

AZ_NavajoNation_D22
Survey Report

Contract Number: G16PC00044

Task Order Number: 140G0221D0017



Contractor Point-of-Contact (POC)

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Overview

Digital Aerial Solutions, LLC (DAS) with contract number G16PC00044 was contracted by the United States Geological Survey under task order number 140G0221D0017 to collect a high-resolution LiDAR data set covering 6,054 square miles in Arizona. Each of these categories was spread out as evenly as possible throughout the Area of Interest (AOI). The geodetic survey for AZ_NavajoNation_D22 was conducted in two phases. The first phase comprised of a static network, involving thirty (30) control points and seven (7) NGS-benchmarks, well distributed in the entire defined project area (DPA). GPS observations were collected on these established points to establish a baseline connection among all points within the geodetic network. The survey was completed using three Leica Global Positioning System (LEIGS15) collecting data concurrently at 1-hz epoch. All data was processed using Leica Grafnet Version 8.90.2124 software. The data processing involved two levels of network adjustment; namely minimally constrained adjustment followed by a multiple constrained adjustment. Final output result for the network was evaluated to ensure that horizontal and vertical solution network result was within the project accuracy requirements.

The second phase of the geodetic survey involved the use of RTK (Base & Rover) methodology to perform checkpoint surveys using all the established geodetic control points in phase one as base-station points. The RTK was conducted using Leica-GS15 as base station and Leica-GS18 as rover. A SATEL-TA18 long range radio Modem was utilized for radio communication between the Base and Rover GPS units. Each observation was identified in the field and surveyed in accordance with section C.1.e.(i)(d) of the task order, the spatial reference system used was:

Spatial Reference System:

Coordinate System: Universal Transverse Mercator UTM Zone 12

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. 68 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.

Network solution results is shown below;

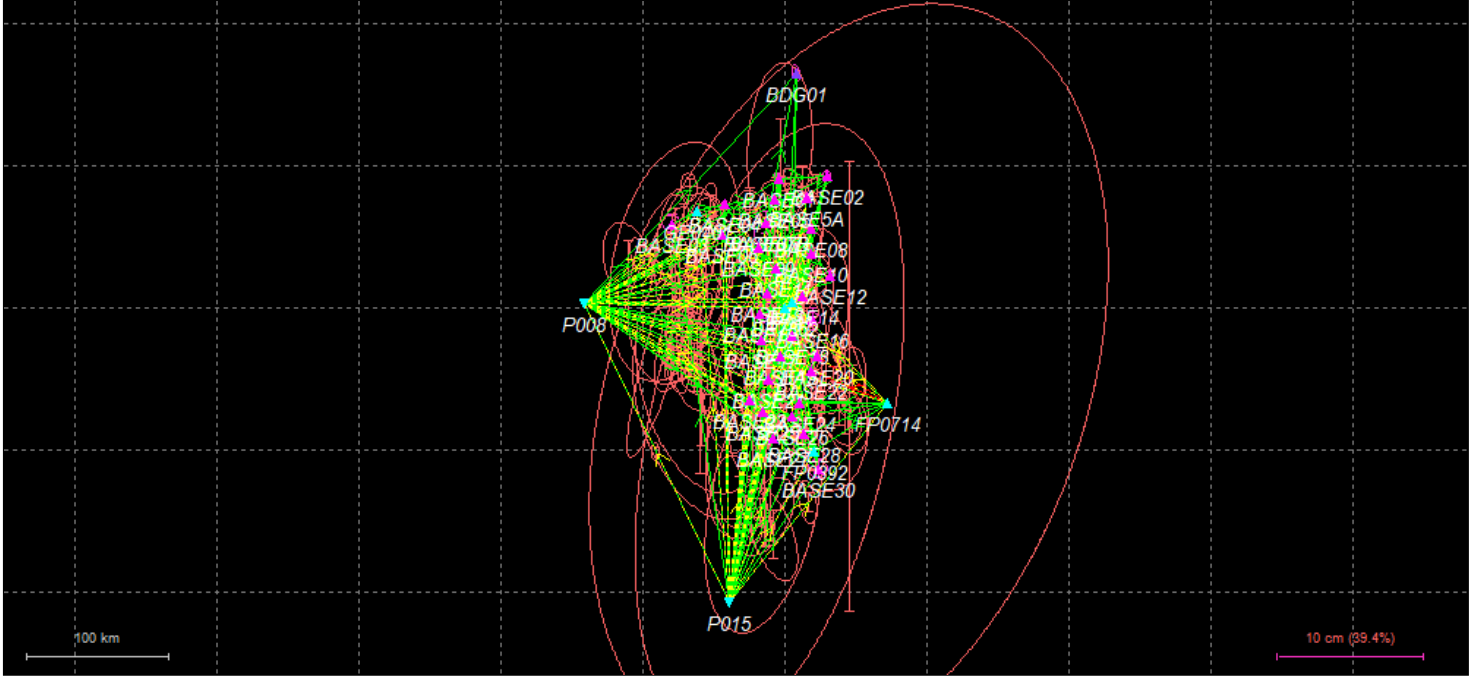


Table 1: Station Coordinates

Coordinate datum is NAD83(2011)
Grid coordinates in UTM, Zone 12

ID	Latitude (D M S)	Longitude (D M S)	Ell-Hgt (m)	Type	Hz-SD (m)	Vt-SD (m)	Grid-X (m)	Grid-Y (m)
BASE01	36 55 30.24327	-109 36 54.93240	1491.018	NET-SOL	0.004	0.005	623332.978	4087455.398
BASE02	36 56 21.13435	-109 14 45.22967	1611.746	NET-SOL	0.004	0.005	656204.187	4089565.328
BASE03	36 37 55.43325	-110 27 00.42937	1884.944	NET-SOL	0.006	0.012	549161.175	4054198.149
BASE04	36 45 49.61487	-110 02 19.84637	1582.402	NET-SOL	0.002	0.003	585784.656	4069099.127
BASE05	36 47 27.90503	-109 39 04.01544	1545.122	NET-SOL	0.002	0.003	620349.176	4072545.655
BASE06	36 34 35.53582	-110 03 36.00881	1686.336	NET-SOL	0.003	0.004	584099.908	4048309.116
BASE07	36 38 52.50110	-109 43 26.06498	1648.664	NET-SOL	0.004	0.005	614065.840	4056574.088
BASE07B	36 38 52.52869	-109 43 26.05927	1648.617	NET-SOL	0.017	0.014	614065.971	4056574.940
BASE08	36 36 40.09247	-109 22 15.61210	1752.123	NET-SOL	0.003	0.004	645682.186	4052971.205
BASE09	36 29 21.86453	-109 46 53.32860	1758.554	NET-SOL	0.003	0.005	609142.159	4038923.269
BASE10	36 27 14.75169	-109 22 30.09255	1782.384	NET-SOL	0.003	0.006	645616.641	4035543.565
BASE11	36 21 42.57832	-109 38 47.83352	1659.064	NET-SOL	0.004	0.007	621420.640	4024931.911
BASE12	36 18 40.48328	-109 13 00.12334	2130.544	NET-SOL	0.003	0.007	660098.366	4019946.674
BASE13	36 12 26.92889	-109 42 51.94780	1806.532	NET-SOL	0.007	0.016	615564.069	4007727.365
BASE14	36 11 02.37552	-109 26 28.54787	1949.608	NET-SOL	0.003	0.006	640163.460	4005482.071
BASE15	36 04 14.46500	-109 45 59.68081	1774.093	NET-SOL	0.006	0.013	611068.760	3992492.424
BASE16	36 02 27.06501	-109 21 40.16661	2062.779	NET-SOL	0.006	0.015	647635.022	3989721.960
BASE17	35 54 34.29378	-109 45 38.45979	1843.684	NET-SOL	0.004	0.008	611826.858	3974623.041
BASE18	35 56 26.46488	-109 30 53.07295	1780.546	NET-SOL	0.003	0.007	633967.608	3978388.858
BASE19	35 48 23.87997	-109 36 40.08346	1889.548	NET-SOL	0.002	0.004	625483.941	3963391.506

BASE20	35 48 41.59758	-109 19 35.23268	2202.216	NET-SOL	0.004	0.008	651197.631	3964339.719
BASE21	35 39 24.34189	-109 42 04.16814	1849.843	NET-SOL	0.004	0.007	617569.972	3946656.280
BASE22	35 43 09.84696	-109 22 06.26286	2162.376	NET-SOL	0.004	0.008	647577.225	3954053.695
BASE23	35 31 44.81952	-109 51 03.37435	1783.983	NET-SOL	0.003	0.003	604176.723	3932329.743
BASE24	35 30 49.01941	-109 27 43.40615	2032.297	NET-SOL	0.004	0.005	639462.744	3931091.042
BASE25	35 27 26.65173	-109 44 59.63698	1875.478	NET-SOL	0.004	0.005	613438.313	3924487.215
BASE26	35 25 40.88784	-109 30 56.27358	1913.516	NET-SOL	0.002	0.003	634746.947	3921522.959
BASE27	35 17 40.28652	-109 39 49.86555	1764.331	NET-SOL	0.004	0.006	621490.958	3906524.023
BASE28	35 19 02.64846	-109 25 53.72047	1890.396	NET-SOL	0.004	0.008	642571.198	3909370.964
BASE30	35 05 51.01396	-109 18 44.27375	1825.175	NET-SOL	0.006	0.013	653830.269	3885158.839
BASE5A	36 48 14.21533	-109 24 14.92728	1635.975	NET-SOL	0.004	0.005	642361.737	4074312.029
BDG01	37 34 51.96410	-109 28 57.39199	1748.967	NET-SOL	0.006	0.005	633981.169	4160421.144
DR7362	36 06 33.53023	-109 34 36.38048	1667.626	GCP-3D	0.000	0.000	628098.925	3997010.806
FP0392	35 12 32.94101	-109 20 52.31068	1760.469	GCP-3D	0.000	0.000	650382.566	3897487.719
FP0714	35 30 50.90025	-108 46 56.88777	1949.587	GCP-3D	0.000	0.000	701095.989	3932322.813
GP0401	36 43 22.27439	-110 15 25.23479	1712.184	GCP-3D	0.000	0.000	566348.052	4064385.620
P008	36 08 34.13974	-111 07 48.12588	1522.876	GCP-HZ	0.000	0.001	488301.422	3999796.920
P011	36 08 59.36363	-109 31 09.17513	1729.382	GCP-3D	0.000	0.000	633211.257	4001581.827
P015	34 15 49.70276	-110 00 34.10226	1931.058	GCP-HZ	0.000	0.001	591190.970	3791850.744

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 12, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

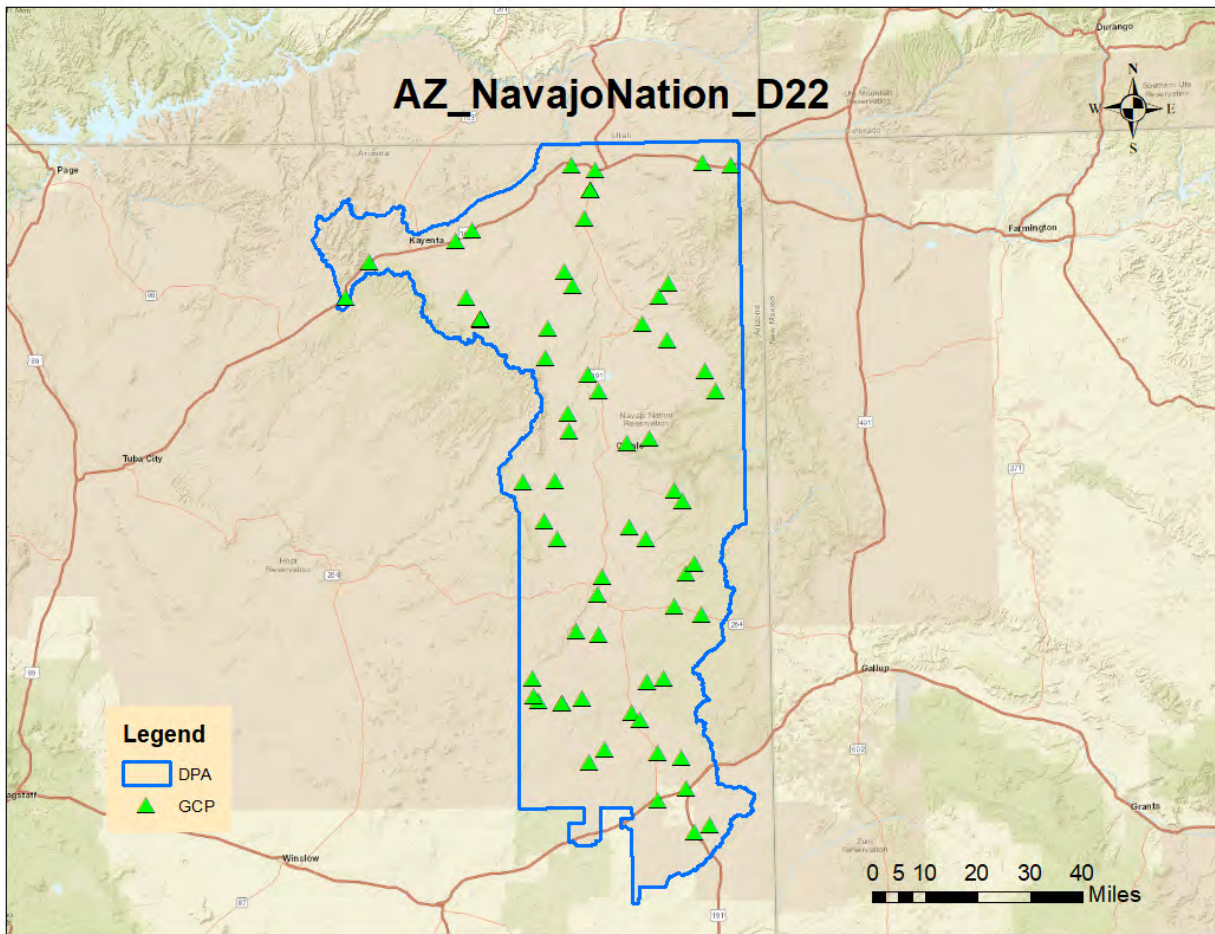


TABLE: Ground Control Points

Point ID	Easting	Northing	Ortho
GS0005	624521.389	4019839.494	1627.75
GS0012	609138.076	4038924.35	1778.801
GS0027	588340.083	4041833.714	1818.347
GS0028	588349.167	4041807.246	1818.014
GS0029	588361.437	4041793.88	1818.662
GS0030	588320.391	4041836.367	1817.378
GS0045	585792.309	4069100.562	1603.166
GS0056	623325.263	4087432.782	1511.925
GS0071	664808.755	4088833.815	1585.844
GS0082	621918.639	4081391.545	1614.417
GS0083	621943.725	4081376.129	1613.175
GS0084	621929.85	4081356.973	1613.23
GS0085	621937.794	4081405.642	1613.396
GS0089	614055.21	4056562.989	1668.61
GS0093	616569.452	4052178.98	1621.04
GS0100	645668.958	4052973.255	1771.786
GS0107	642987.852	4048905.769	1767.679
GS0111	645614.881	4035538.702	1802.345
GS0122	660097.67	4019942.16	2149.629
GS0133	640178.995	4005497.268	1969.418
GS0137	633124.559	4003939.019	1782.532
GS0144	606126.055	3925333.281	1819.007
GS0147	619323.338	3925950.796	1950.083
GS0150	613460.572	3924479.945	1897.55
GS0151	613430.685	3924482.432	1897.446
GS0152	604171.294	3932319.771	1805.913
GS0155	604739.488	3926544.334	1795.368
GS0163	624679.156	3945558.442	1991.267
GS0168	651207.185	3964355.752	2222.789
GS0171	653815.475	3967205.521	2332.707
GS0177	647575.159	3954041.899	2182.734
GS0184	625479.851	3963383.952	1910.105
GS0194	611856.819	3974626.969	1863.517
GS0196	607991.422	3980265.579	1874.057
GS0202	653838.233	3885147.586	1848.129
GS0206	658364.664	3887238.433	1889.309
GS0214	642655.442	3895058.349	1754.234
GS0219	651396.637	3898539.356	1794.8
GS0226	642572.187	3909384.527	1912.761
GS0230	649676.747	3907968.813	1962.115
GS0238	621490.181	3906541.446	1786.731
GS0242	626391.492	3910437.268	1803.555

GS0250	634737.408	3921525.153	1935.466
GS0254	637179.731	3919603.695	1946.807
GS0262	639473.668	3931106.623	2054.145
GS0266	644213.609	3932002.275	2174.094
GS0274	633970.134	3978391.321	1800.7
GS0278	638818.551	3974906.894	1914.122
GS0281	615568.85	4007722.852	1826.818
GS0286	615037.999	4013213.211	1714.534
GS0294	611054.31	3992499.668	1794.49
GS0299	601362.894	3992164.456	1848.299
GS0308	647623.78	3989713.666	2082.398
GS0313	650196.108	3986323.523	2142.503
GS0001	621434.462	4024930.936	1679.955
GS0020	608342.962	4030096.388	1795.49
GS0023	584091.755	4048319.846	1706.969
GS0038	547243.989	4048566.449	1985.745
GS0041	554584.303	4059435.962	1839.919
GS0049	580884.778	4065845.1	1682.841
GS0060	616272.76	4088864.096	1480.754
GS0067	656197.829	4089569.888	1632.663
GS0078	620329.933	4072531.251	1565.679
GS0115	637780.142	4040598.425	1658.339
GS0126	657190.057	4025974.463	2022.86
GS0160	617593.411	3946652.717	1871.952
GS0179	655898.704	3951668.08	2283.214
GS0187	624229.19	3957672.514	1937.604

