meters

Orthometric Height: 232.536 Meters

Latitude: 41 46 54.431919 N

Longitude: 92 0 19.636220 W

Ellipsoid Height: 200.369 Meters

1_GS0165



Point ID: 1_GS0165

Northing: 4626898.632 Meters

Easting: 577743.219 Meters

Orthometric Height: 228.07 Meters

Latitude: 41 47 24.486253 N

Longitude: 92 3 51.641348 W

Ellipsoid Height: 195.958 Meters

1_GS0172



Point ID: 1_GS0172

Northing: 4589161.172 Meters

Easting: 553826.377 Meters

Orthometric Height: 265.308 Meters

Latitude: 41 27 8.025313 N

Longitude: 92 21 20.016892 W

Ellipsoid Height: 233.091 Meters

1_GS0174



Point ID: 1_GS0174

Northing: 4598021.808 Meters

Easting: 553784.004 Meters

Orthometric Height: 252.871 Meters

Latitude: 41 31 55.340102 N

Longitude: 92 21 18.996059 W

Ellipsoid Height: 220.727 Meters

1_GS0175



Point ID: 1_GS0175

Northing: 4598014.568 Meters

Easting: 553814.39 Meters

Orthometric Height: 252.368 Meters

Latitude: 41 31 55.097983 N

Longitude: 92 21 17.687184 W

Ellipsoid Height: 220.224 Meters

1_GS0177



Point ID: 1_GS0177

Northing: 4604290.624 Meters

Easting: 550518.669 Meters

Orthometric Height: 277.664 Meters

Latitude: 41 35 19.370424 N

Longitude: 92 23 38.002528 W

Ellipsoid Height: 245.541 Meters

1_GS0178



Point ID: 1_GS0178

Northing: 4604319.746 Meters

Easting: 550519.589 Meters

Orthometric Height: 279.124 Meters

Latitude: 41 35 20.314485 N

Longitude: 92 23 37.954001 W

Ellipsoid Height: 247.001 Meters

1_GS0180



Point ID: 1_GS0180

Northing: 4603923.501 Meters

Easting: 545818.604 Meters

Orthometric Height: 287.759 Meters

Latitude: 41 35 8.486909 N

Longitude: 92 27 1.098808 W

Ellipsoid Height: 255.657 Meters

1_GS0184



Point ID: 1_GS0184

Northing: 4610487.113 Meters

Easting: 545390.232 Meters

Orthometric Height: 262.122 Meters

Latitude: 41 38 41.398192 N

Longitude: 92 27 17.808402 W

Ellipsoid Height: 230.02 Meters

1_GS0188



Point ID: 1_GS0188

Northing: 4592844.014 Meters

Easting: 491537.562 Meters

Orthometric Height: 266.8 Meters

Latitude: 41 29 13.786264 N

Longitude: 93 6 4.938288 W

Ellipsoid Height: 234.825 Meters

1_GS0191



Point ID: 1_GS0191

Northing: 4583350.03 Meters

Easting: 490751.003 Meters

Orthometric Height: 242.776 Meters

Latitude: 41 24 5.892717 N

Longitude: 93 6 38.334829 W

Ellipsoid Height: 210.84 Meters

1_GS0202



Point ID: 1_GS0202

Northing: 4575969.731 Meters

Easting: 481388.77 Meters

Orthometric Height: 282.273 Meters

Latitude: 41 20 5.985321 N

Longitude: 93 13 20.728830 W

Ellipsoid Height: 250.517 Meters

1_GS0203



Point ID: 1_GS0203

Northing: 4571523.793 Meters

Easting: 494167.114 Meters

Orthometric Height: 271.574 Meters

Latitude: 41 17 42.510785 N

Longitude: 93 4 10.801144 W

Ellipsoid Height: 239.653 Meters

1_GS0204



Point ID: 1_GS0204

Northing: 4571498.528 Meters

Easting: 494175.023 Meters

Orthometric Height: 271.192 Meters

Latitude: 41 17 41.691711 N

Longitude: 93 4 10.460199 W

Ellipsoid Height: 239.271 Meters

1_GS0208



Point ID: 1_GS0208

Northing: 4565039.882 Meters

Easting: 498118.79 Meters

Orthometric Height: 273.987 Meters

Latitude: 41 14 12.317490 N

Longitude: 93 1 20.815830 W

Ellipsoid Height: 241.99 Meters

1_GS0209



Point ID: 1_GS0209

Northing: 4570752.782 Meters

Easting: 503673.783 Meters

Orthometric Height: 254.113 Meters

Latitude: 41 17 17.554236 N

Longitude: 92 57 22.052221 W

Ellipsoid Height: 222.039 Meters

1_GS0210



Point ID: 1_GS0210

Northing: 4570750.956 Meters

Easting: 503706.597 Meters

Orthometric Height: 253.777 Meters

Latitude: 41 17 17.494481 N

Longitude: 92 57 20.641456 W

Ellipsoid Height: 221.702 Meters

1_GS0216



Point ID: 1_GS0216

Northing: 4572535.873 Meters

Easting: 515639.517 Meters

Orthometric Height: 232.548 Meters

Latitude: 41 18 14.860607 N

Longitude: 92 48 47.443340 W

Ellipsoid Height: 200.341 Meters

1_GS0222



Point ID: 1_GS0222

Northing: 4523431.625 Meters

Easting: 550548.083 Meters

Orthometric Height: 246.777 Meters

Latitude: 40 51 37.381977 N

Longitude: 92 24 0.824412 W

Ellipsoid Height: 213.982 Meters

1_GS0224



Point ID: 1_GS0224

Northing: 4511261.843 Meters

Easting: 543371.669 Meters

Orthometric Height: 260.65 Meters

Latitude: 40 45 4.203375 N

Longitude: 92 29 10.400386 W

Ellipsoid Height: 227.96 Meters

1_GS0231



Point ID: 1_GS0231

Northing: 4497952.902 Meters

Easting: 540246.271 Meters

Orthometric Height: 255.339 Meters

Latitude: 40 37 53.162644 N

Longitude: 92 31 26.753066 W

Ellipsoid Height: 222.693 Meters

1_GS0232



Point ID: 1_GS0232

Northing: 4497953.195 Meters

Easting: 540218.331 Meters

Orthometric Height: 254.126 Meters

Latitude: 40 37 53.177028 N

Longitude: 92 31 27.942332 W

Ellipsoid Height: 221.481 Meters

1_GS0233



Point ID: 1_GS0233

Northing: 4508385.458 Meters

Easting: 536226.738 Meters

Orthometric Height: 286.034 Meters

Latitude: 40 43 32.166176 N

Longitude: 92 34 15.688808 W

Ellipsoid Height: 253.474 Meters

1_GS0236



Point ID: 1_GS0236

Northing: 4508384.534 Meters

Easting: 536161.68 Meters

Orthometric Height: 287.22 Meters

Latitude: 40 43 32.146535 N

Longitude: 92 34 18.462300 W

Ellipsoid Height: 254.661 Meters

1_GS0243



Point ID: 1_GS0243

Northing: 4497748.087 Meters

Easting: 506914.864 Meters

Orthometric Height: 313.876 Meters

Latitude: 40 37 49.945914 N

Longitude: 92 55 5.643976 W

Ellipsoid Height: 281.722 Meters

1_GS0244



Point ID: 1_GS0244

Northing: 4497717.15 Meters

Easting: 506915.558 Meters

Orthometric Height: 314.137 Meters

Latitude: 40 37 48.942549 N

Longitude: 92 55 5.615673 W

Ellipsoid Height: 281.983 Meters

1_GS0247



Point ID: 1_GS0247

Northing: 4495718.89 Meters

Easting: 503322.47 Meters

Orthometric Height: 295.114 Meters

Latitude: 40 36 44.215575 N

Longitude: 92 57 38.605627 W

Ellipsoid Height: 263.013 Meters

1_GS0249



Point ID: 1_GS0249

Northing: 4495761.626 Meters

Easting: 503292.625 Meters

Orthometric Height: 294.481 Meters

Latitude: 40 36 45.602004 N

Longitude: 92 57 39.874939 W

Ellipsoid Height: 262.38 Meters

1_GS0251



Point ID: 1_GS0251

Northing: 4497656.599 Meters

Easting: 505174.016 Meters

Orthometric Height: 313.275 Meters

Latitude: 40 37 47.024656 N

Longitude: 92 56 19.752071 W

Ellipsoid Height: 281.15 Meters

1_GS0252



Point ID: 1_GS0252

Northing: 4497713.461 Meters

Easting: 505173.978 Meters

Orthometric Height: 314.451 Meters

Latitude: 40 37 48.868795 N

Longitude: 92 56 19.752026 W

Ellipsoid Height: 282.326 Meters

1_GS0254



Point ID: 1_GS0254

Northing: 4518954.603 Meters

Easting: 514052.363 Meters

Orthometric Height: 297.875 Meters

Latitude: 40 49 17.369800 N

Longitude: 92 50 0.098630 W

Ellipsoid Height: 265.72 Meters

1_GS0256



Point ID: 1_GS0256

Northing: 4526871.422 Meters

Easting: 514113.623 Meters

Orthometric Height: 304.456 Meters

Latitude: 40 53 34.111024 N

Longitude: 92 49 56.836884 W

Ellipsoid Height: 272.323 Meters

1_GS0260



Point ID: 1_GS0260

Northing: 4538888.519 Meters

Easting: 515675.738 Meters

Orthometric Height: 293.089 Meters

Latitude: 41 0 3.720624 N

Longitude: 92 48 48.983380 W

Ellipsoid Height: 260.91 Meters

1_GS0261



Point ID: 1_GS0261

Northing: 4542305.931 Meters

Easting: 515711.503 Meters

Orthometric Height: 289.536 Meters

Latitude: 41 1 54.542752 N

Longitude: 92 48 47.139255 W

Ellipsoid Height: 257.343 Meters

1_GS0266



Point ID: 1_GS0266

Northing: 4548343.354 Meters

Easting: 510804.813 Meters

Orthometric Height: 291.446 Meters

Latitude: 41 5 10.619345 N

Longitude: 92 52 16.891215 W

Ellipsoid Height: 259.288 Meters

1_GS0272



Point ID: 1_GS0272

Northing: 4540315.542 Meters

Easting: 544347.625 Meters

Orthometric Height: 205.988 Meters

Latitude: 41 0 46.197115 N

Longitude: 92 28 21.317467 W

Ellipsoid Height: 173.364 Meters

1_GS0275



Point ID: 1_GS0275

Northing: 4540710.601 Meters

Easting: 531929.003 Meters

Orthometric Height: 221.743 Meters

Latitude: 41 1 1.100572 N

Longitude: 92 37 12.916783 W

Ellipsoid Height: 189.274 Meters

1_GS0276



Point ID: 1_GS0276

Northing: 4540677.517 Meters

Easting: 531930.254 Meters

Orthometric Height: 222.836 Meters

Latitude: 41 1 0.027491 N

Longitude: 92 37 12.869407 W

Ellipsoid Height: 190.367 Meters

1_GS0280



Point ID: 1_GS0280

Northing: 4540240.983 Meters

Easting: 503686.384 Meters

Orthometric Height: 297.076 Meters

Latitude: 41 0 48.092994 N

Longitude: 92 57 22.170961 W

Ellipsoid Height: 265.081 Meters

1_GS0284



Point ID: 1_GS0284

Northing: 4538827.973 Meters

Easting: 491728.379 Meters

Orthometric Height: 302.772 Meters

Latitude: 41 0 2.148570 N

Longitude: 93 5 54.073250 W

Ellipsoid Height: 270.927 Meters

1_GS0286



Point ID: 1_GS0286

Northing: 4538794.9 Meters

Easting: 483710.612 Meters

Orthometric Height: 313.609 Meters

Latitude: 41 0 0.641288 N

Longitude: 93 11 37.275536 W

Ellipsoid Height: 281.841 Meters

1_GS0292



Point ID: 1_GS0292

Northing: 4548987.27 Meters

Easting: 477316.285 Meters

Orthometric Height: 311.127 Meters

Latitude: 41 5 30.619917 N

Longitude: 93 16 12.335992 W

Ellipsoid Height: 279.454 Meters

1_GS0294



Point ID: 1_GS0294

Northing: 4539873.369 Meters

Easting: 474061.06 Meters

Orthometric Height: 303.492 Meters

Latitude: 41 0 34.715552 N

Longitude: 93 18 30.487891 W

Ellipsoid Height: 271.812 Meters

1_GS0296



Point ID: 1_GS0296

Northing: 4537188.89 Meters

Easting: 474140.112 Meters

Orthometric Height: 291.583 Meters

Latitude: 40 59 7.669086 N

Longitude: 93 18 26.699103 W

Ellipsoid Height: 259.894 Meters

1_GS0299



Point ID: 1_GS0299

Northing: 4528159.649 Meters

Easting: 473550.947 Meters

Orthometric Height: 314.784 Meters

Latitude: 40 54 14.787442 N

Longitude: 93 18 50.524674 W

Ellipsoid Height: 283.086 Meters

1_GS0302



Point ID: 1_GS0302

Northing: 4521111.771 Meters

Easting: 473215.947 Meters

Orthometric Height: 325.677 Meters

Latitude: 40 50 26.186379 N

Longitude: 93 19 3.750468 W

Ellipsoid Height: 293.976 Meters

1_GS0304



Point ID: 1_GS0304

Northing: 4516670.828 Meters

Easting: 472818.937 Meters

Orthometric Height: 322.662 Meters

Latitude: 40 48 2.118857 N

Longitude: 93 19 20.006398 W

Ellipsoid Height: 290.953 Meters

1_GS0305



Point ID: 1_GS0305

