

Ground Control Survey Report



OK Panhandle 2018 D18

Contract Number: G16PC00022
Task Order # 140G0218F0438

Contractor: Woolpert, Inc.
Woolpert Project # 78983

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Ground Control Survey Report

UNITED STATES GEOLOGICAL SURVEY – OK Panhandle 2018 D18

Task Order 140G0218F0438

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Table of Contents

Section 1: Survey Report.....	1-1
Section 2: Ground Control / Geodetic Control Coordinate Listings	2-1
Section 3: Ground / Geodetic Control Photos	3-1
Section 4: Geodetic Control Information and Resources.....	4-1
Section 5: GPS Control Diagrams	5-1

Section 1: Survey Report

Introduction

Report Date:	1/18/2019
Project Name:	OK Panhandle 2018 D18
Client Information:	USGS
Contract Number:	G16PC00022
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Woolpert Project Number:	78983

This report contains a comprehensive outline of the Ground Control Survey that supported the OK Panhandle Lidar consisting of three individual AOI's. All surveys were performed in such a way as to achieve ground control accuracies that meet or exceed the National Mapping Accuracy Standards.

Project Area

The project area consists of approximately 7176 square miles encompassing the client provided AOI's.

Purpose

The purpose of this survey was to establish three-dimensional coordinates for 84 Lidar control points and 293 LiDAR control ground classification check points. The points were collected per the flight layout and were uniformly dispersed over the project area.

Date of Survey

Ground control field operations took place between October 23rd and November 8th 2018.

Monumentation

Prior to aerial imagery acquisition, Woolpert field crews performed a field reconnaissance to verify the existence and suitability of pre-selected existing National Geodetic Survey (NGS) control stations. These existing NSRS control stations were utilized as checks to ensure that quality x, y, and z coordinate values were computed for each of the newly established photogrammetric control stations. Recovery information sheets for the existing NGS control stations can be found in Section 4 of this report. A control diagram showing the ground control stations used to support this mapping project can be found in Section 5 of this report.

Accuracy Standards

The relative vertical accuracy of the LiDAR data will be 10 cm RMSEz with swath overlap (between adjacent swaths) and an absolute vertical accuracy of 15cm RMSE.

GPS Equipment

Woolpert utilized 3 Trimble Navigation R10 Model, 1 Trimble Navigation R8 Model 4 GNSS dual-frequency GPS receivers and 2 Trimble TSC3 data collectors for this project.

Methodology

Real-Time Kinematic (RTK) GPS

The field crew utilized Real-Time Kinematic (RTK) GPS surveying throughout the ground control data collection process. Using RTK GPS techniques, observations were performed on a total of 83 LiDAR control points and 296 LiDAR control ground classification check points. The survey was conducted using a 1-second epoch rate, in a fixed solution RTK mode, with each observation lasting between 60 to 180 seconds. Each station was occupied twice to insure the necessary horizontal and vertical accuracies were being met for this LiDAR / photogrammetric project.

Static GPS

The field crew utilized Static GPS surveying throughout the ground control data collection process. Using Static GPS techniques, observations were performed on a total of 2 LiDAR control points and 20 LiDAR control ground classification check points. The survey was conducted using a 1-second epoch rate, in a fixed solution, with each observation lasting at least 20 minutes. Each station was occupied twice to insure the necessary horizontal and vertical accuracies were being met for this photogrammetric project.

GPS Data Analysis and Processing

The field crew chief processed all session baselines each day using Trimble Navigation's Trimble Business Center (TBC) Version 5.00 baseline processor with the accompanying broadcast ephemeris. Daily processing ensured the integrity of the network as it was constructed, and allowed the field crews to immediately reschedule observations of poor baselines.

Datum Reference and Final Coordinates

The spatial reference system are as follows:

Oklahoma Panhandle AOI is Oklahoma State Plane, North Zone, UTM Zone 13 & 14 North, NAD83 (2011) horizontal and NAVD88 vertical using the geoid model of 2012 (GEOID12B).

Oklahoma City AOI is Oklahoma State Plane North & South Zone, UTM Zone 14 North, NAD83 (2011) horizontal and NAVD88 vertical using the geoid model of 2012 (GEOID12B).

Ottawa County AOI is Oklahoma State Plane, North Zone, UTM Zone 15, North NAD83 (2011) horizontal and NAVD88 vertical using the geoid model of 2012 (GEOID12B).

Unit values displayed in the Oklahoma State Plane Zones in both the horizontal and vertical datums will be expressed in US Survey feet to two (2) decimal places.

Unit values displayed in the UTM Zones 13, 14 & 15 North in both the horizontal and vertical datums will be expressed in Meters to three (3) decimal places.

Quality Assurance

Existing NGS published bench marks were surveyed to assure that there were no discrepancies in the field observation data. Close examinations of the residuals showed no distortions in orientation or scale. The ground control data meets positional accuracies necessary to support 1.0 point per 0.7 meters squared (1' GSD) data at 95% confidence level as outlined in the Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy (NSSDA), published by the Federal Geographic Data Committee (FGDC-STD-007.3-1998).

Section 2: Ground Control / Geodetic Control Coordinate Listings

Coordinate System: Grid

HORIZONTAL DATUM: NAD83 2011 2010.00

PROJECTION: UTM 13N

VERTICAL DATUM: NAVD88

GEOID MODEL: Geoid12B

Ground Control & Check Points

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
1001_2018_OK	4098039.124	719963.806	1240.739	GCP
1002_2018_OK	4091615.668	720637.079	1196.829	GCP
1003_2018_OK	4085191.229	721261.137	1206.242	GCP
1004_2018_OK	4078751.130	721403.378	1274.583	GCP
1005_2018_OK	4072266.159	721550.285	1272.653	GCP
1006_2018_OK	4065751.936	720809.289	1274.167	GCP
1007_2018_OK	4059271.207	718695.766	1261.749	GCP
1008_2018_OK	4052852.413	718875.295	1281.775	GCP
1009_2018_OK	4047390.005	719028.464	1266.464	GCP
1010_2018_OK	4042140.912	720749.637	1255.671	GCP
1011_2018_OK	4072608.421	764927.103	1125.606	GCP
1012_2018_OK	4100734.954	812963.469	991.028	GCP
1013_2018_OK	4094140.748	812845.245	988.613	GCP
1014_2018_OK	4087390.979	813100.460	968.662	GCP
1015_2018_OK	4080706.381	812894.843	967.889	GCP
1016_2018_OK	4074116.518	813137.532	924.990	GCP
1017_2018_OK	4067531.966	814119.128	929.277	GCP
1018_2018_OK	4060964.191	815179.776	948.933	GCP
1019_2018_OK	4054360.728	815405.018	913.068	GCP
1020_2018_OK	4049879.275	813955.766	965.117	GCP

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
1021_2018_OK	4045484.619	814117.435	978.687	GCP
1022_2018_OK	4059974.130	861966.806	822.448	GCP
1023_2018_OK	4106435.962	900894.780	716.177	GCP
1024_2018_OK	4099664.706	901170.069	751.627	GCP
1025_2018_OK	4092798.881	899911.401	765.156	GCP
1026_2018_OK	4085973.804	900066.717	737.230	GCP
1027_2018_OK	4079179.210	899581.492	774.403	GCP
1028_2018_OK	4072392.269	899921.725	821.283	GCP
1029_2018_OK	4065601.149	900258.650	816.634	GCP
1030_2018_OK	4058848.060	900601.726	814.453	GCP
1031_2018_OK	4053160.547	900884.226	856.281	GCP
1032_2018_OK	4048620.847	900400.231	859.328	GCP
1033_2018_OK	3954927.521	1164992.467	382.317	GCP
1034_2018_OK	3954965.290	1170887.282	396.616	GCP
1035_2018_OK	3949313.198	1177528.588	362.530	GCP
1036_2018_OK	3942944.934	1184174.439	390.169	GCP
1037_2018_OK	3942894.803	1190308.778	392.215	GCP
1038_2018_OK	3943650.147	1196268.837	380.589	GCP
1039_2018_OK	3921503.255	1204124.238	338.586	GCP
1040_2018_OK	3926759.676	1209946.735	329.741	GCP
1041_2018_OK	3917551.475	1216715.600	333.932	GCP
1042_2018_OK	4140069.779	1387612.925	245.485	GCP
1043_2018_OK	4128147.530	1395077.513	241.188	GCP
1044_2018_OK	4127571.157	1401286.154	235.894	GCP
1045_2018_OK	4129140.988	1407269.607	237.880	GCP
1046_2018_OK	4129839.919	1413386.069	249.837	GCP
1047_2018_OK	4130502.980	1419467.433	265.816	GCP
1048_2018_OK	4130997.292	1426757.612	308.618	GCP
1049_2018_OK	4094685.573	720433.020	1218.718	GCP
1050_2018_OK	4088349.865	720978.308	1184.448	GCP
1051_2018_OK	4081884.202	721732.882	1229.764	GCP
1052_2018_OK	4075204.048	721493.142	1279.012	GCP
1053_2018_OK	4069250.795	722095.512	1273.671	GCP

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
1054_2018_OK	4064181.558	718533.797	1283.657	GCP
1055_2018_OK	4056127.166	718788.529	1278.140	GCP
1056_2018_OK	4050696.002	718934.776	1280.929	GCP
1056A_2018_OK	4050503.691	718939.855	1280.689	GCP
1057_2018_OK	4043987.372	719116.236	1269.066	GCP
1058_2018_OK	4090661.841	812978.115	980.252	GCP
1059_2018_OK	4084648.769	813204.181	970.285	GCP
1060_2018_OK	4077265.045	813021.842	958.069	GCP
1061_2018_OK	4070106.391	813414.628	912.860	GCP
1062_2018_OK	4064849.470	814481.313	951.523	GCP
1063_2018_OK	4057342.175	815300.726	949.997	GCP
1064_2018_OK	4102985.491	901013.146	761.520	GCP
1065_2018_OK	4096460.656	901332.545	767.763	GCP
1066_2018_OK	4089598.798	900072.019	754.682	GCP
1067_2018_OK	4082544.742	899777.789	744.908	GCP
1068_2018_OK	4076144.747	899724.684	784.501	GCP
1069_2018_OK	4068917.702	900094.898	807.769	GCP
1070_2018_OK	4061664.183	900588.270	826.341	GCP
1071_2018_OK	4056476.951	900717.577	839.314	GCP
1072_2018_OK	3955192.780	1167949.290	400.215	GCP
1073_2018_OK	3949105.479	1175038.639	367.406	GCP
1074_2018_OK	3949419.825	1180793.894	358.357	GCP
1075_2018_OK	3942653.226	1187381.012	390.891	GCP
1076_2018_OK	3922548.152	1196754.111	329.189	GCP
1077_2018_OK	3923120.627	1207258.696	346.766	GCP
1078_2018_OK	3917291.149	1213324.175	308.879	GCP
1079_2018_OK	4140339.906	1390181.350	240.936	GCP
1080_2018_OK	4126958.807	1399266.236	237.078	GCP
1081_2018_OK	4128824.064	1403826.990	239.268	GCP
1082_2018_OK	4129475.719	1410136.802	256.660	GCP
1083_2018_OK	4130167.280	1416304.866	258.452	GCP
1084_2018_OK	4130898.255	1423069.373	284.868	GCP
2001_2018_OK	4053071.835	883116.932	881.199	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2002_2018_OK	3949796.395	1171721.178	369.616	NVA
2003_2018_OK	4079454.819	777542.348	1088.395	NVA
2004_2018_OK	4085310.156	809230.573	987.113	NVA
2005_2018_OK	4071792.013	823572.086	883.942	NVA
2006_2018_OK	4094561.880	840424.679	908.903	NVA
2007_2018_OK	4102234.791	921801.986	675.073	NVA
2008_2018_OK	3963527.969	1182401.475	343.851	NVA
2009_2018_OK	4052146.003	780034.123	1053.633	NVA
2010_2018_OK	4070684.873	920896.677	776.794	NVA
2011_2018_OK	4097337.731	912587.698	745.350	NVA
2012_2018_OK	3952800.557	1192013.103	372.776	NVA
2013_2018_OK	4056008.663	747674.170	1181.395	NVA
2014_2018_OK	4062848.537	939128.198	736.885	NVA
2015_2018_OK	4101117.889	911998.896	709.637	NVA
2016A_2018_OK	4055416.362	801041.619	1003.795	NVA
2016B_2018_OK	4055408.296	801046.289	1003.765	NVA
2017_2018_OK	4078800.539	848532.977	874.799	NVA
2018_2018_OK	4065817.059	688829.933	1418.697	NVA
2019_2018_OK	4089318.367	784776.835	1070.221	NVA
2020_2018_OK	4093078.861	945436.564	664.991	NVA
2021_2018_OK	4060885.434	902881.683	834.248	NVA
2022_2018_OK	4066723.815	869556.626	830.572	NVA
2023_2018_OK	4087011.592	852618.595	873.399	NVA
2023A_2018_OK	4087005.465	852652.262	873.714	NVA
2024_2018_OK	4050913.511	707631.599	1324.112	NVA
2025_2018_OK	4060439.424	845734.459	869.053	NVA
2026_2018_OK	4080912.453	772673.560	1107.072	NVA
2027_2018_OK	4077035.625	883605.751	802.188	NVA
2028_2018_OK	4054416.283	854048.369	825.662	NVA
2029_2018_OK	4051778.334	909018.557	841.986	NVA
2030_2018_OK	4051770.751	746308.709	1160.921	NVA
2031A_2018_OK	4108445.883	1398259.688	238.033	NVA
2031B_2018_OK	4108439.999	1398263.944	238.015	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2032_2018_OK	3974860.584	1171551.514	314.081	NVA
2033A_2018_OK	4093834.570	897502.700	790.177	NVA
2033B_2018_OK	4093835.818	897533.196	789.269	NVA
2034_2018_OK	4048930.128	827870.654	943.359	NVA
2035A_2018_OK	4086288.871	837345.148	912.334	NVA
2035B_2018_OK	4086288.786	837358.864	912.264	NVA
2036_2018_OK	4086909.868	756779.144	1158.015	NVA
2037_2018_OK	3954241.855	1187753.564	354.654	NVA
2038_2018_OK	4066045.389	890600.013	842.488	NVA
2039_2018_OK	3941225.359	1180645.477	391.541	NVA
2040_2018_OK	4113509.820	1395702.514	242.234	NVA
2041_2018_OK	4051668.493	738304.777	1207.506	NVA
2042_2018_OK	3921830.153	1198438.126	323.292	NVA
2043_2018_OK	4064004.826	745909.051	1201.894	NVA
2044_2018_OK	4058737.150	730518.876	1238.950	NVA
2045_2018_OK	4052666.996	796120.513	1024.647	NVA
2046_2018_OK	4072228.293	826173.701	902.522	NVA
2047_2018_OK	4049873.992	851806.666	834.045	NVA
2048_2018_OK	4072506.972	784179.182	1053.878	NVA
2049_2018_OK	4090107.690	886420.561	799.820	NVA
2050_2018_OK	4089811.006	859770.653	854.965	NVA
2051_2018_OK	4055970.859	845902.043	866.975	NVA
2052A_2018_OK	3927380.145	1189168.080	357.187	NVA
2052B_2018_OK	3927380.774	1189176.584	357.480	NVA
2053_2018_OK	4051192.395	830001.070	936.968	NVA
2054_2018_OK	4058356.556	823317.641	931.608	NVA
2055_2018_OK	4046739.260	811663.777	985.128	NVA
2056_2018_OK	4100119.592	921339.816	727.907	NVA
2057_2018_OK	4051692.774	702450.129	1345.078	NVA
2058_2018_OK	3921782.513	1195188.290	347.299	NVA
2059_2018_OK	4048810.696	718948.404	1269.598	NVA
2060_2018_OK	4087827.092	788633.122	1057.816	NVA
2061_2018_OK	4071143.339	737590.267	1221.797	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2062_2018_OK	4083667.221	859273.003	850.675	NVA
2063_2018_OK	4089748.576	878652.515	820.109	NVA
2064_2018_OK	4062252.871	729822.686	1244.974	NVA
2065_2018_OK	4063190.876	932639.697	711.103	NVA
2065A_2018_OK	4063151.593	932640.069	710.576	NVA
2066_2018_OK	4078926.770	833723.091	913.122	NVA
2067_2018_OK	4061090.552	850164.795	860.890	NVA
2068_2018_OK	4064271.485	691878.541	1397.834	NVA
2069_2018_OK	4067753.411	702513.005	1352.097	NVA
2070_2018_OK	4075186.415	878903.847	828.105	NVA
2071_2018_OK	4059985.258	707395.939	1323.137	NVA
2072_2018_OK	4055860.253	821812.154	934.125	NVA
2073_2018_OK	4072188.932	800258.558	987.313	NVA
2074_2018_OK	4051258.927	751055.751	1176.159	NVA
2075_2018_OK	3972951.708	1176893.168	326.590	NVA
2076_2018_OK	4091731.221	928582.887	771.861	NVA
2077A_2018_OK	4067705.850	722692.769	1266.380	NVA
2077B_2018_OK	4067705.571	722685.072	1266.421	NVA
2078_2018_OK	4088083.244	913386.518	769.062	NVA
2079_2018_OK	4102990.828	934879.937	636.734	NVA
2080_2018_OK	4094484.414	935334.658	699.385	NVA
2081_2018_OK	4096856.060	850084.373	891.403	NVA
2082A_2018_OK	4088121.561	867557.215	838.626	NVA
2082B_2018_OK	4088122.970	867588.195	838.489	NVA
2083_2018_OK	4093006.633	800005.182	1021.875	NVA
2084_2018_OK	4050340.353	934337.389	772.230	NVA
2085_2018_OK	4055134.217	715196.802	1295.261	NVA
2086_2018_OK	4055770.389	735651.464	1213.253	NVA
2087_2018_OK	4069176.667	760220.790	1157.127	NVA
2088A_2018_OK	3968135.608	1169722.409	328.988	NVA
2088B_2018_OK	3968147.668	1169710.392	329.067	NVA
2089_2018_OK	4066029.508	827800.890	916.094	NVA
2090_2018_OK	4090364.154	924293.726	770.418	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2091_2018_OK	4056430.234	873298.865	886.174	NVA
2092_2018_OK	4066779.994	831142.667	902.219	NVA
2093_2018_OK	4052735.084	916923.541	813.661	NVA
2094_2018_OK	4059114.633	795988.062	1027.697	NVA
2095_2018_OK	4107631.881	944362.429	602.951	NVA
2096_2018_OK	4081873.539	856118.209	856.700	NVA
2097_2018_OK	4102139.925	866905.414	855.698	NVA
2098_2018_OK	4050992.898	857412.162	866.235	NVA
2099_2018_OK	4064151.254	778018.710	1068.221	NVA
2100_2018_OK	4130064.662	1404454.452	235.129	NVA
2101_2018_OK	4085761.823	855094.122	863.848	NVA
2102_2018_OK	4076389.594	726972.995	1255.146	NVA
2103_2018_OK	4066806.108	784368.106	1046.757	NVA
2104_2018_OK	4080570.199	941198.549	696.391	NVA
2105_2018_OK	4061408.631	876295.944	874.589	NVA
2106_2018_OK	4057628.165	783071.838	1016.302	NVA
2107_2018_OK	3975387.047	1197426.846	323.194	NVA
2108_2018_OK	4072792.082	770580.740	1098.370	NVA
2109_2018_OK	4094729.139	758813.163	1122.795	NVA
2110_2018_OK	4093210.676	917934.978	784.242	NVA
2111_2018_OK	4061158.284	879536.051	880.200	NVA
2112_2018_OK	4080083.536	880301.864	779.978	NVA
2112A_2018_OK	4080113.791	880298.871	779.894	NVA
2113_2018_OK	4097513.888	812716.020	987.636	NVA
2114_2018_OK	4072755.609	710309.597	1312.984	NVA
2115_2018_OK	3932350.109	1182000.580	365.292	NVA
2116_2018_OK	4093012.866	825771.734	952.640	NVA
2117_2018_OK	3977606.480	1169672.071	323.230	NVA
2118_2018_OK	3970799.780	1186495.424	320.315	NVA
2119_2018_OK	4046038.509	739974.898	1196.169	NVA
2120_2018_OK	4078502.131	798427.552	1011.072	NVA
2121_2018_OK	4054524.379	752466.754	1172.169	NVA
2122_2018_OK	4045993.098	734206.199	1216.037	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2123_2018_OK	4087380.438	796988.361	1027.713	NVA
2124_2018_OK	4077336.911	761107.038	1142.024	NVA
2125_2018_OK	4074907.162	732706.444	1236.138	NVA
2126_2018_OK	4067251.767	745819.077	1204.912	NVA
2127_2018_OK	4058671.651	905892.245	844.192	NVA
2128_2018_OK	4090912.628	843342.644	901.100	NVA
2129_2018_OK	4045464.702	765760.485	1123.780	NVA
2130_2018_OK	4048449.342	697379.883	1355.959	NVA
2131_2018_OK	4067880.956	708834.828	1313.217	NVA
2132_2018_OK	4066019.119	697637.632	1369.762	NVA
2133_2018_OK	4099749.219	849029.074	895.854	NVA
2134_2018_OK	4051241.551	892908.006	873.387	NVA
2135_2018_OK	4123716.644	1417362.537	255.558	NVA
2136_2018_OK	4085546.791	766504.163	1126.960	NVA
2137_2018_OK	4081497.248	836158.838	907.845	NVA
2138_2018_OK	4068439.779	846949.067	863.410	NVA
2139A_2018_OK	3954538.590	1178928.078	360.457	NVA
2139B_2018_OK	3954529.244	1178928.698	360.615	NVA
2140_2018_OK	4069674.064	872695.780	841.707	NVA
2141_2018_OK	4074220.850	713546.602	1308.301	NVA
2142_2018_OK	4072652.030	933754.199	744.449	NVA
2143_2018_OK	4117902.783	1420850.769	235.306	NVA
2144_2018_OK	4048046.541	688444.117	1400.493	NVA
2145_2018_OK	4048156.183	704492.254	1328.006	NVA
2146_2018_OK	4106300.698	934860.237	691.379	NVA
2147A_2018_OK	4077368.224	745070.033	1200.775	NVA
2147B_2018_OK	4077358.171	745070.335	1200.818	NVA
2148_2018_OK	4098781.613	931888.829	677.105	NVA
2149_2018_OK	4112563.265	1427097.417	291.137	NVA
2150_2018_OK	3975059.445	1195034.891	327.067	NVA
2151_2018_OK	4059055.408	839333.827	892.289	NVA
2152_2018_OK	4091619.043	753456.167	1168.596	NVA
2153_2018_OK	4094257.118	871321.416	836.669	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2154_2018_OK	4047384.017	830158.251	940.914	NVA
2155_2018_OK	4051017.629	879423.275	889.328	NVA
2156_2018_OK	4134430.967	1414228.045	261.596	NVA
2156A_2018_OK	4131687.182	1415333.043	236.099	NVA
2157_2018_OK	3965440.813	1185678.187	341.626	NVA
2158_2018_OK	4072359.989	756369.954	1174.200	NVA
2159_2018_OK	4053191.667	875063.892	890.339	NVA
2160_2018_OK	4053416.128	770295.520	1093.442	NVA
2161_2018_OK	3949659.286	1195945.019	393.787	NVA
2162_2018_OK	4088954.469	944528.639	656.193	NVA
2163_2018_OK	4111804.066	1400365.627	249.284	NVA
2164_2018_OK	4118620.025	1411056.736	242.201	NVA
2165A_2018_OK	4130999.148	1403206.629	241.123	NVA
2165B_2018_OK	4130971.508	1403209.388	241.087	NVA
2166_2018_OK	4077326.864	745081.438	1201.123	NVA
2167_2018_OK	4142746.500	1399558.028	259.310	NVA
2168_2018_OK	4136263.513	1397543.848	248.912	NVA
2169_2018_OK	4142373.249	1408613.614	251.924	NVA
2170_2018_OK	4144662.393	1417668.680	243.776	NVA
2171_2018_OK	4144224.781	1423959.011	281.915	NVA
3001_2018_OK	3976904.688	1184383.099	343.073	VVA
3002_2018_OK	3979199.547	1196266.373	344.791	VVA
3003_2018_OK	3960455.257	1181884.200	348.551	VVA
3004_2018_OK	3913950.615	1212215.445	340.085	VVA
3005_2018_OK	3918832.559	1203468.490	358.027	VVA
3006_2018_OK	3926484.301	1204542.827	324.600	VVA
3007_2018_OK	3943944.778	1209450.769	352.120	VVA
3008_2018_OK	3949645.806	1195952.304	393.561	VVA
3009_2018_OK	4112566.136	1427051.203	294.221	VVA
3010_2018_OK	4113623.425	1418571.260	237.572	VVA
3011_2018_OK	4144240.018	1423979.172	281.413	VVA
3012_2018_OK	4106266.158	1404557.571	236.719	VVA
3013_2018_OK	4109941.240	1420284.987	325.376	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3014_2018_OK	4135751.939	1422255.405	288.481	VVA
3014A_2018_OK	4135713.495	1422294.919	290.758	VVA
3015_2018_KS	4144682.696	1417675.339	244.239	VVA
3015A_2018_KS	4144687.995	1417691.681	244.426	VVA
3016_2018_OK	4139080.589	1390265.633	237.704	VVA
3016A_2018_OK	4139145.750	1390294.227	238.015	VVA
3017_2018_OK	4108861.142	1404359.207	253.068	VVA
3018_2018_OK	4113492.275	1425110.119	334.938	VVA
3019_2018_OK	3916746.928	1205230.316	359.210	VVA
3020_2018_OK	3925704.384	1195666.080	357.029	VVA
3021_2018_OK	3929793.184	1185152.466	354.075	VVA
3022_2018_OK	3937905.336	1187076.487	383.218	VVA
3023_2018_OK	3936512.453	1210948.814	344.989	VVA
3024_2018_OK	3941420.503	1211720.215	341.014	VVA
3025_2018_OK	3948755.789	1200337.771	382.988	VVA
3026_2018_OK	4073544.024	945267.551	672.232	VVA
3027_2018_OK	4084381.613	940998.928	665.053	VVA
3028_2018_OK	4064543.511	813468.814	940.591	VVA
3029_2018_OK	3965246.606	1165926.816	344.456	VVA
3030_2018_OK	4130613.966	1401661.097	239.124	VVA
3031_2018_OK	4142383.166	1408587.306	251.825	VVA
3031A_2018_OK	4142387.599	1408629.508	251.981	VVA
3032_2018_OK	4128276.122	1424583.163	281.160	VVA
3032A_2018_OK	4128308.557	1424567.793	278.910	VVA
3033_2018_OK	4044711.624	681351.100	1440.760	VVA
3034_2018_OK	4050300.026	714423.087	1293.990	VVA
3036_2018_OK	4069988.500	730031.671	1243.560	VVA
3037_2018_OK	4075234.470	743984.587	1203.150	VVA
3038_2018_OK	4094830.503	753339.461	1161.759	VVA
3039_2018_OK	4096848.535	767701.920	1116.394	VVA
3040_2018_OK	4092382.588	779975.366	1091.318	VVA
3041_2018_OK	4096554.263	808745.979	1001.538	VVA
3042_2018_OK	4094720.070	828860.253	945.833	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3043_2018_OK	4098832.339	846496.094	903.060	VVA
3044_2018_OK	4095750.711	869136.214	847.993	VVA
3045_2018_OK	4091754.795	886569.238	809.896	VVA
3046_2018_OK	4100345.029	932628.025	641.512	VVA
3047_2018_OK	4060886.959	924716.751	769.482	VVA
3048_2018_OK	4053870.022	940799.230	771.273	VVA
3049_2018_OK	4057174.393	908702.235	822.120	VVA
3050_2018_OK	4052429.934	892843.839	873.347	VVA
3051_2018_OK	4053388.635	868600.759	876.092	VVA
3052_2018_OK	4059879.545	860292.726	829.447	VVA
3053_2018_OK	4076997.090	844267.234	881.017	VVA
3054_2018_OK	4081111.317	825570.894	928.184	VVA
3055_2018_OK	4067265.074	792389.112	984.931	VVA
3056_2018_OK	4060019.310	774753.807	1079.529	VVA
3057_2018_OK	4054732.955	697815.355	1361.527	VVA
3058_2018_OK	4061021.970	691324.124	1406.409	VVA
3059_2018_OK	4056017.809	685623.821	1392.681	VVA
3060_2018_OK	4053392.633	736631.488	1207.221	VVA
3061_2018_OK	4044388.092	736787.033	1210.037	VVA
3062_2018_OK	4050943.457	793374.041	1037.978	VVA
3063_2018_OK	4046490.815	805230.399	996.809	VVA
3064_2018_OK	4048402.033	824695.619	945.517	VVA
3065_2018_OK	4065839.226	851449.146	816.068	VVA
3066_2018_OK	4063940.913	879986.397	865.922	VVA
3067_2018_OK	4074713.823	906225.005	741.494	VVA
3068_2018_OK	4077431.692	923760.901	735.645	VVA
3068A_2018_OK	4077357.391	923769.393	734.962	VVA
3069_2018_OK	4089657.726	908658.858	789.402	VVA
3070_2018_OK	4106494.337	924140.140	718.596	VVA
3071_2018_OK	4095848.331	939942.915	649.503	VVA
3072_2018_OK	4093423.893	924098.910	788.149	VVA
3073_2018_OK	4103256.582	911826.792	692.658	VVA
3074_2018_OK	4079290.277	861477.908	837.603	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3075_2018_OK	4082357.941	914387.942	707.967	VVA
3076_2018_OK	4070796.193	888350.203	834.923	VVA
3077_2018_OK	4079961.517	868992.326	831.263	VVA
3077A_2018_OK	4079932.630	869036.369	831.063	VVA
3078_2018_OK	4089107.594	863840.078	845.368	VVA
3079_2018_OK	4095241.676	855965.113	872.806	VVA
3080_2018_OK	4099882.190	857749.972	876.104	VVA
3080A_2018_OK	4102410.927	860971.589	869.299	VVA
3081_2018_OK	4086727.235	804265.096	1004.695	VVA
3082_2018_OK	4078998.100	809762.160	958.161	VVA
3083_2018_OK	4079771.878	733100.339	1246.332	VVA
3084_2018_OK	4068374.821	724294.508	1257.008	VVA
3085_2018_OK	4046604.747	757688.714	1152.537	VVA
3086_2018_OK	4052541.776	837931.800	904.738	VVA
3087_2018_OK	4054440.231	920192.013	769.187	VVA
3088_2018_OK	4098949.099	903657.743	766.283	VVA
3089_2018_OK	4105579.421	895441.628	731.257	VVA
3090_2018_OK	4094729.837	878892.318	831.870	VVA
3091_2018_OK	4074103.615	809128.037	948.514	VVA
3092_2018_OK	4086545.177	842145.084	900.026	VVA
3093_2018_OK	4083794.566	852833.680	867.283	VVA
3094_2018_OK	4086650.079	750338.383	1190.706	VVA
3095_2018_OK	4060979.531	752453.879	1166.864	VVA
3096_2018_OK	4075943.508	768027.770	1112.917	VVA
3097_2018_OK	3976727.508	1163674.125	355.758	VVA
3098_2018_OK	3968469.466	1196213.908	353.736	VVA
3099_2018_OK	3969181.749	1170324.563	331.033	VVA
3100_2018_OK	3911041.029	1194915.936	333.361	VVA
3101_2018_OK	3919185.158	1194886.281	338.777	VVA
3102_2018_OK	3925496.348	1181923.912	343.525	VVA
3103_2018_OK	3936883.895	1172929.060	375.975	VVA
3104_2018_OK	3950582.163	1166397.927	378.262	VVA
3105_2018_OK	3941465.416	1169120.883	394.628	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3106_2018_OK	3959273.822	1189829.145	352.815	VVA
3107_2018_OK	4110981.577	1412289.293	276.038	VVA
3108_2018_OK	4130144.561	1409811.665	250.096	VVA
3109_2018_OK	4136272.483	1397536.030	249.026	VVA
3109A_2018_OK	4140659.334	1393211.119	247.643	VVA
3110_2018_OK	4120004.759	1395207.655	237.938	VVA
3111_2018_OK	4124967.968	1407546.219	235.564	VVA
3111A_2018_OK	4125053.164	1407527.621	235.925	VVA
3112_2018_OK	4131697.865	1415331.434	236.994	VVA
3112A_2018_OK	4134394.408	1414202.533	261.731	VVA
3113_2018_OK	4137967.658	1412980.701	249.354	VVA
3113A_2018_OK	4137944.616	1412899.431	251.018	VVA
3114_2018_OK	4142727.637	1399554.015	259.654	VVA
3114A_2018_OK	4142763.870	1399591.565	258.661	VVA
3115_2018_OK	4115969.784	1403607.954	243.540	VVA
3115A_2018_OK	4115961.987	1403650.117	243.328	VVA
3116_2018_OK	4123454.087	1414179.227	251.292	VVA
3116A_2018_OK	4123456.526	1414133.218	251.156	VVA

Geodetic Control

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
100_2018_OK	3949734.851	1175904.530	370.637	TSM
101_2018_OK	3943722.996	1209922.246	361.838	TSM
102_2018_OK	3919564.141	1203440.098	365.062	TSM
103_2018_OK	3928101.136	1184231.650	366.788	TSM
104_2018_OK	3940177.931	1175029.838	392.123	TSM
105_2018_OK	3971783.774	1171713.851	336.099	TSM
106_2018_OK	4129535.573	1410848.843	263.859	TSM
107_2018_OK	4140684.044	1393211.501	247.668	TSM
108_2018_OK	4143295.667	1414309.682	253.641	TSM
150_2018_OK	3968295.633	1189884.919	324.057	TSM
151_2018_OK	4107729.059	1421288.501	260.148	TSM
152_2018_OK	4109865.264	1407690.009	264.028	TSM
175_2018_OK	4087685.297	867857.457	835.394	TSM
176_2018_OK	4061368.449	873006.663	883.676	TSM
177_2018_OK	4066049.514	900229.244	818.589	TSM
178_2018_OK	4094266.258	906096.864	817.705	TSM
179_2018_OK	4097051.104	939176.449	683.361	TSM
180_2018_OK	4063269.267	924566.087	800.778	TSM
191_2018_OK	4051905.125	814934.483	963.504	TSM
200_2018_OK	4077853.874	721411.942	1283.630	TSM
201_2018_OK	4057948.045	697840.481	1369.005	TSM
202_2018_OK	4053479.136	736507.686	1207.432	TSM
203_2018_OK	4051333.395	753900.159	1172.120	TSM
204_2018_OK	4072222.149	745708.228	1201.316	TSM
205_2018_OK	4090166.416	758217.762	1161.162	TSM
206_2018_OK	4072651.582	765401.433	1122.894	TSM
207_2018_OK	4061683.240	778092.892	1061.013	TSM
208_2018_OK	4087855.404	789741.641	1052.484	TSM
209_2018_OK	4091920.121	812943.063	984.368	TSM
210_2018_OK	4073860.872	801368.291	1002.004	TSM
211_2018_OK	4093935.767	846659.160	892.499	TSM

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 13 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
212_2018_OK	4084963.349	836770.096	911.110	TSM
213_2018_OK	4073372.822	824152.856	915.152	TSM
H 202	4053647.248	718865.910	1279.782	GL1313

Coordinate System: Grid

HORIZONTAL DATUM: NAD83 2011 2010.00

PROJECTION: UTM 14N

VERTICAL DATUM: NAVD88

GEOID MODEL: Geoid12B

Ground Control & Check Points

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
1001_2018_OK	4101003.662	186052.831	1240.739	GCP
1002_2018_OK	4094546.583	186320.366	1196.829	GCP
1003_2018_OK	4088091.678	186539.237	1206.242	GCP
1004_2018_OK	4081651.449	186276.515	1274.583	GCP
1005_2018_OK	4075166.085	186016.183	1272.653	GCP
1006_2018_OK	4068707.095	184867.865	1274.167	GCP
1007_2018_OK	4062367.233	182351.454	1261.749	GCP
1008_2018_OK	4055945.563	182129.482	1281.775	GCP
1009_2018_OK	4050480.664	181941.402	1266.464	GCP
1010_2018_OK	4045131.055	183332.981	1255.671	GCP
1011_2018_OK	4072788.139	229343.191	1125.606	GCP
1012_2018_OK	4097833.073	279038.126	991.028	GCP
1013_2018_OK	4091263.365	278505.165	988.613	GCP
1014_2018_OK	4084514.970	278335.477	968.662	GCP
1015_2018_OK	4077860.473	277710.831	967.889	GCP
1016_2018_OK	4071272.300	277539.858	924.990	GCP
1017_2018_OK	4064643.201	278106.803	929.277	GCP
1018_2018_OK	4058026.017	278754.217	948.933	GCP
1019_2018_OK	4051425.479	278566.719	913.068	GCP
1020_2018_OK	4047045.838	276841.782	965.117	GCP
1021_2018_OK	4042652.291	276729.313	978.687	GCP
1022_2018_OK	4054118.066	325344.643	822.448	GCP
1023_2018_OK	4097978.840	367049.730	716.177	GCP
1024_2018_OK	4091215.627	366897.961	751.627	GCP
1025_2018_OK	4084454.508	365212.621	765.156	GCP

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
1026_2018_OK	4077645.062	364939.158	737.230	GCP
1027_2018_OK	4070906.068	364030.049	774.403	GCP
1028_2018_OK	4064122.960	363944.422	821.283	GCP
1029_2018_OK	4057335.908	363855.847	816.634	GCP
1030_2018_OK	4050586.375	363776.380	814.453	GCP
1031_2018_OK	4044902.270	363703.501	856.281	GCP
1032_2018_OK	4040409.428	362938.769	859.328	GCP
1033_2018_OK	3930957.137	620346.549	382.317	GCP
1034_2018_OK	3930636.560	626201.541	396.616	GCP
1035_2018_OK	3924622.165	632451.754	362.530	GCP
1036_2018_OK	3917897.597	638662.977	390.169	GCP
1037_2018_OK	3917476.264	644748.918	392.215	GCP
1038_2018_OK	3917864.939	650710.178	380.589	GCP
1039_2018_OK	3895410.828	657167.911	338.586	GCP
1040_2018_OK	3900275.892	663262.897	329.741	GCP
1041_2018_OK	3890730.847	669424.358	333.932	GCP
1042_2018_OK	4100719.628	852509.839	245.485	GCP
1043_2018_OK	4088448.301	859147.342	241.188	GCP
1044_2018_OK	4087487.173	865256.036	235.894	GCP
1045_2018_OK	4088664.251	871276.427	237.880	GCP
1046_2018_OK	4088970.924	877373.173	249.837	GCP
1047_2018_OK	4089244.212	883432.449	265.816	GCP
1048_2018_OK	4089274.340	890676.594	308.618	GCP
1049_2018_OK	4097625.132	186309.988	1218.718	GCP
1050_2018_OK	4091263.777	186455.521	1184.448	GCP
1051_2018_OK	4084759.529	186802.417	1229.764	GCP
1052_2018_OK	4078103.564	186143.449	1279.012	GCP
1053_2018_OK	4072120.633	186371.593	1273.671	GCP
1054_2018_OK	4067281.311	182497.032	1283.657	GCP
1055_2018_OK	4059221.485	182247.481	1278.140	GCP
1056_2018_OK	4053788.232	182054.202	1280.929	GCP
1056A_2018_OK	4053595.853	182047.266	1280.689	GCP
1057_2018_OK	4047076.947	181816.813	1269.066	GCP

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
1058_2018_OK	4087785.083	278418.957	980.252	GCP
1059_2018_OK	4081773.313	278266.746	970.285	GCP
1060_2018_OK	4074420.005	277621.736	958.069	GCP
1061_2018_OK	4067255.099	277565.177	912.860	GCP
1062_2018_OK	4061944.949	278300.323	951.523	GCP
1063_2018_OK	4054405.769	278648.712	949.997	GCP
1064_2018_OK	4094533.846	366950.484	761.520	GCP
1065_2018_OK	4088013.360	366858.448	767.763	GCP
1066_2018_OK	4081256.248	365171.794	754.682	GCP
1067_2018_OK	4074246.836	364436.395	744.908	GCP
1068_2018_OK	4067873.876	363982.796	784.501	GCP
1069_2018_OK	4060650.423	363899.815	807.769	GCP
1070_2018_OK	4053392.929	363938.577	826.341	GCP
1071_2018_OK	4048216.806	363744.029	839.314	GCP
1072_2018_OK	3931040.889	623298.417	400.215	GCP
1073_2018_OK	3924567.000	629967.262	367.406	GCP
1074_2018_OK	3924529.931	635699.721	358.357	GCP
1075_2018_OK	3917413.812	641828.232	390.891	GCP
1076_2018_OK	3896892.143	649916.485	329.189	GCP
1077_2018_OK	3896826.895	660375.964	346.766	GCP
1078_2018_OK	3890676.758	666043.543	308.879	GCP
1079_2018_OK	4100824.983	855069.266	240.936	GCP
1080_2018_OK	4087008.202	863218.365	237.078	GCP
1081_2018_OK	4088567.272	867849.507	239.268	GCP
1082_2018_OK	4088815.043	874134.887	256.660	GCP
1083_2018_OK	4089111.126	880282.003	258.452	GCP
1084_2018_OK	4089408.554	887021.240	284.868	GCP
2001_2018_OK	4045920.273	345994.212	881.199	NVA
2002_2018_OK	3925454.195	626715.649	369.616	NVA
2003_2018_OK	4078829.639	242362.354	1088.395	NVA
2004_2018_OK	4082682.473	274344.793	987.113	NVA
2005_2018_OK	4068300.567	287801.426	883.942	NVA
2006_2018_OK	4089949.022	306034.880	908.903	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2007_2018_OK	4092478.424	387611.424	675.073	NVA
2008_2018_OK	3938437.027	638152.682	343.851	NVA
2009_2018_OK	4051422.317	243140.278	1053.633	NVA
2010_2018_OK	4061111.288	384732.202	776.794	NVA
2011_2018_OK	4088179.918	378125.747	745.350	NVA
2012_2018_OK	3927204.881	647041.190	372.776	NVA
2013_2018_OK	4057297.929	211082.663	1181.395	NVA
2014_2018_OK	4052169.119	402400.087	736.885	NVA
2015_2018_OK	4091982.384	377776.840	709.637	NVA
2016A_2018_OK	4053374.599	264304.736	1003.795	NVA
2016B_2018_OK	4053366.261	264308.891	1003.765	NVA
2017_2018_OK	4073725.869	313129.712	874.799	NVA
2018_2018_OK	4070776.001	152928.713	1418.697	NVA
2019_2018_OK	4088217.547	250200.752	1070.221	NVA
2020_2018_OK	4081876.062	410572.405	664.991	NVA
2021_2018_OK	4052474.033	366174.907	834.248	NVA
2022_2018_OK	4060372.008	333331.271	830.572	NVA
2023_2018_OK	4081655.568	317717.707	873.399	NVA
2023A_2018_OK	4081647.347	317750.885	873.714	NVA
2024_2018_OK	4054711.388	170778.410	1324.112	NVA
2025_2018_OK	4055594.918	309191.355	869.053	NVA
2026_2018_OK	4080589.818	237595.129	1107.072	NVA
2027_2018_OK	4069770.279	347977.573	802.188	NVA
2028_2018_OK	4049071.438	317104.418	825.662	NVA
2029_2018_OK	4043018.874	371721.323	841.986	NVA
2030_2018_OK	4053152.361	209454.825	1160.921	NVA
2031A_2018_OK	4068748.453	861059.719	238.033	NVA
2031B_2018_OK	4068742.362	861063.562	238.015	NVA
2032_2018_OK	3950348.281	628072.116	314.081	NVA
2033A_2018_OK	4085637.607	362877.878	790.177	NVA
2033B_2018_OK	4085636.935	362908.340	789.269	NVA
2034_2018_OK	4045232.284	290660.855	943.359	NVA
2035A_2018_OK	4081893.613	302444.636	912.334	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2035B_2018_OK	4081892.667	302458.308	912.264	NVA
2036_2018_OK	4087574.112	222108.306	1158.015	NVA
2037_2018_OK	3928894.067	642900.829	354.654	NVA
2038_2018_OK	4058381.571	354260.045	842.488	NVA
2039_2018_OK	3916404.354	635055.736	391.541	NVA
2040_2018_OK	4073920.893	858846.243	242.234	NVA
2041_2018_OK	4053549.927	201457.350	1207.506	NVA
2042_2018_OK	3896078.015	651544.546	323.292	NVA
2043_2018_OK	4065391.080	209820.500	1201.894	NVA
2044_2018_OK	4061094.431	194124.835	1238.950	NVA
2045_2018_OK	4050938.705	259223.656	1024.647	NVA
2046_2018_OK	4068572.819	290423.288	902.522	NVA
2047_2018_OK	4044682.708	314586.589	834.045	NVA
2048_2018_OK	4071480.557	248549.363	1053.878	NVA
2049_2018_OK	4082619.955	351601.828	799.820	NVA
2050_2018_OK	4083997.225	325023.011	854.965	NVA
2051_2018_OK	4051129.186	309079.654	866.975	NVA
2052A_2018_OK	3902145.750	642678.560	357.187	NVA
2052B_2018_OK	3902145.861	642687.039	357.480	NVA
2053_2018_OK	4047355.622	292926.368	936.968	NVA
2054_2018_OK	4054917.122	286707.896	931.608	NVA
2055_2018_OK	4044056.543	274359.978	985.128	NVA
2056_2018_OK	4090400.770	387018.122	727.907	NVA
2057_2018_OK	4055813.469	165651.388	1345.078	NVA
2058_2018_OK	3896226.650	648316.244	347.299	NVA
2059_2018_OK	4051904.515	181950.110	1269.598	NVA
2060_2018_OK	4086487.214	253954.691	1057.816	NVA
2061_2018_OK	4073039.104	201962.297	1221.797	NVA
2062_2018_OK	4077904.235	324141.438	850.675	NVA
2063_2018_OK	4082749.655	343838.353	820.109	NVA
2064_2018_OK	4064648.585	193649.595	1244.974	NVA
2065_2018_OK	4052914.641	395959.942	711.103	NVA
2065A_2018_OK	4052875.497	395957.862	710.576	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2066_2018_OK	4074779.789	298371.209	913.122	NVA
2067_2018_OK	4055967.550	313649.023	860.890	NVA
2068_2018_OK	4069040.819	155877.597	1397.834	NVA
2069_2018_OK	4071852.654	166719.339	1352.097	NVA
2070_2018_OK	4068221.733	343176.198	828.105	NVA
2071_2018_OK	4063787.425	171110.198	1323.137	NVA
2072_2018_OK	4052521.418	285050.654	934.125	NVA
2073_2018_OK	4070156.094	264572.062	987.313	NVA
2074_2018_OK	4052345.109	214161.908	1176.159	NVA
2075_2018_OK	3948127.425	633258.669	326.590	NVA
2076_2018_OK	4081591.522	393705.058	771.861	NVA
2077A_2018_OK	4070540.363	186871.209	1266.380	NVA
2077B_2018_OK	4070540.567	186863.506	1266.421	NVA
2078_2018_OK	4078911.305	378340.557	769.062	NVA
2079_2018_OK	4092408.966	400683.266	636.734	NVA
2080_2018_OK	4083909.601	400601.654	699.385	NVA
2081_2018_OK	4091628.889	315809.776	891.403	NVA
2082A_2018_OK	4081824.476	332678.280	838.626	NVA
2082B_2018_OK	4081823.935	332709.247	838.489	NVA
2083_2018_OK	4090939.692	265625.836	1021.875	NVA
2084_2018_OK	4040011.397	396850.329	772.230	NVA
2085_2018_OK	4058454.326	178598.267	1295.261	NVA
2086_2018_OK	4057811.245	199064.320	1213.253	NVA
2087_2018_OK	4069657.754	224430.786	1157.127	NVA
2088A_2018_OK	3943783.170	625846.191	328.988	NVA
2088B_2018_OK	3943795.877	625834.995	329.067	NVA
2089_2018_OK	4062289.224	291658.267	916.094	NVA
2090_2018_OK	4080499.092	389347.575	770.418	NVA
2091_2018_OK	4049879.009	336418.740	886.174	NVA
2092_2018_OK	4062828.724	295037.710	902.219	NVA
2093_2018_OK	4043479.942	379655.416	813.661	NVA
2094_2018_OK	4057379.673	259493.942	1027.697	NVA
2095_2018_OK	4096433.757	410417.394	602.951	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2096_2018_OK	4076314.014	320884.144	856.700	NVA
2097_2018_OK	4095837.611	332909.670	855.698	NVA
2098_2018_OK	4045449.077	320244.496	866.235	NVA
2099_2018_OK	4063528.305	241879.003	1068.221	NVA
2100_2018_OK	4089755.555	868548.570	235.129	NVA
2101_2018_OK	4080254.349	320107.111	863.848	NVA
2102_2018_OK	4078943.502	191690.056	1255.146	NVA
2103_2018_OK	4065780.283	248380.942	1046.757	NVA
2104_2018_OK	4069686.540	405568.715	696.391	NVA
2105_2018_OK	4054653.784	339716.245	874.589	NVA
2106_2018_OK	4056703.218	246513.734	1016.302	NVA
2107_2018_OK	3949292.400	653788.681	323.194	NVA
2108_2018_OK	4072617.123	234997.227	1098.370	NVA
2109_2018_OK	4095250.879	224630.541	1122.795	NVA
2110_2018_OK	4083733.243	383192.862	784.242	NVA
2111_2018_OK	4054202.126	342929.719	880.200	NVA
2112_2018_OK	4073014.490	344876.001	779.978	NVA
2112A_2018_OK	4073044.827	344874.913	779.894	NVA
2113_2018_OK	4094635.923	278588.510	987.636	NVA
2114_2018_OK	4076360.084	174820.638	1312.984	NVA
2115_2018_OK	3907512.025	635864.029	365.292	NVA
2116_2018_OK	4089325.640	291326.266	952.640	NVA
2117_2018_OK	3953189.118	626373.763	323.230	NVA
2118_2018_OK	3945405.924	642659.280	320.315	NVA
2119_2018_OK	4047824.515	202773.596	1196.169	NVA
2120_2018_OK	4076568.991	263141.048	1011.072	NVA
2121_2018_OK	4055516.822	215774.333	1172.169	NVA
2122_2018_OK	4048138.901	197010.882	1216.037	NVA
2123_2018_OK	4085516.586	262262.547	1027.713	NVA
2124_2018_OK	4077747.160	225826.913	1142.024	NVA
2125_2018_OK	4077103.434	197322.036	1236.138	NVA
2126_2018_OK	4068638.235	209933.951	1204.912	NVA
2127_2018_OK	4050080.844	369036.172	844.192	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2128_2018_OK	4086127.192	308714.865	901.100	NVA
2129_2018_OK	4045644.363	228478.656	1123.780	NVA
2130_2018_OK	4052890.115	160383.848	1355.959	NVA
2131_2018_OK	4071583.760	173041.928	1313.217	NVA
2132_2018_OK	4070425.812	161740.467	1369.762	NVA
2133_2018_OK	4094579.563	314939.723	895.854	NVA
2134_2018_OK	4043486.813	355636.840	873.387	NVA
2135_2018_OK	4082661.689	880922.781	255.558	NVA
2136_2018_OK	4085602.355	231729.152	1126.960	NVA
2137_2018_OK	4077190.231	300961.142	907.845	NVA
2138_2018_OK	4063495.494	310902.114	863.410	NVA
2139A_2018_OK	3929724.571	634158.226	360.457	NVA
2139B_2018_OK	3929715.256	634158.273	360.615	NVA
2140_2018_OK	4063116.299	336644.378	841.707	NVA
2141_2018_OK	4077620.388	178145.600	1308.301	NVA
2142_2018_OK	4062267.129	397660.448	744.449	NVA
2143_2018_OK	4076689.888	884009.027	235.306	NVA
2144_2018_OK	4053045.701	151431.411	1400.493	NVA
2145_2018_OK	4052153.197	167470.411	1328.006	NVA
2146_2018_OK	4095706.208	400871.853	691.379	NVA
2147A_2018_OK	4078784.740	209820.395	1200.775	NVA
2147B_2018_OK	4078774.685	209820.065	1200.818	NVA
2148_2018_OK	4088405.300	397440.045	677.105	NVA
2149_2018_OK	4071014.933	889854.453	291.137	NVA
2150_2018_OK	3949113.168	651394.761	327.067	NVA
2151_2018_OK	4054614.439	302723.113	892.289	NVA
2152_2018_OK	4092483.743	219087.602	1168.596	NVA
2153_2018_OK	4087703.290	336815.268	836.669	NVA
2154_2018_OK	4043547.951	292845.896	940.914	NVA
2155_2018_OK	4044103.120	342185.323	889.328	NVA
2156_2018_OK	4093460.917	878495.462	261.596	NVA
2156A_2018_OK	4090676.273	879416.063	236.099	NVA
2157_2018_OK	3940136.359	641521.680	341.626	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2158_2018_OK	4073076.505	220786.487	1174.200	NVA
2159_2018_OK	4046541.284	337976.063	890.339	NVA
2160_2018_OK	4053297.538	233500.779	1093.442	NVA
2161_2018_OK	3923848.550	650753.050	393.787	NVA
2162_2018_OK	4077826.383	409409.727	656.193	NVA
2163_2018_OK	4071940.135	863354.563	249.284	NVA
2164_2018_OK	4078014.607	874362.739	242.201	NVA
2165A_2018_OK	4090758.945	867372.471	241.123	NVA
2165B_2018_OK	4090731.416	867373.460	241.087	NVA
2166_2018_OK	4078742.733	209829.186	1201.123	NVA
2167_2018_OK	4102615.298	864502.005	259.310	NVA
2168_2018_OK	4096325.899	862099.584	248.912	NVA
2169_2018_OK	4101674.376	873440.422	251.924	NVA
2170_2018_OK	4103367.996	882545.310	243.776	NVA
2171_2018_OK	4102537.869	888741.611	281.915	NVA
3001_2018_OK	3951594.544	640934.872	343.073	VVA
3002_2018_OK	3953146.961	652869.615	344.791	VVA
3003_2018_OK	3935418.328	637452.291	348.551	VVA
3004_2018_OK	3887428.750	664742.294	340.085	VVA
3005_2018_OK	3892799.951	656356.215	358.027	VVA
3006_2018_OK	3900328.715	657883.722	324.600	VVA
3007_2018_OK	3917358.833	663809.732	352.120	VVA
3008_2018_OK	3923834.729	650759.462	393.561	VVA
3009_2018_OK	4071020.671	889808.910	294.221	VVA
3010_2018_OK	4072598.676	881484.963	237.572	VVA
3011_2018_OK	4102551.672	888762.520	281.413	VVA
3012_2018_OK	4066196.578	867156.206	236.719	VVA
3013_2018_OK	4068847.803	882949.742	325.376	VVA
3014_2018_OK	4094262.168	886521.609	288.481	VVA
3014A_2018_OK	4094221.640	886558.283	290.758	VVA
3015_2018_KS	4103387.664	882553.181	244.239	VVA
3015A_2018_KS	4103391.876	882569.685	244.426	VVA
3016_2018_OK	4099573.139	855073.255	237.704	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3016A_2018_OK	4099635.836	855105.668	238.015	VVA
3017_2018_OK	4068777.174	867122.482	253.068	VVA
3018_2018_OK	4072058.727	887946.526	334.938	VVA
3019_2018_OK	3890624.078	657979.024	359.210	VVA
3020_2018_OK	3900090.320	649026.990	357.029	VVA
3021_2018_OK	3904783.437	638838.304	354.075	VVA
3022_2018_OK	3912719.458	641238.533	383.218	VVA
3023_2018_OK	3909893.062	664846.415	344.989	VVA
3024_2018_OK	3914716.580	665908.832	341.014	VVA
3025_2018_OK	3922685.448	655057.868	382.988	VVA
3026_2018_OK	4062435.931	409180.952	672.232	VVA
3027_2018_OK	4073494.255	405608.567	665.053	VVA
3028_2018_OK	4061703.064	277271.294	940.591	VVA
3029_2018_OK	3941145.980	621901.797	344.456	VVA
3030_2018_OK	4090475.042	865818.626	239.124	VVA
3031_2018_OK	4101685.850	873415.013	251.825	VVA
3031A_2018_OK	4101687.574	873457.056	251.981	VVA
3032_2018_OK	4086718.917	888353.960	281.160	VVA
3032A_2018_OK	4086751.976	888340.794	278.910	VVA
3033_2018_OK	4050156.422	144136.153	1440.760	VVA
3034_2018_OK	4053674.485	177523.495	1293.990	VVA
3036_2018_OK	4072359.831	194342.774	1243.560	VVA
3037_2018_OK	4076722.646	208602.870	1203.150	VVA
3038_2018_OK	4095696.761	219173.292	1161.759	VVA
3039_2018_OK	4096806.370	233635.576	1116.394	VVA
3040_2018_OK	4091577.058	245602.457	1091.318	VVA
3041_2018_OK	4093928.618	274568.228	1001.538	VVA
3042_2018_OK	4090833.916	294513.569	945.833	VVA
3043_2018_OK	4093824.862	312356.761	903.060	VVA
3044_2018_OK	4089329.230	334731.216	847.993	VVA
3045_2018_OK	4084251.892	351853.373	809.896	VVA
3046_2018_OK	4089915.776	398274.417	641.512	VVA
3047_2018_OK	4051114.103	387925.564	769.482	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3048_2018_OK	4043124.326	403504.788	771.273	VVA
3049_2018_OK	4048414.132	371742.227	822.120	VVA
3050_2018_OK	4044674.930	355646.885	873.347	VVA
3051_2018_OK	4047140.223	331546.596	876.092	VVA
3052_2018_OK	4054128.234	323669.981	829.447	VVA
3053_2018_OK	4072195.070	308763.802	881.017	VVA
3054_2018_OK	4077469.336	290378.680	928.184	VVA
3055_2018_OK	4065736.344	256412.786	984.931	VVA
3056_2018_OK	4059609.019	238362.512	1079.529	VVA
3057_2018_OK	4059140.137	161211.502	1361.527	VVA
3058_2018_OK	4065829.123	155120.168	1406.409	VVA
3059_2018_OK	4061186.257	149111.824	1392.681	VVA
3060_2018_OK	4055375.895	199894.303	1207.221	VVA
3061_2018_OK	4046375.398	199487.756	1210.037	VVA
3062_2018_OK	4049390.400	256376.001	1037.978	VVA
3063_2018_OK	4044209.373	267927.010	996.809	VVA
3064_2018_OK	4044903.375	287461.519	945.517	VVA
3065_2018_OK	4060621.553	315226.026	816.068	VVA
3066_2018_OK	4056947.120	343552.183	865.922	VVA
3067_2018_OK	4066041.690	370369.278	741.494	VVA
3068_2018_OK	4067652.092	388006.766	735.645	VVA
3068A_2018_OK	4067577.558	388010.575	734.962	VVA
3069_2018_OK	4080776.231	373729.909	789.402	VVA
3070_2018_OK	4096573.689	390208.122	718.596	VVA
3071_2018_OK	4084978.472	405276.102	649.503	VVA
3072_2018_OK	4083558.701	389345.538	788.149	VVA
3073_2018_OK	4094123.589	377739.917	692.658	VVA
3074_2018_OK	4073403.057	326064.971	837.603	VVA
3075_2018_OK	4073145.547	378979.271	707.967	VVA
3076_2018_OK	4063256.027	352315.049	834.923	VVA
3077_2018_OK	4073601.349	333597.002	831.263	VVA
3077A_2018_OK	4073569.798	333639.090	831.063	VVA
3078_2018_OK	4083040.595	329035.180	845.368	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3079_2018_OK	4089649.765	321570.717	872.806	VVA
3080_2018_OK	4094163.351	323641.785	876.104	VVA
3080A_2018_OK	4096481.242	327012.247	869.299	VVA
3081_2018_OK	4084407.843	269480.684	1004.695	VVA
3082_2018_OK	4076352.997	274478.992	958.161	VVA
3083_2018_OK	4081936.059	198020.720	1246.332	VVA
3084_2018_OK	4071108.038	188512.663	1257.008	VVA
3085_2018_OK	4047285.389	220492.896	1152.537	VVA
3086_2018_OK	4048206.981	300918.898	904.738	VVA
3087_2018_OK	4044974.931	383017.204	769.187	VVA
3088_2018_OK	4090346.318	369331.292	766.283	VVA
3089_2018_OK	4097468.802	361562.891	731.257	VVA
3090_2018_OK	4087698.705	344390.149	831.870	VVA
3091_2018_OK	4071510.573	273539.723	948.514	VVA
3092_2018_OK	4081847.899	307246.617	900.026	VVA
3093_2018_OK	4078435.004	317730.298	867.283	VVA
3094_2018_OK	4087719.741	215662.783	1190.706	VVA
3095_2018_OK	4061961.511	216164.884	1166.864	VVA
3096_2018_OK	4075922.332	232646.896	1112.917	VVA
3097_2018_OK	3952682.541	620365.000	355.758	VVA
3098_2018_OK	3942500.902	652163.241	353.736	VVA
3099_2018_OK	3944785.113	626507.758	331.033	VVA
3100_2018_OK	3885581.947	647399.140	333.361	VVA
3101_2018_OK	3893666.939	647859.957	338.777	VVA
3102_2018_OK	3900713.034	635374.031	343.525	VVA
3103_2018_OK	3912561.432	627132.509	375.975	VVA
3104_2018_OK	3926557.356	621478.176	378.262	VVA
3105_2018_OK	3917340.593	623628.990	394.628	VVA
3106_2018_OK	3933762.576	645266.724	352.815	VVA
3107_2018_OK	4070378.485	875103.136	276.038	VVA
3108_2018_OK	4089497.387	873855.236	250.096	VVA
3109_2018_OK	4096335.270	862092.413	249.026	VVA
3109A_2018_OK	4100950.014	858088.358	247.643	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3110_2018_OK	4080380.533	858764.183	237.938	VVA
3111_2018_OK	4084517.133	871287.643	235.564	VVA
3111A_2018_OK	4084602.614	871274.597	235.925	VVA
3112_2018_OK	4090686.945	879415.144	236.994	VVA
3112A_2018_OK	4093426.348	878467.914	261.731	VVA
3113_2018_OK	4097039.232	877484.076	249.354	VVA
3113A_2018_OK	4097021.555	877402.204	251.018	VVA
3114_2018_OK	4102596.882	864496.842	259.654	VVA
3114A_2018_OK	4102630.373	864536.293	258.661	VVA
3115_2018_OK	4075859.512	866824.840	243.540	VVA
3115A_2018_OK	4075849.149	866866.078	243.328	VVA
3116_2018_OK	4082601.997	877756.345	251.292	VVA
3116A_2018_OK	4082607.303	877710.971	251.156	VVA