GS0005



Point ID: GS0005

Northing: 4019839.494 Meters

Easting: 624521.389 Meters

Orthometric Height: 1627.75 Meters

Latitude: 36 18 55.922485 N

Longitude: 109 36 46.375506 W

Ellipsoid Height: 1607.387 Meters

GS0012



Point ID: GS0012

Northing: 4038924.35 Meters

Easting: 609138.076 Meters

Orthometric Height: 1778.801 Meters

Latitude: 36 29 21.901281 N

Longitude: 109 46 53.492123 W

Ellipsoid Height: 1758.314 Meters

GS0027



Point ID: GS0027

Northing: 4041833.714 Meters

Easting: 588340.083 Meters

Orthometric Height: 1818.347 Meters

Latitude: 36 31 04.032495 N

Longitude: 110 00 48.087786 W

Ellipsoid Height: 1797.941 Meters

GS0028



Point ID: GS0028

Northing: 4041807.246 Meters

Easting: 588349.167 Meters

Orthometric Height: 1818.014 Meters

Latitude: 36 31 03.170588 N

Longitude: 110 00 47.733476 W

Ellipsoid Height: 1797.608 Meters

GS0029



Point ID: GS0029

Northing: 4041793.88 Meters

Easting: 588361.437 Meters

Orthometric Height: 1818.662 Meters

Latitude: 36 31 02.732785 N

Longitude: 110 00 47.245736 W

Ellipsoid Height: 1798.256 Meters

GS0030



Point ID: GS0030

Northing: 4041836.367 Meters

Easting: 588320.391 Meters

Orthometric Height: 1817.378 Meters

Latitude: 36 31 04.125123 N

Longitude: 110 00 48.878338 W

Ellipsoid Height: 1796.972 Meters

GS0045



Point ID: GS0045

Northing: 4069100.562 Meters

Easting: 585792.309 Meters

Orthometric Height: 1603.166 Meters

Latitude: 36 45 49.658928 N

Longitude: 110 02 19.537142 W

Ellipsoid Height: 1582.358 Meters

GS0056



Point ID: GS0056

Northing: 4087432.782 Meters

Easting: 623325.263 Meters

Orthometric Height: 1511.925 Meters

Latitude: 36 55 29.513185 N

Longitude: 109 36 55.257418 W

Ellipsoid Height: 1491.023 Meters

GS0071



Point ID: GS0071

Northing: 4088833.815 Meters

Easting: 664808.755 Meters

Orthometric Height: 1585.844 Meters

Latitude: 36 55 52.129436 N

Longitude: 109 08 58.112623 W

Ellipsoid Height: 1565.256 Meters

GS0082



Point ID: GS0082

Northing: 4081391.545 Meters

Easting: 621918.639 Meters

Orthometric Height: 1614.417 Meters

Latitude: 36 52 14.174897 N

Longitude: 109 37 55.597452 W

Ellipsoid Height: 1593.519 Meters

GS0083



Point ID: GS0083

Northing: 4081376.129 Meters

Easting: 621943.725 Meters

Orthometric Height: 1613.175 Meters

Latitude: 36 52 13.663087 N

Longitude: 109 37 54.593400 W

Ellipsoid Height: 1592.278 Meters

GS0084



Point ID: GS0084

Northing: 4081356.973 Meters

Easting: 621929.85 Meters

Orthometric Height: 1613.23 Meters

Latitude: 36 52 13.048031 N

Longitude: 109 37 55.164738 W

Ellipsoid Height: 1592.333 Meters

GS0085



Point ID: GS0085

Northing: 4081405.642 Meters

Easting: 621937.794 Meters

Orthometric Height: 1613.396 Meters

Latitude: 36 52 14.623331 N

Longitude: 109 37 54.815830 W

Ellipsoid Height: 1592.499 Meters

GS0089



Point ID: GS0089

Northing: 4056562.989 Meters

Easting: 614055.21 Meters

Orthometric Height: 1668.61 Meters

Latitude: 36 38 52.145564 N

Longitude: 109 43 26.498940 W

Ellipsoid Height: 1647.919 Meters

GS0093



Point ID: GS0093

Northing: 4052178.98 Meters

Easting: 616569.452 Meters

Orthometric Height: 1621.04 Meters

Latitude: 36 36 28.807441 N

Longitude: 109 41 47.659217 W

Ellipsoid Height: 1600.404 Meters

GS0100



Point ID: GS0100

Northing: 4052973.255 Meters

Easting: 645668.958 Meters

Orthometric Height: 1771.786 Meters

Latitude: 36 36 40.166255 N

Longitude: 109 22 16.142994 W

Ellipsoid Height: 1751.531 Meters

GS0107



Point ID: GS0107

Northing: 4048905.769 Meters

Easting: 642987.852 Meters

Orthometric Height: 1767.679 Meters

Latitude: 36 34 29.672377 N

Longitude: 109 24 06.753922 W

Ellipsoid Height: 1747.382 Meters

GS0111



Point ID: GS0111

Northing: 4035538.702 Meters

Easting: 645614.881 Meters

Orthometric Height: 1802.345 Meters

Latitude: 36 27 14.594897 N

Longitude: 109 22 30.166531 W

Ellipsoid Height: 1782.397 Meters

GS0122



Point ID: GS0122

Northing: 4019942.16 Meters

Easting: 660097.67 Meters

Orthometric Height: 2149.629 Meters

Latitude: 36 18 40.337269 N

Longitude: 109 13 00.154565 W

Ellipsoid Height: 2130.316 Meters

GS0133



Point ID: GS0133

Northing: 4005497.268 Meters

Easting: 640178.995 Meters

Orthometric Height: 1969.418 Meters

Latitude: 36 11 02.860506 N

Longitude: 109 26 27.916387 W

Ellipsoid Height: 1949.556 Meters

GS0137



Point ID: GS0137

Northing: 4003939.019 Meters

Easting: 633124.559 Meters

Orthometric Height: 1782.532 Meters

Latitude: 36 10 15.887177 N

Longitude: 109 31 11.205755 W

Ellipsoid Height: 1762.442 Meters

GS0144



Point ID: GS0144

Northing: 3925333.281 Meters

Easting: 606126.055 Meters

Orthometric Height: 1819.007 Meters

Latitude: 35 27 57.016770 N

Longitude: 109 49 49.278003 W

Ellipsoid Height: 1796.869 Meters

GS0147



Point ID: GS0147

Northing: 3925950.796 Meters

Easting: 619323.338 Meters

Orthometric Height: 1950.083 Meters

Latitude: 35 28 11.667162 N

Longitude: 109 41 05.444667 W

Ellipsoid Height: 1928.086 Meters

GS0150



Point ID: GS0150

Northing: 3924479.945 Meters

Easting: 613460.572 Meters

Orthometric Height: 1897.55 Meters

Latitude: 35 27 26.406673 N

Longitude: 109 44 58.757765 W

Ellipsoid Height: 1875.432 Meters

GS0151



Point ID: GS0151

Northing: 3924482.432 Meters

Easting: 613430.685 Meters

Orthometric Height: 1897.446 Meters

Latitude: 35 27 26.499651 N

Longitude: 109 44 59.941947 W

Ellipsoid Height: 1875.328 Meters

GS0152



Point ID: GS0152

Northing: 3932319.771 Meters

Easting: 604171.294 Meters

Orthometric Height: 1805.913 Meters

Latitude: 35 31 44.497944 N

Longitude: 109 51 03.594485 W

Ellipsoid Height: 1784.06 Meters

GS0155



Point ID: GS0155

Northing: 3926544.334 Meters

Easting: 604739.488 Meters

Orthometric Height: 1795.368 Meters

Latitude: 35 28 36.849439 N

Longitude: 109 50 43.720409 W

Ellipsoid Height: 1773.279 Meters

GS0163



Point ID: GS0163

Northing: 3945558.442 Meters

Easting: 624679.156 Meters

Orthometric Height: 1991.267 Meters

Latitude: 35 38 45.575950 N

Longitude: 109 37 22.114063 W

Ellipsoid Height: 1970.055 Meters

GS0168



Point ID: GS0168

Northing: 3964355.752 Meters

Easting: 651207.185 Meters

Orthometric Height: 2222.789 Meters

Latitude: 35 48 42.112461 N

Longitude: 109 19 34.841189 W

Ellipsoid Height: 2202.446 Meters

GS0171



Point ID: GS0171

Northing: 3967205.521 Meters

Easting: 653815.475 Meters

Orthometric Height: 2332.707 Meters

Latitude: 35 50 13.111035 N

Longitude: 109 17 48.974003 W

Ellipsoid Height: 2312.473 Meters

GS0177



Point ID: GS0177

Northing: 3954041.899 Meters

Easting: 647575.159 Meters

Orthometric Height: 2182.734 Meters

Latitude: 35 43 09.465323 N

Longitude: 109 22 06.352861 W

Ellipsoid Height: 2162.09 Meters

GS0184



Point ID: GS0184

Northing: 3963383.952 Meters

Easting: 625479.851 Meters

Orthometric Height: 1910.105 Meters

Latitude: 35 48 23.636741 N

Longitude: 109 36 40.250657 W

Ellipsoid Height: 1889.461 Meters

GS0194



Point ID: GS0194

Northing: 3974626.969 Meters

Easting: 611856.819 Meters

Orthometric Height: 1863.517 Meters

Latitude: 35 54 34.408893 N

Longitude: 109 45 37.262710 W

Ellipsoid Height: 1842.889 Meters

GS0196



Point ID: GS0196

Northing: 3980265.579 Meters

Easting: 607991.422 Meters

Orthometric Height: 1874.057 Meters

Latitude: 35 57 38.949898 N

Longitude: 109 48 08.689786 W

Ellipsoid Height: 1853.513 Meters

GS0202



Point ID: GS0202

Northing: 3885147.586 Meters

Easting: 653838.233 Meters

Orthometric Height: 1848.129 Meters

Latitude: 35 05 50.644432 N

Longitude: 109 18 43.966883 W

Ellipsoid Height: 1825.246 Meters

GS0206



Point ID: GS0206

Northing: 3887238.433 Meters

Easting: 658364.664 Meters

Orthometric Height: 1889.309 Meters

Latitude: 35 06 55.961769 N

Longitude: 109 15 43.821551 W

Ellipsoid Height: 1866.579 Meters

GS0214



Point ID: GS0214

Northing: 3895058.349 Meters

Easting: 642655.442 Meters

Orthometric Height: 1754.234 Meters

Latitude: 35 11 18.171712 N

Longitude: 109 25 59.331385 W

Ellipsoid Height: 1731.358 Meters

GS0219



Point ID: GS0219

Northing: 3898539.356 Meters

Easting: 651396.637 Meters

Orthometric Height: 1794.8 Meters

Latitude: 35 13 06.515401 N

Longitude: 109 20 11.522541 W

Ellipsoid Height: 1772.235 Meters

GS0226



Point ID: GS0226

Northing: 3909384.527 Meters

Easting: 642572.187 Meters

Orthometric Height: 1912.761 Meters

Latitude: 35 19 03.088076 N

Longitude: 109 25 53.672828 W

Ellipsoid Height: 1890.412 Meters

GS0230



Point ID: GS0230

Northing: 3907968.813 Meters

Easting: 649676.747 Meters

Orthometric Height: 1962.115 Meters

Latitude: 35 18 13.411417 N

Longitude: 109 21 13.341074 W

Ellipsoid Height: 1939.883 Meters

GS0238



Point ID: GS0238

Northing: 3906541.446 Meters

Easting: 621490.181 Meters

Orthometric Height: 1786.731 Meters

Latitude: 35 17 40.852293 N

Longitude: 109 39 49.887042 W

Ellipsoid Height: 1763.882 Meters

GS0242



Point ID: GS0242

Northing: 3910437.268 Meters

Easting: 626391.492 Meters

Orthometric Height: 1803.555 Meters

Latitude: 35 19 45.090947 N

Longitude: 109 36 33.717466 W

Ellipsoid Height: 1780.913 Meters

GS0250



Point ID: GS0250

Northing: 3921525.153 Meters

Easting: 634737.408 Meters

Orthometric Height: 1935.466 Meters

Latitude: 35 25 40.963674 N

Longitude: 109 30 56.650457 W

Ellipsoid Height: 1913.405 Meters

GS0254



Point ID: GS0254

Northing: 3919603.695 Meters

Easting: 637179.731 Meters

Orthometric Height: 1946.807 Meters

Latitude: 35 24 37.412698 N

Longitude: 109 29 20.988246 W

Ellipsoid Height: 1924.714 Meters

GS0262



Point ID: GS0262

Northing: 3931106.623 Meters

Easting: 639473.668 Meters

Orthometric Height: 2054.145 Meters

Latitude: 35 30 49.519454 N

Longitude: 109 27 42.962968 W

Ellipsoid Height: 2032.605 Meters

GS0266



Point ID: GS0266

Northing: 3932002.275 Meters

Easting: 644213.609 Meters

Orthometric Height: 2174.094 Meters

Latitude: 35 31 16.141403 N

Longitude: 109 24 34.279965 W

Ellipsoid Height: 2152.694 Meters

GS0274



Point ID: GS0274

Northing: 3978391.321 Meters

Easting: 633970.134 Meters

Orthometric Height: 1800.7 Meters

Latitude: 35 56 26.543574 N

Longitude: 109 30 52.970638 W

Ellipsoid Height: 1780.419 Meters

GS0278



Point ID: GS0278

Northing: 3974906.894 Meters

Easting: 638818.551 Meters

Orthometric Height: 1914.122 Meters

Latitude: 35 54 31.050136 N

Longitude: 109 27 41.712434 W

Ellipsoid Height: 1893.804 Meters

GS0281



Point ID: GS0281

Northing: 4007722.852 Meters

Easting: 615568.85 Meters

Orthometric Height: 1826.818 Meters

Latitude: 36 12 26.780412 N

Longitude: 109 42 51.758769 W

Ellipsoid Height: 1806.435 Meters

GS0286



Point ID: GS0286

Northing: 4013213.211 Meters

Easting: 615037.999 Meters

Orthometric Height: 1714.534 Meters

Latitude: 36 15 25.159494 N

Longitude: 109 43 10.108895 W

Ellipsoid Height: 1694.121 Meters

GS0294



Point ID: GS0294

Northing: 3992499.668 Meters

Easting: 611054.31 Meters

Orthometric Height: 1794.49 Meters

Latitude: 36 04 14.706013 N

Longitude: 109 46 00.254684 W

Ellipsoid Height: 1774.074 Meters

GS0299



Point ID: GS0299

Northing: 3992164.456 Meters

Easting: 601362.894 Meters

Orthometric Height: 1848.299 Meters

Latitude: 36 04 07.640426 N

Longitude: 109 52 27.784035 W

Ellipsoid Height: 1827.838 Meters

GS0308



Point ID: GS0308

Northing: 3989713.666 Meters

Easting: 647623.78 Meters

Orthometric Height: 2082.398 Meters

Latitude: 36 02 26.802078 N

Longitude: 109 21 40.621274 W

Ellipsoid Height: 2062.469 Meters

GS0313



Point ID: GS0313

Northing: 3986323.523 Meters

Easting: 650196.108 Meters

Orthometric Height: 2142.503 Meters

Latitude: 36 00 35.397005 N

Longitude: 109 20 00.181530 W

Ellipsoid Height: 2122.548 Meters

GS0001



Point ID: GS0001

Northing: 4024930.936 Meters

Easting: 621434.462 Meters

Orthometric Height: 1679.955 Meters

Latitude: 36 21 42.540411 N

Longitude: 109 38 47.279594 W

Ellipsoid Height: 1659.505 Meters

GS0020



Point ID: GS0020

Northing: 4030096.388 Meters

Easting: 608342.962 Meters

Orthometric Height: 1795.49 Meters

Latitude: 36 24 35.779272 N

Longitude: 109 47 29.888686 W

Ellipsoid Height: 1775.018 Meters

GS0023



Point ID: GS0023

Northing: 4048319.846 Meters

Easting: 584091.755 Meters

Orthometric Height: 1706.969 Meters

Latitude: 36 34 35.886622 N

Longitude: 110 03 36.332607 W

Ellipsoid Height: 1686.49 Meters

GS0038



Point ID: GS0038

Northing: 4048566.449 Meters

Easting: 547243.989 Meters

Orthometric Height: 1985.745 Meters

Latitude: 36 34 53.018628 N

Longitude: 110 28 18.871958 W

Ellipsoid Height: 1965.353 Meters

GS0041



Point ID: GS0041

Northing: 4059435.962 Meters

Easting: 554584.303 Meters

Orthometric Height: 1839.919 Meters

Latitude: 36 40 44.347238 N

Longitude: 110 23 20.724734 W

Ellipsoid Height: 1819.613 Meters

GS0049



Point ID: GS0049

Northing: 4065845.1 Meters

Easting: 580884.778 Meters

Orthometric Height: 1682.841 Meters

Latitude: 36 44 05.575075 N

Longitude: 110 05 38.703152 W

Ellipsoid Height: 1662.143 Meters

GS0060



Point ID: GS0060

Northing: 4088864.096 Meters

Easting: 616272.76 Meters

Orthometric Height: 1480.754 Meters

Latitude: 36 56 19.178177 N

Longitude: 109 41 39.454457 W

Ellipsoid Height: 1459.792 Meters

GS0067



Point ID: GS0067

Northing: 4089569.888 Meters

Easting: 656197.829 Meters

Orthometric Height: 1632.663 Meters

Latitude: 36 56 21.286069 N

Longitude: 109 14 45.483193 W

Ellipsoid Height: 1612.117 Meters

GS0078



Point ID: GS0078

Northing: 4072531.251 Meters

Easting: 620329.933 Meters

Orthometric Height: 1565.679 Meters

Latitude: 36 47 27.446529 N

Longitude: 109 39 04.799852 W

Ellipsoid Height: 1544.8 Meters

GS0115



Point ID: GS0115

Northing: 4040598.425 Meters

Easting: 637780.142 Meters

Orthometric Height: 1658.339 Meters

Latitude: 36 30 02.917056 N

Longitude: 109 27 41.564061 W

Ellipsoid Height: 1638.003 Meters

GS0126



Point ID: GS0126

Northing: 4025974.463 Meters

Easting: 657190.057 Meters

Orthometric Height: 2022.86 Meters

Latitude: 36 21 57.750538 N

Longitude: 109 14 52.316110 W

Ellipsoid Height: 2003.459 Meters

GS0160



Point ID: GS0160

Northing: 3946652.717 Meters

Easting: 617593.411 Meters

Orthometric Height: 1871.952 Meters

Latitude: 35 39 24.216210 N

Longitude: 109 42 03.238040 W

Ellipsoid Height: 1850.735 Meters

GS0179



Point ID: GS0179

Northing: 3951668.08 Meters

Easting: 655898.704 Meters

Orthometric Height: 2283.214 Meters

Latitude: 35 41 47.831067 N

Longitude: 109 16 36.855830 W

Ellipsoid Height: 2262.633 Meters

GS0187



Point ID: GS0187

Northing: 3957672.514 Meters

Easting: 624229.19 Meters

Orthometric Height: 1937.604 Meters

Latitude: 35 45 18.877814 N

Longitude: 109 37 33.261257 W

Ellipsoid Height: 1916.816 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 12, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