Northing: 4517871.587 Meters

Easting: 496633.304 Meters

Orthometric Height: 308.423 Meters

Latitude: 40 48 42.655193 N

Longitude: 93 2 23.704893 W

Ellipsoid Height: 276.515 Meters

1_GS0309



Point ID: 1_GS0309

Northing: 4522757.737 Meters

Easting: 496135.95 Meters

Orthometric Height: 306.289 Meters

Latitude: 40 51 21.108022 N

Longitude: 93 2 45.043207 W

Ellipsoid Height: 274.4 Meters

1_GS0310



Point ID: 1_GS0310

Northing: 4522727.15 Meters

Easting: 496142.424 Meters

Orthometric Height: 305.343 Meters

Latitude: 40 51 20.116170 N

Longitude: 93 2 44.765990 W

Ellipsoid Height: 273.453 Meters

1_GS0316



Point ID: 1_GS0316

Northing: 4511743.254 Meters

Easting: 474040.034 Meters

Orthometric Height: 321.384 Meters

Latitude: 40 45 22.457713 N

Longitude: 93 18 27.157134 W

Ellipsoid Height: 289.657 Meters

1_GS0317



Point ID: 1_GS0317

Northing: 4511780.717 Meters

Easting: 474039.913 Meters

Orthometric Height: 322.568 Meters

Latitude: 40 45 23.672629 N

Longitude: 93 18 27.167904 W

Ellipsoid Height: 290.841 Meters

1_GS0320



Point ID: 1_GS0320

Northing: 4511837.458 Meters

Easting: 468940.972 Meters

Orthometric Height: 330.246 Meters

Latitude: 40 45 24.876391 N

Longitude: 93 22 4.638081 W

Ellipsoid Height: 298.563 Meters

1_GS0325



Point ID: 1_GS0325

Northing: 4498825.412 Meters

Easting: 457830.187 Meters

Orthometric Height: 311.868 Meters

Latitude: 40 38 21.113075 N

Longitude: 93 29 55.338019 W

Ellipsoid Height: 280.22 Meters

1_GS0326



Point ID: 1_GS0326

Northing: 4498853.91 Meters

Easting: 457771.763 Meters

Orthometric Height: 311.508 Meters

Latitude: 40 38 22.026544 N

Longitude: 93 29 57.832157 W

Ellipsoid Height: 279.86 Meters

1_GS0328



Point ID: 1_GS0328

Northing: 4516369.63 Meters

Easting: 457897.392 Meters

Orthometric Height: 333.165 Meters

Latitude: 40 47 50.084773 N

Longitude: 93 29 56.721202 W

Ellipsoid Height: 301.596 Meters

1_GS0332



Point ID: 1_GS0332

Northing: 4519654.69 Meters

Easting: 457897.951 Meters

Orthometric Height: 338.572 Meters

Latitude: 40 49 36.617689 N

Longitude: 93 29 57.495803 W

Ellipsoid Height: 307.018 Meters

1_GS0333



Point ID: 1_GS0333

Northing: 4519603.897 Meters

Easting: 457938.378 Meters

Orthometric Height: 338.361 Meters

Latitude: 40 49 34.977971 N

Longitude: 93 29 55.757521 W

Ellipsoid Height: 306.807 Meters

1_GS0338



Point ID: 1_GS0338

Northing: 4539008.579 Meters

Easting: 461190.221 Meters

Orthometric Height: 283.889 Meters

Latitude: 41 0 4.831272 N

Longitude: 93 27 41.299428 W

Ellipsoid Height: 252.312 Meters

1_GS0348



Point ID: 1_GS0348

Northing: 4542366.192 Meters

Easting: 443382.443 Meters

Orthometric Height: 337.945 Meters

Latitude: 41 1 49.958098 N

Longitude: 93 40 24.649221 W

Ellipsoid Height: 306.55 Meters

1_GS0352



Point ID: 1_GS0352

Northing: 4542194.587 Meters

Easting: 453186.437 Meters

Orthometric Height: 323.264 Meters

Latitude: 41 1 46.634315 N

Longitude: 93 33 24.766818 W

Ellipsoid Height: 291.762 Meters

1_GS0354



Point ID: 1_GS0354

Northing: 4551849.711 Meters

Easting: 460169.239 Meters

Orthometric Height: 315.251 Meters

Latitude: 41 7 1.069011 N

Longitude: 93 28 27.992044 W

Ellipsoid Height: 283.733 Meters

1_GS0360



Point ID: 1_GS0360

Northing: 4566421.534 Meters

Easting: 458137.179 Meters

Orthometric Height: 286.073 Meters

Latitude: 41 14 53.227318 N

Longitude: 93 29 58.714123 W

Ellipsoid Height: 254.605 Meters

1_GS0368



Point ID: 1_GS0368

Northing: 4584687.343 Meters

Easting: 453194.852 Meters

Orthometric Height: 276.659 Meters

Latitude: 41 24 44.543094 N

Longitude: 93 33 36.127229 W

Ellipsoid Height: 245.223 Meters

1_GS0370



Point ID: 1_GS0370

Northing: 4590431.858 Meters

Easting: 453356.352 Meters

Orthometric Height: 284.379 Meters

Latitude: 41 27 50.846499 N

Longitude: 93 33 30.767323 W

Ellipsoid Height: 252.934 Meters

1_GS0376



Point ID: 1_GS0376

Northing: 4571191.833 Meters

Easting: 432991.342 Meters

Orthometric Height: 314.923 Meters

Latitude: 41 17 21.807996 N

Longitude: 93 48 0.958107 W

Ellipsoid Height: 283.722 Meters

1_GS0378



Point ID: 1_GS0378

Northing: 4578235.573 Meters

Easting: 422517.215 Meters

Orthometric Height: 309.011 Meters

Latitude: 41 21 6.816594 N

Longitude: 93 55 34.460596 W

Ellipsoid Height: 278.003 Meters

1_GS0380



Point ID: 1_GS0380

Northing: 4586297.013 Meters

Easting: 415256.122 Meters

Orthometric Height: 326.037 Meters

Latitude: 41 25 25.555187 N

Longitude: 94 0 50.955530 W

Ellipsoid Height: 295.287 Meters

1_GS0382



Point ID: 1_GS0382

Northing: 4586297.636 Meters

Easting: 415342.602 Meters

Orthometric Height: 325.474 Meters

Latitude: 41 25 25.608229 N

Longitude: 94 0 47.230631 W

Ellipsoid Height: 294.722 Meters

1_GS0384



Point ID: 1_GS0384

Northing: 4591916.207 Meters

Easting: 415036.067 Meters

Orthometric Height: 321.198 Meters

Latitude: 41 28 27.657064 N

Longitude: 94 1 3.280460 W

Ellipsoid Height: 290.546 Meters

1_GS0388



Point ID: 1_GS0388

Northing: 4569414.903 Meters

Easting: 412661.44 Meters

Orthometric Height: 351.924 Meters

Latitude: 41 16 17.197944 N

Longitude: 94 2 33.978352 W

Ellipsoid Height: 321.028 Meters

1_GS0392



Point ID: 1_GS0392

Northing: 4562977.53 Meters

Easting: 412679.939 Meters

Orthometric Height: 338.821 Meters

Latitude: 41 12 48.486725 N

Longitude: 94 2 29.867371 W

Ellipsoid Height: 307.86 Meters

1_GS0394



Point ID: 1_GS0394

Northing: 4556294.548 Meters

Easting: 412033.643 Meters

Orthometric Height: 345.184 Meters

Latitude: 41 9 11.551255 N

Longitude: 94 2 54.159760 W

Ellipsoid Height: 314.171 Meters

2_GS0415



Point ID: 2_GS0415

Northing: 4507606.905 Meters

Easting: 387753.452 Meters

Orthometric Height: 335.731 Meters

Latitude: 40 42 42.248872 N

Longitude: 94 19 43.912058 W

Ellipsoid Height: 304.453 Meters

2_GS0417



Point ID: 2_GS0417

Northing: 4515360.919 Meters

Easting: 396783.69 Meters

Orthometric Height: 357.983 Meters

Latitude: 40 46 57.914439 N

Longitude: 94 13 23.738321 W

Ellipsoid Height: 326.79 Meters

2_GS0419



Point ID: 2_GS0419

Northing: 4515366.53 Meters

Easting: 396720.534 Meters

Orthometric Height: 360.15 Meters

Latitude: 40 46 58.067795 N

Longitude: 94 13 26.435665 W

Ellipsoid Height: 328.957 Meters

2_GS0421



Point ID: 2_GS0421

Northing: 4523236.033 Meters

Easting: 401671.416 Meters

Orthometric Height: 370.664 Meters

Latitude: 40 51 15.414866 N

Longitude: 94 9 59.716518 W

Ellipsoid Height: 339.519 Meters

2_GS0424



Point ID: 2_GS0424

Northing: 4520777.781 Meters

Easting: 410383.538 Meters

Orthometric Height: 363.491 Meters

Latitude: 40 49 59.302393 N

Longitude: 94 3 46.402940 W

Ellipsoid Height: 332.3 Meters

2_GS0426



Point ID: 2_GS0426

Northing: 4518920.704 Meters

Easting: 418936.345 Meters

Orthometric Height: 308.276 Meters

Latitude: 40 49 2.288465 N

Longitude: 93 57 40.401043 W

Ellipsoid Height: 276.999 Meters

2_GS0432



Point ID: 2_GS0432

Northing: 4542559.68 Meters

Easting: 409126.644 Meters

Orthometric Height: 365.277 Meters

Latitude: 41 1 45.066971 N

Longitude: 94 4 51.555425 W

Ellipsoid Height: 334.181 Meters

2_GS0433



Point ID: 2_GS0433

Northing: 4544812.81 Meters

Easting: 392391.665 Meters

Orthometric Height: 368.81 Meters

Latitude: 41 2 50.776927 N

Longitude: 94 16 49.471151 W

Ellipsoid Height: 337.888 Meters

2_GS0437



Point ID: 2_GS0437

Northing: 4534205.235 Meters

Easting: 384214.922 Meters

Orthometric Height: 382.862 Meters

Latitude: 40 57 2.837539 N

Longitude: 94 22 32.477189 W

Ellipsoid Height: 351.888 Meters

2_GS0438



Point ID: 2_GS0438

Northing: 4538016.175 Meters

Easting: 384223.113 Meters

Orthometric Height: 385.021 Meters

Latitude: 40 59 6.394192 N

Longitude: 94 22 34.693915 W

Ellipsoid Height: 354.088 Meters

2_GS0442



Point ID: 2_GS0442

Northing: 4548409.826 Meters

Easting: 386031.879 Meters

Orthometric Height: 398.343 Meters

Latitude: 41 4 44.277145 N

Longitude: 94 21 24.222178 W

Ellipsoid Height: 367.501 Meters

2_GS0444



Point ID: 2_GS0444

Northing: 4552323.343 Meters

Easting: 387727.078 Meters

Orthometric Height: 384.248 Meters

Latitude: 41 6 52.003327 N

Longitude: 94 20 14.164648 W

Ellipsoid Height: 353.439 Meters

2_GS0447



Point ID: 2_GS0447

Northing: 4552234.545 Meters

Easting: 394113.811 Meters

Orthometric Height: 366.454 Meters

Latitude: 41 6 52.212479 N

Longitude: 94 15 40.317379 W

Ellipsoid Height: 335.582 Meters

2_GS0448



Point ID: 2_GS0448

Northing: 4562020.728 Meters

Easting: 383737.673 Meters

Orthometric Height: 396.323 Meters

Latitude: 41 12 4.364852 N

Longitude: 94 23 11.802119 W

Ellipsoid Height: 365.787 Meters

2_GS0450



Point ID: 2_GS0450

Northing: 4573388.583 Meters

Easting: 378534.895 Meters

Orthometric Height: 408.575 Meters

Latitude: 41 18 10.136679 N

Longitude: 94 27 3.268897 W

Ellipsoid Height: 378.615 Meters

2_GS0453



Point ID: 2_GS0453

Northing: 4573205.812 Meters

Easting: 382593.152 Meters

Orthometric Height: 400.893 Meters

Latitude: 41 18 6.374218 N

Longitude: 94 24 8.678817 W

Ellipsoid Height: 370.786 Meters

2_GS0455



Point ID: 2_GS0455

Northing: 4574699.605 Meters

Easting: 389609.083 Meters

Orthometric Height: 389.814 Meters

Latitude: 41 18 58.367395 N

Longitude: 94 19 8.037823 W

Ellipsoid Height: 359.554 Meters

2_GS0458



Point ID: 2_GS0458

Northing: 4581450.953 Meters

Easting: 389797.271 Meters

Orthometric Height: 364.984 Meters

Latitude: 41 22 37.332766 N

Longitude: 94 19 4.357711 W

Ellipsoid Height: 334.965 Meters

2_GS0459



Point ID: 2_GS0459

Northing: 4590890.455 Meters

Easting: 378690.145 Meters

Orthometric Height: 384.977 Meters

Latitude: 41 27 37.580479 N

Longitude: 94 27 9.207125 W

Ellipsoid Height: 356.086 Meters

Non-Vegetated Vertical Accuracy Checkpoints Urban Terrain

The Map shows the overall distribution of the Non-Vegetated Vertical Accuracy Checkpoint, Urban Terrain throughout the AOI. The following tables contain a list of the control using Easting, Northing, and Orthometric height. The coordinate system displayed is Universal Transverse Mercator UTM Zone 15, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