Geodetic Control

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
100_2018_OK	3925139.284	630865.064	370.637	TSM
101_2018_OK	3917110.200	664264.148	361.838	TSM
102_2018_OK	3893527.685	656372.114	365.062	TSM
103_2018_OK	3903159.435	637822.079	366.788	TSM
104_2018_OK	3915704.557	629417.491	392.123	TSM
105_2018_OK	3947283.740	628045.640	336.099	TSM
106_2018_OK	4088829.457	874843.278	263.859	TSM
107_2018_OK	4100974.448	858090.295	247.668	TSM
108_2018_OK	4102227.661	879135.277	253.641	TSM
150_2018_OK	3942713.856	645871.048	324.057	TSM
151_2018_OK	4066596.067	883804.037	260.148	TSM
152_2018_OK	4069562.128	870481.732	264.028	TSM
175_2018_OK	4081370.807	332950.156	835.394	TSM
176_2018_OK	4054818.983	336435.497	883.676	TSM
177_2018_OK	4057784.451	363854.542	818.589	TSM
178_2018_OK	4085527.976	371466.952	817.705	TSM
179_2018_OK	4086224.270	404588.413	683.361	TSM
180_2018_OK	4053496.244	387924.057	800.778	TSM
191_2018_OK	4049005.515	277944.267	963.504	TSM
200_2018_OK	4080754.879	186228.717	1283.630	TSM
201_2018_OK	4062350.360	161437.693	1369.005	TSM
202_2018_OK	4055469.998	199776.093	1207.432	TSM
203_2018_OK	4052241.933	217006.022	1172.120	TSM
204_2018_OK	4073607.249	210134.728	1201.316	TSM
205_2018_OK	4090734.158	223749.070	1161.162	TSM
206_2018_OK	4072801.489	229819.310	1122.894	TSM
207_2018_OK	4061060.806	241798.707	1061.013	TSM
208_2018_OK	4086445.799	255062.479	1052.484	TSM
209_2018_OK	4089042.320	278463.091	984.368	TSM
210_2018_OK	4071754.513	265783.853	1002.004	TSM
211_2018_OK	4088932.854	312211.396	892.499	TSM

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 14 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
212_2018_OK	4080608.011	301788.060	911.110	TSM
213_2018_OK	4069840.748	288479.589	915.152	TSM
H 202	4056739.952	182169.768	1279.782	GL1313

Coordinate System: Grid

HORIZONTAL DATUM: NAD83 2011 2010.00

PROJECTION: UTM 15N

VERTICAL DATUM: NAVD88

GEOID MODEL: Geoid12B

Ground Control & Check Points

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
1001_2018_OK	4137884.383	-348805.130	1240.739	GCP
1002_2018_OK	4131373.794	-348949.317	1196.829	GCP
1003_2018_OK	4124868.453	-349141.748	1206.242	GCP
1004_2018_OK	4118408.534	-349817.010	1274.583	GCP
1005_2018_OK	4111902.936	-350492.203	1272.653	GCP
1006_2018_OK	4105480.214	-352058.229	1274.167	GCP
1007_2018_OK	4099263.944	-354992.151	1261.749	GCP
1008_2018_OK	4092819.299	-355623.147	1281.775	GCP
1009_2018_OK	4087334.694	-356158.882	1266.464	GCP
1010_2018_OK	4081865.952	-355098.106	1255.671	GCP
1011_2018_OK	4106754.994	-307082.385	1125.606	GCP
1012_2018_OK	4128754.392	-255555.559	991.028	GCP
1013_2018_OK	4122189.605	-256509.746	988.613	GCP
1014_2018_OK	4115422.040	-257109.862	968.662	GCP
1015_2018_OK	4108777.578	-258160.409	967.889	GCP
1016_2018_OK	4102170.752	-258750.475	924.990	GCP
1017_2018_OK	4095475.937	-258601.329	929.277	GCP
1018_2018_OK	4088788.012	-258370.007	948.933	GCP
1019_2018_OK	4082169.588	-258975.718	913.068	GCP
1020_2018_OK	4077879.058	-260985.095	965.117	GCP
1021_2018_OK	4073472.614	-261375.332	978.687	GCP
1022_2018_OK	4081919.000	-211831.178	822.448	GCP
1023_2018_OK	4123293.183	-167197.193	716.177	GCP
1024_2018_OK	4116517.549	-167779.496	751.627	GCP
1025_2018_OK	4109841.213	-169899.692	765.156	GCP

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
1026_2018_OK	4103026.541	-170605.849	737.230	GCP
1027_2018_OK	4096322.642	-171944.717	774.403	GCP
1028_2018_OK	4089522.198	-172459.553	821.283	GCP
1029_2018_OK	4082717.881	-172976.992	816.634	GCP
1030_2018_OK	4075950.533	-173482.321	814.453	GCP
1031_2018_OK	4070251.722	-173913.394	856.281	GCP
1032_2018_OK	4065791.667	-174963.364	859.328	GCP
1033_2018_OK	3940201.300	76131.206	382.317	GCP
1034_2018_OK	3939523.608	81967.466	396.616	GCP
1035_2018_OK	3933127.979	87851.593	362.530	GCP
1036_2018_OK	3926025.590	93653.626	390.169	GCP
1037_2018_OK	3925234.370	99713.423	392.215	GCP
1038_2018_OK	3925260.685	105697.301	380.589	GCP
1039_2018_OK	3902420.417	110792.381	338.586	GCP
1040_2018_OK	3906915.288	117179.785	329.741	GCP
1041_2018_OK	3897001.465	122761.849	333.932	GCP
1042_2018_OK	4095327.919	318470.820	245.485	GCP
1043_2018_OK	4082677.993	324316.137	241.188	GCP
1044_2018_OK	4081336.575	330344.830	235.894	GCP
1045_2018_OK	4082131.953	336419.216	237.880	GCP
1046_2018_OK	4082054.964	342514.593	249.837	GCP
1047_2018_OK	4081947.048	348570.046	265.816	GCP
1048_2018_OK	4081522.491	355790.377	308.618	GCP
1049_2018_OK	4134470.362	-348762.807	1218.718	GCP
1050_2018_OK	4128063.820	-349023.274	1184.448	GCP
1051_2018_OK	4121500.661	-349089.823	1229.764	GCP
1052_2018_OK	4114849.001	-350177.044	1279.012	GCP
1053_2018_OK	4108817.528	-350328.699	1273.671	GCP
1054_2018_OK	4104197.060	-354533.349	1283.657	GCP
1055_2018_OK	4096106.654	-355296.531	1278.140	GCP
1056_2018_OK	4090654.265	-355835.721	1280.929	GCP
1056A_2018_OK	4090461.212	-355854.898	1280.689	GCP
1057_2018_OK	4083919.130	-356499.847	1269.066	GCP

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
1058_2018_OK	4118701.378	-256817.875	980.252	GCP
1059_2018_OK	4112672.546	-257353.292	970.285	GCP
1060_2018_OK	4105327.371	-258468.432	958.069	GCP
1061_2018_OK	4098133.903	-258979.841	912.860	GCP
1062_2018_OK	4092753.299	-258577.864	951.523	GCP
1063_2018_OK	4085158.137	-258704.975	949.997	GCP
1064_2018_OK	4119843.271	-167515.887	761.520	GCP
1065_2018_OK	4113307.308	-168022.544	767.763	GCP
1066_2018_OK	4106634.960	-170143.531	754.682	GCP
1067_2018_OK	4099648.850	-171325.541	744.908	GCP
1068_2018_OK	4093283.281	-172183.940	784.501	GCP
1069_2018_OK	4086040.795	-172723.657	807.769	GCP
1070_2018_OK	4078756.364	-173142.680	826.341	GCP
1071_2018_OK	4073574.965	-173664.053	839.314	GCP
1072_2018_OK	3940105.029	79088.652	400.215	GCP
1073_2018_OK	3933224.094	85363.636	367.406	GCP
1074_2018_OK	3932837.986	91093.959	358.357	GCP
1075_2018_OK	3925349.438	96789.258	390.891	GCP
1076_2018_OK	3904339.966	103632.108	329.189	GCP
1077_2018_OK	3903642.087	114085.146	346.766	GCP
1078_2018_OK	3897151.549	119379.116	308.879	GCP
1079_2018_OK	4095271.861	321028.878	240.936	GCP
1080_2018_OK	4080987.022	328283.721	237.078	GCP
1081_2018_OK	4082250.374	332997.582	239.268	GCP
1082_2018_OK	4082102.843	339277.535	256.660	GCP
1083_2018_OK	4082012.134	345422.213	258.452	GCP
1084_2018_OK	4081885.601	352156.502	284.868	GCP
2001_2018_OK	4072388.270	-191620.867	881.199	NVA
2002_2018_OK	3934309.387	82165.792	369.616	NVA
2003_2018_OK	4111998.855	-293613.525	1088.395	NVA
2004_2018_OK	4113835.219	-261234.997	987.113	NVA
2005_2018_OK	4098535.053	-248632.004	883.942	NVA
2006_2018_OK	4119116.622	-228946.623	908.903	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2007_2018_OK	4116468.393	-146920.904	675.073	NVA
2008_2018_OK	3946594.908	94394.797	343.851	NVA
2009_2018_OK	4084406.259	-294570.574	1053.633	NVA
2010_2018_OK	4085188.065	-151794.885	776.794	NVA
2011_2018_OK	4112759.051	-156708.580	745.350	NVA
2012_2018_OK	3934822.061	102597.238	372.776	NVA
2013_2018_OK	4092342.718	-326422.400	1181.395	NVA
2014_2018_OK	4075105.515	-134637.950	736.885	NVA
2015_2018_OK	4116595.567	-156817.104	709.637	NVA
2016A_2018_OK	4085029.278	-273180.179	1003.795	NVA
2016B_2018_OK	4085020.638	-273176.531	1003.765	NVA
2017_2018_OK	4102377.153	-222853.732	874.799	NVA
2018_2018_OK	4109594.772	-384054.928	1418.697	NVA
2019_2018_OK	4120933.375	-285139.104	1070.221	NVA
2020_2018_OK	4104379.408	-124566.849	664.991	NVA
2021_2018_OK	4077693.396	-170956.746	834.248	NVA
2022_2018_OK	4087692.426	-203418.923	830.572	NVA
2023_2018_OK	4110047.206	-217744.268	873.399	NVA
2023A_2018_OK	4110036.845	-217711.481	873.714	NVA
2024_2018_OK	4092298.198	-367119.027	1324.112	NVA
2025_2018_OK	4084421.945	-227955.728	869.053	NVA
2026_2018_OK	4114071.172	-298292.398	1107.072	NVA
2027_2018_OK	4096198.832	-188124.515	802.188	NVA
2028_2018_OK	4077372.449	-220422.419	825.662	NVA
2029_2018_OK	4067857.570	-165987.214	841.986	NVA
2030_2018_OK	4088277.899	-328321.798	1160.921	NVA
2031A_2018_OK	4062921.075	324988.421	238.033	NVA
2031B_2018_OK	4062914.764	324991.871	238.015	NVA
2032_2018_OK	3959122.483	85042.750	314.081	NVA
2033A_2018_OK	4111176.413	-172167.102	790.177	NVA
2033B_2018_OK	4111173.806	-172136.580	789.269	NVA
2034_2018_OK	4075185.322	-247218.894	943.359	NVA
2035A_2018_OK	4111256.455	-233063.871	912.334	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2035B_2018_OK	4111254.636	-233050.203	912.264	NVA
2036_2018_OK	4122077.858	-313412.993	1158.015	NVA
2037_2018_OK	3936763.221	98560.383	354.654	NVA
2038_2018_OK	4084372.785	-182539.780	842.488	NVA
2039_2018_OK	3924751.641	89955.702	391.541	NVA
2040_2018_OK	4068215.541	323105.482	242.234	NVA
2041_2018_OK	4089184.423	-336337.889	1207.506	NVA
2042_2018_OK	3903427.507	105210.634	323.292	NVA
2043_2018_OK	4100559.627	-327177.759	1201.894	NVA
2044_2018_OK	4097236.106	-343232.651	1238.950	NVA
2045_2018_OK	4082903.143	-278439.346	1024.647	NVA
2046_2018_OK	4098642.280	-245981.504	902.522	NVA
2047_2018_OK	4073124.794	-223227.123	834.045	NVA
2048_2018_OK	4104220.430	-287863.372	1053.878	NVA
2049_2018_OK	4108864.109	-183673.133	799.820	NVA
2050_2018_OK	4111933.944	-210261.838	854.965	NVA
2051_2018_OK	4079944.933	-228349.913	866.975	NVA
2052A_2018_OK	3910031.061	96713.097	357.187	NVA
2052B_2018_OK	3910030.659	96721.582	357.480	NVA
2053_2018_OK	4077174.953	-244809.558	936.968	NVA
2054_2018_OK	4085162.237	-250577.574	931.608	NVA
2055_2018_OK	4075032.762	-263666.905	985.128	NVA
2056_2018_OK	4114422.179	-147647.929	727.907	NVA
2057_2018_OK	4093732.290	-372206.687	1345.078	NVA
2058_2018_OK	3903771.376	101991.863	347.299	NVA
2059_2018_OK	4088766.243	-356059.866	1269.598	NVA
2060_2018_OK	4118955.561	-281477.438	1057.816	NVA
2061_2018_OK	4108748.837	-334592.458	1221.797	NVA
2062_2018_OK	4105873.481	-211533.628	850.675	NVA
2063_2018_OK	4109486.975	-191455.855	820.109	NVA
2064_2018_OK	4100840.386	-343484.803	1244.974	NVA
2065_2018_OK	4076258.752	-141049.937	711.103	NVA
2065A_2018_OK	4076219.623	-141054.488	710.576	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2066_2018_OK	4104371.622	-237606.020	913.122	NVA
2067_2018_OK	4084514.455	-223456.371	860.890	NVA
2068_2018_OK	4107661.135	-381198.534	1397.834	NVA
2069_2018_OK	4109799.391	-370112.387	1352.097	NVA
2070_2018_OK	4094948.592	-193041.151	828.105	NVA
2071_2018_OK	4101406.907	-366208.754	1323.137	NVA
2072_2018_OK	4082860.708	-252393.548	934.125	NVA
2073_2018_OK	4101872.366	-271848.417	987.313	NVA
2074_2018_OK	4087168.117	-323640.457	1176.159	NVA
2075_2018_OK	3956584.069	90093.415	326.590	NVA
2076_2018_OK	4105162.612	-141499.871	771.861	NVA
2077A_2018_OK	4107196.471	-349926.820	1266.380	NVA
2077B_2018_OK	4107197.166	-349934.554	1266.421	NVA
2078_2018_OK	4103447.748	-157080.895	769.062	NVA
2079_2018_OK	4115568.597	-133815.430	636.734	NVA
2080_2018_OK	4107050.332	-134436.450	699.385	NVA
2081_2018_OK	4120181.115	-219025.638	891.403	NVA
2082A_2018_OK	4109266.824	-202715.555	838.626	NVA
2082B_2018_OK	4109264.315	-202684.507	838.489	NVA
2083_2018_OK	4122685.216	-269467.899	1021.875	NVA
2084_2018_OK	4063261.246	-140968.466	772.230	NVA
2085_2018_OK	4095566.753	-359015.611	1295.261	NVA
2086_2018_OK	4093621.097	-338473.971	1213.253	NVA
2087_2018_OK	4103920.692	-312219.080	1157.127	NVA
2088A_2018_OK	3952693.153	82414.908	328.988	NVA
2088B_2018_OK	3952706.545	82404.489	329.067	NVA
2089_2018_OK	4092253.302	-245139.248	916.094	NVA
2090_2018_OK	4104343.035	-145939.494	770.418	NVA
2091_2018_OK	4076965.053	-200982.221	886.174	NVA
2092_2018_OK	4092581.179	-241711.133	902.219	NVA
2093_2018_OK	4067821.149	-157998.377	813.661	NVA
2094_2018_OK	4089357.686	-277760.287	1027.697	NVA
2095_2018_OK	4118986.263	-123798.850	602.951	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2096_2018_OK	4104483.730	-214904.452	856.700	NVA
2097_2018_OK	4123317.432	-201592.424	855.698	NVA
2098_2018_OK	4073537.636	-217498.211	866.235	NVA
2099_2018_OK	4096652.410	-295071.294	1068.221	NVA
2100_2018_OK	4083390.854	333768.925	235.129	NVA
2101_2018_OK	4108488.768	-215434.467	863.848	NVA
2102_2018_OK	4115340.156	-344545.610	1255.146	NVA
2103_2018_OK	4098503.050	-288394.459	1046.757	NVA
2104_2018_OK	4092472.808	-130355.458	696.391	NVA
2105_2018_OK	4081549.602	-197371.228	874.589	NVA
2106_2018_OK	4089499.809	-290846.157	1016.302	NVA
2107_2018_OK	3956492.518	110691.510	323.194	NVA
2108_2018_OK	4106223.701	-301410.480	1098.370	NVA
2109_2018_OK	4129633.233	-310387.721	1122.795	NVA
2110_2018_OK	4107977.108	-151907.880	784.242	NVA
2111_2018_OK	4080893.498	-194174.437	880.200	NVA
2112_2018_OK	4099651.037	-191031.767	779.978	NVA
2112A_2018_OK	4099681.553	-191030.936	779.894	NVA
2113_2018_OK	4125571.789	-256211.075	987.636	NVA
2114_2018_OK	4113817.178	-361676.155	1312.984	NVA
2115_2018_OK	3915810.199	90224.094	365.292	NVA
2116_2018_OK	4119426.883	-243756.271	952.640	NVA
2117_2018_OK	3962067.522	83518.329	323.230	NVA
2118_2018_OK	3953287.678	99326.786	320.315	NVA
2119_2018_OK	4083343.993	-335377.012	1196.169	NVA
2120_2018_OK	4108406.052	-272878.827	1011.072	NVA
2121_2018_OK	4090254.645	-321818.462	1172.169	NVA
2122_2018_OK	4084024.956	-341151.881	1216.037	NVA
2123_2018_OK	4117451.251	-273192.243	1027.713	NVA
2124_2018_OK	4111963.166	-310301.287	1142.024	NVA
2125_2018_OK	4113130.985	-338999.510	1236.138	NVA
2126_2018_OK	4103817.075	-326857.375	1204.912	NVA
2127_2018_OK	4075111.925	-168236.735	844.192	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2128_2018_OK	4115108.790	-226498.880	901.100	NVA
2129_2018_OK	4079526.108	-309672.158	1123.780	NVA
2130_2018_OK	4091125.636	-377691.588	1355.959	NVA
2131_2018_OK	4109126.233	-363769.567	1313.217	NVA
2132_2018_OK	4108681.132	-375211.934	1369.762	NVA
2133_2018_OK	4123198.820	-219711.268	895.854	NVA
2134_2018_OK	4069339.041	-182097.007	873.387	NVA
2135_2018_OK	4075544.829	345656.306	255.558	NVA
2136_2018_OK	4119482.566	-303868.581	1126.960	NVA
2137_2018_OK	4106627.768	-234852.254	907.845	NVA
2138_2018_OK	4092246.590	-225738.408	863.410	NVA
2139A_2018_OK	3938126.479	89868.935	360.457	NVA
2139B_2018_OK	3938117.160	89868.415	360.615	NVA
2140_2018_OK	4090237.569	-199919.924	841.707	NVA
2141_2018_OK	4114872.858	-358251.542	1308.301	NVA
2142_2018_OK	4085531.528	-138754.836	744.449	NVA
2143_2018_OK	4069400.507	348357.800	235.306	NVA
2144_2018_OK	4091850.399	-386689.074	1400.493	NVA
2145_2018_OK	4089934.649	-370609.050	1328.006	NVA
2146_2018_OK	4118863.160	-133416.888	691.379	NVA
2147A_2018_OK	4114025.346	-326325.947	1200.775	NVA
2147B_2018_OK	4114015.258	-326326.919	1200.818	NVA
2148_2018_OK	4111759.369	-137322.004	677.105	NVA
2149_2018_OK	4063379.961	353827.622	291.137	NVA
2150_2018_OK	3956459.818	108287.289	327.067	NVA
2151_2018_OK	4083846.083	-234512.726	892.289	NVA
2152_2018_OK	4127205.793	-316136.070	1168.596	NVA
2153_2018_OK	4114904.655	-198189.828	836.669	NVA
2154_2018_OK	4073355.847	-245130.570	940.914	NVA
2155_2018_OK	4070804.330	-195558.130	889.328	NVA
2156_2018_OK	4086459.087	343914.942	261.596	NVA
2156A_2018_OK	4083626.226	344657.505	236.099	NVA
2157_2018_OK	3948088.319	97867.266	341.626	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
2158_2018_OK	4107588.927	-315665.047	1174.200	NVA
2159_2018_OK	4073516.671	-199629.444	890.339	NVA
2160_2018_OK	4086900.972	-304140.029	1093.442	NVA
2161_2018_OK	3931240.413	106104.046	393.787	NVA
2162_2018_OK	4100392.303	-125989.084	656.193	NVA
2163_2018_OK	4065959.040	327475.491	249.284	NVA
2164_2018_OK	4071324.569	338827.558	242.201	NVA
2165A_2018_OK	4084464.774	332659.704	241.123	NVA
2165B_2018_OK	4084437.274	332658.962	241.087	NVA
2166_2018_OK	4113982.555	-326319.785	1201.123	NVA
2167_2018_OK	4096462.708	330544.074	259.310	NVA
2168_2018_OK	4090344.877	327753.790	248.912	NVA
2169_2018_OK	4094962.339	339393.545	251.924	NVA
2170_2018_OK	4096077.116	348573.663	243.776	NVA
2171_2018_OK	4094859.986	354695.759	281.915	NVA
3001_2018_OK	3959581.001	97981.321	343.073	VVA
3002_2018_OK	3960402.220	110008.668	344.791	VVA
3003_2018_OK	3943619.156	93510.169	348.551	VVA
3004_2018_OK	3893983.279	117882.271	340.085	VVA
3005_2018_OK	3899859.273	109823.074	358.027	VVA
3006_2018_OK	3907293.664	111805.508	324.600	VVA
3007_2018_OK	3923958.792	118762.228	352.120	VVA
3008_2018_OK	3931226.205	106109.616	393.561	VVA
3009_2018_OK	4063388.526	353782.601	294.221	VVA
3010_2018_OK	4065481.434	345586.548	237.572	VVA
3011_2018_OK	4094872.424	354717.462	281.413	VVA
3012_2018_OK	4059996.459	330905.784	236.719	VVA
3013_2018_OK	4061651.992	346811.772	325.376	VVA
3014_2018_OK	4086753.366	351963.378	288.481	VVA
3014A_2018_OK	4086710.677	351997.376	290.758	VVA
3015_2018_KS	4096096.220	348582.744	244.239	VVA
3015A_2018_KS	4096099.378	348599.455	244.426	VVA
3016_2018_OK	4094023.699	320954.077	237.704	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3016A_2018_OK	4094084.158	320990.333	238.015	VVA
3017_2018_OK	4062570.740	331033.424	253.068	VVA
3018_2018_OK	4064539.323	351991.732	334.938	VVA
3019_2018_OK	3897585.923	111314.012	359.210	VVA
3020_2018_OK	3907591.444	102936.298	357.029	VVA
3021_2018_OK	3912901.302	93032.880	354.075	VVA
3022_2018_OK	3920691.291	95914.433	383.218	VVA
3023_2018_OK	3916432.971	119345.359	344.989	VVA
3024_2018_OK	3921190.107	120700.036	341.014	VVA
3025_2018_OK	3929815.682	110337.041	382.988	VVA
3026_2018_OK	4084973.954	-127190.923	672.232	VVA
3027_2018_OK	4096288.658	-130074.808	665.053	VVA
3028_2018_OK	4092575.492	-259626.846	940.591	VVA
3029_2018_OK	3950296.821	78308.822	344.456	VVA
3030_2018_OK	4084279.370	331093.133	239.124	VVA
3031_2018_OK	4094975.373	339368.944	251.825	VVA
3031A_2018_OK	4094974.446	339410.953	251.981	VVA
3032_2018_OK	4079121.919	353315.749	281.160	VVA
3032A_2018_OK	4079155.685	353304.703	278.910	VVA
3033_2018_OK	4089406.116	-394213.285	1440.760	VVA
3034_2018_OK	4090827.232	-360399.998	1293.990	VVA
3036_2018_OK	4108550.707	-342297.364	1243.560	VVA
3037_2018_OK	4112029.703	-327681.335	1203.150	VVA
3038_2018_OK	4130430.076	-315844.697	1161.759	VVA
3039_2018_OK	4130621.370	-301237.632	1116.394	VVA
3040_2018_OK	4124602.333	-289545.449	1091.318	VVA
3041_2018_OK	4125117.662	-260294.355	1001.538	VVA
3042_2018_OK	4120738.628	-240459.402	945.833	VVA
3043_2018_OK	4122605.617	-222352.534	903.060	VVA
3044_2018_OK	4116669.059	-200178.208	847.993	VVA
3045_2018_OK	4110485.769	-183317.138	809.896	VVA
3046_2018_OK	4113221.230	-136389.391	641.512	VVA
3047_2018_OK	4074958.769	-149221.924	769.482	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3048_2018_OK	4065965.218	-134098.981	771.273	VVA
3049_2018_OK	4073269.278	-165626.709	822.120	VVA
3050_2018_OK	4070530.695	-182012.146	873.347	VVA
3051_2018_OK	4074523.038	-206045.468	876.092	VVA
3052_2018_OK	4082034.934	-213511.731	829.447	VVA
3053_2018_OK	4101117.001	-227334.360	881.017	VVA
3054_2018_OK	4107580.005	-245461.818	928.184	VVA
3055_2018_OK	4097949.420	-280326.605	984.931	VVA
3056_2018_OK	4092936.477	-298853.865	1079.529	VVA
3057_2018_OK	4097360.998	-376462.035	1361.527	VVA
3058_2018_OK	4104478.042	-382165.059	1406.409	VVA
3059_2018_OK	4100188.816	-388505.801	1392.681	VVA
3060_2018_OK	4091119.590	-337793.840	1207.221	VVA
3061_2018_OK	4082094.810	-338772.803	1210.037	VVA
3062_2018_OK	4081527.434	-281398.521	1037.978	VVA
3063_2018_OK	4075592.267	-270119.993	996.809	VVA
3064_2018_OK	4075056.795	-250453.017	945.517	VVA
3065_2018_OK	4089087.515	-221578.849	816.068	VVA
3066_2018_OK	4083609.225	-193376.448	865.922	VVA
3067_2018_OK	4091041.268	-165892.132	741.494	VVA
3068_2018_OK	4091542.123	-148097.230	735.645	VVA
3068A_2018_OK	4091467.122	-148098.119	734.962	VVA
3069_2018_OK	4105610.783	-161587.981	789.402	VVA
3070_2018_OK	4120410.841	-144056.256	718.596	VVA
3071_2018_OK	4107825.919	-129681.120	649.503	VVA
3072_2018_OK	4107411.929	-145747.627	788.149	VVA
3073_2018_OK	4118745.808	-156718.081	692.658	VVA
3074_2018_OK	4101232.986	-209888.135	837.603	VVA
3075_2018_OK	4097623.416	-156805.252	707.967	VVA
3076_2018_OK	4089387.197	-184183.699	834.923	VVA
3077_2018_OK	4100954.661	-202314.969	831.263	VVA
3077A_2018_OK	4100920.325	-202274.723	831.063	VVA
3078_2018_OK	4110718.833	-206295.143	845.368	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3079_2018_OK	4117827.714	-213368.119	872.806	VVA
3080_2018_OK	4122226.893	-211001.852	876.104	VVA
3080A_2018_OK	4124339.001	-207470.960	869.299	VVA
3081_2018_OK	4115877.902	-266011.390	1004.695	VVA
3082_2018_OK	4107468.656	-261502.547	958.161	VVA
3083_2018_OK	4117945.778	-337988.981	1246.332	VVA
3084_2018_OK	4107662.910	-348239.926	1257.008	VVA
3085_2018_OK	4081680.717	-317595.994	1152.537	VVA
3086_2018_OK	4077525.595	-236729.109	904.738	VVA
3087_2018_OK	4069109.439	-154531.912	769.187	VVA
3088_2018_OK	4115490.815	-165393.471	766.283	VVA
3089_2018_OK	4123130.598	-172734.553	731.257	VVA
3090_2018_OK	4114418.710	-190587.793	831.870	VVA
3091_2018_OK	4102663.944	-262753.542	948.514	VVA
3092_2018_OK	4110905.445	-228245.080	900.026	VVA
3093_2018_OK	4106813.154	-217936.096	867.283	VVA
3094_2018_OK	4122635.420	-319882.914	1190.706	VVA
3095_2018_OK	4096708.898	-321017.132	1166.864	VVA
3096_2018_OK	4109695.071	-303562.542	1112.917	VVA
3097_2018_OK	3961929.112	77477.883	355.758	VVA
3098_2018_OK	3949802.297	108651.260	353.736	VVA
3099_2018_OK	3953654.715	83137.809	331.033	VVA
3100_2018_OK	3893183.489	100431.772	333.361	VVA
3101_2018_OK	3901239.617	101380.856	338.777	VVA
3102_2018_OK	3909040.819	89321.999	343.525	VVA
3103_2018_OK	3921389.875	81798.528	375.975	VVA
3104_2018_OK	3935731.765	76994.813	378.262	VVA
3105_2018_OK	3926382.589	78584.969	394.628	VVA
3106_2018_OK	3941486.822	101222.747	352.815	VVA
3107_2018_OK	4063667.865	339087.692	276.038	VVA
3108_2018_OK	4082800.435	339041.654	250.096	VVA
3109_2018_OK	4090354.668	327747.231	249.026	VVA
3109A_2018_OK	4095206.486	324046.292	247.643	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
3110_2018_OK	4074659.873	323428.202	237.938	VVA
3111_2018_OK	4077997.979	336170.233	235.564	VVA
3111A_2018_OK	4078083.993	336162.590	235.925	VVA
3112_2018_OK	4083636.919	344657.259	236.994	VVA
3112A_2018_OK	4086426.367	343885.317	261.731	VVA
3113_2018_OK	4090088.661	343131.890	249.354	VVA
3113A_2018_OK	4090076.191	343049.187	251.018	VVA
3114_2018_OK	4096444.677	330537.769	259.654	VVA
3114A_2018_OK	4096475.575	330579.199	258.661	VVA
3115_2018_OK	4069648.556	331179.757	243.540	VVA
3115A_2018_OK	4069635.645	331220.212	243.328	VVA
3116_2018_OK	4075683.791	342497.023	251.292	VVA
3116A_2018_OK	4075691.923	342452.136	251.156	VVA

Geodetic Control

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
100_2018_OK	3933741.737	86296.336	370.637	TSM
101_2018_OK	3923682.650	119201.365	361.838	TSM
102_2018_OK	3900585.865	109882.950	365.062	TSM
103_2018_OK	3911338.925	91918.257	366.788	TSM
104_2018_OK	3924394.481	84274.693	392.123	TSM
105_2018_OK	3956059.410	84828.664	336.099	TSM
106_2018_OK	4082072.750	339984.433	263.859	TSM
107_2018_OK	4095230.721	324049.761	247.668	TSM
108_2018_OK	4095155.361	345103.735	253.641	TSM
150_2018_OK	3950399.697	102373.469	324.057	TSM
151_2018_OK	4059354.717	347522.424	260.148	TSM
152_2018_OK	4063143.135	334430.694	264.028	TSM
175_2018_OK	4108794.201	-202471.461	835.394	TSM
176_2018_OK	4081922.479	-200653.756	883.676	TSM
177_2018_OK	4083168.020	-172949.997	818.589	TSM
178_2018_OK	4110521.311	-163556.831	817.705	TSM
179_2018_OK	4109118.778	-130291.743	683.361	TSM
180_2018_OK	4077348.310	-149073.388	800.778	TSM
191_2018_OK	4079778.007	-259753.862	963.504	TSM
200_2018_OK	4117509.928	-349922.260	1283.630	TSM
201_2018_OK	4100576.254	-376030.427	1369.005	TSM
202_2018_OK	4091221.710	-337906.739	1207.432	TSM
203_2018_OK	4086884.267	-320787.674	1172.120	TSM
204_2018_OK	4108800.049	-326339.525	1201.316	TSM
205_2018_OK	4125149.555	-311562.125	1161.162	TSM
206_2018_OK	4106738.144	-306602.981	1122.894	TSM
207_2018_OK	4094177.721	-295308.451	1061.013	TSM
208_2018_OK	4118843.382	-280367.016	1052.484	TSM
209_2018_OK	4119961.387	-256693.488	984.368	TSM
210_2018_OK	4103401.302	-270529.531	1002.004	TSM
211_2018_OK	4117703.348	-222809.847	892.499	TSM

Point No.	NAD83 (2011) Epoch: 2010.00 Worldwide UTM, Zone 15 North		Ortho Height (NAVD88) (M)	Description
	Northing (M)	Easting (M)		
212_2018_OK	4110007.242	-233804.849	911.110	TSM
213_2018_OK	4100038.939	-247853.238	915.152	TSM
H 202	4093615.722	-355532.218	1279.782	GL1313

Coordinate System: Grid

HORIZONTAL DATUM: NAD83 2011 2010.00
 PROJECTION: Oklahoma State Plane North (3501)
 VERTICAL DATUM: NAVD88
 GEOID MODEL: Geoid12B

Ground Control & Check Points

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
1001_2018_OK	759922.99	646649.70	4070.66	GCP
1002_2018_OK	738747.25	647324.05	3926.60	GCP
1003_2018_OK	717580.38	647837.86	3957.48	GCP
1004_2018_OK	696477.14	646772.36	4181.69	GCP
1005_2018_OK	675226.21	645712.22	4175.36	GCP
1006_2018_OK	654090.59	641741.10	4180.33	GCP
1007_2018_OK	633390.20	633288.45	4139.59	GCP
1008_2018_OK	612348.23	632353.09	4205.29	GCP
1009_2018_OK	594441.48	631558.95	4155.06	GCP
1010_2018_OK	576861.11	635945.61	4119.65	GCP
1011_2018_OK	666038.63	787684.71	3692.93	GCP
1012_2018_OK	746578.17	951470.45	3251.40	GCP
1013_2018_OK	725045.65	949511.05	3243.48	GCP
1014_2018_OK	702915.72	948736.71	3178.02	GCP
1015_2018_OK	681108.88	946472.33	3175.48	GCP
1016_2018_OK	659505.23	945697.41	3034.74	GCP
1017_2018_OK	637743.50	947340.72	3048.80	GCP
1018_2018_OK	616018.29	949247.53	3113.29	GCP
1019_2018_OK	594375.22	948415.62	2995.62	GCP
1020_2018_OK	580067.36	942613.68	3166.39	GCP
1021_2018_OK	565660.91	942099.66	3210.91	GCP
1022_2018_OK	601664.30	1101950.14	2698.31	GCP
1023_2018_OK	744202.10	1240229.76	2349.66	GCP
1024_2018_OK	722014.11	1239509.85	2465.96	GCP
1025_2018_OK	699883.81	1233757.37	2510.35	GCP

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
1026_2018_OK	677548.93	1232635.74	2418.73	GCP
1027_2018_OK	655466.54	1229430.25	2540.69	GCP
1028_2018_OK	633212.52	1228924.87	2694.49	GCP
1029_2018_OK	610945.90	1228409.19	2679.24	GCP
1030_2018_OK	588802.30	1227924.15	2672.09	GCP
1031_2018_OK	570154.46	1227495.73	2809.32	GCP
1032_2018_OK	555438.49	1224836.71	2819.31	GCP
1033_2018_OK	187602.54	2065871.17	1254.32	GCP
1034_2018_OK	186356.89	2085073.12	1301.23	GCP
1035_2018_OK	166415.17	2105383.73	1189.40	GCP
1036_2018_OK	144145.23	2125543.52	1280.08	GCP
1037_2018_OK	142562.93	2145499.41	1286.79	GCP
1038_2018_OK	143642.83	2165072.35	1248.65	GCP
1039_2018_OK	69755.20	2185529.56	1110.84	GCP
1040_2018_OK	85520.82	2205686.40	1081.82	GCP
1041_2018_OK	54002.59	2225594.29	1095.58	GCP
1042_2018_OK	736370.78	2833055.79	805.39	GCP
1043_2018_OK	695917.14	2854360.55	791.30	GCP
1044_2018_OK	692546.75	2874342.20	773.93	GCP
1045_2018_OK	696185.38	2894110.85	780.44	GCP
1046_2018_OK	696968.93	2914097.08	819.67	GCP
1047_2018_OK	697644.13	2933958.21	872.10	GCP
1048_2018_OK	697479.32	2957690.84	1012.52	GCP
1049_2018_OK	748839.53	647386.79	3998.41	GCP
1050_2018_OK	727981.51	647663.66	3885.98	GCP
1051_2018_OK	706648.94	648595.02	4034.65	GCP
1052_2018_OK	684851.26	646223.19	4196.22	GCP
1053_2018_OK	665231.83	646779.80	4178.70	GCP
1054_2018_OK	649493.18	633923.91	4211.47	GCP
1055_2018_OK	623082.30	632845.99	4193.36	GCP
1056_2018_OK	605279.35	632036.30	4202.52	GCP
1056A_2018_OK	604648.99	632007.31	4201.73	GCP
1057_2018_OK	583288.91	631039.54	4163.59	GCP

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
1058_2018_OK	713639.28	949116.15	3216.04	GCP
1059_2018_OK	693925.13	948422.57	3183.34	GCP
1060_2018_OK	669827.00	946068.38	3143.27	GCP
1061_2018_OK	646328.10	945649.51	2994.94	GCP
1062_2018_OK	628887.03	947887.20	3121.79	GCP
1063_2018_OK	604147.61	948782.60	3116.78	GCP
1064_2018_OK	732900.83	1239791.13	2498.42	GCP
1065_2018_OK	711507.53	1239274.97	2518.90	GCP
1066_2018_OK	689390.64	1233518.11	2475.99	GCP
1067_2018_OK	666415.01	1230873.92	2443.92	GCP
1068_2018_OK	645518.79	1229174.94	2573.82	GCP
1069_2018_OK	621819.94	1228663.43	2650.16	GCP
1070_2018_OK	598005.61	1228549.67	2711.09	GCP
1071_2018_OK	581028.50	1227739.13	2753.65	GCP
1072_2018_OK	187779.67	2075560.23	1313.04	GCP
1073_2018_OK	166316.07	2097229.41	1205.40	GCP
1074_2018_OK	166005.48	2116038.33	1175.71	GCP
1075_2018_OK	142453.85	2135913.80	1282.45	GCP
1076_2018_OK	74851.40	2161783.43	1080.02	GCP
1077_2018_OK	74297.63	2196101.93	1137.68	GCP
1078_2018_OK	53934.26	2214499.46	1013.38	GCP
1079_2018_OK	736622.59	2841446.98	790.47	GCP
1080_2018_OK	691051.05	2867648.14	777.81	GCP
1081_2018_OK	695991.86	2882879.04	785.00	GCP
1082_2018_OK	696575.75	2903481.79	842.06	GCP
1083_2018_OK	697322.62	2923632.12	847.94	GCP
1084_2018_OK	698052.01	2945721.14	934.61	GCP
2001_2018_OK	574084.18	1169425.18	2891.07	NVA
2002_2018_OK	169334.58	2086588.89	1212.65	NVA
2003_2018_OK	685430.14	830571.67	3570.84	NVA
2004_2018_OK	697034.09	935587.89	3238.55	NVA
2005_2018_OK	649423.07	979259.08	2900.06	NVA
2006_2018_OK	719844.49	1039775.88	2981.96	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2007_2018_OK	725476.26	1307522.82	2214.80	NVA
2008_2018_OK	211557.21	2124546.20	1128.12	NVA
2009_2018_OK	595528.75	832232.01	3456.80	NVA
2010_2018_OK	622640.41	1297035.89	2548.53	NVA
2011_2018_OK	711683.21	1276253.36	2445.37	NVA
2012_2018_OK	174409.25	2153340.43	1223.02	NVA
2013_2018_OK	615841.12	727310.74	3875.96	NVA
2014_2018_OK	592708.15	1354714.17	2417.60	NVA
2015_2018_OK	724172.51	1275233.65	2328.20	NVA
2016A_2018_OK	601236.79	901703.56	3293.29	NVA
2016B_2018_OK	601209.31	901716.92	3293.19	NVA
2017_2018_OK	666392.00	1062522.60	2870.07	NVA
2018_2018_OK	661893.92	537125.88	4654.51	NVA
2019_2018_OK	715965.40	856579.00	3511.22	NVA
2020_2018_OK	689922.58	1382522.25	2181.72	NVA
2021_2018_OK	594916.21	1235856.88	2737.03	NVA
2022_2018_OK	621917.93	1128358.81	2724.97	NVA
2023_2018_OK	692256.61	1077833.28	2865.48	NVA
2023A_2018_OK	692228.56	1077941.86	2866.51	NVA
2024_2018_OK	608671.13	595108.05	4344.19	NVA
2025_2018_OK	607042.65	1049007.20	2851.22	NVA
2026_2018_OK	691355.67	814995.17	3632.12	NVA
2027_2018_OK	652269.73	1176722.31	2631.84	NVA
2028_2018_OK	585381.00	1074750.29	2708.86	NVA
2029_2018_OK	563707.30	1253740.64	2762.41	NVA
2030_2018_OK	602302.87	721838.85	3808.79	NVA
2031A_2018_OK	631297.53	2859919.67	780.95	NVA
2031B_2018_OK	631277.44	2859932.04	780.89	NVA
2032_2018_OK	250975.07	2091864.70	1030.45	NVA
2033A_2018_OK	703842.74	1226135.24	2592.44	NVA
2033B_2018_OK	703839.53	1226235.17	2589.46	NVA
2034_2018_OK	573662.42	987880.02	3095.00	NVA
2035A_2018_OK	693535.13	1027736.39	2993.22	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2035B_2018_OK	693531.58	1027781.21	2992.99	NVA
2036_2018_OK	714753.74	764435.91	3799.25	NVA
2037_2018_OK	180088.09	2139810.77	1163.56	NVA
2038_2018_OK	614695.11	1196958.95	2764.06	NVA
2039_2018_OK	139363.90	2113657.85	1284.58	NVA
2040_2018_OK	648325.01	2852851.37	794.73	NVA
2041_2018_OK	603866.92	695633.02	3961.63	NVA
2042_2018_OK	72127.03	2167099.20	1060.67	NVA
2043_2018_OK	642415.74	723435.13	3943.21	NVA
2044_2018_OK	628837.50	671840.41	4064.79	NVA
2045_2018_OK	593414.93	884959.67	3361.70	NVA
2046_2018_OK	650230.43	987868.13	2961.02	NVA
2047_2018_OK	571067.21	1066345.11	2736.36	NVA
2048_2018_OK	661129.83	850623.82	3457.60	NVA
2049_2018_OK	694311.59	1189036.66	2624.08	NVA
2050_2018_OK	699700.61	1101876.68	2805.00	NVA
2051_2018_OK	592396.84	1048493.35	2844.40	NVA
2052A_2018_OK	92326.29	2138204.24	1171.87	NVA
2052B_2018_OK	92326.38	2138232.07	1172.83	NVA
2053_2018_OK	580552.31	995381.36	3074.04	NVA
2054_2018_OK	605559.83	975233.46	3056.45	NVA
2055_2018_OK	570344.93	934375.09	3232.04	NVA
2056_2018_OK	718677.80	1305507.30	2388.14	NVA
2057_2018_OK	612449.25	578340.22	4412.98	NVA
2058_2018_OK	72719.72	2156510.80	1139.43	NVA
2059_2018_OK	599108.29	631633.85	4165.34	NVA
2060_2018_OK	710170.12	868834.85	3470.52	NVA
2061_2018_OK	667742.71	697918.68	4008.51	NVA
2062_2018_OK	679739.56	1098785.28	2790.92	NVA
2063_2018_OK	694991.87	1163568.05	2690.64	NVA
2064_2018_OK	640503.88	670397.35	4084.55	NVA
2065_2018_OK	595369.62	1333605.83	2333.01	NVA
2065A_2018_OK	595241.24	1333597.70	2331.28	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2066_2018_OK	670331.52	1014142.15	2995.80	NVA
2067_2018_OK	608118.01	1063642.74	2824.44	NVA
2068_2018_OK	656113.33	546734.36	4586.06	NVA
2069_2018_OK	664982.20	582356.15	4436.00	NVA
2070_2018_OK	647347.23	1160917.91	2716.87	NVA
2071_2018_OK	638407.45	596488.69	4340.99	NVA
2072_2018_OK	597756.37	969718.79	3064.71	NVA
2073_2018_OK	656266.14	903128.57	3239.21	NVA
2074_2018_OK	599502.66	737244.82	3858.78	NVA
2075_2018_OK	243515.57	2108809.15	1071.49	NVA
2076_2018_OK	689548.37	1327159.87	2532.35	NVA
2077A_2018_OK	660035.68	648366.87	4154.78	NVA
2077B_2018_OK	660036.60	648341.63	4154.92	NVA
2078_2018_OK	681261.51	1276652.37	2523.16	NVA
2079_2018_OK	724816.56	1350418.01	2089.02	NVA
2080_2018_OK	696926.94	1349868.75	2294.57	NVA
2081_2018_OK	725038.41	1071898.52	2924.54	NVA
2082A_2018_OK	692321.90	1126921.61	2751.39	NVA
2082B_2018_OK	692319.11	1127023.20	2750.94	NVA
2083_2018_OK	724398.25	907256.37	3352.60	NVA
2084_2018_OK	552998.65	1336096.20	2533.56	NVA
2085_2018_OK	620685.79	620859.84	4249.54	NVA
2086_2018_OK	617914.48	687926.59	3980.48	NVA
2087_2018_OK	655932.82	771476.06	3796.34	NVA
2088A_2018_OK	229507.09	2084342.68	1079.36	NVA
2088B_2018_OK	229549.16	2084306.36	1079.62	NVA
2089_2018_OK	629578.65	991713.40	3005.55	NVA
2090_2018_OK	686107.77	1312824.32	2527.61	NVA
2091_2018_OK	587390.28	1138140.92	2907.39	NVA
2092_2018_OK	631237.49	1002816.38	2960.03	NVA
2093_2018_OK	564955.25	1279789.66	2669.49	NVA
2094_2018_OK	614529.58	886057.32	3371.70	NVA
2095_2018_OK	737702.84	1382496.47	1978.18	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2096_2018_OK	674629.05	1088046.88	2810.69	NVA
2097_2018_OK	738290.96	1128138.04	2807.40	NVA
2098_2018_OK	573393.62	1084931.40	2841.97	NVA
2099_2018_OK	635268.27	828491.34	3504.66	NVA
2100_2018_OK	699859.97	2885212.64	771.42	NVA
2101_2018_OK	687581.60	1085626.49	2834.14	NVA
2102_2018_OK	687427.75	664432.32	4117.93	NVA
2103_2018_OK	642441.78	849886.50	3434.24	NVA
2104_2018_OK	650086.98	1365696.39	2284.74	NVA
2105_2018_OK	602946.22	1149117.76	2869.38	NVA
2106_2018_OK	612735.78	843467.35	3334.32	NVA
2107_2018_OK	246656.98	2176208.54	1060.35	NVA
2108_2018_OK	665295.34	806219.26	3603.57	NVA
2109_2018_OK	739845.69	772950.55	3683.70	NVA
2110_2018_OK	696924.25	1292734.39	2572.97	NVA
2111_2018_OK	601357.91	1159645.83	2887.79	NVA
2112_2018_OK	663016.27	1166652.83	2558.98	NVA
2112A_2018_OK	663115.84	1166650.26	2558.70	NVA
2113_2018_OK	736105.43	949892.95	3240.27	NVA
2114_2018_OK	679497.30	609052.82	4307.68	NVA
2115_2018_OK	110158.10	2116018.44	1198.46	NVA
2116_2018_OK	718275.74	991504.69	3125.45	NVA
2117_2018_OK	260353.08	2086386.50	1060.46	NVA
2118_2018_OK	234274.04	2139563.77	1050.90	NVA
2119_2018_OK	585054.37	699761.14	3924.43	NVA
2120_2018_OK	677345.19	898643.28	3317.16	NVA
2121_2018_OK	609848.87	742634.80	3845.69	NVA
2122_2018_OK	586273.46	680879.92	3989.61	NVA
2123_2018_OK	706719.54	896050.94	3371.76	NVA
2124_2018_OK	682412.48	776314.51	3746.79	NVA
2125_2018_OK	681215.68	682836.52	4055.56	NVA
2126_2018_OK	653058.04	723911.94	3953.12	NVA
2127_2018_OK	586968.50	1245165.57	2769.65	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2128_2018_OK	707219.64	1048443.74	2956.36	NVA
2129_2018_OK	577063.73	783966.16	3686.93	NVA
2130_2018_OK	603039.21	560982.18	4448.68	NVA
2131_2018_OK	663898.79	603070.27	4308.45	NVA
2132_2018_OK	660464.93	565992.75	4493.96	NVA
2133_2018_OK	734747.05	1069139.83	2939.15	NVA
2134_2018_OK	565779.08	1200981.30	2865.44	NVA
2135_2018_OK	676170.12	2925497.73	838.44	NVA
2136_2018_OK	707980.91	795920.21	3697.37	NVA
2137_2018_OK	678154.26	1022716.73	2978.49	NVA
2138_2018_OK	632903.89	1054879.39	2832.70	NVA
2139A_2018_OK	183101.49	2111151.51	1182.60	NVA
2139B_2018_OK	183070.92	2111151.36	1183.12	NVA
2140_2018_OK	630812.14	1139319.15	2761.50	NVA
2141_2018_OK	683522.35	619991.44	4292.32	NVA
2142_2018_OK	626003.00	1339497.84	2442.41	NVA
2143_2018_OK	656494.94	2935393.16	772.00	NVA
2144_2018_OK	603839.26	531649.20	4594.79	NVA
2145_2018_OK	600394.10	584183.19	4356.97	NVA
2146_2018_OK	735631.01	1351145.93	2268.30	NVA
2147A_2018_OK	686327.87	723865.68	3939.54	NVA
2147B_2018_OK	686294.92	723864.28	3939.68	NVA
2148_2018_OK	711785.03	1339642.28	2221.47	NVA
2149_2018_OK	637694.67	2954338.42	955.17	NVA
2150_2018_OK	246148.25	2168348.20	1073.05	NVA
2151_2018_OK	604039.58	1027756.57	2927.45	NVA
2152_2018_OK	730948.23	754687.46	3833.97	NVA
2153_2018_OK	711474.80	1140687.15	2744.97	NVA
2154_2018_OK	568065.31	994991.45	3086.98	NVA
2155_2018_OK	568249.01	1156868.22	2917.74	NVA
2156_2018_OK	711638.47	2917937.33	858.25	NVA
2156A_2018_OK	702481.81	2920852.04	774.60	NVA
2157_2018_OK	217021.56	2135656.69	1120.82	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2158_2018_OK	667260.00	759637.18	3852.35	NVA
2159_2018_OK	576388.16	1143139.39	2921.06	NVA
2160_2018_OK	601993.49	800684.34	3587.40	NVA
2161_2018_OK	163274.61	2165409.29	1291.95	NVA
2162_2018_OK	676671.35	1378572.07	2152.86	NVA
2163_2018_OK	641673.61	2867552.84	817.86	NVA
2164_2018_OK	661181.78	2903838.19	794.62	NVA
2165A_2018_OK	703190.31	2881395.50	791.09	NVA
2165B_2018_OK	703100.08	2881397.74	790.97	NVA
2166_2018_OK	686189.87	723893.16	3940.68	NVA
2167_2018_OK	742144.21	2872422.36	850.75	NVA
2168_2018_OK	721623.16	2864320.44	816.64	NVA
2169_2018_OK	738733.54	2901675.52	826.52	NVA
2170_2018_OK	743947.98	2931568.35	799.79	NVA
2171_2018_OK	741000.39	2951837.47	924.92	NVA
3001_2018_OK	254636.79	2134111.10	1125.57	VVA
3002_2018_OK	259334.12	2173320.92	1131.20	VVA
3003_2018_OK	201675.37	2122148.25	1143.54	VVA
3004_2018_OK	43318.79	2210124.90	1115.76	VVA
3005_2018_OK	61214.46	2182781.48	1174.63	VVA
3006_2018_OK	85868.81	2188037.99	1064.96	VVA
3007_2018_OK	141553.68	2208036.79	1155.25	VVA
3008_2018_OK	163229.05	2165429.88	1291.21	VVA
3009_2018_OK	637715.09	2954189.44	965.29	VVA
3010_2018_OK	643182.65	2926977.43	779.43	VVA
3011_2018_OK	741044.84	2951906.47	923.27	VVA
3012_2018_OK	622719.21	2879804.29	776.63	VVA
3013_2018_OK	630842.34	2931641.90	1067.51	VVA
3014_2018_OK	713970.59	2944261.29	946.46	VVA
3014A_2018_OK	713836.48	2944379.95	953.93	VVA
3015_2018_KS	744012.12	2931594.86	801.31	VVA
3015A_2018_KS	744025.32	2931649.08	801.92	VVA
3016_2018_OK	732520.15	2841414.36	779.87	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
3016A_2018_OK	732724.43	2841522.87	780.89	VVA
3017_2018_OK	631175.63	2879785.68	830.27	VVA
3018_2018_OK	641182.29	2948125.81	1098.87	VVA
3019_2018_OK	54022.17	2188035.95	1178.51	VVA
3020_2018_OK	85374.68	2158968.76	1171.35	VVA
3021_2018_OK	101107.09	2125688.98	1161.66	VVA
3022_2018_OK	127069.56	2133824.85	1257.28	VVA
3023_2018_OK	117024.36	2211194.70	1131.85	VVA
3024_2018_OK	132815.88	2214837.72	1118.81	VVA
3025_2018_OK	159317.07	2179495.75	1256.52	VVA
3026_2018_OK	626172.91	1377308.72	2205.48	VVA
3027_2018_OK	662581.15	1365953.87	2181.93	VVA
3028_2018_OK	628127.35	944504.13	3085.92	VVA
3029_2018_OK	220984.55	2071312.28	1130.10	VVA
3030_2018_OK	702316.47	2876293.87	784.53	VVA
3031_2018_OK	738772.07	2901592.69	826.20	VVA
3031A_2018_OK	738776.18	2901730.50	826.71	VVA
3032_2018_OK	689192.50	2949989.29	922.44	VVA
3032A_2018_OK	689301.28	2949947.36	915.06	VVA
3033_2018_OK	594608.00	507649.94	4726.89	VVA
3034_2018_OK	605053.69	617182.10	4245.37	VVA
3036_2018_OK	665760.38	672917.81	4079.91	VVA
3037_2018_OK	679606.11	719807.86	3947.34	VVA
3038_2018_OK	741480.78	755070.35	3811.54	VVA
3039_2018_OK	744660.49	802528.98	3662.70	VVA
3040_2018_OK	727130.23	841606.33	3580.43	VVA
3041_2018_OK	733914.59	936683.24	3285.88	VVA
3042_2018_OK	723120.40	1002008.98	3103.12	VVA
3043_2018_OK	732354.80	1060641.37	2962.79	VVA
3044_2018_OK	716877.57	1133902.46	2782.12	VVA
3045_2018_OK	699657.99	1189915.60	2657.13	VVA
3046_2018_OK	716714.32	1342430.40	2104.69	VVA
3047_2018_OK	589729.39	1307181.57	2524.54	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
3048_2018_OK	562990.74	1358036.73	2530.42	VVA
3049_2018_OK	581409.55	1253989.17	2697.24	VVA
3050_2018_OK	569676.98	1201053.84	2865.30	VVA
3051_2018_OK	578566.64	1122065.69	2874.31	VVA
3052_2018_OK	601753.03	1096456.49	2721.28	VVA
3053_2018_OK	661513.00	1048149.93	2890.47	VVA
3054_2018_OK	679414.39	988011.85	3045.22	VVA
3055_2018_OK	642036.38	876225.27	3231.39	VVA
3056_2018_OK	622530.65	816832.46	3541.76	VVA
3057_2018_OK	623495.31	563896.78	4466.94	VVA
3058_2018_OK	645612.36	544149.35	4614.19	VVA
3059_2018_OK	630590.38	524310.73	4569.15	VVA
3060_2018_OK	609903.82	690568.35	3960.69	VVA
3061_2018_OK	580411.34	688941.89	3969.93	VVA
3062_2018_OK	588430.84	875569.87	3405.43	VVA
3063_2018_OK	571058.65	913281.65	3270.36	VVA
3064_2018_OK	572689.39	977375.11	3102.08	VVA
3065_2018_OK	623333.61	1068969.54	2677.38	VVA
3066_2018_OK	610343.38	1161779.01	2840.95	VVA
3067_2018_OK	639295.49	1250069.93	2432.72	VVA
3068_2018_OK	643994.76	1307998.49	2413.53	VVA
3068A_2018_OK	643750.06	1308008.52	2411.29	VVA
3069_2018_OK	687533.37	1261584.50	2589.90	VVA
3070_2018_OK	738829.83	1316179.29	2357.59	VVA
3071_2018_OK	700279.65	1365244.27	2130.91	VVA
3072_2018_OK	696148.11	1312918.87	2585.79	VVA
3073_2018_OK	731200.14	1275182.94	2272.50	VVA
3074_2018_OK	664909.19	1104948.48	2748.03	VVA
3075_2018_OK	662320.52	1278557.54	2322.72	VVA
3076_2018_OK	630752.90	1190738.68	2739.24	VVA
3077_2018_OK	665312.55	1129666.27	2727.24	VVA
3077A_2018_OK	665207.65	1129803.32	2726.58	VVA
3078_2018_OK	696431.00	1115008.76	2773.51	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
3079_2018_OK	718358.09	1090734.56	2863.53	VVA
3080_2018_OK	733099.12	1097676.17	2874.35	VVA
3080A_2018_OK	740594.42	1108809.64	2852.02	VVA
3081_2018_OK	702850.34	919689.58	3296.24	VVA
3082_2018_OK	676269.24	935823.03	3143.57	VVA
3083_2018_OK	697036.30	685281.31	4089.01	VVA
3084_2018_OK	661843.87	653765.81	4124.03	VVA
3085_2018_OK	582706.45	757836.33	3781.28	VVA
3086_2018_OK	583080.75	1021626.66	2968.29	VVA
3087_2018_OK	569748.47	1290870.61	2523.57	VVA
3088_2018_OK	719081.60	1247466.05	2514.05	VVA
3089_2018_OK	742708.16	1222208.44	2399.13	VVA
3090_2018_OK	711212.07	1165540.64	2729.23	VVA
3091_2018_OK	660416.94	932584.95	3111.92	VVA
3092_2018_OK	693228.88	1043487.84	2952.83	VVA
3093_2018_OK	681690.52	1077769.42	2845.41	VVA
3094_2018_OK	715436.62	743306.45	3906.51	VVA
3095_2018_OK	630966.07	744124.81	3828.29	VVA
3096_2018_OK	676209.36	798618.83	3651.30	VVA
3097_2018_OK	258890.96	2066653.16	1167.18	VVA
3098_2018_OK	224427.94	2170650.74	1160.55	VVA
3099_2018_OK	232772.80	2086546.74	1086.06	VVA
3100_2018_OK	37819.59	2153155.77	1093.70	VVA
3101_2018_OK	64335.13	2154930.32	1111.47	VVA
3102_2018_OK	87863.53	2114188.05	1127.05	VVA
3103_2018_OK	127014.05	2087532.06	1233.51	VVA
3104_2018_OK	173127.52	2069438.99	1241.01	VVA
3105_2018_OK	142812.09	2076192.63	1294.71	VVA
3106_2018_OK	195984.52	2147734.18	1157.53	VVA
3107_2018_OK	636137.30	2905990.24	905.63	VVA
3108_2018_OK	698821.51	2902590.31	820.52	VVA
3109_2018_OK	721654.13	2864297.28	817.01	VVA
3109A_2018_OK	736922.03	2851345.00	812.48	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
3110_2018_OK	669494.60	2852814.06	780.63	VVA
3111_2018_OK	682597.22	2893997.48	772.85	VVA
3111A_2018_OK	682877.76	2893957.82	774.03	VVA
3112_2018_OK	702516.81	2920849.41	777.54	VVA
3112A_2018_OK	711526.22	2917845.82	858.70	VVA
3113_2018_OK	723398.96	2914754.38	818.09	VVA
3113A_2018_OK	723344.04	2914485.49	823.55	VVA
3114_2018_OK	742084.05	2872404.77	851.88	VVA
3114A_2018_OK	742192.35	2872535.27	848.62	VVA
3115_2018_OK	654391.47	2879063.63	799.01	VVA
3115A_2018_OK	654356.03	2879198.38	798.32	VVA
3116_2018_OK	676088.94	2915121.81	824.45	VVA
3116A_2018_OK	676107.96	2914973.35	824.00	VVA