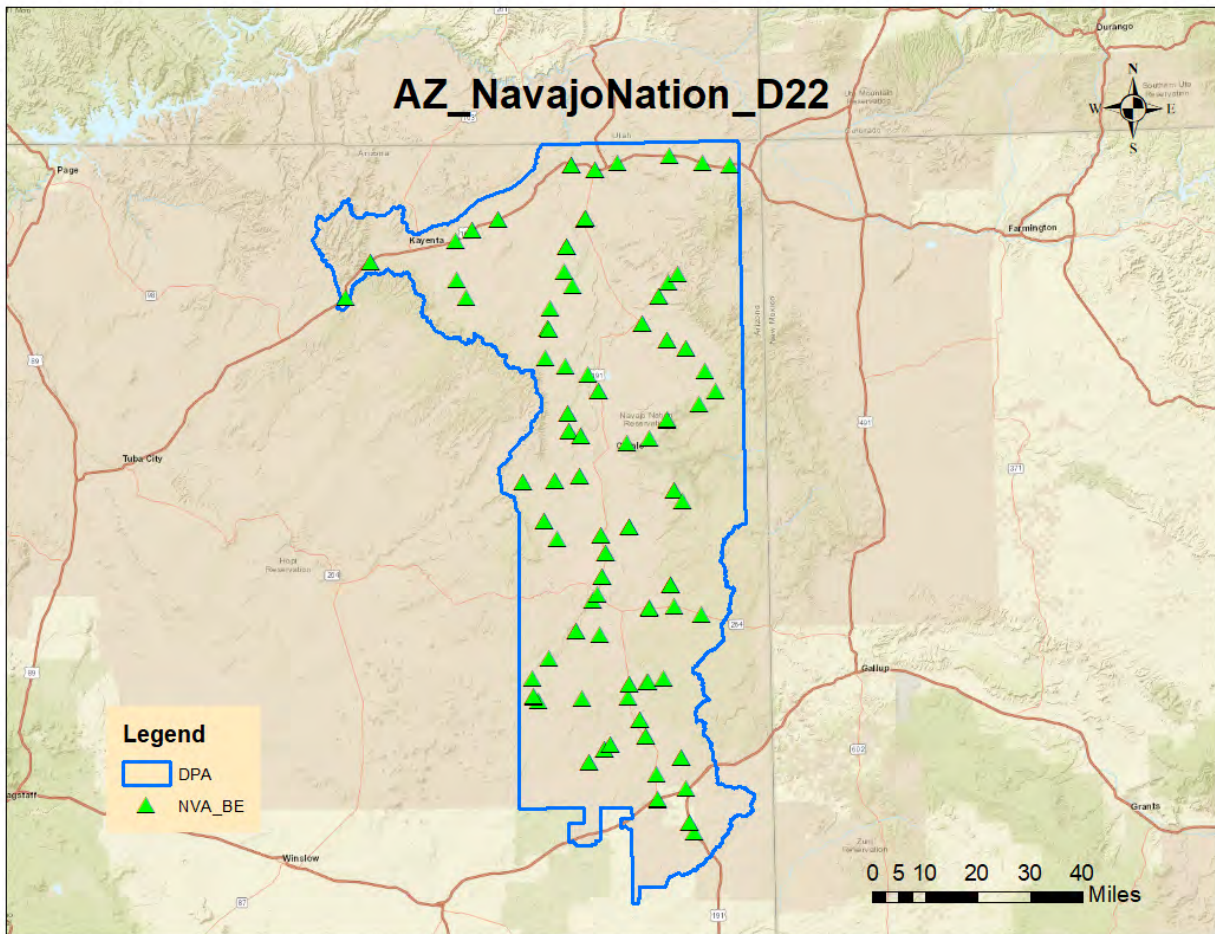


TABLE: Bare Earth

Point ID	Easting	Northing	Ortho
GS0002	621410.154	4024941.86	1678.979
GS0007	624565.471	4019866.154	1627.431
GS0008	624529.422	4019879.145	1627.63
GS0010	614515.923	4027598.299	1720.054
GS0013	609117.531	4038936.88	1778.744
GS0014	609146.763	4038958.358	1778.359
GS0015	609153.543	4038900.766	1779.47
GS0018	609808.56	4045213.658	1709.512
GS0021	608340.812	4030070.551	1795.427
GS0026	584099.752	4048338.369	1706.588
GS0031	581096.094	4054044.425	1770.378
GS0039	547254.849	4048546.306	1986.199
GS0043	554602.12	4059389.046	1842.82
GS0044	554603.652	4059370.973	1843.233
GS0047	585828.534	4069135.716	1603.293
GS0048	585774.713	4069102.822	1603.281
GS0052	580841.651	4065862.773	1682.739
GS0054	593869.457	4072173.122	1571.132
GS0055	593837.853	4072152.371	1570.857
GS0057	623304.018	4087427.119	1511.843
GS0059	623283.492	4087384.023	1513.001
GS0061	616273.625	4088839.9	1480.721
GS0062	616269.72	4088816.143	1480.459
GS0063	616259.625	4088794.389	1480.584
GS0065	630373.453	4089664.762	1623.446
GS0068	656210.34	4089605.608	1631.819
GS0074	664791.647	4088850.112	1585.59
GS0077	646298.561	4091715.432	1651.613
GS0079	620368.13	4072533.426	1566.718
GS0080	620330.583	4072499.925	1565.301
GS0081	620353.595	4072566.146	1566.448
GS0091	614096.34	4056577.233	1669.53
GS0094	616586.493	4052194.227	1620.481
GS0097	614659.949	4063961.543	1632.026
GS0098	614683.509	4063947.773	1632.618
GS0099	614684.168	4063984.04	1631.733
GS0103	645710.42	4053001.701	1771.381
GS0105	648750.979	4055706.205	1772.151
GS0108	643003.057	4048887.742	1767.617
GS0109	643014.474	4048864.185	1767.943
GS0112	645596.056	4035529.669	1802.062
GS0113	645596.08	4035500.591	1802.662

GS0116	637755.205	4040584.631	1659.418
GS0117	637747.143	4040608.965	1658.719
GS0119	651324.666	4032974	1864.745
GS0121	651347.833	4033012.144	1865.811
GS0125	660108.742	4019909.194	2148.936
GS0127	657199.685	4025953.863	2022.876
GS0131	655096.045	4015795.543	2174.252
GS0134	640167.167	4005473.944	1969.31
GS0140	633160.131	4003976.88	1782.559
GS0141	645581.892	4011085.675	2077.927
GS0143	645603.691	4011093.785	2078.228
GS0146	606160.502	3925346.921	1819.077
GS0149	619309.981	3925917.757	1949.659
GS0154	604145.173	3932309.522	1805.994
GS0156	604760.598	3926533.182	1795.359
GS0157	604730.321	3926576.377	1794.842
GS0158	609487.36	3938132.412	1829.412
GS0161	617569.318	3946667.016	1871.456
GS0162	617543.735	3946673.576	1871.476
GS0165	624691.189	3945575.517	1990.82
GS0166	622877.746	3955832.625	1940.743
GS0173	646438.827	3960597.163	2162.402
GS0174	646452.331	3960616.645	2162.57
GS0175	646425.6	3960613.818	2162.386
GS0178	647549.912	3954047.118	2182.609
GS0180	655913.827	3951655.019	2283.014
GS0182	640095.648	3953645.809	2049.216
GS0183	640086.078	3953625.88	2049.14
GS0185	625502.584	3963382.462	1910.415
GS0186	625497.054	3963367.632	1910.957
GS0189	624188.083	3957710.353	1935.782
GS0190	626620.984	3970374.43	1949.339
GS0192	626634.964	3970331.238	1950.081
GS0195	611813.291	3974637.318	1864.251
GS0197	608007.443	3980241.148	1873.868
GS0198	608021.37	3980220.26	1873.649
GS0200	625401.55	3975829.499	1859.06
GS0201	625377.844	3975838.324	1859.271
GS0203	653853.475	3885170.444	1848.347
GS0212	652482.988	3888138.92	1888.615
GS0213	652468.063	3888129.221	1888.457
GS0216	642656.198	3895086.918	1754.308
GS0217	642652.704	3895115.483	1754.558
GS0220	651414.046	3898527.205	1794.818

GS0225	642138.668	3902721.316	1866.923
GS0232	649656.005	3907965.088	1961.937
GS0233	649633.674	3907961.909	1962.082
GS0234	638891.779	3914464.203	1924.374
GS0237	638886.729	3914482.112	1924.588
GS0240	621479.421	3906581.731	1787.071
GS0241	621474.183	3906533.833	1786.53
GS0243	626385.546	3910450.318	1804.566
GS0245	626418.36	3910454.556	1803.604
GS0246	628202.021	3912044.574	1816.337
GS0247	628217.704	3912063.637	1816.6
GS0256	637152.404	3919592.568	1946.467
GS0257	637132.292	3919583.291	1945.779
GS0260	633407.143	3926382.959	1998.016
GS0263	639489.433	3931116.756	2054.815
GS0265	639514.424	3931133.161	2056.223
GS0267	644233.297	3932011.819	2174.616
GS0270	634026.532	3930198.465	1958.387
GS0271	634047.251	3930201.649	1957.969
GS0275	633979.041	3978415.927	1799.809
GS0276	633996.581	3978430.182	1798.567
GS0277	634003.703	3978449.974	1798.284
GS0282	615556.17	4007704.071	1826.755
GS0283	615543.801	4007686.679	1826.762
GS0287	615027.656	4013192.993	1714.691
GS0288	615015.968	4013172.615	1714.744
GS0290	619050.031	4006367.934	1732.867
GS0291	619026.081	4006360.225	1733.128
GS0295	611024.202	3992504.389	1795.602
GS0296	611023.118	3992527.145	1795.548
GS0300	601380.278	3992161.075	1848.234
GS0301	601404.801	3992153.023	1848.42
GS0304	618611.889	3994051.111	1724.811
GS0307	618606.235	3994071.425	1724.711
GS0309	647649.863	3989716.425	2082.714
GS0310	647672.508	3989717.419	2082.871
GS0314	650200.963	3986348.181	2142.115