IA_SouthCentral_2020_D20

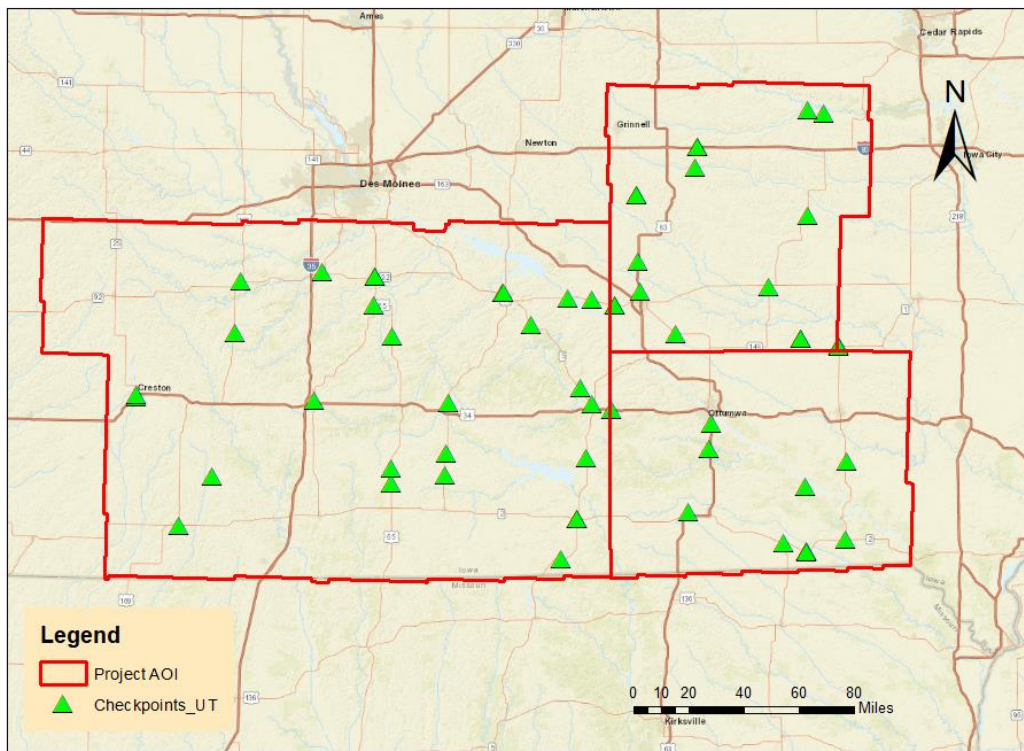


TABLE: Urban Terrain

Point ID	Easting	Northing	Ortho
1_GS0002	550213.976	4536683.83	195.303
1_GS0007	549346.272	4529285.088	253.204
1_GS0019	571050.661	4502160.823	242.535
1_GS0021	577521.122	4499846.203	239.413
1_GS0023	577472.382	4499789.079	239.006
1_GS0024	588879.823	4503221.238	226.903
1_GS0037	577314.163	4518417.151	230.44
1_GS0046	589062.572	4525800.51	228.288
1_GS0072	575952.113	4561162.188	239.203
1_GS0073	576003.462	4561156.13	238.981
1_GS0075	566524.32	4576097.564	241.768
1_GS0096	539869.673	4562503.279	249.437
1_GS0114	577971.794	4596653.603	247.319
1_GS0128	529666.792	4574836.332	249.72
1_GS0133	528809.922	4583314.046	253.431
1_GS0136	528555.471	4602540.825	259.502
1_GS0137	528582.523	4602555.598	258.468
1_GS0162	582617.032	4626022.691	232.331
1_GS0166	577717.729	4626881.324	227.747
1_GS0182	545387.78	4610515.184	260.949
1_GS0185	546079.772	4616422.302	280.969
1_GS0186	546114.254	4616429.388	281.218
1_GS0193	490048.623	4574381.097	276.183
1_GS0194	490078.731	4574380.194	276.682
1_GS0206	498089.069	4565133.396	269.227
1_GS0212	508597.123	4572832.468	213.67
1_GS0215	515671.959	4572475.624	231.664
1_GS0217	522299.924	4570774.296	254.938
1_GS0218	522269.207	4570777.373	255.301
1_GS0225	543413.49	4511276.365	261.912
1_GS0240	511317.153	4509346.046	304.118
1_GS0241	511289.109	4509351.337	303.389
1_GS0242	506912.64	4497783.165	313.341
1_GS0258	514144.821	4526870.573	304.642
1_GS0262	515706.46	4542276.726	289.867
1_GS0268	512291.22	4546961.802	292.787
1_GS0278	521443.56	4540524.428	277.491
1_GS0288	474352.606	4542771.719	312.79
1_GS0298	473540.001	4528137.663	315.534
1_GS0314	473304.802	4521924.666	329.04
1_GS0331	457884.966	4519629.496	338.733
1_GS0334	457919.499	4523663.097	336.405

1_GS0344	435685.798	4543181.457	347.459
1_GS0356	458044.911	4561889.867	312.089
1_GS0362	452883.754	4570595.252	302.283
1_GS0363	453280.935	4579066.477	293.893
1_GS0364	453276.623	4579034.875	293.979
1_GS0372	437947.969	4580209.737	255.795
1_GS0386	414426.846	4577603.581	341.002
1_GS0391	412717.329	4562967.829	339.07
2_GS0412	396670.882	4507322.411	372.386
2_GS0422	406410.752	4521587.617	374.449
2_GS0434	384363.43	4544436.703	393.262
2_GS0441	384326.629	4544900.378	395.668