Geodetic Control

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
100_2018_OK	168164.33	2100194.29	1216.00	TSM
101_2018_OK	140723.06	2209519.61	1187.13	TSM
102_2018_OK	63601.87	2182857.24	1197.71	TSM
103_2018_OK	95811.28	2122301.21	1203.37	TSM
104_2018_OK	137252.94	2095133.49	1286.49	TSM
105_2018_OK	240920.40	2091675.95	1102.68	TSM
106_2018_OK	696597.27	2905803.25	865.68	TSM
107_2018_OK	737002.03	2851352.24	812.56	TSM
108_2018_OK	740337.31	2920354.33	832.15	TSM
150_2018_OK	225334.75	2150012.77	1063.18	TSM
151_2018_OK	623435.24	2934360.20	853.50	TSM
152_2018_OK	633627.67	2890819.98	866.23	TSM
175_2018_OK	690824.55	1127798.77	2740.79	TSM
176_2018_OK	603596.86	1138359.60	2899.19	TSM
177_2018_OK	612417.69	1228419.80	2685.65	TSM
178_2018_OK	703200.37	1254315.49	2682.75	TSM
179_2018_OK	704390.80	1363028.78	2241.99	TSM
180_2018_OK	597546.17	1307256.07	2627.22	TSM
191_2018_OK	586458.49	946294.32	3161.09	TSM
200_2018_OK	693539.66	646587.16	4211.38	TSM
201_2018_OK	634008.83	564741.51	4491.48	TSM
202_2018_OK	610216.16	690183.89	3961.38	TSM
203_2018_OK	599071.50	746566.21	3845.53	TSM
204_2018_OK	669342.86	724730.18	3941.32	TSM
205_2018_OK	725063.20	769916.63	3809.58	TSM
206_2018_OK	666067.05	789246.35	3684.03	TSM
207_2018_OK	627179.37	828147.71	3481.01	TSM
208_2018_OK	709998.71	872466.66	3453.02	TSM
209_2018_OK	717761.72	949301.46	3229.55	TSM
210_2018_OK	661469.17	907154.88	3287.41	TSM
211_2018_OK	716310.37	1060005.74	2928.14	TSM

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, North Zone (3501)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
212_2018_OK	689339.12	1025540.69	2989.20	TSM
213_2018_OK	654452.95	981533.86	3002.46	TSM
H 202	614950.78	632510.90	4198.75	GL1313

Coordinate System: Grid

HORIZONTAL DATUM: NAD83 2011 2010.00
 PROJECTION: Oklahoma State plane South (3502)
 VERTICAL DATUM: NAVD88
 GEOID MODEL: Geoid12B

Ground Control & Check Points

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
1001_2018_OK	1365528.51	645581.73	4070.66	GCP
1002_2018_OK	1344337.76	646294.31	3926.60	GCP
1003_2018_OK	1323156.21	646846.15	3957.48	GCP
1004_2018_OK	1302036.14	645817.41	4181.69	GCP
1005_2018_OK	1280768.89	644794.32	4175.36	GCP
1006_2018_OK	1259612.44	640858.23	4180.33	GCP
1007_2018_OK	1238884.06	632437.30	4139.59	GCP
1008_2018_OK	1217827.91	631539.08	4205.29	GCP
1009_2018_OK	1199909.57	630776.57	4155.06	GCP
1010_2018_OK	1182327.47	635197.05	4119.65	GCP
1011_2018_OK	1271814.03	786876.48	3692.93	GCP
1012_2018_OK	1352653.78	950661.09	3251.40	GCP
1013_2018_OK	1331102.12	948729.72	3243.48	GCP
1014_2018_OK	1308954.87	947985.18	3178.02	GCP
1015_2018_OK	1287129.54	945749.15	3175.48	GCP
1016_2018_OK	1265510.21	945003.40	3034.74	GCP
1017_2018_OK	1243736.66	946677.63	3048.80	GCP
1018_2018_OK	1222000.65	948615.36	3113.29	GCP
1019_2018_OK	1200343.69	947812.56	2995.62	GCP
1020_2018_OK	1186019.81	942026.96	3166.39	GCP
1021_2018_OK	1171604.79	941532.46	3210.91	GCP
1022_2018_OK	1207831.18	1101427.33	2698.31	GCP
1023_2018_OK	1350615.50	1239649.51	2349.66	GCP
1024_2018_OK	1328409.65	1238950.83	2465.96	GCP
1025_2018_OK	1306257.24	1233215.88	2510.35	GCP

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
1026_2018_OK	1283905.32	1232115.54	2418.73	GCP
1027_2018_OK	1261804.67	1228929.75	2540.69	GCP
1028_2018_OK	1239535.61	1228446.14	2694.49	GCP
1029_2018_OK	1217254.59	1227952.25	2679.24	GCP
1030_2018_OK	1195097.36	1227488.89	2672.09	GCP
1031_2018_OK	1176438.54	1227078.75	2809.32	GCP
1032_2018_OK	1161711.92	1224432.90	2819.31	GCP
1033_2018_OK	794128.74	2065876.83	1254.32	GCP
1034_2018_OK	792880.30	2085079.70	1301.23	GCP
1035_2018_OK	772934.32	2105387.84	1189.40	GCP
1036_2018_OK	750660.14	2125543.62	1280.08	GCP
1037_2018_OK	749073.45	2145499.15	1286.79	GCP
1038_2018_OK	750148.52	2165072.33	1248.65	GCP
1039_2018_OK	676258.98	2185508.39	1110.84	GCP
1040_2018_OK	692017.18	2205668.16	1081.82	GCP
1041_2018_OK	660495.59	2225563.85	1095.58	GCP
1042_2018_OK	1342631.79	2833733.96	805.39	GCP
1043_2018_OK	1302122.93	2855006.91	791.30	GCP
1044_2018_OK	1298726.05	2874998.77	773.93	GCP
1045_2018_OK	1302342.92	2894786.00	780.44	GCP
1046_2018_OK	1303101.87	2914787.51	819.67	GCP
1047_2018_OK	1303752.02	2934663.72	872.10	GCP
1048_2018_OK	1303555.89	2958413.10	1012.52	GCP
1049_2018_OK	1354437.80	646339.14	3998.41	GCP
1050_2018_OK	1333564.63	646653.32	3885.98	GCP
1051_2018_OK	1312218.31	647623.27	4034.65	GCP
1052_2018_OK	1290401.31	645288.52	4196.22	GCP
1053_2018_OK	1270769.82	645880.36	4178.70	GCP
1054_2018_OK	1254998.15	633044.30	4211.47	GCP
1055_2018_OK	1228569.17	632013.04	4193.36	GCP
1056_2018_OK	1210754.39	631234.77	4202.52	GCP
1056A_2018_OK	1210123.63	631206.90	4201.73	GCP
1057_2018_OK	1188749.94	630276.86	4163.59	GCP

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
1058_2018_OK	1319686.74	948350.18	3216.04	GCP
1059_2018_OK	1299957.42	947683.15	3183.34	GCP
1060_2018_OK	1275839.40	945360.42	3143.27	GCP
1061_2018_OK	1252324.43	944973.56	2994.94	GCP
1062_2018_OK	1234875.40	947236.59	3121.79	GCP
1063_2018_OK	1210122.26	948166.39	3116.78	GCP
1064_2018_OK	1339304.98	1239221.63	2498.42	GCP
1065_2018_OK	1317894.95	1238726.08	2518.90	GCP
1066_2018_OK	1295756.26	1232986.82	2475.99	GCP
1067_2018_OK	1272761.97	1230363.53	2443.92	GCP
1068_2018_OK	1251850.08	1228684.15	2573.82	GCP
1069_2018_OK	1228135.58	1228195.84	2650.16	GCP
1070_2018_OK	1204306.68	1228105.65	2711.09	GCP
1071_2018_OK	1187318.93	1227311.49	2753.65	GCP
1072_2018_OK	794304.57	2075566.48	1313.04	GCP
1073_2018_OK	772836.65	2097233.26	1205.40	GCP
1074_2018_OK	772522.62	2116042.68	1175.71	GCP
1075_2018_OK	748966.54	2135913.53	1282.45	GCP
1076_2018_OK	681361.10	2161765.88	1080.02	GCP
1077_2018_OK	680797.88	2196081.08	1137.68	GCP
1078_2018_OK	660430.93	2214470.31	1013.38	GCP
1079_2018_OK	1342873.97	2842131.93	790.47	GCP
1080_2018_OK	1297237.41	2868298.13	777.81	GCP
1081_2018_OK	1302163.16	2883545.92	785.00	GCP
1082_2018_OK	1302721.84	2904164.13	842.06	GCP
1083_2018_OK	1303443.62	2924329.83	847.94	GCP
1084_2018_OK	1304144.82	2946435.60	934.61	GCP
2001_2018_OK	1180310.55	1168971.89	2891.07	NVA
2002_2018_OK	775856.99	2086592.90	1212.65	NVA
2003_2018_OK	1291285.47	829762.20	3570.84	NVA
2004_2018_OK	1303050.87	934835.07	3238.55	NVA
2005_2018_OK	1255466.80	978600.69	2900.06	NVA
2006_2018_OK	1326015.44	1039068.93	2981.96	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2007_2018_OK	1331938.11	1307012.36	2214.80	NVA
2008_2018_OK	818075.34	2124560.19	1128.12	NVA
2009_2018_OK	1201329.99	831560.83	3456.80	NVA
2010_2018_OK	1229021.31	1296610.24	2548.53	NVA
2011_2018_OK	1318106.14	1275731.84	2445.37	NVA
2012_2018_OK	780918.50	2153347.92	1223.02	NVA
2013_2018_OK	1221486.93	726546.30	3875.96	NVA
2014_2018_OK	1199120.59	1354349.37	2417.60	NVA
2015_2018_OK	1330603.91	1274699.71	2328.20	NVA
2016A_2018_OK	1207143.89	901063.92	3293.29	NVA
2016B_2018_OK	1207116.41	901077.32	3293.19	NVA
2017_2018_OK	1272552.99	1061897.80	2870.07	NVA
2018_2018_OK	1267227.00	536161.77	4654.51	NVA
2019_2018_OK	1321881.82	855741.81	3511.22	NVA
2020_2018_OK	1296420.99	1382097.30	2181.72	NVA
2021_2018_OK	1201222.67	1235420.21	2737.03	NVA
2022_2018_OK	1228127.30	1127828.81	2724.97	NVA
2023_2018_OK	1298454.04	1077187.86	2865.48	NVA
2023A_2018_OK	1298426.10	1077296.56	2866.51	NVA
2024_2018_OK	1214081.04	594279.25	4344.19	NVA
2025_2018_OK	1213149.32	1048446.53	2851.22	NVA
2026_2018_OK	1297191.12	814165.77	3632.12	NVA
2027_2018_OK	1258551.53	1176190.04	2631.84	NVA
2028_2018_OK	1191506.36	1074230.93	2708.86	NVA
2029_2018_OK	1170013.42	1253344.37	2762.41	NVA
2030_2018_OK	1207931.69	721093.80	3808.79	NVA
2031A_2018_OK	1237453.18	2860492.60	780.95	NVA
2031B_2018_OK	1237433.06	2860504.96	780.89	NVA
2032_2018_OK	857503.79	2091882.20	1030.45	NVA
2033A_2018_OK	1310211.48	1225584.24	2592.44	NVA
2033B_2018_OK	1310208.38	1225684.25	2589.46	NVA
2034_2018_OK	1179672.17	987326.87	3095.00	NVA
2035A_2018_OK	1299671.75	1027053.76	2993.22	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2035B_2018_OK	1299668.26	1027098.62	2992.99	NVA
2036_2018_OK	1320525.64	763533.43	3799.25	NVA
2037_2018_OK	786600.77	2139819.00	1163.56	NVA
2038_2018_OK	1220974.21	1196479.00	2764.06	NVA
2039_2018_OK	745881.19	2113657.03	1284.58	NVA
2040_2018_OK	1254500.00	2853440.07	794.73	NVA
2041_2018_OK	1209452.38	694870.32	3961.63	NVA
2042_2018_OK	678635.62	2167080.46	1060.67	NVA
2043_2018_OK	1248071.26	722624.01	3943.21	NVA
2044_2018_OK	1234396.66	671020.68	4064.79	NVA
2045_2018_OK	1199293.40	884321.67	3361.70	NVA
2046_2018_OK	1256286.08	987214.27	2961.02	NVA
2047_2018_OK	1177174.46	1065838.28	2736.36	NVA
2048_2018_OK	1266999.17	849864.72	3457.60	NVA
2049_2018_OK	1300635.42	1188468.49	2624.08	NVA
2050_2018_OK	1305931.80	1101239.71	2805.00	NVA
2051_2018_OK	1198494.30	1047950.43	2844.40	NVA
2052A_2018_OK	698840.24	2138192.75	1171.87	NVA
2052B_2018_OK	698840.32	2138220.58	1172.83	NVA
2053_2018_OK	1186575.69	994823.35	3074.04	NVA
2054_2018_OK	1211571.02	974630.93	3056.45	NVA
2055_2018_OK	1176280.68	933797.26	3232.04	NVA
2056_2018_OK	1325132.68	1305001.36	2388.14	NVA
2057_2018_OK	1217830.27	577494.79	4412.98	NVA
2058_2018_OK	679230.94	2156493.21	1139.43	NVA
2059_2018_OK	1204579.12	630843.15	4165.34	NVA
2060_2018_OK	1316100.56	868015.23	3470.52	NVA
2061_2018_OK	1273371.40	697048.38	4008.51	NVA
2062_2018_OK	1285952.98	1098169.42	2790.92	NVA
2063_2018_OK	1301289.04	1162980.84	2690.64	NVA
2064_2018_OK	1246067.68	669556.43	4084.55	NVA
2065_2018_OK	1201765.97	1333226.35	2333.01	NVA
2065A_2018_OK	1201637.50	1333218.32	2331.28	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2066_2018_OK	1276434.70	1013479.63	2995.80	NVA
2067_2018_OK	1214243.24	1063089.49	2824.44	NVA
2068_2018_OK	1261461.14	545787.44	4586.06	NVA
2069_2018_OK	1270402.86	581415.31	4436.00	NVA
2070_2018_OK	1253608.81	1160380.52	2716.87	NVA
2071_2018_OK	1243837.53	595605.96	4340.99	NVA
2072_2018_OK	1203755.62	969123.45	3064.71	NVA
2073_2018_OK	1262209.29	902411.07	3239.21	NVA
2074_2018_OK	1205155.46	736513.22	3858.78	NVA
2075_2018_OK	850040.32	2108827.67	1071.49	NVA
2076_2018_OK	1296000.80	1326695.46	2532.35	NVA
2077A_2018_OK	1265573.12	647477.68	4154.78	NVA
2077B_2018_OK	1265573.99	647452.42	4154.92	NVA
2078_2018_OK	1287662.76	1276159.48	2523.16	NVA
2079_2018_OK	1331314.86	1349940.94	2089.02	NVA
2080_2018_OK	1303403.95	1349414.49	2294.57	NVA
2081_2018_OK	1331252.75	1071209.32	2924.54	NVA
2082A_2018_OK	1298576.57	1126311.11	2751.39	NVA
2082B_2018_OK	1298573.90	1126412.77	2750.94	NVA
2083_2018_OK	1330395.04	906444.34	3352.60	NVA
2084_2018_OK	1159373.25	1335754.08	2533.56	NVA
2085_2018_OK	1226149.67	620024.10	4249.54	NVA
2086_2018_OK	1223494.93	687135.36	3980.48	NVA
2087_2018_OK	1261675.71	770673.36	3796.34	NVA
2088A_2018_OK	836034.27	2084355.83	1079.36	NVA
2088B_2018_OK	836076.35	2084319.52	1079.62	NVA
2089_2018_OK	1235626.19	991089.13	3005.55	NVA
2090_2018_OK	1292545.23	1312352.66	2527.61	NVA
2091_2018_OK	1193590.02	1137655.42	2907.39	NVA
2092_2018_OK	1237300.54	1002196.88	2960.03	NVA
2093_2018_OK	1171286.53	1279406.48	2669.49	NVA
2094_2018_OK	1220421.97	885389.30	3371.70	NVA
2095_2018_OK	1344237.14	1382033.80	1978.18	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2096_2018_OK	1280826.30	1087429.61	2810.69	NVA
2097_2018_OK	1344581.25	1127476.39	2807.40	NVA
2098_2018_OK	1179524.38	1084432.01	2841.97	NVA
2099_2018_OK	1241087.49	827757.26	3504.66	NVA
2100_2018_OK	1306031.18	2885885.95	771.42	NVA
2101_2018_OK	1293785.01	1084992.17	2834.14	NVA
2102_2018_OK	1293011.70	663505.50	4117.93	NVA
2103_2018_OK	1248297.94	849154.98	3434.24	NVA
2104_2018_OK	1256544.35	1365291.62	2284.74	NVA
2105_2018_OK	1209167.18	1148621.47	2869.38	NVA
2106_2018_OK	1218564.06	842776.61	3334.32	NVA
2107_2018_OK	853166.62	2176236.78	1060.35	NVA
2108_2018_OK	1271099.42	805424.45	3603.57	NVA
2109_2018_OK	1345649.99	772013.85	3683.70	NVA
2110_2018_OK	1303351.50	1292238.59	2572.97	NVA
2111_2018_OK	1207589.42	1159157.53	2887.79	NVA
2112_2018_OK	1269294.47	1166102.31	2558.98	NVA
2112A_2018_OK	1269394.11	1166099.63	2558.70	NVA
2113_2018_OK	1342170.79	949096.73	3240.27	NVA
2114_2018_OK	1284976.75	608102.77	4307.68	NVA
2115_2018_OK	716675.67	2116011.93	1198.46	NVA
2116_2018_OK	1324383.59	990763.80	3125.45	NVA
2117_2018_OK	866884.07	2086404.69	1060.46	NVA
2118_2018_OK	840791.29	2139584.25	1050.90	NVA
2119_2018_OK	1190636.32	699032.80	3924.43	NVA
2120_2018_OK	1283296.01	897892.55	3317.16	NVA
2121_2018_OK	1215516.51	741889.26	3845.69	NVA
2122_2018_OK	1191823.75	680139.14	3989.61	NVA
2123_2018_OK	1312687.26	895256.06	3371.76	NVA
2124_2018_OK	1288180.75	775472.52	3746.79	NVA
2125_2018_OK	1286827.45	681933.01	4055.56	NVA
2126_2018_OK	1258721.09	723083.33	3953.12	NVA
2127_2018_OK	1193279.43	1244742.07	2769.65	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2128_2018_OK	1313392.05	1047758.90	2956.36	NVA
2129_2018_OK	1182779.67	783296.84	3686.93	NVA
2130_2018_OK	1208382.33	560144.50	4448.68	NVA
2131_2018_OK	1269357.02	602144.84	4308.45	NVA
2132_2018_OK	1265852.03	565049.83	4493.96	NVA
2133_2018_OK	1340965.45	1068436.78	2939.15	NVA
2134_2018_OK	1172033.97	1200554.14	2865.44	NVA
2135_2018_OK	1282273.89	2926169.55	838.44	NVA
2136_2018_OK	1313798.28	795051.29	3697.37	NVA
2137_2018_OK	1284273.74	1022050.09	2978.49	NVA
2138_2018_OK	1239033.65	1054290.52	2832.70	NVA
2139A_2018_OK	789620.26	2111158.94	1182.60	NVA
2139B_2018_OK	789589.69	2111158.79	1183.12	NVA
2140_2018_OK	1237039.35	1138786.04	2761.50	NVA
2141_2018_OK	1289024.41	619041.41	4292.32	NVA
2142_2018_OK	1232423.08	1339095.99	2442.41	NVA
2143_2018_OK	1262572.66	2936046.20	772.00	NVA
2144_2018_OK	1209126.91	530793.49	4594.79	NVA
2145_2018_OK	1205779.13	583363.50	4356.97	NVA
2146_2018_OK	1342138.27	1350660.42	2268.30	NVA
2147A_2018_OK	1292012.91	722981.40	3939.54	NVA
2147B_2018_OK	1291979.92	722980.05	3939.68	NVA
2148_2018_OK	1318264.42	1339168.01	2221.47	NVA
2149_2018_OK	1243735.39	2954979.07	955.17	NVA
2150_2018_OK	852659.94	2168375.24	1073.05	NVA
2151_2018_OK	1210117.97	1027187.03	2927.45	NVA
2152_2018_OK	1336716.19	753751.43	3833.97	NVA
2153_2018_OK	1317758.86	1140065.14	2744.97	NVA
2154_2018_OK	1174081.31	994449.50	3086.98	NVA
2155_2018_OK	1174458.61	1156414.28	2917.74	NVA
2156_2018_OK	1317777.16	2918649.26	858.25	NVA
2156A_2018_OK	1308610.09	2921554.37	774.60	NVA
2157_2018_OK	823537.83	2135672.88	1120.82	NVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
2158_2018_OK	1272991.17	758808.42	3852.35	NVA
2159_2018_OK	1182587.21	1142668.93	2921.06	NVA
2160_2018_OK	1207749.72	799985.09	3587.40	NVA
2161_2018_OK	769780.45	2165414.37	1291.95	NVA
2162_2018_OK	1283157.22	1378154.79	2152.86	NVA
2163_2018_OK	1247826.69	2868143.10	817.86	NVA
2164_2018_OK	1267302.94	2904476.28	794.62	NVA
2165A_2018_OK	1309368.63	2882070.15	791.09	NVA
2165B_2018_OK	1309278.32	2882072.29	790.97	NVA
2166_2018_OK	1291874.85	723009.12	3940.68	NVA
2167_2018_OK	1348362.78	2873137.93	850.75	NVA
2168_2018_OK	1327835.87	2865004.93	816.64	NVA
2169_2018_OK	1344913.27	2902409.54	826.52	NVA
2170_2018_OK	1350093.54	2932332.20	799.79	NVA
2171_2018_OK	1347117.09	2952613.17	924.92	NVA
3001_2018_OK	861157.96	2134135.39	1125.57	VVA
3002_2018_OK	865846.37	2173352.21	1131.20	VVA
3003_2018_OK	808193.18	2122160.02	1143.54	VVA
3004_2018_OK	649818.21	2210092.90	1115.76	VVA
3005_2018_OK	667719.90	2182758.17	1174.63	VVA
3006_2018_OK	692370.45	2188021.22	1064.96	VVA
3007_2018_OK	748047.01	2208036.06	1155.25	VVA
3008_2018_OK	769734.89	2165434.94	1291.21	VVA
3009_2018_OK	1243756.02	2954830.03	965.29	VVA
3010_2018_OK	1249262.59	2927607.78	779.43	VVA
3011_2018_OK	1347161.48	2952682.29	923.27	VVA
3012_2018_OK	1228845.45	2880379.25	776.63	VVA
3013_2018_OK	1236908.43	2932259.30	1067.51	VVA
3014_2018_OK	1320076.88	2944995.61	946.46	VVA
3014A_2018_OK	1319942.51	2945114.18	953.93	VVA
3015_2018_KS	1350157.71	2932358.81	801.31	VVA
3015A_2018_KS	1350170.84	2932413.10	801.92	VVA
3016_2018_OK	1338768.42	2842094.46	779.87	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
3016A_2018_OK	1338972.72	2842203.28	780.89	VVA
3017_2018_OK	1237307.17	2880370.96	830.27	VVA
3018_2018_OK	1247233.42	2948767.11	1098.87	VVA
3019_2018_OK	660526.93	2188009.98	1178.51	VVA
3020_2018_OK	691884.20	2158954.12	1171.35	VVA
3021_2018_OK	707623.18	2125680.17	1161.66	VVA
3022_2018_OK	733582.90	2133821.23	1257.28	VVA
3023_2018_OK	723517.18	2211186.11	1131.85	VVA
3024_2018_OK	739307.12	2214834.13	1118.81	VVA
3025_2018_OK	765819.03	2179500.07	1256.52	VVA
3026_2018_OK	1232624.06	1376930.67	2205.48	VVA
3027_2018_OK	1269047.16	1365539.15	2181.93	VVA
3028_2018_OK	1234110.61	943852.47	3085.92	VVA
3029_2018_OK	827512.69	2071322.80	1130.10	VVA
3030_2018_OK	1308500.40	2876963.75	784.53	VVA
3031_2018_OK	1344951.92	2902326.70	826.20	VVA
3031A_2018_OK	1344955.86	2902464.62	826.71	VVA
3032_2018_OK	1295273.40	2950695.11	922.44	VVA
3032A_2018_OK	1295382.31	2950653.30	915.06	VVA
3033_2018_OK	1199843.94	506798.84	4726.89	VVA
3034_2018_OK	1210501.85	616372.51	4245.37	VVA
3036_2018_OK	1271344.67	672034.51	4079.91	VVA
3037_2018_OK	1285279.77	718932.07	3947.34	VVA
3038_2018_OK	1347257.31	754117.39	3811.54	VVA
3039_2018_OK	1350515.53	801607.22	3662.70	VVA
3040_2018_OK	1333032.33	840741.24	3580.43	VVA
3041_2018_OK	1339960.04	935879.98	3285.88	VVA
3042_2018_OK	1329245.61	1001269.58	3103.12	VVA
3043_2018_OK	1338561.02	1059934.71	2962.79	VVA
3044_2018_OK	1323158.06	1133269.36	2782.12	VVA
3045_2018_OK	1305986.61	1189342.45	2657.13	VVA
3046_2018_OK	1323199.77	1341954.05	2104.69	VVA
3047_2018_OK	1196099.46	1306791.48	2524.54	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
3048_2018_OK	1169389.02	1357698.18	2530.42	VVA
3049_2018_OK	1187725.78	1253576.09	2697.24	VVA
3050_2018_OK	1175934.09	1200622.71	2865.30	VVA
3051_2018_OK	1184743.31	1121580.98	2874.31	VVA
3052_2018_OK	1207913.56	1095930.33	2721.28	VVA
3053_2018_OK	1267653.07	1047521.45	2890.47	VVA
3054_2018_OK	1285489.80	987319.63	3045.22	VVA
3055_2018_OK	1247931.37	875511.06	3231.39	VVA
3056_2018_OK	1228324.13	816110.81	3541.76	VVA
3057_2018_OK	1228855.71	563022.22	4466.94	VVA
3058_2018_OK	1250948.66	543220.87	4614.19	VVA
3059_2018_OK	1235879.37	523399.11	4569.15	VVA
3060_2018_OK	1215484.10	689792.42	3960.69	VVA
3061_2018_OK	1185972.30	688215.58	3969.93	VVA
3062_2018_OK	1194292.79	874933.82	3405.43	VVA
3063_2018_OK	1176965.28	912691.41	3270.36	VVA
3064_2018_OK	1178684.73	976817.49	3102.08	VVA
3065_2018_OK	1229474.54	1068401.11	2677.38	VVA
3066_2018_OK	1216582.59	1161282.25	2840.95	VVA
3067_2018_OK	1245643.19	1249598.83	2432.72	VVA
3068_2018_OK	1250399.16	1307560.78	2413.53	VVA
3068A_2018_OK	1250154.30	1307571.03	2411.29	VVA
3069_2018_OK	1293924.90	1261075.03	2589.90	VVA
3070_2018_OK	1345309.68	1315663.71	2357.59	VVA
3071_2018_OK	1306771.75	1364798.48	2130.91	VVA
3072_2018_OK	1302592.88	1312438.42	2585.79	VVA
3073_2018_OK	1337636.88	1274642.40	2272.50	VVA
3074_2018_OK	1271119.63	1104354.13	2748.03	VVA
3075_2018_OK	1268710.43	1278083.56	2322.72	VVA
3076_2018_OK	1237035.53	1190238.16	2739.24	VVA
3077_2018_OK	1271551.53	1129088.19	2727.24	VVA
3077A_2018_OK	1271446.72	1129225.45	2726.58	VVA
3078_2018_OK	1302675.03	1114385.03	2773.51	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
3079_2018_OK	1324589.91	1090067.49	2863.53	VVA
3080_2018_OK	1339350.28	1096996.99	2874.35	VVA
3080A_2018_OK	1346864.36	1108130.33	2852.02	VVA
3081_2018_OK	1308849.01	918917.25	3296.24	VVA
3082_2018_OK	1282271.86	935099.22	3143.57	VVA
3083_2018_OK	1302663.15	684352.15	4089.01	VVA
3084_2018_OK	1267392.03	652876.91	4124.03	VVA
3085_2018_OK	1188383.55	757143.72	3781.28	VVA
3086_2018_OK	1189139.30	1021080.10	2968.29	VVA
3087_2018_OK	1176092.54	1290489.16	2523.57	VVA
3088_2018_OK	1325482.70	1246915.90	2514.05	VVA
3089_2018_OK	1349102.48	1221615.49	2399.13	VVA
3090_2018_OK	1317523.22	1164937.32	2729.23	VVA
3091_2018_OK	1266404.40	931880.99	3111.92	VVA
3092_2018_OK	1299385.06	1042816.79	2952.83	VVA
3093_2018_OK	1287880.43	1077136.62	2845.41	VVA
3094_2018_OK	1321174.48	742387.52	3906.51	VVA
3095_2018_OK	1236648.79	743345.46	3828.29	VVA
3096_2018_OK	1282008.83	797801.84	3651.30	VVA
3097_2018_OK	865424.55	2066668.13	1167.18	VVA
3098_2018_OK	830936.41	2170672.29	1160.55	VVA
3099_2018_OK	839300.02	2086560.65	1086.06	VVA
3100_2018_OK	644335.72	2153130.02	1093.70	VVA
3101_2018_OK	670847.58	2154910.82	1111.47	VVA
3102_2018_OK	694382.77	2114177.34	1127.05	VVA
3103_2018_OK	733536.07	2087529.45	1233.51	VVA
3104_2018_OK	779652.55	2069442.92	1241.01	VVA
3105_2018_OK	749335.62	2076192.52	1294.71	VVA
3106_2018_OK	802496.28	2147746.55	1157.53	VVA
3107_2018_OK	1242239.45	2906598.23	905.63	VVA
3108_2018_OK	1304970.33	2903274.84	820.52	VVA
3109_2018_OK	1327866.89	2864981.79	817.01	VVA
3109A_2018_OK	1343161.93	2852037.94	812.48	VVA

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
3110_2018_OK	1275683.75	2853427.89	780.63	VVA
3111_2018_OK	1288745.31	2894655.63	772.85	VVA
3111A_2018_OK	1289026.09	2894616.29	774.03	VVA
3112_2018_OK	1308645.12	2921551.79	777.54	VVA
3112A_2018_OK	1317664.94	2918557.53	858.70	VVA
3113_2018_OK	1329550.45	2915478.95	818.09	VVA
3113A_2018_OK	1329495.82	2915209.79	823.55	VVA
3114_2018_OK	1348302.60	2873120.25	851.88	VVA
3114A_2018_OK	1348410.82	2873250.98	848.62	VVA
3115_2018_OK	1260538.84	2879676.85	799.01	VVA
3115A_2018_OK	1260503.22	2879811.64	798.32	VVA
3116_2018_OK	1282205.93	2915786.40	824.45	VVA
3116A_2018_OK	1282225.16	2915637.85	824.00	VVA

Geodetic Control

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
100_2018_OK	774684.46	2100198.56	1216.00	TSM
101_2018_OK	747215.93	2209518.61	1187.13	TSM
102_2018_OK	670107.03	2182834.60	1197.71	TSM
103_2018_OK	702328.38	2122291.51	1203.37	TSM
104_2018_OK	743773.57	2095132.43	1286.49	TSM
105_2018_OK	847447.80	2091691.79	1102.68	TSM
106_2018_OK	1302740.45	2906487.28	865.68	TSM
107_2018_OK	1343241.98	2852045.28	812.56	TSM
108_2018_OK	1346494.55	2921104.82	832.15	TSM
150_2018_OK	831848.55	2150032.34	1063.18	TSM
151_2018_OK	1229493.22	2934969.70	853.50	TSM
152_2018_OK	1239747.17	2891415.24	866.23	TSM
175_2018_OK	1297079.15	1127190.58	2740.79	TSM
176_2018_OK	1209806.31	1137856.20	2899.19	TSM
177_2018_OK	1218727.29	1227961.40	2685.65	TSM
178_2018_OK	1309596.26	1253785.78	2682.75	TSM
179_2018_OK	1310884.13	1362578.03	2241.99	TSM
180_2018_OK	1203920.90	1306859.09	2627.22	TSM
191_2018_OK	1192419.56	945700.89	3161.09	TSM
200_2018_OK	1299096.30	645637.29	4211.38	TSM
201_2018_OK	1239377.11	563847.65	4491.48	TSM
202_2018_OK	1215795.96	689407.20	3961.38	TSM
203_2018_OK	1204739.38	745840.63	3845.53	TSM
204_2018_OK	1275017.89	723874.89	3941.32	TSM
205_2018_OK	1330851.52	769001.48	3809.58	TSM
206_2018_OK	1271844.94	788439.10	3684.03	TSM
207_2018_OK	1232993.07	827425.79	3481.01	TSM
208_2018_OK	1315934.38	871649.93	3453.02	TSM
209_2018_OK	1323812.48	948529.98	3229.55	TSM
210_2018_OK	1267421.50	906432.61	3287.41	TSM
211_2018_OK	1322503.71	1059318.23	2928.14	TSM

Point No.	NAD83 (2011) Epoch: 2010.00 Oklahoma State Plane, South Zone (3502)		Ortho Height (NAVD88) (US Ft)	Description
	Northing (US Ft)	Easting (US Ft)		
212_2018_OK	1295469.99	1024861.82	2989.20	TSM
213_2018_OK	1260502.99	980870.28	3002.46	TSM
H 202	1220432.26	631692.32	4198.75	GL1313

Coordinate System: Geodetic

HORIZONTAL DATUM: NAD83 2011 2010.00

Ellipsoid: GRSS80

Ground Control & Check Points

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
1001_2018_OK	N37°00'10.05413"	W102°31'40.63671"	1217.087	GCP
1002_2018_OK	N36°56'41.22706"	W102°31'20.17823"	1173.127	GCP
1003_2018_OK	N36°53'12.40797"	W102°31'01.72926"	1182.510	GCP
1004_2018_OK	N36°49'43.48600"	W102°31'02.74811"	1250.860	GCP
1005_2018_OK	N36°46'13.10330"	W102°31'03.61521"	1248.914	GCP
1006_2018_OK	N36°42'42.51473"	W102°31'40.25891"	1250.428	GCP
1007_2018_OK	N36°39'14.14381"	W102°33'12.03576"	1238.028	GCP
1008_2018_OK	N36°35'45.87036"	W102°33'11.39602"	1258.002	GCP
1009_2018_OK	N36°32'48.62739"	W102°33'10.82967"	1242.633	GCP
1010_2018_OK	N36°29'57.00280"	W102°32'07.06674"	1231.734	GCP
1011_2018_OK	N36°45'44.13726"	W102°01'55.50881"	1100.700	GCP
1012_2018_OK	N37°00'02.53095"	W101°28'59.49163"	964.964	GCP
1013_2018_OK	N36°56'29.08015"	W101°29'14.09760"	962.489	GCP
1014_2018_OK	N36°52'50.14165"	W101°29'13.84076"	942.464	GCP
1015_2018_OK	N36°49'13.86112"	W101°29'32.04030"	941.624	GCP
1016_2018_OK	N36°45'40.11285"	W101°29'32.00958"	898.639	GCP
1017_2018_OK	N36°42'05.65699"	W101°29'02.23322"	902.841	GCP
1018_2018_OK	N36°38'31.64907"	W101°28'29.28707"	922.417	GCP
1019_2018_OK	N36°34'57.47842"	W101°28'29.98496"	886.484	GCP
1020_2018_OK	N36°32'34.02866"	W101°29'34.76662"	938.543	GCP
1021_2018_OK	N36°30'11.47889"	W101°29'34.71134"	952.084	GCP
1022_2018_OK	N36°36'59.76661"	W100°57'11.06897"	795.201	GCP
1023_2018_OK	N37°01'06.92709"	W100°29'40.35104"	689.109	GCP
1024_2018_OK	N36°57'27.44480"	W100°29'42.19457"	724.478	GCP
1025_2018_OK	N36°53'47.24400"	W100°30'45.98604"	737.932	GCP
1026_2018_OK	N36°50'06.19592"	W100°30'52.66848"	709.910	GCP
1027_2018_OK	N36°46'27.10372"	W100°31'25.02530"	747.022	GCP

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
1028_2018_OK	N36°42'47.00297"	W100°31'24.12645"	793.855	GCP
1029_2018_OK	N36°39'06.77054"	W100°31'23.35142"	789.142	GCP
1030_2018_OK	N36°35'27.75779"	W100°31'22.24131"	786.899	GCP
1031_2018_OK	N36°32'23.31190"	W100°31'21.55202"	828.673	GCP
1032_2018_OK	N36°29'57.15706"	W100°31'49.42605"	831.677	GCP
1033_2018_OK	N35°30'53.68579"	W97°40'22.18365"	355.317	GCP
1034_2018_OK	N35°30'40.66363"	W97°36'29.97707"	369.618	GCP
1035_2018_OK	N35°27'22.56585"	W97°32'25.45312"	335.587	GCP
1036_2018_OK	N35°23'41.31188"	W97°28'23.24211"	363.321	GCP
1037_2018_OK	N35°23'24.52466"	W97°24'22.33908"	365.360	GCP
1038_2018_OK	N35°23'33.95491"	W97°20'25.87068"	353.712	GCP
1039_2018_OK	N35°11'21.80830"	W97°16'25.48013"	312.062	GCP
1040_2018_OK	N35°13'56.15749"	W97°12'21.11087"	303.081	GCP
1041_2018_OK	N35°08'42.79163"	W97°08'24.53076"	307.400	GCP
1042_2018_OK	N36°59'11.68197"	W95°02'23.00560"	215.831	GCP
1043_2018_OK	N36°52'25.40304"	W94°58'16.11146"	211.735	GCP
1044_2018_OK	N36°51'45.86343"	W94°54'11.64886"	206.498	GCP
1045_2018_OK	N36°52'15.51965"	W94°50'07.06401"	208.513	GCP
1046_2018_OK	N36°52'16.75283"	W94°46'00.92126"	220.507	GCP
1047_2018_OK	N36°52'16.81814"	W94°41'56.36030"	236.524	GCP
1048_2018_OK	N36°52'07.11484"	W94°37'04.54396"	279.385	GCP
1049_2018_OK	N36°58'20.93089"	W102°31'25.19652"	1195.037	GCP
1050_2018_OK	N36°54'55.05581"	W102°31'09.82863"	1160.722	GCP
1051_2018_OK	N36°51'24.78910"	W102°30'46.16739"	1206.028	GCP
1052_2018_OK	N36°47'48.40535"	W102°31'02.84434"	1255.281	GCP
1053_2018_OK	N36°44'34.87803"	W102°30'44.80120"	1249.912	GCP
1054_2018_OK	N36°41'53.49133"	W102°33'13.51149"	1259.969	GCP
1055_2018_OK	N36°37'32.12395"	W102°33'11.52924"	1254.397	GCP
1056_2018_OK	N36°34'35.90058"	W102°33'11.21275"	1257.135	GCP
1056A_2018_OK	N36°34'29.66078"	W102°33'11.20544"	1256.892	GCP
1057_2018_OK	N36°30'58.22522"	W102°33'10.78086"	1245.196	GCP
1058_2018_OK	N36°54'36.23540"	W101°29'13.91330"	954.091	GCP
1059_2018_OK	N36°51'21.19353"	W101°29'13.73103"	944.057	GCP

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
1060_2018_OK	N36°47'22.23813"	W101°29'32.01537"	931.759	GCP
1061_2018_OK	N36°43'29.88615"	W101°29'26.77681"	886.459	GCP
1062_2018_OK	N36°40'38.33381"	W101°28'51.62840"	925.059	GCP
1063_2018_OK	N36°36'34.17924"	W101°28'29.77601"	923.443	GCP
1064_2018_OK	N36°59'15.11797"	W100°29'42.17689"	734.409	GCP
1065_2018_OK	N36°55'43.53938"	W100°29'41.76142"	740.578	GCP
1066_2018_OK	N36°52'03.46747"	W100°30'45.58771"	727.413	GCP
1067_2018_OK	N36°48'15.69339"	W100°31'10.77898"	717.551	GCP
1068_2018_OK	N36°44'48.70970"	W100°31'24.98440"	757.098	GCP
1069_2018_OK	N36°40'54.32358"	W100°31'23.70028"	780.311	GCP
1070_2018_OK	N36°36'58.89317"	W100°31'17.50418"	798.811	GCP
1071_2018_OK	N36°34'10.86582"	W100°31'22.03253"	811.738	GCP
1072_2018_OK	N35°30'55.09859"	W97°38'24.97636"	373.217	GCP
1073_2018_OK	N35°27'21.95618"	W97°34'04.02037"	340.466	GCP
1074_2018_OK	N35°27'17.99600"	W97°30'16.69580"	331.411	GCP
1075_2018_OK	N35°23'24.00994"	W97°26'18.11164"	364.044	GCP
1076_2018_OK	N35°12'13.86674"	W97°21'11.12791"	302.669	GCP
1077_2018_OK	N35°12'05.92823"	W97°14'17.69229"	320.194	GCP
1078_2018_OK	N35°08'43.06665"	W97°10'38.11533"	282.379	GCP
1079_2018_OK	N36°59'11.62898"	W95°00'39.54058"	211.285	GCP
1080_2018_OK	N36°51'33.18517"	W94°55'34.56110"	207.673	GCP
1081_2018_OK	N36°52'17.20458"	W94°52'25.29194"	209.877	GCP
1082_2018_OK	N36°52'16.34237"	W94°48'11.64608"	227.312	GCP
1083_2018_OK	N36°52'17.09319"	W94°44'03.49882"	229.136	GCP
1084_2018_OK	N36°52'16.87089"	W94°39'31.51361"	255.601	GCP
2001_2018_OK	N36°32'46.65283"	W100°43'14.23963"	853.763	NVA
2002_2018_OK	N35°27'52.25744"	W97°36'12.48401"	342.667	NVA
2003_2018_OK	N36°49'13.00827"	W101°53'18.42460"	1063.155	NVA
2004_2018_OK	N36°51'47.32729"	W101°31'52.93559"	961.002	NVA
2005_2018_OK	N36°44'12.22072"	W101°22'35.50879"	857.323	NVA
2006_2018_OK	N36°56'08.31433"	W101°10'40.75733"	882.236	NVA
2007_2018_OK	N36°58'18.13984"	W100°15'45.49108"	647.793	NVA
2008_2018_OK	N35°34'48.04424"	W97°28'30.88677"	316.679	NVA

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
2009_2018_OK	N36°34'25.42592"	W101°52'13.95470"	1028.010	NVA
2010_2018_OK	N36°41'19.19164"	W100°17'24.78930"	749.238	NVA
2011_2018_OK	N36°55'54.43216"	W100°22'06.54213"	718.105	NVA
2012_2018_OK	N35°28'38.98540"	W97°22'45.18465"	345.746	NVA
2013_2018_OK	N36°37'02.83485"	W102°13'49.88384"	1156.869	NVA
2014_2018_OK	N36°36'36.15954"	W100°05'28.88157"	709.133	NVA
2015_2018_OK	N36°57'57.63242"	W100°22'22.85633"	682.426	NVA
2016A_2018_OK	N36°35'48.37348"	W101°38'05.47218"	977.592	NVA
2016B_2018_OK	N36°35'48.10686"	W101°38'05.29592"	977.562	NVA
2017_2018_OK	N36°47'27.34486"	W101°05'39.75807"	847.876	NVA
2018_2018_OK	N36°43'09.45414"	W102°53'08.26906"	1395.937	NVA
2019_2018_OK	N36°54'24.87164"	W101°48'13.53106"	1044.855	NVA
2020_2018_OK	N36°52'42.98798"	W100°00'12.48203"	637.448	NVA
2021_2018_OK	N36°36'30.22146"	W100°29'46.92683"	806.693	NVA
2022_2018_OK	N36°40'27.77223"	W100°51'54.60182"	803.284	NVA
2023_2018_OK	N36°51'47.74128"	W101°02'41.59549"	846.474	NVA
2023A_2018_OK	N36°51'47.49770"	W101°02'40.24923"	846.789	NVA
2024_2018_OK	N36°34'52.04619"	W102°40'45.43523"	1300.658	NVA
2025_2018_OK	N36°37'36.51449"	W101°08'02.27844"	842.000	NVA
2026_2018_OK	N36°50'05.34032"	W101°56'32.79086"	1081.989	NVA
2027_2018_OK	N36°45'41.47862"	W100°42'11.52077"	774.872	NVA
2028_2018_OK	N36°34'10.52272"	W101°02'38.28746"	798.469	NVA
2029_2018_OK	N36°31'26.20214"	W100°25'58.05907"	814.306	NVA
2030_2018_OK	N36°34'46.72995"	W102°14'49.67834"	1136.377	NVA
2031A_2018_OK	N36°41'45.05544"	W94°57'32.63479"	208.795	NVA
2031B_2018_OK	N36°41'44.85301"	W94°57'32.49064"	208.777	NVA
2032_2018_OK	N35°41'19.43920"	W97°35'04.48548"	286.782	NVA
2033A_2018_OK	N36°54'24.41333"	W100°32'21.05997"	762.979	NVA
2033B_2018_OK	N36°54'24.40749"	W100°32'19.82894"	762.072	NVA
2034_2018_OK	N36°31'46.47672"	W101°20'17.66513"	916.510	NVA
2035A_2018_OK	N36°51'44.40704"	W101°12'58.22900"	885.652	NVA
2035B_2018_OK	N36°51'44.38666"	W101°12'57.67637"	885.581	NVA
2036_2018_OK	N36°53'35.74160"	W102°07'06.35020"	1133.380	NVA

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
2037_2018_OK	N35°29'35.97109"	W97°25'28.35430"	327.611	NVA
2038_2018_OK	N36°39'35.57710"	W100°37'50.41097"	815.082	NVA
2039_2018_OK	N35°22'54.64022"	W97°30'47.08323"	364.713	NVA
2040_2018_OK	N36°44'35.52130"	W94°58'52.88353"	212.937	NVA
2041_2018_OK	N36°34'50.72929"	W102°20'11.51316"	1183.190	NVA
2042_2018_OK	N35°11'46.56956"	W97°20'07.30483"	296.781	NVA
2043_2018_OK	N36°41'23.68623"	W102°14'51.63591"	1177.507	NVA
2044_2018_OK	N36°38'46.78699"	W102°25'16.86394"	1214.919	NVA
2045_2018_OK	N36°34'24.83788"	W101°41'27.01306"	998.549	NVA
2046_2018_OK	N36°44'23.14620"	W101°20'50.14938"	875.859	NVA
2047_2018_OK	N36°31'46.43408"	W101°04'15.72553"	806.853	NVA
2048_2018_OK	N36°45'20.78818"	W101°49'00.26028"	1028.357	NVA
2049_2018_OK	N36°52'40.37932"	W100°39'54.42593"	772.617	NVA
2050_2018_OK	N36°53'08.66286"	W100°57'48.67086"	827.974	NVA
2051_2018_OK	N36°35'11.60349"	W101°08'02.78002"	839.887	NVA
2052A_2018_OK	N35°15'08.14194"	W97°25'53.99401"	330.581	NVA
2052B_2018_OK	N35°15'08.14119"	W97°25'53.65851"	330.874	NVA
2053_2018_OK	N36°32'57.10812"	W101°18'48.68713"	910.091	NVA
2054_2018_OK	N36°36'57.37357"	W101°23'06.15001"	904.886	NVA
2055_2018_OK	N36°30'55.00898"	W101°31'11.34421"	958.585	NVA
2056_2018_OK	N36°57'10.47623"	W100°16'08.36251"	700.619	NVA
2057_2018_OK	N36°35'21.32435"	W102°44'13.03721"	1321.798	NVA
2058_2018_OK	N35°11'53.12853"	W97°22'14.82242"	320.798	NVA
2059_2018_OK	N36°33'34.75897"	W102°33'12.59419"	1245.784	NVA
2060_2018_OK	N36°53'32.33514"	W101°45'39.98612"	1032.326	NVA
2061_2018_OK	N36°45'22.72038"	W102°20'18.50230"	1197.673	NVA
2062_2018_OK	N36°49'50.45642"	W100°58'19.18437"	823.634	NVA
2063_2018_OK	N36°52'40.07826"	W100°45'07.99154"	792.942	NVA
2064_2018_OK	N36°40'41.37608"	W102°25'41.08044"	1220.989	NVA
2065_2018_OK	N36°36'57.89739"	W100°09'48.44595"	683.398	NVA
2065A_2018_OK	N36°36'56.62643"	W100°09'48.51057"	682.871	NVA
2066_2018_OK	N36°47'50.62501"	W101°15'35.82687"	886.426	NVA
2067_2018_OK	N36°37'51.77622"	W101°05'03.23962"	833.788	NVA

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
2068_2018_OK	N36°42'17.13010"	W102°51'06.85355"	1374.966	NVA
2069_2018_OK	N36°44'02.09632"	W102°43'55.23601"	1328.865	NVA
2070_2018_OK	N36°44'48.43140"	W100°45'23.94759"	800.806	NVA
2071_2018_OK	N36°39'46.40341"	W102°40'46.09322"	1299.740	NVA
2072_2018_OK	N36°35'38.35156"	W101°24'10.39872"	907.413	NVA
2073_2018_OK	N36°44'52.65617"	W101°38'13.28374"	961.317	NVA
2074_2018_OK	N36°34'25.68713"	W102°11'39.48547"	1151.469	NVA
2075_2018_OK	N35°40'04.90092"	W97°31'39.51581"	299.300	NVA
2076_2018_OK	N36°52'27.46064"	W100°11'33.58172"	744.462	NVA
2077A_2018_OK	N36°43'44.28299"	W102°30'22.36101"	1242.602	NVA
2077B_2018_OK	N36°43'44.28045"	W102°30'22.67130"	1242.642	NVA
2078_2018_OK	N36°50'53.82760"	W100°21'52.50497"	741.703	NVA
2079_2018_OK	N36°58'21.18131"	W100°06'56.87225"	609.343	NVA
2080_2018_OK	N36°53'45.37875"	W100°06'56.15072"	671.940	NVA
2081_2018_OK	N36°57'09.85639"	W101°04'07.33516"	864.616	NVA
2082A_2018_OK	N36°52'03.18701"	W100°52'37.84430"	811.531	NVA
2082B_2018_OK	N36°52'03.18922"	W100°52'36.59376"	811.394	NVA
2083_2018_OK	N36°56'07.37011"	W101°37'53.90753"	996.106	NVA
2084_2018_OK	N36°29'59.56426"	W100°09'06.38781"	744.384	NVA
2085_2018_OK	N36°37'02.87180"	W102°35'37.01777"	1271.608	NVA
2086_2018_OK	N36°37'06.08321"	W102°21'53.64513"	1189.056	NVA
2087_2018_OK	N36°43'57.60102"	W102°05'09.29951"	1132.341	NVA
2088A_2018_OK	N35°37'47.43572"	W97°36'36.71657"	301.810	NVA
2088B_2018_OK	N35°37'47.85317"	W97°36'37.15444"	301.889	NVA
2089_2018_OK	N36°41'00.36987"	W101°19'54.23008"	889.351	NVA
2090_2018_OK	N36°51'50.21432"	W100°14'28.98355"	743.032	NVA
2091_2018_OK	N36°34'49.33651"	W100°49'42.22724"	858.849	NVA
2092_2018_OK	N36°41'20.50862"	W101°17'38.68963"	875.429	NVA
2093_2018_OK	N36°31'44.87535"	W100°20'39.37178"	785.943	NVA
2094_2018_OK	N36°37'53.88826"	W101°41'23.40159"	1001.670	NVA
2095_2018_OK	N37°00'35.29203"	W100°00'24.95433"	575.495	NVA
2096_2018_OK	N36°48'56.68019"	W101°00'29.25618"	829.687	NVA
2097_2018_OK	N36°59'37.84887"	W100°52'39.64632"	828.793	NVA

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
2098_2018_OK	N36°32'15.18066"	W101°00'28.98464"	839.007	NVA
2099_2018_OK	N36°40'56.58905"	W101°53'19.28592"	1042.810	NVA
2100_2018_OK	N36°52'54.68643"	W94°51'55.05195"	205.725	NVA
2101_2018_OK	N36°51'03.94520"	W101°01'03.95727"	836.878	NVA
2102_2018_OK	N36°48'22.17103"	W102°27'20.65782"	1231.296	NVA
2103_2018_OK	N36°42'15.85825"	W101°49'00.28814"	1021.163	NVA
2104_2018_OK	N36°46'05.71585"	W100°03'29.12878"	668.785	NVA
2105_2018_OK	N36°37'26.23606"	W100°47'33.18435"	847.259	NVA
2106_2018_OK	N36°37'19.84849"	W101°50'04.65044"	990.639	NVA
2107_2018_OK	N35°40'31.94618"	W97°18'02.41475"	295.702	NVA
2108_2018_OK	N36°45'44.34317"	W101°58'07.55010"	1073.290	NVA
2109_2018_OK	N36°57'47.16813"	W102°05'34.64671"	1098.108	NVA
2110_2018_OK	N36°53'32.47535"	W100°18'39.29333"	756.926	NVA
2111_2018_OK	N36°37'13.51150"	W100°45'23.52979"	852.844	NVA
2112_2018_OK	N36°47'24.90623"	W100°44'18.94159"	752.692	NVA
2112A_2018_OK	N36°47'25.88968"	W100°44'19.00769"	752.608	NVA
2113_2018_OK	N36°58'18.49418"	W101°29'14.28876"	961.547	NVA
2114_2018_OK	N36°46'38.19263"	W102°38'36.17288"	1289.535	NVA
2115_2018_OK	N35°18'05.68987"	W97°30'20.37318"	338.588	NVA
2116_2018_OK	N36°55'36.78782"	W101°20'34.27658"	926.230	NVA
2117_2018_OK	N35°42'52.41161"	W97°36'10.43034"	295.903	NVA
2118_2018_OK	N35°38'31.86379"	W97°25'27.45560"	292.986	NVA
2119_2018_OK	N36°31'46.70592"	W102°19'10.69023"	1171.731	NVA
2120_2018_OK	N36°48'19.26892"	W101°39'18.10352"	985.199	NVA
2121_2018_OK	N36°36'10.19650"	W102°10'38.92337"	1147.479	NVA
2122_2018_OK	N36°31'50.38268"	W102°23'02.47584"	1191.763	NVA
2123_2018_OK	N36°53'08.53550"	W101°40'03.59773"	1001.974	NVA
2124_2018_OK	N36°48'21.20507"	W102°04'23.55675"	1117.261	NVA
2125_2018_OK	N36°47'29.10072"	W102°23'31.13400"	1212.147	NVA
2126_2018_OK	N36°43'09.02294"	W102°14'51.50215"	1180.554	NVA
2127_2018_OK	N36°35'14.00860"	W100°27'50.31798"	816.599	NVA
2128_2018_OK	N36°54'06.34666"	W101°08'49.01570"	874.358	NVA
2129_2018_OK	N36°31'03.56641"	W102°01'55.76898"	1098.535	NVA

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
2130_2018_OK	N36°33'39.96409"	W102°47'39.92791"	1332.814	NVA
2131_2018_OK	N36°44'01.30047"	W102°39'40.42175"	1289.799	NVA
2132_2018_OK	N36°43'09.55467"	W102°47'13.27765"	1346.685	NVA
2133_2018_OK	N36°58'44.93470"	W101°04'45.09591"	869.114	NVA
2134_2018_OK	N36°31'33.12792"	W100°36'44.90912"	845.843	NVA
2135_2018_OK	N36°48'47.44485"	W94°43'49.31777"	226.344	NVA
2136_2018_OK	N36°52'41.86224"	W102°00'35.66975"	1102.081	NVA
2137_2018_OK	N36°49'10.76416"	W101°13'53.66341"	881.142	NVA
2138_2018_OK	N36°41'53.97074"	W101°07'00.45909"	836.414	NVA
2139A_2018_OK	N35°30'07.31197"	W97°31'14.74203"	333.441	NVA
2139B_2018_OK	N35°30'07.00967"	W97°31'14.74570"	333.599	NVA
2140_2018_OK	N36°41'58.85849"	W100°49'43.29648"	814.413	NVA
2141_2018_OK	N36°47'23.09667"	W102°36'24.21753"	1284.768	NVA
2142_2018_OK	N36°42'02.02344"	W100°08'44.49426"	716.840	NVA
2143_2018_OK	N36°45'29.70284"	W94°41'55.92658"	206.208	NVA
2144_2018_OK	N36°33'33.39841"	W102°53'39.51995"	1377.668	NVA
2145_2018_OK	N36°33'25.07057"	W102°42'54.29844"	1304.628	NVA
2146_2018_OK	N37°00'08.23481"	W100°06'50.80620"	664.021	NVA
2147A_2018_OK	N36°48'37.65364"	W102°15'09.96380"	1176.477	NVA
2147B_2018_OK	N36°48'37.32748"	W102°15'09.96328"	1176.520	NVA
2148_2018_OK	N36°56'10.02711"	W100°09'06.06416"	649.712	NVA
2149_2018_OK	N36°42'17.48819"	W94°38'11.25740"	262.181	NVA
2150_2018_OK	N35°40'27.46435"	W97°19'37.72763"	299.598	NVA
2151_2018_OK	N36°36'59.97535"	W101°12'21.62233"	865.313	NVA
2152_2018_OK	N36°56'11.61032"	W102°09'14.77001"	1144.049	NVA
2153_2018_OK	N36°55'16.47763"	W100°49'55.39411"	809.618	NVA
2154_2018_OK	N36°30'53.57031"	W101°18'48.24116"	914.026	NVA
2155_2018_OK	N36°31'45.46859"	W100°45'46.03286"	861.918	NVA
2156_2018_OK	N36°54'40.44790"	W94°45'07.64967"	232.203	NVA
2156A_2018_OK	N36°53'08.99861"	W94°44'35.56315"	206.753	NVA
2157_2018_OK	N35°35'41.46966"	W97°26'16.00171"	314.394	NVA
2158_2018_OK	N36°45'44.55219"	W102°07'40.51859"	1149.554	NVA
2159_2018_OK	N36°33'02.02360"	W100°48'37.06403"	862.985	NVA

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
2160_2018_OK	N36°35'16.69253"	W101°58'43.64102"	1068.156	NVA
2161_2018_OK	N35°26'48.08096"	W97°20'20.18699"	366.802	NVA
2162_2018_OK	N36°50'31.18651"	W100°00'57.70234"	628.625	NVA
2163_2018_OK	N36°43'25.22909"	W94°55'54.92981"	220.036	NVA
2164_2018_OK	N36°46'26.45430"	W94°48'21.58938"	212.991	NVA
2165A_2018_OK	N36°53'28.81358"	W94°52'40.69149"	211.697	NVA
2165B_2018_OK	N36°53'27.92113"	W94°52'40.69960"	211.661	NVA
2166_2018_OK	N36°48'36.30230"	W102°15'09.55194"	1176.825	NVA
2167_2018_OK	N36°59'56.59897"	W94°54'15.80460"	229.670	NVA
2168_2018_OK	N36°56'36.35021"	W94°56'03.61026"	219.363	NVA
2169_2018_OK	N36°59'13.52687"	W94°48'16.79070"	222.352	NVA
2170_2018_OK	N36°59'55.17099"	W94°42'06.39948"	214.219	NVA
2171_2018_OK	N36°59'19.16776"	W94°37'57.96112"	252.423	NVA
3001_2018_OK	N35°41'53.55843"	W97°26'32.09931"	315.672	VVA
3002_2018_OK	N35°42'37.52146"	W97°18'36.32184"	317.254	VVA
3003_2018_OK	N35°33'10.44356"	W97°29'00.55247"	321.431	VVA
3004_2018_OK	N35°06'58.45259"	W97°11'31.84693"	313.665	VVA
3005_2018_OK	N35°09'57.54885"	W97°16'59.34428"	331.563	VVA
3006_2018_OK	N35°14'00.97338"	W97°15'53.79302"	297.976	VVA
3007_2018_OK	N35°23'10.09290"	W97°11'47.19233"	325.166	VVA
3008_2018_OK	N35°26'47.62903"	W97°20'19.94194"	366.577	VVA
3009_2018_OK	N36°42'17.74109"	W94°38'13.07714"	265.265	VVA
3010_2018_OK	N36°43'20.96364"	W94°43'44.79591"	208.490	VVA
3011_2018_OK	N36°59'19.58330"	W94°37'57.09213"	251.921	VVA
3012_2018_OK	N36°40'14.04959"	W94°53'31.97136"	207.558	VVA
3013_2018_OK	N36°41'17.45501"	W94°42'52.66321"	296.359	VVA
3014_2018_OK	N36°54'54.66668"	W94°39'42.73422"	259.131	VVA
3014A_2018_OK	N36°54'53.30114"	W94°39'41.33072"	261.409	VVA
3015_2018_KS	N36°59'55.79594"	W94°42'06.04604"	214.681	VVA
3015A_2018_KS	N36°59'55.90809"	W94°42'05.37247"	214.868	VVA
3016_2018_OK	N36°58'31.09733"	W95°00'41.49849"	208.072	VVA
3016A_2018_OK	N36°58'33.08301"	W95°00'40.08456"	208.381	VVA
3017_2018_OK	N36°41'37.63052"	W94°53'28.87668"	223.881	VVA