GS0002



Point ID: GS0002

Northing: 4024941.86 Meters

Easting: 621410.154 Meters

Orthometric Height: 1678.979 Meters

Latitude: 36 21 42.905903 N

Longitude: 109 38 48.248574 W

Ellipsoid Height: 1658.529 Meters

GS0007



Point ID: GS0007

Northing: 4019866.154 Meters

Easting: 624565.471 Meters

Orthometric Height: 1627.431 Meters

Latitude: 36 18 56.766956 N

Longitude: 109 36 44.592837 W

Ellipsoid Height: 1607.068 Meters

GS0008



Point ID: GS0008

Northing: 4019879.145 Meters

Easting: 624529.422 Meters

Orthometric Height: 1627.63 Meters

Latitude: 36 18 57.205262 N

Longitude: 109 36 46.030671 W

Ellipsoid Height: 1607.267 Meters

GS0010



Point ID: GS0010

Northing: 4027598.299 Meters

Easting: 614515.923 Meters

Orthometric Height: 1720.054 Meters

Latitude: 36 23 12.144268 N

Longitude: 109 43 23.416626 W

Ellipsoid Height: 1699.553 Meters

GS0013



Point ID: GS0013

Northing: 4038936.88 Meters

Easting: 609117.531 Meters

Orthometric Height: 1778.744 Meters

Latitude: 36 29 22.316290 N

Longitude: 109 46 54.311357 W

Ellipsoid Height: 1758.257 Meters

GS0014



Point ID: GS0014

Northing: 4038958.358 Meters

Easting: 609146.763 Meters

Orthometric Height: 1778.359 Meters

Latitude: 36 29 23.001186 N

Longitude: 109 46 53.125773 W

Ellipsoid Height: 1757.872 Meters

GS0015



Point ID: GS0015

Northing: 4038900.766 Meters

Easting: 609153.543 Meters

Orthometric Height: 1779.47 Meters

Latitude: 36 29 21.129709 N

Longitude: 109 46 52.882598 W

Ellipsoid Height: 1758.983 Meters

GS0018



Point ID: GS0018

Northing: 4045213.658 Meters

Easting: 609808.56 Meters

Orthometric Height: 1709.512 Meters

Latitude: 36 32 45.695242 N

Longitude: 109 46 23.328654 W

Ellipsoid Height: 1688.985 Meters

GS0021



Point ID: GS0021

Northing: 4030070.551 Meters

Easting: 608340.812 Meters

Orthometric Height: 1795.427 Meters

Latitude: 36 24 34.941795 N

Longitude: 109 47 29.988000 W

Ellipsoid Height: 1774.955 Meters

GS0026



Point ID: GS0026

Northing: 4048338.369 Meters

Easting: 584099.752 Meters

Orthometric Height: 1706.588 Meters

Latitude: 36 34 36.485141 N

Longitude: 110 03 36.003572 W

Ellipsoid Height: 1686.108 Meters

GS0031



Point ID: GS0031

Northing: 4054044.425 Meters

Easting: 581096.094 Meters

Orthometric Height: 1770.378 Meters

Latitude: 36 37 42.582892 N

Longitude: 110 05 34.683257 W

Ellipsoid Height: 1749.887 Meters

GS0039



Point ID: GS0039

Northing: 4048546.306 Meters

Easting: 547254.849 Meters

Orthometric Height: 1986.199 Meters

Latitude: 36 34 52.363007 N

Longitude: 110 28 18.439416 W

Ellipsoid Height: 1965.807 Meters

GS0043



Point ID: GS0043

Northing: 4059389.046 Meters

Easting: 554602.12 Meters

Orthometric Height: 1842.82 Meters

Latitude: 36 40 42.821058 N

Longitude: 110 23 20.018930 W

Ellipsoid Height: 1822.515 Meters

GS0044



Point ID: GS0044

Northing: 4059370.973 Meters

Easting: 554603.652 Meters

Orthometric Height: 1843.233 Meters

Latitude: 36 40 42.234224 N

Longitude: 110 23 19.961864 W

Ellipsoid Height: 1822.928 Meters

GS0047



Point ID: GS0047

Northing: 4069135.716 Meters

Easting: 585828.534 Meters

Orthometric Height: 1603.293 Meters

Latitude: 36 45 50.787818 N

Longitude: 110 02 18.061958 W

Ellipsoid Height: 1582.484 Meters

GS0048



Point ID: GS0048

Northing: 4069102.822 Meters

Easting: 585774.713 Meters

Orthometric Height: 1603.281 Meters

Latitude: 36 45 49.738016 N

Longitude: 110 02 20.245889 W

Ellipsoid Height: 1582.473 Meters

GS0052



Point ID: GS0052

Northing: 4065862.773 Meters

Easting: 580841.651 Meters

Orthometric Height: 1682.739 Meters

Latitude: 36 44 06.161781 N

Longitude: 110 05 40.435112 W

Ellipsoid Height: 1662.041 Meters

GS0054



Point ID: GS0054

Northing: 4072173.122 Meters

Easting: 593869.457 Meters

Orthometric Height: 1571.132 Meters

Latitude: 36 47 26.600585 N

Longitude: 109 56 52.427782 W

Ellipsoid Height: 1550.204 Meters

GS0055



Point ID: GS0055

Northing: 4072152.371 Meters

Easting: 593837.853 Meters

Orthometric Height: 1570.857 Meters

Latitude: 36 47 25.938529 N

Longitude: 109 56 53.712022 W

Ellipsoid Height: 1549.929 Meters

GS0057



Point ID: GS0057

Northing: 4087427.119 Meters

Easting: 623304.018 Meters

Orthometric Height: 1511.843 Meters

Latitude: 36 55 29.339476 N

Longitude: 109 36 56.119250 W

Ellipsoid Height: 1490.941 Meters

GS0059



Point ID: GS0059

Northing: 4087384.023 Meters

Easting: 623283.492 Meters

Orthometric Height: 1513.001 Meters

Latitude: 36 55 27.951007 N

Longitude: 109 36 56.973950 W

Ellipsoid Height: 1492.099 Meters

GS0061



Point ID: GS0061

Northing: 4088839.9 Meters

Easting: 616273.625 Meters

Orthometric Height: 1480.721 Meters

Latitude: 36 56 18.392797 N

Longitude: 109 41 39.432895 W

Ellipsoid Height: 1459.759 Meters

GS0062



Point ID: GS0062

Northing: 4088816.143 Meters

Easting: 616269.72 Meters

Orthometric Height: 1480.459 Meters

Latitude: 36 56 17.623744 N

Longitude: 109 41 39.603866 W

Ellipsoid Height: 1459.497 Meters

GS0063



Point ID: GS0063

Northing: 4088794.389 Meters

Easting: 616259.625 Meters

Orthometric Height: 1480.584 Meters

Latitude: 36 56 16.922456 N

Longitude: 109 41 40.023929 W

Ellipsoid Height: 1459.622 Meters

GS0065



Point ID: GS0065

Northing: 4089664.762 Meters

Easting: 630373.453 Meters

Orthometric Height: 1623.446 Meters

Latitude: 36 56 38.507068 N

Longitude: 109 32 09.070356 W

Ellipsoid Height: 1602.648 Meters

GS0068



Point ID: GS0068

Northing: 4089605.608 Meters

Easting: 656210.34 Meters

Orthometric Height: 1631.819 Meters

Latitude: 36 56 22.437255 N

Longitude: 109 14 44.951072 W

Ellipsoid Height: 1611.273 Meters

GS0074



Point ID: GS0074

Northing: 4088850.112 Meters

Easting: 664791.647 Meters

Orthometric Height: 1585.59 Meters

Latitude: 36 55 52.668821 N

Longitude: 109 08 58.791045 W

Ellipsoid Height: 1565.002 Meters

GS0077



Point ID: GS0077

Northing: 4091715.432 Meters

Easting: 646298.561 Meters

Orthometric Height: 1651.613 Meters

Latitude: 36 57 36.607466 N

Longitude: 109 21 24.025026 W

Ellipsoid Height: 1631.012 Meters

GS0079



Point ID: GS0079

Northing: 4072533.426 Meters

Easting: 620368.13 Meters

Orthometric Height: 1566.718 Meters

Latitude: 36 47 27.499605 N

Longitude: 109 39 03.257780 W

Ellipsoid Height: 1545.839 Meters

GS0080



Point ID: GS0080

Northing: 4072499.925 Meters

Easting: 620330.583 Meters

Orthometric Height: 1565.301 Meters

Latitude: 36 47 26.429873 N

Longitude: 109 39 04.791445 W

Ellipsoid Height: 1544.422 Meters

GS0081



Point ID: GS0081

Northing: 4072566.146 Meters

Easting: 620353.595 Meters

Orthometric Height: 1566.448 Meters

Latitude: 36 47 28.567842 N

Longitude: 109 39 03.825523 W

Ellipsoid Height: 1545.569 Meters

GS0091



Point ID: GS0091

Northing: 4056577.233 Meters

Easting: 614096.34 Meters

Orthometric Height: 1669.53 Meters

Latitude: 36 38 52.589994 N

Longitude: 109 43 24.835199 W

Ellipsoid Height: 1648.839 Meters

GS0094



Point ID: GS0094

Northing: 4052194.227 Meters

Easting: 616586.493 Meters

Orthometric Height: 1620.481 Meters

Latitude: 36 36 29.294653 N

Longitude: 109 41 46.965077 W

Ellipsoid Height: 1599.845 Meters

GS0097



Point ID: GS0097

Northing: 4063961.543 Meters

Easting: 614659.949 Meters

Orthometric Height: 1632.026 Meters

Latitude: 36 42 51.934033 N

Longitude: 109 42 58.160804 W

Ellipsoid Height: 1611.237 Meters

GS0098



Point ID: GS0098

Northing: 4063947.773 Meters

Easting: 614683.509 Meters

Orthometric Height: 1632.618 Meters

Latitude: 36 42 51.476995 N

Longitude: 109 42 57.218774 W

Ellipsoid Height: 1611.829 Meters

GS0099



Point ID: GS0099

Northing: 4063984.04 Meters

Easting: 614684.168 Meters

Orthometric Height: 1631.733 Meters

Latitude: 36 42 52.653414 N

Longitude: 109 42 57.172650 W

Ellipsoid Height: 1610.944 Meters

GS0103



Point ID: GS0103

Northing: 4053001.701 Meters

Easting: 645710.42 Meters

Orthometric Height: 1771.381 Meters

Latitude: 36 36 41.066259 N

Longitude: 109 22 14.455125 W

Ellipsoid Height: 1751.127 Meters

GS0105



Point ID: GS0105

Northing: 4055706.205 Meters

Easting: 648750.979 Meters

Orthometric Height: 1772.151 Meters

Latitude: 36 38 07.110393 N

Longitude: 109 20 10.218490 W

Ellipsoid Height: 1751.968 Meters

GS0108



Point ID: GS0108

Northing: 4048887.742 Meters

Easting: 643003.057 Meters

Orthometric Height: 1767.617 Meters

Latitude: 36 34 29.079340 N

Longitude: 109 24 06.154408 W

Ellipsoid Height: 1747.321 Meters

GS0109



Point ID: GS0109

Northing: 4048864.185 Meters

Easting: 643014.474 Meters

Orthometric Height: 1767.943 Meters

Latitude: 36 34 28.308963 N

Longitude: 109 24 05.710965 W

Ellipsoid Height: 1747.648 Meters

GS0112



Point ID: GS0112

Northing: 4035529.669 Meters

Easting: 645596.056 Meters

Orthometric Height: 1802.062 Meters

Latitude: 36 27 14.312134 N

Longitude: 109 22 30.928633 W

Ellipsoid Height: 1782.114 Meters

GS0113



Point ID: GS0113

Northing: 4035500.591 Meters

Easting: 645596.08 Meters

Orthometric Height: 1802.662 Meters

Latitude: 36 27 13.368795 N

Longitude: 109 22 30.947345 W

Ellipsoid Height: 1782.715 Meters

GS0116



Point ID: GS0116

Northing: 4040584.631 Meters

Easting: 637755.205 Meters

Orthometric Height: 1659.418 Meters

Latitude: 36 30 02.482466 N

Longitude: 109 27 42.575009 W

Ellipsoid Height: 1639.082 Meters

GS0117



Point ID: GS0117

Northing: 4040608.965 Meters

Easting: 637747.143 Meters

Orthometric Height: 1658.719 Meters

Latitude: 36 30 03.276124 N

Longitude: 109 27 42.883350 W

Ellipsoid Height: 1638.382 Meters

GS0119



Point ID: GS0119

Northing: 4032974 Meters

Easting: 651324.666 Meters

Orthometric Height: 1864.745 Meters

Latitude: 36 25 48.210282 N

Longitude: 109 18 42.676877 W

Ellipsoid Height: 1845.044 Meters

GS0121



Point ID: GS0121

Northing: 4033012.144 Meters

Easting: 651347.833 Meters

Orthometric Height: 1865.811 Meters

Latitude: 36 25 49.434546 N

Longitude: 109 18 41.720027 W

Ellipsoid Height: 1846.11 Meters

GS0125



Point ID: GS0125

Northing: 4019909.194 Meters

Easting: 660108.742 Meters

Orthometric Height: 2148.936 Meters

Latitude: 36 18 39.261233 N

Longitude: 109 12 59.735127 W

Ellipsoid Height: 2129.623 Meters

GS0127



Point ID: GS0127

Northing: 4025953.863 Meters

Easting: 657199.685 Meters

Orthometric Height: 2022.876 Meters

Latitude: 36 21 57.076604 N

Longitude: 109 14 51.944910 W

Ellipsoid Height: 2003.475 Meters

GS0131



Point ID: GS0131

Northing: 4015795.543 Meters

Easting: 655096.045 Meters

Orthometric Height: 2174.252 Meters

Latitude: 36 16 28.761552 N

Longitude: 109 16 23.599893 W

Ellipsoid Height: 2154.87 Meters

GS0134



Point ID: GS0134

Northing: 4005473.944 Meters

Easting: 640167.167 Meters

Orthometric Height: 1969.31 Meters

Latitude: 36 11 02.109929 N

Longitude: 109 26 28.404759 W

Ellipsoid Height: 1949.448 Meters

GS0140



Point ID: GS0140

Northing: 4003976.88 Meters

Easting: 633160.131 Meters

Orthometric Height: 1782.559 Meters

Latitude: 36 10 17.098006 N

Longitude: 109 31 09.759165 W

Ellipsoid Height: 1762.47 Meters

GS0141



Point ID: GS0141

Northing: 4011085.675 Meters

Easting: 645581.892 Meters

Orthometric Height: 2077.927 Meters

Latitude: 36 14 01.295959 N

Longitude: 109 22 47.950586 W

Ellipsoid Height: 2058.259 Meters

GS0143



Point ID: GS0143

Northing: 4011093.785 Meters

Easting: 645603.691 Meters

Orthometric Height: 2078.228 Meters

Latitude: 36 14 01.547277 N

Longitude: 109 22 47.072195 W

Ellipsoid Height: 2058.56 Meters

GS0146



Point ID: GS0146

Northing: 3925346.921 Meters

Easting: 606160.502 Meters

Orthometric Height: 1819.077 Meters

Latitude: 35 27 57.446203 N

Longitude: 109 49 47.905094 W

Ellipsoid Height: 1796.94 Meters

GS0149



Point ID: GS0149

Northing: 3925917.757 Meters

Easting: 619309.981 Meters

Orthometric Height: 1949.659 Meters

Latitude: 35 28 10.600767 N

Longitude: 109 41 05.991952 W

Ellipsoid Height: 1927.661 Meters

GS0154



Point ID: GS0154

Northing: 3932309.522 Meters

Easting: 604145.173 Meters

Orthometric Height: 1805.994 Meters

Latitude: 35 31 44.175203 N

Longitude: 109 51 04.636273 W

Ellipsoid Height: 1784.141 Meters

GS0156



Point ID: GS0156

Northing: 3926533.182 Meters

Easting: 604760.598 Meters

Orthometric Height: 1795.359 Meters

Latitude: 35 28 36.479523 N

Longitude: 109 50 42.888064 W

Ellipsoid Height: 1773.27 Meters

GS0157



Point ID: GS0157

Northing: 3926576.377 Meters

Easting: 604730.321 Meters

Orthometric Height: 1794.842 Meters

Latitude: 35 28 37.892837 N

Longitude: 109 50 44.069255 W

Ellipsoid Height: 1772.754 Meters

GS0158



Point ID: GS0158

Northing: 3938132.412 Meters

Easting: 609487.36 Meters

Orthometric Height: 1829.412 Meters

Latitude: 35 34 51.071032 N

Longitude: 109 47 29.716085 W

Ellipsoid Height: 1807.812 Meters

GS0161



Point ID: GS0161

Northing: 3946667.016 Meters

Easting: 617569.318 Meters

Orthometric Height: 1871.456 Meters

Latitude: 35 39 24.690551 N

Longitude: 109 42 04.188494 W

Ellipsoid Height: 1850.24 Meters

GS0162



Point ID: GS0162

Northing: 3946673.576 Meters

Easting: 617543.735 Meters

Orthometric Height: 1871.476 Meters

Latitude: 35 39 24.914394 N

Longitude: 109 42 05.202258 W

Ellipsoid Height: 1850.26 Meters

GS0165



Point ID: GS0165

Northing: 3945575.517 Meters

Easting: 624691.189 Meters

Orthometric Height: 1990.82 Meters

Latitude: 35 38 46.124567 N

Longitude: 109 37 21.626201 W

Ellipsoid Height: 1969.608 Meters

GS0166



Point ID: GS0166

Northing: 3955832.625 Meters

Easting: 622877.746 Meters

Orthometric Height: 1940.743 Meters

Latitude: 35 44 19.785443 N

Longitude: 109 38 28.076413 W

Ellipsoid Height: 1919.893 Meters

GS0173



Point ID: GS0173

Northing: 3960597.163 Meters

Easting: 646438.827 Meters

Orthometric Height: 2162.402 Meters

Latitude: 35 46 42.766573 N

Longitude: 109 22 47.253750 W