1_GS0002



Point ID: 1_GS0002

Northing: 4536683.83 Meters

Easting: 550213.976 Meters

Orthometric Height: 195.303 Meters

Latitude: 40 58 47.203074 N

Longitude: 92 24 11.232565 W

Ellipsoid Height: 162.585 Meters

1_GS0007



Point ID: 1_GS0007

Northing: 4529285.088 Meters

Easting: 549346.272 Meters

Orthometric Height: 253.204 Meters

Latitude: 40 54 47.465328 N

Longitude: 92 24 50.483697 W

Ellipsoid Height: 220.449 Meters

1_GS0019



Point ID: 1_GS0019

Northing: 4502160.823 Meters

Easting: 571050.661 Meters

Orthometric Height: 242.535 Meters

Latitude: 40 40 2.146574 N

Longitude: 92 9 33.831528 W

Ellipsoid Height: 209.548 Meters

1_GS0021



Point ID: 1_GS0021

Northing: 4499846.203 Meters

Easting: 577521.122 Meters

Orthometric Height: 239.413 Meters

Latitude: 40 38 44.991851 N

Longitude: 92 4 59.303570 W

Ellipsoid Height: 206.387 Meters

1_GS0023



Point ID: 1_GS0023

Northing: 4499789.079 Meters

Easting: 577472.382 Meters

Orthometric Height: 239.006 Meters

Latitude: 40 38 43.155936 N

Longitude: 92 5 1.403909 W

Ellipsoid Height: 205.98 Meters

1_GS0024



Point ID: 1_GS0024

Northing: 4503221.238 Meters

Easting: 588879.823 Meters

Orthometric Height: 226.903 Meters

Latitude: 40 40 30.310224 N

Longitude: 91 56 54.026429 W

Ellipsoid Height: 193.797 Meters

1_GS0037



Point ID: 1_GS0037

Northing: 4518417.151 Meters

Easting: 577314.163 Meters

Orthometric Height: 230.44 Meters

Latitude: 40 48 47.262536 N

Longitude: 92 4 59.860031 W

Ellipsoid Height: 197.43 Meters

1_GS0046



Point ID: 1_GS0046

Northing: 4525800.51 Meters

Easting: 589062.572 Meters

Orthometric Height: 228.288 Meters

Latitude: 40 52 42.381304 N

Longitude: 91 56 34.654901 W

Ellipsoid Height: 195.245 Meters

1_GS0072



Point ID: 1_GS0072

Northing: 4561162.188 Meters

Easting: 575952.113 Meters

Orthometric Height: 239.203 Meters

Latitude: 41 11 53.753411 N

Longitude: 92 5 39.066195 W

Ellipsoid Height: 206.496 Meters

1_GS0073



Point ID: 1_GS0073

Northing: 4561156.13 Meters

Easting: 576003.462 Meters

Orthometric Height: 238.981 Meters

Latitude: 41 11 53.539651 N

Longitude: 92 5 36.864511 W

Ellipsoid Height: 206.273 Meters

1_GS0075



Point ID: 1_GS0075

Northing: 4576097.564 Meters

Easting: 566524.32 Meters

Orthometric Height: 241.768 Meters

Latitude: 41 20 1.019447 N

Longitude: 92 12 17.931561 W

Ellipsoid Height: 209.305 Meters

1_GS0096



Point ID: 1_GS0096

Northing: 4562503.279 Meters

Easting: 539869.673 Meters

Orthometric Height: 249.437 Meters

Latitude: 41 12 46.531912 N

Longitude: 92 31 27.843341 W

Ellipsoid Height: 216.957 Meters

1_GS0114



Point ID: 1_GS0114

Northing: 4596653.603 Meters

Easting: 577971.794 Meters

Orthometric Height: 247.319 Meters

Latitude: 41 31 3.812515 N

Longitude: 92 3 55.943211 W

Ellipsoid Height: 214.906 Meters

1_GS0128



Point ID: 1_GS0128

Northing: 4574836.332 Meters

Easting: 529666.792 Meters

Orthometric Height: 249.72 Meters

Latitude: 41 19 28.040192 N

Longitude: 92 38 43.823429 W

Ellipsoid Height: 217.391 Meters

1_GS0133



Point ID: 1_GS0133

Northing: 4583314.046 Meters

Easting: 528809.922 Meters

Orthometric Height: 253.431 Meters

Latitude: 41 24 3.059135 N

Longitude: 92 39 19.233085 W

Ellipsoid Height: 221.183 Meters

1_GS0136



Point ID: 1_GS0136

Northing: 4602540.825 Meters

Easting: 528555.471 Meters

Orthometric Height: 259.502 Meters

Latitude: 41 34 26.545639 N

Longitude: 92 39 26.912160 W

Ellipsoid Height: 227.361 Meters

1_GS0137



Point ID: 1_GS0137

Northing: 4602555.598 Meters

Easting: 528582.523 Meters

Orthometric Height: 258.468 Meters

Latitude: 41 34 27.021182 N

Longitude: 92 39 25.741470 W

Ellipsoid Height: 226.327 Meters

1_GS0162



Point ID: 1_GS0162

Northing: 4626022.691 Meters

Easting: 582617.032 Meters

Orthometric Height: 232.331 Meters

Latitude: 41 46 54.314338 N

Longitude: 92 0 20.943564 W

Ellipsoid Height: 200.165 Meters

1_GS0166



Point ID: 1_GS0166

Northing: 4626881.324 Meters

Easting: 577717.729 Meters

Orthometric Height: 227.747 Meters

Latitude: 41 47 23.934116 N

Longitude: 92 3 52.753754 W

Ellipsoid Height: 195.635 Meters

1_GS0182



Point ID: 1_GS0182

Northing: 4610515.184 Meters

Easting: 545387.78 Meters

Orthometric Height: 260.949 Meters

Latitude: 41 38 42.308859 N

Longitude: 92 27 17.906733 W

Ellipsoid Height: 228.847 Meters

1_GS0185



Point ID: 1_GS0185

Northing: 4616422.302 Meters

Easting: 546079.772 Meters

Orthometric Height: 280.969 Meters

Latitude: 41 41 53.700386 N

Longitude: 92 26 46.352567 W

Ellipsoid Height: 248.893 Meters

1_GS0186



Point ID: 1_GS0186

Northing: 4616429.388 Meters

Easting: 546114.254 Meters

Orthometric Height: 281.218 Meters

Latitude: 41 41 53.922965 N

Longitude: 92 26 44.858795 W

Ellipsoid Height: 249.142 Meters

1_GS0193



Point ID: 1_GS0193

Northing: 4574381.097 Meters

Easting: 490048.623 Meters

Orthometric Height: 276.183 Meters

Latitude: 41 19 15.022024 N

Longitude: 93 7 8.055099 W

Ellipsoid Height: 244.32 Meters

1_GS0194



Point ID: 1_GS0194

Northing: 4574380.194 Meters

Easting: 490078.731 Meters

Orthometric Height: 276.682 Meters

Latitude: 41 19 14.994061 N

Longitude: 93 7 6.759971 W

Ellipsoid Height: 244.818 Meters

1_GS0206



Point ID: 1_GS0206

Northing: 4565133.396 Meters

Easting: 498089.069 Meters

Orthometric Height: 269.227 Meters

Latitude: 41 14 15.349764 N

Longitude: 93 1 22.093696 W

Ellipsoid Height: 237.231 Meters

1_GS0212



Point ID: 1_GS0212

Northing: 4572832.468 Meters

Easting: 508597.123 Meters

Orthometric Height: 213.67 Meters

Latitude: 41 18 24.859401 N

Longitude: 92 53 50.276408 W

Ellipsoid Height: 181.531 Meters

1_GS0215



Point ID: 1_GS0215

Northing: 4572475.624 Meters

Easting: 515671.959 Meters

Orthometric Height: 231.664 Meters

Latitude: 41 18 12.904612 N

Longitude: 92 48 46.053813 W

Ellipsoid Height: 199.457 Meters

1_GS0217



Point ID: 1_GS0217

Northing: 4570774.296 Meters

Easting: 522299.924 Meters

Orthometric Height: 254.938 Meters

Latitude: 41 17 17.173009 N

Longitude: 92 44 1.256300 W

Ellipsoid Height: 222.649 Meters

1_GS0218



Point ID: 1_GS0218

Northing: 4570777.373 Meters

Easting: 522269.207 Meters

Orthometric Height: 255.301 Meters

Latitude: 41 17 17.275843 N

Longitude: 92 44 2.576517 W

Ellipsoid Height: 223.013 Meters

1_GS0225



Point ID: 1_GS0225

Northing: 4511276.365 Meters

Easting: 543413.49 Meters

Orthometric Height: 261.912 Meters

Latitude: 40 45 4.666352 N

Longitude: 92 29 8.613386 W

Ellipsoid Height: 229.221 Meters

1_GS0240



Point ID: 1_GS0240

Northing: 4509346.046 Meters

Easting: 511317.153 Meters

Orthometric Height: 304.118 Meters

Latitude: 40 44 5.908614 N

Longitude: 92 51 57.492298 W

Ellipsoid Height: 271.956 Meters

1_GS0241



Point ID: 1_GS0241

Northing: 4509351.337 Meters

Easting: 511289.109 Meters

Orthometric Height: 303.389 Meters

Latitude: 40 44 6.081600 N

Longitude: 92 51 58.687597 W

Ellipsoid Height: 271.227 Meters

1_GS0242



Point ID: 1_GS0242

Northing: 4497783.165 Meters

Easting: 506912.64 Meters

Orthometric Height: 313.341 Meters

Latitude: 40 37 51.083642 N

Longitude: 92 55 5.737281 W

Ellipsoid Height: 281.187 Meters

1_GS0258



Point ID: 1_GS0258

Northing: 4526870.573 Meters

Easting: 514144.821 Meters

Orthometric Height: 304.642 Meters

Latitude: 40 53 34.081569 N

Longitude: 92 49 55.503693 W

Ellipsoid Height: 272.509 Meters

1_GS0262



Point ID: 1_GS0262

Northing: 4542276.726 Meters

Easting: 515706.46 Meters

Orthometric Height: 289.867 Meters

Latitude: 41 1 53.596003 N

Longitude: 92 48 47.357926 W

Ellipsoid Height: 257.674 Meters

1_GS0268



Point ID: 1_GS0268

Northing: 4546961.802 Meters

Easting: 512291.22 Meters

Orthometric Height: 292.787 Meters

Latitude: 41 4 25.740858 N

Longitude: 92 51 13.281365 W

Ellipsoid Height: 260.618 Meters

1_GS0278



Point ID: 1_GS0278

Northing: 4540524.428 Meters

Easting: 521443.56 Meters

Orthometric Height: 277.491 Meters

Latitude: 41 0 56.299313 N

Longitude: 92 44 41.883121 W