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
3018_2018_OK	N36°42'54.07444"	W94°39'26.03013"	305.951	VVA
3019_2018_OK	N35°08'46.03450"	W97°15'56.72062"	332.779	VVA
3020_2018_OK	N35°13'58.11920"	W97°21'44.20794"	330.450	VVA
3021_2018_OK	N35°16'35.67717"	W97°28'24.30453"	327.420	VVA
3022_2018_OK	N35°20'51.98515"	W97°26'44.40055"	356.441	VVA
3023_2018_OK	N35°19'07.25387"	W97°11'11.53901"	318.164	VVA
3024_2018_OK	N35°21'43.11721"	W97°10'25.96146"	314.093	VVA
3025_2018_OK	N35°26'07.96044"	W97°17'30.29522"	355.999	VVA
3026_2018_OK	N36°42'11.71719"	W100°01'00.33691"	644.530	VVA
3027_2018_OK	N36°48'09.28124"	W100°03'29.22000"	637.478	VVA
3028_2018_OK	N36°40'29.62572"	W101°29'32.79636"	914.148	VVA
3029_2018_OK	N35°36'23.63831"	W97°39'14.92924"	317.338	VVA
3030_2018_OK	N36°53'21.79526"	W94°53'43.80226"	209.690	VVA
3031_2018_OK	N36°59'13.93451"	W94°48'17.79538"	222.253	VVA
3031A_2018_OK	N36°59'13.93027"	W94°48'16.09611"	222.408	VVA
3032_2018_OK	N36°50'47.86986"	W94°38'42.78580"	251.946	VVA
3032A_2018_OK	N36°50'48.95905"	W94°38'43.25511"	249.695	VVA
3033_2018_OK	N36°31'50.17694"	W102°58'27.50769"	1418.158	VVA
3034_2018_OK	N36°34'26.74761"	W102°36'12.99122"	1270.317	VVA
3036_2018_OK	N36°44'51.98831"	W102°25'24.29262"	1219.613	VVA
3037_2018_OK	N36°47'29.49530"	W102°15'56.18370"	1178.878	VVA
3038_2018_OK	N36°57'55.81347"	W102°09'15.60764"	1137.217	VVA
3039_2018_OK	N36°58'46.90484"	W101°59'32.95976"	1091.517	VVA
3040_2018_OK	N36°56'09.33635"	W101°51'23.18864"	1066.104	VVA
3041_2018_OK	N36°57'52.12703"	W101°31'55.97314"	975.555	VVA
3042_2018_OK	N36°56'28.21609"	W101°18'27.02133"	919.379	VVA
3043_2018_OK	N36°58'18.61763"	W101°06'28.82918"	876.346	VVA
3044_2018_OK	N36°56'07.90829"	W100°51'20.86346"	820.982	VVA
3045_2018_OK	N36°53'33.45975"	W100°39'45.41691"	782.717	VVA
3046_2018_OK	N36°56'59.36140"	W100°08'33.07192"	614.119	VVA
3047_2018_OK	N36°35'56.19686"	W100°15'10.88124"	741.807	VVA
3048_2018_OK	N36°31'43.07414"	W100°04'40.33827"	743.417	VVA
3049_2018_OK	N36°34'21.25728"	W100°26'00.45064"	794.498	VVA

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
3050_2018_OK	N36°32'11.67782"	W100°36'45.30568"	845.815	VVA
3051_2018_OK	N36°33'17.44789"	W100°52'56.02289"	848.787	VVA
3052_2018_OK	N36°36'58.98629"	W100°58'18.45795"	802.218	VVA
3053_2018_OK	N36°46'34.56318"	W101°08'34.41832"	854.151	VVA
3054_2018_OK	N36°49'11.58747"	W101°21'00.75465"	901.644	VVA
3055_2018_OK	N36°42'21.96812"	W101°43'36.89106"	959.087	VVA
3056_2018_OK	N36°38'46.10078"	W101°55'35.97862"	1054.176	VVA
3057_2018_OK	N36°37'03.41704"	W102°47'16.60577"	1338.418	VVA
3058_2018_OK	N36°40'32.14788"	W102°51'32.10722"	1383.563	VVA
3059_2018_OK	N36°37'53.91735"	W102°55'25.97742"	1370.032	VVA
3060_2018_OK	N36°35'48.12375"	W102°21'16.86612"	1182.970	VVA
3061_2018_OK	N36°30'56.06044"	W102°21'20.57117"	1185.667	VVA
3062_2018_OK	N36°33'32.04505"	W101°43'19.70205"	1011.939	VVA
3063_2018_OK	N36°30'54.42443"	W101°35'29.89636"	970.416	VVA
3064_2018_OK	N36°31'33.27051"	W101°22'25.88730"	918.717	VVA
3065_2018_OK	N36°40'23.82386"	W101°04'03.81711"	788.982	VVA
3066_2018_OK	N36°38'42.92440"	W100°45'00.49447"	838.575	VVA
3067_2018_OK	N36°43'52.48795"	W100°27'06.40236"	714.033	VVA
3068_2018_OK	N36°44'52.82192"	W100°15'16.31791"	708.119	VVA
3068A_2018_OK	N36°44'50.40525"	W100°15'16.12496"	707.435	VVA
3069_2018_OK	N36°51'52.15367"	W100°24'59.74496"	762.094	VVA
3070_2018_OK	N37°00'32.11236"	W100°14'02.63786"	691.340	VVA
3071_2018_OK	N36°54'21.79179"	W100°03'47.79297"	622.023	VVA
3072_2018_OK	N36°53'29.48240"	W100°14'30.67300"	760.799	VVA
3073_2018_OK	N36°59'07.08166"	W100°22'25.59787"	665.465	VVA
3074_2018_OK	N36°47'25.74524"	W100°56'57.87111"	810.491	VVA
3075_2018_OK	N36°47'47.05978"	W100°21'23.41749"	680.527	VVA
3076_2018_OK	N36°42'12.62555"	W100°39'12.11035"	807.558	VVA
3077_2018_OK	N36°47'37.04915"	W100°51'54.27670"	804.057	VVA
3077A_2018_OK	N36°47'36.05239"	W100°51'52.55448"	803.856	VVA
3078_2018_OK	N36°52'40.28228"	W100°55'05.89549"	818.326	VVA
3079_2018_OK	N36°56'09.66243"	W101°00'12.85391"	845.921	VVA
3080_2018_OK	N36°58'37.45424"	W100°58'52.97141"	849.252	VVA

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
3080A_2018_OK	N36°59'54.88407"	W100°56'38.63559"	842.448	VVA
3081_2018_OK	N36°52'39.03555"	W101°35'11.07628"	978.743	VVA
3082_2018_OK	N36°48'22.23368"	W101°31'40.76110"	931.960	VVA
3083_2018_OK	N36°50'06.46190"	W102°23'09.89258"	1222.345	VVA
3084_2018_OK	N36°44'04.61500"	W102°29'17.13759"	1233.193	VVA
3085_2018_OK	N36°31'48.46834"	W102°07'18.52819"	1127.565	VVA
3086_2018_OK	N36°33'30.83317"	W101°13'28.23571"	877.750	VVA
3087_2018_OK	N36°32'34.88407"	W100°18'25.03406"	741.464	VVA
3088_2018_OK	N36°57'00.47051"	W100°28'03.28728"	739.114	VVA
3089_2018_OK	N37°00'47.52781"	W100°33'21.98688"	704.213	VVA
3090_2018_OK	N36°55'20.94047"	W100°44'49.37131"	804.775	VVA
3091_2018_OK	N36°45'44.42927"	W101°32'13.45085"	922.274	VVA
3092_2018_OK	N36°51'46.49581"	W101°09'44.38732"	873.268	VVA
3093_2018_OK	N36°50'03.30047"	W101°02'38.30511"	840.329	VVA
3094_2018_OK	N36°53'33.55022"	W102°11'26.57217"	1166.251	VVA
3095_2018_OK	N36°39'39.44900"	W102°10'31.80137"	1142.242	VVA
3096_2018_OK	N36°47'29.08594"	W101°59'46.39381"	1087.939	VVA
3097_2018_OK	N35°42'38.68307"	W97°40'09.78814"	328.502	VVA
3098_2018_OK	N35°36'52.50154"	W97°19'11.66452"	326.386	VVA
3099_2018_OK	N35°38'19.64426"	W97°36'09.85563"	303.835	VVA
3100_2018_OK	N35°06'08.20495"	W97°22'57.91644"	307.066	VVA
3101_2018_OK	N35°10'30.31157"	W97°22'34.51274"	312.329	VVA
3102_2018_OK	N35°14'25.29952"	W97°30'43.80563"	316.930	VVA
3103_2018_OK	N35°20'53.68418"	W97°36'03.18577"	349.169	VVA
3104_2018_OK	N35°28'30.41089"	W97°39'39.63848"	351.300	VVA
3105_2018_OK	N35°23'30.36009"	W97°38'19.35102"	367.760	VVA
3106_2018_OK	N35°32'12.70502"	W97°23'51.34689"	325.674	VVA
3107_2018_OK	N36°42'18.25083"	W94°48'05.29209"	246.917	VVA
3108_2018_OK	N36°52'38.82515"	W94°48'21.70198"	220.736	VVA
3109_2018_OK	N36°56'36.66346"	W94°56'03.88333"	219.477	VVA
3109A_2018_OK	N36°59'11.55859"	W94°58'37.49527"	218.000	VVA
3110_2018_OK	N36°48'04.75186"	W94°58'45.25045"	208.580	VVA
3111_2018_OK	N36°50'01.27460"	W94°50'13.90509"	206.254	VVA

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
3111A_2018_OK	N36°50'04.05978"	W94°50'14.28024"	206.613	VVA
3112_2018_OK	N36°53'09.34532"	W94°44'35.58097"	207.648	VVA
3112A_2018_OK	N36°54'39.36891"	W94°45'08.82207"	232.339	VVA
3113_2018_OK	N36°56'37.71246"	W94°45'41.98973"	219.894	VVA
3113A_2018_OK	N36°56'37.25838"	W94°45'45.32256"	221.559	VVA
3114_2018_OK	N36°59'56.01008"	W94°54'16.04496"	230.014	VVA
3114A_2018_OK	N36°59'57.03910"	W94°54'14.39462"	229.021	VVA
3115_2018_OK	N36°45'27.29831"	W94°53'28.61190"	214.284	VVA
3115A_2018_OK	N36°45'26.90548"	W94°53'26.97087"	214.073	VVA
3116_2018_OK	N36°48'50.07837"	W94°45'56.87570"	222.054	VVA
3116A_2018_OK	N36°48'50.31523"	W94°45'58.69262"	221.917	VVA

Geodetic Control

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
100_2018_OK	N35°27'40.10283"	W97°33'28.08187"	343.689	TSM
101_2018_OK	N35°23'01.75690"	W97°11'29.36908"	334.885	TSM
102_2018_OK	N35°10'21.15293"	W97°16'58.21950"	338.583	TSM
103_2018_OK	N35°15'43.48408"	W97°29'05.49910"	340.159	TSM
104_2018_OK	N35°22'34.62388"	W97°34'30.89068"	365.291	TSM
105_2018_OK	N35°39'40.00957"	W97°35'07.29409"	308.852	TSM
106_2018_OK	N36°52'15.79847"	W94°47'43.08407"	234.516	TSM
107_2018_OK	N36°59'12.34694"	W94°58'37.37539"	218.024	TSM
108_2018_OK	N36°59'23.23658"	W94°44'26.04574"	224.088	TSM
150_2018_OK	N35°37'02.82626"	W97°23'21.54397"	296.744	TSM
151_2018_OK	N36°40'03.34441"	W94°42'22.39290"	231.158	TSM
152_2018_OK	N36°41'58.34962"	W94°51'12.48768"	234.868	TSM
175_2018_OK	N36°51'48.64540"	W100°52'26.50951"	808.290	TSM
176_2018_OK	N36°37'29.58749"	W100°49'45.33685"	856.366	TSM
177_2018_OK	N36°39'21.32166"	W100°31'23.69066"	791.102	TSM
178_2018_OK	N36°54'25.21208"	W100°26'34.01465"	790.480	TSM
179_2018_OK	N36°55'01.96428"	W100°04'16.14331"	655.897	TSM
180_2018_OK	N36°37'13.48788"	W100°15'12.19262"	773.131	TSM
191_2018_OK	N36°33'38.49341"	W101°28'52.49782"	936.917	TSM
200_2018_OK	N36°49'14.38763"	W102°31'03.34304"	1259.907	TSM
201_2018_OK	N36°38'47.66266"	W102°47'12.61244"	1345.912	TSM
202_2018_OK	N36°35'51.03866"	W102°21'21.74792"	1183.185	TSM
203_2018_OK	N36°34'25.39330"	W102°09'45.08672"	1147.342	TSM
204_2018_OK	N36°45'50.24527"	W102°14'50.20915"	1176.988	TSM
205_2018_OK	N36°55'19.87612"	W102°06'04.30268"	1136.490	TSM
206_2018_OK	N36°45'45.05864"	W102°01'36.34842"	1097.973	TSM
207_2018_OK	N36°39'36.53309"	W101°53'19.52470"	1035.568	TSM
208_2018_OK	N36°53'32.02998"	W101°44'55.23133"	1026.961	TSM
209_2018_OK	N36°55'17.03456"	W101°29'13.45571"	958.220	TSM
210_2018_OK	N36°45'45.55537"	W101°37'26.23256"	975.996	TSM
211_2018_OK	N36°55'39.86454"	W101°06'30.32878"	865.732	TSM

Point No.	NAD83 (2011) Epoch: 2010.00		Ellipsoid Height (M)	Description
	Latitude (N)	Longitude (W)		
212_2018_OK	N36°51'02.22210"	W101°13'23.51845"	884.427	TSM
213_2018_OK	N36°45'02.70691"	W101°22'09.72350"	888.542	TSM
H 202	N36°36'11.65018"	W102°33'10.95908"	1256.016	GL1313

Section 3: Ground / Geodetic Control Photos

This section contains the station recovery information sheets and photographs regarding the ground control positions established for the project. The stations appear as they are ordered in the final coordinate listing of Section 2.

The data is assembled on the following pages.



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1001_2018_OK	Northing (M) 4098039.124	Easting (M) 719963.806	Elevation (M) 1240.739
Point Type GCP	Latitude (N) N37°00'10.05413"	Longitude (W) W102°31'40.63671"	Ellipsoid Height (M) 1217.087
Location Photo  NORTH			
 1001_2018_OK, 3NW, 20181023		 1001_2018_OK, 3NE, 20181023	

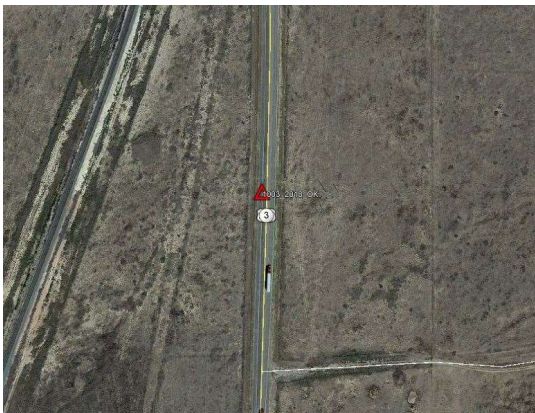


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1002_2018_OK	Northing (M) 4091615.668	Easting (M) 720637.079	Elevation (M) 1196.829
Point Type GCP	Latitude (N) N36°56'41.22706"	Longitude (W) W102°31'20.17823"	Ellipsoid Height (M) 1173.127
Location Photo  NORTH			
			
1002_2018_OK, 3W, 20181023		1002_2018_OK, 3N, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1003_2018_OK	Northing (M) 4085191.229	Easting (M) 721261.137	Elevation (M) 1206.242
Point Type GCP	Latitude (N) N36°53'12.40797"	Longitude (W) W102°31'01.72926"	Ellipsoid Height (M) 1182.510
Location Photo  NORTH			
 1003_2018_OK, 3W, 20181023		 1003_2018_OK, 3N, 20181023	

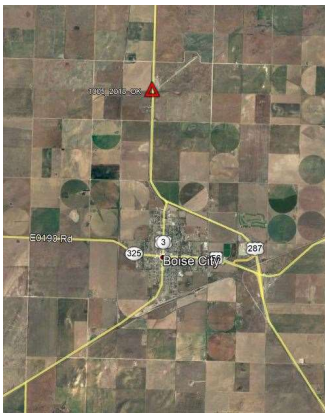


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1004_2018_OK	Northing (M) 4078751.130	Easting (M) 721403.378	Elevation (M) 1274.583
Point Type GCP	Latitude (N) N36°49'43.48600"	Longitude (W) W102°31'02.74811"	Ellipsoid Height (M) 1250.860
Location Photo  NORTH			
			
1004_2018_OK, 3W, 20181023		1004_2018_OK, 3N, 20181023	

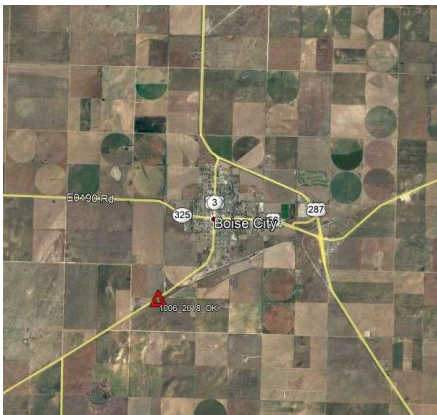


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1005_2018_OK	Northing (M) 4072266.159	Easting (M) 721550.285	Elevation (M) 1272.653
Point Type GCP	Latitude (N) N36°46'13.10330"	Longitude (W) W102°31'03.61521"	Ellipsoid Height (M) 1248.914
Location Photo  NORTH			
			
1005_2018_OK, 3W, 20181023		1005_2018_OK, 3N, 20181023	

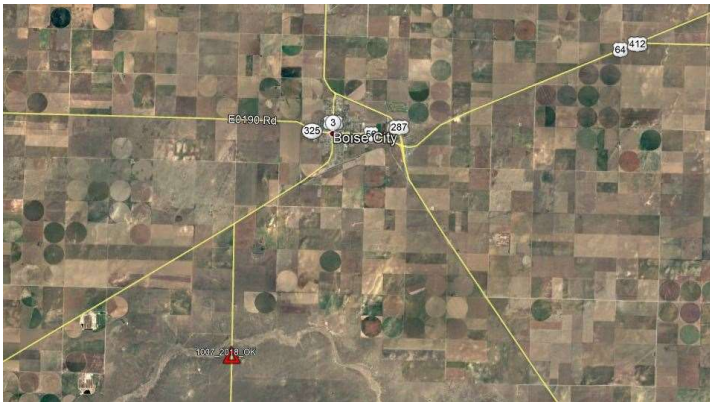


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1006_2018_OK	Northing (M) 4065751.936	Easting (M) 720809.289	Elevation (M) 1274.167
Point Type GCP	Latitude (N) N36°42'42.51473"	Longitude (W) W102°31'40.25891"	Ellipsoid Height (M) 1250.428
Location Photo  NORTH			
			



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1007_2018_OK	Northing (M) 4059271.207	Easting (M) 718695.766	Elevation (M) 1261.749
Point Type GCP	Latitude (N) N36°39'14.14381"	Longitude (W) W102°33'12.03576"	Ellipsoid Height (M) 1238.028
Location Photo  NORTH			
			



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1008_2018_OK	Northing (M) 4052852.413	Easting (M) 718875.295	Elevation (M) 1281.775
Point Type GCP	Latitude (N) N36°35'45.87036"	Longitude (W) W102°33'11.39602"	Ellipsoid Height (M) 1258.002
Location Photo  NORTH			
 1008_2018_OK, 3S, 20181025		 1008_2018_OK, 3E, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1009_2018_OK	Northing (M) 4047390.005	Easting (M) 719028.464	Elevation (M) 1266.464
Point Type GCP	Latitude (N) N36°32'48.62739"	Longitude (W) W102°33'10.82967"	Ellipsoid Height (M) 1242.633
Location Photo  NORTH			
 1009_2018_OK, 3S, 20181025		 1009_2018_OK, 3E, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1010_2018_OK	Northing (M) 4042140.912	Easting (M) 720749.637	Elevation (M) 1255.671
Point Type GCP	Latitude (N) N36°29'57.00280"	Longitude (W) W102°32'07.06674"	Ellipsoid Height (M) 1231.734
Location Photo  NORTH			
 1010_2018_OK, 3S, 20181031		 1010_2018_OK, 3E, 20181031	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1011_2018_OK	Northing (M) 4072608.421	Easting (M) 764927.103	Elevation (M) 1125.606
Point Type GCP	Latitude (N) N36°45'44.13726"	Longitude (W) W102°01'55.50881"	Ellipsoid Height (M) 1100.700
Location Photo  NORTH			
			
1011_2018_OK, 3W, 20181027		1011_2018_OK, 3S, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1012_2018_OK	Northing (M) 4100734.954	Easting (M) 812963.469	Elevation (M) 991.028
Point Type GCP	Latitude (N) N37°00'02.53095"	Longitude (W) W101°28'59.49163"	Ellipsoid Height (M) 964.964
Location Photo  NORTH			
 1012_2018_OK, 3S, 20181028		 1012_2018_OK, 3E, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1013_2018_OK	Northing (M) 4094140.748	Easting (M) 812845.245	Elevation (M) 988.613
Point Type GCP	Latitude (N) N36°56'29.08015"	Longitude (W) W101°29'14.09760"	Ellipsoid Height (M) 962.489
Location Photo  NORTH			
			
1013_2018_OK, 3W, 20181028		1013_2018_OK, 3N, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1014_2018_OK	Northing (M) 4087390.979	Easting (M) 813100.460	Elevation (M) 968.662
Point Type GCP	Latitude (N) N36°52'50.14165"	Longitude (W) W101°29'13.84076"	Ellipsoid Height (M) 942.464
Location Photo  NORTH			
			
1014_2018_OK, 3W, 20181028		1014_2018_OK, 3N, 20181028	

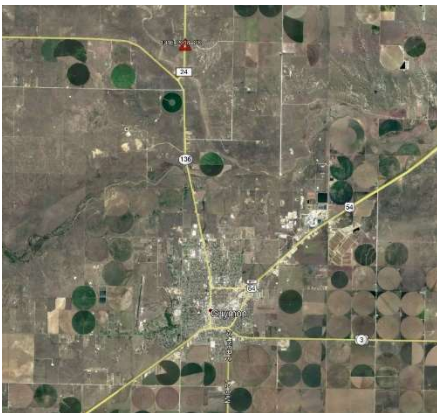


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1015_2018_OK	Northing (M) 4080706.381	Easting (M) 812894.843	Elevation (M) 967.889
Point Type GCP	Latitude (N) N36°49'13.86112"	Longitude (W) W101°29'32.04030"	Ellipsoid Height (M) 941.624
Location Photo  NORTH			
 1015_2018_OK, 3W, 20181028		 1015_2018_OK, 3N, 20181028	

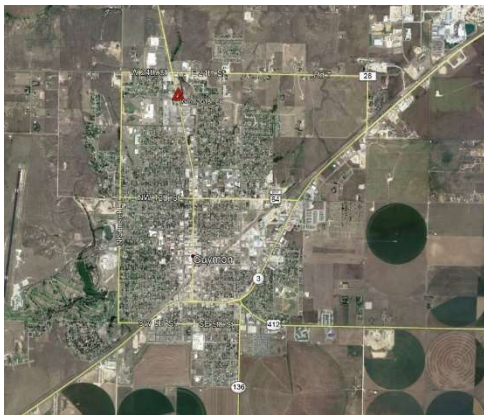


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1016_2018_OK	Northing (M) 4074116.518	Easting (M) 813137.532	Elevation (M) 924.990
Point Type GCP	Latitude (N) N36°45'40.11285"	Longitude (W) W101°29'32.00958"	Ellipsoid Height (M) 898.639
Location Photo  NORTH			
 1016_2018_OK, 3W, 20181028		 1016_2018_OK, 3N, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1017_2018_OK	Northing (M) 4067531.966	Easting (M) 814119.128	Elevation (M) 929.277
Point Type GCP	Latitude (N) N36°42'05.65699"	Longitude (W) W101°29'02.23322"	Ellipsoid Height (M) 902.841
Location Photo  NORTH			
			
1017_2018_OK, 3W, 20181030		1017_2018_OK, 3S, 20181030	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1018_2018_OK	Northing (M) 4060964.191	Easting (M) 815179.776	Elevation (M) 948.933
Point Type GCP	Latitude (N) N36°38'31.64907"	Longitude (W) W101°28'29.28707"	Ellipsoid Height (M) 922.417
Location Photo  NORTH			
			
1018_2018_OK, 3S, 20181030		1018_2018_OK, 3E, 20181030	

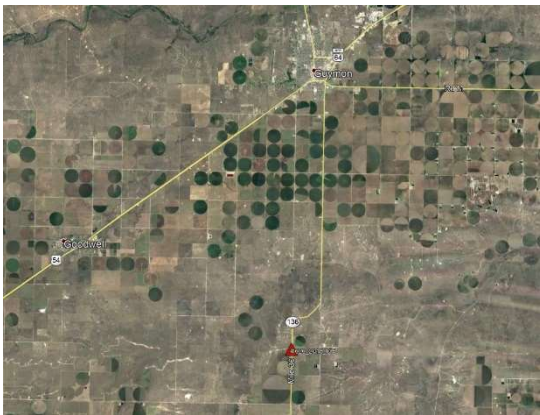


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1019_2018_OK	Northing (M) 4054360.728	Easting (M) 815405.018	Elevation (M) 913.068
Point Type GCP	Latitude (N) N36°34'57.47842"	Longitude (W) W101°28'29.98496"	Ellipsoid Height (M) 886.484
Location Photo  NORTH			
			
1019_2018_OK, 3N, 20181029		1019_2018_OK, 3E, 20181029	

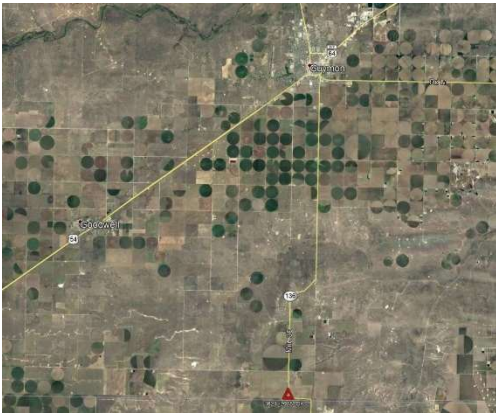


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1020_2018_OK	Northing (M) 4049879.275	Easting (M) 813955.766	Elevation (M) 965.117
Point Type GCP	Latitude (N) N36°32'34.02866"	Longitude (W) W101°29'34.76662"	Ellipsoid Height (M) 938.543
Location Photo  NORTH			
 1020_2018_OK, 3W, 20181029		 1020_2018_OK, 3N, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1021_2018_OK	Northing (M) 4045484.619	Easting (M) 814117.435	Elevation (M) 978.687
Point Type GCP	Latitude (N) N36°30'11.47889"	Longitude (W) W101°29'34.71134"	Ellipsoid Height (M) 952.084
Location Photo  NORTH			
			
1021_2018_OK, 3S, 20181029		1021_2018_OK, 3E, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1022_2018_OK	Northing (M) 4059974.130	Easting (M) 861966.806	Elevation (M) 822.448
Point Type GCP	Latitude (N) N36°36'59.76661"	Longitude (W) W100°57'11.06897"	Ellipsoid Height (M) 795.201
Location Photo  NORTH			
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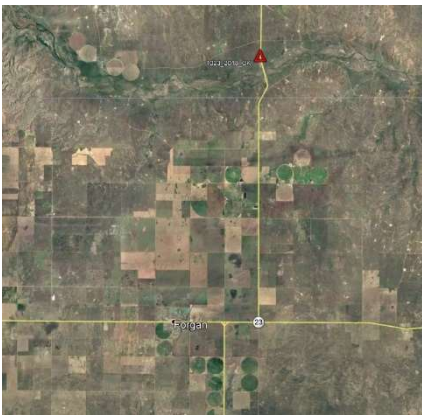


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1022_2018_OK	Northing (M) 4059974.130	Easting (M) 861966.806	Elevation (M) 822.448
Point Type GCP	Latitude (N) N36°36'59.76661"	Longitude (W) W100°57'11.06897"	Ellipsoid Height (M) 795.201
Location Photo  NORTH			
 1022_2018_OK, 3N, 20181024		 1022_2018_OK, 3E, 20181024	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1023_2018_OK	Northing (M) 4106435.962	Easting (M) 900894.780	Elevation (M) 716.177
Point Type GCP	Latitude (N) N37°01'06.92709"	Longitude (W) W100°29'40.35104"	Ellipsoid Height (M) 689.109
Location Photo  NORTH			
 1023_2018_OK, 3W, 20181027		 1023_2018_OK, 3N, 20181027	

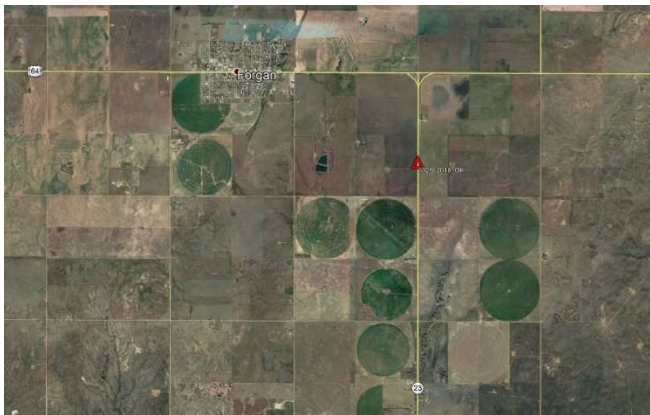


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1024_2018_OK	Northing (M) 4099664.706	Easting (M) 901170.069	Elevation (M) 751.627
Point Type GCP	Latitude (N) N36°57'27.44480"	Longitude (W) W100°29'42.19457"	Ellipsoid Height (M) 724.478
Location Photo  NORTH			
 1024_2018_OK, 3W, 20181027		 1024_2018_OK, 3N, 20181027	

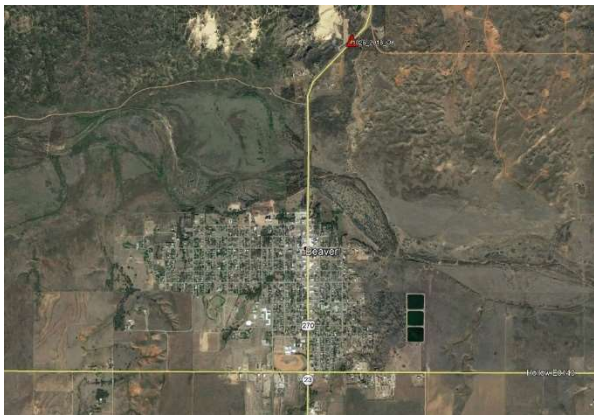


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1025_2018_OK	Northing (M) 4092798.881	Easting (M) 899911.401	Elevation (M) 765.156
Point Type GCP	Latitude (N) N36°53'47.24400"	Longitude (W) W100°30'45.98604"	Ellipsoid Height (M) 737.932
Location Photo  NORTH			
 1025_2018_OK, 3S, 20181027		 1025_2018_OK, 3E, 20181027	

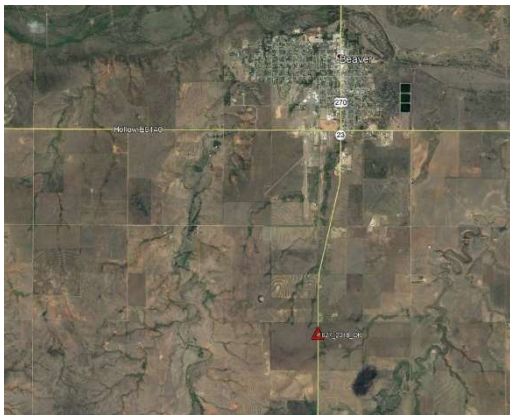


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1026_2018_OK	Northing (M) 4085973.804	Easting (M) 900066.717	Elevation (M) 737.230
Point Type GCP	Latitude (N) N36°50'06.19592"	Longitude (W) W100°30'52.66848"	Ellipsoid Height (M) 709.910
Location Photo  NORTH			
			
1026_2018_OK, 3W, 20181027		1026_2018_OK, 3N, 20181027	

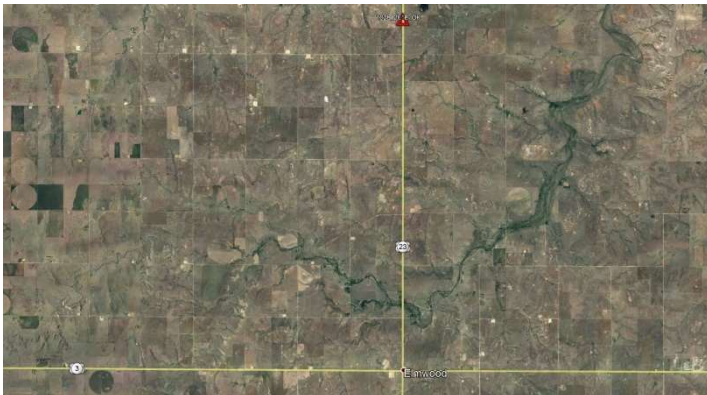


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1027_2018_OK	Northing (M) 4079179.210	Easting (M) 899581.492	Elevation (M) 774.403
Point Type GCP	Latitude (N) N36°46'27.10372"	Longitude (W) W100°31'25.02530"	Ellipsoid Height (M) 747.022
Location Photo  NORTH			
 1027_2018_OK, 3N, 20181026		 1027_2018_OK, 3E, 20181026	

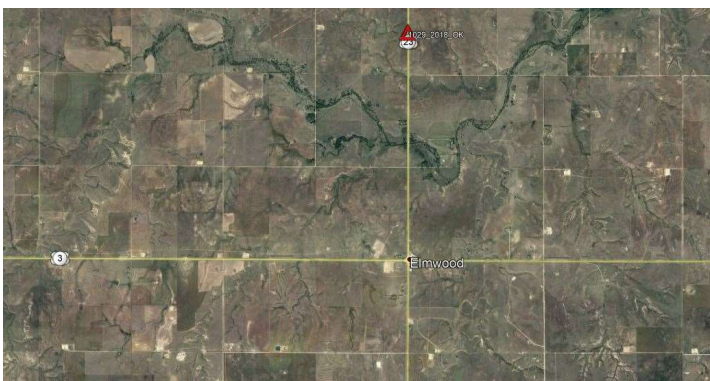


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1028_2018_OK	Northing (M) 4072392.269	Easting (M) 899921.725	Elevation (M) 821.283
Point Type GCP	Latitude (N) N36°42'47.00297"	Longitude (W) W100°31'24.12645"	Ellipsoid Height (M) 793.855
Location Photo  NORTH			
			
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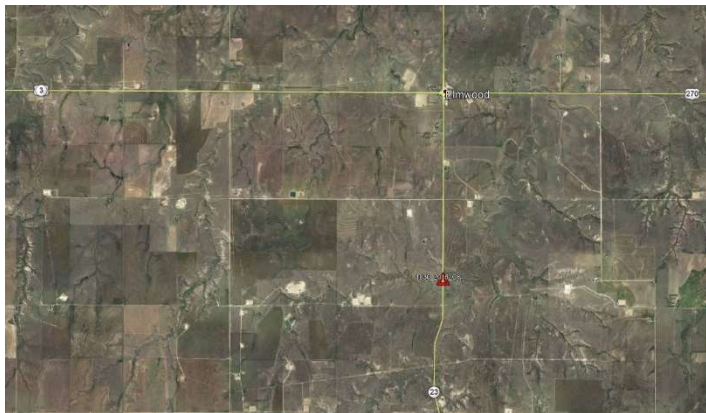


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1029_2018_OK	Northing (M) 4065601.149	Easting (M) 900258.650	Elevation (M) 816.634
Point Type GCP	Latitude (N) N36°39'06.77054"	Longitude (W) W100°31'23.35142"	Ellipsoid Height (M) 789.142
Location Photo  NORTH			
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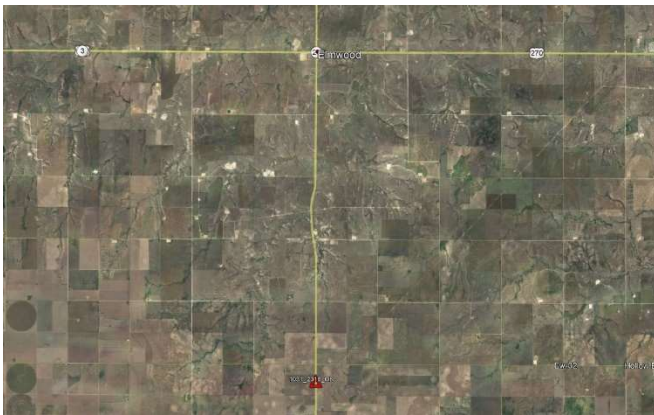


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1030_2018_OK	Northing (M) 4058848.060	Easting (M) 900601.726	Elevation (M) 814.453
Point Type GCP	Latitude (N) N36°35'27.75779"	Longitude (W) W100°31'22.24131"	Ellipsoid Height (M) 786.899
Location Photo  NORTH			
 1030_2018_OK, 3N, 20181025		 1030_2018_OK, 3E, 20181025	

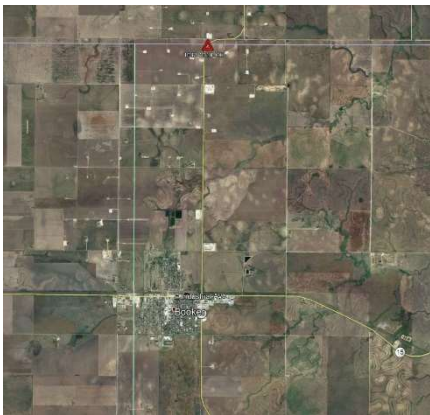


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1031_2018_OK	Northing (M) 4053160.547	Easting (M) 900884.226	Elevation (M) 856.281
Point Type GCP	Latitude (N) N36°32'23.31190"	Longitude (W) W100°31'21.55202"	Ellipsoid Height (M) 828.673
Location Photo  NORTH			
 1031_2018_OK, 3W, 20181026		 1031_2018_OK, 3S, 20181026	

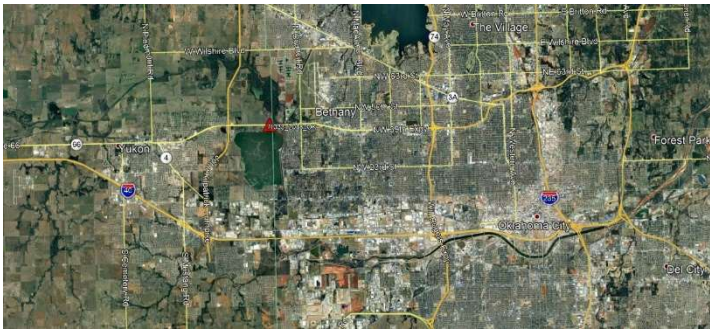


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1032_2018_OK	Northing (M) 4048620.847	Easting (M) 900400.231	Elevation (M) 859.328
Point Type GCP	Latitude (N) N36°29'57.15706"	Longitude (W) W100°31'49.42605"	Ellipsoid Height (M) 831.677
Location Photo  NORTH			
			

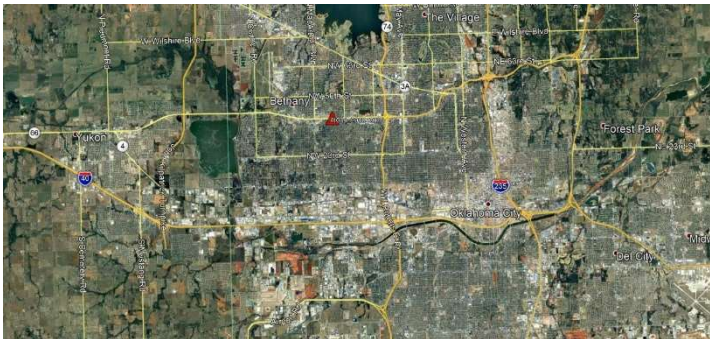


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1033_2018_OK	Northing (M) 3954927.521	Easting (M) 1164992.467	Elevation (M) 382.317
Point Type GCP	Latitude (N) N35°30'53.68579"	Longitude (W) W97°40'22.18366"	Ellipsoid Height (M) 355.317
Location Photo  NORTH			
			
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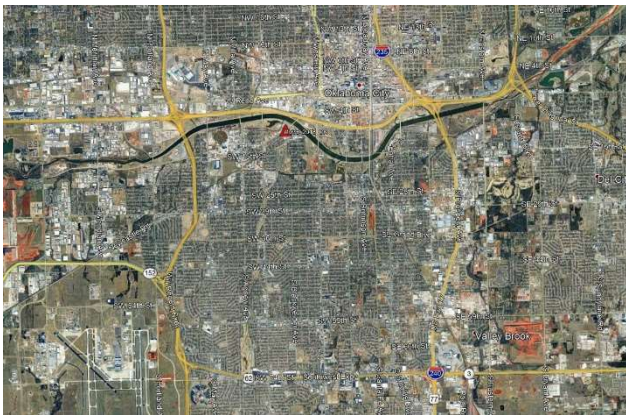


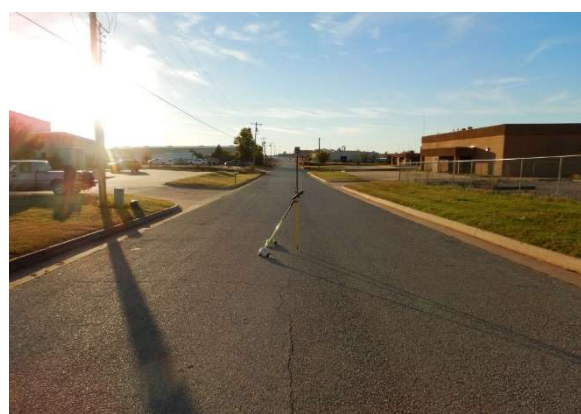
OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1034_2018_OK	Northing (M) 3954965.290	Easting (M) 1170887.282	Elevation (M) 396.616
Point Type GCP	Latitude (N) N35°30'40.66363"	Longitude (W) W97°36'29.97707"	Ellipsoid Height (M) 369.618
Location Photo  NORTH			
			
1034_2018_OK, 3W, 20181101		1034_2018_OK, 3N, 20181101	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1035_2018_OK	Northing (M) 3949313.198	Easting (M) 1177528.588	Elevation (M) 362.530
Point Type GCP	Latitude (N) N35°27'22.56585"	Longitude (W) W97°32'25.45312"	Ellipsoid Height (M) 335.587
Location Photo  NORTH			
			
1035_2018_OK, 3W, 20181101		1035_2018_OK, 3N, 20181101	

 OBSERVATION LOG SHEET				
Project Number 78983	Project Name OK Panhandle Lidar		Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North	Geoid GEOID12B (Conus)
Station ID 1036_2018_OK	Northing (M) 3942944.934	Easting (M) 1184174.439		Elevation (M) 390.169
Point Type GCP	Latitude (N) N35°23'41.31188"	Longitude (W) W97°28'23.24212"		Ellipsoid Height (M) 363.321
Location Photo  NORTH				
 1036_2018_OK, 3W, 20181102		 1036_2018_OK, 3N, 20181102		



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1037_2018_OK	Northing (M) 3942894.803	Easting (M) 1190308.778	Elevation (M) 392.215
Point Type GCP	Latitude (N) N35°23'24.52466"	Longitude (W) W97°24'22.33908"	Ellipsoid Height (M) 365.360
Location Photo  NORTH			
			
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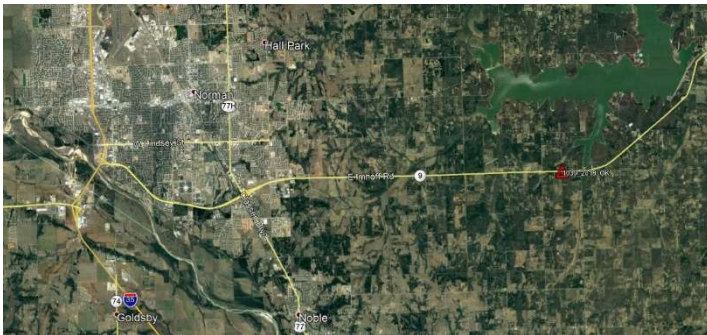


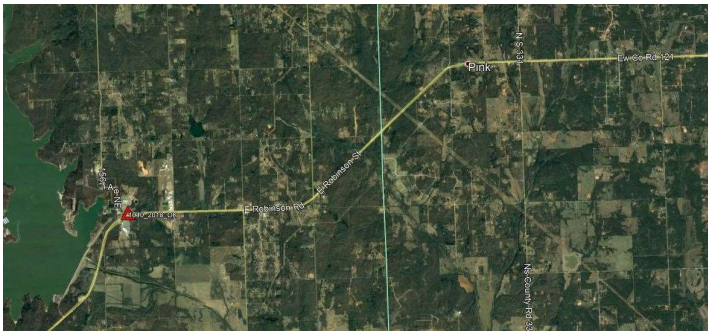
OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1038_2018_OK	Northing (M) 3943650.147	Easting (M) 1196268.837	Elevation (M) 380.589
Point Type GCP	Latitude (N) N35°23'33.95491"	Longitude (W) W97°20'25.87068"	Ellipsoid Height (M) 353.712
Location Photo  NORTH			
			
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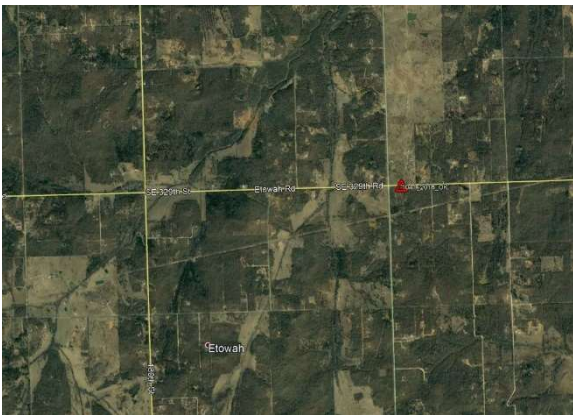
OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1039_2018_OK	Northing (M) 3921503.255	Easting (M) 1204124.238	Elevation (M) 338.586
Point Type GCP	Latitude (N) N35°11'21.80830"	Longitude (W) W97°16'25.48013"	Ellipsoid Height (M) 312.062
Location Photo  NORTH			
			
1039_2018_OK, 3W, 20181103		1039_2018_OK, 3S, 20181103	

 OBSERVATION LOG SHEET				
Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer	
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North	Geoid GEOID12B (Conus)
Station ID 1040_2018_OK	Northing (M) 3926759.676	Easting (M) 1209946.735		Elevation (M) 329.741
Point Type GCP	Latitude (N) N35°13'56.15749"	Longitude (W) W97°12'21.11087"		Ellipsoid Height (M) 303.081
Location Photo  NORTH				
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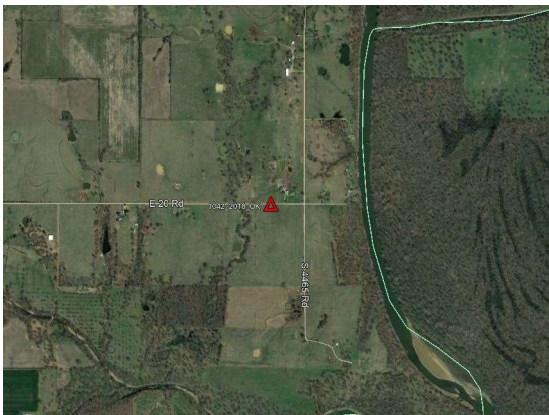
OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1041_2018_OK	Northing (M) 3917551.475	Easting (M) 1216715.600	Elevation (M) 333.932
Point Type GCP	Latitude (N) N35°08'42.79163"	Longitude (W) W97°08'24.53076"	Ellipsoid Height (M) 307.400
Location Photo  NORTH			
			

1041_2018_OK, 3N, 20181103

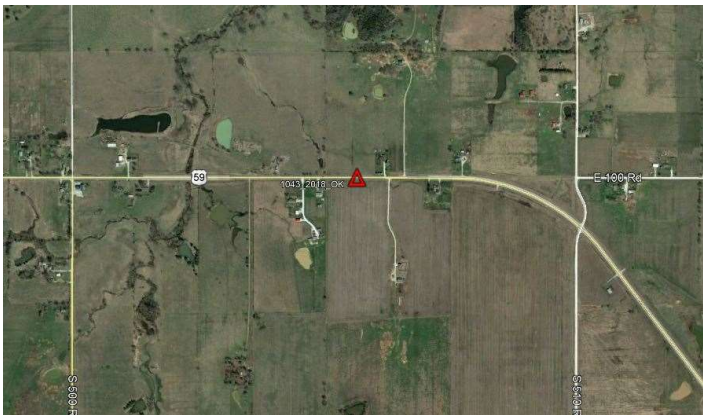


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1042_2018_OK	Northing (M) 4140069.779	Easting (M) 1387612.925	Elevation (M) 245.485
Point Type GCP	Latitude (N) N36°59'11.68197"	Longitude (W) W95°02'23.00560"	Ellipsoid Height (M) 215.831
Location Photo  NORTH			
			
1042_2018_OK, 3W, 20181107		1042_2018_OK, 3S, 20181107	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1043_2018_OK	Northing (M) 4128147.530	Easting (M) 1395077.513	Elevation (M) 241.188
Point Type GCP	Latitude (N) N36°52'25.40304"	Longitude (W) W94°58'16.11146"	Ellipsoid Height (M) 211.735
Location Photo  NORTH			
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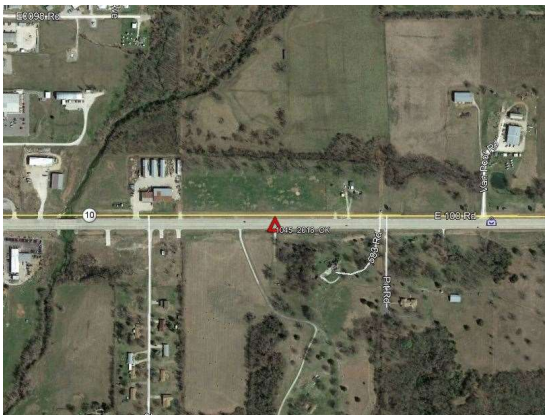


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1044_2018_OK	Northing (M) 4127571.157	Easting (M) 1401286.154	Elevation (M) 235.894
Point Type GCP	Latitude (N) N36°51'45.86343"	Longitude (W) W94°54'11.64886"	Ellipsoid Height (M) 206.498
Location Photo  NORTH			
 1044_2018_OK, 3W, 20181105		 1044_2018_OK, 3S, 20181105	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1045_2018_OK	Northing (M) 4129140.988	Easting (M) 1407269.607	Elevation (M) 237.880
Point Type GCP	Latitude (N) N36°52'15.51965"	Longitude (W) W94°50'07.06401"	Ellipsoid Height (M) 208.513
Location Photo  NORTH			
			
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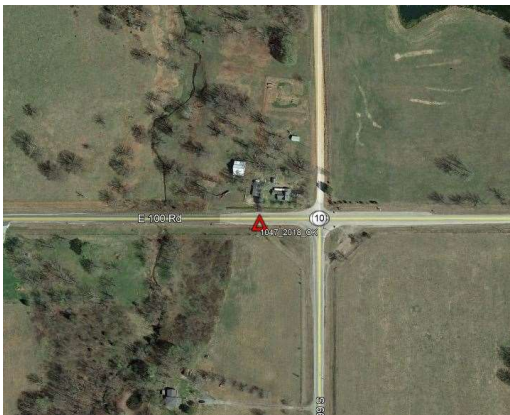


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1046_2018_OK	Northing (M) 4129839.919	Easting (M) 1413386.069	Elevation (M) 249.837
Point Type GCP	Latitude (N) N36°52'16.75283"	Longitude (W) W94°46'00.92126"	Ellipsoid Height (M) 220.507
Location Photo  NORTH			
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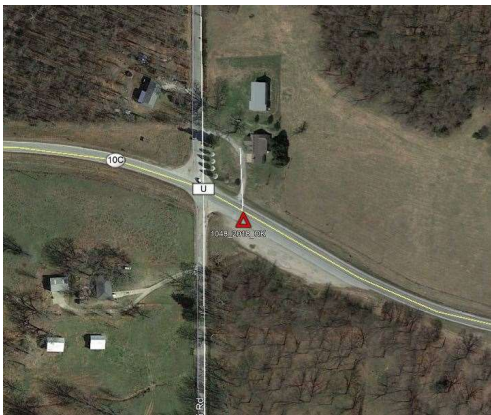


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1047_2018_OK	Northing (M) 4130502.980	Easting (M) 1419467.433	Elevation (M) 265.816
Point Type GCP	Latitude (N) N36°52'16.81814"	Longitude (W) W94°41'56.36030"	Ellipsoid Height (M) 236.524
Location Photo  NORTH			
 1047_2018_OK, 3W, 20181106		 1047_2018_OK, 3N, 20181106	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1048_2018_OK	Northing (M) 4130997.292	Easting (M) 1426757.612	Elevation (M) 308.618
Point Type GCP	Latitude (N) N36°52'07.11484"	Longitude (W) W94°37'04.54396"	Ellipsoid Height (M) 279.385
Location Photo  NORTH			
 1048_2018_OK, 3N, 20181106		 1048_2018_OK, 3E, 20181106	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1049_2018_OK	Northing (M) 4094685.573	Easting (M) 720433.020	Elevation (M) 1218.718
Point Type GCP	Latitude (N) N36°58'20.93089"	Longitude (W) W102°31'25.19652"	Ellipsoid Height (M) 1195.037
Location Photo  NORTH			
			
1049_2018_OK, 3N, 20181023		1049_2018_OK, 3E, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1050_2018_OK	Northing (M) 4088349.865	Easting (M) 720978.308	Elevation (M) 1184.448
Point Type GCP	Latitude (N) N36°54'55.05581"	Longitude (W) W102°31'09.82863"	Ellipsoid Height (M) 1160.722
Location Photo  NORTH			
			
1050_2018_OK, 3W, 20181023		1050_2018_OK, 3N, 20181023	

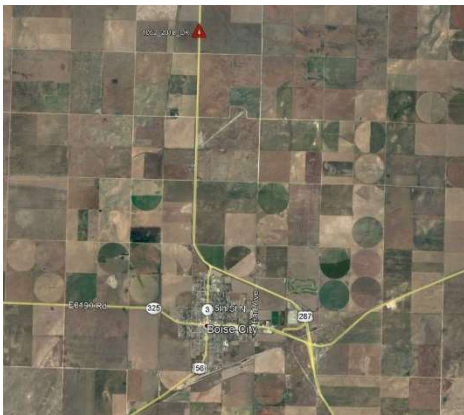


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1051_2018_OK	Northing (M) 4081884.202	Easting (M) 721732.882	Elevation (M) 1229.764
Point Type GCP	Latitude (N) N36°51'24.78910"	Longitude (W) W102°30'46.16739"	Ellipsoid Height (M) 1206.028
Location Photo  NORTH			
			
1051_2018_OK, 3W, 20181023		1051_2018_OK, 3N, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1052_2018_OK	Northing (M) 4075204.048	Easting (M) 721493.142	Elevation (M) 1279.012
Point Type GCP	Latitude (N) N36°47'48.40535"	Longitude (W) W102°31'02.84434"	Ellipsoid Height (M) 1255.281
Location Photo  NORTH			
			
1052_2018_OK, 3W, 20181023		1052_2018_OK, 3N, 20181023	

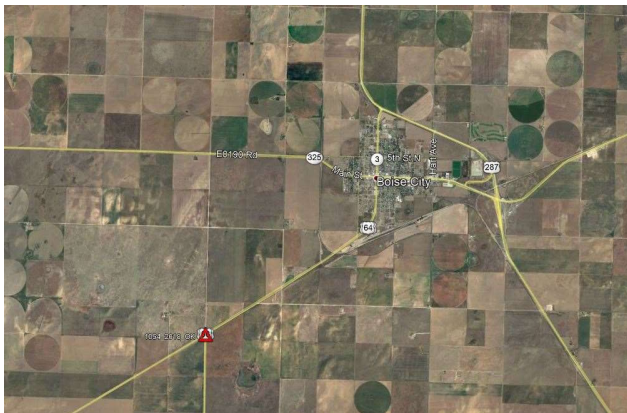


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1053_2018_OK	Northing (M) 4069250.795	Easting (M) 722095.512	Elevation (M) 1273.671
Point Type GCP	Latitude (N) N36°44'34.87803"	Longitude (W) W102°30'44.80120"	Ellipsoid Height (M) 1249.912
Location Photo  NORTH			
 1053_2018_OK, 3W, 20181023		 1053_2018_OK, 3N, 20181023	

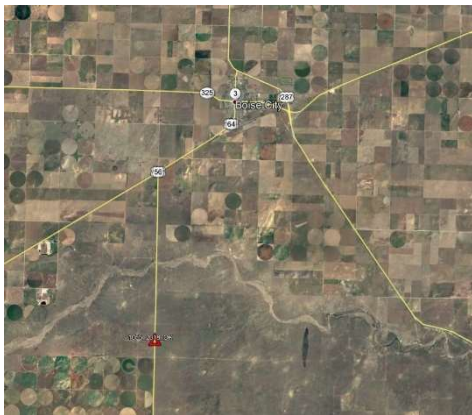


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1054_2018_OK	Northing (M) 4064181.558	Easting (M) 718533.797	Elevation (M) 1283.657
Point Type GCP	Latitude (N) N36°41'53.49133"	Longitude (W) W102°33'13.51149"	Ellipsoid Height (M) 1259.969
Location Photo  NORTH			
 1054_2018_OK, 3N, 20181031		 1054_2018_OK, 3E, 20181031	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1055_2018_OK	Northing (M) 4056127.166	Easting (M) 718788.529	Elevation (M) 1278.140
Point Type GCP	Latitude (N) N36°37'32.12395"	Longitude (W) W102°33'11.52924"	Ellipsoid Height (M) 1254.397
Location Photo  NORTH			
 1055_2018_OK, 3S, 20181025		 1055_2018_OK, 3E, 20181025	

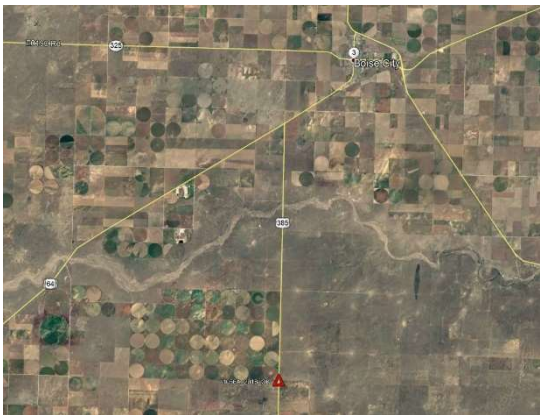


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1056_2018_OK	Northing (M) 4050696.002	Easting (M) 718934.776	Elevation (M) 1280.929
Point Type GCP	Latitude (N) N36°34'35.90058"	Longitude (W) W102°33'11.21275"	Ellipsoid Height (M) 1257.135
Location Photo  NORTH			
 1056_2018_OK, 3S, 20181025		 1056_2018_OK, 3E, 20181025	