Ellipsoid Height: 2141.887 Meters

GS0174



Point ID: GS0174

Northing: 3960616.645 Meters

Easting: 646452.331 Meters

Orthometric Height: 2162.57 Meters

Latitude: 35 46 43.391423 N

Longitude: 109 22 46.703261 W

Ellipsoid Height: 2142.056 Meters

GS0175



Point ID: GS0175

Northing: 3960613.818 Meters

Easting: 646425.6 Meters

Orthometric Height: 2162.386 Meters

Latitude: 35 46 43.314035 N

Longitude: 109 22 47.769459 W

Ellipsoid Height: 2141.871 Meters

GS0178



Point ID: GS0178

Northing: 3954047.118 Meters

Easting: 647549.912 Meters

Orthometric Height: 2182.609 Meters

Latitude: 35 43 09.648305 N

Longitude: 109 22 07.353896 W

Ellipsoid Height: 2161.964 Meters

GS0180



Point ID: GS0180

Northing: 3951655.019 Meters

Easting: 655913.827 Meters

Orthometric Height: 2283.014 Meters

Latitude: 35 41 47.398676 N

Longitude: 109 16 36.263428 W

Ellipsoid Height: 2262.433 Meters

GS0182



Point ID: GS0182

Northing: 3953645.809 Meters

Easting: 640095.648 Meters

Orthometric Height: 2049.216 Meters

Latitude: 35 43 00.546843 N

Longitude: 109 27 04.194010 W

Ellipsoid Height: 2028.407 Meters

GS0183



Point ID: GS0183

Northing: 3953625.88 Meters

Easting: 640086.078 Meters

Orthometric Height: 2049.14 Meters

Latitude: 35 42 59.905096 N

Longitude: 109 27 04.587294 W

Ellipsoid Height: 2028.331 Meters

GS0185



Point ID: GS0185

Northing: 3963382.462 Meters

Easting: 625502.584 Meters

Orthometric Height: 1910.415 Meters

Latitude: 35 48 23.577929 N

Longitude: 109 36 39.345937 W

Ellipsoid Height: 1889.771 Meters

GS0186



Point ID: GS0186

Northing: 3963367.632 Meters

Easting: 625497.054 Meters

Orthometric Height: 1910.957 Meters

Latitude: 35 48 23.099272 N

Longitude: 109 36 39.574604 W

Ellipsoid Height: 1890.312 Meters

GS0189



Point ID: GS0189

Northing: 3957710.353 Meters

Easting: 624188.083 Meters

Orthometric Height: 1935.782 Meters

Latitude: 35 45 20.124372 N

Longitude: 109 37 34.876578 W

Ellipsoid Height: 1914.995 Meters

GS0190



Point ID: GS0190

Northing: 3970374.43 Meters

Easting: 626620.984 Meters

Orthometric Height: 1949.339 Meters

Latitude: 35 52 09.939909 N

Longitude: 109 35 50.802478 W

Ellipsoid Height: 1928.839 Meters

GS0192



Point ID: GS0192

Northing: 3970331.238 Meters

Easting: 626634.964 Meters

Orthometric Height: 1950.081 Meters

Latitude: 35 52 08.531891 N

Longitude: 109 35 50.269868 W

Ellipsoid Height: 1929.581 Meters

GS0195



Point ID: GS0195

Northing: 3974637.318 Meters

Easting: 611813.291 Meters

Orthometric Height: 1864.251 Meters

Latitude: 35 54 34.762636 N

Longitude: 109 45 38.993724 W

Ellipsoid Height: 1843.623 Meters

GS0197



Point ID: GS0197

Northing: 3980241.148 Meters

Easting: 608007.443 Meters

Orthometric Height: 1873.868 Meters

Latitude: 35 57 38.150697 N

Longitude: 109 48 08.062284 W

Ellipsoid Height: 1853.324 Meters

GS0198



Point ID: GS0198

Northing: 3980220.26 Meters

Easting: 608021.37 Meters

Orthometric Height: 1873.649 Meters

Latitude: 35 57 37.467321 N

Longitude: 109 48 07.516606 W

Ellipsoid Height: 1853.105 Meters

GS0200



Point ID: GS0200

Northing: 3975829.499 Meters

Easting: 625401.55 Meters

Orthometric Height: 1859.06 Meters

Latitude: 35 55 07.513085 N

Longitude: 109 36 36.322707 W

Ellipsoid Height: 1838.591 Meters

GS0201



Point ID: GS0201

Northing: 3975838.324 Meters

Easting: 625377.844 Meters

Orthometric Height: 1859.271 Meters

Latitude: 35 55 07.810403 N

Longitude: 109 36 37.263350 W

Ellipsoid Height: 1838.802 Meters

GS0203



Point ID: GS0203

Northing: 3885170.444 Meters

Easting: 653853.475 Meters

Orthometric Height: 1848.347 Meters

Latitude: 35 05 51.377762 N

Longitude: 109 18 43.349790 W

Ellipsoid Height: 1825.465 Meters

GS0212



Point ID: GS0212

Northing: 3888138.92 Meters

Easting: 652482.988 Meters

Orthometric Height: 1888.615 Meters

Latitude: 35 07 28.449940 N

Longitude: 109 19 35.488995 W

Ellipsoid Height: 1865.787 Meters

GS0213



Point ID: GS0213

Northing: 3888129.221 Meters

Easting: 652468.063 Meters

Orthometric Height: 1888.457 Meters

Latitude: 35 07 28.143341 N

Longitude: 109 19 36.084872 W

Ellipsoid Height: 1865.628 Meters

GS0216



Point ID: GS0216

Northing: 3895086.918 Meters

Easting: 642656.198 Meters

Orthometric Height: 1754.308 Meters

Latitude: 35 11 19.098367 N

Longitude: 109 25 59.283720 W

Ellipsoid Height: 1731.433 Meters

GS0217



Point ID: GS0217

Northing: 3895115.483 Meters

Easting: 642652.704 Meters

Orthometric Height: 1754.558 Meters

Latitude: 35 11 20.027090 N

Longitude: 109 25 59.404033 W

Ellipsoid Height: 1731.684 Meters

GS0220



Point ID: GS0220

Northing: 3898527.205 Meters

Easting: 651414.046 Meters

Orthometric Height: 1794.818 Meters

Latitude: 35 13 06.111660 N

Longitude: 109 20 10.842202 W

Ellipsoid Height: 1772.253 Meters

GS0225



Point ID: GS0225

Northing: 3902721.316 Meters

Easting: 642138.668 Meters

Orthometric Height: 1866.923 Meters

Latitude: 35 15 27.094989 N

Longitude: 109 26 14.992746 W

Ellipsoid Height: 1844.306 Meters

GS0232



Point ID: GS0232

Northing: 3907965.088 Meters

Easting: 649656.005 Meters

Orthometric Height: 1961.937 Meters

Latitude: 35 18 13.301737 N

Longitude: 109 21 14.164528 W

Ellipsoid Height: 1939.704 Meters

GS0233



Point ID: GS0233

Northing: 3907961.909 Meters

Easting: 649633.674 Meters

Orthometric Height: 1962.082 Meters

Latitude: 35 18 13.210613 N

Longitude: 109 21 15.050527 W

Ellipsoid Height: 1939.848 Meters

GS0234



Point ID: GS0234

Northing: 3914464.203 Meters

Easting: 638891.779 Meters

Orthometric Height: 1924.374 Meters

Latitude: 35 21 49.786424 N

Longitude: 109 28 16.277510 W

Ellipsoid Height: 1902.13 Meters

GS0237



Point ID: GS0237

Northing: 3914482.112 Meters

Easting: 638886.729 Meters

Orthometric Height: 1924.588 Meters

Latitude: 35 21 50.370083 N

Longitude: 109 28 16.466597 W

Ellipsoid Height: 1902.345 Meters

GS0240



Point ID: GS0240

Northing: 3906581.731 Meters

Easting: 621479.421 Meters

Orthometric Height: 1787.071 Meters

Latitude: 35 17 42.164356 N

Longitude: 109 39 50.291455 W

Ellipsoid Height: 1764.224 Meters

GS0241



Point ID: GS0241

Northing: 3906533.833 Meters

Easting: 621474.183 Meters

Orthometric Height: 1786.53 Meters

Latitude: 35 17 40.612217 N

Longitude: 109 39 50.524327 W

Ellipsoid Height: 1763.681 Meters

GS0243



Point ID: GS0243

Northing: 3910450.318 Meters

Easting: 626385.546 Meters

Orthometric Height: 1804.566 Meters

Latitude: 35 19 45.517136 N

Longitude: 109 36 33.945657 W

Ellipsoid Height: 1781.925 Meters

GS0245



Point ID: GS0245

Northing: 3910454.556 Meters

Easting: 626418.36 Meters

Orthometric Height: 1803.604 Meters

Latitude: 35 19 45.639732 N

Longitude: 109 36 32.643896 W

Ellipsoid Height: 1780.963 Meters

GS0246



Point ID: GS0246

Northing: 3912044.574 Meters

Easting: 628202.021 Meters

Orthometric Height: 1816.337 Meters

Latitude: 35 20 36.419101 N

Longitude: 109 35 21.116257 W

Ellipsoid Height: 1793.779 Meters

GS0247



Point ID: GS0247

Northing: 3912063.637 Meters

Easting: 628217.704 Meters

Orthometric Height: 1816.6 Meters

Latitude: 35 20 37.030485 N

Longitude: 109 35 20.484358 W

Ellipsoid Height: 1794.042 Meters

GS0256



Point ID: GS0256

Northing: 3919592.568 Meters

Easting: 637152.404 Meters

Orthometric Height: 1946.467 Meters

Latitude: 35 24 37.065190 N

Longitude: 109 29 22.078129 W

Ellipsoid Height: 1924.372 Meters

GS0257



Point ID: GS0257

Northing: 3919583.291 Meters

Easting: 637132.292 Meters

Orthometric Height: 1945.779 Meters

Latitude: 35 24 36.774113 N

Longitude: 109 29 22.880910 W

Ellipsoid Height: 1923.684 Meters

GS0260



Point ID: GS0260

Northing: 3926382.959 Meters

Easting: 633407.143 Meters

Orthometric Height: 1998.016 Meters

Latitude: 35 28 19.242970 N

Longitude: 109 31 46.522595 W

Ellipsoid Height: 1976.165 Meters

GS0263



Point ID: GS0263

Northing: 3931116.756 Meters

Easting: 639489.433 Meters

Orthometric Height: 2054.815 Meters

Latitude: 35 30 49.840276 N

Longitude: 109 27 42.331020 W

Ellipsoid Height: 2033.276 Meters

GS0265



Point ID: GS0265

Northing: 3931133.161 Meters

Easting: 639514.424 Meters

Orthometric Height: 2056.223 Meters

Latitude: 35 30 50.359929 N

Longitude: 109 27 41.329065 W

Ellipsoid Height: 2034.685 Meters

GS0267



Point ID: GS0267

Northing: 3932011.819 Meters

Easting: 644233.297 Meters

Orthometric Height: 2174.616 Meters

Latitude: 35 31 16.440779 N

Longitude: 109 24 33.492441 W

Ellipsoid Height: 2153.217 Meters

GS0270



Point ID: GS0270

Northing: 3930198.465 Meters

Easting: 634026.532 Meters

Orthometric Height: 1958.387 Meters

Latitude: 35 30 22.753532 N

Longitude: 109 31 19.686145 W

Ellipsoid Height: 1936.713 Meters

GS0271



Point ID: GS0271

Northing: 3930201.649 Meters

Easting: 634047.251 Meters

Orthometric Height: 1957.969 Meters

Latitude: 35 30 22.846783 N

Longitude: 109 31 18.862036 W

Ellipsoid Height: 1936.295 Meters

GS0275



Point ID: GS0275

Northing: 3978415.927 Meters

Easting: 633979.041 Meters

Orthometric Height: 1799.809 Meters

Latitude: 35 56 27.337547 N

Longitude: 109 30 52.600305 W

Ellipsoid Height: 1779.529 Meters

GS0276



Point ID: GS0276

Northing: 3978430.182 Meters

Easting: 633996.581 Meters

Orthometric Height: 1798.567 Meters

Latitude: 35 56 27.791410 N

Longitude: 109 30 51.891805 W

Ellipsoid Height: 1778.287 Meters

GS0277



Point ID: GS0277

Northing: 3978449.974 Meters

Easting: 634003.703 Meters

Orthometric Height: 1798.284 Meters

Latitude: 35 56 28.430100 N

Longitude: 109 30 51.595601 W

Ellipsoid Height: 1778.005 Meters

GS0282



Point ID: GS0282

Northing: 4007704.071 Meters

Easting: 615556.17 Meters

Orthometric Height: 1826.755 Meters

Latitude: 36 12 26.176446 N

Longitude: 109 42 52.276420 W

Ellipsoid Height: 1806.372 Meters

GS0283



Point ID: GS0283

Northing: 4007686.679 Meters

Easting: 615543.801 Meters

Orthometric Height: 1826.762 Meters

Latitude: 36 12 25.617436 N

Longitude: 109 42 52.780915 W

Ellipsoid Height: 1806.379 Meters

GS0287



Point ID: GS0287

Northing: 4013192.993 Meters

Easting: 615027.656 Meters

Orthometric Height: 1714.691 Meters

Latitude: 36 15 24.507906 N

Longitude: 109 43 10.533989 W

Ellipsoid Height: 1694.278 Meters

GS0288



Point ID: GS0288

Northing: 4013172.615 Meters

Easting: 615015.968 Meters

Orthometric Height: 1714.744 Meters

Latitude: 36 15 23.851690 N

Longitude: 109 43 11.013014 W

Ellipsoid Height: 1694.331 Meters

GS0290



Point ID: GS0290

Northing: 4006367.934 Meters

Easting: 619050.031 Meters

Orthometric Height: 1732.867 Meters

Latitude: 36 11 41.296572 N

Longitude: 109 40 33.119888 W

Ellipsoid Height: 1712.504 Meters

GS0291



Point ID: GS0291

Northing: 4006360.225 Meters

Easting: 619026.081 Meters

Orthometric Height: 1733.128 Meters

Latitude: 36 11 41.057017 N

Longitude: 109 40 34.082879 W

Ellipsoid Height: 1712.765 Meters

GS0295



Point ID: GS0295

Northing: 3992504.389 Meters

Easting: 611024.202 Meters

Orthometric Height: 1795.602 Meters

Latitude: 36 04 14.871591 N

Longitude: 109 46 01.455726 W

Ellipsoid Height: 1775.186 Meters

GS0296



Point ID: GS0296

Northing: 3992527.145 Meters

Easting: 611023.118 Meters

Orthometric Height: 1795.548 Meters

Latitude: 36 04 15.610455 N

Longitude: 109 46 01.487509 W

Ellipsoid Height: 1775.132 Meters

GS0300



Point ID: GS0300

Northing: 3992161.075 Meters

Easting: 601380.278 Meters

Orthometric Height: 1848.234 Meters

Latitude: 36 04 07.524197 N

Longitude: 109 52 27.090773 W

Ellipsoid Height: 1827.773 Meters

GS0301



Point ID: GS0301

Northing: 3992153.023 Meters

Easting: 601404.801 Meters

Orthometric Height: 1848.42 Meters

Latitude: 36 04 07.253682 N

Longitude: 109 52 26.114283 W

Ellipsoid Height: 1827.959 Meters

GS0304



Point ID: GS0304

Northing: 3994051.111 Meters

Easting: 618611.889 Meters

Orthometric Height: 1724.811 Meters

Latitude: 36 05 01.833649 N

Longitude: 109 40 57.346533 W

Ellipsoid Height: 1704.437 Meters

GS0307



Point ID: GS0307

Northing: 3994071.425 Meters

Easting: 618606.235 Meters

Orthometric Height: 1724.711 Meters

Latitude: 36 05 02.495296 N

Longitude: 109 40 57.561536 W

Ellipsoid Height: 1704.337 Meters

GS0309



Point ID: GS0309

Northing: 3989716.425 Meters

Easting: 647649.863 Meters

Orthometric Height: 2082.714 Meters

Latitude: 36 02 26.877323 N

Longitude: 109 21 39.577480 W

Ellipsoid Height: 2062.785 Meters

GS0310



Point ID: GS0310

Northing: 3989717.419 Meters

Easting: 647672.508 Meters

Orthometric Height: 2082.871 Meters

Latitude: 36 02 26.897224 N

Longitude: 109 21 38.672196 W

Ellipsoid Height: 2062.942 Meters

GS0314



Point ID: GS0314

Northing: 3986348.181 Meters

Easting: 650200.963 Meters

Orthometric Height: 2142.115 Meters

Latitude: 36 00 36.194305 N

Longitude: 109 19 59.970847 W

Ellipsoid Height: 2122.16 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 12, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

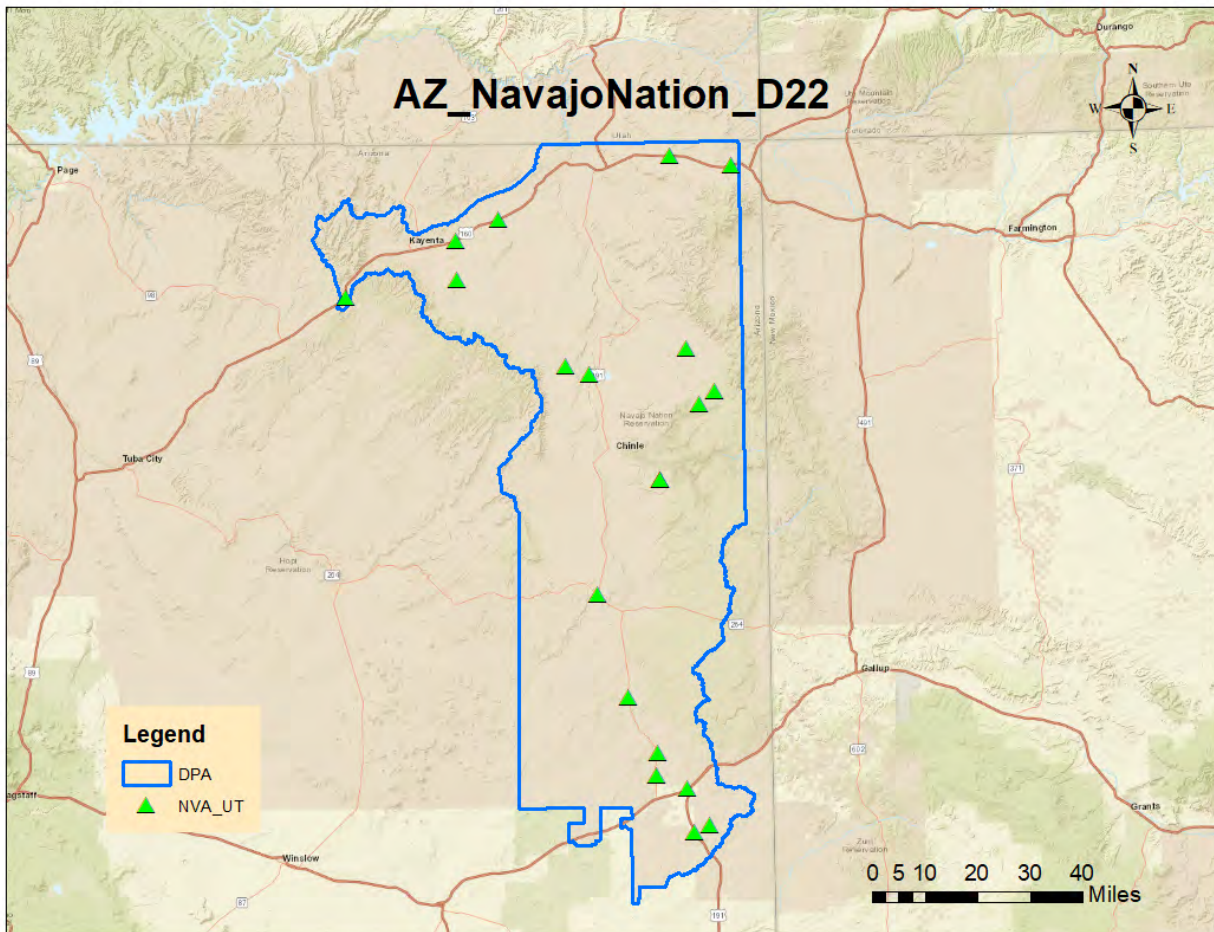
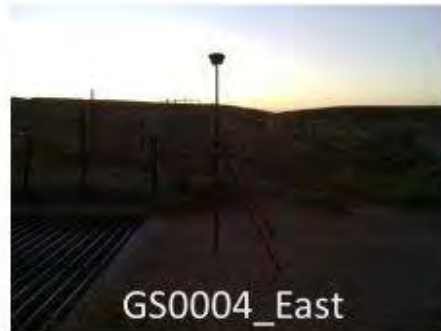


TABLE: Urban Terrain

Point ID	Easting	Northing	Ortho
GS0004	621456.931	4024973.385	1680.426
GS0009	614495.395	4027608.876	1720.358
GS0032	581070.079	4054051.805	1770.207
GS0040	547278.881	4048555.759	1986.758
GS0050	580860.526	4065868.76	1682.435
GS0053	593855.588	4072163.186	1570.972
GS0072	664809.674	4088863.119	1584.931
GS0075	646299.989	4091748.434	1651.627
GS0118	651344.097	4032963.753	1865.04
GS0124	660088.238	4019898.939	2149.119
GS0130	655100.214	4015828.637	2173.55
GS0188	624211.218	3957696.328	1937.174
GS0205	653893.883	3885182.586	1849.266
GS0209	658390.984	3887239.954	1889.594
GS0221	651439.326	3898517.895	1794.559
GS0222	642102.698	3902674.318	1869.448
GS0227	642547.829	3909383.642	1912.416
GS0258	633396.811	3926358.24	1996.744
GS0317	643348.841	3992961.588	2039.166
GS0318	643336.602	3992942.316	2038.805