Ellipsoid Height: 245.201 Meters

1_GS0288



Point ID: 1_GS0288

Northing: 4542771.719 Meters

Easting: 474352.606 Meters

Orthometric Height: 312.79 Meters

Latitude: 41 2 8.739587 N

Longitude: 93 18 18.440235 W

Ellipsoid Height: 281.118 Meters

1_GS0298



Point ID: 1_GS0298

Northing: 4528137.663 Meters

Easting: 473540.001 Meters

Orthometric Height: 315.534 Meters

Latitude: 40 54 14.073173 N

Longitude: 93 18 50.989177 W

Ellipsoid Height: 283.836 Meters

1_GS0314



Point ID: 1_GS0314

Northing: 4521924.666 Meters

Easting: 473304.802 Meters

Orthometric Height: 329.04 Meters

Latitude: 40 50 52.559012 N

Longitude: 93 19 0.081619 W

Ellipsoid Height: 297.341 Meters

1_GS0331



Point ID: 1_GS0331

Northing: 4519629.496 Meters

Easting: 457884.966 Meters

Orthometric Height: 338.733 Meters

Latitude: 40 49 35.798266 N

Longitude: 93 29 58.044014 W

Ellipsoid Height: 307.179 Meters

1_GS0334



Point ID: 1_GS0334

Northing: 4523663.097 Meters

Easting: 457919.499 Meters

Orthometric Height: 336.405 Meters

Latitude: 40 51 46.611511 N

Longitude: 93 29 57.551256 W

Ellipsoid Height: 304.861 Meters

1_GS0344



Point ID: 1_GS0344

Northing: 4543181.457 Meters

Easting: 435685.798 Meters

Orthometric Height: 347.459 Meters

Latitude: 41 2 14.337438 N

Longitude: 93 45 54.538035 W

Ellipsoid Height: 316.142 Meters

1_GS0356



Point ID: 1_GS0356

Northing: 4561889.867 Meters

Easting: 458044.911 Meters

Orthometric Height: 312.089 Meters

Latitude: 41 12 26.261131 N

Longitude: 93 30 1.557645 W

Ellipsoid Height: 280.625 Meters

1_GS0362



Point ID: 1_GS0362

Northing: 4570595.252 Meters

Easting: 452883.754 Meters

Orthometric Height: 302.283 Meters

Latitude: 41 17 7.525820 N

Longitude: 93 33 45.589035 W

Ellipsoid Height: 270.863 Meters

1_GS0363



Point ID: 1_GS0363

Northing: 4579066.477 Meters

Easting: 453280.935 Meters

Orthometric Height: 293.893 Meters

Latitude: 41 21 42.299335 N

Longitude: 93 33 30.858846 W

Ellipsoid Height: 262.461 Meters

1_GS0364



Point ID: 1_GS0364

Northing: 4579034.875 Meters

Easting: 453276.623 Meters

Orthometric Height: 293.979 Meters

Latitude: 41 21 41.273704 N

Longitude: 93 33 31.035653 W

Ellipsoid Height: 262.547 Meters

1_GS0372



Point ID: 1_GS0372

Northing: 4580209.737 Meters

Easting: 437947.969 Meters

Orthometric Height: 255.795 Meters

Latitude: 41 22 15.640773 N

Longitude: 93 44 31.187374 W

Ellipsoid Height: 224.558 Meters

1_GS0386



Point ID: 1_GS0386

Northing: 4577603.581 Meters

Easting: 414426.846 Meters

Orthometric Height: 341.002 Meters

Latitude: 41 20 43.377656 N

Longitude: 94 1 22.257050 W

Ellipsoid Height: 310.168 Meters

1_GS0391



Point ID: 1_GS0391

Northing: 4562967.829 Meters

Easting: 412717.329 Meters

Orthometric Height: 339.07 Meters

Latitude: 41 12 48.186707 N

Longitude: 94 2 28.256989 W

Ellipsoid Height: 308.108 Meters

2_GS0412



Point ID: 2_GS0412

Northing: 4507322.411 Meters

Easting: 396670.882 Meters

Orthometric Height: 372.386 Meters

Latitude: 40 42 37.225421 N

Longitude: 94 13 23.771179 W

Ellipsoid Height: 341.109 Meters

2_GS0422



Point ID: 2_GS0422

Northing: 4521587.617 Meters

Easting: 406410.752 Meters

Orthometric Height: 374.449 Meters

Latitude: 40 50 23.963574 N

Longitude: 94 6 36.439521 W

Ellipsoid Height: 343.284 Meters

2_GS0434



Point ID: 2_GS0434

Northing: 4544436.703 Meters

Easting: 384363.43 Meters

Orthometric Height: 393.262 Meters

Latitude: 41 2 34.620742 N

Longitude: 94 22 33.020221 W

Ellipsoid Height: 362.39 Meters

2_GS0441



Point ID: 2_GS0441

Northing: 4544900.378 Meters

Easting: 384326.629 Meters

Orthometric Height: 395.668 Meters

Latitude: 41 2 49.634282 N

Longitude: 94 22 34.909301 W

Ellipsoid Height: 364.8 Meters

Vegetated Vertical Accuracy Checkpoints Low Vegetation

The Map shows the overall distribution of the Vegetated Vertical Accuracy Checkpoint, Low Vegetation throughout the AOI. The following tables contain a list of the control using Easting, Northing, and Orthometric height. The coordinate system displayed is Universal Transverse Mercator UTM Zone 15, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

IA_SouthCentral_2020_D20

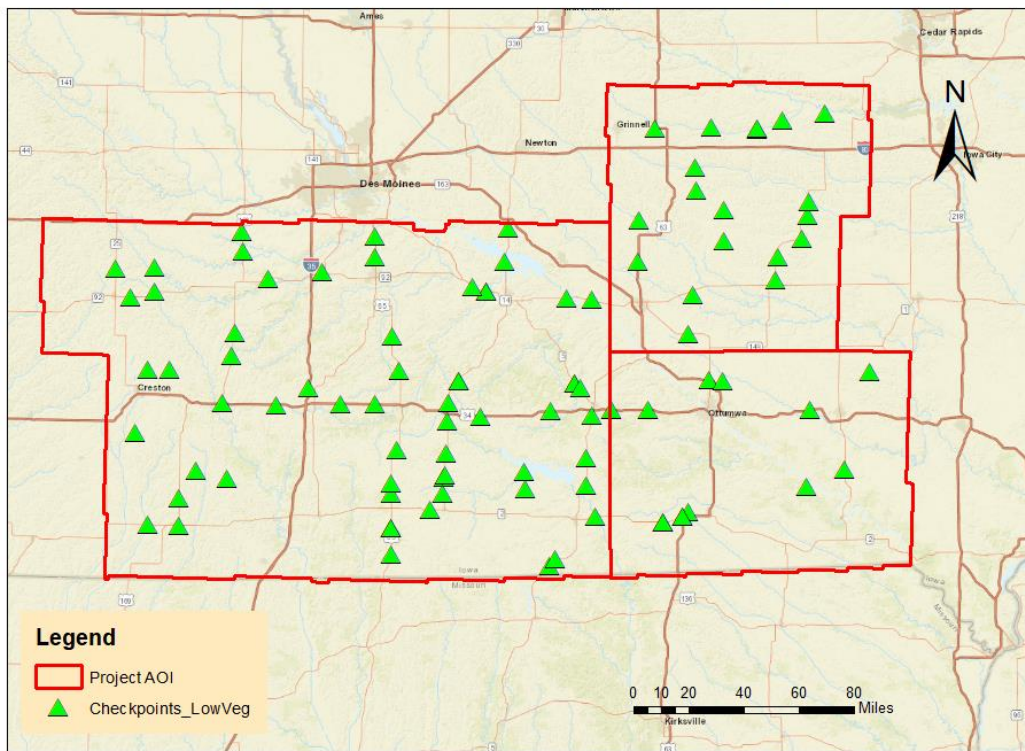


TABLE: Low Vegetation

Point ID	Easting	Northing	Ortho
1_GS0035	577383.596	4518410.039	229.093
1_GS0043	588558.742	4523414.764	224.691
1_GS0054	578659.987	4540693.265	230.171
1_GS0062	595684.899	4551673.71	211.095
1_GS0076	568501.052	4578073.323	223.544
1_GS0078	569145.225	4584533.116	257.238
1_GS0090	544867.119	4573711.913	244.064
1_GS0092	543375.33	4562488.092	251.905
1_GS0101	549508.084	4549174.799	253.887
1_GS0106	553537.496	4548924.703	244.283
1_GS0110	576117.918	4589826.901	253.809
1_GS0115	577938.799	4596640.461	246.344
1_GS0116	578027.441	4600667.102	248.55
1_GS0130	528807.12	4583236.918	252.133
1_GS0134	529117.892	4595120.855	237.091
1_GS0145	533898.863	4621615.477	289.267
1_GS0149	550164.56	4621860.839	248.494
1_GS0154	563191.676	4621477.783	239.639
1_GS0155	563187.94	4621507.507	239.754
1_GS0157	570435.464	4624013.418	232.512
1_GS0164	582651.587	4626058.518	232.107
1_GS0171	553797.378	4589170.086	265.115
1_GS0176	553727.147	4598045.05	251.745
1_GS0179	545795.401	4603938.221	286.371
1_GS0183	545363.75	4610508.15	260.313
1_GS0187	491512.12	4592852.699	266.513
1_GS0190	490727.254	4583374.916	242.295
1_GS0195	485227.294	4574875.586	249.597
1_GS0196	485202.021	4574864.041	251.521
1_GS0201	481360.844	4575974.847	281.686
1_GS0211	508569.371	4572825.359	213.746
1_GS0213	515644.634	4572500.886	231.424
1_GS0226	543433.912	4511250.671	260.866
1_GS0227	541786.706	4509971.74	276.898
1_GS0228	541773.851	4509947.251	276.851
1_GS0234	536210.211	4508363.479	285.809
1_GS0235	536180.527	4508363.1	286.535
1_GS0237	516805.695	4509870.968	259.757
1_GS0245	503301.076	4495739.487	293.5
1_GS0250	505179.848	4497685.747	313.402
1_GS0253	514076.19	4518973.781	297.848
1_GS0257	514091.54	4526850.108	301.317

1_GS0259	515639.655	4538893.059	293.052
1_GS0264	510770.276	4548395.354	292.312
1_GS0265	510790.289	4548372.029	291.916
1_GS0267	512277.578	4546938.032	291.815
1_GS0273	531916.383	4540773.218	219.375
1_GS0277	521465.914	4540543.819	277.955
1_GS0279	503677.869	4540267.884	297.774
1_GS0285	483706.847	4538765.388	313.975
1_GS0287	474324.241	4542782.471	312.187
1_GS0289	477305.152	4549034	309.88
1_GS0291	477334.313	4549011.958	310.848
1_GS0295	474161.228	4537204.932	290.798
1_GS0300	473550.263	4528178.451	311.861
1_GS0301	473188.105	4521144.686	325.864
1_GS0303	472838.687	4516678.571	321.551
1_GS0306	496602.67	4517898.157	305.257
1_GS0308	496159.199	4522806.532	306.364
1_GS0313	473275.687	4521917.085	328.498
1_GS0319	468966.341	4511847.563	329.742
1_GS0321	457846.95	4506639.583	327.39
1_GS0322	457817.572	4506637.964	327.287
1_GS0323	457797.564	4498838.796	311.834
1_GS0327	457864.091	4516372.42	332.171
1_GS0329	457908.497	4519598.931	338.514
1_GS0336	459494.054	4529113.651	336.705
1_GS0340	434182.073	4546891.438	300.531
1_GS0347	443384.696	4542330.889	338.059
1_GS0349	453180.264	4542286.567	324.359
1_GS0353	460195.444	4551855.167	315.327
1_GS0355	458064.821	4561918.519	312.158
1_GS0365	453149.589	4584727.65	277.108
1_GS0369	453354.702	4590455.47	282.881
1_GS0371	437920.457	4580218.647	254.557
1_GS0377	422487.133	4578231.988	309.54
1_GS0379	415281.751	4586305.036	324.754
1_GS0383	415009.603	4591924.807	319.879
1_GS0390	412754.501	4562923.837	337.914
1_GS0393	412039.548	4556322.839	344.46
2_GS0411	396695.138	4507309.311	372.748
2_GS0414	387732.889	4507580.48	335.129
2_GS0418	396813.795	4515362.865	356.414
2_GS0420	401663.018	4523208.727	371.434
2_GS0425	410388.515	4520709.65	362.629
2_GS0429	424881.753	4542067.445	362.227

2_GS0430	409141.12	4542621.926	363.47
2_GS0436	384188.537	4534188.911	382.505
2_GS0443	387730.88	4552355.899	383.906
2_GS0446	394086.004	4552229.044	366.23
2_GS0452	382621.96	4573201.316	400.5
2_GS0454	389579.696	4574694.059	387.786
2_GS0457	389800.847	4581492.631	367.024
2_GS0460	378436.339	4581354.776	404.059