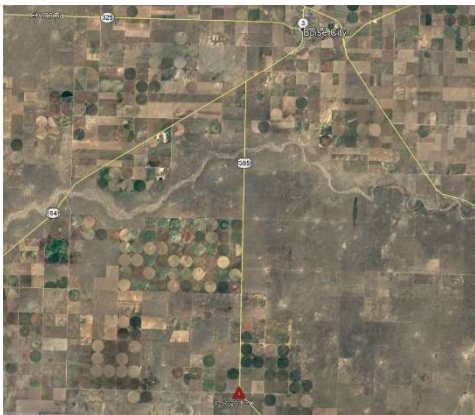


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1056A_2018_OK	Northing (M) 4050503.691	Easting (M) 718939.855	Elevation (M) 1280.689
Point Type GCP	Latitude (N) N36°34'29.66078"	Longitude (W) W102°33'11.20544"	Ellipsoid Height (M) 1256.892
Location Photo  NORTH			
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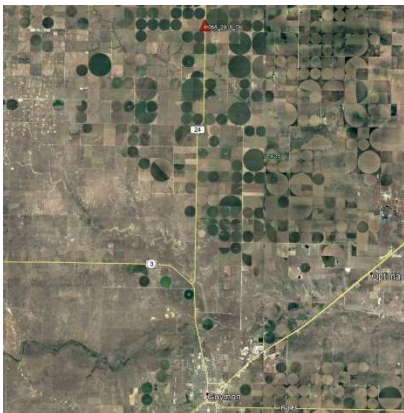


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1057_2018_OK	Northing (M) 4043987.372	Easting (M) 719116.236	Elevation (M) 1269.066
Point Type GCP	Latitude (N) N36°30'58.22522"	Longitude (W) W102°33'10.78086"	Ellipsoid Height (M) 1245.196
Location Photo  NORTH			
			
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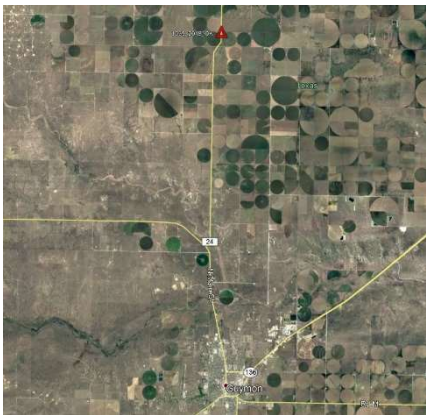


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1058_2018_OK	Northing (M) 4090661.841	Easting (M) 812978.115	Elevation (M) 980.252
Point Type GCP	Latitude (N) N36°54'36.23540"	Longitude (W) W101°29'13.91330"	Ellipsoid Height (M) 954.091
Location Photo  NORTH			
			
1058_2018_OK, 3W, 20181028		1058_2018_OK, 3N, 20181028	

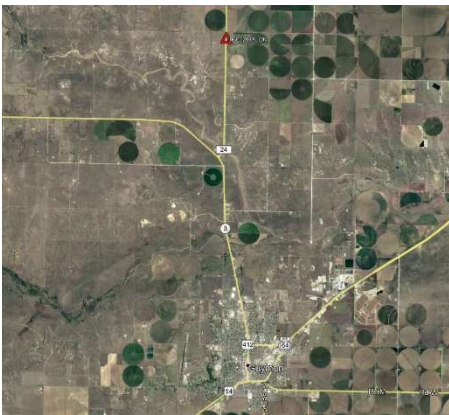


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1059_2018_OK	Northing (M) 4084648.769	Easting (M) 813204.181	Elevation (M) 970.285
Point Type GCP	Latitude (N) N36°51'21.19353"	Longitude (W) W101°29'13.73103"	Ellipsoid Height (M) 944.057
Location Photo  NORTH			
			
1059_2018_OK, 3W, 20181028		1059_2018_OK, 3N, 20181028	

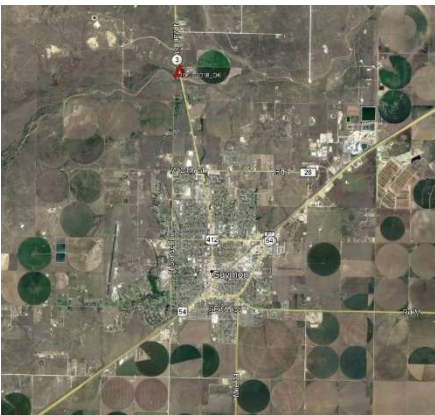


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1060_2018_OK	Northing (M) 4077265.045	Easting (M) 813021.842	Elevation (M) 958.069
Point Type GCP	Latitude (N) N36°47'22.23813"	Longitude (W) W101°29'32.01537"	Ellipsoid Height (M) 931.759
Location Photo  NORTH			
			
1060_2018_OK, 3W, 20181028		1060_2018_OK, 3N, 20181028	

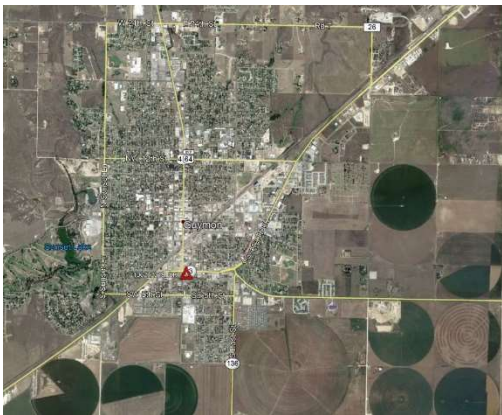


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1061_2018_OK	Northing (M) 4070106.391	Easting (M) 813414.628	Elevation (M) 912.860
Point Type GCP	Latitude (N) N36°43'29.88615"	Longitude (W) W101°29'26.77681"	Ellipsoid Height (M) 886.459
Location Photo  NORTH			
			
1061_2018_OK, 3W, 20181030		1061_2018_OK, 3S, 20181030	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1062_2018_OK	Northing (M) 4064849.470	Easting (M) 814481.313	Elevation (M) 951.523
Point Type GCP	Latitude (N) N36°40'38.33381"	Longitude (W) W101°28'51.62840"	Ellipsoid Height (M) 925.059
Location Photo  NORTH			
			
1062_2018_OK, 3W, 20181030		1062_2018_OK, 3N, 20181030	

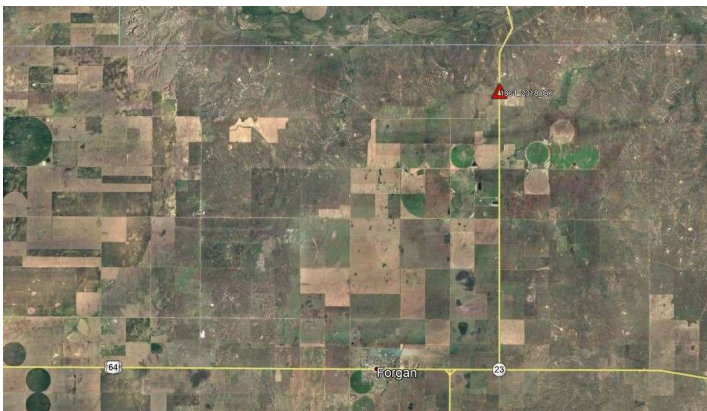


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1063_2018_OK	Northing (M) 4057342.175	Easting (M) 815300.726	Elevation (M) 949.997
Point Type GCP	Latitude (N) N36°36'34.17924"	Longitude (W) W101°28'29.77601"	Ellipsoid Height (M) 923.443
Location Photo  NORTH			
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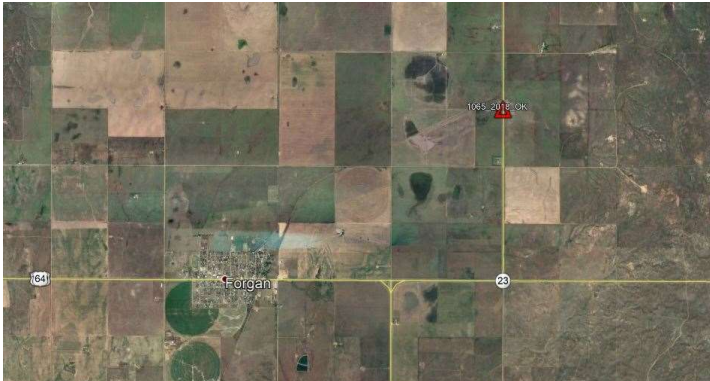


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1064_2018_OK	Northing (M) 4102985.491	Easting (M) 901013.146	Elevation (M) 761.520
Point Type GCP	Latitude (N) N36°59'15.11797"	Longitude (W) W100°29'42.17689"	Ellipsoid Height (M) 734.409
Location Photo  NORTH			
			
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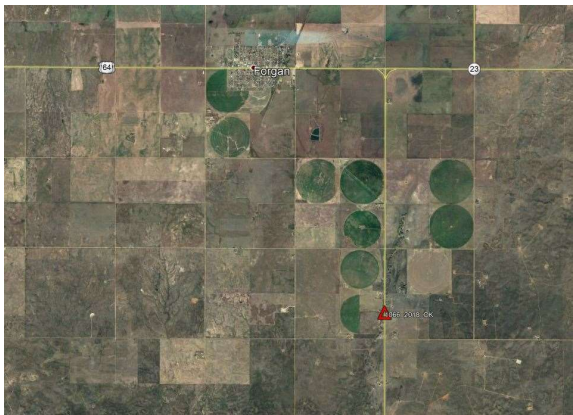


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1065_2018_OK	Northing (M) 4096460.656	Easting (M) 901332.545	Elevation (M) 767.763
Point Type GCP	Latitude (N) N36°55'43.53938"	Longitude (W) W100°29'41.76142"	Ellipsoid Height (M) 740.578
Location Photo  NORTH			
			
1065_2018_OK, 3W, 20181027		1065_2018_OK, 3S, 20181027	

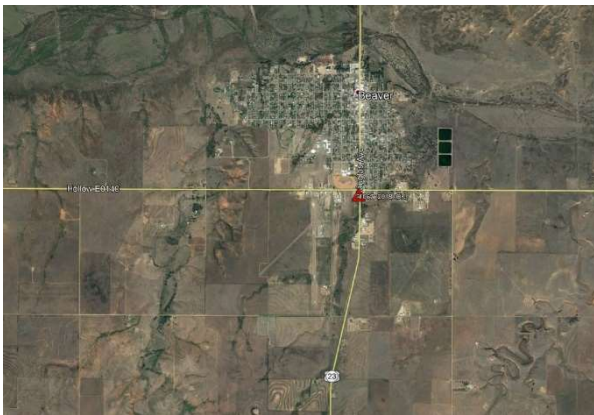


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1066_2018_OK	Northing (M) 4089598.798	Easting (M) 900072.019	Elevation (M) 754.682
Point Type GCP	Latitude (N) N36°52'03.46747"	Longitude (W) W100°30'45.58771"	Ellipsoid Height (M) 727.413
Location Photo  NORTH			
 1066_2018_OK, 3S, 20181027		 1066_2018_OK, 3E, 20181027	

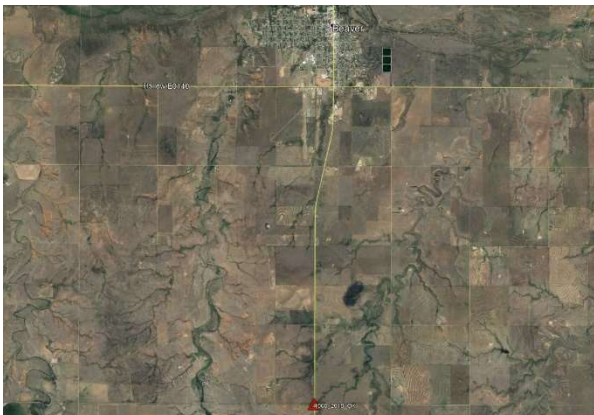


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1067_2018_OK	Northing (M) 4082544.742	Easting (M) 899777.789	Elevation (M) 744.908
Point Type GCP	Latitude (N) N36°48'15.69339"	Longitude (W) W100°31'10.77898"	Ellipsoid Height (M) 717.551
Location Photo  NORTH			
			
1067_2018_OK, 3N, 20181026		1067_2018_OK, 3E, 20181026	

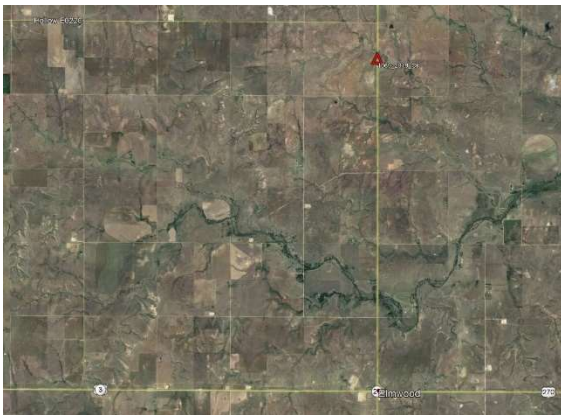


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1068_2018_OK	Northing (M) 4076144.747	Easting (M) 899724.684	Elevation (M) 784.501
Point Type GCP	Latitude (N) N36°44'48.70970"	Longitude (W) W100°31'24.98440"	Ellipsoid Height (M) 757.098
Location Photo  NORTH			
			
1068_2018_OK, 3N, 20181026		1068_2018_OK, 3E, 20181026	

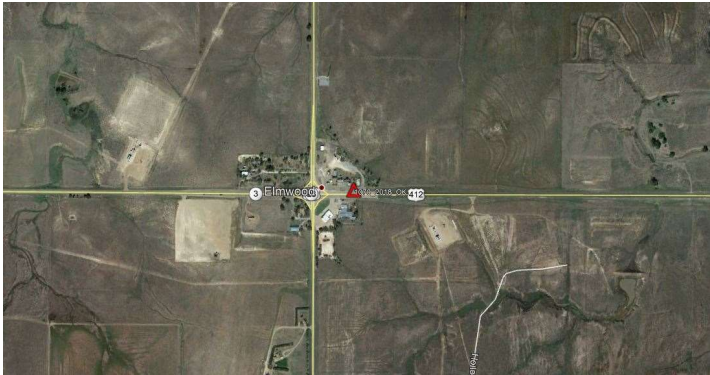


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1069_2018_OK	Northing (M) 4068917.702	Easting (M) 900094.898	Elevation (M) 807.769
Point Type GCP	Latitude (N) N36°40'54.32358"	Longitude (W) W100°31'23.70028"	Ellipsoid Height (M) 780.311
Location Photo  NORTH			
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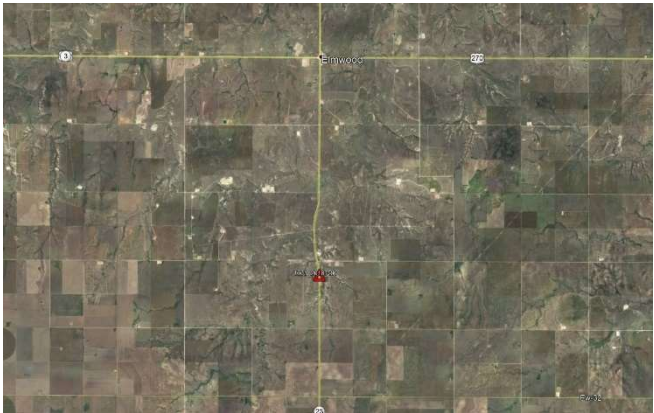


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1070_2018_OK	Northing (M) 4061664.183	Easting (M) 900588.270	Elevation (M) 826.341
Point Type GCP	Latitude (N) N36°36'58.89317"	Longitude (W) W100°31'17.50418"	Ellipsoid Height (M) 798.811
Location Photo  NORTH			
 1070_2018_OK, 3W, 20181025		 1070_2018_OK, 3N, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1071_2018_OK	Northing (M) 4056476.951	Easting (M) 900717.577	Elevation (M) 839.314
Point Type GCP	Latitude (N) N36°34'10.86582"	Longitude (W) W100°31'22.03253"	Ellipsoid Height (M) 811.738
Location Photo  NORTH			
			
1071_2018_OK, 3W, 20181026		1071_2018_OK, 3N, 20181026	

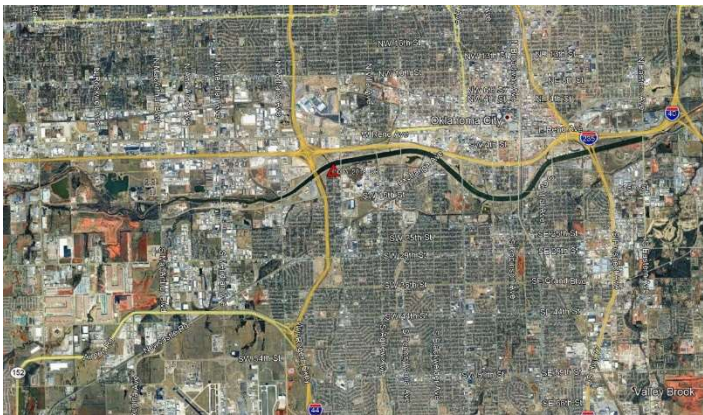


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1072_2018_OK	Northing (M) 3955192.780	Easting (M) 1167949.290	Elevation (M) 400.215
Point Type GCP	Latitude (N) N35°30'55.09859"	Longitude (W) W97°38'24.97636"	Ellipsoid Height (M) 373.217
Location Photo  NORTH			
			
1072_2018_OK, 3W, 20181101		1072_2018_OK, 3S, 20181101	

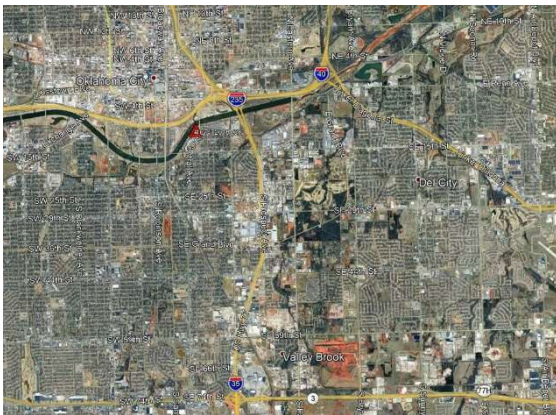


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1073_2018_OK	Northing (M) 3949105.479	Easting (M) 1175038.639	Elevation (M) 367.406
Point Type GCP	Latitude (N) N35°27'21.95618"	Longitude (W) W97°34'04.02037"	Ellipsoid Height (M) 340.466
Location Photo  NORTH			
 1073_2018_OK, 3W, 20181101		 1073_2018_OK, 3N, 20181101	

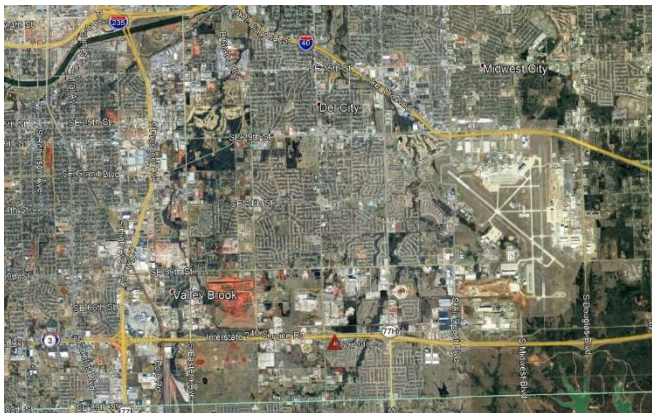


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1074_2018_OK	Northing (M) 3949419.825	Easting (M) 1180793.894	Elevation (M) 358.357
Point Type GCP	Latitude (N) N35°27'17.99600"	Longitude (W) W97°30'16.69580"	Ellipsoid Height (M) 331.411
Location Photo  NORTH			
			
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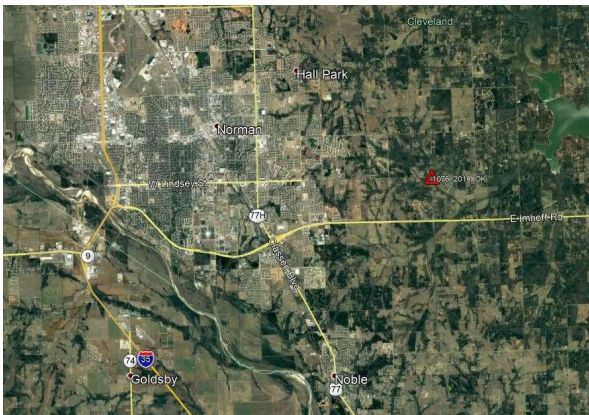


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1075_2018_OK	Northing (M) 3942653.226	Easting (M) 1187381.012	Elevation (M) 390.891
Point Type GCP	Latitude (N) N35°23'24.00994"	Longitude (W) W97°26'18.11164"	Ellipsoid Height (M) 364.044
Location Photo  NORTH			
			
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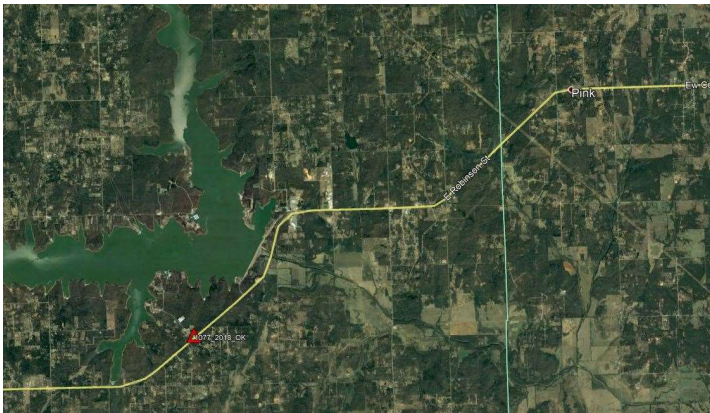


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1076_2018_OK	Northing (M) 3922548.152	Easting (M) 1196754.111	Elevation (M) 329.189
Point Type GCP	Latitude (N) N35°12'13.86674"	Longitude (W) W97°21'11.12791"	Ellipsoid Height (M) 302.669
Location Photo  NORTH			
 1076_2018_OK, 3N, 20181103		 1076_2018_OK, 3E, 20181103	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1077_2018_OK	Northing (M) 3923120.627	Easting (M) 1207258.696	Elevation (M) 346.766
Point Type GCP	Latitude (N) N35°12'05.92823"	Longitude (W) W97°14'17.69229"	Ellipsoid Height (M) 320.194
Location Photo  NORTH			
			
1077_2018_OK, 3W, 20181103		1077_2018_OK, 3S, 20181103	

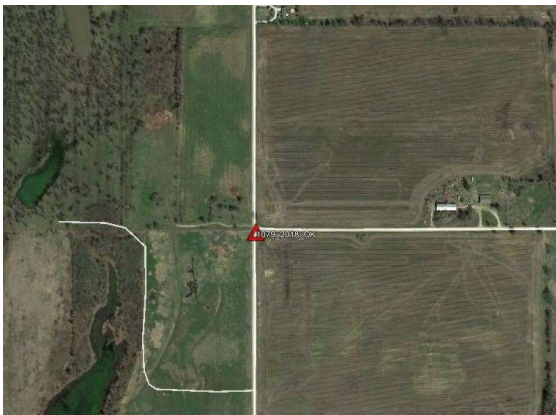


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1078_2018_OK	Northing (M) 3917291.149	Easting (M) 1213324.175	Elevation (M) 308.879
Point Type GCP	Latitude (N) N35°08'43.06665"	Longitude (W) W97°10'38.11533"	Ellipsoid Height (M) 282.379
Location Photo  NORTH			
			
1078_2018_OK, 3W, 20181103		1078_2018_OK, 3N, 20181103	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1079_2018_OK	Northing (M) 4140339.906	Easting (M) 1390181.350	Elevation (M) 240.936
Point Type GCP	Latitude (N) N36°59'11.62898"	Longitude (W) W95°00'39.54058"	Ellipsoid Height (M) 211.285
Location Photo  NORTH			
 1079_2018_OK, 3N, 20181107		 1079_2018_OK, 3E, 20181107	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1080_2018_OK	Northing (M) 4126958.807	Easting (M) 1399266.236	Elevation (M) 237.078
Point Type GCP	Latitude (N) N36°51'33.18517"	Longitude (W) W94°55'34.56110"	Ellipsoid Height (M) 207.673
Location Photo  NORTH			
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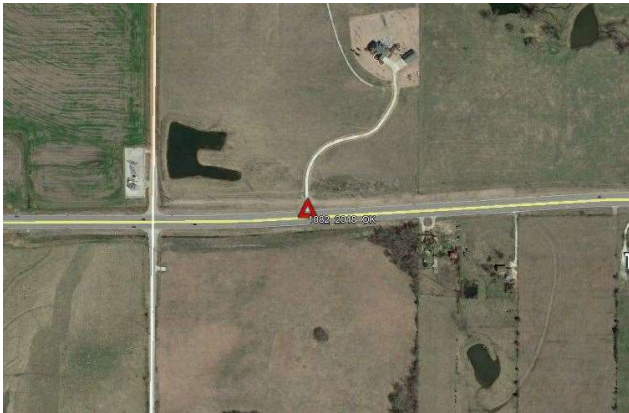


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1081_2018_OK	Northing (M) 4128824.064	Easting (M) 1403826.990	Elevation (M) 239.268
Point Type GCP	Latitude (N) N36°52'17.20458"	Longitude (W) W94°52'25.29194"	Ellipsoid Height (M) 209.877
Location Photo  NORTH			
 1081_2018_OK, 3N, 20181105		 1081_2018_OK, 3E, 20181105	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1082_2018_OK	Northing (M) 4129475.719	Easting (M) 1410136.802	Elevation (M) 256.660
Point Type GCP	Latitude (N) N36°52'16.34237"	Longitude (W) W94°48'11.64608"	Ellipsoid Height (M) 227.312
Location Photo  NORTH			
			
1082_2018_OK, 3W, 20181105		1082_2018_OK, 3S, 20181105	

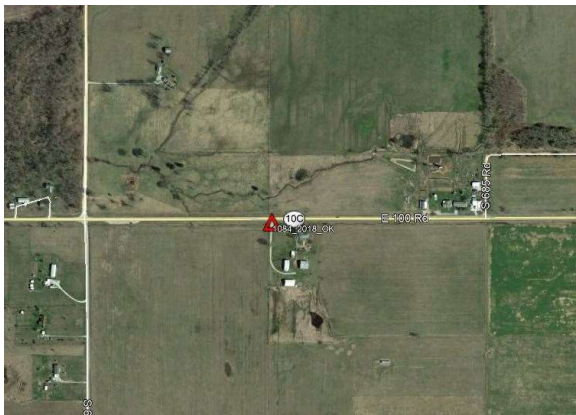


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1083_2018_OK	Northing (M) 4130167.280	Easting (M) 1416304.866	Elevation (M) 258.452
Point Type GCP	Latitude (N) N36°52'17.09319"	Longitude (W) W94°44'03.49882"	Ellipsoid Height (M) 229.136
Location Photo  NORTH			
 1083_2018_OK, 3S, 20181106		 1083_2018_OK, 3E, 20181106	

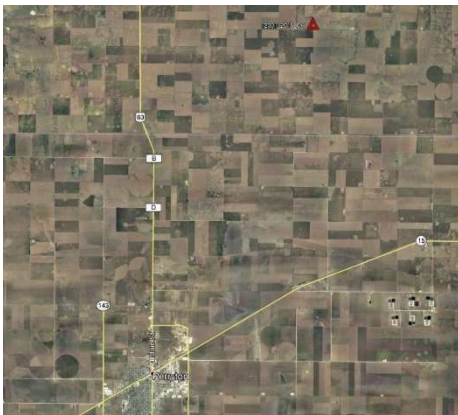


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 1084_2018_OK	Northing (M) 4130898.255	Easting (M) 1423069.373	Elevation (M) 284.868
Point Type GCP	Latitude (N) N36°52'16.87089"	Longitude (W) W94°39'31.51361"	Ellipsoid Height (M) 255.601
Location Photo  NORTH			
 1084_2018_OK, 3W, 20181106		 1084_2018_OK, 3N, 20181106	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2001_2018_OK	Northing (M) 4053071.835	Easting (M) 883116.932	Elevation (M) 881.199
Point Type NVA	Latitude (N) N36°32'46.65283"	Longitude (W) W100°43'14.23963"	Ellipsoid Height (M) 853.763
Location Photo  NORTH			
 2001_2018_OK, 3W, 20181025		 2001_2018_OK, 3N, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2002_2018_OK	Northing (M) 3949796.395	Easting (M) 1171721.178	Elevation (M) 369.616
Point Type NVA	Latitude (N) N35°27'52.25744"	Longitude (W) W97°36'12.48401"	Ellipsoid Height (M) 342.667
Location Photo  NORTH			
 2002_2018_OK, 3W, 20181101		 2002_2018_OK, 3S, 20181101	

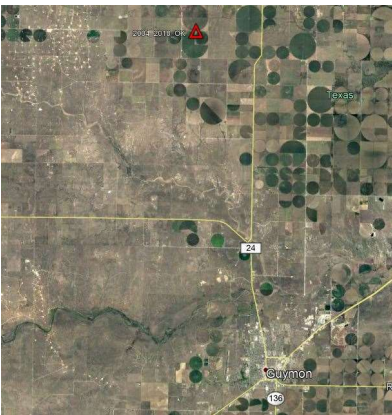


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2003_2018_OK	Northing (M) 4079454.819	Easting (M) 777542.348	Elevation (M) 1088.395
Point Type NVA	Latitude (N) N36°49'13.00827"	Longitude (W) W101°53'18.42460"	Ellipsoid Height (M) 1063.155
Location Photo  NORTH			
 2003_2018_OK, 3W, 20181027		 2003_2018_OK, 3S, 20181027	

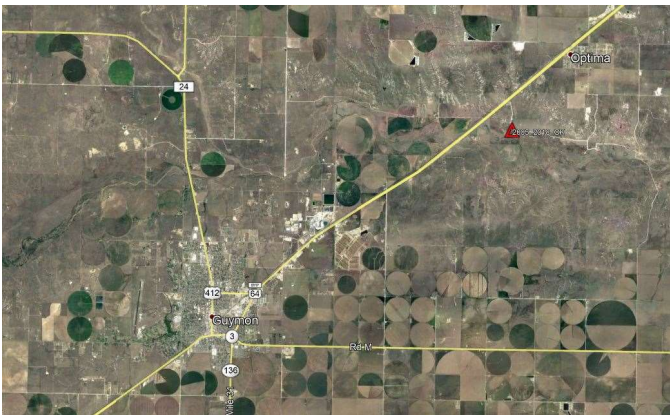


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2004_2018_OK	Northing (M) 4085310.156	Easting (M) 809230.573	Elevation (M) 987.113
Point Type NVA	Latitude (N) N36°51'47.32729"	Longitude (W) W101°31'52.93559"	Ellipsoid Height (M) 961.002
Location Photo  NORTH			
			
2004_2018_OK, 3N, 20181028		2004_2018_OK, 3E, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2005_2018_OK	Northing (M) 4071792.013	Easting (M) 823572.086	Elevation (M) 883.942
Point Type NVA	Latitude (N) N36°44'12.22072"	Longitude (W) W101°22'35.50879"	Ellipsoid Height (M) 857.323
Location Photo  NORTH			
 2005_2018_OK, 3S, 20181029		 2005_2018_OK, 3E, 20181029	

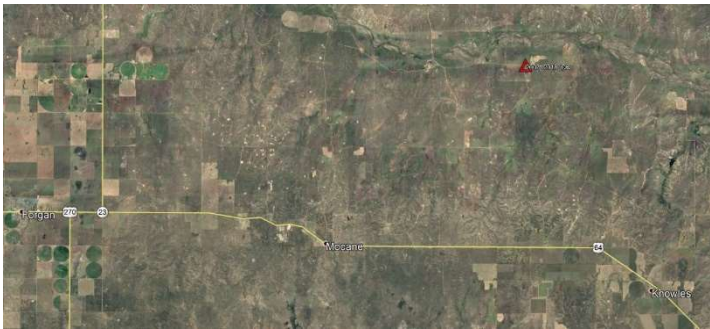


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2006_2018_OK	Northing (M) 4094561.880	Easting (M) 840424.679	Elevation (M) 908.903
Point Type NVA	Latitude (N) N36°56'08.31433"	Longitude (W) W101°10'40.75733"	Ellipsoid Height (M) 882.236
Location Photo  NORTH			
 2006_2018_OK, 3W, 20181029		 2006_2018_OK, 3N, 20181029	

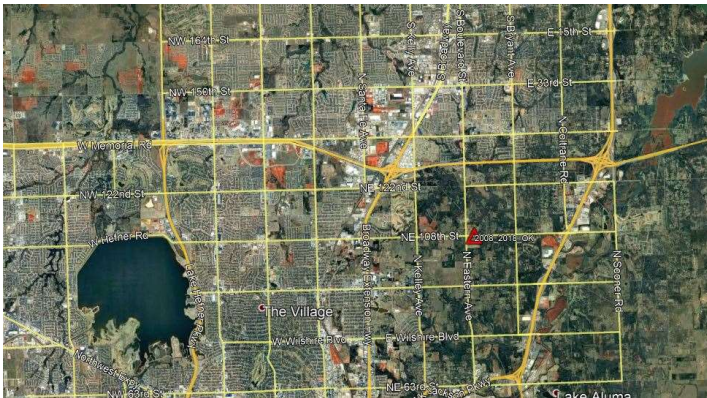


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2007_2018_OK	Northing (M) 4102234.791	Easting (M) 921801.986	Elevation (M) 675.073
Point Type NVA	Latitude (N) N36°58'18.13984"	Longitude (W) W100°15'45.49108"	Ellipsoid Height (M) 647.793
Location Photo  NORTH			
 2007_2018_OK, 3N, 20181027		 2007_2018_OK, 3E, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2008_2018_OK	Northing (M) 3963527.969	Easting (M) 1182401.475	Elevation (M) 343.851
Point Type NVA	Latitude (N) N35°34'48.04424"	Longitude (W) W97°28'30.88677"	Ellipsoid Height (M) 316.679
Location Photo  NORTH			
 2008_2018_OK_3N_20181104		 2008_2018_OK_3E_20181104	

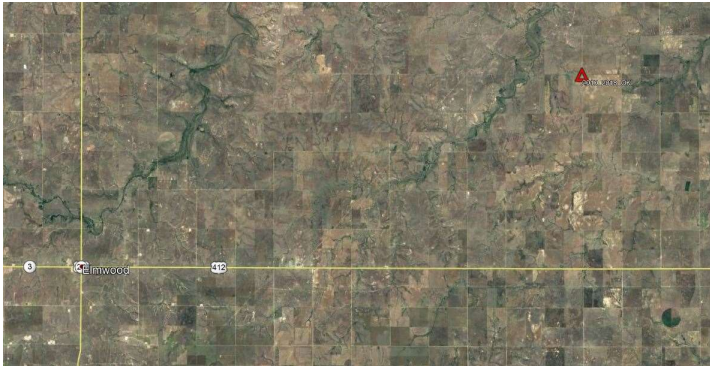


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2009_2018_OK	Northing (M) 4052146.003	Easting (M) 780034.123	Elevation (M) 1053.633
Point Type NVA	Latitude (N) N36°34'25.42592"	Longitude (W) W101°52'13.95470"	Ellipsoid Height (M) 1028.010
Location Photo  NORTH			
			
2009_2018_OK, 3W, 20181028		2009_2018_OK, 3N, 20181028	

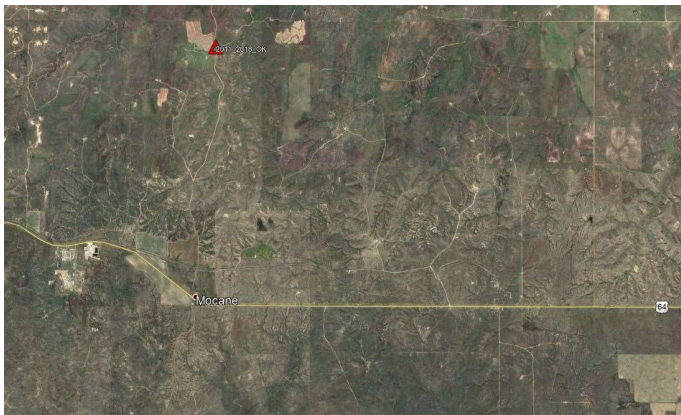


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2010_2018_OK	Northing (M) 4070684.873	Easting (M) 920896.677	Elevation (M) 776.794
Point Type NVA	Latitude (N) N36°41'19.19164"	Longitude (W) W100°17'24.78930"	Ellipsoid Height (M) 749.238
Location Photo  NORTH			
			
2010_2018_OK, 3W, 20181029		2010_2018_OK, 3S, 20181029	

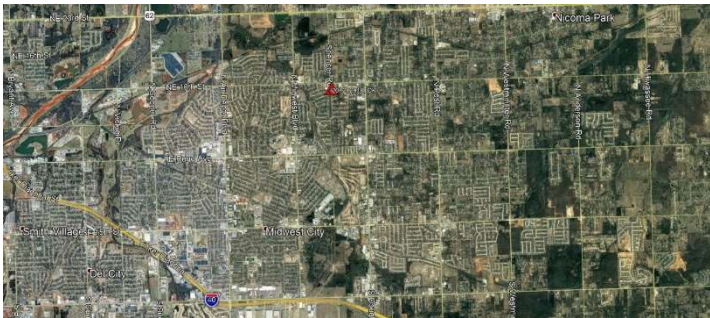


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2011_2018_OK	Northing (M) 4097337.731	Easting (M) 912587.698	Elevation (M) 745.350
Point Type NVA	Latitude (N) N36°55'54.43216"	Longitude (W) W100°22'06.54213"	Ellipsoid Height (M) 718.105
Location Photo  NORTH			
 2011_2018_OK, 3S, 20181027		 2011_2018_OK, 3E, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2012_2018_OK	Northing (M) 3952800.557	Easting (M) 1192013.103	Elevation (M) 372.776
Point Type NVA	Latitude (N) N35°28'38.98540"	Longitude (W) W97°22'45.18466"	Ellipsoid Height (M) 345.746
Location Photo  NORTH			
			
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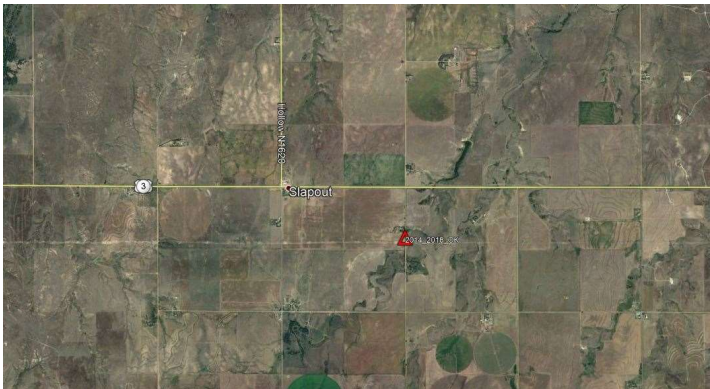


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2013_2018_OK	Northing (M) 4056008.663	Easting (M) 747674.170	Elevation (M) 1181.395
Point Type NVA	Latitude (N) N36°37'02.83485"	Longitude (W) W102°13'49.88384"	Ellipsoid Height (M) 1156.869
Location Photo  NORTH			
			
2013_2018_OK, 3W, 20181026		2013_2018_OK, 3S, 20181026	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2014_2018_OK	Northing (M) 4062848.537	Easting (M) 939128.198	Elevation (M) 736.885
Point Type NVA	Latitude (N) N36°36'36.15954"	Longitude (W) W100°05'28.88158"	Ellipsoid Height (M) 709.133
Location Photo  NORTH			
			
2014_2018_OK, 3N, 20181029		2014_2018_OK, 3E, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2015_2018_OK	Northing (M) 4101117.889	Easting (M) 911998.896	Elevation (M) 709.637
Point Type NVA	Latitude (N) N36°57'57.63242"	Longitude (W) W100°22'22.85633"	Ellipsoid Height (M) 682.426
Location Photo  NORTH			
 2015_2018_OK, 3W, 20181027		 2015_2018_OK, 3S, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2016A_2018_OK	Northing (M) 4055416.362	Easting (M) 801041.619	Elevation (M) 1003.795
Point Type NVA	Latitude (N) N36°35'48.37348"	Longitude (W) W101°38'05.47218"	Ellipsoid Height (M) 977.592
Location Photo  NORTH			
			
2016A_2018_OK, 3N, 20181030		2016A_2018_OK, 3E, 20181030	

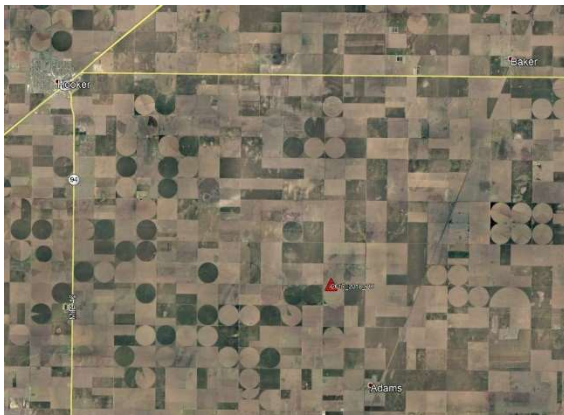


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2016B_2018_OK	Northing (M) 4055408.296	Easting (M) 801046.289	Elevation (M) 1003.765
Point Type NVA	Latitude (N) N36°35'48.10686"	Longitude (W) W101°38'05.29592"	Ellipsoid Height (M) 977.562
Location Photo  NORTH			
			
2016B_2018_OK, 3N, 20181030		2016B_2018_OK, 3E, 20181030	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2017_2018_OK	Northing (M) 4078800.539	Easting (M) 848532.977	Elevation (M) 874.799
Point Type NVA	Latitude (N) N36°47'27.34486"	Longitude (W) W101°05'39.75807"	Ellipsoid Height (M) 847.876
Location Photo  NORTH			
			
2017_2018_OK, 3S, 20181029		2017_2018_OK, 3E, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2018_2018_OK	Northing (M) 4065817.059	Easting (M) 688829.933	Elevation (M) 1418.697
Point Type NVA	Latitude (N) N36°43'09.45414"	Longitude (W) W102°53'08.26906"	Ellipsoid Height (M) 1395.937
Location Photo  NORTH			
			
2018_2018_OK, 3N, 20181024		2018_2018_OK, 3E, 20181024	

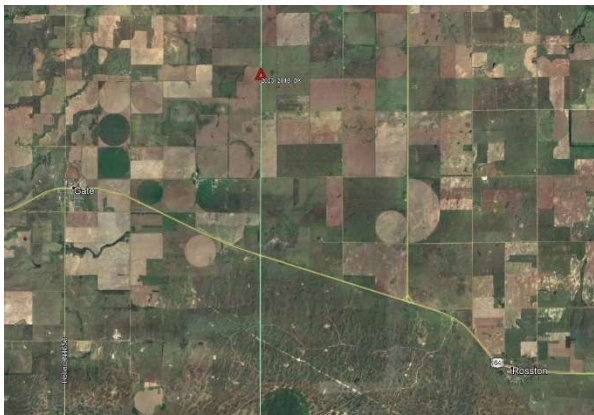


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2019_2018_OK	Northing (M) 4089318.367	Easting (M) 784776.835	Elevation (M) 1070.221
Point Type NVA	Latitude (N) N36°54'24.87164"	Longitude (W) W101°48'13.53106"	Ellipsoid Height (M) 1044.855
Location Photo  NORTH			
			

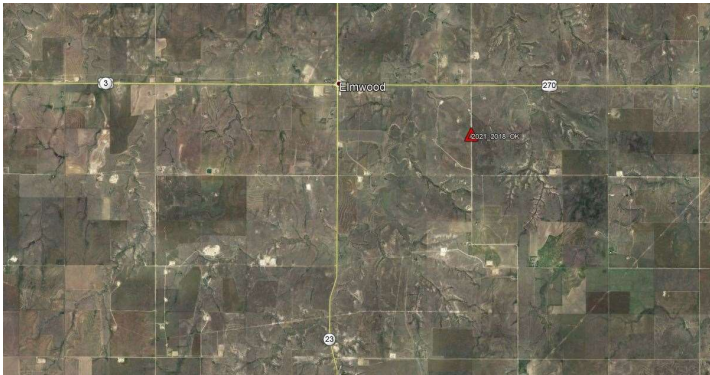


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2020_2018_OK	Northing (M) 4093078.861	Easting (M) 945436.564	Elevation (M) 664.991
Point Type NVA	Latitude (N) N36°52'42.98798"	Longitude (W) W100°00'12.48203"	Ellipsoid Height (M) 637.448
Location Photo  NORTH			
 2020_2018_OK, 3N, 20181028		 2020_2018_OK, 3E, 20181028	

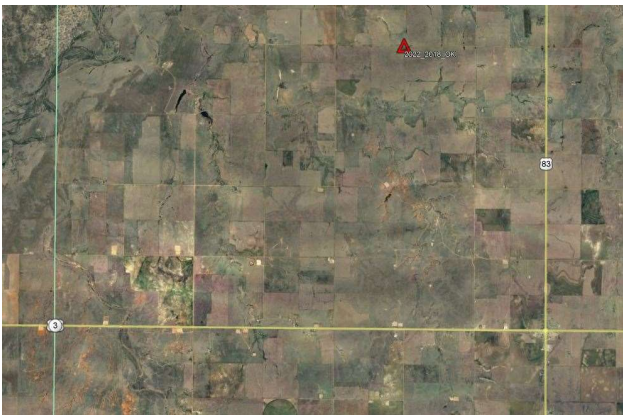


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2021_2018_OK	Northing (M) 4060885.434	Easting (M) 902881.683	Elevation (M) 834.248
Point Type NVA	Latitude (N) N36°36'30.22146"	Longitude (W) W100°29'46.92683"	Ellipsoid Height (M) 806.693
Location Photo  NORTH			
			
2021_2018_OK, 3W, 20181026		2021_2018_OK, 3S, 20181026	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2022_2018_OK	Northing (M) 4066723.815	Easting (M) 869556.626	Elevation (M) 830.572
Point Type NVA	Latitude (N) N36°40'27.77223"	Longitude (W) W100°51'54.60182"	Ellipsoid Height (M) 803.284
Location Photo  NORTH			
 2022_2018_OK, 3S, 20181024		 2022_2018_OK, 3E, 20181024	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2023_2018_OK	Northing (M) 4087011.592	Easting (M) 852618.595	Elevation (M) 873.399
Point Type NVA	Latitude (N) N36°51'47.74128"	Longitude (W) W101°02'41.59549"	Ellipsoid Height (M) 846.474
Location Photo  NORTH			
 2023_2018_OK, 3S, 20181023		 2023_2018_OK, 3E, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2023A_2018_OK	Northing (M) 4087005.465	Easting (M) 852652.262	Elevation (M) 873.714
Point Type NVA	Latitude (N) N36°51'47.49770"	Longitude (W) W101°02'40.24923"	Ellipsoid Height (M) 846.789
Location Photo  NORTH			
			
2023A_2018_OK, 3N, 20181023		2023A_2018_OK, 3E, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2024_2018_OK	Northing (M) 4050913.511	Easting (M) 707631.599	Elevation (M) 1324.112
Point Type NVA	Latitude (N) N36°34'52.04619"	Longitude (W) W102°40'45.43523"	Ellipsoid Height (M) 1300.658
Location Photo  NORTH			
 2024_2018_OK, 3W, 20181025		 2024_2018_OK, 3S, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2025_2018_OK	Northing (M) 4060439.424	Easting (M) 845734.459	Elevation (M) 869.053
Point Type NVA	Latitude (N) N36°37'36.51449"	Longitude (W) W101°08'02.27845"	Ellipsoid Height (M) 842.000
Location Photo  NORTH			
 2025_2018_OK, 3W, 20181024		 2025_2018_OK, 3S, 20181024	

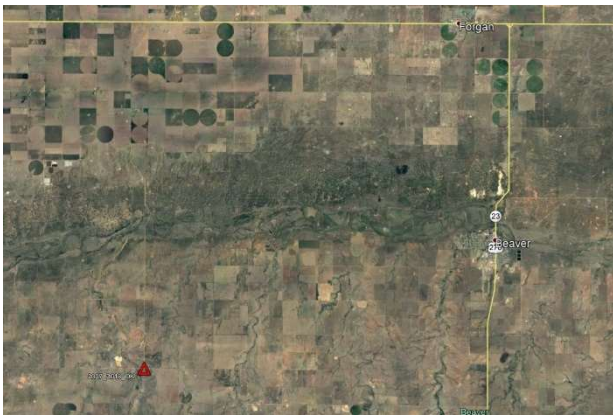


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2026_2018_OK	Northing (M) 4080912.453	Easting (M) 772673.560	Elevation (M) 1107.072
Point Type NVA	Latitude (N) N36°50'05.34032"	Longitude (W) W101°56'32.79086"	Ellipsoid Height (M) 1081.989
Location Photo  NORTH			
			
2026_2018_OK, 3N, 20181027		2026_2018_OK, 3E, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2027_2018_OK	Northing (M) 4077035.625	Easting (M) 883605.751	Elevation (M) 802.188
Point Type NVA	Latitude (N) N36°45'41.47862"	Longitude (W) W100°42'11.52077"	Ellipsoid Height (M) 774.872
Location Photo  NORTH			
			
2027_2018_OK, 3S, 20181023		2027_2018_OK, 3E, 20181023	

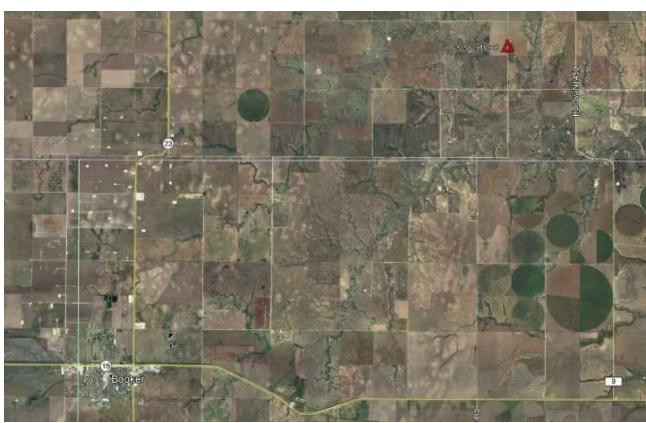


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2028_2018_OK	Northing (M) 4054416.283	Easting (M) 854048.369	Elevation (M) 825.662
Point Type NVA	Latitude (N) N36°34'10.52272"	Longitude (W) W101°02'38.28746"	Ellipsoid Height (M) 798.469
Location Photo  NORTH			
 2028_2018_OK, 3N, 20181024		 2028_2018_OK, 3E, 20181024	

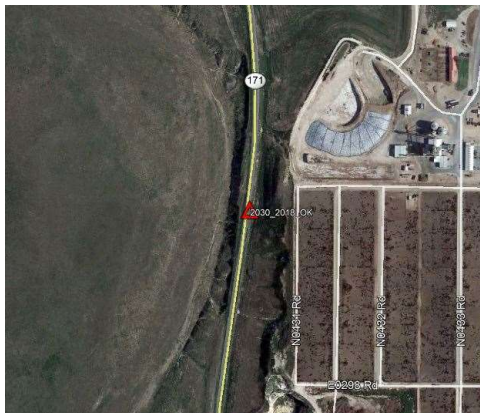


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2029_2018_OK	Northing (M) 4051778.334	Easting (M) 909018.557	Elevation (M) 841.986
Point Type NVA	Latitude (N) N36°31'26.20214"	Longitude (W) W100°25'58.05907"	Ellipsoid Height (M) 814.306
Location Photo  NORTH			
 2029_2018_OK, 3W, 20181026		 2029_2018_OK, 3N, 20181026	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2030_2018_OK	Northing (M) 4051770.751	Easting (M) 746308.709	Elevation (M) 1160.921
Point Type NVA	Latitude (N) N36°34'46.72995"	Longitude (W) W102°14'49.67834"	Ellipsoid Height (M) 1136.377
Location Photo  NORTH			
 2030_2018_OK, 3S, 20181026		 2030_2018_OK, 3E, 20181026	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2031A_2018_OK	Northing (M) 4108445.883	Easting (M) 1398259.688	Elevation (M) 238.033
Point Type NVA	Latitude (N) N36°41'45.05544"	Longitude (W) W94°57'32.63479"	Ellipsoid Height (M) 208.795
Location Photo  NORTH			
			
2031A_2018_OK, 3N, 20181106		2031A_2018_OK, 3E, 20181106	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2031B_2018_OK	Northing (M) 4108439.999	Easting (M) 1398263.944	Elevation (M) 238.015
Point Type NVA	Latitude (N) N36°41'44.85301"	Longitude (W) W94°57'32.49064"	Ellipsoid Height (M) 208.777
Location Photo  NORTH			
 2031B_2018_OK, 3N, 20181106		 2031B_2018_OK, 3E, 20181106	

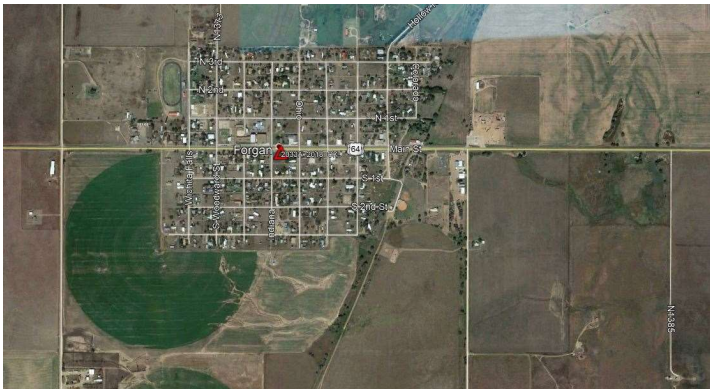


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2032_2018_OK	Northing (M) 3974860.584	Easting (M) 1171551.514	Elevation (M) 314.081
Point Type NVA	Latitude (N) N35°41'19.43920"	Longitude (W) W97°35'04.48548"	Ellipsoid Height (M) 286.782
Location Photo  NORTH			
			
2032_2018_OK, 3W, 20181104		2032_2018_OK, 3N, 20181104	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2033A_2018_OK	Northing (M) 4093834.570	Easting (M) 897502.700	Elevation (M) 790.177
Point Type NVA	Latitude (N) N36°54'24.41333"	Longitude (W) W100°32'21.05997"	Ellipsoid Height (M) 762.979
Location Photo  NORTH			
			
2033A_2018_OK, 3N, 20181027		2033A_2018_OK, 3E, 20181027	

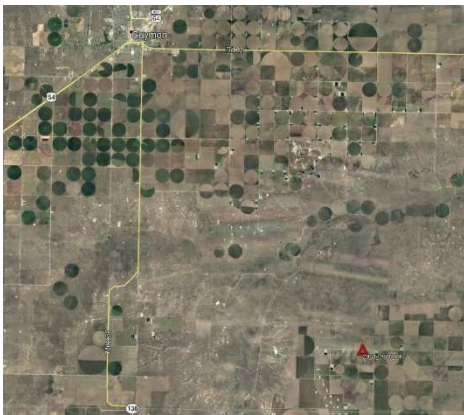


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2033B_2018_OK	Northing (M) 4093835.818	Easting (M) 897533.196	Elevation (M) 789.269
Point Type NVA	Latitude (N) N36°54'24.40749"	Longitude (W) W100°32'19.82895"	Ellipsoid Height (M) 762.072
Location Photo  NORTH			
			
2033B_2018_OK, 3N, 20181027		2033B_2018_OK, 3E, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2034_2018_OK	Northing (M) 4048930.128	Easting (M) 827870.654	Elevation (M) 943.359
Point Type NVA	Latitude (N) N36°31'46.47672"	Longitude (W) W101°20'17.66513"	Ellipsoid Height (M) 916.510
Location Photo  NORTH			
 2034_2018_OK, 3W, 20181030		 2034_2018_OK, 3N, 20181030	

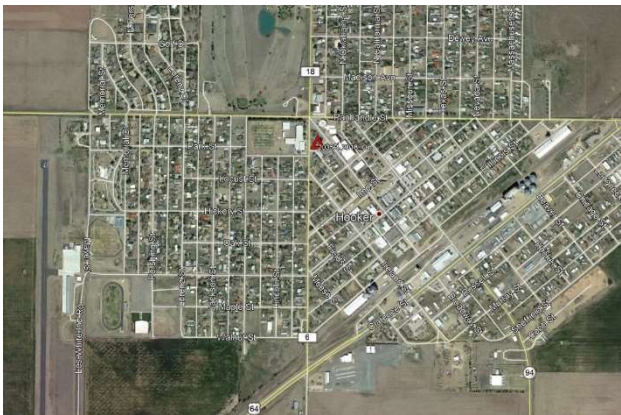


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2035A_2018_OK	Northing (M) 4086288.871	Easting (M) 837345.148	Elevation (M) 912.334
Point Type NVA	Latitude (N) N36°51'44.40704"	Longitude (W) W101°12'58.22900"	Ellipsoid Height (M) 885.652
Location Photo  NORTH			
			
2035A_2018_OK, 3W, 20181029		2035A_2018_OK, 3N, 20181029	

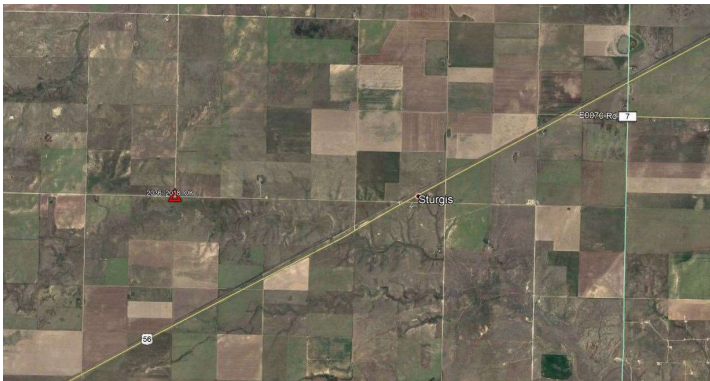


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2035B_2018_OK	Northing (M) 4086288.786	Easting (M) 837358.864	Elevation (M) 912.264
Point Type NVA	Latitude (N) N36°51'44.38666"	Longitude (W) W101°12'57.67637"	Ellipsoid Height (M) 885.581
Location Photo  NORTH			
			
2035B_2018_OK, 3N, 20181029		2035B_2018_OK, 3E, 20181029	

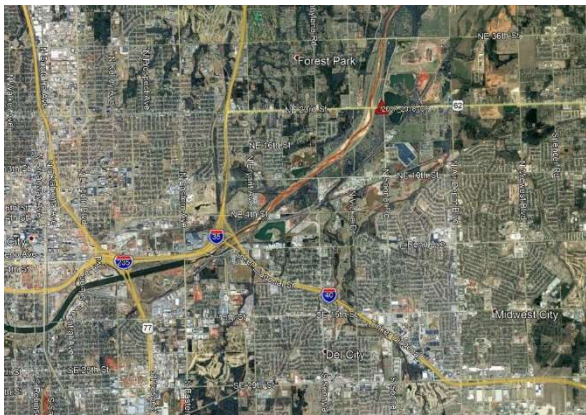


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2036_2018_OK	Northing (M) 4086909.868	Easting (M) 756779.144	Elevation (M) 1158.015
Point Type NVA	Latitude (N) N36°53'35.74160"	Longitude (W) W102°07'06.35020"	Ellipsoid Height (M) 1133.380
Location Photo  NORTH			
			
2036_2018_OK, 3W, 20181027		2036_2018_OK, 3N, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2037_2018_OK	Northing (M) 3954241.855	Easting (M) 1187753.564	Elevation (M) 354.654
Point Type NVA	Latitude (N) N35°29'35.97109"	Longitude (W) W97°25'28.35430"	Ellipsoid Height (M) 327.611
Location Photo  NORTH			
			
2037_2018_OK, 3N, 20181102		2037_2018_OK, 3E, 20181102	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2038_2018_OK	Northing (M) 4066045.389	Easting (M) 890600.013	Elevation (M) 842.488
Point Type NVA	Latitude (N) N36°39'35.57710"	Longitude (W) W100°37'50.41097"	Ellipsoid Height (M) 815.082
Location Photo  NORTH			
 2038_2018_OK, 3N, 20181025		 2038_2018_OK, 3E, 20181025	

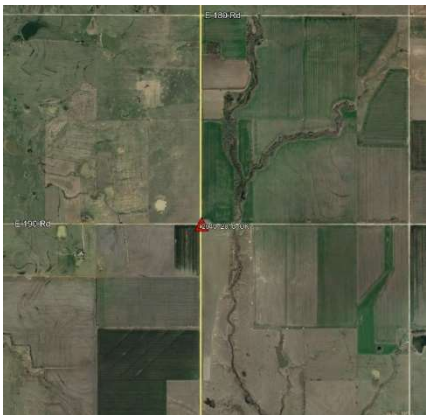


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2039_2018_OK	Northing (M) 3941225.359	Easting (M) 1180645.477	Elevation (M) 391.541
Point Type NVA	Latitude (N) N35°22'54.64022"	Longitude (W) W97°30'47.08323"	Ellipsoid Height (M) 364.713
Location Photo  NORTH			
			