GS0004



Point ID: GS0004

Northing: 4024973.385 Meters

Easting: 621456.931 Meters

Orthometric Height: 1680.426 Meters

Latitude: 36 21 43.907500 N

Longitude: 109 38 46.354335 W

Ellipsoid Height: 1659.976 Meters

GS0009



Point ID: GS0009

Northing: 4027608.876 Meters

Easting: 614495.395 Meters

Orthometric Height: 1720.358 Meters

Latitude: 36 23 12.496260 N

Longitude: 109 43 24.234818 W

Ellipsoid Height: 1699.857 Meters

GS0032



Point ID: GS0032

Northing: 4054051.805 Meters

Easting: 581070.079 Meters

Orthometric Height: 1770.207 Meters

Latitude: 36 37 42.830323 N

Longitude: 110 05 35.727839 W

Ellipsoid Height: 1749.716 Meters

GS0040



Point ID: GS0040

Northing: 4048555.759 Meters

Easting: 547278.881 Meters

Orthometric Height: 1986.758 Meters

Latitude: 36 34 52.665508 N

Longitude: 110 28 17.470311 W

Ellipsoid Height: 1966.367 Meters

GS0050



Point ID: GS0050

Northing: 4065868.76 Meters

Easting: 580860.526 Meters

Orthometric Height: 1682.435 Meters

Latitude: 36 44 06.350241 N

Longitude: 110 05 39.671868 W

Ellipsoid Height: 1661.737 Meters

GS0053



Point ID: GS0053

Northing: 4072163.186 Meters

Easting: 593855.588 Meters

Orthometric Height: 1570.972 Meters

Latitude: 36 47 26.283126 N

Longitude: 109 56 52.991711 W

Ellipsoid Height: 1550.044 Meters

GS0072



Point ID: GS0072

Northing: 4088863.119 Meters

Easting: 664809.674 Meters

Orthometric Height: 1584.931 Meters

Latitude: 36 55 53.079356 N

Longitude: 109 08 58.052518 W

Ellipsoid Height: 1564.342 Meters

GS0075



Point ID: GS0075

Northing: 4091748.434 Meters

Easting: 646299.989 Meters

Orthometric Height: 1651.627 Meters

Latitude: 36 57 37.677197 N

Longitude: 109 21 23.944311 W

Ellipsoid Height: 1631.026 Meters

GS0118



Point ID: GS0118

Northing: 4032963.753 Meters

Easting: 651344.097 Meters

Orthometric Height: 1865.04 Meters

Latitude: 36 25 47.866802 N

Longitude: 109 18 41.904022 W

Ellipsoid Height: 1845.34 Meters

GS0124



Point ID: GS0124

Northing: 4019898.939 Meters

Easting: 660088.238 Meters

Orthometric Height: 2149.119 Meters

Latitude: 36 18 38.940814 N

Longitude: 109 13 00.564540 W

Ellipsoid Height: 2129.806 Meters

GS0130



Point ID: GS0130

Northing: 4015828.637 Meters

Easting: 655100.214 Meters

Orthometric Height: 2173.55 Meters

Latitude: 36 16 29.832738 N

Longitude: 109 16 23.409211 W

Ellipsoid Height: 2154.168 Meters

GS0188



Point ID: GS0188

Northing: 3957696.328 Meters

Easting: 624211.218 Meters

Orthometric Height: 1937.174 Meters

Latitude: 35 45 19.658751 N

Longitude: 109 37 33.963428 W

Ellipsoid Height: 1916.387 Meters

GS0205



Point ID: GS0205

Northing: 3885182.586 Meters

Easting: 653893.883 Meters

Orthometric Height: 1849.266 Meters

Latitude: 35 05 51.749507 N

Longitude: 109 18 41.746340 W

Ellipsoid Height: 1826.385 Meters

GS0209



Point ID: GS0209

Northing: 3887239.954 Meters

Easting: 658390.984 Meters

Orthometric Height: 1889.594 Meters

Latitude: 35 06 55.996209 N

Longitude: 109 15 42.781152 W

Ellipsoid Height: 1866.865 Meters

GS0221



Point ID: GS0221

Northing: 3898517.895 Meters

Easting: 651439.326 Meters

Orthometric Height: 1794.559 Meters

Latitude: 35 13 05.795837 N

Longitude: 109 20 09.848799 W

Ellipsoid Height: 1771.994 Meters

GS0222



Point ID: GS0222

Northing: 3902674.318 Meters

Easting: 642102.698 Meters

Orthometric Height: 1869.448 Meters

Latitude: 35 15 25.588316 N

Longitude: 109 26 16.445026 W

Ellipsoid Height: 1846.828 Meters

GS0227



Point ID: GS0227

Northing: 3909383.642 Meters

Easting: 642547.829 Meters

Orthometric Height: 1912.416 Meters

Latitude: 35 19 03.071863 N

Longitude: 109 25 54.637728 W

Ellipsoid Height: 1890.067 Meters

GS0258



Point ID: GS0258

Northing: 3926358.24 Meters

Easting: 633396.811 Meters

Orthometric Height: 1996.744 Meters

Latitude: 35 28 18.445856 N

Longitude: 109 31 46.947016 W

Ellipsoid Height: 1974.892 Meters

GS0317



Point ID: GS0317

Northing: 3992961.588 Meters

Easting: 643348.841 Meters

Orthometric Height: 2039.166 Meters

Latitude: 36 04 14.480195 N

Longitude: 109 24 29.275014 W

Ellipsoid Height: 2019.27 Meters

GS0318



Point ID: GS0318

Northing: 3992942.316 Meters

Easting: 643336.602 Meters

Orthometric Height: 2038.805 Meters

Latitude: 36 04 13.861426 N

Longitude: 109 24 29.776710 W

Ellipsoid Height: 2018.908 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 12, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

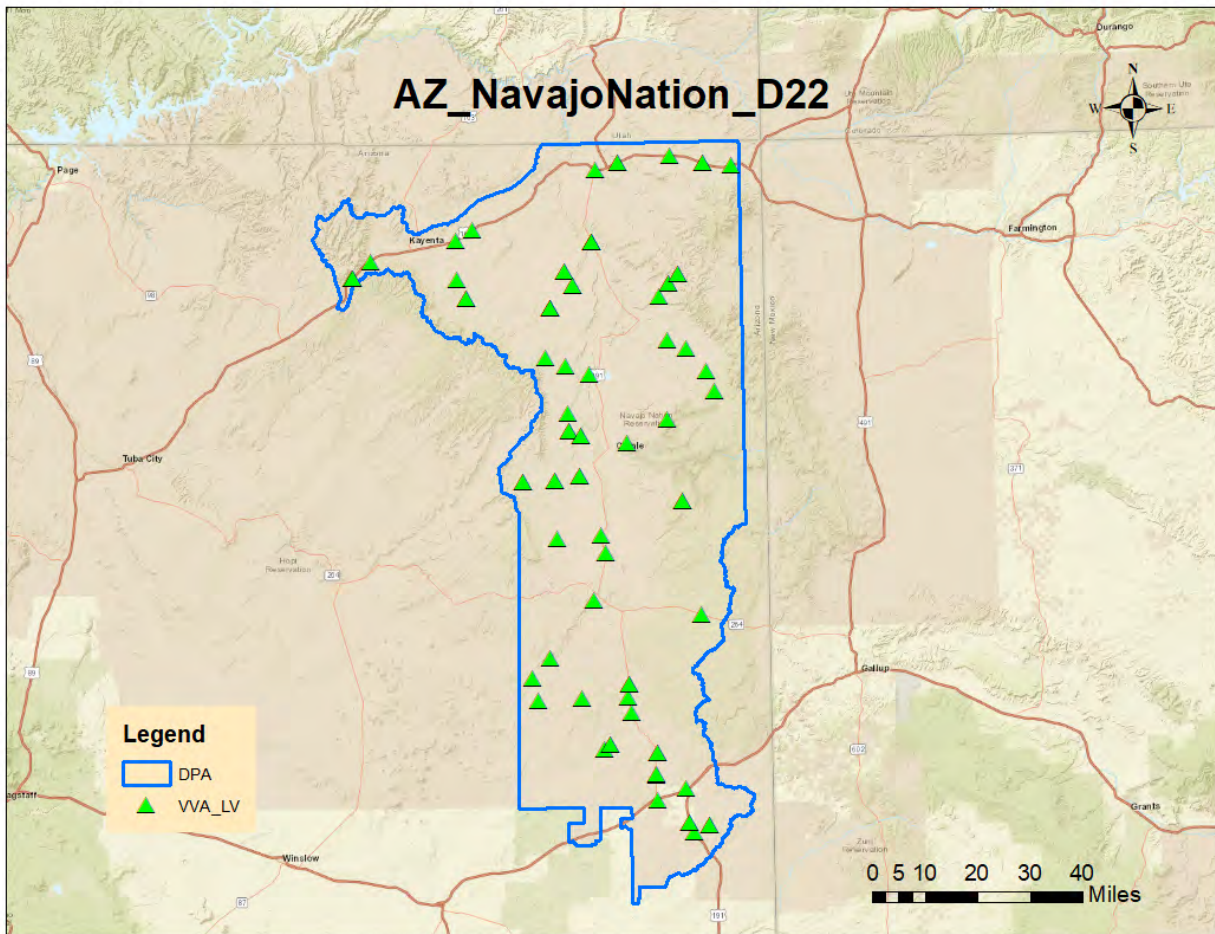


TABLE: Low Vegetation

Point ID	Easting	Northing	Ortho
GS0003	621457.103	4024952.866	1680.074
GS0011	614471.161	4027626.699	1719.478
GS0016	609815.206	4045267.177	1707.218
GS0017	609821.301	4045232.788	1707.852
GS0019	609796.394	4045176.457	1710.578
GS0022	608345.176	4030050.611	1794.906
GS0024	584088.969	4048282.924	1706.764
GS0025	584088.831	4048258.293	1706.917
GS0033	581083.448	4054075.212	1769.876
GS0035	549168.223	4054212.505	1903.921
GS0036	549182.987	4054229.385	1902.953
GS0037	549192.536	4054242.072	1902.469
GS0042	554602.696	4059411.184	1841.933
GS0046	585814.65	4069118.926	1603.226
GS0051	580876.18	4065886.971	1682.082
GS0058	623295.906	4087402.475	1512.367
GS0064	630398.356	4089673.159	1624.186
GS0066	630421.96	4089690.91	1625.095
GS0069	656192.056	4089609.318	1632.256
GS0070	656224.542	4089580.635	1632.382
GS0073	664831.172	4088853.965	1585.067
GS0076	646284.093	4091732.394	1651.273
GS0086	622293.142	4065399.9	1524.19
GS0087	622301.226	4065373.933	1524.27
GS0088	622314.492	4065344.132	1524.328
GS0090	614078.809	4056556.297	1668.898
GS0092	614074.111	4056589.824	1669.289
GS0095	616584.586	4052215.461	1620.9
GS0096	616555.107	4052218.711	1621.223
GS0101	645697.639	4052952.685	1773.51
GS0102	645718.897	4052972.935	1773.7
GS0104	648759.776	4055687.92	1773.523
GS0106	648746.395	4055664.862	1772.318
GS0110	643033.693	4048863.387	1769.264
GS0114	645620.827	4035502.858	1803.153
GS0120	651329.3	4032996.807	1864.878
GS0123	660085.737	4019921.09	2149.007
GS0129	657229.317	4025943.751	2025.381
GS0139	633142.878	4003964.465	1782.057
GS0142	645591.962	4011110.215	2078.565
GS0145	606146.667	3925328.191	1819.395
GS0148	619302.099	3925939.736	1949.501

GS0153	604193.263	3932321.038	1805.509
GS0159	609518.455	3938145.565	1829.199
GS0167	622888.419	3955853.322	1940.275
GS0181	655875.651	3951666.449	2282.435
GS0191	626633.235	3970353.814	1949.959
GS0193	611834.131	3974615.852	1864.45
GS0199	625405.888	3975852.48	1858.665
GS0204	653880.102	3885161.732	1848.316
GS0207	658340.495	3887233.308	1888.525
GS0208	658321.378	3887227.569	1888.306
GS0210	652497.914	3888117.663	1888.259
GS0211	652506.86	3888098.053	1887.78
GS0215	642677.996	3895075.666	1754.232
GS0218	651375.627	3898550.045	1795.19
GS0223	642124.829	3902681.697	1868.127
GS0224	642128.241	3902703.618	1867.44
GS0228	642557.179	3909401.688	1911.86
GS0229	642557.638	3909420.249	1911.987
GS0244	626412.43	3910435.68	1803.955
GS0248	628230.55	3912054.798	1815.986
GS0249	628237.933	3912070.436	1816.56
GS0253	634763.44	3921545.415	1935.722
GS0261	633404.476	3926415.045	1999.107
GS0272	634053.274	3930187.994	1957.489
GS0273	634037.819	3930170.924	1957.277
GS0284	615563.612	4007673.132	1828.345
GS0285	615575.528	4007686.951	1828.446
GS0289	615022.33	4013148.958	1714.707
GS0292	619036.414	4006333.833	1733.766
GS0293	619063.276	4006342.885	1733.322
GS0297	611005.128	3992539.98	1795.468
GS0298	610997.535	3992513.037	1795.233
GS0302	601436.188	3992156.982	1847.775
GS0303	601428.315	3992173.262	1847.966
GS0305	618637.63	3994050.67	1724.683
GS0306	618643.162	3994069.856	1724.634
GS0315	650218.225	3986359.288	2141.962
GS0316	650214.089	3986340.169	2142.272