1_GS0035



Point ID: 1_GS0035

Northing: 4518410.039 Meters

Easting: 577383.596 Meters

Orthometric Height: 229.093 Meters

Latitude: 40 48 47.008364 N

Longitude: 92 4 56.899815 W

Ellipsoid Height: 196.083 Meters

1_GS0043



Point ID: 1_GS0043

Northing: 4523414.764 Meters

Easting: 588558.742 Meters

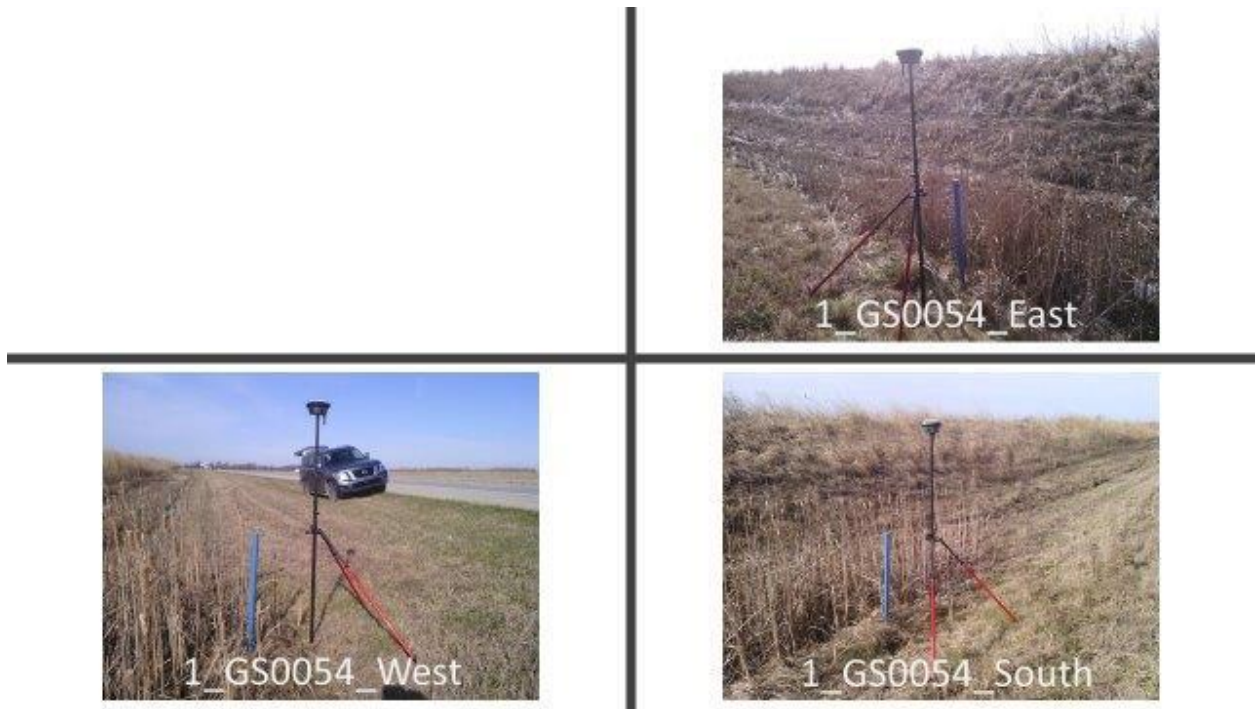
Orthometric Height: 224.691 Meters

Latitude: 40 51 25.220347 N

Longitude: 91 56 57.401498 W

Ellipsoid Height: 191.636 Meters

1_GS0054



Point ID: 1_GS0054

Northing: 4540693.265 Meters

Easting: 578659.987 Meters

Orthometric Height: 230.171 Meters

Latitude: 41 0 49.123660 N

Longitude: 92 3 52.253925 W

Ellipsoid Height: 197.291 Meters

1_GS0062



Point ID: 1_GS0062

Northing: 4551673.71 Meters

Easting: 595684.899 Meters

Orthometric Height: 211.095 Meters

Latitude: 41 6 38.586229 N

Longitude: 91 51 37.333346 W

Ellipsoid Height: 178.206 Meters

1_GS0076



Point ID: 1_GS0076

Northing: 4578073.323 Meters

Easting: 568501.052 Meters

Orthometric Height: 223.544 Meters

Latitude: 41 21 4.486157 N

Longitude: 92 10 52.092596 W

Ellipsoid Height: 191.1 Meters

1_GS0078



Point ID: 1_GS0078

Northing: 4584533.116 Meters

Easting: 569145.225 Meters

Orthometric Height: 257.238 Meters

Latitude: 41 24 33.741122 N

Longitude: 92 10 21.720324 W

Ellipsoid Height: 224.894 Meters

1_GS0090



Point ID: 1_GS0090

Northing: 4573711.913 Meters

Easting: 544867.119 Meters

Orthometric Height: 244.064 Meters

Latitude: 41 18 49.049666 N

Longitude: 92 27 50.272397 W

Ellipsoid Height: 211.659 Meters

1_GS0092



Point ID: 1_GS0092

Northing: 4562488.092 Meters

Easting: 543375.33 Meters

Orthometric Height: 251.905 Meters

Latitude: 41 12 45.390373 N

Longitude: 92 28 57.306518 W

Ellipsoid Height: 219.413 Meters

1_GS0101



Point ID: 1_GS0101

Northing: 4549174.799 Meters

Easting: 549508.084 Meters

Orthometric Height: 253.887 Meters

Latitude: 41 5 32.412259 N

Longitude: 92 24 37.827232 W

Ellipsoid Height: 221.287 Meters

1_GS0106



Point ID: 1_GS0106

Northing: 4548924.703 Meters

Easting: 553537.496 Meters

Orthometric Height: 244.283 Meters

Latitude: 41 5 23.382782 N

Longitude: 92 21 45.193999 W

Ellipsoid Height: 211.646 Meters

1_GS0110



Point ID: 1_GS0110

Northing: 4589826.901 Meters

Easting: 576117.918 Meters

Orthometric Height: 253.809 Meters

Latitude: 41 27 23.113914 N

Longitude: 92 5 19.021497 W

Ellipsoid Height: 221.401 Meters

1_GS0115



Point ID: 1_GS0115

Northing: 4596640.461 Meters

Easting: 577938.799 Meters

Orthometric Height: 246.344 Meters

Latitude: 41 31 3.397997 N

Longitude: 92 3 57.372726 W

Ellipsoid Height: 213.931 Meters

1_GS0116



Point ID: 1_GS0116

Northing: 4600667.102 Meters

Easting: 578027.441 Meters

Orthometric Height: 248.55 Meters

Latitude: 41 33 13.919867 N

Longitude: 92 3 51.667701 W

Ellipsoid Height: 216.151 Meters

1_GS0130



Point ID: 1_GS0130

Northing: 4583236.918 Meters

Easting: 528807.12 Meters

Orthometric Height: 252.133 Meters

Latitude: 41 24 0.558487 N

Longitude: 92 39 19.366986 W

Ellipsoid Height: 219.884 Meters

1_GS0134



Point ID: 1_GS0134

Northing: 4595120.855 Meters

Easting: 529117.892 Meters

Orthometric Height: 237.091 Meters

Latitude: 41 30 25.872605 N

Longitude: 92 39 3.919923 W

Ellipsoid Height: 204.905 Meters

1_GS0145



Point ID: 1_GS0145

Northing: 4621615.477 Meters

Easting: 533898.863 Meters

Orthometric Height: 289.267 Meters

Latitude: 41 44 44.291675 N

Longitude: 92 35 32.282054 W

Ellipsoid Height: 257.263 Meters

1_GS0149



Point ID: 1_GS0149

Northing: 4621860.839 Meters

Easting: 550164.56 Meters

Orthometric Height: 248.494 Meters

Latitude: 41 44 49.148967 N

Longitude: 92 23 47.983751 W

Ellipsoid Height: 216.457 Meters

1_GS0154



Point ID: 1_GS0154

Northing: 4621477.783 Meters

Easting: 563191.676 Meters

Orthometric Height: 239.639 Meters

Latitude: 41 44 33.383148 N

Longitude: 92 14 24.127362 W

Ellipsoid Height: 207.549 Meters

1_GS0155



Point ID: 1_GS0155

Northing: 4621507.507 Meters

Easting: 563187.94 Meters

Orthometric Height: 239.754 Meters

Latitude: 41 44 34.347955 N

Longitude: 92 14 24.277694 W

Ellipsoid Height: 207.665 Meters

1_GS0157



Point ID: 1_GS0157

Northing: 4624013.418 Meters

Easting: 570435.464 Meters

Orthometric Height: 232.512 Meters

Latitude: 41 45 53.400126 N

Longitude: 92 9 9.458978 W

Ellipsoid Height: 200.417 Meters

1_GS0164



Point ID: 1_GS0164

Northing: 4626058.518 Meters

Easting: 582651.587 Meters

Orthometric Height: 232.107 Meters

Latitude: 41 46 55.462921 N

Longitude: 92 0 19.428886 W

Ellipsoid Height: 199.941 Meters

1_GS0171



Point ID: 1_GS0171

Northing: 4589170.086 Meters

Easting: 553797.378 Meters

Orthometric Height: 265.115 Meters

Latitude: 41 27 8.321335 N

Longitude: 92 21 21.263828 W

Ellipsoid Height: 232.898 Meters

1_GS0176



Point ID: 1_GS0176

Northing: 4598045.05 Meters

Easting: 553727.147 Meters

Orthometric Height: 251.745 Meters

Latitude: 41 31 56.107456 N

Longitude: 92 21 21.442061 W

Ellipsoid Height: 219.602 Meters

1_GS0179



Point ID: 1_GS0179

Northing: 4603938.221 Meters

Easting: 545795.401 Meters

Orthometric Height: 286.371 Meters

Latitude: 41 35 8.968968 N

Longitude: 92 27 2.096880 W

Ellipsoid Height: 254.269 Meters

1_GS0183



Point ID: 1_GS0183

Northing: 4610508.15 Meters

Easting: 545363.75 Meters

Orthometric Height: 260.313 Meters

Latitude: 41 38 42.085721 N

Longitude: 92 27 18.947404 W

Ellipsoid Height: 228.211 Meters

1_GS0187



Point ID: 1_GS0187

Northing: 4592852.699 Meters

Easting: 491512.12 Meters

Orthometric Height: 266.513 Meters

Latitude: 41 29 14.066938 N

Longitude: 93 6 6.035911 W

Ellipsoid Height: 234.538 Meters

1_GS0190



Point ID: 1_GS0190

Northing: 4583374.916 Meters

Easting: 490727.254 Meters

Orthometric Height: 242.295 Meters

Latitude: 41 24 6.698715 N

Longitude: 93 6 39.359053 W

Ellipsoid Height: 210.359 Meters

1_GS0195



Point ID: 1_GS0195

Northing: 4574875.586 Meters

Easting: 485227.294 Meters

Orthometric Height: 249.597 Meters

Latitude: 41 19 30.791024 N

Longitude: 93 10 35.485408 W

Ellipsoid Height: 217.788 Meters

1_GS0196



Point ID: 1_GS0196

Northing: 4574864.041 Meters

Easting: 485202.021 Meters

Orthometric Height: 251.521 Meters

Latitude: 41 19 30.414979 N

Longitude: 93 10 36.571577 W

Ellipsoid Height: 219.712 Meters

1_GS0201



Point ID: 1_GS0201

Northing: 4575974.847 Meters

Easting: 481360.844 Meters

Orthometric Height: 281.686 Meters

Latitude: 41 20 6.148892 N

Longitude: 93 13 21.930894 W

Ellipsoid Height: 249.931 Meters

1_GS0211



Point ID: 1_GS0211

Northing: 4572825.359 Meters

Easting: 508569.371 Meters

Orthometric Height: 213.746 Meters

Latitude: 41 18 24.629939 N

Longitude: 92 53 51.470256 W

Ellipsoid Height: 181.607 Meters

1_GS0213



Point ID: 1_GS0213

Northing: 4572500.886 Meters

Easting: 515644.634 Meters

Orthometric Height: 231.424 Meters

Latitude: 41 18 13.725710 N

Longitude: 92 48 47.226536 W

Ellipsoid Height: 199.217 Meters

1_GS0226



Point ID: 1_GS0226

Northing: 4511250.671 Meters

Easting: 543433.912 Meters

Orthometric Height: 260.866 Meters

Latitude: 40 45 3.829222 N

Longitude: 92 29 7.748910 W

Ellipsoid Height: 228.175 Meters

1_GS0227



Point ID: 1_GS0227

Northing: 4509971.74 Meters

Easting: 541786.706 Meters

Orthometric Height: 276.898 Meters

Latitude: 40 44 22.660848 N

Longitude: 92 30 18.299427 W

Ellipsoid Height: 244.237 Meters

1_GS0228



Point ID: 1_GS0228

Northing: 4509947.251 Meters

Easting: 541773.851 Meters

Orthometric Height: 276.851 Meters

Latitude: 40 44 21.869041 N

Longitude: 92 30 18.853414 W

Ellipsoid Height: 244.19 Meters

1_GS0234



Point ID: 1_GS0234

Northing: 4508363.479 Meters

Easting: 536210.211 Meters

Orthometric Height: 285.809 Meters

Latitude: 40 43 31.456023 N

Longitude: 92 34 16.397923 W

Ellipsoid Height: 253.249 Meters

1_GS0235



Point ID: 1_GS0235

Northing: 4508363.1 Meters

Easting: 536180.527 Meters

Orthometric Height: 286.535 Meters

Latitude: 40 43 31.448425 N

Longitude: 92 34 17.663340 W

Ellipsoid Height: 253.975 Meters

1_GS0237



Point ID: 1_GS0237

Northing: 4509870.968 Meters

Easting: 516805.695 Meters

Orthometric Height: 259.757 Meters

Latitude: 40 44 22.594717 N

Longitude: 92 48 3.438244 W

Ellipsoid Height: 227.514 Meters

1_GS0245



Point ID: 1_GS0245

Northing: 4495739.487 Meters

Easting: 503301.076 Meters

Orthometric Height: 293.5 Meters

Latitude: 40 36 44.883895 N

Longitude: 92 57 39.515700 W

Ellipsoid Height: 261.399 Meters

1_GS0250



Point ID: 1_GS0250

Northing: 4497685.747 Meters

Easting: 505179.848 Meters

Orthometric Height: 313.402 Meters

Latitude: 40 37 47.969871 N

Longitude: 92 56 19.502976 W

Ellipsoid Height: 281.277 Meters

1_GS0253



Point ID: 1_GS0253

Northing: 4518973.781 Meters

Easting: 514076.19 Meters

Orthometric Height: 297.848 Meters

Latitude: 40 49 17.990277 N

Longitude: 92 49 59.079913 W

Ellipsoid Height: 265.693 Meters

1_GS0257



Point ID: 1_GS0257

Northing: 4526850.108 Meters

Easting: 514091.54 Meters

Orthometric Height: 301.317 Meters

Latitude: 40 53 33.421203 N

Longitude: 92 49 57.782374 W

Ellipsoid Height: 269.185 Meters

1_GS0259



Point ID: 1_GS0259

Northing: 4538893.059 Meters

Easting: 515639.655 Meters

Orthometric Height: 293.052 Meters

Latitude: 41 0 3.870338 N

Longitude: 92 48 50.527535 W

Ellipsoid Height: 260.874 Meters

1_GS0264



Point ID: 1_GS0264

Northing: 4548395.354 Meters

Easting: 510770.276 Meters

Orthometric Height: 292.312 Meters

Latitude: 41 5 12.307311 N

Longitude: 92 52 18.368216 W

Ellipsoid Height: 260.154 Meters

1_GS0265



Point ID: 1_GS0265

Northing: 4548372.029 Meters

Easting: 510790.289 Meters

Orthometric Height: 291.916 Meters

Latitude: 41 5 11.549946 N

Longitude: 92 52 17.511938 W

Ellipsoid Height: 259.758 Meters

1_GS0267



Point ID: 1_GS0267

Northing: 4546938.032 Meters

Easting: 512277.578 Meters

Orthometric Height: 291.815 Meters

Latitude: 41 4 24.970751 N

Longitude: 92 51 13.867661 W

Ellipsoid Height: 259.646 Meters

1_GS0273



Point ID: 1_GS0273

Northing: 4540773.218 Meters

Easting: 531916.383 Meters

Orthometric Height: 219.375 Meters

Latitude: 41 1 3.132921 N

Longitude: 92 37 13.445490 W

Ellipsoid Height: 186.906 Meters

1_GS0277



Point ID: 1_GS0277

Northing: 4540543.819 Meters

Easting: 521465.914 Meters

Orthometric Height: 277.955 Meters

Latitude: 41 0 56.926040 N

Longitude: 92 44 40.923607 W

Ellipsoid Height: 245.665 Meters

1_GS0279



Point ID: 1_GS0279

Northing: 4540267.884 Meters

Easting: 503677.869 Meters

Orthometric Height: 297.774 Meters

Latitude: 41 0 48.965518 N

Longitude: 92 57 22.534964 W

Ellipsoid Height: 265.779 Meters

1_GS0285



Point ID: 1_GS0285

Northing: 4538765.388 Meters

Easting: 483706.847 Meters

Orthometric Height: 313.975 Meters

Latitude: 40 59 59.683949 N

Longitude: 93 11 37.433868 W

Ellipsoid Height: 282.207 Meters

1_GS0287



Point ID: 1_GS0287

Northing: 4542782.471 Meters

Easting: 474324.241 Meters

Orthometric Height: 312.187 Meters

Latitude: 41 2 9.085029 N

Longitude: 93 18 19.656653 W

Ellipsoid Height: 280.515 Meters

1_GS0289



Point ID: 1_GS0289
Northing: 4549034 Meters
Easting: 477305.152 Meters
Orthometric Height: 309.88 Meters
Latitude: 41 5 32.134182 N
Longitude: 93 16 12.819418 W
Ellipsoid Height: 278.208 Meters