2039_2018_OK, 3W, 20181104		2039_2018_OK, 3N, 20181104	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2040_2018_OK	Northing (M) 4113509.820	Easting (M) 1395702.514	Elevation (M) 242.234
Point Type NVA	Latitude (N) N36°44'35.52130"	Longitude (W) W94°58'52.88353"	Ellipsoid Height (M) 212.937
Location Photo  NORTH			
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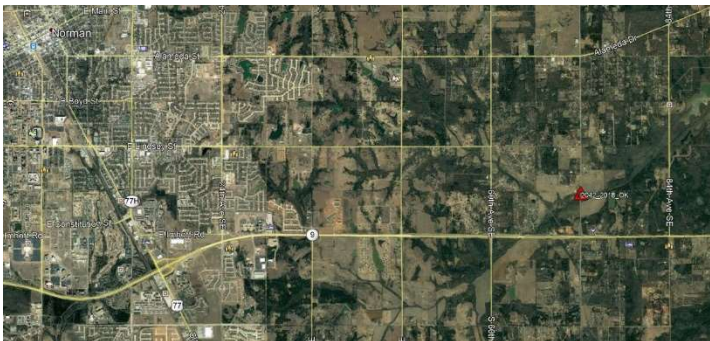


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2041_2018_OK	Northing (M) 4051668.493	Easting (M) 738304.777	Elevation (M) 1207.506
Point Type NVA	Latitude (N) N36°34'50.72929"	Longitude (W) W102°20'11.51316"	Ellipsoid Height (M) 1183.190
Location Photo  NORTH			
			
2041_2018_OK, 3SW, 20181025		2041_2018_OK, 3SE, 20181025	

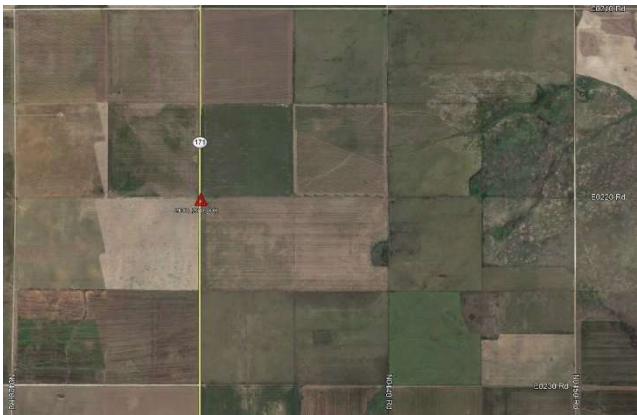


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2042_2018_OK	Northing (M) 3921830.153	Easting (M) 1198438.126	Elevation (M) 323.292
Point Type NVA	Latitude (N) N35°11'46.56956"	Longitude (W) W97°20'07.30483"	Ellipsoid Height (M) 296.781
Location Photo  NORTH			
			
2042_2018_OK, 3W, 20181103		2042_2018_OK, 3N, 20181103	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2043_2018_OK	Northing (M) 4064004.826	Easting (M) 745909.051	Elevation (M) 1201.894
Point Type NVA	Latitude (N) N36°41'23.68623"	Longitude (W) W102°14'51.63591"	Ellipsoid Height (M) 1177.507
Location Photo  NORTH			
			
2043_2018_OK, 3W, 20181026		2043_2018_OK, 3S, 20181026	

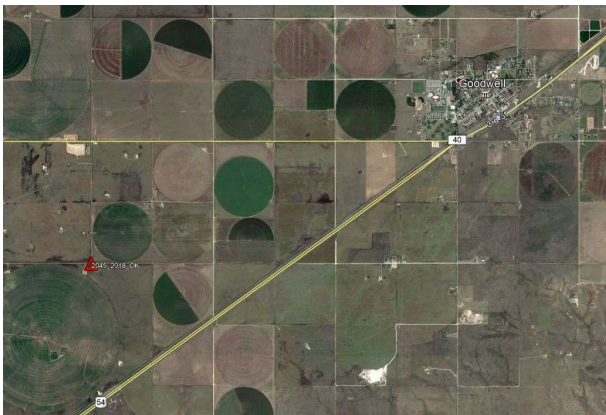


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2044_2018_OK	Northing (M) 4058737.150	Easting (M) 730518.876	Elevation (M) 1238.950
Point Type NVA	Latitude (N) N36°38'46.78699"	Longitude (W) W102°25'16.86394"	Ellipsoid Height (M) 1214.919
Location Photo  NORTH			
			
2044_2018_OK, 3S, 20181025		2044_2018_OK, 3E, 20181025	

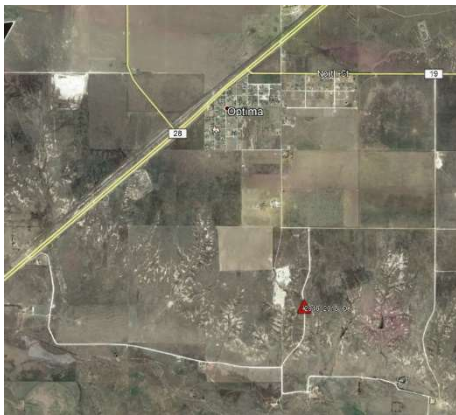


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2045_2018_OK	Northing (M) 4052666.996	Easting (M) 796120.513	Elevation (M) 1024.647
Point Type NVA	Latitude (N) N36°34'24.83788"	Longitude (W) W101°41'27.01306"	Ellipsoid Height (M) 998.549
Location Photo  NORTH			
 2045_2018_OK, 3W, 20181030		 2045_2018_OK, 3S, 20181030	

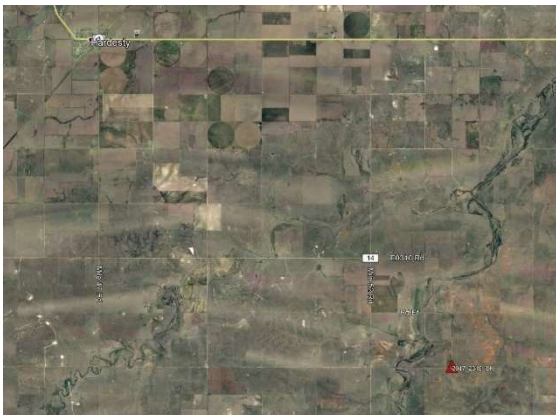


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2046_2018_OK	Northing (M) 4072228.293	Easting (M) 826173.701	Elevation (M) 902.522
Point Type NVA	Latitude (N) N36°44'23.14620"	Longitude (W) W101°20'50.14938"	Ellipsoid Height (M) 875.859
Location Photo  NORTH			
 2046_2018_OK, 3W, 20181029		 2046_2018_OK, 3N, 20181029	

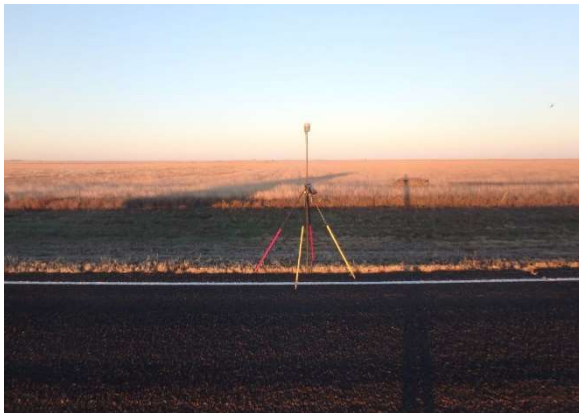


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2047_2018_OK	Northing (M) 4049873.992	Easting (M) 851806.666	Elevation (M) 834.045
Point Type NVA	Latitude (N) N36°31'46.43408"	Longitude (W) W101°04'15.72553"	Ellipsoid Height (M) 806.853
Location Photo  NORTH			
			
2047_2018_OK, 3N, 20181024		2047_2018_OK, 3E, 20181024	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2048_2018_OK	Northing (M) 4072506.972	Easting (M) 784179.182	Elevation (M) 1053.878
Point Type NVA	Latitude (N) N36°45'20.78818"	Longitude (W) W101°49'00.26028"	Ellipsoid Height (M) 1028.357
Location Photo  NORTH			
 2048_2018_OK, 3W, 20181028		 2048_2018_OK, 3N, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2049_2018_OK	Northing (M) 4090107.690	Easting (M) 886420.561	Elevation (M) 799.820
Point Type NVA	Latitude (N) N36°52'40.37932"	Longitude (W) W100°39'54.42593"	Ellipsoid Height (M) 772.617
Location Photo  NORTH			
			
2049_2018_OK, 3S, 20181023		2049_2018_OK, 3E, 20181023	

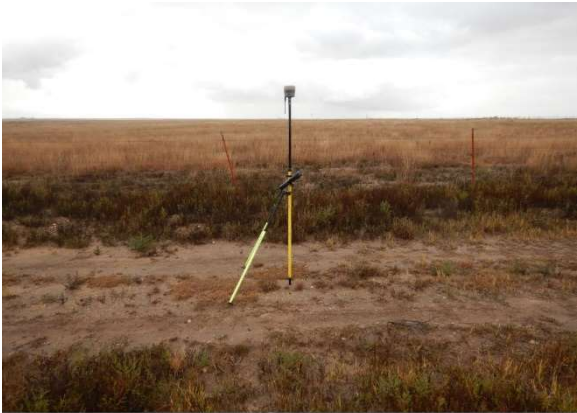


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2050_2018_OK	Northing (M) 4089811.006	Easting (M) 859770.653	Elevation (M) 854.965
Point Type NVA	Latitude (N) N36°53'08.66286"	Longitude (W) W100°57'48.67087"	Ellipsoid Height (M) 827.974
Location Photo  NORTH			
			
2050_2018_OK, 3N, 20181023		2050_2018_OK, 3E, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2051_2018_OK	Northing (M) 4055970.859	Easting (M) 845902.043	Elevation (M) 866.975
Point Type NVA	Latitude (N) N36°35'11.60349"	Longitude (W) W101°08'02.78002"	Ellipsoid Height (M) 839.887
Location Photo  NORTH			
 2051_2018_OK, 3W, 20181024		 2051_2018_OK, 3N, 20181024	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2052A_2018_OK	Northing (M) 3927380.145	Easting (M) 1189168.080	Elevation (M) 357.187
Point Type NVA	Latitude (N) N35°15'08.14194"	Longitude (W) W97°25'53.99401"	Ellipsoid Height (M) 330.581
Location Photo  NORTH			
			
2052A_2018_OK, 3N, 20181103		2052A_2018_OK, 3E, 20181103	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2052B_2018_OK	Northing (M) 3927380.774	Easting (M) 1189176.584	Elevation (M) 357.480
Point Type NVA	Latitude (N) N35°15'08.14119"	Longitude (W) W97°25'53.65851"	Ellipsoid Height (M) 330.874
Location Photo  NORTH			
			
2052B_2018_OK, 3N, 20181103		2052B_2018_OK, 3E, 20181103	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2053_2018_OK	Northing (M) 4051192.395	Easting (M) 830001.070	Elevation (M) 936.968
Point Type NVA	Latitude (N) N36°32'57.10812"	Longitude (W) W101°18'48.68713"	Ellipsoid Height (M) 910.091
Location Photo  NORTH			
			
2053_2018_OK, 3S, 20181030		2053_2018_OK, 3E, 20181030	

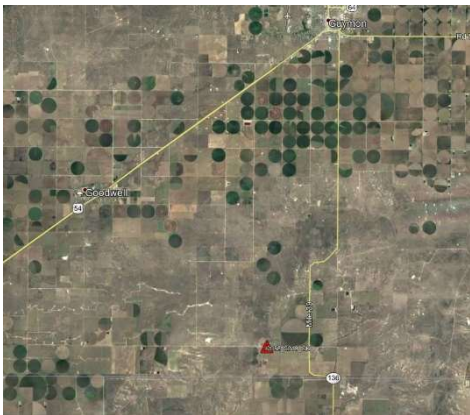


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2054_2018_OK	Northing (M) 4058356.556	Easting (M) 823317.641	Elevation (M) 931.608
Point Type NVA	Latitude (N) N36°36'57.37357"	Longitude (W) W101°23'06.15001"	Ellipsoid Height (M) 904.886
Location Photo  NORTH			
 2054_2018_OK, 3N, 20181030		 2054_2018_OK, 3E, 20181030	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2055_2018_OK	Northing (M) 4046739.260	Easting (M) 811663.777	Elevation (M) 985.128
Point Type NVA	Latitude (N) N36°30'55.00898"	Longitude (W) W101°31'11.34421"	Ellipsoid Height (M) 958.585
Location Photo  NORTH			
 2055_2018_OK, 3S, 20181029		 2055_2018_OK, 3E, 20181029	

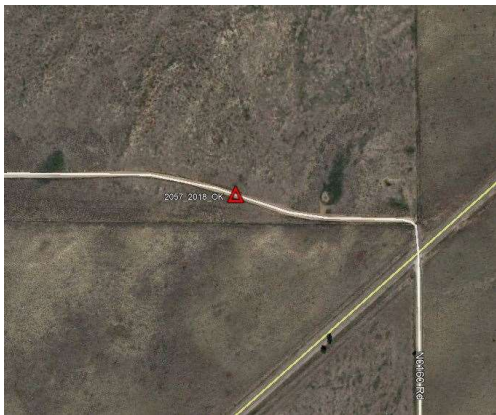


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2056_2018_OK	Northing (M) 4100119.592	Easting (M) 921339.816	Elevation (M) 727.907
Point Type NVA	Latitude (N) N36°57'10.47623"	Longitude (W) W100°16'08.36251"	Ellipsoid Height (M) 700.619
Location Photo  NORTH			
 2056_2018_OK, 3W, 20181027		 2056_2018_OK, 3N, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2057_2018_OK	Northing (M) 4051692.774	Easting (M) 702450.129	Elevation (M) 1345.078
Point Type NVA	Latitude (N) N36°35'21.32435"	Longitude (W) W102°44'13.03721"	Ellipsoid Height (M) 1321.798
Location Photo  NORTH			
			
2057_2018_OK, 3N, 20181024		2057_2018_OK, 3E, 20181024	

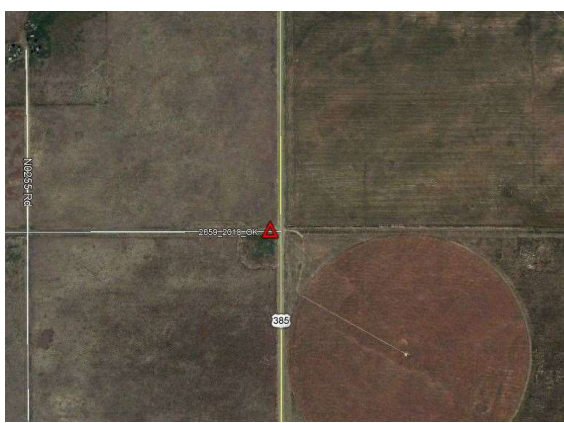


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2058_2018_OK	Northing (M) 3921782.513	Easting (M) 1195188.290	Elevation (M) 347.299
Point Type NVA	Latitude (N) N35°11'53.12853"	Longitude (W) W97°22'14.82242"	Ellipsoid Height (M) 320.798
Location Photo  NORTH			
 2058_2018_OK, 3S, 20181103		 2058_2018_OK, 3E, 20181103	

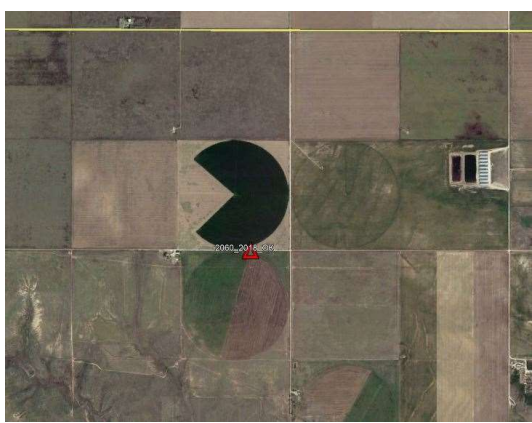


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2059_2018_OK	Northing (M) 4048810.696	Easting (M) 718948.404	Elevation (M) 1269.598
Point Type NVA	Latitude (N) N36°33'34.75897"	Longitude (W) W102°33'12.59419"	Ellipsoid Height (M) 1245.784
Location Photo  NORTH			
 2059_2018_OK, 3N, 20181025		 2059_2018_OK, 3E, 20181025	

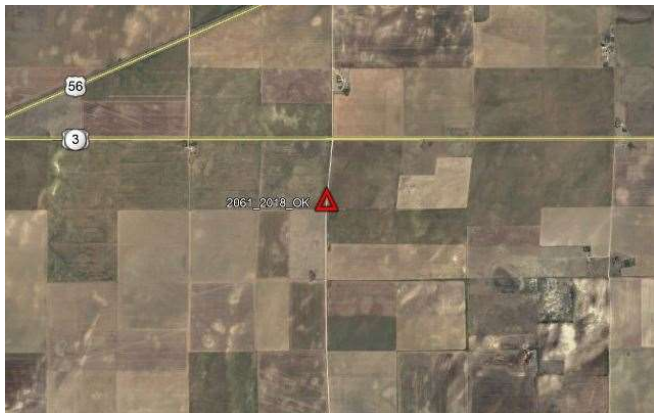


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2060_2018_OK	Northing (M) 4087827.092	Easting (M) 788633.122	Elevation (M) 1057.816
Point Type NVA	Latitude (N) N36°53'32.33514"	Longitude (W) W101°45'39.98612"	Ellipsoid Height (M) 1032.326
Location Photo  NORTH			
 2060_2018_OK, 3W, 20181028		 2060_2018_OK, 3N, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2061_2018_OK	Northing (M) 4071143.339	Easting (M) 737590.267	Elevation (M) 1221.797
Point Type NVA	Latitude (N) N36°45'22.72038"	Longitude (W) W102°20'18.50230"	Ellipsoid Height (M) 1197.673
Location Photo  NORTH			
 2061_2018_OK, 3W, 20181026		 2061_2018_OK, 3N, 20181026	

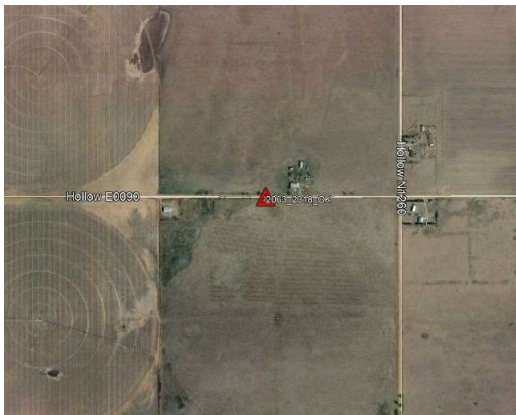


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2062_2018_OK	Northing (M) 4083667.221	Easting (M) 859273.003	Elevation (M) 850.675
Point Type NVA	Latitude (N) N36°49'50.45642"	Longitude (W) W100°58'19.18437"	Ellipsoid Height (M) 823.634
Location Photo  NORTH			
 2062_2018_OK, 3W, 20181023		 2062_2018_OK, 3S, 20181023	

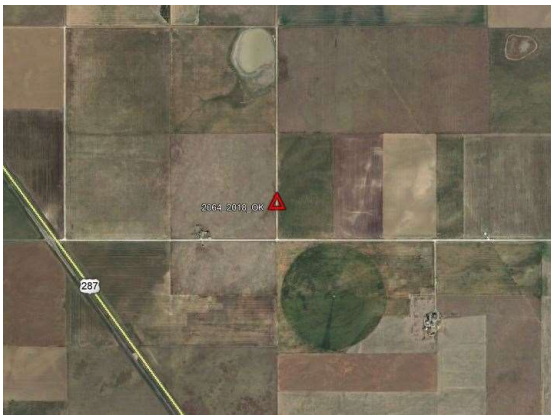


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2063_2018_OK	Northing (M) 4089748.576	Easting (M) 878652.515	Elevation (M) 820.109
Point Type NVA	Latitude (N) N36°52'40.07826"	Longitude (W) W100°45'07.99154"	Ellipsoid Height (M) 792.942
Location Photo  NORTH			
			
2063_2018_OK, 3S, 20181023		2063_2018_OK, 3E, 20181023	

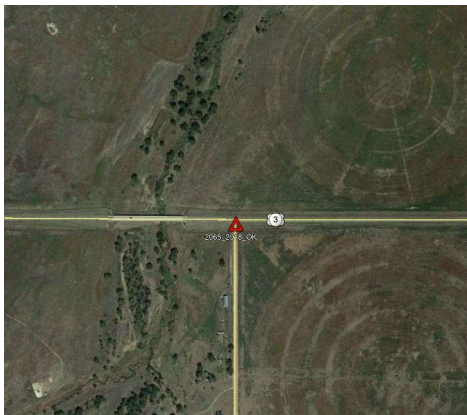


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2064_2018_OK	Northing (M) 4062252.871	Easting (M) 729822.686	Elevation (M) 1244.974
Point Type NVA	Latitude (N) N36°40'41.37608"	Longitude (W) W102°25'41.08044"	Ellipsoid Height (M) 1220.989
Location Photo  NORTH			
 2064_2018_OK, 3S, 20181025		 2064_2018_OK, 3E, 20181025	

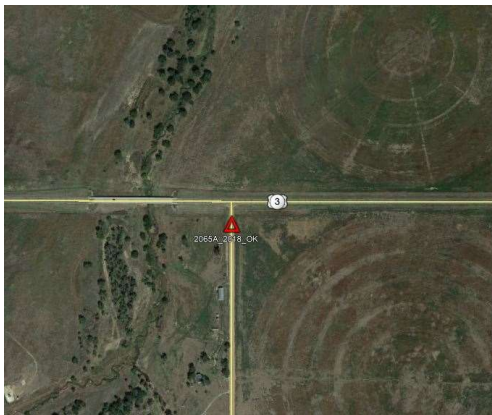


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2065_2018_OK	Northing (M) 4063190.876	Easting (M) 932639.697	Elevation (M) 711.103
Point Type NVA	Latitude (N) N36°36'57.89739"	Longitude (W) W100°09'48.44596"	Ellipsoid Height (M) 683.398
Location Photo  NORTH			
 2065_2018_OK, 3N, 20181029		 2065_2018_OK, 3E, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2065A_2018_OK	Northing (M) 4063151.593	Easting (M) 932640.069	Elevation (M) 710.576
Point Type NVA	Latitude (N) N36°36'56.62643"	Longitude (W) W100°09'48.51058"	Ellipsoid Height (M) 682.871
Location Photo  NORTH			
 2065A_2018_OK, 3S, 20181029		 2065A_2018_OK, 3E, 20181029	

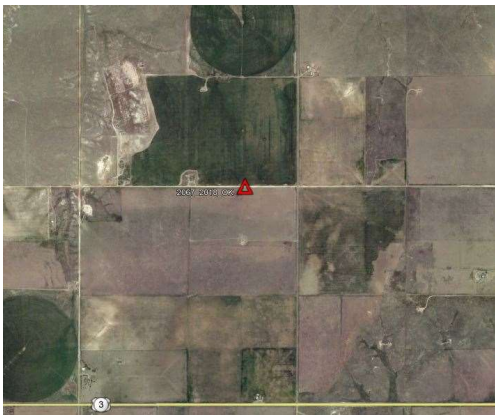


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2066_2018_OK	Northing (M) 4078926.770	Easting (M) 833723.091	Elevation (M) 913.122
Point Type NVA	Latitude (N) N36°47'50.62501"	Longitude (W) W101°15'35.82687"	Ellipsoid Height (M) 886.426
Location Photo  NORTH			
 2066_2018_OK, 3W, 20181029		 2066_2018_OK, 3N, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2067_2018_OK	Northing (M) 4061090.552	Easting (M) 850164.795	Elevation (M) 860.890
Point Type NVA	Latitude (N) N36°37'51.77622"	Longitude (W) W101°05'03.23962"	Ellipsoid Height (M) 833.788
Location Photo  NORTH			
 2067_2018_OK, 3N, 20181024		 2067_2018_OK, 3E, 20181024	

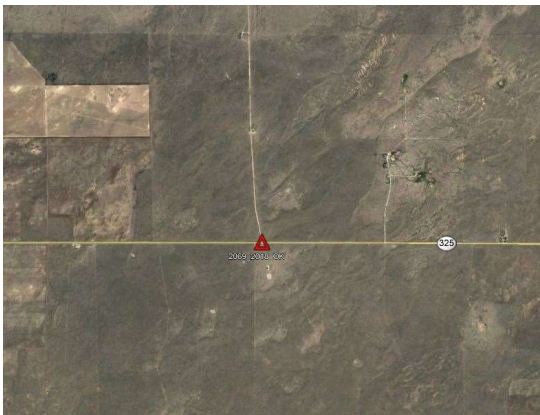
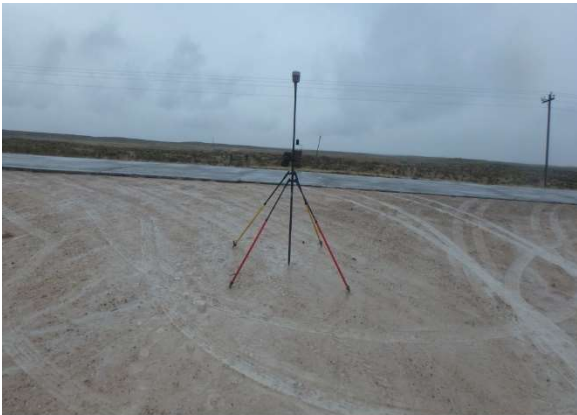


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2068_2018_OK	Northing (M) 4064271.485	Easting (M) 691878.541	Elevation (M) 1397.834
Point Type NVA	Latitude (N) N36°42'17.13010"	Longitude (W) W102°51'06.85355"	Ellipsoid Height (M) 1374.966
Location Photo  NORTH			
 2068_2018_OK, 3W, 20181024		 2068_2018_OK, 3S, 20181024	

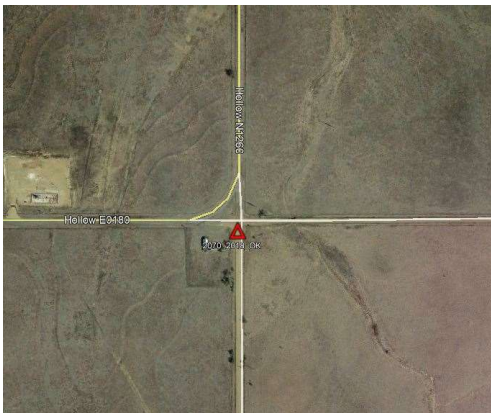


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2069_2018_OK	Northing (M) 4067753.411	Easting (M) 702513.005	Elevation (M) 1352.097
Point Type NVA	Latitude (N) N36°44'02.09632"	Longitude (W) W102°43'55.23601"	Ellipsoid Height (M) 1328.865
Location Photo  NORTH			
			
2069_2018_OK, 3W, 20181024		2069_2018_OK, 3S, 20181024	

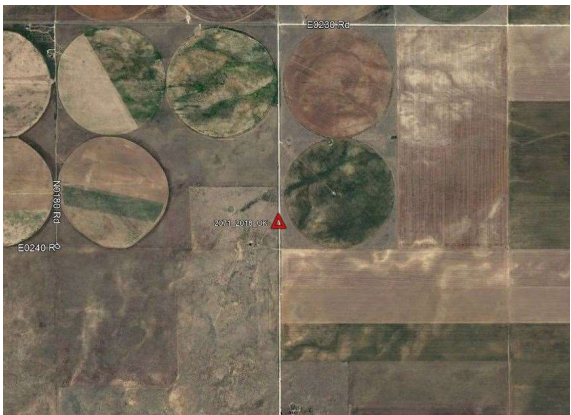


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2070_2018_OK	Northing (M) 4075186.415	Easting (M) 878903.847	Elevation (M) 828.105
Point Type NVA	Latitude (N) N36°44'48.43140"	Longitude (W) W100°45'23.94759"	Ellipsoid Height (M) 800.806
Location Photo  NORTH			
			
2070_2018_OK, 3S, 20181023		2070_2018_OK, 3E, 20181023	

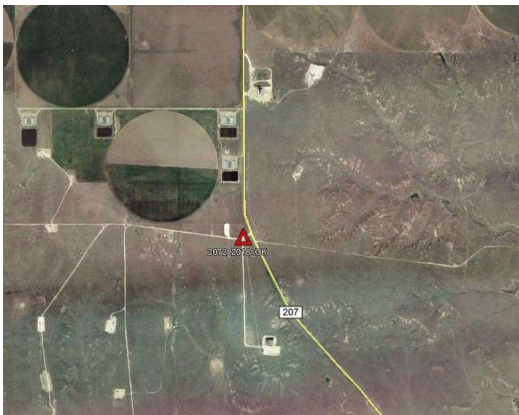


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2071_2018_OK	Northing (M) 4059985.258	Easting (M) 707395.939	Elevation (M) 1323.137
Point Type NVA	Latitude (N) N36°39'46.40341"	Longitude (W) W102°40'46.09322"	Ellipsoid Height (M) 1299.740
Location Photo  NORTH			
			
2071_2018_OK, 3W, 20181024		2071_2018_OK, 3S, 20181024	

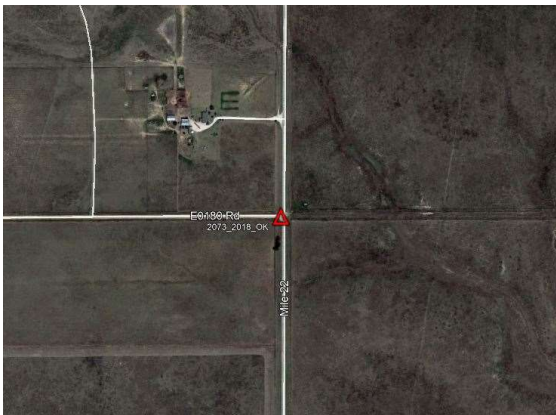


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2072_2018_OK	Northing (M) 4055860.253	Easting (M) 821812.154	Elevation (M) 934.125
Point Type NVA	Latitude (N) N36°35'38.35156"	Longitude (W) W101°24'10.39872"	Ellipsoid Height (M) 907.413
Location Photo  NORTH			
 2072_2018_OK, 3N, 20181030		 2072_2018_OK, 3E, 20181030	

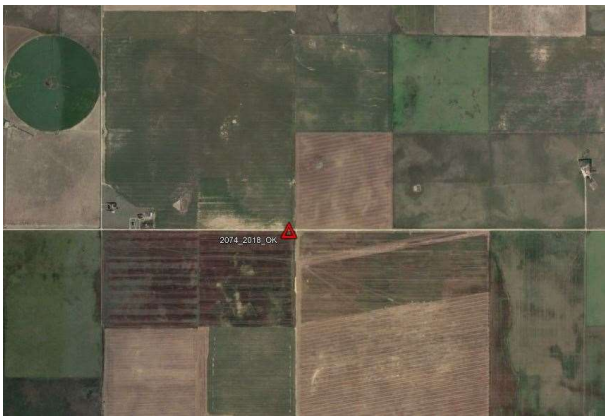


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2073_2018_OK	Northing (M) 4072188.932	Easting (M) 800258.558	Elevation (M) 987.313
Point Type NVA	Latitude (N) N36°44'52.65617"	Longitude (W) W101°38'13.28374"	Ellipsoid Height (M) 961.317
Location Photo  NORTH			
 2073_2018_OK, 3W, 20181028		 2073_2018_OK, 3N, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2074_2018_OK	Northing (M) 4051258.927	Easting (M) 751055.751	Elevation (M) 1176.159
Point Type NVA	Latitude (N) N36°34'25.68713"	Longitude (W) W102°11'39.48547"	Ellipsoid Height (M) 1151.469
Location Photo  NORTH			
 2074_2018_OK, 3S, 20181026		 2074_2018_OK, 3E, 20181026	

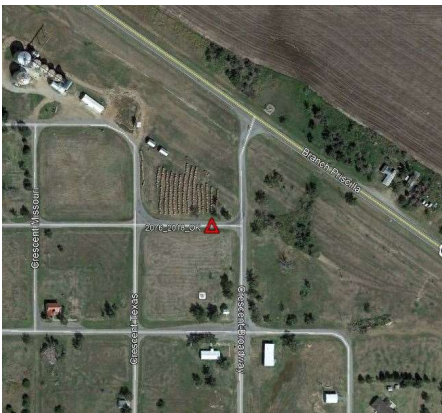


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2075_2018_OK	Northing (M) 3972951.708	Easting (M) 1176893.168	Elevation (M) 326.590
Point Type NVA	Latitude (N) N35°40'04.90092"	Longitude (W) W97°31'39.51581"	Ellipsoid Height (M) 299.300
Location Photo  NORTH			
 2075_2018_OK, 3N, 20181104		 2075_2018_OK, 3E, 20181104	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2076_2018_OK	Northing (M) 4091731.221	Easting (M) 928582.887	Elevation (M) 771.861
Point Type NVA	Latitude (N) N36°52'27.46064"	Longitude (W) W100°11'33.58172"	Ellipsoid Height (M) 744.462
Location Photo  NORTH			
 2076_2018_OK, 3W, 20181028		 2076_2018_OK, 3N, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2077A_2018_OK	Northing (M) 4067705.850	Easting (M) 722692.769	Elevation (M) 1266.380
Point Type NVA	Latitude (N) N36°43'44.28299"	Longitude (W) W102°30'22.36101"	Ellipsoid Height (M) 1242.602
Location Photo  NORTH			
			
2077A_2018_OK, 3W, 20181023		2077A_2018_OK, 3N, 20181023	

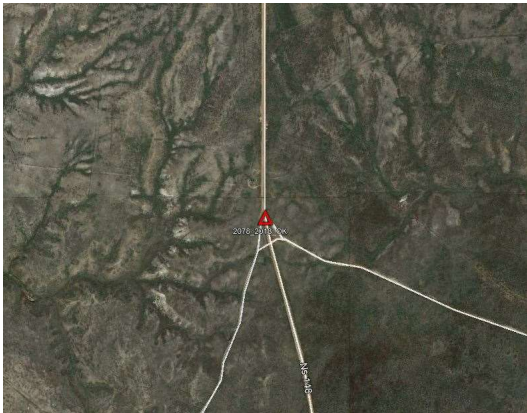


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2077B_2018_OK	Northing (M) 4067705.571	Easting (M) 722685.072	Elevation (M) 1266.421
Point Type NVA	Latitude (N) N36°43'44.28045"	Longitude (W) W102°30'22.67130"	Ellipsoid Height (M) 1242.642
Location Photo  NORTH			
 2077B_2018_OK, 3W, 20181023		 2077B_2018_OK, 3N, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2078_2018_OK	Northing (M) 4088083.244	Easting (M) 913386.518	Elevation (M) 769.062
Point Type NVA	Latitude (N) N36°50'53.82760"	Longitude (W) W100°21'52.50498"	Ellipsoid Height (M) 741.703
Location Photo  NORTH			
 2078_2018_OK, 3W, 20181028		 2078_2018_OK, 3N, 20181028	

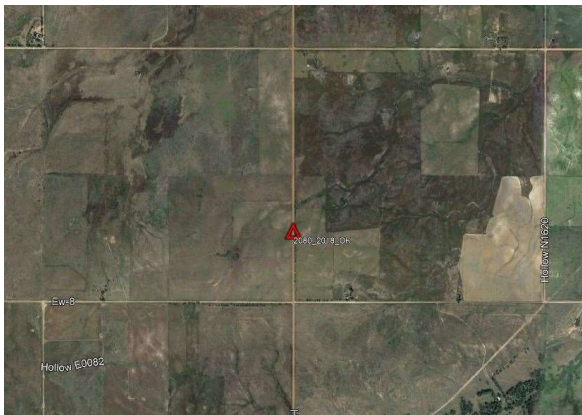


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2079_2018_OK	Northing (M) 4102990.828	Easting (M) 934879.937	Elevation (M) 636.734
Point Type NVA	Latitude (N) N36°58'21.18132"	Longitude (W) W100°06'56.87225"	Ellipsoid Height (M) 609.343
Location Photo  NORTH			
 2079_2018_OK, 3S, 20181028		 2079_2018_OK, 3E, 20181028	

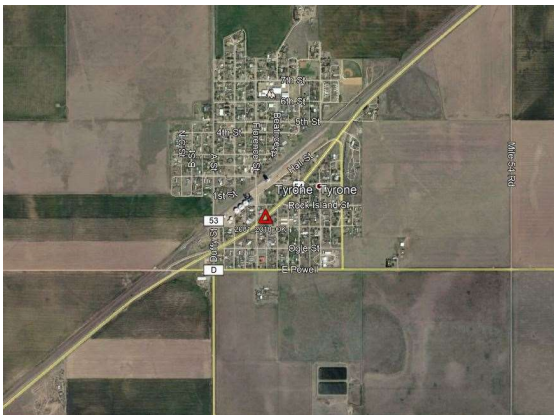


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2080_2018_OK	Northing (M) 4094484.414	Easting (M) 935334.658	Elevation (M) 699.385
Point Type NVA	Latitude (N) N36°53'45.37875"	Longitude (W) W100°06'56.15072"	Ellipsoid Height (M) 671.940
Location Photo  NORTH			
 2080_2018_OK, 3W, 20181028		 2080_2018_OK, 3S, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2081_2018_OK	Northing (M) 4096856.060	Easting (M) 850084.373	Elevation (M) 891.403
Point Type NVA	Latitude (N) N36°57'09.85639"	Longitude (W) W101°04'07.33516"	Ellipsoid Height (M) 864.616
Location Photo  NORTH			
			
2081_2018_OK, 3NW, 20181029		2081_2018_OK, 3NE, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2082A_2018_OK	Northing (M) 4088121.561	Easting (M) 867557.215	Elevation (M) 838.626
Point Type NVA	Latitude (N) N36°52'03.18701"	Longitude (W) W100°52'37.84430"	Ellipsoid Height (M) 811.531
Location Photo  NORTH			
			
2082A_2018_OK, 3N, 20181023		2082A_2018_OK, 3E, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2082B_2018_OK	Northing (M) 4088122.970	Easting (M) 867588.195	Elevation (M) 838.489
Point Type NVA	Latitude (N) N36°52'03.18922"	Longitude (W) W100°52'36.59376"	Ellipsoid Height (M) 811.394
Location Photo  NORTH			
			
2082B_2018_OK, 3N, 20181023		2082B_2018_OK, 3E, 20181023	

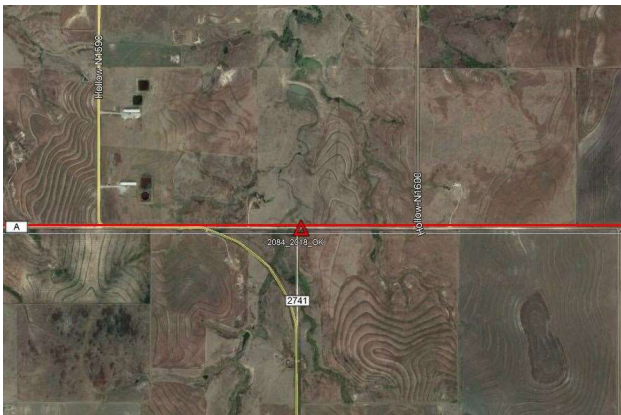


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2083_2018_OK	Northing (M) 4093006.633	Easting (M) 800005.182	Elevation (M) 1021.875
Point Type NVA	Latitude (N) N36°56'07.37011"	Longitude (W) W101°37'53.90753"	Ellipsoid Height (M) 996.106
Location Photo  NORTH			
			
2083_2018_OK, 3W, 20181028		2083_2018_OK, 3N, 20181028	

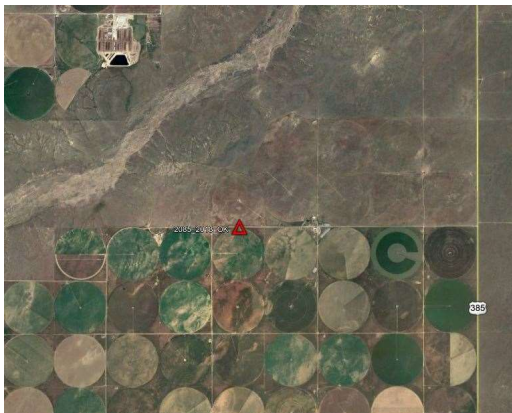


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2084_2018_OK	Northing (M) 4050340.353	Easting (M) 934337.389	Elevation (M) 772.230
Point Type NVA	Latitude (N) N36°29'59.56426"	Longitude (W) W100°09'06.38781"	Ellipsoid Height (M) 744.384
Location Photo  NORTH			
 2084_2018_OK, 3S, 20181029		 2084_2018_OK, 3E, 20181029	

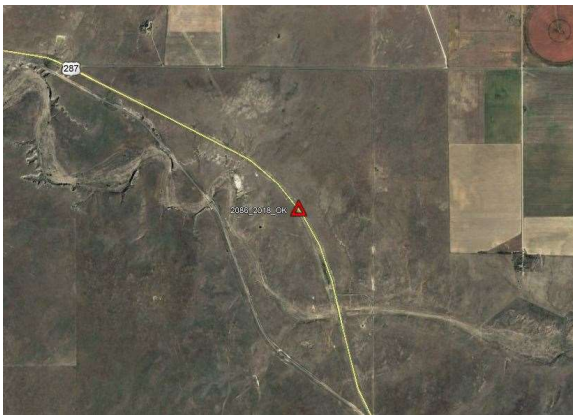


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2085_2018_OK	Northing (M) 4055134.217	Easting (M) 715196.802	Elevation (M) 1295.261
Point Type NVA	Latitude (N) N36°37'02.87180"	Longitude (W) W102°35'37.01777"	Ellipsoid Height (M) 1271.608
Location Photo  NORTH			
			
2085_2018_OK, 3N, 20181031		2085_2018_OK, 3E, 20181031	

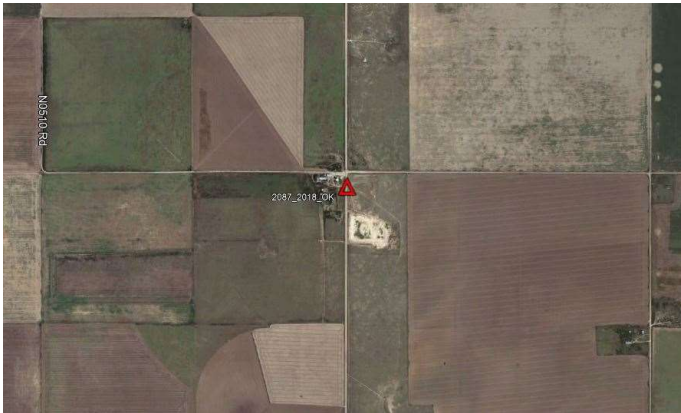


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2086_2018_OK	Northing (M) 4055770.389	Easting (M) 735651.464	Elevation (M) 1213.253
Point Type NVA	Latitude (N) N36°37'06.08321"	Longitude (W) W102°21'53.64513"	Ellipsoid Height (M) 1189.056
Location Photo  NORTH			
 2086_2018_OK, 3S, 20181025		 2086_2018_OK, 3E, 20181025	

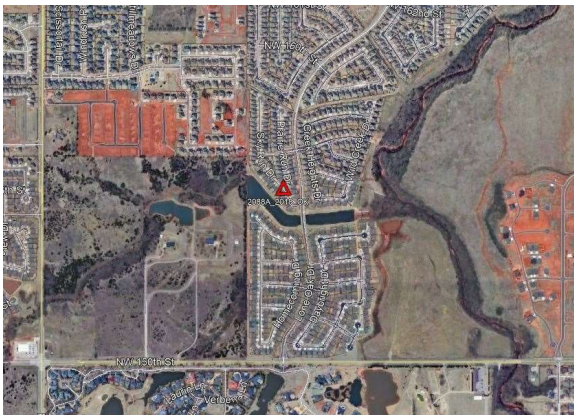


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2087_2018_OK	Northing (M) 4069176.667	Easting (M) 760220.790	Elevation (M) 1157.127
Point Type NVA	Latitude (N) N36°43'57.60102"	Longitude (W) W102°05'09.29951"	Ellipsoid Height (M) 1132.341
Location Photo  NORTH			
 2087_2018_OK, 3S, 20181027		 2087_2018_OK, 3E, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2088A_2018_OK	Northing (M) 3968135.608	Easting (M) 1169722.409	Elevation (M) 328.988
Point Type NVA	Latitude (N) N35°37'47.43572"	Longitude (W) W97°36'36.71657"	Ellipsoid Height (M) 301.810
Location Photo  NORTH			
			
2088A_2018_OK, 3N, 20181104		2088A_2018_OK, 3E, 20181104	

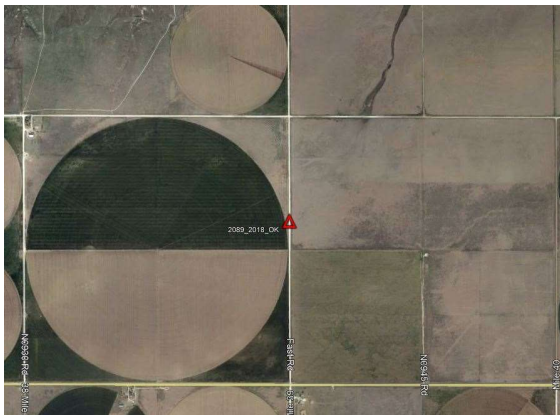


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2088B_2018_OK	Northing (M) 3968147.668	Easting (M) 1169710.392	Elevation (M) 329.067
Point Type NVA	Latitude (N) N35°37'47.85317"	Longitude (W) W97°36'37.15444"	Ellipsoid Height (M) 301.889
Location Photo  NORTH			
			
2088B_2018_OK, 3N, 20181104		2088B_2018_OK, 3E, 20181104	

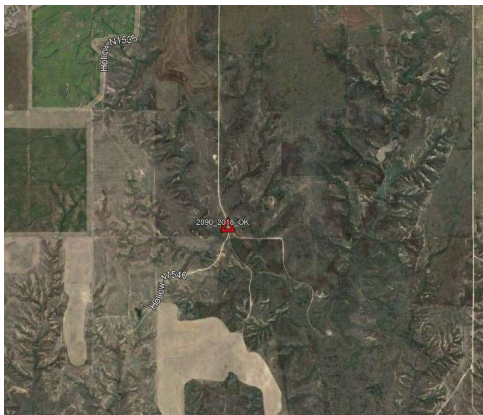


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2089_2018_OK	Northing (M) 4066029.508	Easting (M) 827800.890	Elevation (M) 916.094
Point Type NVA	Latitude (N) N36°41'00.36987"	Longitude (W) W101°19'54.23008"	Ellipsoid Height (M) 889.351
Location Photo  NORTH			
 2089_2018_OK, 3W, 20181029		 2089_2018_OK, 3N, 20181029	

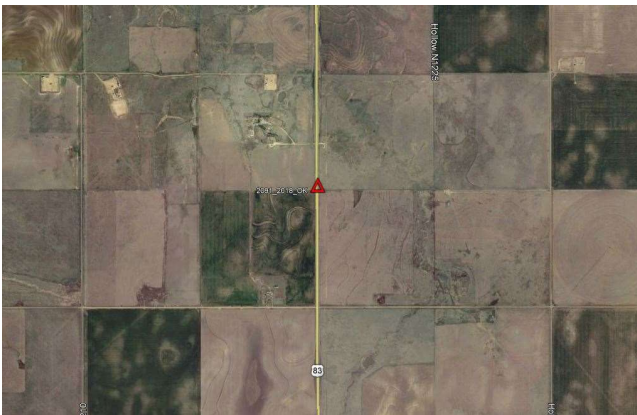


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2090_2018_OK	Northing (M) 4090364.154	Easting (M) 924293.726	Elevation (M) 770.418
Point Type NVA	Latitude (N) N36°51'50.21432"	Longitude (W) W100°14'28.98355"	Ellipsoid Height (M) 743.032
Location Photo  NORTH			
			
2090_2018_OK, 3N, 20181028		2090_2018_OK, 3E, 20181028	

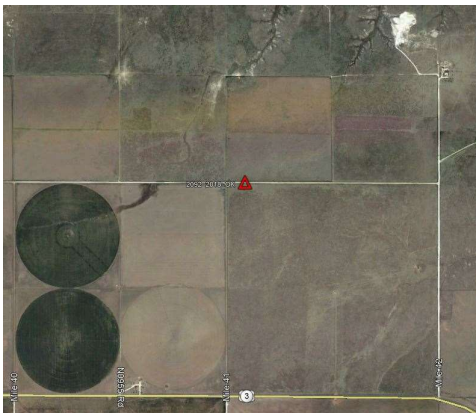


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2091_2018_OK	Northing (M) 4056430.234	Easting (M) 873298.865	Elevation (M) 886.174
Point Type NVA	Latitude (N) N36°34'49.33651"	Longitude (W) W100°49'42.22724"	Ellipsoid Height (M) 858.849
Location Photo  NORTH			
 2091_2018_OK, 3N, 20181025		 2091_2018_OK, 3E, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2092_2018_OK	Northing (M) 4066779.994	Easting (M) 831142.667	Elevation (M) 902.219
Point Type NVA	Latitude (N) N36°41'20.50862"	Longitude (W) W101°17'38.68963"	Ellipsoid Height (M) 875.429
Location Photo  NORTH			
 2092_2018_OK, 3W, 20181029		 2092_2018_OK, 3N, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2093_2018_OK	Northing (M) 4052735.084	Easting (M) 916923.541	Elevation (M) 813.661
Point Type NVA	Latitude (N) N36°31'44.87535"	Longitude (W) W100°20'39.37178"	Ellipsoid Height (M) 785.943
Location Photo  NORTH			
			
2093_2018_OK, 3N, 20181026		2093_2018_OK, 3E, 20181026	

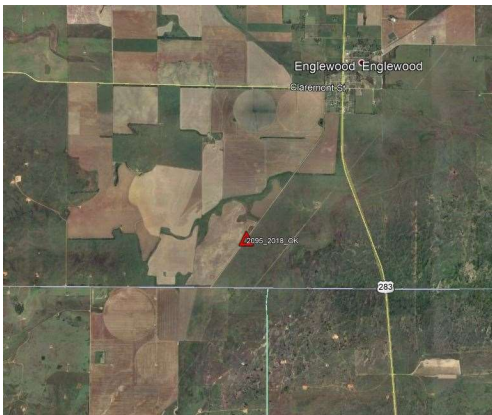


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2094_2018_OK	Northing (M) 4059114.633	Easting (M) 795988.062	Elevation (M) 1027.697
Point Type NVA	Latitude (N) N36°37'53.88826"	Longitude (W) W101°41'23.40159"	Ellipsoid Height (M) 1001.670
Location Photo  NORTH			
 2094_2018_OK, 3W, 20181030		 2094_2018_OK, 3N, 20181030	

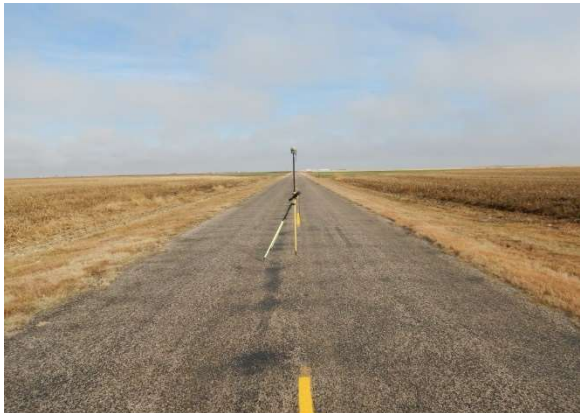


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2095_2018_OK	Northing (M) 4107631.881	Easting (M) 944362.429	Elevation (M) 602.951
Point Type NVA	Latitude (N) N37°00'35.29203"	Longitude (W) W100°00'24.95433"	Ellipsoid Height (M) 575.495
Location Photo  NORTH			
			
2095_2018_KS, 3S, 20181028		2095_2018_KS, 3E, 20181028	

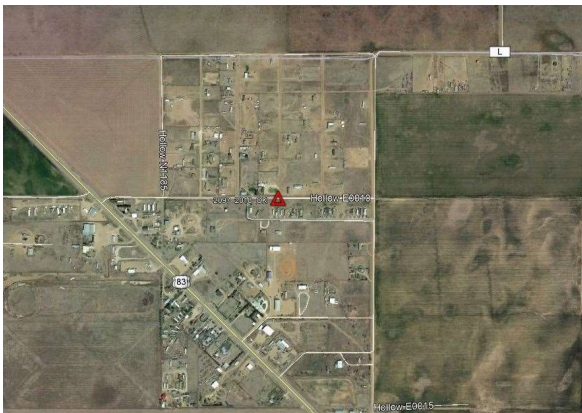


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2096_2018_OK	Northing (M) 4081873.539	Easting (M) 856118.209	Elevation (M) 856.700
Point Type NVA	Latitude (N) N36°48'56.68019"	Longitude (W) W101°00'29.25618"	Ellipsoid Height (M) 829.687
Location Photo  NORTH			
 2096_2018_OK, 3W, 20181023		 2096_2018_OK, 3N, 20181023	

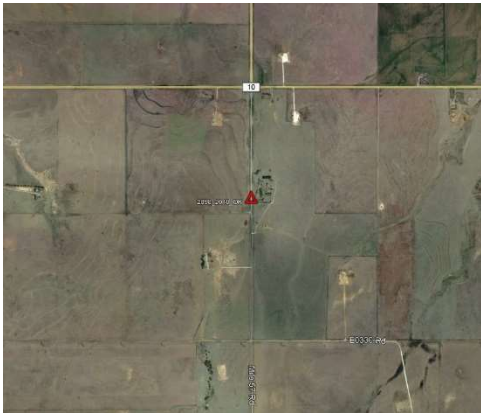


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2097_2018_OK	Northing (M) 4102139.925	Easting (M) 866905.414	Elevation (M) 855.698
Point Type NVA	Latitude (N) N36°59'37.84887"	Longitude (W) W100°52'39.64632"	Ellipsoid Height (M) 828.793
Location Photo  NORTH			
 2097_2018_OK, 3W, 20181023		 2097_2018_OK, 3S, 20181023	

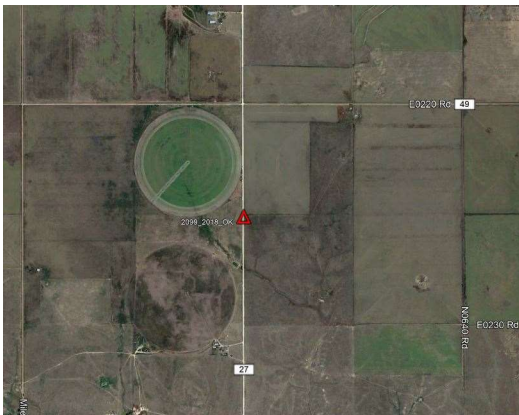


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2098_2018_OK	Northing (M) 4050992.898	Easting (M) 857412.162	Elevation (M) 866.235
Point Type NVA	Latitude (N) N36°32'15.18066"	Longitude (W) W101°00'28.98464"	Ellipsoid Height (M) 839.007
Location Photo  NORTH			
			
2098_2018_OK, 3N, 20181024		2098_2018_OK, 3E, 20181024	

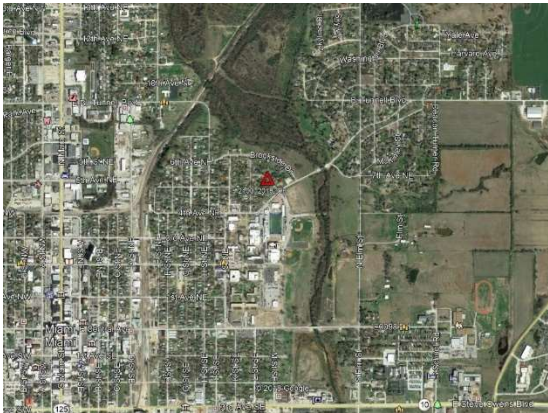


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2099_2018_OK	Northing (M) 4064151.254	Easting (M) 778018.710	Elevation (M) 1068.221
Point Type NVA	Latitude (N) N36°40'56.58905"	Longitude (W) W101°53'19.28592"	Ellipsoid Height (M) 1042.810
Location Photo  NORTH			
			



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2100_2018_OK	Northing (M) 4130064.662	Easting (M) 1404454.452	Elevation (M) 235.129
Point Type NVA	Latitude (N) N36°52'54.68643"	Longitude (W) W94°51'55.05195"	Ellipsoid Height (M) 205.725
Location Photo  NORTH			
			
2100_2018_OK, 3W, 20181105		2100_2018_OK, 3N, 20181105	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2101_2018_OK	Northing (M) 4085761.823	Easting (M) 855094.122	Elevation (M) 863.848
Point Type NVA	Latitude (N) N36°51'03.94520"	Longitude (W) W101°01'03.95727"	Ellipsoid Height (M) 836.878
Location Photo  NORTH			
 2101_2018_OK, 3N, 20181023		 2101_2018_OK, 3E, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2102_2018_OK	Northing (M) 4076389.594	Easting (M) 726972.995	Elevation (M) 1255.146
Point Type NVA	Latitude (N) N36°48'22.17103"	Longitude (W) W102°27'20.65782"	Ellipsoid Height (M) 1231.296
Location Photo  NORTH			
			
2102_2018_OK, 3N, 20181023		2102_2018_OK, 3E, 20181023	

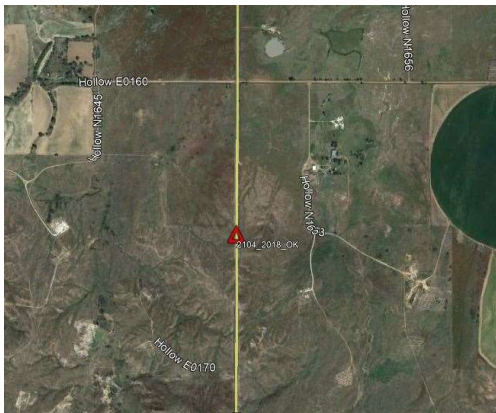


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2103_2018_OK	Northing (M) 4066806.108	Easting (M) 784368.106	Elevation (M) 1046.757
Point Type NVA	Latitude (N) N36°42'15.85825"	Longitude (W) W101°49'00.28814"	Ellipsoid Height (M) 1021.163
Location Photo  NORTH			
 2103_2018_OK, 3W, 20181028		 2103_2018_OK, 3N, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2104_2018_OK	Northing (M) 4080570.199	Easting (M) 941198.549	Elevation (M) 696.391
Point Type NVA	Latitude (N) N36°46'05.71585"	Longitude (W) W100°03'29.12878"	Ellipsoid Height (M) 668.785
Location Photo  NORTH			
 2104_2018_OK, 3N, 20181028		 2104_2018_OK, 3E, 20181028	

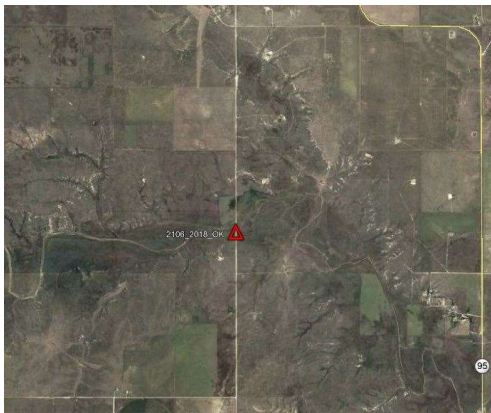


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2105_2018_OK	Northing (M) 4061408.631	Easting (M) 876295.944	Elevation (M) 874.589
Point Type NVA	Latitude (N) N36°37'26.23606"	Longitude (W) W100°47'33.18435"	Ellipsoid Height (M) 847.259
Location Photo  NORTH			
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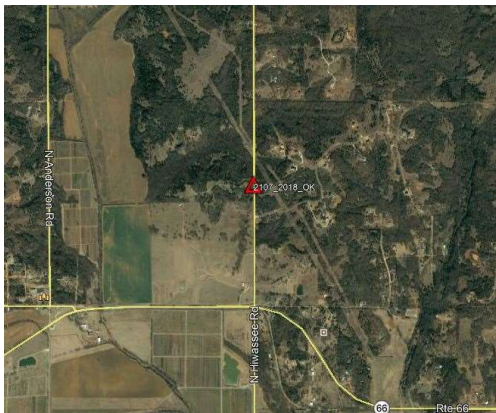


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2106_2018_OK	Northing (M) 4057628.165	Easting (M) 783071.838	Elevation (M) 1016.302
Point Type NVA	Latitude (N) N36°37'19.84849"	Longitude (W) W101°50'04.65044"	Ellipsoid Height (M) 990.639
Location Photo  NORTH			
			
2106_2018_OK, 3W, 20181028		2106_2018_OK, 3N, 20181028	

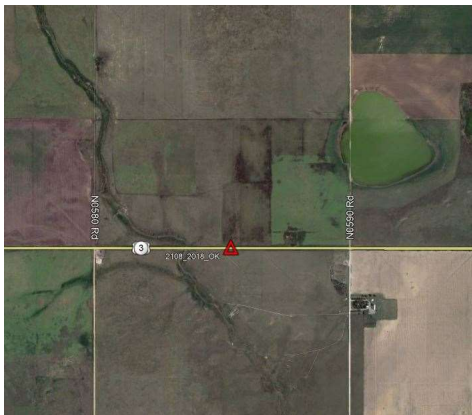


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2107_2018_OK	Northing (M) 3975387.047	Easting (M) 1197426.846	Elevation (M) 323.194
Point Type NVA	Latitude (N) N35°40'31.94618"	Longitude (W) W97°18'02.41475"	Ellipsoid Height (M) 295.702
Location Photo  NORTH			
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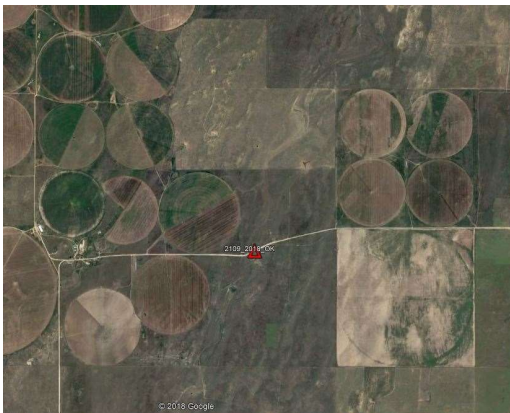