GS0003



Point ID: GS0003

Northing: 4024952.866 Meters

Easting: 621457.103 Meters

Orthometric Height: 1680.074 Meters

Latitude: 36 21 43.241647 N

Longitude: 109 38 46.358988 W

Ellipsoid Height: 1659.624 Meters

GS0011



Point ID: GS0011

Northing: 4027626.699 Meters

Easting: 614471.161 Meters

Orthometric Height: 1719.478 Meters

Latitude: 36 23 13.084955 N

Longitude: 109 43 25.197878 W

Ellipsoid Height: 1698.977 Meters

GS0016



Point ID: GS0016

Northing: 4045267.177 Meters

Easting: 609815.206 Meters

Orthometric Height: 1707.218 Meters

Latitude: 36 32 47.429046 N

Longitude: 109 46 23.033922 W

Ellipsoid Height: 1686.69 Meters

GS0017



Point ID: GS0017

Northing: 4045232.788 Meters

Easting: 609821.301 Meters

Orthometric Height: 1707.852 Meters

Latitude: 36 32 46.310678 N

Longitude: 109 46 22.806488 W

Ellipsoid Height: 1687.324 Meters

GS0019



Point ID: GS0019

Northing: 4045176.457 Meters

Easting: 609796.394 Meters

Orthometric Height: 1710.578 Meters

Latitude: 36 32 44.493220 N

Longitude: 109 46 23.836937 W

Ellipsoid Height: 1690.051 Meters

GS0022



Point ID: GS0022

Northing: 4030050.611 Meters

Easting: 608345.176 Meters

Orthometric Height: 1794.906 Meters

Latitude: 36 24 34.292992 N

Longitude: 109 47 29.822822 W

Ellipsoid Height: 1774.434 Meters

GS0024



Point ID: GS0024

Northing: 4048282.924 Meters

Easting: 584088.969 Meters

Orthometric Height: 1706.764 Meters

Latitude: 36 34 34.689380 N

Longitude: 110 03 36.459191 W

Ellipsoid Height: 1686.285 Meters

GS0025



Point ID: GS0025

Northing: 4048258.293 Meters

Easting: 584088.831 Meters

Orthometric Height: 1706.917 Meters

Latitude: 36 34 33.890168 N

Longitude: 110 03 36.474438 W

Ellipsoid Height: 1686.438 Meters

GS0033



Point ID: GS0033

Northing: 4054075.212 Meters

Easting: 581083.448 Meters

Orthometric Height: 1769.876 Meters

Latitude: 36 37 43.585805 N

Longitude: 110 05 35.180686 W

Ellipsoid Height: 1749.384 Meters

GS0035



Point ID: GS0035

Northing: 4054212.505 Meters

Easting: 549168.223 Meters

Orthometric Height: 1903.921 Meters

Latitude: 36 37 55.897810 N

Longitude: 110 27 00.142302 W

Ellipsoid Height: 1883.597 Meters

GS0036



Point ID: GS0036

Northing: 4054229.385 Meters

Easting: 549182.987 Meters

Orthometric Height: 1902.953 Meters

Latitude: 36 37 56.442880 N

Longitude: 110 26 59.543932 W

Ellipsoid Height: 1882.629 Meters

GS0037



Point ID: GS0037

Northing: 4054242.072 Meters

Easting: 549192.536 Meters

Orthometric Height: 1902.469 Meters

Latitude: 36 37 56.852818 N

Longitude: 110 26 59.156477 W

Ellipsoid Height: 1882.146 Meters

GS0042



Point ID: GS0042

Northing: 4059411.184 Meters

Easting: 554602.696 Meters

Orthometric Height: 1841.933 Meters

Latitude: 36 40 43.539359 N

Longitude: 110 23 19.990051 W

Ellipsoid Height: 1821.627 Meters

GS0046



Point ID: GS0046

Northing: 4069118.926 Meters

Easting: 585814.65 Meters

Orthometric Height: 1603.226 Meters

Latitude: 36 45 50.247531 N

Longitude: 110 02 18.628684 W

Ellipsoid Height: 1582.418 Meters

GS0051



Point ID: GS0051

Northing: 4065886.971 Meters

Easting: 580876.18 Meters

Orthometric Height: 1682.082 Meters

Latitude: 36 44 06.936390 N

Longitude: 110 05 39.033823 W

Ellipsoid Height: 1661.383 Meters

GS0058



Point ID: GS0058

Northing: 4087402.475 Meters

Easting: 623295.906 Meters

Orthometric Height: 1512.367 Meters

Latitude: 36 55 28.543768 N

Longitude: 109 36 56.461486 W

Ellipsoid Height: 1491.465 Meters

GS0064



Point ID: GS0064

Northing: 4089673.159 Meters

Easting: 630398.356 Meters

Orthometric Height: 1624.186 Meters

Latitude: 36 56 38.767070 N

Longitude: 109 32 08.058641 W

Ellipsoid Height: 1603.388 Meters

GS0066



Point ID: GS0066

Northing: 4089690.91 Meters

Easting: 630421.96 Meters

Orthometric Height: 1625.095 Meters

Latitude: 36 56 39.331181 N

Longitude: 109 32 07.093569 W

Ellipsoid Height: 1604.297 Meters

GS0069



Point ID: GS0069

Northing: 4089609.318 Meters

Easting: 656192.056 Meters

Orthometric Height: 1632.256 Meters

Latitude: 36 56 22.568500 N

Longitude: 109 14 45.687155 W

Ellipsoid Height: 1611.71 Meters

GS0070



Point ID: GS0070

Northing: 4089580.635 Meters

Easting: 656224.542 Meters

Orthometric Height: 1632.382 Meters

Latitude: 36 56 21.618740 N

Longitude: 109 14 44.395726 W

Ellipsoid Height: 1611.836 Meters

GS0073



Point ID: GS0073

Northing: 4088853.965 Meters

Easting: 664831.172 Meters

Orthometric Height: 1585.067 Meters

Latitude: 36 55 52.768890 N

Longitude: 109 08 57.191115 W

Ellipsoid Height: 1564.478 Meters

GS0076



Point ID: GS0076

Northing: 4091732.394 Meters

Easting: 646284.093 Meters

Orthometric Height: 1651.273 Meters

Latitude: 36 57 37.165783 N

Longitude: 109 21 24.598035 W

Ellipsoid Height: 1630.672 Meters

GS0086



Point ID: GS0086

Northing: 4065399.9 Meters

Easting: 622293.142 Meters

Orthometric Height: 1524.19 Meters

Latitude: 36 43 35.171827 N

Longitude: 109 37 49.722325 W

Ellipsoid Height: 1503.395 Meters

GS0087



Point ID: GS0087

Northing: 4065373.933 Meters

Easting: 622301.226 Meters

Orthometric Height: 1524.27 Meters

Latitude: 36 43 34.325591 N

Longitude: 109 37 49.411484 W

Ellipsoid Height: 1503.476 Meters

GS0088



Point ID: GS0088

Northing: 4065344.132 Meters

Easting: 622314.492 Meters

Orthometric Height: 1524.328 Meters

Latitude: 36 43 33.352552 N

Longitude: 109 37 48.893948 W

Ellipsoid Height: 1503.534 Meters

GS0090



Point ID: GS0090

Northing: 4056556.297 Meters

Easting: 614078.809 Meters

Orthometric Height: 1668.898 Meters

Latitude: 36 38 51.918279 N

Longitude: 109 43 25.552322 W

Ellipsoid Height: 1648.207 Meters

GS0092



Point ID: GS0092

Northing: 4056589.824 Meters

Easting: 614074.111 Meters

Orthometric Height: 1669.289 Meters

Latitude: 36 38 53.008095 N

Longitude: 109 43 25.723547 W

Ellipsoid Height: 1648.598 Meters

GS0095



Point ID: GS0095

Northing: 4052215.461 Meters

Easting: 616584.586 Meters

Orthometric Height: 1620.9 Meters

Latitude: 36 36 29.984423 N

Longitude: 109 41 47.030231 W

Ellipsoid Height: 1600.264 Meters

GS0096



Point ID: GS0096

Northing: 4052218.711 Meters

Easting: 616555.107 Meters

Orthometric Height: 1621.223 Meters

Latitude: 36 36 30.102874 N

Longitude: 109 41 48.214816 W

Ellipsoid Height: 1600.586 Meters

GS0101



Point ID: GS0101

Northing: 4052952.685 Meters

Easting: 645697.639 Meters

Orthometric Height: 1773.51 Meters

Latitude: 36 36 39.483141 N

Longitude: 109 22 15.002929 W

Ellipsoid Height: 1753.256 Meters

GS0102



Point ID: GS0102

Northing: 4052972.935 Meters

Easting: 645718.897 Meters

Orthometric Height: 1773.7 Meters

Latitude: 36 36 40.128388 N

Longitude: 109 22 14.133653 W

Ellipsoid Height: 1753.447 Meters

GS0104



Point ID: GS0104

Northing: 4055687.92 Meters

Easting: 648759.776 Meters

Orthometric Height: 1773.523 Meters

Latitude: 36 38 06.512280 N

Longitude: 109 20 09.877123 W

Ellipsoid Height: 1753.34 Meters

GS0106



Point ID: GS0106

Northing: 4055664.862 Meters

Easting: 648746.395 Meters

Orthometric Height: 1772.318 Meters

Latitude: 36 38 05.771813 N

Longitude: 109 20 10.431833 W

Ellipsoid Height: 1752.135 Meters

GS0110



Point ID: GS0110

Northing: 4048863.387 Meters

Easting: 643033.693 Meters

Orthometric Height: 1769.264 Meters

Latitude: 36 34 28.272685 N

Longitude: 109 24 04.938484 W

Ellipsoid Height: 1748.969 Meters

GS0114



Point ID: GS0114

Northing: 4035502.858 Meters

Easting: 645620.827 Meters

Orthometric Height: 1803.153 Meters

Latitude: 36 27 13.428787 N

Longitude: 109 22 29.952001 W

Ellipsoid Height: 1783.207 Meters

GS0120



Point ID: GS0120

Northing: 4032996.807 Meters

Easting: 651329.3 Meters

Orthometric Height: 1864.878 Meters

Latitude: 36 25 48.947503 N

Longitude: 109 18 42.474833 W

Ellipsoid Height: 1845.177 Meters

GS0123



Point ID: GS0123

Northing: 4019921.09 Meters

Easting: 660085.737 Meters

Orthometric Height: 2149.007 Meters

Latitude: 36 18 39.660885 N

Longitude: 109 13 00.648410 W

Ellipsoid Height: 2129.694 Meters

GS0129



Point ID: GS0129

Northing: 4025943.751 Meters

Easting: 657229.317 Meters

Orthometric Height: 2025.381 Meters

Latitude: 36 21 56.731134 N

Longitude: 109 14 50.763735 W

Ellipsoid Height: 2005.981 Meters

GS0139



Point ID: GS0139

Northing: 4003964.465 Meters

Easting: 633142.878 Meters

Orthometric Height: 1782.057 Meters

Latitude: 36 10 16.703717 N

Longitude: 109 31 10.457127 W

Ellipsoid Height: 1761.968 Meters

GS0142



Point ID: GS0142

Northing: 4011110.215 Meters

Easting: 645591.962 Meters

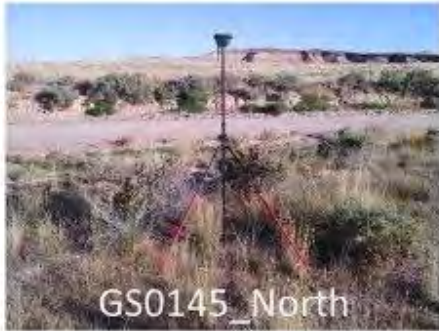
Orthometric Height: 2078.565 Meters

Latitude: 36 14 02.086652 N

Longitude: 109 22 47.530877 W

Ellipsoid Height: 2058.897 Meters

GS0145



Point ID: GS0145

Northing: 3925328.191 Meters

Easting: 606146.667 Meters

Orthometric Height: 1819.395 Meters

Latitude: 35 27 56.843676 N

Longitude: 109 49 48.462745 W

Ellipsoid Height: 1797.257 Meters

GS0148



Point ID: GS0148

Northing: 3925939.736 Meters

Easting: 619302.099 Meters

Orthometric Height: 1949.501 Meters

Latitude: 35 28 11.317427 N

Longitude: 109 41 06.293042 W

Ellipsoid Height: 1927.504 Meters

GS0153



Point ID: GS0153

Northing: 3932321.038 Meters

Easting: 604193.263 Meters

Orthometric Height: 1805.509 Meters

Latitude: 35 31 44.530750 N

Longitude: 109 51 02.721746 W

Ellipsoid Height: 1783.656 Meters

GS0159



Point ID: GS0159

Northing: 3938145.565 Meters

Easting: 609518.455 Meters

Orthometric Height: 1829.199 Meters

Latitude: 35 34 51.485486 N

Longitude: 109 47 28.474383 W

Ellipsoid Height: 1807.6 Meters

GS0167



GS0167_North



GS0167_East



GS0167_West



GS0167_South

Point ID: GS0167

Northing: 3955853.322 Meters

Easting: 622888.419 Meters

Orthometric Height: 1940.275 Meters

Latitude: 35 44 20.452263 N

Longitude: 109 38 27.640186 W

Ellipsoid Height: 1919.425 Meters

GS0181



Point ID: GS0181

Northing: 3951666.449 Meters

Easting: 655875.651 Meters

Orthometric Height: 2282.435 Meters

Latitude: 35 41 47.791266 N

Longitude: 109 16 37.773875 W

Ellipsoid Height: 2261.854 Meters

GS0191



Point ID: GS0191

Northing: 3970353.814 Meters

Easting: 626633.235 Meters

Orthometric Height: 1949.959 Meters

Latitude: 35 52 09.265227 N

Longitude: 109 35 50.325876 W

Ellipsoid Height: 1929.459 Meters

GS0193



Point ID: GS0193

Northing: 3974615.852 Meters

Easting: 611834.131 Meters

Orthometric Height: 1864.45 Meters

Latitude: 35 54 34.057503 N

Longitude: 109 45 38.173334 W

Ellipsoid Height: 1843.821 Meters

GS0199



Point ID: GS0199

Northing: 3975852.48 Meters

Easting: 625405.888 Meters

Orthometric Height: 1858.665 Meters

Latitude: 35 55 08.256783 N

Longitude: 109 36 36.136628 W

Ellipsoid Height: 1838.197 Meters

GS0204



Point ID: GS0204

Northing: 3885161.732 Meters

Easting: 653880.102 Meters

Orthometric Height: 1848.316 Meters

Latitude: 35 05 51.080434 N

Longitude: 109 18 42.304376 W

Ellipsoid Height: 1825.434 Meters

GS0207



Point ID: GS0207

Northing: 3887233.308 Meters

Easting: 658340.495 Meters

Orthometric Height: 1888.525 Meters

Latitude: 35 06 55.809165 N

Longitude: 109 15 44.779510 W

Ellipsoid Height: 1865.794 Meters

GS0208



Point ID: GS0208

Northing: 3887227.569 Meters

Easting: 658321.378 Meters

Orthometric Height: 1888.306 Meters

Latitude: 35 06 55.633764 N

Longitude: 109 15 45.538350 W

Ellipsoid Height: 1865.575 Meters

GS0210



Point ID: GS0210

Northing: 3888117.663 Meters

Easting: 652497.914 Meters

Orthometric Height: 1888.259 Meters

Latitude: 35 07 27.752024 N

Longitude: 109 19 34.913635 W

Ellipsoid Height: 1865.431 Meters

GS0211



Point ID: GS0211

Northing: 3888098.053 Meters

Easting: 652506.86 Meters

Orthometric Height: 1887.78 Meters

Latitude: 35 07 27.110852 N

Longitude: 109 19 34.573340 W

Ellipsoid Height: 1864.951 Meters

GS0215



Point ID: GS0215

Northing: 3895075.666 Meters

Easting: 642677.996 Meters

Orthometric Height: 1754.232 Meters

Latitude: 35 11 18.722121 N

Longitude: 109 25 58.429112 W

Ellipsoid Height: 1731.357 Meters

GS0218



Point ID: GS0218

Northing: 3898550.045 Meters

Easting: 651375.627 Meters

Orthometric Height: 1795.19 Meters

Latitude: 35 13 06.873673 N

Longitude: 109 20 12.346202 W

Ellipsoid Height: 1772.625 Meters

GS0223



Point ID: GS0223

Northing: 3902681.697 Meters

Easting: 642124.829 Meters

Orthometric Height: 1868.127 Meters

Latitude: 35 15 25.816448 N

Longitude: 109 26 15.564923 W

Ellipsoid Height: 1845.508 Meters

GS0224



Point ID: GS0224

Northing: 3902703.618 Meters

Easting: 642128.241 Meters

Orthometric Height: 1867.44 Meters

Latitude: 35 15 26.526034 N

Longitude: 109 26 15.416279 W

Ellipsoid Height: 1844.822 Meters

GS0228



Point ID: GS0228

Northing: 3909401.688 Meters

Easting: 642557.179 Meters

Orthometric Height: 1911.86 Meters

Latitude: 35 19 03.652629 N

Longitude: 109 25 54.256219 W

Ellipsoid Height: 1889.512 Meters

GS0229



Point ID: GS0229

Northing: 3909420.249 Meters

Easting: 642557.638 Meters

Orthometric Height: 1911.987 Meters

Latitude: 35 19 04.254692 N

Longitude: 109 25 54.226432 W

Ellipsoid Height: 1889.64 Meters

GS0244



Point ID: GS0244

Northing: 3910435.68 Meters

Easting: 626412.43 Meters

Orthometric Height: 1803.955 Meters

Latitude: 35 19 45.029852 N

Longitude: 109 36 32.889204 W

Ellipsoid Height: 1781.314 Meters

GS0248



Point ID: GS0248

Northing: 3912054.798 Meters

Easting: 628230.55 Meters

Orthometric Height: 1815.986 Meters

Latitude: 35 20 36.737683 N

Longitude: 109 35 19.980554 W

Ellipsoid Height: 1793.428 Meters

GS0249



Point ID: GS0249

Northing: 3912070.436 Meters

Easting: 628237.933 Meters

Orthometric Height: 1816.56 Meters

Latitude: 35 20 37.241762 N

Longitude: 109 35 19.679341 W

Ellipsoid Height: 1794.003 Meters

GS0253



Point ID: GS0253

Northing: 3921545.415 Meters

Easting: 634763.44 Meters

Orthometric Height: 1935.722 Meters

Latitude: 35 25 41.608471 N

Longitude: 109 30 55.606340 W

Ellipsoid Height: 1913.663 Meters

GS0261



Point ID: GS0261

Northing: 3926415.045 Meters

Easting: 633404.476 Meters

Orthometric Height: 1999.107 Meters

Latitude: 35 28 20.285430 N

Longitude: 109 31 46.609410 W

Ellipsoid Height: 1977.258 Meters

GS0272



Point ID: GS0272

Northing: 3930187.994 Meters

Easting: 634053.274 Meters

Orthometric Height: 1957.489 Meters

Latitude: 35 30 22.400768 N

Longitude: 109 31 18.631130 W

Ellipsoid Height: 1935.815 Meters

GS0273



Point ID: GS0273

Northing: 3930170.924 Meters

Easting: 634037.819 Meters

Orthometric Height: 1957.277 Meters

Latitude: 35 30 21.854368 N

Longitude: 109 31 19.254628 W

Ellipsoid Height: 1935.602 Meters

GS0284



Point ID: GS0284

Northing: 4007673.132 Meters

Easting: 615563.612 Meters

Orthometric Height: 1828.345 Meters

Latitude: 36 12 25.169360 N

Longitude: 109 42 51.994870 W

Ellipsoid Height: 1807.962 Meters

GS0285



Point ID: GS0285

Northing: 4007686.951 Meters

Easting: 615575.528 Meters

Orthometric Height: 1828.446 Meters

Latitude: 36 12 25.612637 N

Longitude: 109 42 51.510440 W

Ellipsoid Height: 1808.063 Meters

GS0289



Point ID: GS0289

Northing: 4013148.958 Meters

Easting: 615022.33 Meters

Orthometric Height: 1714.707 Meters

Latitude: 36 15 23.081350 N

Longitude: 109 43 10.770665 W

Ellipsoid Height: 1694.294 Meters

GS0292



Point ID: GS0292

Northing: 4006333.833 Meters

Easting: 619036.414 Meters

Orthometric Height: 1733.766 Meters

Latitude: 36 11 40.196086 N

Longitude: 109 40 33.683652 W

Ellipsoid Height: 1713.403 Meters

GS0293



Point ID: GS0293

Northing: 4006342.885 Meters

Easting: 619063.276 Meters

Orthometric Height: 1733.322 Meters

Latitude: 36 11 40.477918 N

Longitude: 109 40 32.603364 W

Ellipsoid Height: 1712.959 Meters

GS0297



GS0297_North



GS0297_East



GS0297_West



GS0297_South

Point ID: GS0297

Northing: 3992539.98 Meters

Easting: 611005.128 Meters

Orthometric Height: 1795.468 Meters

Latitude: 36 04 16.034335 N

Longitude: 109 46 02.200075 W

Ellipsoid Height: 1775.052 Meters

GS0298



Point ID: GS0298

Northing: 3992513.037 Meters

Easting: 610997.535 Meters

Orthometric Height: 1795.233 Meters

Latitude: 36 04 15.163176 N

Longitude: 109 46 02.517231 W

Ellipsoid Height: 1774.817 Meters

GS0302



Point ID: GS0302

Northing: 3992156.982 Meters

Easting: 601436.188 Meters

Orthometric Height: 1847.775 Meters

Latitude: 36 04 07.370378 N

Longitude: 109 52 24.857926 W

Ellipsoid Height: 1827.314 Meters

GS0303



Point ID: GS0303

Northing: 3992173.262 Meters

Easting: 601428.315 Meters

Orthometric Height: 1847.966 Meters

Latitude: 36 04 07.901640 N

Longitude: 109 52 25.165090 W

Ellipsoid Height: 1827.505 Meters

GS0305



Point ID: GS0305

Northing: 3994050.67 Meters

Easting: 618637.63 Meters

Orthometric Height: 1724.683 Meters

Latitude: 36 05 01.808019 N

Longitude: 109 40 56.317754 W

Ellipsoid Height: 1704.31 Meters

GS0306



Point ID: GS0306

Northing: 3994069.856 Meters

Easting: 618643.162 Meters

Orthometric Height: 1724.634 Meters

Latitude: 36 05 02.428159 N

Longitude: 109 40 56.086217 W

Ellipsoid Height: 1704.261 Meters

GS0315



Point ID: GS0315

Northing: 3986359.288 Meters

Easting: 650218.225 Meters

Orthometric Height: 2141.962 Meters

Latitude: 36 00 36.545085 N

Longitude: 109 19 59.273939 W

Ellipsoid Height: 2122.007 Meters

GS0316



Point ID: GS0316

Northing: 3986340.169 Meters

Easting: 650214.089 Meters

Orthometric Height: 2142.272 Meters

Latitude: 36 00 35.927078 N

Longitude: 109 19 59.452162 W

Ellipsoid Height: 2122.317 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 12, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