1_GS0291



Point ID: 1_GS0291

Northing: 4549011.958 Meters

Easting: 477334.313 Meters

Orthometric Height: 310.848 Meters

Latitude: 41 5 31.422326 N

Longitude: 93 16 11.566520 W

Ellipsoid Height: 279.175 Meters

1_GS0295



Point ID: 1_GS0295

Northing: 4537204.932 Meters

Easting: 474161.228 Meters

Orthometric Height: 290.798 Meters

Latitude: 40 59 8.191717 N

Longitude: 93 18 25.797836 W

Ellipsoid Height: 259.109 Meters

1_GS0300



Point ID: 1_GS0300

Northing: 4528178.451 Meters

Easting: 473550.263 Meters

Orthometric Height: 311.861 Meters

Latitude: 40 54 15.397119 N

Longitude: 93 18 50.556823 W

Ellipsoid Height: 280.163 Meters

1_GS0301



Point ID: 1_GS0301

Northing: 4521144.686 Meters

Easting: 473188.105 Meters

Orthometric Height: 325.864 Meters

Latitude: 40 50 27.250524 N

Longitude: 93 19 4.944438 W

Ellipsoid Height: 294.164 Meters

1_GS0303



Point ID: 1_GS0303

Northing: 4516678.571 Meters

Easting: 472838.687 Meters

Orthometric Height: 321.551 Meters

Latitude: 40 48 2.372309 N

Longitude: 93 19 19.164779 W

Ellipsoid Height: 289.842 Meters

1_GS0306



Point ID: 1_GS0306

Northing: 4517898.157 Meters

Easting: 496602.67 Meters

Orthometric Height: 305.257 Meters

Latitude: 40 48 43.516428 N

Longitude: 93 2 25.013017 W

Ellipsoid Height: 273.35 Meters

1_GS0308



Point ID: 1_GS0308

Northing: 4522806.532 Meters

Easting: 496159.199 Meters

Orthometric Height: 306.364 Meters

Latitude: 40 51 22.690850 N

Longitude: 93 2 44.051251 W

Ellipsoid Height: 274.474 Meters

1_GS0313



Point ID: 1_GS0313

Northing: 4521917.085 Meters

Easting: 473275.687 Meters

Orthometric Height: 328.498 Meters

Latitude: 40 50 52.309754 N

Longitude: 93 19 1.323872 W

Ellipsoid Height: 296.799 Meters

1_GS0319



Point ID: 1_GS0319

Northing: 4511847.563 Meters

Easting: 468966.341 Meters

Orthometric Height: 329.742 Meters

Latitude: 40 45 25.207539 N

Longitude: 93 22 3.557976 W

Ellipsoid Height: 298.058 Meters

1_GS0321



Point ID: 1_GS0321

Northing: 4506639.583 Meters

Easting: 457846.95 Meters

Orthometric Height: 327.39 Meters

Latitude: 40 42 34.531795 N

Longitude: 93 29 56.512844 W

Ellipsoid Height: 295.77 Meters

1_GS0322



Point ID: 1_GS0322

Northing: 4506637.964 Meters

Easting: 457817.572 Meters

Orthometric Height: 327.287 Meters

Latitude: 40 42 34.473888 N

Longitude: 93 29 57.764478 W

Ellipsoid Height: 295.667 Meters

1_GS0323



Point ID: 1_GS0323

Northing: 4498838.796 Meters

Easting: 457797.564 Meters

Orthometric Height: 311.834 Meters

Latitude: 40 38 21.541130 N

Longitude: 93 29 56.730059 W

Ellipsoid Height: 280.186 Meters

1_GS0327



Point ID: 1_GS0327

Northing: 4516372.42 Meters

Easting: 457864.091 Meters

Orthometric Height: 332.171 Meters

Latitude: 40 47 50.169081 N

Longitude: 93 29 58.142927 W

Ellipsoid Height: 300.602 Meters

1_GS0329



Point ID: 1_GS0329

Northing: 4519598.931 Meters

Easting: 457908.497 Meters

Orthometric Height: 338.514 Meters

Latitude: 40 49 34.811393 N

Longitude: 93 29 57.031989 W

Ellipsoid Height: 306.96 Meters

1_GS0336



Point ID: 1_GS0336

Northing: 4529113.651 Meters

Easting: 459494.054 Meters

Orthometric Height: 336.705 Meters

Latitude: 40 54 43.654036 N

Longitude: 93 28 51.572747 W

Ellipsoid Height: 305.142 Meters

1_GS0340



Point ID: 1_GS0340

Northing: 4546891.438 Meters

Easting: 434182.073 Meters

Orthometric Height: 300.531 Meters

Latitude: 41 4 14.205928 N

Longitude: 93 47 0.362894 W

Ellipsoid Height: 269.225 Meters

1_GS0347



Point ID: 1_GS0347

Northing: 4542330.889 Meters

Easting: 443384.696 Meters

Orthometric Height: 338.059 Meters

Latitude: 41 1 48.813904 N

Longitude: 93 40 24.541065 W

Ellipsoid Height: 306.664 Meters

1_GS0349



Point ID: 1_GS0349

Northing: 4542286.567 Meters

Easting: 453180.264 Meters

Orthometric Height: 324.359 Meters

Latitude: 41 1 49.615745 N

Longitude: 93 33 25.056307 W

Ellipsoid Height: 292.857 Meters

1_GS0353



Point ID: 1_GS0353

Northing: 4551855.167 Meters

Easting: 460195.444 Meters

Orthometric Height: 315.327 Meters

Latitude: 41 7 1.250557 N

Longitude: 93 28 26.869670 W

Ellipsoid Height: 283.809 Meters

1_GS0355



1_GS0355_North



1_GS0355_East



1_GS0355_South

Point ID: 1_GS0355

Northing: 4561918.519 Meters

Easting: 458064.821 Meters

Orthometric Height: 312.158 Meters

Latitude: 41 12 27.193924 N

Longitude: 93 30 0.709796 W

Ellipsoid Height: 280.694 Meters

1_GS0365



Point ID: 1_GS0365

Northing: 4584727.65 Meters

Easting: 453149.589 Meters

Orthometric Height: 277.108 Meters

Latitude: 41 24 45.840593 N

Longitude: 93 33 38.088068 W

Ellipsoid Height: 245.673 Meters

1_GS0369



Point ID: 1_GS0369

Northing: 4590455.47 Meters

Easting: 453354.702 Meters

Orthometric Height: 282.881 Meters

Latitude: 41 27 51.611762 N

Longitude: 93 33 30.845061 W

Ellipsoid Height: 251.436 Meters

1_GS0371



Point ID: 1_GS0371

Northing: 4580218.647 Meters

Easting: 437920.457 Meters

Orthometric Height: 254.557 Meters

Latitude: 41 22 15.922051 N

Longitude: 93 44 32.374864 W

Ellipsoid Height: 223.32 Meters

1_GS0377



Point ID: 1_GS0377

Northing: 4578231.988 Meters

Easting: 422487.133 Meters

Orthometric Height: 309.54 Meters

Latitude: 41 21 6.689944 N

Longitude: 93 55 35.753388 W

Ellipsoid Height: 278.533 Meters

1_GS0379



Point ID: 1_GS0379

Northing: 4586305.036 Meters

Easting: 415281.751 Meters

Orthometric Height: 324.754 Meters

Latitude: 41 25 25.825050 N

Longitude: 94 0 49.855556 W

Ellipsoid Height: 294.003 Meters

1_GS0383



Point ID: 1_GS0383

Northing: 4591924.807 Meters

Easting: 415009.603 Meters

Orthometric Height: 319.879 Meters

Latitude: 41 28 27.925792 N

Longitude: 94 1 4.425668 W

Ellipsoid Height: 289.228 Meters

1_GS0390



Point ID: 1_GS0390

Northing: 4562923.837 Meters

Easting: 412754.501 Meters

Orthometric Height: 337.914 Meters

Latitude: 41 12 46.774783 N

Longitude: 94 2 26.638306 W

Ellipsoid Height: 306.951 Meters

1_GS0393



Point ID: 1_GS0393

Northing: 4556322.839 Meters

Easting: 412039.548 Meters

Orthometric Height: 344.46 Meters

Latitude: 41 9 12.470829 N

Longitude: 94 2 53.921088 W

Ellipsoid Height: 313.447 Meters

2_GS0411



Point ID: 2_GS0411

Northing: 4507309.311 Meters

Easting: 396695.138 Meters

Orthometric Height: 372.748 Meters

Latitude: 40 42 36.811650 N

Longitude: 94 13 22.729880 W

Ellipsoid Height: 341.471 Meters

2_GS0414



Point ID: 2_GS0414

Northing: 4507580.48 Meters

Easting: 387732.889 Meters

Orthometric Height: 335.129 Meters

Latitude: 40 42 41.382014 N

Longitude: 94 19 44.771166 W

Ellipsoid Height: 303.85 Meters

2_GS0418



Point ID: 2_GS0418

Northing: 4515362.865 Meters

Easting: 396813.795 Meters

Orthometric Height: 356.414 Meters

Latitude: 40 46 57.991166 N

Longitude: 94 13 22.455334 W

Ellipsoid Height: 325.221 Meters

2_GS0420



Point ID: 2_GS0420

Northing: 4523208.727 Meters

Easting: 401663.018 Meters

Orthometric Height: 371.434 Meters

Latitude: 40 51 14.525878 N

Longitude: 94 10 0.059597 W

Ellipsoid Height: 340.288 Meters

2_GS0425



Point ID: 2_GS0425

Northing: 4520709.65 Meters

Easting: 410388.515 Meters

Orthometric Height: 362.629 Meters

Latitude: 40 49 57.095200 N

Longitude: 94 3 46.155184 W

Ellipsoid Height: 331.438 Meters

2_GS0429



Point ID: 2_GS0429

Northing: 4542067.445 Meters

Easting: 424881.753 Meters

Orthometric Height: 362.227 Meters

Latitude: 41 1 34.885164 N

Longitude: 93 53 36.730352 W

Ellipsoid Height: 330.998 Meters

2_GS0430



Point ID: 2_GS0430

Northing: 4542621.926 Meters

Easting: 409141.12 Meters

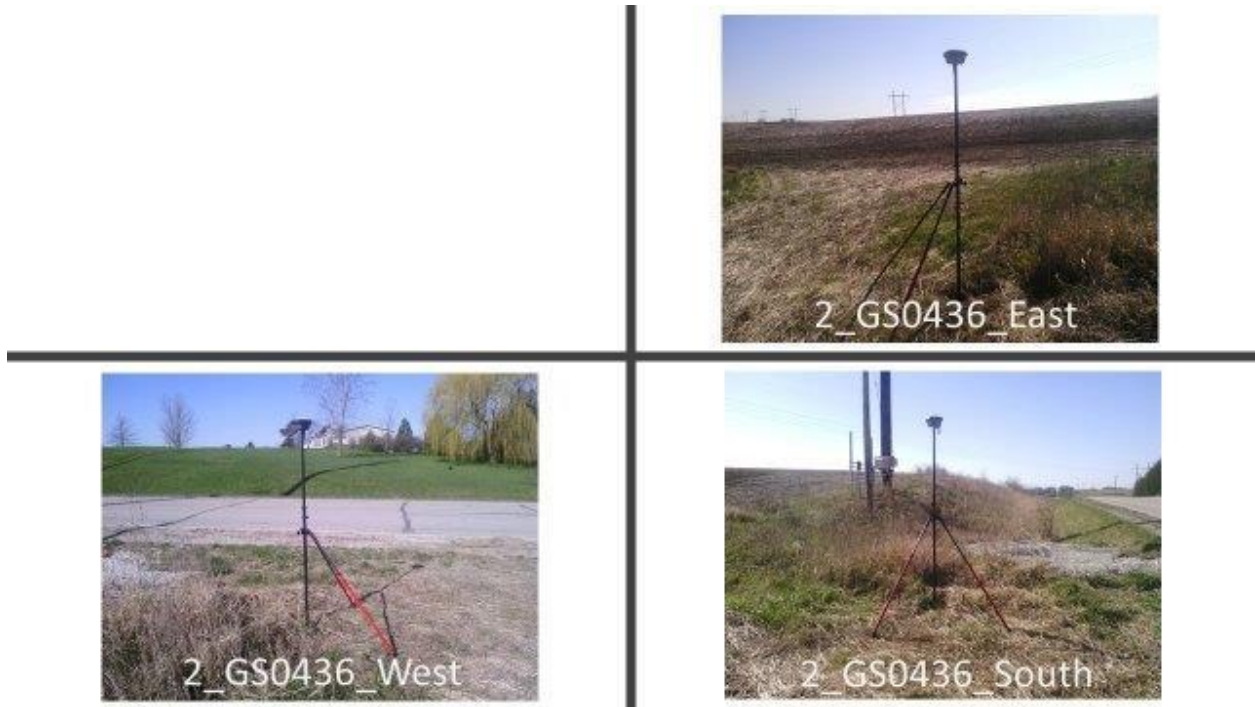
Orthometric Height: 363.47 Meters

Latitude: 41 1 47.091027 N

Longitude: 94 4 50.968583 W

Ellipsoid Height: 332.374 Meters

2_GS0436



Point ID: 2_GS0436

Northing: 4534188.911 Meters

Easting: 384188.537 Meters

Orthometric Height: 382.505 Meters

Latitude: 40 57 2.294828 N

Longitude: 94 22 33.594448 W

Ellipsoid Height: 351.531 Meters

2_GS0443



Point ID: 2_GS0443

Northing: 4552355.899 Meters

Easting: 387730.88 Meters

Orthometric Height: 383.906 Meters

Latitude: 41 6 53.060711 N

Longitude: 94 20 14.023059 W

Ellipsoid Height: 353.098 Meters

2_GS0446



Point ID: 2_GS0446

Northing: 4552229.044 Meters

Easting: 394086.004 Meters

Orthometric Height: 366.23 Meters

Latitude: 41 6 52.021072 N

Longitude: 94 15 41.506040 W

Ellipsoid Height: 335.358 Meters

2_GS0452



Point ID: 2_GS0452

Northing: 4573201.316 Meters

Easting: 382621.96 Meters

Orthometric Height: 400.5 Meters

Latitude: 41 18 6.243574 N

Longitude: 94 24 7.437276 W

Ellipsoid Height: 370.392 Meters

2_GS0454



Point ID: 2_GS0454

Northing: 4574694.059 Meters

Easting: 389579.696 Meters

Orthometric Height: 387.786 Meters

Latitude: 41 18 58.173121 N

Longitude: 94 19 9.297870 W

Ellipsoid Height: 357.526 Meters

2_GS0457



Point ID: 2_GS0457

Northing: 4581492.631 Meters

Easting: 389800.847 Meters

Orthometric Height: 367.024 Meters

Latitude: 41 22 38.685681 N

Longitude: 94 19 4.231082 W

Ellipsoid Height: 337.006 Meters

2_GS0460



Point ID: 2_GS0460

Northing: 4581354.776 Meters

Easting: 378436.339 Meters

Orthometric Height: 404.059 Meters

Latitude: 41 22 28.325719 N

Longitude: 94 27 13.245897 W

Ellipsoid Height: 374.572 Meters

Vegetated Vertical Accuracy Checkpoints Medium Vegetation

The Map shows the overall distribution of the Vegetated Vertical Accuracy Checkpoint, Medium Vegetation throughout the AOI. The following tables contain a list of the control using Easting, Northing, and Orthometric height. The coordinate system displayed is Universal Transverse Mercator UTM Zone 15, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

IA_SouthCentral_2020_D20

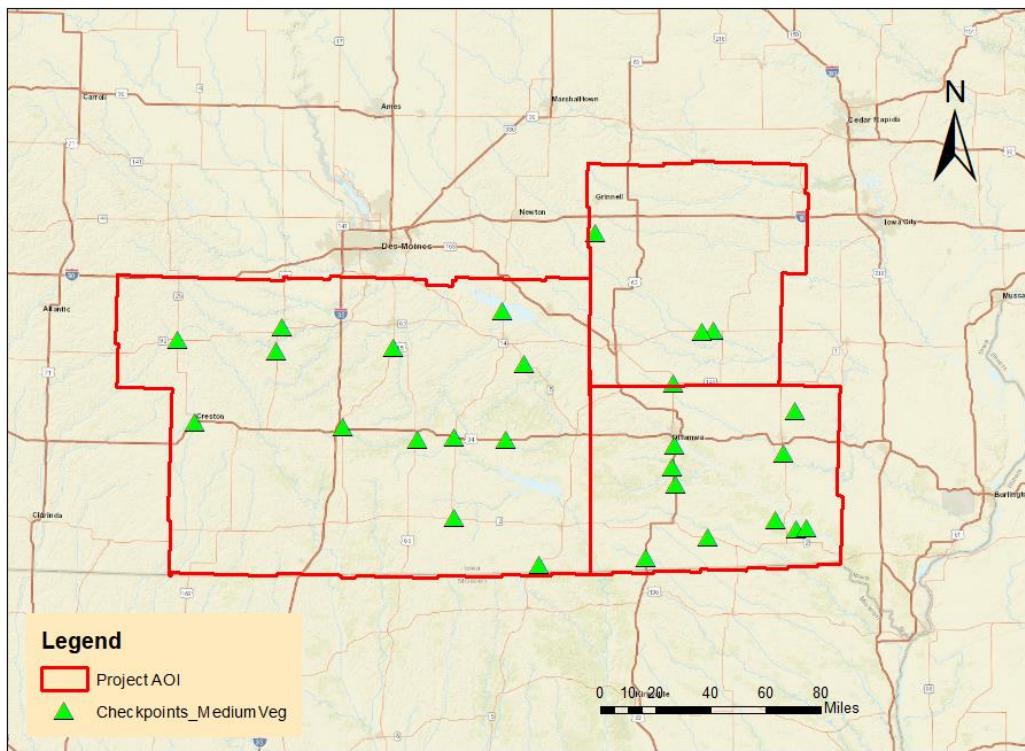


TABLE: Medium Vegetation

Point ID	Easting	Northing	Ortho
1_GS0003	550264.269	4536742.284	195.054
1_GS0005	549383.845	4529241.662	254.33
1_GS0016	561795.474	4505383.864	253.88
1_GS0026	592033.274	4508055.745	209.768
1_GS0031	595778.765	4508239.414	208.291
1_GS0032	585033.265	4511261.004	178.479
1_GS0048	588042.026	4534035.008	203.941
1_GS0060	592013.24	4548679.852	211.243
1_GS0082	563697.591	4576682.528	238.613
1_GS0084	559644.492	4576370.514	233.077
1_GS0098	549704.264	4558505.54	245.936
1_GS0139	522752.219	4610394.129	294.184
1_GS0192	490761.929	4583385.148	242.404
1_GS0207	498119.911	4565068.52	273.222
1_GS0221	550569.461	4523410.917	246.248
1_GS0230	540264.492	4497983.679	249.893
1_GS0248	503317.282	4495693.258	290.703
1_GS0281	491714.261	4538796.97	303.692
1_GS0293	474032.976	4539861.335	302.139
1_GS0318	474049.094	4511812.126	324.039
1_GS0337	461184.493	4539050.103	282.804
1_GS0343	435667.644	4543199.598	346.974
1_GS0361	452913.954	4570568.105	301.11
1_GS0385	414396.4	4577616.367	341.628
1_GS0387	412689.501	4569406.914	352.145
2_GS0439	384344.736	4544955.469	397.381
2_GS0449	378554.172	4573367.905	406.693