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2108_2018_OK	Northing (M) 4072792.082	Easting (M) 770580.740	Elevation (M) 1098.370
Point Type NVA	Latitude (N) N36°45'44.34317"	Longitude (W) W101°58'07.55010"	Ellipsoid Height (M) 1073.290
Location Photo  NORTH			
 2108_2018_OK, 3N, 20181027		 2108_2018_OK, 3E, 20181027	

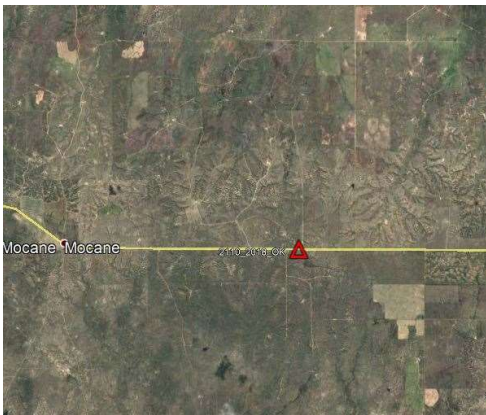


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2109_2018_OK	Northing (M) 4094729.139	Easting (M) 758813.163	Elevation (M) 1122.795
Point Type NVA	Latitude (N) N36°57'47.16813"	Longitude (W) W102°05'34.64671"	Ellipsoid Height (M) 1098.108
Location Photo  NORTH			
			

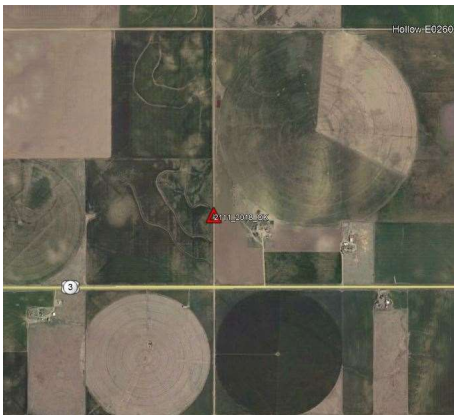


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2110_2018_OK	Northing (M) 4093210.676	Easting (M) 917934.978	Elevation (M) 784.242
Point Type NVA	Latitude (N) N36°53'32.47535"	Longitude (W) W100°18'39.29333"	Ellipsoid Height (M) 756.926
Location Photo  NORTH			
			
2110_2018_OK, 3N, 20181027		2110_2018_OK, 3E, 20181027	

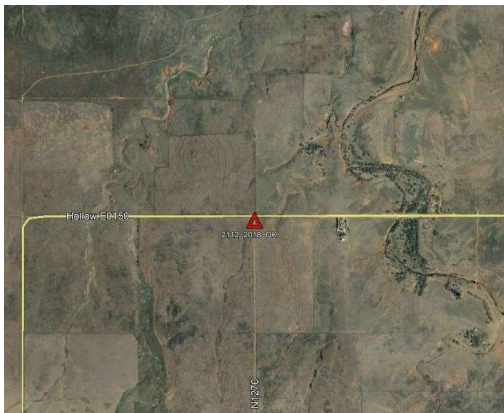


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2111_2018_OK	Northing (M) 4061158.284	Easting (M) 879536.051	Elevation (M) 880.200
Point Type NVA	Latitude (N) N36°37'13.51150"	Longitude (W) W100°45'23.52979"	Ellipsoid Height (M) 852.844
Location Photo  NORTH			
			
2111_2018_OK, 3N, 20181025		2111_2018_OK, 3E, 20181025	

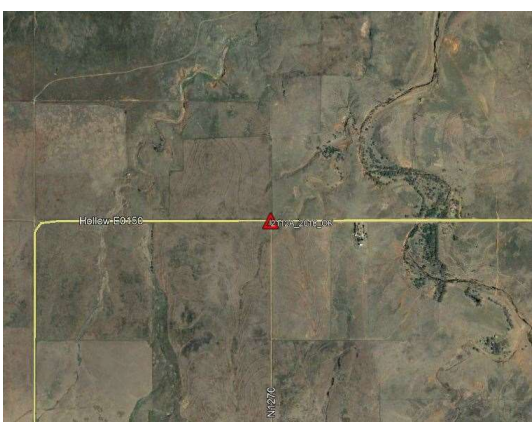


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2112_2018_OK	Northing (M) 4080083.536	Easting (M) 880301.864	Elevation (M) 779.978
Point Type NVA	Latitude (N) N36°47'24.90623"	Longitude (W) W100°44'18.94159"	Ellipsoid Height (M) 752.692
Location Photo  NORTH			
			
2112_2018_OK, 3S, 20181023		2112_2018_OK, 3E, 20181023	

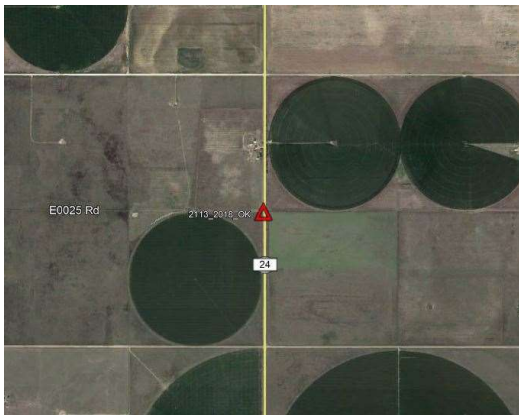


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2112A_2018_OK	Northing (M) 4080113.791	Easting (M) 880298.871	Elevation (M) 779.894
Point Type NVA	Latitude (N) N36°47'25.88968"	Longitude (W) W100°44'19.00769"	Ellipsoid Height (M) 752.608
Location Photo  NORTH			
 2112A_2018_OK, 3W, 20181023		 2112A_2018_OK, 3N, 20181023	

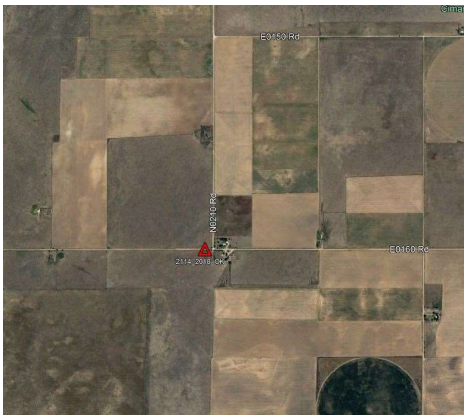


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2113_2018_OK	Northing (M) 4097513.888	Easting (M) 812716.020	Elevation (M) 987.636
Point Type NVA	Latitude (N) N36°58'18.49418"	Longitude (W) W101°29'14.28876"	Ellipsoid Height (M) 961.547
Location Photo  NORTH			
 2113_2018_OK, 3W, 20181028		 2113_2018_OK, 3N, 20181028	

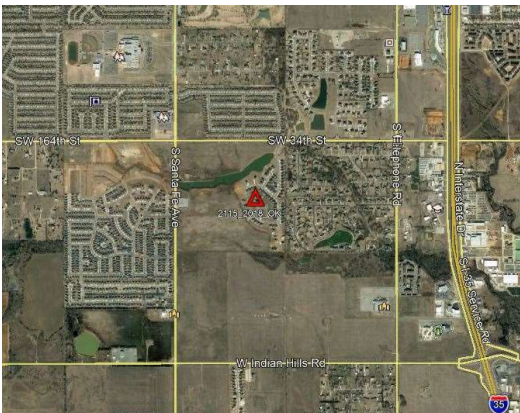


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2114_2018_OK	Northing (M) 4072755.609	Easting (M) 710309.597	Elevation (M) 1312.984
Point Type NVA	Latitude (N) N36°46'38.19263"	Longitude (W) W102°38'36.17288"	Ellipsoid Height (M) 1289.535
Location Photo  NORTH			
 2114_2018_OK, 3N, 20181023		 2114_2018_OK, 3E, 20181023	

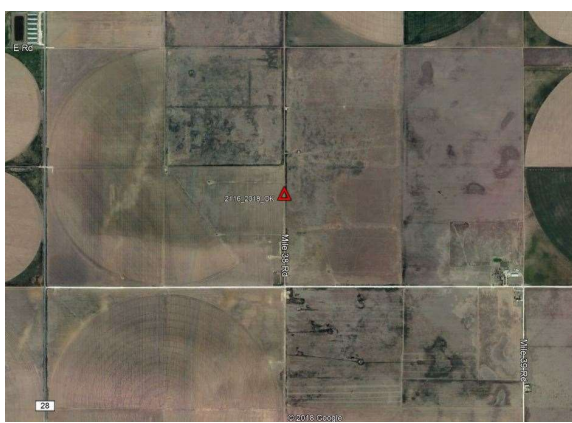


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2115_2018_OK	Northing (M) 3932350.109	Easting (M) 1182000.580	Elevation (M) 365.292
Point Type NVA	Latitude (N) N35°18'05.68987"	Longitude (W) W97°30'20.37319"	Ellipsoid Height (M) 338.588
Location Photo  NORTH			
			
2115_2018_OK, 3W, 20181103		2115_2018_OK, 3N, 20181103	

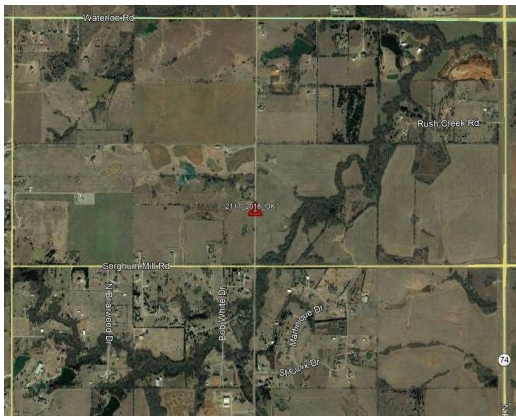


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2116_2018_OK	Northing (M) 4093012.866	Easting (M) 825771.734	Elevation (M) 952.640
Point Type NVA	Latitude (N) N36°55'36.78782"	Longitude (W) W101°20'34.27658"	Ellipsoid Height (M) 926.230
Location Photo  NORTH			
			
2116_2018_OK, 3W, 20181029		2116_2018_OK, 3N, 20181029	

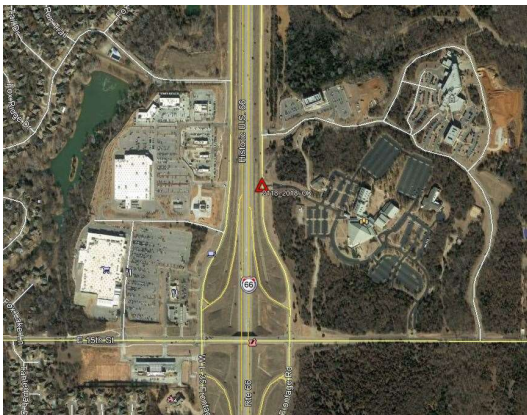


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2117_2018_OK	Northing (M) 3977606.480	Easting (M) 1169672.071	Elevation (M) 323.230
Point Type NVA	Latitude (N) N35°42'52.41161"	Longitude (W) W97°36'10.43035"	Ellipsoid Height (M) 295.903
Location Photo  NORTH			
 2117_2018_OK, 3S, 20181104		 2117_2018_OK, 3E, 20181104	

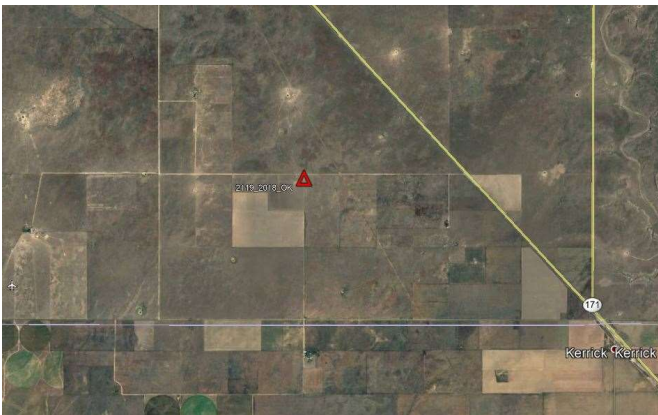


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2118_2018_OK	Northing (M) 3970799.780	Easting (M) 1186495.424	Elevation (M) 320.315
Point Type NVA	Latitude (N) N35°38'31.86379"	Longitude (W) W97°25'27.45560"	Ellipsoid Height (M) 292.986
Location Photo  NORTH			
 2118_2018_OK_3N_20181104		 2118_2018_OK_3E_20181104	

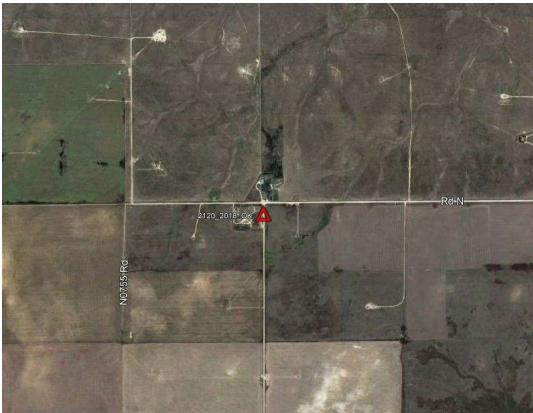


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2119_2018_OK	Northing (M) 4046038.509	Easting (M) 739974.898	Elevation (M) 1196.169
Point Type NVA	Latitude (N) N36°31'46.70592"	Longitude (W) W102°19'10.69023"	Ellipsoid Height (M) 1171.731
Location Photo  NORTH			
 2119_2018_OK, 3S, 20181025		 2119_2018_OK, 3E, 20181025	

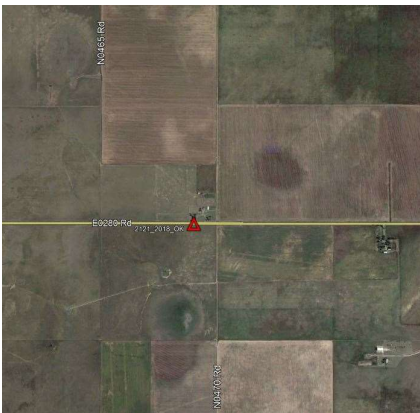


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2120_2018_OK	Northing (M) 4078502.131	Easting (M) 798427.552	Elevation (M) 1011.072
Point Type NVA	Latitude (N) N36°48'19.26892"	Longitude (W) W101°39'18.10352"	Ellipsoid Height (M) 985.199
Location Photo  NORTH			
 2120_2018_OK, 3W, 20181028		 2120_2018_OK, 3N, 20181028	

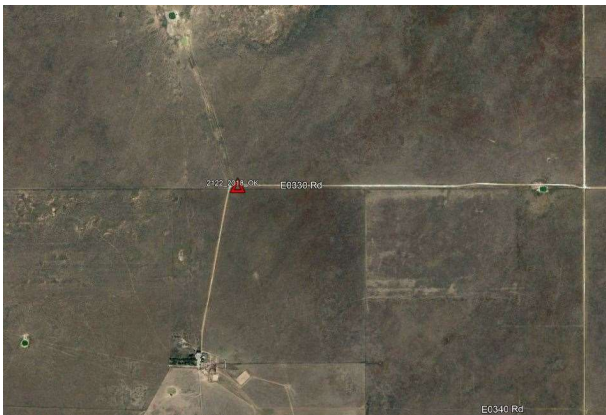


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2121_2018_OK	Northing (M) 4054524.379	Easting (M) 752466.754	Elevation (M) 1172.169
Point Type NVA	Latitude (N) N36°36'10.19650"	Longitude (W) W102°10'38.92337"	Ellipsoid Height (M) 1147.479
Location Photo  NORTH			
 2121_2018_OK, 3W, 20181026		 2121_2018_OK, 3S, 20181026	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2122_2018_OK	Northing (M) 4045993.098	Easting (M) 734206.199	Elevation (M) 1216.037
Point Type NVA	Latitude (N) N36°31'50.38268"	Longitude (W) W102°23'02.47584"	Ellipsoid Height (M) 1191.763
Location Photo  NORTH			
 2122_2018_OK, 3W, 20181025		 2122_2018_OK, 3N, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2123_2018_OK	Northing (M) 4087380.438	Easting (M) 796988.361	Elevation (M) 1027.713
Point Type NVA	Latitude (N) N36°53'08.53550"	Longitude (W) W101°40'03.59773"	Ellipsoid Height (M) 1001.974
Location Photo  NORTH			
 2123_2018_OK, 3W, 20181028		 2123_2018_OK, 3N, 20181028	

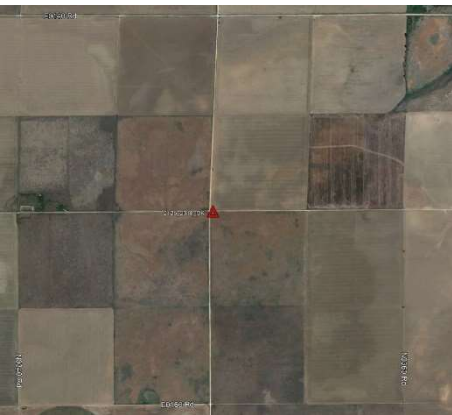


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2124_2018_OK	Northing (M) 4077336.911	Easting (M) 761107.038	Elevation (M) 1142.024
Point Type NVA	Latitude (N) N36°48'21.20507"	Longitude (W) W102°04'23.55675"	Ellipsoid Height (M) 1117.261
Location Photo  NORTH			
 2124_2018_OK, 3N, 20181027		 2124_2018_OK, 3E, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2125_2018_OK	Northing (M) 4074907.162	Easting (M) 732706.444	Elevation (M) 1236.138
Point Type NVA	Latitude (N) N36°47'29.10072"	Longitude (W) W102°23'31.13400"	Ellipsoid Height (M) 1212.147
Location Photo  NORTH			
 2125_2018_OK, 3W, 20181023		 2125_2018_OK, 3S, 20181023	

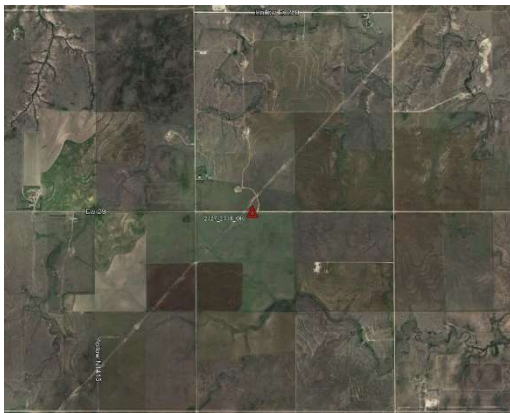


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2126_2018_OK	Northing (M) 4067251.767	Easting (M) 745819.077	Elevation (M) 1204.912
Point Type NVA	Latitude (N) N36°43'09.02294"	Longitude (W) W102°14'51.50215"	Ellipsoid Height (M) 1180.554
Location Photo  NORTH			
			
2126_2018_OK, 3S, 20181026		2126_2018_OK, 3E, 20181026	

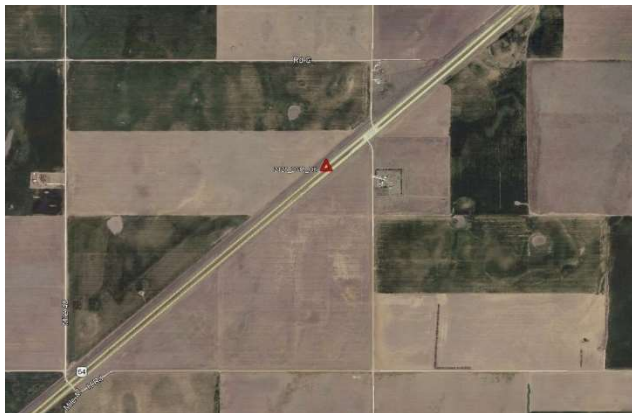


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2127_2018_OK	Northing (M) 4058671.651	Easting (M) 905892.245	Elevation (M) 844.192
Point Type NVA	Latitude (N) N36°35'14.00860"	Longitude (W) W100°27'50.31798"	Ellipsoid Height (M) 816.599
Location Photo  NORTH			
 2127_2018_OK, 3W, 20181026		 2127_2018_OK, 3N, 20181026	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2128_2018_OK	Northing (M) 4090912.628	Easting (M) 843342.644	Elevation (M) 901.100
Point Type NVA	Latitude (N) N36°54'06.34666"	Longitude (W) W101°08'49.01570"	Ellipsoid Height (M) 874.358
Location Photo  NORTH			
			
2128_2018_OK, 3SE, 20181029		2128_2018_OK, 3NE, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2129_2018_OK	Northing (M) 4045464.702	Easting (M) 765760.485	Elevation (M) 1123.780
Point Type NVA	Latitude (N) N36°31'03.56641"	Longitude (W) W102°01'55.76898"	Ellipsoid Height (M) 1098.535
Location Photo  NORTH			
 2129_2018_OK, 3S, 20181026		 2129_2018_OK, 3E, 20181026	

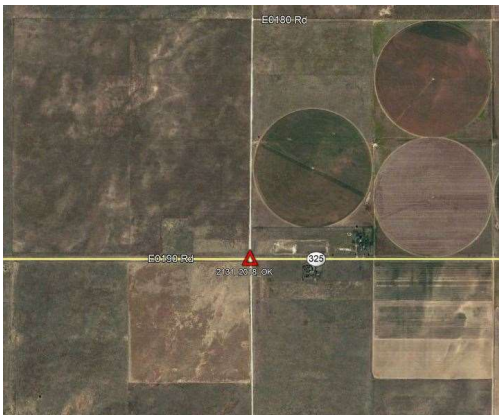


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2130_2018_OK	Northing (M) 4048449.342	Easting (M) 697379.883	Elevation (M) 1355.959
Point Type NVA	Latitude (N) N36°33'39.96409"	Longitude (W) W102°47'39.92791"	Ellipsoid Height (M) 1332.814
Location Photo  NORTH			
			
2130_2018_OK, 3W, 20181024		2130_2018_OK, 3N, 20181024	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2131_2018_OK	Northing (M) 4067880.956	Easting (M) 708834.828	Elevation (M) 1313.217
Point Type NVA	Latitude (N) N36°44'01.30047"	Longitude (W) W102°39'40.42175"	Ellipsoid Height (M) 1289.799
Location Photo  NORTH			
			
2131_2018_OK, 3W, 20181024		2131_2018_OK, 3S, 20181024	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2132_2018_OK	Northing (M) 4066019.119	Easting (M) 697637.632	Elevation (M) 1369.762
Point Type NVA	Latitude (N) N36°43'09.55467"	Longitude (W) W102°47'13.27765"	Ellipsoid Height (M) 1346.685
Location Photo  NORTH			
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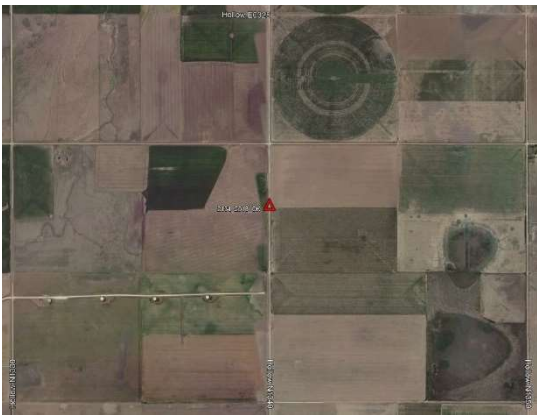


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2133_2018_OK	Northing (M) 4099749.219	Easting (M) 849029.074	Elevation (M) 895.854
Point Type NVA	Latitude (N) N36°58'44.93470"	Longitude (W) W101°04'45.09591"	Ellipsoid Height (M) 869.114
Location Photo  NORTH			
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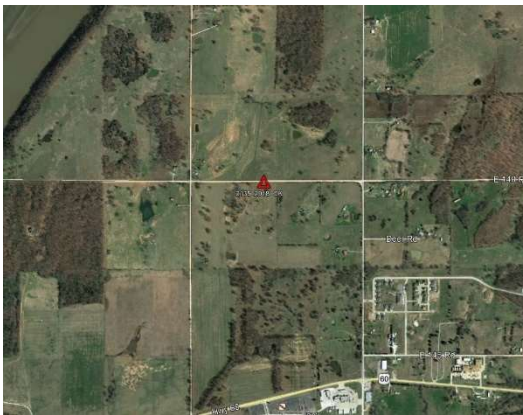


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2134_2018_OK	Northing (M) 4051241.551	Easting (M) 892908.006	Elevation (M) 873.387
Point Type NVA	Latitude (N) N36°31'33.12792"	Longitude (W) W100°36'44.90912"	Ellipsoid Height (M) 845.843
Location Photo  NORTH			
 2134_2018_OK, 3W, 20181025		 2134_2018_OK, 3N, 20181025	

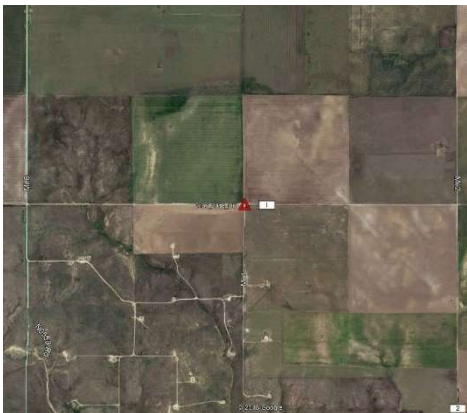


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2135_2018_OK	Northing (M) 4123716.644	Easting (M) 1417362.537	Elevation (M) 255.558
Point Type NVA	Latitude (N) N36°48'47.44485"	Longitude (W) W94°43'49.31777"	Ellipsoid Height (M) 226.344
Location Photo  NORTH			
			
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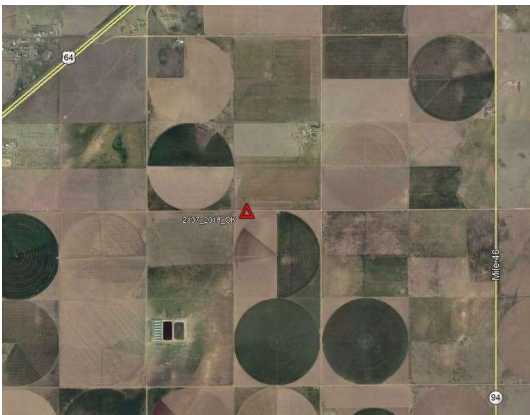


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2136_2018_OK	Northing (M) 4085546.791	Easting (M) 766504.163	Elevation (M) 1126.960
Point Type NVA	Latitude (N) N36°52'41.86224"	Longitude (W) W102°00'35.66975"	Ellipsoid Height (M) 1102.081
Location Photo  NORTH			
			
2136_2018_OK, 3W, 20181027		2136_2018_OK, 3N, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2137_2018_OK	Northing (M) 4081497.248	Easting (M) 836158.838	Elevation (M) 907.845
Point Type NVA	Latitude (N) N36°49'10.76416"	Longitude (W) W101°13'53.66341"	Ellipsoid Height (M) 881.142
Location Photo  NORTH			
 2137_2018_OK, 3W, 20181029		 2137_2018_OK, 3N, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2138_2018_OK	Northing (M) 4068439.779	Easting (M) 846949.067	Elevation (M) 863.410
Point Type NVA	Latitude (N) N36°41'53.97075"	Longitude (W) W101°07'00.45909"	Ellipsoid Height (M) 836.414
Location Photo  NORTH			
			
2138_2018_OK, 3W, 20181024		2138_2018_OK, 3S, 20181024	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2139A_2018_OK	Northing (M) 3954538.590	Easting (M) 1178928.078	Elevation (M) 360.457
Point Type NVA	Latitude (N) N35°30'07.31197"	Longitude (W) W97°31'14.74203"	Ellipsoid Height (M) 333.441
Location Photo  NORTH			
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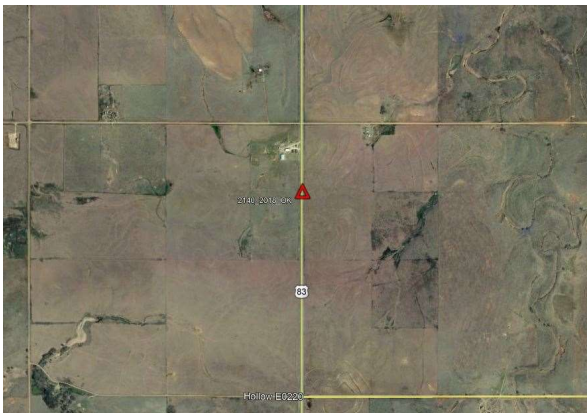


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2139B_2018_OK	Northing (M) 3954529.244	Easting (M) 1178928.698	Elevation (M) 360.615
Point Type NVA	Latitude (N) N35°30'07.00967"	Longitude (W) W97°31'14.74570"	Ellipsoid Height (M) 333.599
Location Photo  NORTH			
			
2139B_2018_OK, 3N, 20181101		2139B_2018_OK, 3E, 20181101	

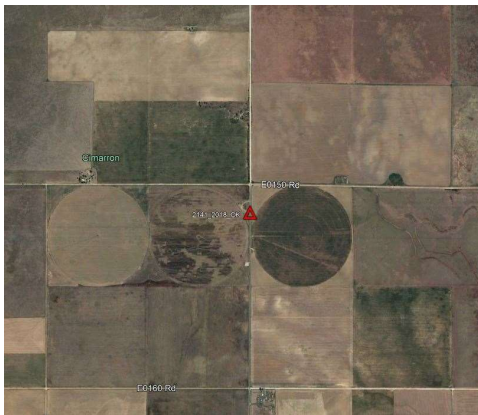


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2140_2018_OK	Northing (M) 4069674.064	Easting (M) 872695.780	Elevation (M) 841.707
Point Type NVA	Latitude (N) N36°41'58.85849"	Longitude (W) W100°49'43.29648"	Ellipsoid Height (M) 814.413
Location Photo  NORTH			
 2140_2018_OK, 3S, 20181024		 2140_2018_OK, 3E, 20181024	

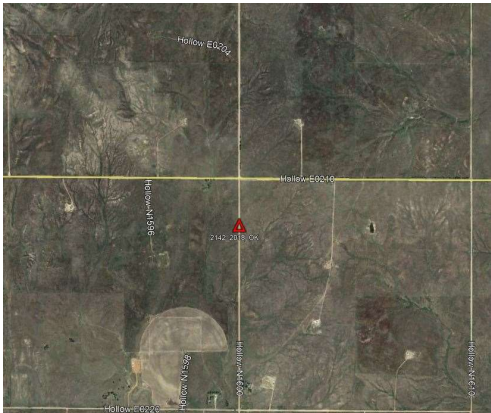


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2141_2018_OK	Northing (M) 4074220.850	Easting (M) 713546.602	Elevation (M) 1308.301
Point Type NVA	Latitude (N) N36°47'23.09667"	Longitude (W) W102°36'24.21753"	Ellipsoid Height (M) 1284.768
Location Photo  NORTH			
			
2141_2018_OK, 3W, 20181023		2141_2018_OK, 3N, 20181023	

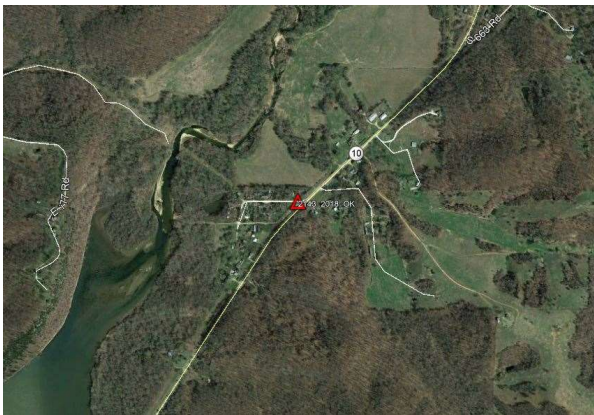


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2142_2018_OK	Northing (M) 4072652.030	Easting (M) 933754.199	Elevation (M) 744.449
Point Type NVA	Latitude (N) N36°42'02.02344"	Longitude (W) W100°08'44.49426"	Ellipsoid Height (M) 716.840
Location Photo  NORTH			
 2142_2018_OK, 3W, 20181029		 2142_2018_OK, 3N, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2143_2018_OK	Northing (M) 4117902.783	Easting (M) 1420850.769	Elevation (M) 235.306
Point Type NVA	Latitude (N) N36°45'29.70284"	Longitude (W) W94°41'55.92658"	Ellipsoid Height (M) 206.208
Location Photo  NORTH			
 2143_2018_OK_3N_20181105		 2143_2018_OK_3E_20181105	

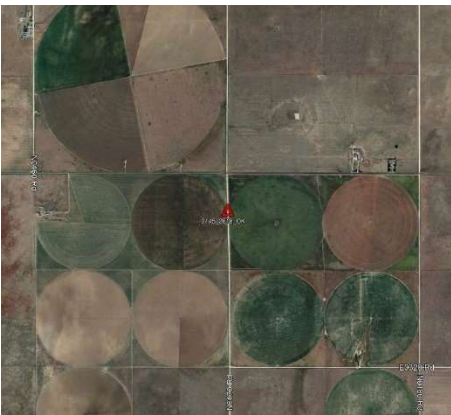


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2144_2018_OK	Northing (M) 4048046.541	Easting (M) 688444.117	Elevation (M) 1400.493
Point Type NVA	Latitude (N) N36°33'33.39841"	Longitude (W) W102°53'39.51995"	Ellipsoid Height (M) 1377.668
Location Photo  NORTH			
 2144_2018_OK, 3S, 20181024		 2144_2018_OK, 3E, 20181024	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2145_2018_OK	Northing (M) 4048156.183	Easting (M) 704492.254	Elevation (M) 1328.006
Point Type NVA	Latitude (N) N36°33'25.07057"	Longitude (W) W102°42'54.29844"	Ellipsoid Height (M) 1304.628
Location Photo  NORTH			
 2145_2018_OK, 3W, 20181025		 2145_2018_OK, 3N, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2146_2018_OK	Northing (M) 4106300.698	Easting (M) 934860.237	Elevation (M) 691.379
Point Type NVA	Latitude (N) N37°00'08.23481"	Longitude (W) W100°06'50.80620"	Ellipsoid Height (M) 664.021
Location Photo  NORTH			
 2146_2018_OK, 3W, 20181028		 2146_2018_OK, 3S, 20181028	

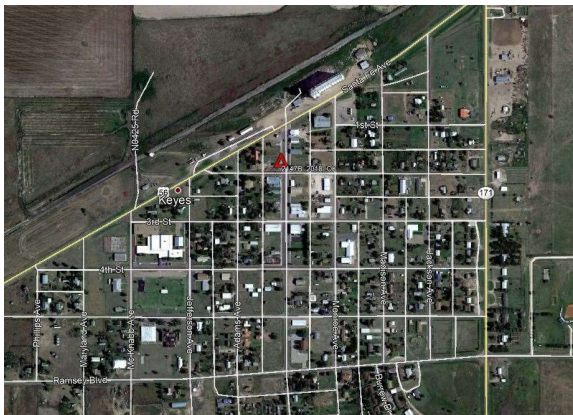


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2147A_2018_OK	Northing (M) 4077368.224	Easting (M) 745070.033	Elevation (M) 1200.775
Point Type NVA	Latitude (N) N36°48'37.65364"	Longitude (W) W102°15'09.96380"	Ellipsoid Height (M) 1176.477
Location Photo  NORTH			
			
2147A_2018_OK, 3N, 20181026		2147A_2018_OK, 3E, 20181026	

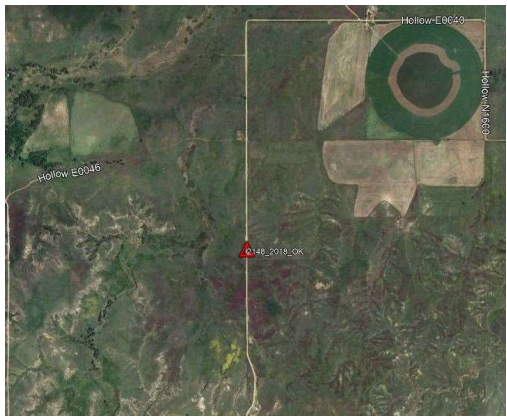


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2147B_2018_OK	Northing (M) 4077358.171	Easting (M) 745070.335	Elevation (M) 1200.818
Point Type NVA	Latitude (N) N36°48'37.32748"	Longitude (W) W102°15'09.96328"	Ellipsoid Height (M) 1176.520
Location Photo  NORTH			
			
2147B_2018_OK, 3W, 20181026		2147B_2018_OK, 3N, 20181026	

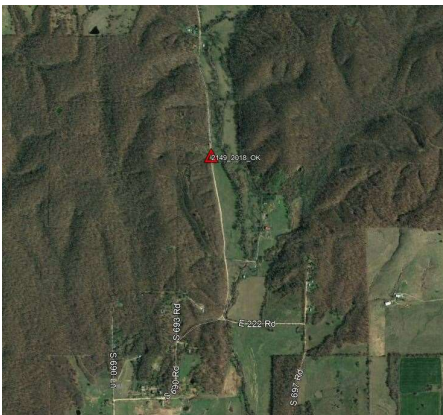


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2148_2018_OK	Northing (M) 4098781.613	Easting (M) 931888.829	Elevation (M) 677.105
Point Type NVA	Latitude (N) N36°56'10.02711"	Longitude (W) W100°09'06.06417"	Ellipsoid Height (M) 649.712
Location Photo  NORTH			
 2148_2018_OK, 3N, 20181028		 2148_2018_OK, 3E, 20181028	



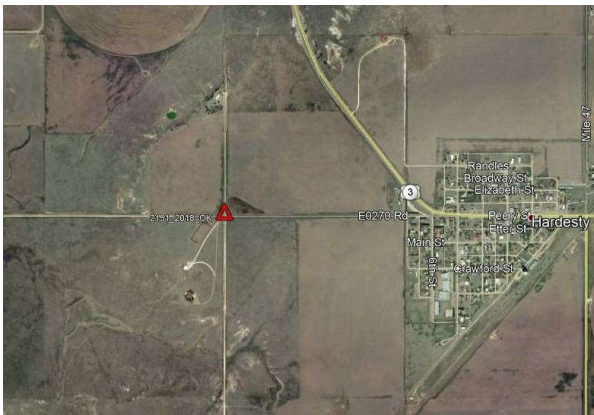
OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2149_2018_OK	Northing (M) 4112563.265	Easting (M) 1427097.417	Elevation (M) 291.137
Point Type NVA	Latitude (N) N36°42'17.48819"	Longitude (W) W94°38'11.25740"	Ellipsoid Height (M) 262.181
Location Photo  NORTH			
			
2149_2018_OK_3N_20181105		2149_2018_OK_3E_20181105	

OBSERVATION LOG SHEET				
Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer	
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North	Geoid GEOID12B (Conus)
Station ID 2150_2018_OK	Northing (M) 3975059.445	Easting (M) 1195034.891		Elevation (M) 327.067
Point Type NVA	Latitude (N) N35°40'27.46435"	Longitude (W) W97°19'37.72763"		Ellipsoid Height (M) 299.598
Location Photo NORTH				
2150_2018_OK_3N_20181104		2150_2018_OK_3E_20181104		

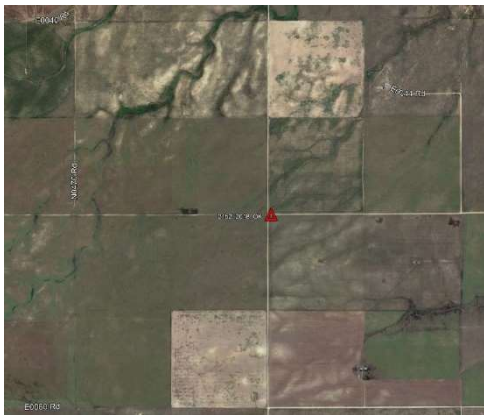
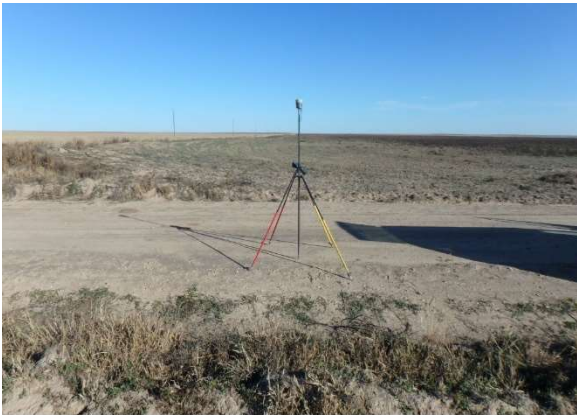


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2151_2018_OK	Northing (M) 4059055.408	Easting (M) 839333.827	Elevation (M) 892.289
Point Type NVA	Latitude (N) N36°36'59.97535"	Longitude (W) W101°12'21.62233"	Ellipsoid Height (M) 865.313
Location Photo  NORTH			
			
2151_2018_OK, 3N, 20181030		2151_2018_OK, 3E, 20181030	

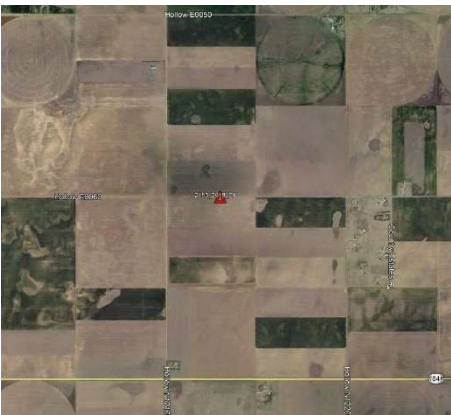


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2152_2018_OK	Northing (M) 4091619.043	Easting (M) 753456.167	Elevation (M) 1168.596
Point Type NVA	Latitude (N) N36°56'11.61032"	Longitude (W) W102°09'14.77001"	Ellipsoid Height (M) 1144.049
Location Photo  NORTH			
			
2152_2018_OK, 3W, 20181027		2152_2018_OK, 3N, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2153_2018_OK	Northing (M) 4094257.118	Easting (M) 871321.416	Elevation (M) 836.669
Point Type NVA	Latitude (N) N36°55'16.47763"	Longitude (W) W100°49'55.39411"	Ellipsoid Height (M) 809.618
Location Photo  NORTH			
			
2153_2018_OK, 3W, 20181023		2153_2018_OK, 3N, 20181023	

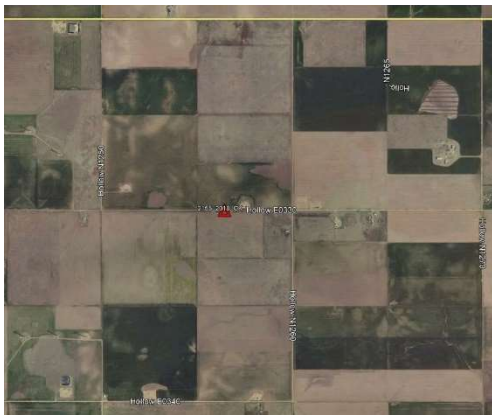


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2154_2018_OK	Northing (M) 4047384.017	Easting (M) 830158.251	Elevation (M) 940.914
Point Type NVA	Latitude (N) N36°30'53.57031"	Longitude (W) W101°18'48.24116"	Ellipsoid Height (M) 914.026
Location Photo  NORTH			
			
2154_2018_OK, 3N, 20181030		2154_2018_OK, 3E, 20181030	

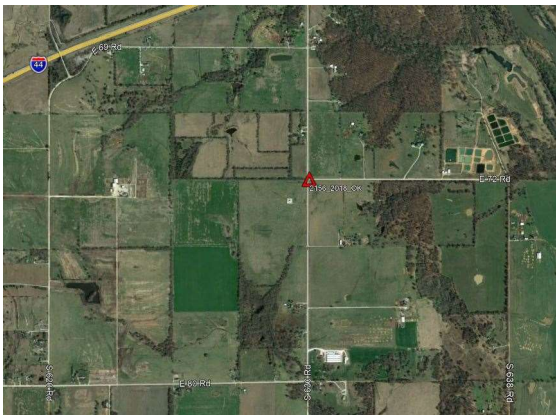


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2155_2018_OK	Northing (M) 4051017.629	Easting (M) 879423.275	Elevation (M) 889.328
Point Type NVA	Latitude (N) N36°31'45.46859"	Longitude (W) W100°45'46.03286"	Ellipsoid Height (M) 861.918
Location Photo  NORTH			
			
2155_2018_OK, 3W, 20181025		2155_2018_OK, 3S, 20181025	

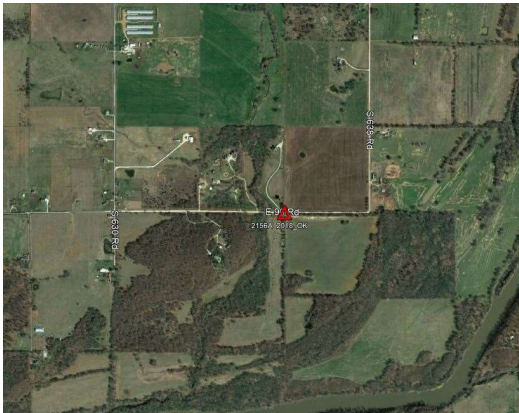


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2156_2018_OK	Northing (M) 4134430.967	Easting (M) 1414228.045	Elevation (M) 261.596
Point Type NVA	Latitude (N) N36°54'40.44790"	Longitude (W) W94°45'07.64967"	Ellipsoid Height (M) 232.203
Location Photo  NORTH			
 2156_2018_OK, 3N, 20181106		 2156_2018_OK, 3E, 20181106	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2156A_2018_OK	Northing (M) 4131687.182	Easting (M) 1415333.043	Elevation (M) 236.099
Point Type NVA	Latitude (N) N36°53'08.99861"	Longitude (W) W94°44'35.56315"	Ellipsoid Height (M) 206.753
Location Photo  NORTH			
 2156A_2018_OK, 3N, 20181106		 2156A_2018_OK, 3E, 20181106	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2157_2018_OK	Northing (M) 3965440.813	Easting (M) 1185678.187	Elevation (M) 341.626
Point Type NVA	Latitude (N) N35°35'41.46966"	Longitude (W) W97°26'16.00171"	Ellipsoid Height (M) 314.394
Location Photo  NORTH			
 2157_2018_OK_3N_20181104		 2157_2018_OK_3E_20181104	

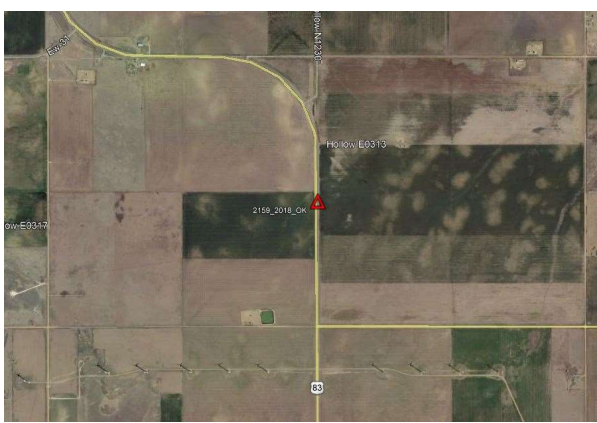


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2158_2018_OK	Northing (M) 4072359.989	Easting (M) 756369.954	Elevation (M) 1174.200
Point Type NVA	Latitude (N) N36°45'44.55219"	Longitude (W) W102°07'40.51859"	Ellipsoid Height (M) 1149.554
Location Photo  NORTH			
 2158_2018_OK, 3W, 20181027		 2158_2018_OK, 3N, 20181027	

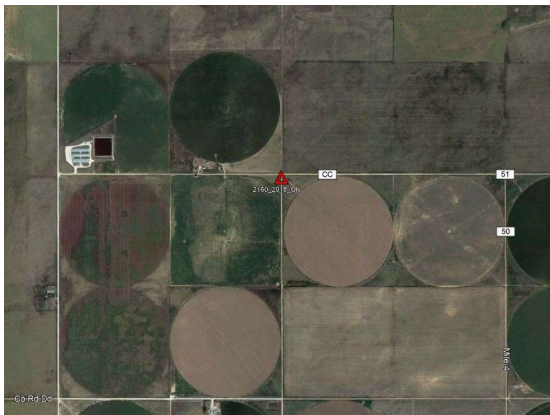


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2159_2018_OK	Northing (M) 4053191.667	Easting (M) 875063.892	Elevation (M) 890.339
Point Type NVA	Latitude (N) N36°33'02.02360"	Longitude (W) W100°48'37.06403"	Ellipsoid Height (M) 862.985
Location Photo  NORTH			
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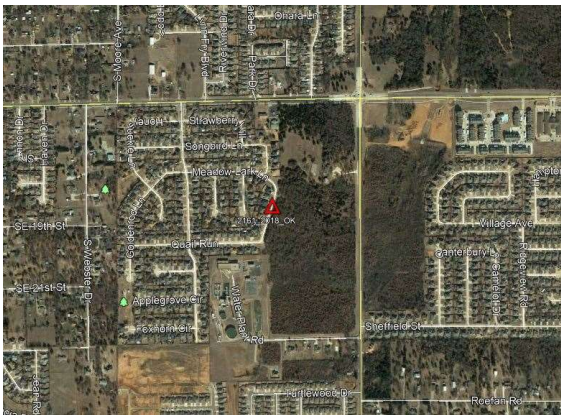


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2160_2018_OK	Northing (M) 4053416.128	Easting (M) 770295.520	Elevation (M) 1093.442
Point Type NVA	Latitude (N) N36°35'16.69253"	Longitude (W) W101°58'43.64102"	Ellipsoid Height (M) 1068.156
Location Photo  NORTH			
 2160_2018_OK, 3W, 20181028		 2160_2018_OK, 3N, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2161_2018_OK	Northing (M) 3949659.286	Easting (M) 1195945.019	Elevation (M) 393.787
Point Type NVA	Latitude (N) N35°26'48.08096"	Longitude (W) W97°20'20.18699"	Ellipsoid Height (M) 366.802
Location Photo  NORTH			
			
2161_2018_OK, 3W, 20181102		2161_2018_OK, 3S, 20181102	

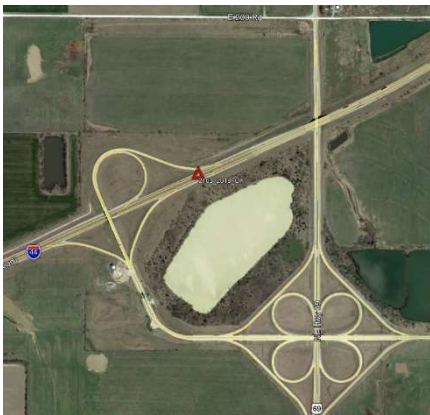


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2162_2018_OK	Northing (M) 4088954.469	Easting (M) 944528.639	Elevation (M) 656.193
Point Type NVA	Latitude (N) N36°50'31.18651"	Longitude (W) W100°00'57.70234"	Ellipsoid Height (M) 628.625
Location Photo  NORTH			
			
2162_2018_OK, 3N, 20181028		2162_2018_OK, 3E, 20181028	

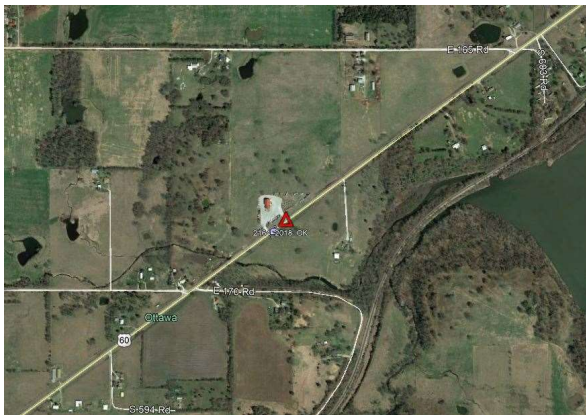


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2163_2018_OK	Northing (M) 4111804.066	Easting (M) 1400365.627	Elevation (M) 249.284
Point Type NVA	Latitude (N) N36°43'25.22909"	Longitude (W) W94°55'54.92981"	Ellipsoid Height (M) 220.036
Location Photo  NORTH			
 2163_2018_OK_3N_20181106		 2163_2018_OK_3E_20181106	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2164_2018_OK	Northing (M) 4118620.025	Easting (M) 1411056.736	Elevation (M) 242.201
Point Type NVA	Latitude (N) N36°46'26.45430"	Longitude (W) W94°48'21.58938"	Ellipsoid Height (M) 212.991
Location Photo  NORTH			
			
2164_2018_OK_3SW_20181106		2164_2018_OK_3NW_20181106	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2165A_2018_OK	Northing (M) 4130999.148	Easting (M) 1403206.629	Elevation (M) 241.123
Point Type NVA	Latitude (N) N36°53'28.81358"	Longitude (W) W94°52'40.69149"	Ellipsoid Height (M) 211.697
Location Photo  NORTH			
			
2165A_2018_OK, 3N, 20181105		2165A_2018_OK, 3E, 20181105	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2165B_2018_OK	Northing (M) 4130971.508	Easting (M) 1403209.388	Elevation (M) 241.087
Point Type NVA	Latitude (N) N36°53'27.92113"	Longitude (W) W94°52'40.69960"	Ellipsoid Height (M) 211.661
Location Photo  NORTH			
			
2165B_2018_OK, 3N, 20181105		2165B_2018_OK, 3E, 20181105	

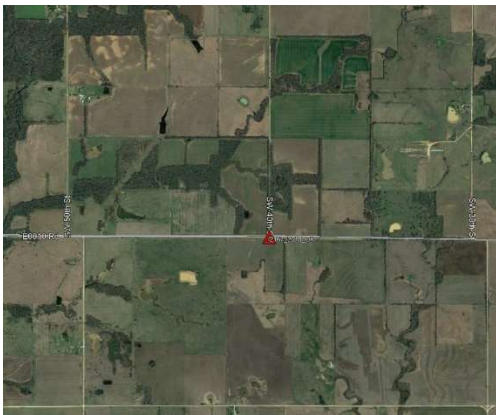


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2166_2018_OK	Northing (M) 4077326.864	Easting (M) 745081.438	Elevation (M) 1201.123
Point Type NVA	Latitude (N) N36°48'36.30230"	Longitude (W) W102°15'09.55194"	Ellipsoid Height (M) 1176.825
Location Photo  NORTH			
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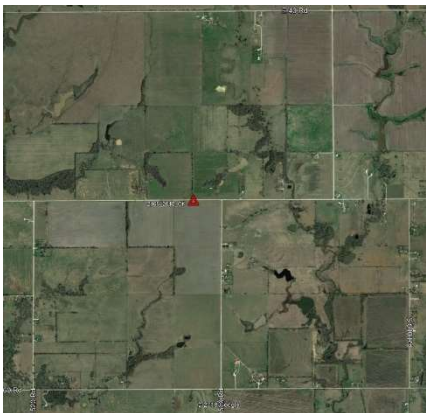


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2167_2018_OK	Northing (M) 4142746.500	Easting (M) 1399558.028	Elevation (M) 259.310
Point Type NVA	Latitude (N) N36°59'56.59897"	Longitude (W) W94°54'15.80460"	Ellipsoid Height (M) 229.670
Location Photo  NORTH			
			
2167_2018_OK, 3N, 20181107		2167_2018_OK, 3E, 20181107	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2168_2018_OK	Northing (M) 4136263.513	Easting (M) 1397543.848	Elevation (M) 248.912
Point Type NVA	Latitude (N) N36°56'36.35021"	Longitude (W) W94°56'03.61026"	Ellipsoid Height (M) 219.363
Location Photo  NORTH			
			
2168_2018_OK, 3S, 20181107		2168_2018_OK, 3E, 20181107	

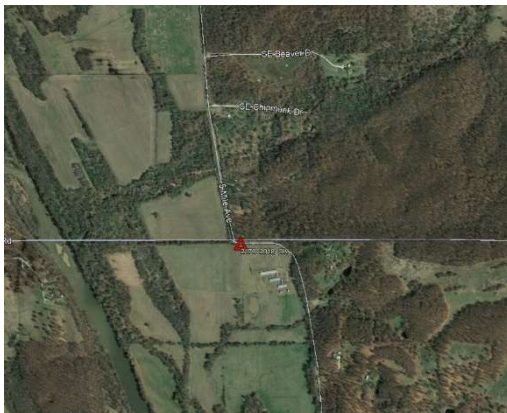


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2169_2018_OK	Northing (M) 4142373.249	Easting (M) 1408613.614	Elevation (M) 251.924
Point Type NVA	Latitude (N) N36°59'13.52687"	Longitude (W) W94°48'16.79070"	Ellipsoid Height (M) 222.352
Location Photo  NORTH			
 2169_2018_OK, 3S, 20181108		 2169_2018_OK, 3E, 20181108	

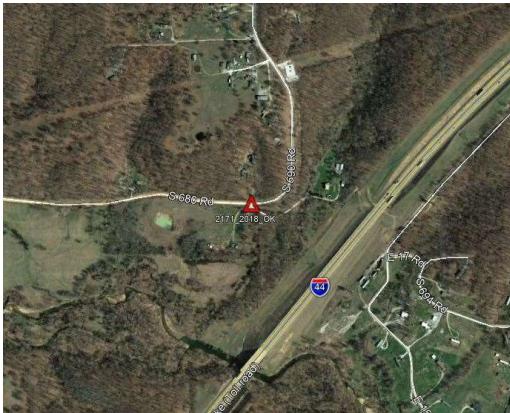


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2170_2018_OK	Northing (M) 4144662.393	Easting (M) 1417668.680	Elevation (M) 243.776
Point Type NVA	Latitude (N) N36°59'55.17099"	Longitude (W) W94°42'06.39948"	Ellipsoid Height (M) 214.219
Location Photo  NORTH			
 2170_2018_OK, 3S, 20181108		 2170_2018_OK, 3E, 20181108	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 2171_2018_OK	Northing (M) 4144224.781	Easting (M) 1423959.011	Elevation (M) 281.915
Point Type NVA	Latitude (N) N36°59'19.16776"	Longitude (W) W94°37'57.96112"	Ellipsoid Height (M) 252.423
Location Photo  NORTH			
			
2171_2018_OK_3N_20181108		2171_2018_OK_3E_20181108	

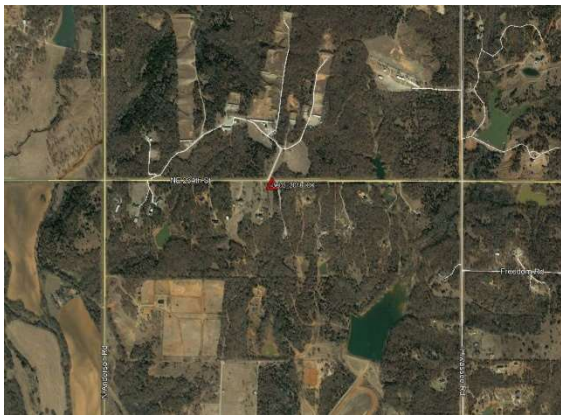


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3001_2018_OK	Northing (M) 3976904.688	Easting (M) 1184383.099	Elevation (M) 343.073
Point Type VVA	Latitude (N) N35°41'53.55843"	Longitude (W) W97°26'32.09931"	Ellipsoid Height (M) 315.672
Location Photo  NORTH			
 3001_2018_OK_3W_20181104		 3001_2018_OK_3N_20181104	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3002_2018_OK	Northing (M) 3979199.547	Easting (M) 1196266.373	Elevation (M) 344.791
Point Type VVA	Latitude (N) N35°42'37.52146"	Longitude (W) W97°18'36.32184"	Ellipsoid Height (M) 317.254
Location Photo  NORTH			
			

3002_2018_OK_2_20181104

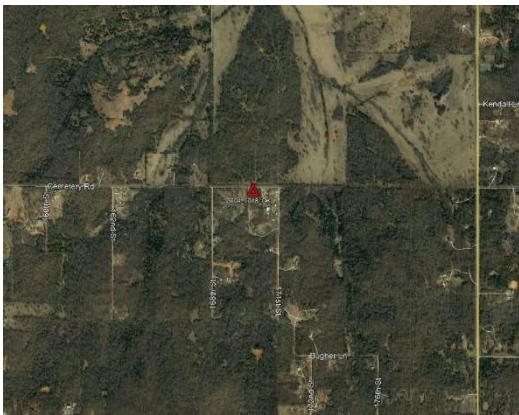


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3003_2018_OK	Northing (M) 3960455.257	Easting (M) 1181884.200	Elevation (M) 348.551
Point Type VVA	Latitude (N) N35°33'10.44356"	Longitude (W) W97°29'00.55247"	Ellipsoid Height (M) 321.431
Location Photo  NORTH			