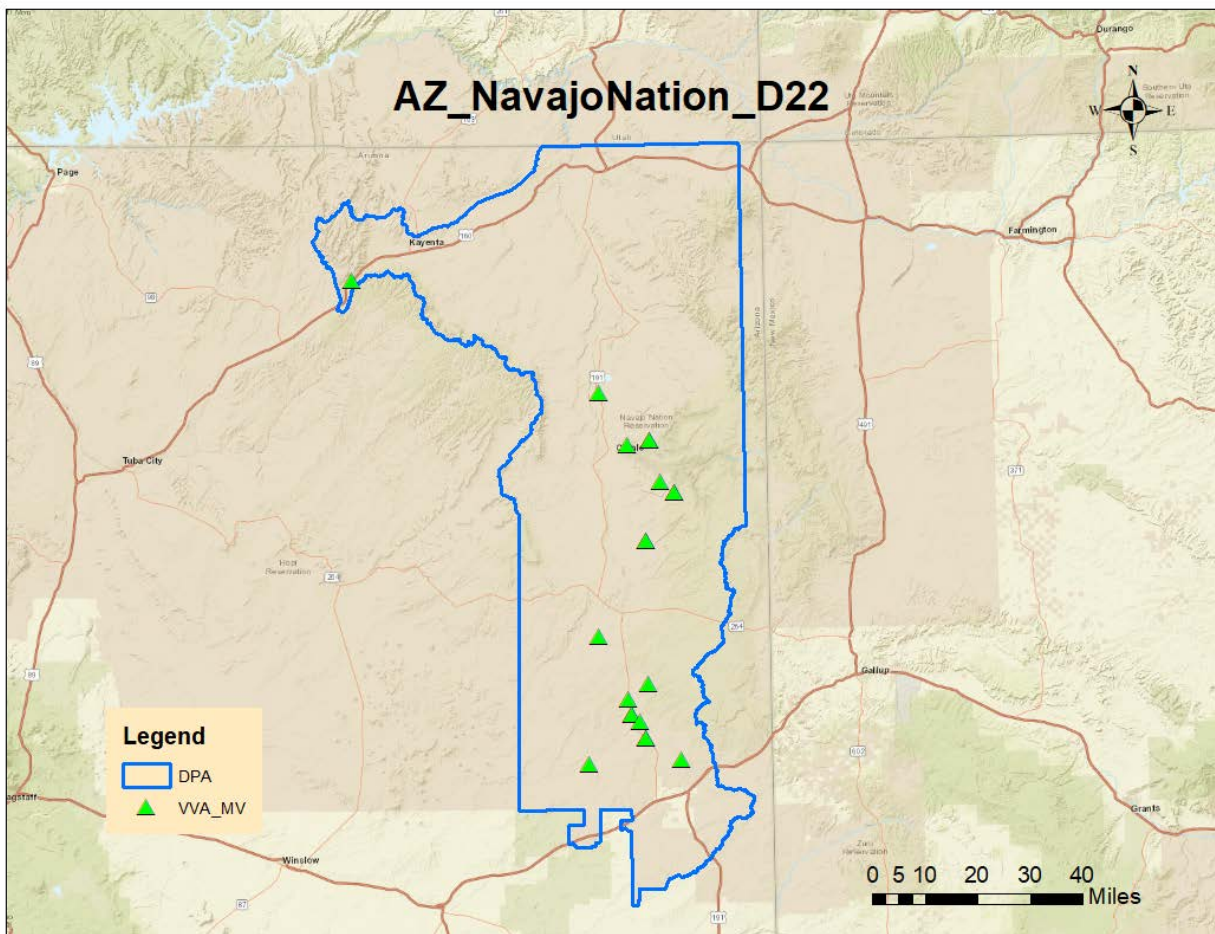


TABLE: Medium Vegetation

Point ID	Easting	Northing	Ortho
GS0006	624574.335	4019839.252	1627.333
GS0034	549158.683	4054193.433	1905.762
GS0135	640157.321	4005446.509	1969.125
GS0136	640166.141	4005513.127	1969.807
GS0138	633119.687	4003915.287	1782.986
GS0164	624658.588	3945566.916	1990.764
GS0231	649679.464	3907984.503	1962.626
GS0235	638880.862	3914447.451	1923.99
GS0236	638863.966	3914448.129	1922.858
GS0239	621479.47	3906561.566	1786.851
GS0251	634734.223	3921546.997	1936.115
GS0252	634751.753	3921560.346	1935.982
GS0255	637173.833	3919584.085	1946.201
GS0259	633404.727	3926334.415	1995.904
GS0264	639508.895	3931114.297	2055.582
GS0279	638827.879	3974930.763	1914.488
GS0280	638843.177	3974937.694	1915.307
GS0311	647671.323	3989683.787	2081.774
GS0312	647621.358	3989689.356	2081.658
GS0319	643318.755	3992958.647	2038.579

GS0006



Point ID: GS0006

Northing: 4019839.252 Meters

Easting: 624574.335 Meters

Orthometric Height: 1627.333 Meters

Latitude: 36 18 55.889973 N

Longitude: 109 36 44.252952 W

Ellipsoid Height: 1606.971 Meters

GS0034



Point ID: GS0034

Northing: 4054193.433 Meters

Easting: 549158.683 Meters

Orthometric Height: 1905.762 Meters

Latitude: 36 37 55.280651 N

Longitude: 110 27 00.530810 W

Ellipsoid Height: 1885.438 Meters

GS0135



Point ID: GS0135

Northing: 4005446.509 Meters

Easting: 640157.321 Meters

Orthometric Height: 1969.125 Meters

Latitude: 36 11 01.224959 N

Longitude: 109 26 28.816466 W

Ellipsoid Height: 1949.263 Meters

GS0136



Point ID: GS0136

Northing: 4005513.127 Meters

Easting: 640166.141 Meters

Orthometric Height: 1969.807 Meters

Latitude: 36 11 03.381726 N

Longitude: 109 26 28.420613 W

Ellipsoid Height: 1949.945 Meters

GS0138



Point ID: GS0138

Northing: 4003915.287 Meters

Easting: 633119.687 Meters

Orthometric Height: 1782.986 Meters

Latitude: 36 10 15.119614 N

Longitude: 109 31 11.415199 W

Ellipsoid Height: 1762.896 Meters

GS0164



Point ID: GS0164

Northing: 3945566.916 Meters

Easting: 624658.588 Meters

Orthometric Height: 1990.764 Meters

Latitude: 35 38 45.860309 N

Longitude: 109 37 22.927041 W

Ellipsoid Height: 1969.552 Meters

GS0231



Point ID: GS0231

Northing: 3907984.503 Meters

Easting: 649679.464 Meters

Orthometric Height: 1962.626 Meters

Latitude: 35 18 13.919065 N

Longitude: 109 21 13.223210 W

Ellipsoid Height: 1940.395 Meters

GS0235



Point ID: GS0235

Northing: 3914447.451 Meters

Easting: 638880.862 Meters

Orthometric Height: 1923.99 Meters

Latitude: 35 21 49.248313 N

Longitude: 109 28 16.720212 W

Ellipsoid Height: 1901.745 Meters

GS0236



Point ID: GS0236

Northing: 3914448.129 Meters

Easting: 638863.966 Meters

Orthometric Height: 1922.858 Meters

Latitude: 35 21 49.278758 N

Longitude: 109 28 17.389091 W

Ellipsoid Height: 1900.613 Meters

GS0239



Point ID: GS0239

Northing: 3906561.566 Meters

Easting: 621479.47 Meters

Orthometric Height: 1786.851 Meters

Latitude: 35 17 41.509919 N

Longitude: 109 39 50.300261 W

Ellipsoid Height: 1764.003 Meters

GS0251



Point ID: GS0251

Northing: 3921546.997 Meters

Easting: 634734.223 Meters

Orthometric Height: 1936.115 Meters

Latitude: 35 25 41.674045 N

Longitude: 109 30 56.763731 W

Ellipsoid Height: 1914.055 Meters

GS0252



Point ID: GS0252

Northing: 3921560.346 Meters

Easting: 634751.753 Meters

Orthometric Height: 1935.982 Meters

Latitude: 35 25 42.098692 N

Longitude: 109 30 56.060775 W

Ellipsoid Height: 1913.923 Meters

GS0255



Point ID: GS0255

Northing: 3919584.085 Meters

Easting: 637173.833 Meters

Orthometric Height: 1946.201 Meters

Latitude: 35 24 36.779285 N

Longitude: 109 29 21.233920 W

Ellipsoid Height: 1924.107 Meters

GS0259



Point ID: GS0259

Northing: 3926334.415 Meters

Easting: 633404.727 Meters

Orthometric Height: 1995.904 Meters

Latitude: 35 28 17.668929 N

Longitude: 109 31 46.647106 W

Ellipsoid Height: 1974.051 Meters

GS0264



Point ID: GS0264

Northing: 3931114.297 Meters

Easting: 639508.895 Meters

Orthometric Height: 2055.582 Meters

Latitude: 35 30 49.750623 N

Longitude: 109 27 41.560174 W

Ellipsoid Height: 2034.043 Meters

GS0279



Point ID: GS0279

Northing: 3974930.763 Meters

Easting: 638827.879 Meters

Orthometric Height: 1914.488 Meters

Latitude: 35 54 31.819835 N

Longitude: 109 27 41.325378 W

Ellipsoid Height: 1894.17 Meters

GS0280



Point ID: GS0280

Northing: 3974937.694 Meters

Easting: 638843.177 Meters

Orthometric Height: 1915.307 Meters

Latitude: 35 54 32.036902 N

Longitude: 109 27 40.710911 W

Ellipsoid Height: 1894.99 Meters

GS0311



Point ID: GS0311

Northing: 3989683.787 Meters

Easting: 647671.323 Meters

Orthometric Height: 2081.774 Meters

Latitude: 36 02 25.806703 N

Longitude: 109 21 38.742163 W

Ellipsoid Height: 2061.844 Meters

GS0312



Point ID: GS0312

Northing: 3989689.356 Meters

Easting: 647621.358 Meters

Orthometric Height: 2081.658 Meters

Latitude: 36 02 26.014696 N

Longitude: 109 21 40.734353 W

Ellipsoid Height: 2061.728 Meters

GS0319



Point ID: GS0319

Northing: 3992958.647 Meters

Easting: 643318.755 Meters

Orthometric Height: 2038.579 Meters

Latitude: 36 04 14.400768 N

Longitude: 109 24 30.479283 W

Ellipsoid Height: 2018.682 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 12, North American Datum 1983 (2011), North American Vertical Datum of 1988, Geoid 18 and using Meters for measurement.

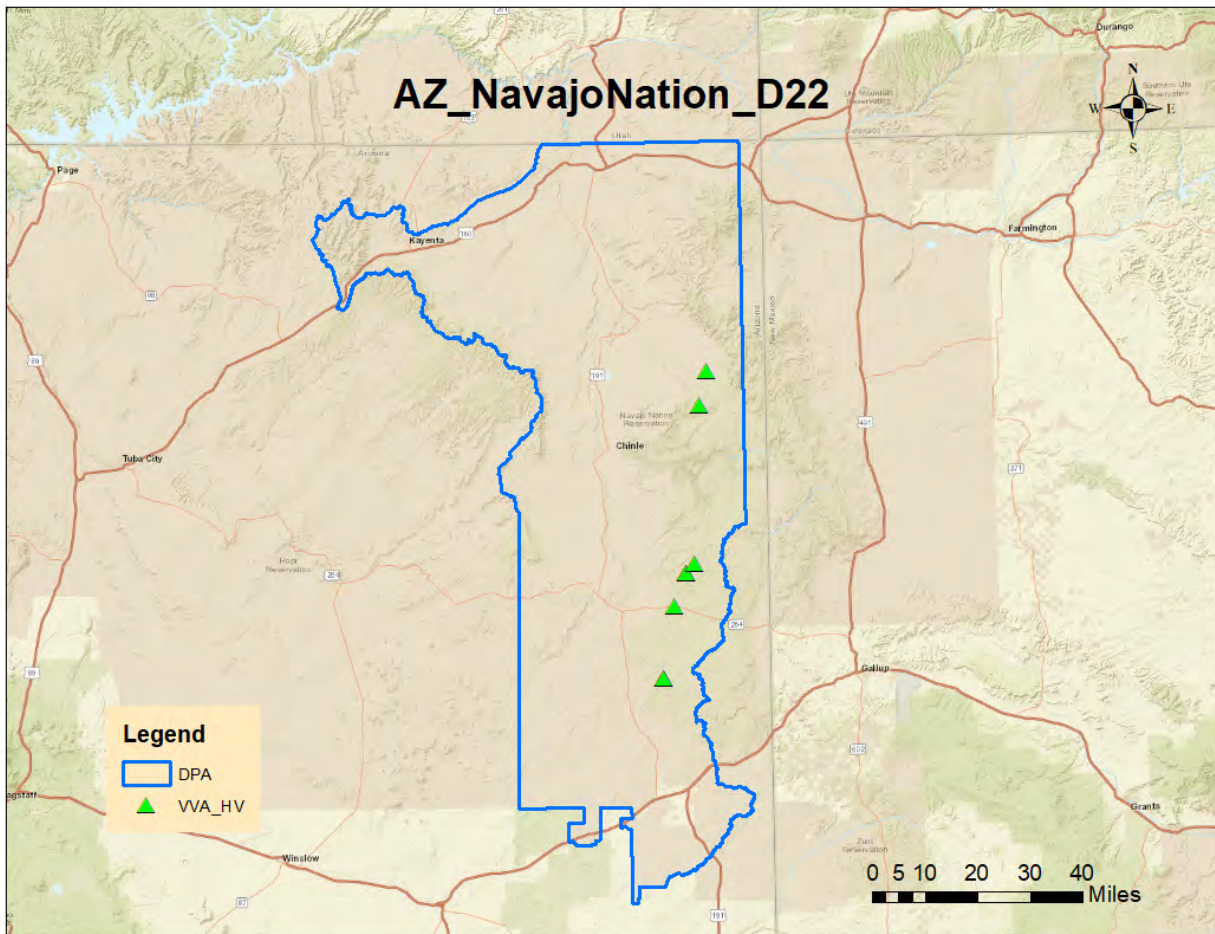


TABLE: High Vegetation

Point ID	Easting	Northing	Ortho
GS0128	657216.833	4025965.577	2023.609
GS0132	655093.34	4015772.494	2175.163
GS0169	651229.126	3964355.428	2222.701
GS0170	651235.032	3964388.127	2223.771
GS0172	653818.595	3967180.031	2330.316
GS0176	647606.534	3954044.613	2182.8
GS0268	644239.793	3931998.154	2173.653
GS0269	644257.35	3932005.037	2173.732

GS0128



Point ID: GS0128

Northing: 4025965.577 Meters

Easting: 657216.833 Meters

Orthometric Height: 2023.609 Meters

Latitude: 36 21 57.446527 N

Longitude: 109 14 51.248595 W

Ellipsoid Height: 2004.208 Meters

GS0132



Point ID: GS0132

Northing: 4015772.494 Meters

Easting: 655093.34 Meters

Orthometric Height: 2175.163 Meters

Latitude: 36 16 28.015383 N

Longitude: 109 16 23.724759 W

Ellipsoid Height: 2155.781 Meters

GS0169



Point ID: GS0169

Northing: 3964355.428 Meters

Easting: 651229.126 Meters

Orthometric Height: 2222.701 Meters

Latitude: 35 48 42.089796 N

Longitude: 109 19 33.967460 W

Ellipsoid Height: 2202.358 Meters

GS0170



Point ID: GS0170

Northing: 3964388.127 Meters

Easting: 651235.032 Meters

Orthometric Height: 2223.771 Meters

Latitude: 35 48 43.147429 N

Longitude: 109 19 33.709958 W

Ellipsoid Height: 2203.429 Meters

GS0172



Point ID: GS0172

Northing: 3967180.031 Meters

Easting: 653818.595 Meters

Orthometric Height: 2330.316 Meters

Latitude: 35 50 12.282288 N

Longitude: 109 17 48.867363 W

Ellipsoid Height: 2310.082 Meters

GS0176



Point ID: GS0176

Northing: 3954044.613 Meters

Easting: 647606.534 Meters

Orthometric Height: 2182.8 Meters

Latitude: 35 43 09.536455 N

Longitude: 109 22 05.102755 W

Ellipsoid Height: 2162.156 Meters

GS0268



Point ID: GS0268

Northing: 3931998.154 Meters

Easting: 644239.793 Meters

Orthometric Height: 2173.653 Meters

Latitude: 35 31 15.993985 N

Longitude: 109 24 33.243361 W

Ellipsoid Height: 2152.254 Meters

GS0269



Point ID: GS0269

Northing: 3932005.037 Meters

Easting: 644257.35 Meters

Orthometric Height: 2173.732 Meters

Latitude: 35 31 16.208129 N

Longitude: 109 24 32.542129 W

Ellipsoid Height: 2152.333 Meters