1_GS0003



Point ID: 1_GS0003

Northing: 4536742.284 Meters

Easting: 550264.269 Meters

Orthometric Height: 195.054 Meters

Latitude: 40 58 49.087496 N

Longitude: 92 24 9.063458 W

Ellipsoid Height: 162.336 Meters

1_GS0005



Point ID: 1_GS0005

Northing: 4529241.662 Meters

Easting: 549383.845 Meters

Orthometric Height: 254.33 Meters

Latitude: 40 54 46.048918 N

Longitude: 92 24 48.890029 W

Ellipsoid Height: 221.574 Meters

1_GS0016



Point ID: 1_GS0016

Northing: 4505383.864 Meters

Easting: 561795.474 Meters

Orthometric Height: 253.88 Meters

Latitude: 40 41 49.348738 N

Longitude: 92 16 6.850524 W

Ellipsoid Height: 220.952 Meters

1_GS0026



Point ID: 1_GS0026

Northing: 4508055.745 Meters

Easting: 592033.274 Meters

Orthometric Height: 209.768 Meters

Latitude: 40 43 5.826418 N

Longitude: 91 54 37.169377 W

Ellipsoid Height: 176.636 Meters

1_GS0031



Point ID: 1_GS0031

Northing: 4508239.414 Meters

Easting: 595778.765 Meters

Orthometric Height: 208.291 Meters

Latitude: 40 43 10.244270 N

Longitude: 91 51 57.449488 W

Ellipsoid Height: 175.142 Meters

1_GS0032



Point ID: 1_GS0032

Northing: 4511261.004 Meters

Easting: 585033.265 Meters

Orthometric Height: 178.479 Meters

Latitude: 40 44 52.469876 N

Longitude: 91 59 33.925250 W

Ellipsoid Height: 145.38 Meters

1_GS0048



Point ID: 1_GS0048

Northing: 4534035.008 Meters

Easting: 588042.026 Meters

Orthometric Height: 203.941 Meters

Latitude: 40 57 9.779943 N

Longitude: 91 57 14.045459 W

Ellipsoid Height: 170.963 Meters

1_GS0060



Point ID: 1_GS0060

Northing: 4548679.852 Meters

Easting: 592013.24 Meters

Orthometric Height: 211.243 Meters

Latitude: 41 5 3.043113 N

Longitude: 91 54 16.347669 W

Ellipsoid Height: 178.359 Meters

1_GS0082



Point ID: 1_GS0082

Northing: 4576682.528 Meters

Easting: 563697.591 Meters

Orthometric Height: 238.613 Meters

Latitude: 41 20 20.809015 N

Longitude: 92 14 19.314231 W

Ellipsoid Height: 206.179 Meters

1_GS0084



Point ID: 1_GS0084

Northing: 4576370.514 Meters

Easting: 559644.492 Meters

Orthometric Height: 233.077 Meters

Latitude: 41 20 11.808653 N

Longitude: 92 17 13.801887 W

Ellipsoid Height: 200.659 Meters

1_GS0098



Point ID: 1_GS0098

Northing: 4558505.54 Meters

Easting: 549704.264 Meters

Orthometric Height: 245.936 Meters

Latitude: 41 10 34.938651 N

Longitude: 92 24 26.697203 W

Ellipsoid Height: 213.392 Meters

1_GS0139



Point ID: 1_GS0139

Northing: 4610394.129 Meters

Easting: 522752.219 Meters

Orthometric Height: 294.184 Meters

Latitude: 41 38 41.866321 N

Longitude: 92 43 36.432393 W

Ellipsoid Height: 262.117 Meters

1_GS0192



Point ID: 1_GS0192

Northing: 4583385.148 Meters

Easting: 490761.929 Meters

Orthometric Height: 242.404 Meters

Latitude: 41 24 7.031977 N

Longitude: 93 6 37.866207 W

Ellipsoid Height: 210.467 Meters

1_GS0207



Point ID: 1_GS0207

Northing: 4565068.52 Meters

Easting: 498119.911 Meters

Orthometric Height: 273.222 Meters

Latitude: 41 14 13.246187 N

Longitude: 93 1 20.767975 W

Ellipsoid Height: 241.225 Meters

1_GS0221



Point ID: 1_GS0221

Northing: 4523410.917 Meters

Easting: 550569.461 Meters

Orthometric Height: 246.248 Meters

Latitude: 40 51 36.705687 N

Longitude: 92 23 59.917350 W

Ellipsoid Height: 213.453 Meters

1_GS0230



Point ID: 1_GS0230

Northing: 4497983.679 Meters

Easting: 540264.492 Meters

Orthometric Height: 249.893 Meters

Latitude: 40 37 54.157564 N

Longitude: 92 31 25.970359 W

Ellipsoid Height: 217.247 Meters

1_GS0248



Point ID: 1_GS0248

Northing: 4495693.258 Meters

Easting: 503317.282 Meters

Orthometric Height: 290.703 Meters

Latitude: 40 36 43.384351 N

Longitude: 92 57 38.826905 W

Ellipsoid Height: 258.602 Meters

1_GS0281



Point ID: 1_GS0281

Northing: 4538796.97 Meters

Easting: 491714.261 Meters

Orthometric Height: 303.692 Meters

Latitude: 41 0 1.142656 N

Longitude: 93 5 54.676085 W

Ellipsoid Height: 271.848 Meters

1_GS0293



Point ID: 1_GS0293

Northing: 4539861.335 Meters

Easting: 474032.976 Meters

Orthometric Height: 302.139 Meters

Latitude: 41 0 34.322084 N

Longitude: 93 18 31.688379 W

Ellipsoid Height: 270.46 Meters

1_GS0318



Point ID: 1_GS0318

Northing: 4511812.126 Meters

Easting: 474049.094 Meters

Orthometric Height: 324.039 Meters

Latitude: 40 45 24.692299 N

Longitude: 93 18 26.781026 W

Ellipsoid Height: 292.312 Meters

1_GS0337



Point ID: 1_GS0337

Northing: 4539050.103 Meters

Easting: 461184.493 Meters

Orthometric Height: 282.804 Meters

Latitude: 41 0 6.176866 N

Longitude: 93 27 41.554000 W

Ellipsoid Height: 251.227 Meters

1_GS0343



Point ID: 1_GS0343

Northing: 4543199.598 Meters

Easting: 435667.644 Meters

Orthometric Height: 346.974 Meters

Latitude: 41 2 14.920524 N

Longitude: 93 45 55.322310 W

Ellipsoid Height: 315.657 Meters

1_GS0361



Point ID: 1_GS0361

Northing: 4570568.105 Meters

Easting: 452913.954 Meters

Orthometric Height: 301.11 Meters

Latitude: 41 17 6.651878 N

Longitude: 93 33 44.283168 W

Ellipsoid Height: 269.69 Meters

1_GS0385



Point ID: 1_GS0385

Northing: 4577616.367 Meters

Easting: 414396.4 Meters

Orthometric Height: 341.628 Meters

Latitude: 41 20 43.780571 N

Longitude: 94 1 23.573446 W

Ellipsoid Height: 310.795 Meters

1_GS0387



Point ID: 1_GS0387

Northing: 4569406.914 Meters

Easting: 412689.501 Meters

Orthometric Height: 352.145 Meters

Latitude: 41 16 16.949848 N

Longitude: 94 2 32.768324 W

Ellipsoid Height: 321.249 Meters

2_GS0439



Point ID: 2_GS0439

Northing: 4544955.469 Meters

Easting: 384344.736 Meters

Orthometric Height: 397.381 Meters

Latitude: 41 2 51.429605 N

Longitude: 94 22 34.171125 W

Ellipsoid Height: 366.514 Meters

2_GS0449



Point ID: 2_GS0449

Northing: 4573367.905 Meters

Easting: 378554.172 Meters

Orthometric Height: 406.693 Meters

Latitude: 41 18 9.476789 N

Longitude: 94 27 2.425336 W

Ellipsoid Height: 376.731 Meters

Vegetated Vertical Accuracy Checkpoints High Vegetation

The Map shows the overall distribution of the Vegetated Vertical Accuracy Checkpoint, High Vegetation throughout the AOI. The following tables contain a list of the control using Easting, Northing, and Orthometric height. The coordinate system displayed is Universal Transverse Mercator UTM Zone 15, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

IA_SouthCentral_2020_D20

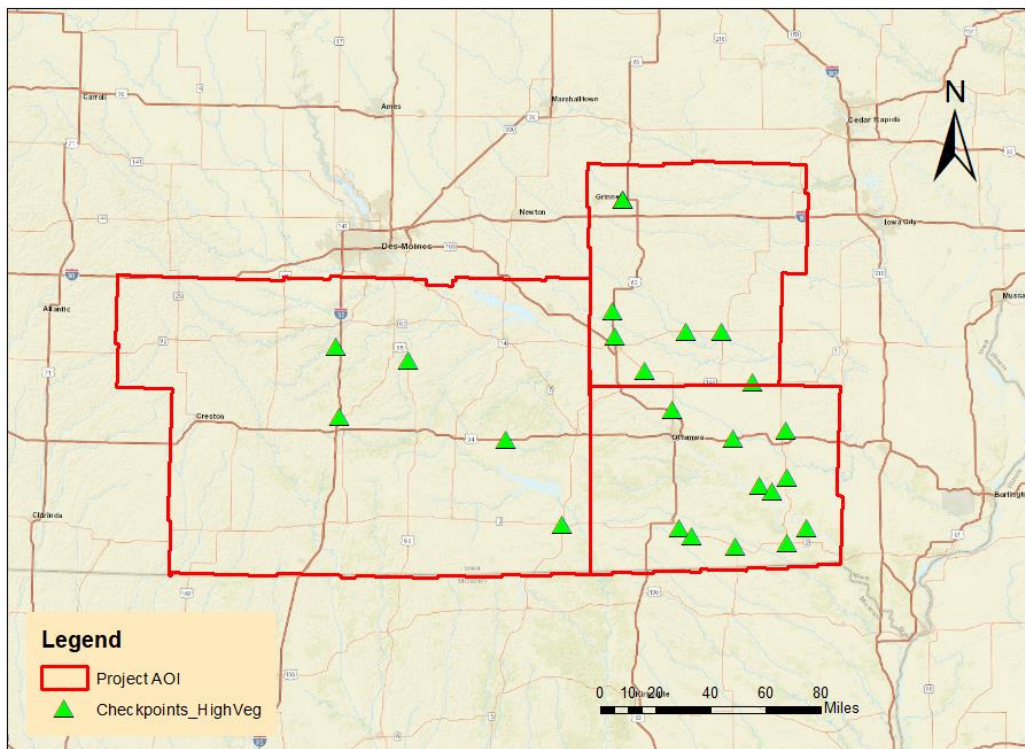


TABLE: High Vegetation

Point ID	Easting	Northing	Ortho
1_GS0010	551678.153	4508519.154	265.062
1_GS0015	556110.959	4505406.872	259.878
1_GS0018	571040.084	4502194.583	241.886
1_GS0025	588913.432	4503248.296	226.315
1_GS0030	595748.98	4508173.218	211.376
1_GS0039	579715.093	4523052.963	232.184
1_GS0040	583734.726	4521236.611	222.13
1_GS0044	589026.996	4525749.934	228.54
1_GS0052	570246.095	4539369.828	230.732
1_GS0058	588574.231	4542081.46	233.751
1_GS0068	577164.49	4558908.734	237.612
1_GS0074	566528.934	4576069.368	241.989
1_GS0088	553999.067	4576325.297	242.942
1_GS0094	539827.375	4562525.328	248.588
1_GS0100	549495.134	4549149.101	254.105
1_GS0127	529669.441	4574808.403	250.277
1_GS0129	528815.632	4583265.242	251.621
1_GS0143	532255.096	4621706.719	300.873
1_GS0144	532229.92	4621690.141	300.957
1_GS0239	511331.692	4509364.45	304.541
1_GS0282	491714.401	4538767.399	305.376
1_GS0339	434154.074	4546900.372	302.68
1_GS0359	458112.918	4566411.967	284.138
1_GS0374	432942.742	4571175.165	314.74

1_GS0010



Point ID: 1_GS0010

Northing: 4508519.154 Meters

Easting: 551678.153 Meters

Orthometric Height: 265.062 Meters

Latitude: 40 43 33.532099 N

Longitude: 92 23 17.000478 W

Ellipsoid Height: 232.253 Meters

1_GS0015



Point ID: 1_GS0015

Northing: 4505406.872 Meters

Easting: 556110.959 Meters

Orthometric Height: 259.878 Meters

Latitude: 40 41 51.558874 N

Longitude: 92 20 9.048136 W

Ellipsoid Height: 227.014 Meters

1_GS0018



Point ID: 1_GS0018

Northing: 4502194.583 Meters

Easting: 571040.084 Meters

Orthometric Height: 241.886 Meters

Latitude: 40 40 3.244645 N

Longitude: 92 9 34.268262 W

Ellipsoid Height: 208.899 Meters

1_GS0025



Point ID: 1_GS0025

Northing: 4503248.296 Meters

Easting: 588913.432 Meters

Orthometric Height: 226.315 Meters

Latitude: 40 40 31.174543 N

Longitude: 91 56 52.581268 W

Ellipsoid Height: 193.209 Meters

1_GS0030



Point ID: 1_GS0030

Northing: 4508173.218 Meters

Easting: 595748.98 Meters

Orthometric Height: 211.376 Meters

Latitude: 40 43 8.110352 N

Longitude: 91 51 58.755239 W

Ellipsoid Height: 178.227 Meters

1_GS0039



Point ID: 1_GS0039

Northing: 4523052.963 Meters

Easting: 579715.093 Meters

Orthometric Height: 232.184 Meters

Latitude: 40 51 16.757323 N

Longitude: 92 3 15.254224 W

Ellipsoid Height: 199.183 Meters

1_GS0040



Point ID: 1_GS0040

Northing: 4521236.611 Meters

Easting: 583734.726 Meters

Orthometric Height: 222.13 Meters

Latitude: 40 50 16.417978 N

Longitude: 92 0 24.473466 W

Ellipsoid Height: 189.088 Meters

1_GS0044



Point ID: 1_GS0044

Northing: 4525749.934 Meters

Easting: 589026.996 Meters

Orthometric Height: 228.54 Meters

Latitude: 40 52 40.755315 N

Longitude: 91 56 36.200784 W

Ellipsoid Height: 195.497 Meters

1_GS0052



Point ID: 1_GS0052

Northing: 4539369.828 Meters

Easting: 570246.095 Meters

Orthometric Height: 230.732 Meters

Latitude: 41 0 8.976831 N

Longitude: 92 9 52.989245 W

Ellipsoid Height: 197.89 Meters

1_GS0058



Point ID: 1_GS0058

Northing: 4542081.46 Meters

Easting: 588574.231 Meters

Orthometric Height: 233.751 Meters

Latitude: 41 1 30.472849 N

Longitude: 91 56 47.133263 W

Ellipsoid Height: 200.839 Meters

1_GS0068



Point ID: 1_GS0068

Northing: 4558908.734 Meters

Easting: 577164.49 Meters

Orthometric Height: 237.612 Meters

Latitude: 41 10 40.273852 N

Longitude: 92 4 48.043254 W

Ellipsoid Height: 204.883 Meters

1_GS0074



Point ID: 1_GS0074

Northing: 4576069.368 Meters

Easting: 566528.934 Meters

Orthometric Height: 241.989 Meters

Latitude: 41 20 0.103847 N

Longitude: 92 12 17.744158 W

Ellipsoid Height: 209.525 Meters

1_GS0088



Point ID: 1_GS0088

Northing: 4576325.297 Meters

Easting: 553999.067 Meters

Orthometric Height: 242.942 Meters

Latitude: 41 20 11.775580 N

Longitude: 92 21 16.694637 W

Ellipsoid Height: 210.546 Meters

1_GS0094



Point ID: 1_GS0094

Northing: 4562525.328 Meters

Easting: 539827.375 Meters

Orthometric Height: 248.588 Meters

Latitude: 41 12 47.254377 N

Longitude: 92 31 29.654562 W

Ellipsoid Height: 216.108 Meters

1_GS0100



Point ID: 1_GS0100

Northing: 4549149.101 Meters

Easting: 549495.134 Meters

Orthometric Height: 254.105 Meters

Latitude: 41 5 31.581799 N

Longitude: 92 24 38.389771 W

Ellipsoid Height: 221.505 Meters

1_GS0127



Point ID: 1_GS0127

Northing: 4574808.403 Meters

Easting: 529669.441 Meters

Orthometric Height: 250.277 Meters

Latitude: 41 19 27.134187 N

Longitude: 92 38 43.714355 W

Ellipsoid Height: 217.948 Meters

1_GS0129



Point ID: 1_GS0129

Northing: 4583265.242 Meters

Easting: 528815.632 Meters

Orthometric Height: 251.621 Meters

Latitude: 41 24 1.475829 N

Longitude: 92 39 18.995557 W

Ellipsoid Height: 219.372 Meters

1_GS0143



Point ID: 1_GS0143

Northing: 4621706.719 Meters

Easting: 532255.096 Meters

Orthometric Height: 300.873 Meters

Latitude: 41 44 47.496578 N

Longitude: 92 36 43.432768 W

Ellipsoid Height: 268.874 Meters

1_GS0144



Point ID: 1_GS0144

Northing: 4621690.141 Meters

Easting: 532229.92 Meters

Orthometric Height: 300.957 Meters

Latitude: 41 44 46.962724 N

Longitude: 92 36 44.526035 W

Ellipsoid Height: 268.958 Meters

1_GS0239



Point ID: 1_GS0239

Northing: 4509364.45 Meters

Easting: 511331.692 Meters

Orthometric Height: 304.541 Meters

Latitude: 40 44 6.504742 N

Longitude: 92 51 56.871209 W

Ellipsoid Height: 272.379 Meters

1_GS0282



Point ID: 1_GS0282

Northing: 4538767.399 Meters

Easting: 491714.401 Meters

Orthometric Height: 305.376 Meters

Latitude: 41 0 0.183687 N

Longitude: 93 5 54.668665 W

Ellipsoid Height: 273.532 Meters

1_GS0339



Point ID: 1_GS0339

Northing: 4546900.372 Meters

Easting: 434154.074 Meters

Orthometric Height: 302.68 Meters

Latitude: 41 4 14.487470 N

Longitude: 93 47 1.566004 W

Ellipsoid Height: 271.374 Meters

1_GS0359



Point ID: 1_GS0359

Northing: 4566411.967 Meters

Easting: 458112.918 Meters

Orthometric Height: 284.138 Meters

Latitude: 41 14 52.912550 N

Longitude: 93 29 59.754156 W

Ellipsoid Height: 252.67 Meters

1_GS0374



Point ID: 1_GS0374

Northing: 4571175.165 Meters

Easting: 432942.742 Meters

Orthometric Height: 314.74 Meters

Latitude: 41 17 21.253012 N

Longitude: 93 48 3.040824 W

Ellipsoid Height: 283.539 Meters