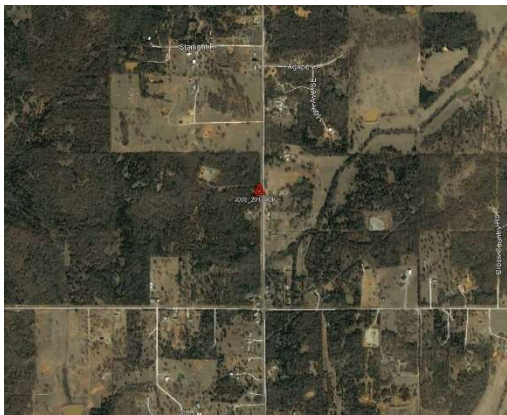


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3004_2018_OK	Northing (M) 3913950.615	Easting (M) 1212215.445	Elevation (M) 340.085
Point Type VVA	Latitude (N) N35°06'58.45259"	Longitude (W) W97°11'31.84694"	Ellipsoid Height (M) 313.665
Location Photo  NORTH			
 3004_2018_OK, 3W, 20181103		 3004_2018_OK, 3S, 20181103	

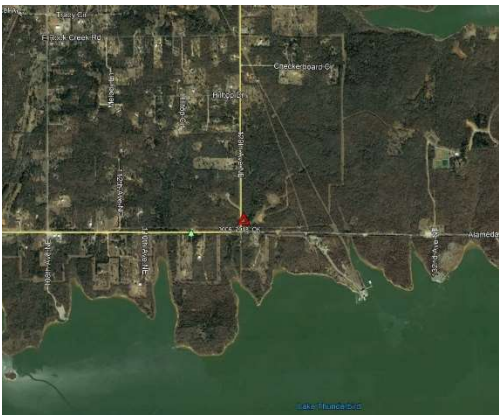


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3005_2018_OK	Northing (M) 3918832.559	Easting (M) 1203468.490	Elevation (M) 358.027
Point Type VVA	Latitude (N) N35°09'57.54885"	Longitude (W) W97°16'59.34428"	Ellipsoid Height (M) 331.563
Location Photo  NORTH			
 3005_2018_OK, 3SE, 20181103		 3005_2018_OK, 3NE, 20181103	

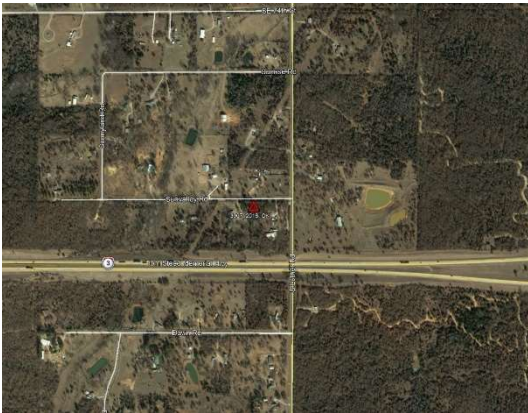


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3006_2018_OK	Northing (M) 3926484.301	Easting (M) 1204542.827	Elevation (M) 324.600
Point Type VVA	Latitude (N) N35°14'00.97338"	Longitude (W) W97°15'53.79302"	Ellipsoid Height (M) 297.976
Location Photo  NORTH			
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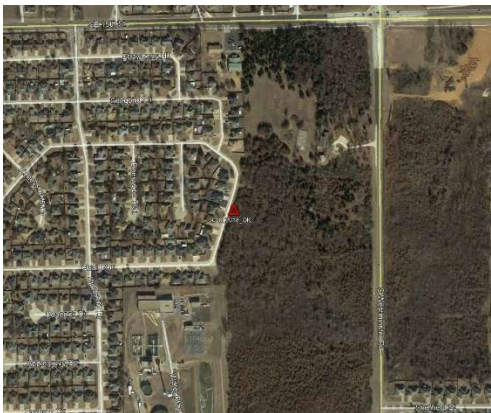


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3007_2018_OK	Northing (M) 3943944.778	Easting (M) 1209450.769	Elevation (M) 352.120
Point Type VVA	Latitude (N) N35°23'10.09290"	Longitude (W) W97°11'47.19233"	Ellipsoid Height (M) 325.166
Location Photo  NORTH			
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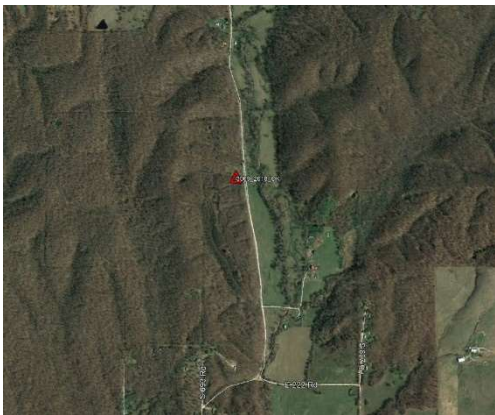


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3008_2018_OK	Northing (M) 3949645.806	Easting (M) 1195952.304	Elevation (M) 393.561
Point Type VVA	Latitude (N) N35°26'47.62903"	Longitude (W) W97°20'19.94194"	Ellipsoid Height (M) 366.577
Location Photo  NORTH			
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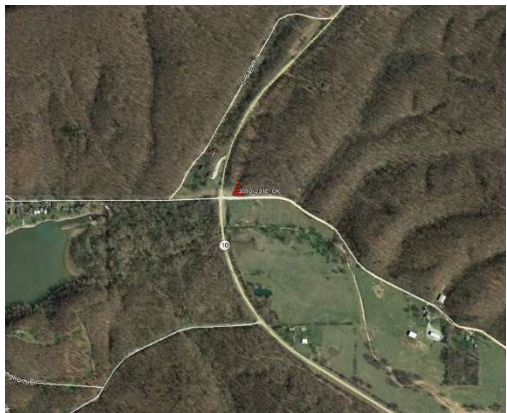
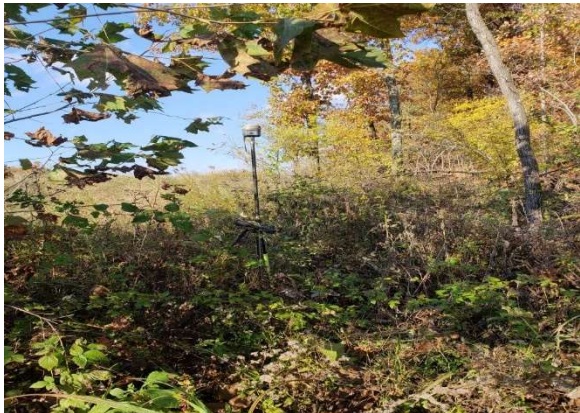


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3009_2018_OK	Northing (M) 4112566.136	Easting (M) 1427051.203	Elevation (M) 294.221
Point Type VVA	Latitude (N) N36°42'17.74109"	Longitude (W) W94°38'13.07714"	Ellipsoid Height (M) 265.265
Location Photo  NORTH			
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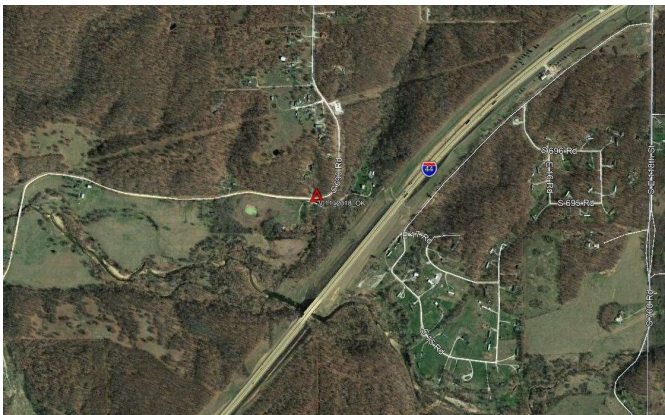


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3010_2018_OK	Northing (M) 4113623.425	Easting (M) 1418571.260	Elevation (M) 237.572
Point Type VVA	Latitude (N) N36°43'20.96364"	Longitude (W) W94°43'44.79591"	Ellipsoid Height (M) 208.490
Location Photo  NORTH			
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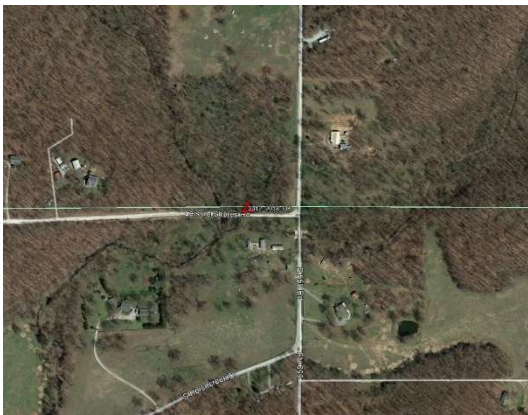


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3011_2018_OK	Northing (M) 4144240.018	Easting (M) 1423979.172	Elevation (M) 281.413
Point Type VVA	Latitude (N) N36°59'19.58330"	Longitude (W) W94°37'57.09213"	Ellipsoid Height (M) 251.921
Location Photo  NORTH			
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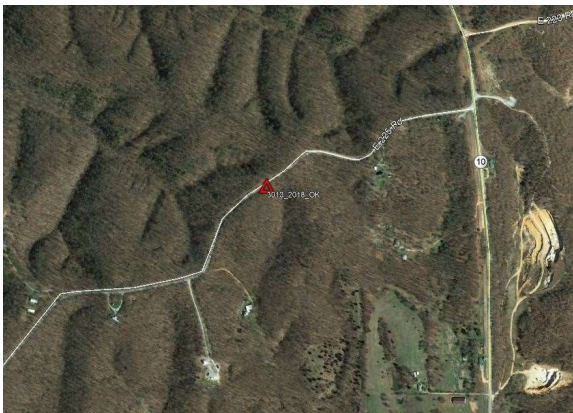
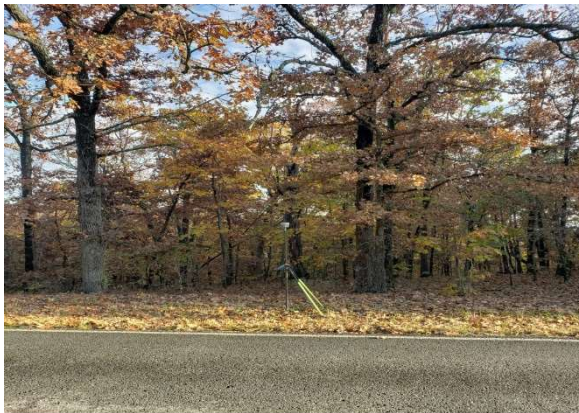


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3012_2018_OK	Northing (M) 4106266.158	Easting (M) 1404557.571	Elevation (M) 236.719
Point Type VVA	Latitude (N) N36°40'14.04959"	Longitude (W) W94°53'31.97136"	Ellipsoid Height (M) 207.558
Location Photo  NORTH			
			



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3013_2018_OK	Northing (M) 4109941.240	Easting (M) 1420284.987	Elevation (M) 325.376
Point Type VVA	Latitude (N) N36°41'17.45501"	Longitude (W) W94°42'52.66321"	Ellipsoid Height (M) 296.359
Location Photo  NORTH			
 3013_2018_OK_3S_20181105		 3013_2018_OK_3E_20181105	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3014_2018_OK	Northing (M) 4135751.939	Easting (M) 1422255.405	Elevation (M) 288.481
Point Type VVA	Latitude (N) N36°54'54.66668"	Longitude (W) W94°39'42.73422"	Ellipsoid Height (M) 259.131
Location Photo  NORTH			
			
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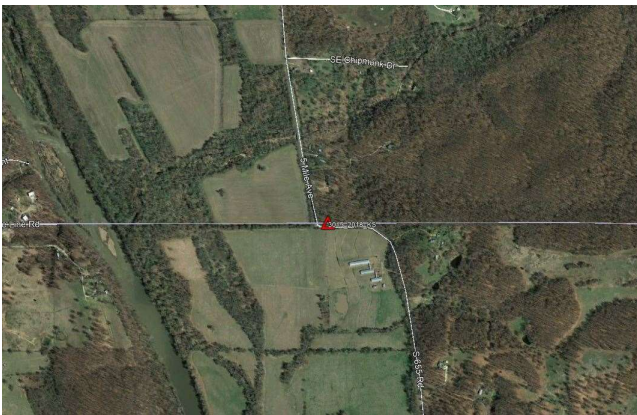


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3014A_2018_OK	Northing (M) 4135713.495	Easting (M) 1422294.919	Elevation (M) 290.758
Point Type VVA	Latitude (N) N36°54'53.30114"	Longitude (W) W94°39'41.33072"	Ellipsoid Height (M) 261.409
Location Photo  NORTH			
			
3014A_2018_OK, 3N, 20181106		3014A_2018_OK, 3E, 20181106	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3015_2018_KS	Northing (M) 4144682.696	Easting (M) 1417675.339	Elevation (M) 244.239
Point Type VVA	Latitude (N) N36°59'55.79594"	Longitude (W) W94°42'06.04604"	Ellipsoid Height (M) 214.681
Location Photo  NORTH			
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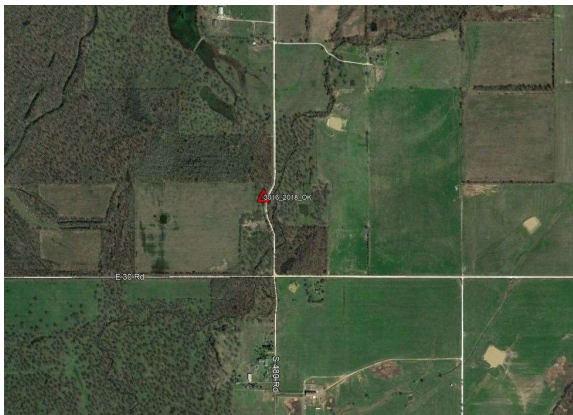


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3015A_2018_KS	Northing (M) 4144687.995	Easting (M) 1417691.681	Elevation (M) 244.426
Point Type VVA	Latitude (N) N36°59'55.90809"	Longitude (W) W94°42'05.37247"	Ellipsoid Height (M) 214.868
Location Photo  NORTH			
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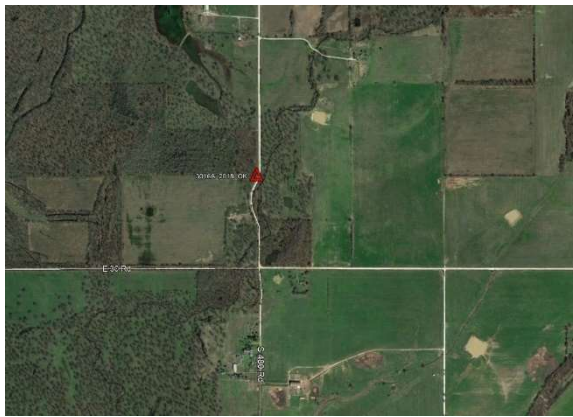


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3016_2018_OK	Northing (M) 4139080.589	Easting (M) 1390265.633	Elevation (M) 237.704
Point Type VVA	Latitude (N) N36°58'31.09733"	Longitude (W) W95°00'41.49849"	Ellipsoid Height (M) 208.072
Location Photo  NORTH			
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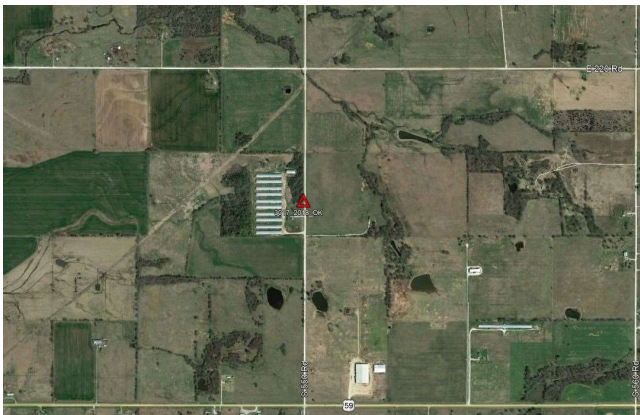


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3016A_2018_OK	Northing (M) 4139145.750	Easting (M) 1390294.227	Elevation (M) 238.015
Point Type VVA	Latitude (N) N36°58'33.08301"	Longitude (W) W95°00'40.08456"	Ellipsoid Height (M) 208.381
Location Photo  NORTH			
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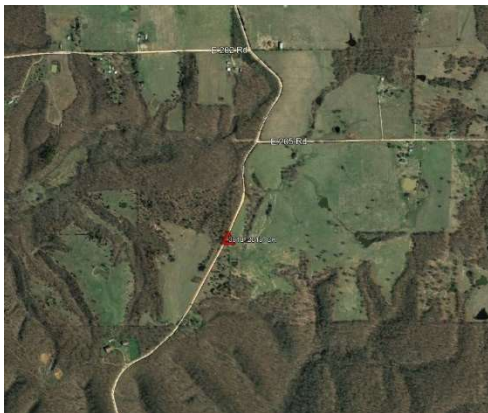


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3017_2018_OK	Northing (M) 4108861.142	Easting (M) 1404359.207	Elevation (M) 253.068
Point Type VVA	Latitude (N) N36°41'37.63052"	Longitude (W) W94°53'28.87668"	Ellipsoid Height (M) 223.881
Location Photo  NORTH			
			
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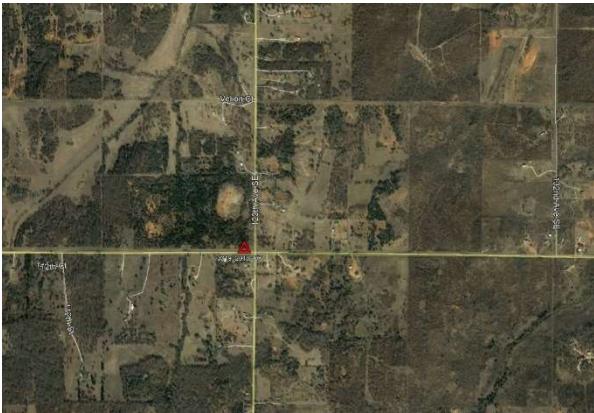


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3018_2018_OK	Northing (M) 4113492.275	Easting (M) 1425110.119	Elevation (M) 334.938
Point Type VVA	Latitude (N) N36°42'54.07444"	Longitude (W) W94°39'26.03013"	Ellipsoid Height (M) 305.951
Location Photo  NORTH			
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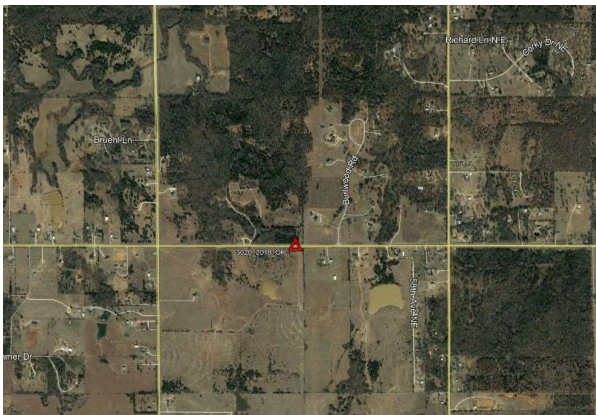


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3019_2018_OK	Northing (M) 3916746.928	Easting (M) 1205230.316	Elevation (M) 359.210
Point Type VVA	Latitude (N) N35°08'46.03450"	Longitude (W) W97°15'56.72062"	Ellipsoid Height (M) 332.779
Location Photo  NORTH			
			
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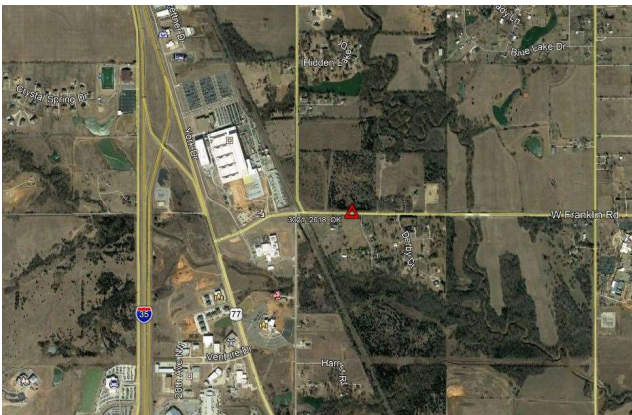


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3020_2018_OK	Northing (M) 3925704.384	Easting (M) 1195666.080	Elevation (M) 357.029
Point Type VVA	Latitude (N) N35°13'58.11920"	Longitude (W) W97°21'44.20794"	Ellipsoid Height (M) 330.450
Location Photo  NORTH			
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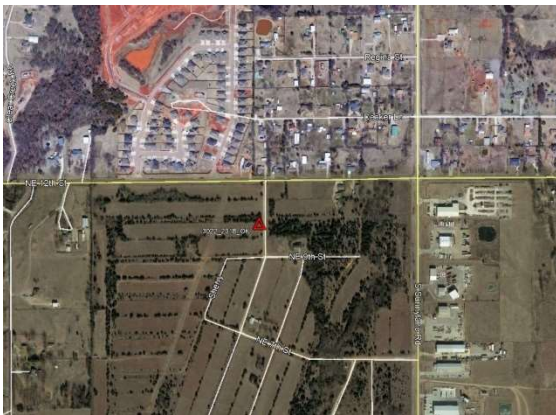


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3021_2018_OK	Northing (M) 3929793.184	Easting (M) 1185152.466	Elevation (M) 354.075
Point Type VVA	Latitude (N) N35°16'35.67717"	Longitude (W) W97°28'24.30453"	Ellipsoid Height (M) 327.420
Location Photo  NORTH			
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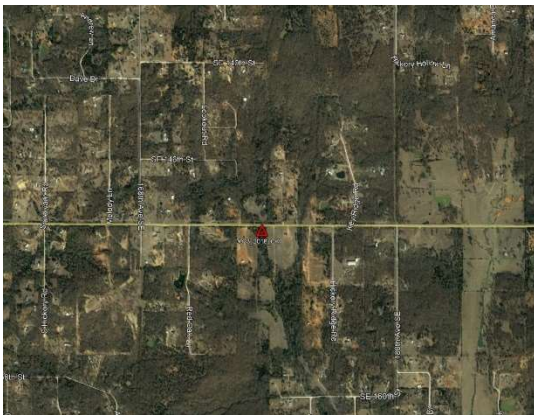


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3022_2018_OK	Northing (M) 3937905.336	Easting (M) 1187076.487	Elevation (M) 383.218
Point Type VVA	Latitude (N) N35°20'51.98515"	Longitude (W) W97°26'44.40055"	Ellipsoid Height (M) 356.441
Location Photo  NORTH			
 3022_2018_OK, 3N, 20181104		 3022_2018_OK, 3E, 20181104	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3023_2018_OK	Northing (M) 3936512.453	Easting (M) 1210948.814	Elevation (M) 344.989
Point Type VVA	Latitude (N) N35°19'07.25387"	Longitude (W) W97°11'11.53901"	Ellipsoid Height (M) 318.164
Location Photo  NORTH			
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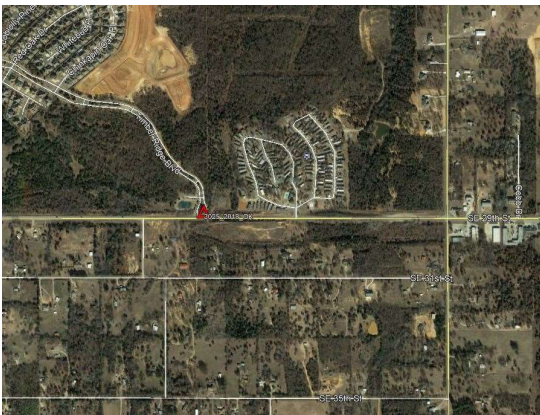


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3024_2018_OK	Northing (M) 3941420.503	Easting (M) 1211720.215	Elevation (M) 341.014
Point Type VVA	Latitude (N) N35°21'43.11721"	Longitude (W) W97°10'25.96146"	Ellipsoid Height (M) 314.093
Location Photo  NORTH			
			
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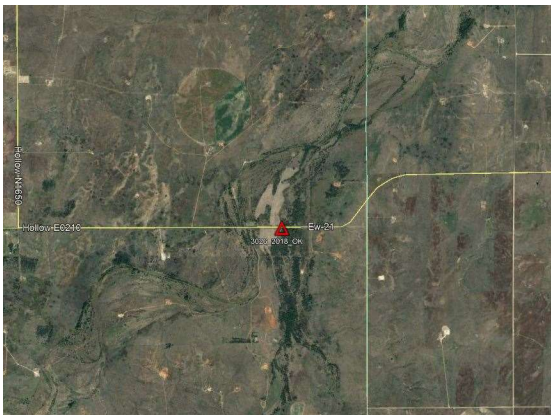


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3025_2018_OK	Northing (M) 3948755.789	Easting (M) 1200337.771	Elevation (M) 382.988
Point Type VVA	Latitude (N) N35°26'07.96044"	Longitude (W) W97°17'30.29522"	Ellipsoid Height (M) 355.999
Location Photo  NORTH			
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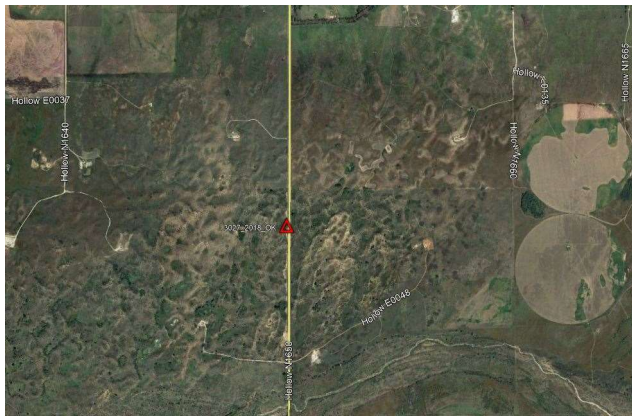


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3026_2018_OK	Northing (M) 4073544.024	Easting (M) 945267.551	Elevation (M) 672.232
Point Type VVA	Latitude (N) N36°42'11.71719"	Longitude (W) W100°01'00.33692"	Ellipsoid Height (M) 644.530
Location Photo  NORTH			
			
3026_2018_OK, 3S, 20181029		3026_2018_OK, 3E, 20181029	

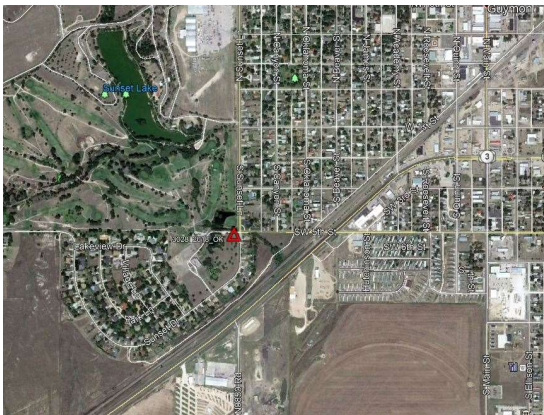


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3027_2018_OK	Northing (M) 4084381.613	Easting (M) 940998.928	Elevation (M) 665.053
Point Type VVA	Latitude (N) N36°48'09.28124"	Longitude (W) W100°03'29.22000"	Ellipsoid Height (M) 637.478
Location Photo  NORTH			
			
3027_2018_OK, 3SW, 20181028		3027_2018_OK, 3N, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3028_2018_OK	Northing (M) 4064543.511	Easting (M) 813468.814	Elevation (M) 940.591
Point Type VVA	Latitude (N) N36°40'29.62572"	Longitude (W) W101°29'32.79636"	Ellipsoid Height (M) 914.148
Location Photo  NORTH			
			
3028_2018_OK, 3N, 20181030		3028_2018_OK, 3E, 20181030	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3029_2018_OK	Northing (M) 3965246.606	Easting (M) 1165926.816	Elevation (M) 344.456
Point Type VVA	Latitude (N) N35°36'23.63831"	Longitude (W) W97°39'14.92924"	Ellipsoid Height (M) 317.338
Location Photo  NORTH			
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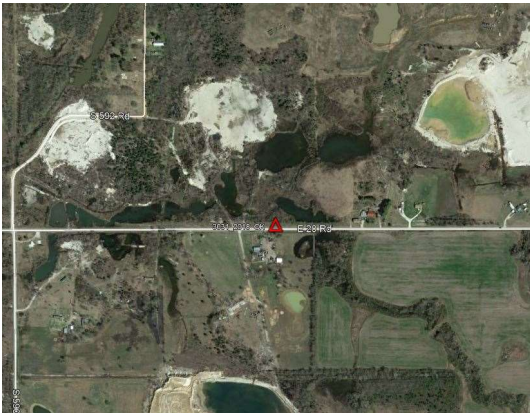


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3030_2018_OK	Northing (M) 4130613.966	Easting (M) 1401661.097	Elevation (M) 239.124
Point Type VVA	Latitude (N) N36°53'21.79526"	Longitude (W) W94°53'43.80226"	Ellipsoid Height (M) 209.690
Location Photo  NORTH			
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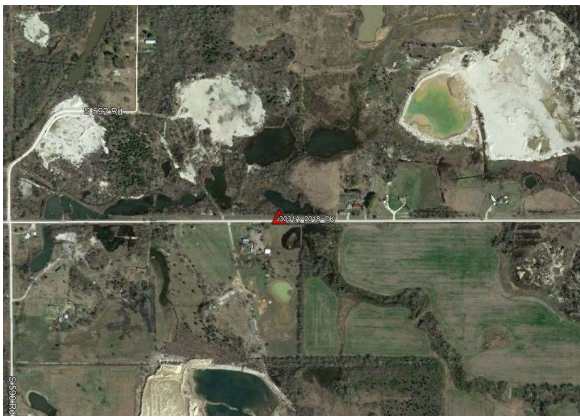


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3031_2018_OK	Northing (M) 4142383.166	Easting (M) 1408587.306	Elevation (M) 251.825
Point Type VVA	Latitude (N) N36°59'13.93451"	Longitude (W) W94°48'17.79538"	Ellipsoid Height (M) 222.253
Location Photo  NORTH			
			



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3031A_2018_OK	Northing (M) 4142387.599	Easting (M) 1408629.508	Elevation (M) 251.981
Point Type VVA	Latitude (N) N36°59'13.93027"	Longitude (W) W94°48'16.09611"	Ellipsoid Height (M) 222.408
Location Photo  NORTH			
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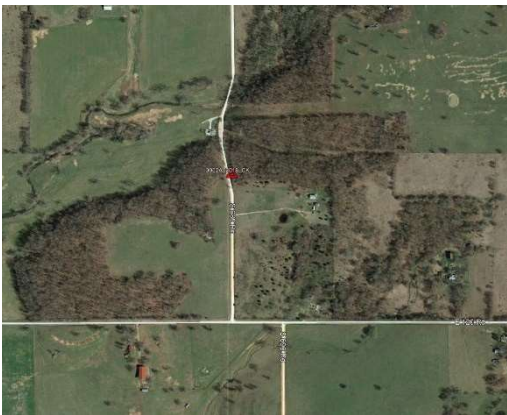


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3032_2018_OK	Northing (M) 4128276.122	Easting (M) 1424583.163	Elevation (M) 281.160
Point Type VVA	Latitude (N) N36°50'47.86986"	Longitude (W) W94°38'42.78580"	Ellipsoid Height (M) 251.946
Location Photo  NORTH			
 3032_2018_OK, 3W, 20181106		 3032_2018_OK, 3N, 20181106	

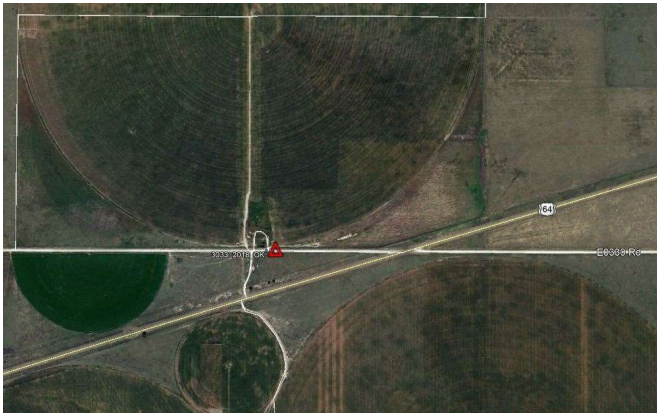


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3032A_2018_OK	Northing (M) 4128308.557	Easting (M) 1424567.793	Elevation (M) 278.910
Point Type VVA	Latitude (N) N36°50'48.95905"	Longitude (W) W94°38'43.25511"	Ellipsoid Height (M) 249.695
Location Photo  NORTH			
			
3032A_2018_OK, 3W, 20181106		3032A_2018_OK, 3N, 20181106	

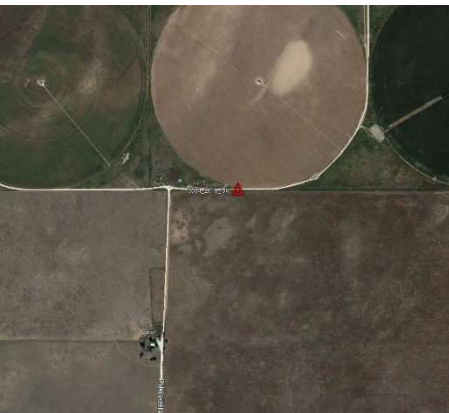


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3033_2018_OK	Northing (M) 4044711.624	Easting (M) 681351.100	Elevation (M) 1440.760
Point Type VVA	Latitude (N) N36°31'50.17694"	Longitude (W) W102°58'27.50769"	Ellipsoid Height (M) 1418.158
Location Photo  NORTH			
			
3033_2018_OK, 3W, 20181024		3033_2018_OK, 3N, 20181024	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3034_2018_OK	Northing (M) 4050300.026	Easting (M) 714423.087	Elevation (M) 1293.990
Point Type VVA	Latitude (N) N36°34'26.74761"	Longitude (W) W102°36'12.99122"	Ellipsoid Height (M) 1270.317
Location Photo  NORTH			
 3034_2018_OK, 3W, 20181025		 3034_2018_OK, 3S, 20181025	

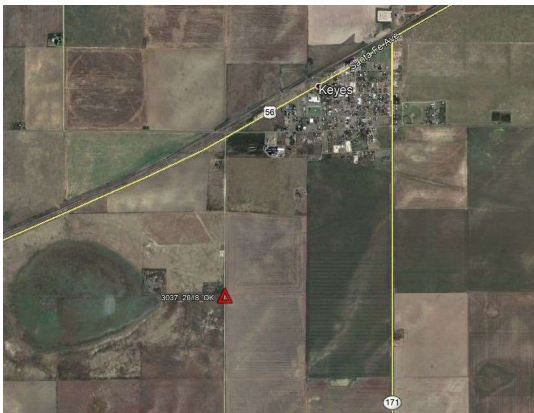


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3036_2018_OK	Northing (M) 4069988.500	Easting (M) 730031.671	Elevation (M) 1243.560
Point Type VVA	Latitude (N) N36°44'51.98831"	Longitude (W) W102°25'24.29262"	Ellipsoid Height (M) 1219.613
Location Photo  NORTH			
 3036_2018_OK, 3W, 20181023		 3036_2018_OK, 3N, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3037_2018_OK	Northing (M) 4075234.470	Easting (M) 743984.587	Elevation (M) 1203.150
Point Type VVA	Latitude (N) N36°47'29.49530"	Longitude (W) W102°15'56.18370"	Ellipsoid Height (M) 1178.878
Location Photo  NORTH			
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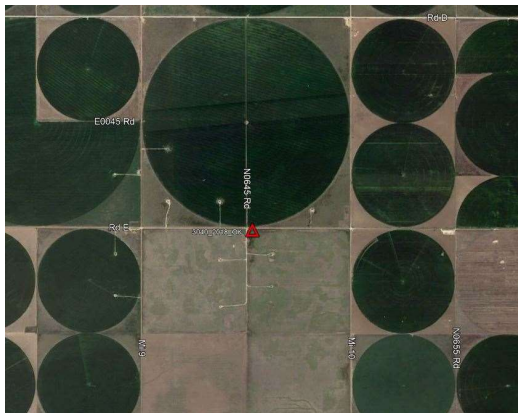
OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3038_2018_OK	Northing (M) 4094830.503	Easting (M) 753339.461	Elevation (M) 1161.759
Point Type VVA	Latitude (N) N36°57'55.81347"	Longitude (W) W102°09'15.60764"	Ellipsoid Height (M) 1137.217
Location Photo  NORTH			
 3038_2018_OK, 3N, 20181027		 3038_2018_OK, 3E, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3039_2018_OK	Northing (M) 4096848.535	Easting (M) 767701.920	Elevation (M) 1116.394
Point Type VVA	Latitude (N) N36°58'46.90484"	Longitude (W) W101°59'32.95976"	Ellipsoid Height (M) 1091.517
Location Photo  NORTH			
 3039_2018_OK, 3W, 20181027		 3039_2018_OK, 3N, 20181027	

 OBSERVATION LOG SHEET					
Project Number 78983		Project Name OK Panhandle Lidar		Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North		Geoid GEOID12B (Conus)
Station ID 3040_2018_OK		Northing (M) 4092382.588		Easting (M) 779975.366	
Point Type VVA		Latitude (N) N36°56'09.33635"		Longitude (W) W101°51'23.18864"	
Location Photo  NORTH					
 3040_2018_OK, 3N, 20181028			 3040_2018_OK, 3E, 20181028		



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3041_2018_OK	Northing (M) 4096554.263	Easting (M) 808745.979	Elevation (M) 1001.538
Point Type VVA	Latitude (N) N36°57'52.12703"	Longitude (W) W101°31'55.97314"	Ellipsoid Height (M) 975.555
Location Photo  NORTH			



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3042_2018_OK	Northing (M) 4094720.070	Easting (M) 828860.253	Elevation (M) 945.833
Point Type VVA	Latitude (N) N36°56'28.21609"	Longitude (W) W101°18'27.02133"	Ellipsoid Height (M) 919.379
Location Photo  NORTH			
 3042_2018_OK, 3W, 20181029		 3042_2018_OK, 3N, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3043_2018_OK	Northing (M) 4098832.339	Easting (M) 846496.094	Elevation (M) 903.060
Point Type VVA	Latitude (N) N36°58'18.61763"	Longitude (W) W101°06'28.82918"	Ellipsoid Height (M) 876.346
Location Photo  NORTH			
 3043_2018_OK, 3W, 20181029		 3043_2018_OK, 3N, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3044_2018_OK	Northing (M) 4095750.711	Easting (M) 869136.214	Elevation (M) 847.993
Point Type VVA	Latitude (N) N36°56'07.90829"	Longitude (W) W100°51'20.86346"	Ellipsoid Height (M) 820.982
Location Photo  NORTH			
 3044_2018_OK, 3N, 20181028		 3044_2018_OK, 3E, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3045_2018_OK	Northing (M) 4091754.795	Easting (M) 886569.238	Elevation (M) 809.896
Point Type VVA	Latitude (N) N36°53'33.45975"	Longitude (W) W100°39'45.41691"	Ellipsoid Height (M) 782.717
Location Photo  NORTH			
 3045_2018_OK, 3N, 20181023		 3045_2018_OK, 3E, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3046_2018_OK	Northing (M) 4100345.029	Easting (M) 932628.025	Elevation (M) 641.512
Point Type VVA	Latitude (N) N36°56'59.36140"	Longitude (W) W100°08'33.07193"	Ellipsoid Height (M) 614.119
Location Photo  NORTH			
 3046_2018_OK, 3N, 20181028		 3046_2018_OK, 3E, 20181028	

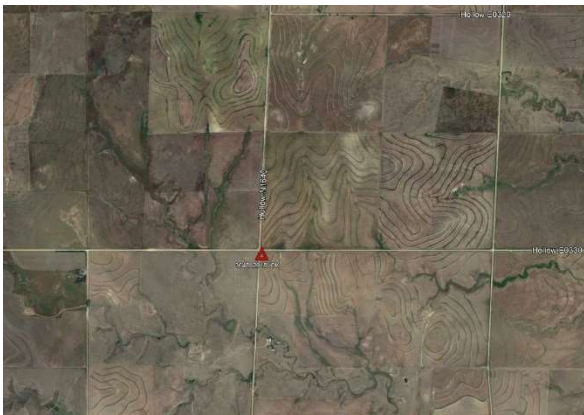


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3047_2018_OK	Northing (M) 4060886.959	Easting (M) 924716.751	Elevation (M) 769.482
Point Type VVA	Latitude (N) N36°35'56.19686"	Longitude (W) W100°15'10.88125"	Ellipsoid Height (M) 741.807
Location Photo  NORTH			
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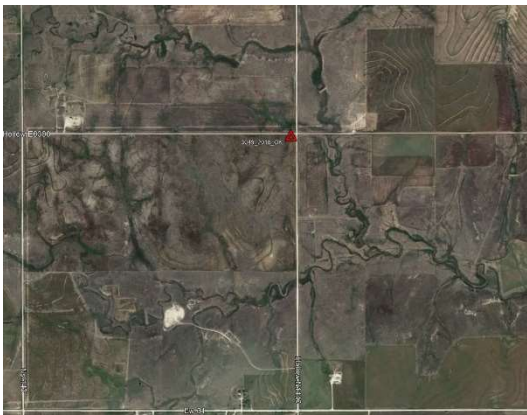


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3048_2018_OK	Northing (M) 4053870.022	Easting (M) 940799.230	Elevation (M) 771.273
Point Type VVA	Latitude (N) N36°31'43.07414"	Longitude (W) W100°04'40.33827"	Ellipsoid Height (M) 743.417
Location Photo  NORTH			
			
3048_2018_OK, 3N, 20181029		3048_2018_OK, 3E, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3049_2018_OK	Northing (M) 4057174.393	Easting (M) 908702.235	Elevation (M) 822.120
Point Type VVA	Latitude (N) N36°34'21.25728"	Longitude (W) W100°26'00.45065"	Ellipsoid Height (M) 794.498
Location Photo  NORTH			
 3049_2018_OK, 3W, 20181026		 3049_2018_OK, 3S, 20181026	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3050_2018_OK	Northing (M) 4052429.934	Easting (M) 892843.839	Elevation (M) 873.347
Point Type VVA	Latitude (N) N36°32'11.67782"	Longitude (W) W100°36'45.30568"	Ellipsoid Height (M) 845.815
Location Photo  NORTH			
			
3050_2018_OK, 3W, 20181025		3050_2018_OK, 3N, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3051_2018_OK	Northing (M) 4053388.635	Easting (M) 868600.759	Elevation (M) 876.092
Point Type VVA	Latitude (N) N36°33'17.44789"	Longitude (W) W100°52'56.02289"	Ellipsoid Height (M) 848.787
Location Photo  NORTH			
			
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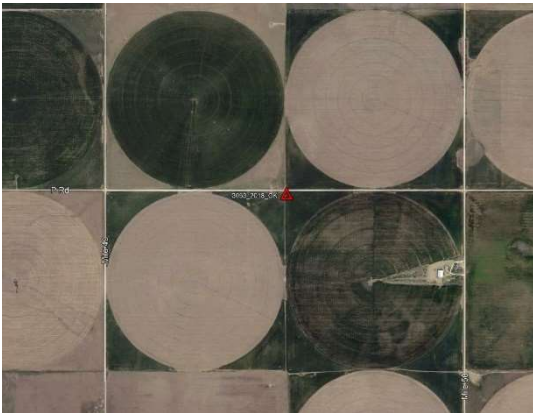


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3052_2018_OK	Northing (M) 4059879.545	Easting (M) 860292.726	Elevation (M) 829.447
Point Type VVA	Latitude (N) N36°36'58.98629"	Longitude (W) W100°58'18.45796"	Ellipsoid Height (M) 802.218
Location Photo  NORTH			
			
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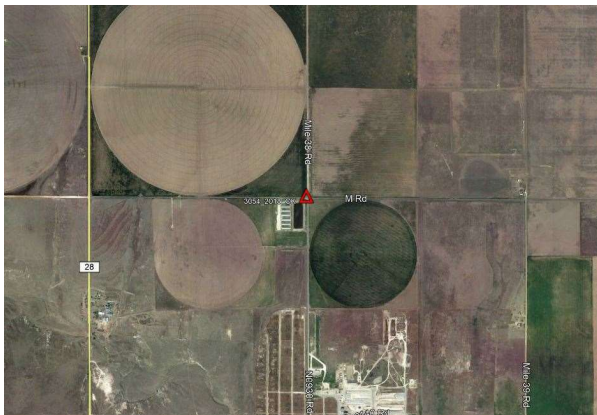


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3053_2018_OK	Northing (M) 4076997.090	Easting (M) 844267.234	Elevation (M) 881.017
Point Type VVA	Latitude (N) N36°46'34.56318"	Longitude (W) W101°08'34.41832"	Ellipsoid Height (M) 854.151
Location Photo  NORTH			
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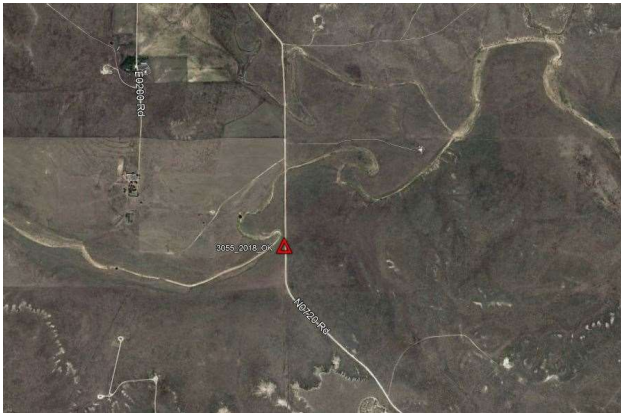


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3054_2018_OK	Northing (M) 4081111.317	Easting (M) 825570.894	Elevation (M) 928.184
Point Type VVA	Latitude (N) N36°49'11.58747"	Longitude (W) W101°21'00.75465"	Ellipsoid Height (M) 901.644
Location Photo  NORTH			
			
3054_2018_OK, 3S, 20181029		3054_2018_OK, 3E, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3055_2018_OK	Northing (M) 4067265.074	Easting (M) 792389.112	Elevation (M) 984.931
Point Type VVA	Latitude (N) N36°42'21.96812"	Longitude (W) W101°43'36.89106"	Ellipsoid Height (M) 959.087
Location Photo  NORTH			
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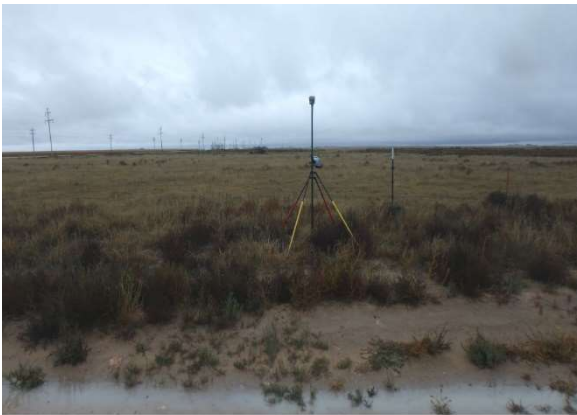


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3056_2018_OK	Northing (M) 4060019.310	Easting (M) 774753.807	Elevation (M) 1079.529
Point Type VVA	Latitude (N) N36°38'46.10078"	Longitude (W) W101°55'35.97862"	Ellipsoid Height (M) 1054.176
Location Photo  NORTH			
 3056_2018_OK, 3W, 20181028		 3056_2018_OK, 3S, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3057_2018_OK	Northing (M) 4054732.955	Easting (M) 697815.355	Elevation (M) 1361.527
Point Type VVA	Latitude (N) N36°37'03.41704"	Longitude (W) W102°47'16.60577"	Ellipsoid Height (M) 1338.418
Location Photo  NORTH			
			
3057_2018_OK, 3S, 20181024		3057_2018_OK, 3E, 20181024	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3058_2018_OK	Northing (M) 4061021.970	Easting (M) 691324.124	Elevation (M) 1406.409
Point Type VVA	Latitude (N) N36°40'32.14788"	Longitude (W) W102°51'32.10722"	Ellipsoid Height (M) 1383.563
Location Photo  NORTH			
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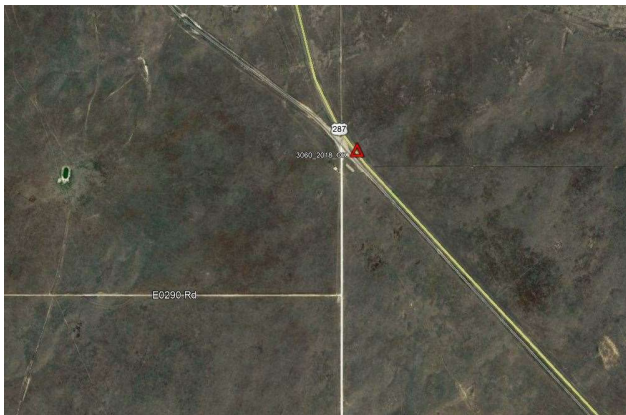


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3059_2018_OK	Northing (M) 4056017.809	Easting (M) 685623.821	Elevation (M) 1392.681
Point Type VVA	Latitude (N) N36°37'53.91735"	Longitude (W) W102°55'25.97742"	Ellipsoid Height (M) 1370.032
Location Photo  NORTH			
			

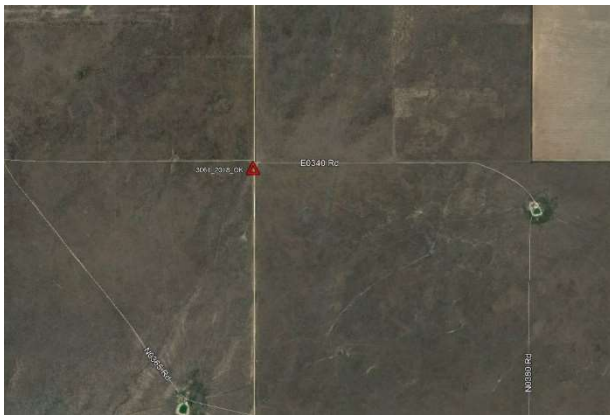


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3060_2018_OK	Northing (M) 4053392.633	Easting (M) 736631.488	Elevation (M) 1207.221
Point Type VVA	Latitude (N) N36°35'48.12375"	Longitude (W) W102°21'16.86612"	Ellipsoid Height (M) 1182.970
Location Photo  NORTH			
 3060_2018_OK, 3N, 20181025		 3060_2018_OK, 3E, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3061_2018_OK	Northing (M) 4044388.092	Easting (M) 736787.033	Elevation (M) 1210.037
Point Type VVA	Latitude (N) N36°30'56.06044"	Longitude (W) W102°21'20.57117"	Ellipsoid Height (M) 1185.667
Location Photo  NORTH			
 3061_2018_OK, 3W, 20181025		 3061_2018_OK, 3N, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3062_2018_OK	Northing (M) 4050943.457	Easting (M) 793374.041	Elevation (M) 1037.978
Point Type VVA	Latitude (N) N36°33'32.04505"	Longitude (W) W101°43'19.70205"	Ellipsoid Height (M) 1011.939
Location Photo  NORTH			
 3062_2018_OK, 3N, 20181030		 3062_2018_OK, 3E, 20181030	

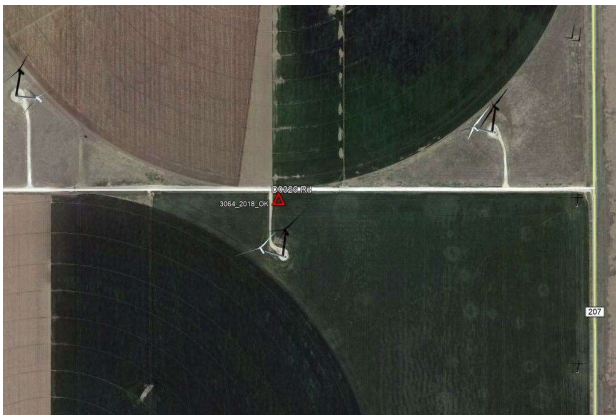


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3063_2018_OK	Northing (M) 4046490.815	Easting (M) 805230.399	Elevation (M) 996.809
Point Type VVA	Latitude (N) N36°30'54.42443"	Longitude (W) W101°35'29.89636"	Ellipsoid Height (M) 970.416
Location Photo  NORTH			
 3063_2018_OK, 3S, 20181029.JPG		 3063_2018_OK, 3E, 20181029.JPG	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3064_2018_OK	Northing (M) 4048402.033	Easting (M) 824695.619	Elevation (M) 945.517
Point Type VVA	Latitude (N) N36°31'33.27051"	Longitude (W) W101°22'25.88730"	Ellipsoid Height (M) 918.717
Location Photo  NORTH			
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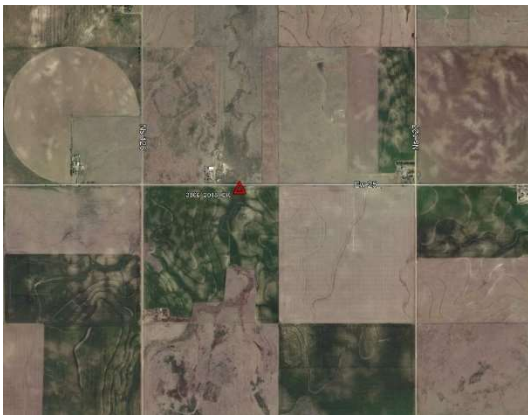
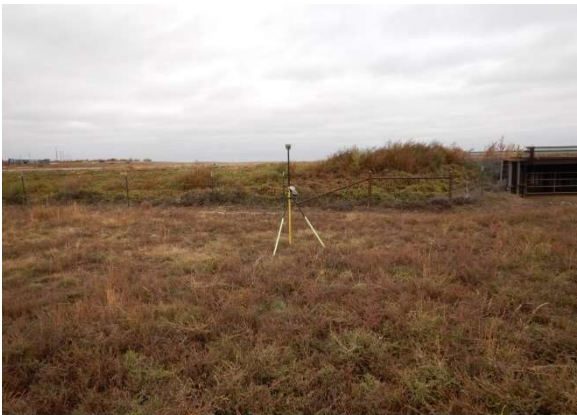


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3065_2018_OK	Northing (M) 4065839.226	Easting (M) 851449.146	Elevation (M) 816.068
Point Type VVA	Latitude (N) N36°40'23.82386"	Longitude (W) W101°04'03.81711"	Ellipsoid Height (M) 788.982
Location Photo  NORTH			
 3065_2018_OK, 3W, 20181024		 3065_2018_OK, 3S, 20181024	

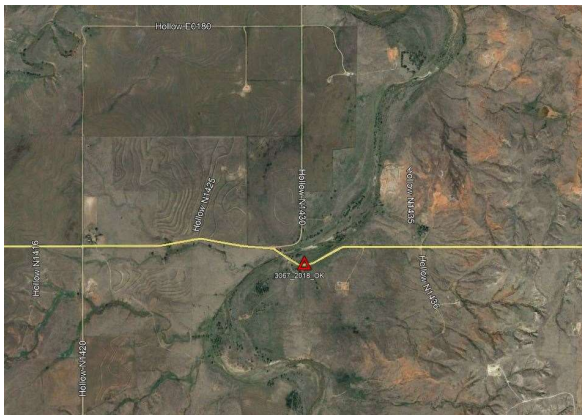


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3066_2018_OK	Northing (M) 4063940.913	Easting (M) 879986.397	Elevation (M) 865.922
Point Type VVA	Latitude (N) N36°38'42.92440"	Longitude (W) W100°45'00.49447"	Ellipsoid Height (M) 838.575
Location Photo  NORTH			
 3066_2018_OK, 3N, 20181025		 3066_2018_OK, 3E, 20181025	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3067_2018_OK	Northing (M) 4074713.823	Easting (M) 906225.005	Elevation (M) 741.494
Point Type VVA	Latitude (N) N36°43'52.48795"	Longitude (W) W100°27'06.40236"	Ellipsoid Height (M) 714.033
Location Photo  NORTH			
 3067_2018_OK, 3W, 20181026		 3067_2018_OK, 3S, 20181026	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3068_2018_OK	Northing (M) 4077431.692	Easting (M) 923760.901	Elevation (M) 735.645
Point Type VVA	Latitude (N) N36°44'52.82192"	Longitude (W) W100°15'16.31792"	Ellipsoid Height (M) 708.119
Location Photo  NORTH			
 3068_2018_OK, 3W, 20181029		 3068_2018_OK, 3N, 20181029	

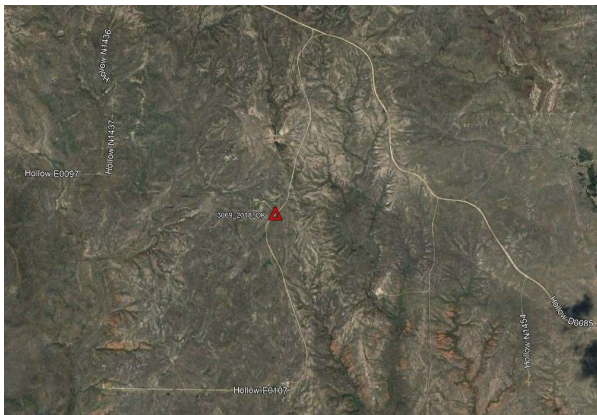


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3068A_2018_OK	Northing (M) 4077357.391	Easting (M) 923769.393	Elevation (M) 734.962
Point Type VVA	Latitude (N) N36°44'50.40525"	Longitude (W) W100°15'16.12496"	Ellipsoid Height (M) 707.435
Location Photo  NORTH			
 3068A_2018_OK, 3N, 20181029		 3068A_2018_OK, 3E, 20181029	

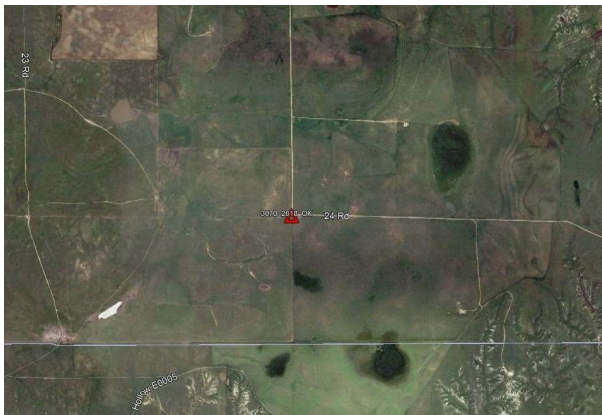


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3069_2018_OK	Northing (M) 4089657.726	Easting (M) 908658.858	Elevation (M) 789.402
Point Type VVA	Latitude (N) N36°51'52.15367"	Longitude (W) W100°24'59.74496"	Ellipsoid Height (M) 762.094
Location Photo  NORTH			
 3069_2018_OK, 3W, 20181027		 3069_2018_OK, 3N, 20181027	

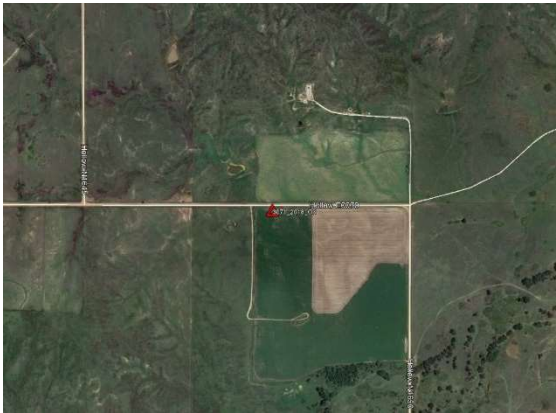


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3070_2018_OK	Northing (M) 4106494.337	Easting (M) 924140.140	Elevation (M) 718.596
Point Type VVA	Latitude (N) N37°00'32.11236"	Longitude (W) W100°14'02.63786"	Ellipsoid Height (M) 691.340
Location Photo  NORTH			
 3070_2018_KS, 3W, 20181028		 3070_2018_KS, 3S, 20181028	

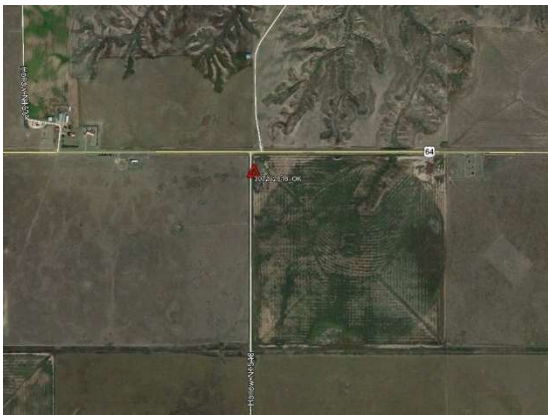


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3071_2018_OK	Northing (M) 4095848.331	Easting (M) 939942.915	Elevation (M) 649.503
Point Type VVA	Latitude (N) N36°54'21.79179"	Longitude (W) W100°03'47.79298"	Ellipsoid Height (M) 622.023
Location Photo  NORTH			
			



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3072_2018_OK	Northing (M) 4093423.893	Easting (M) 924098.910	Elevation (M) 788.149
Point Type VVA	Latitude (N) N36°53'29.48240"	Longitude (W) W100°14'30.67301"	Ellipsoid Height (M) 760.799
Location Photo  NORTH			
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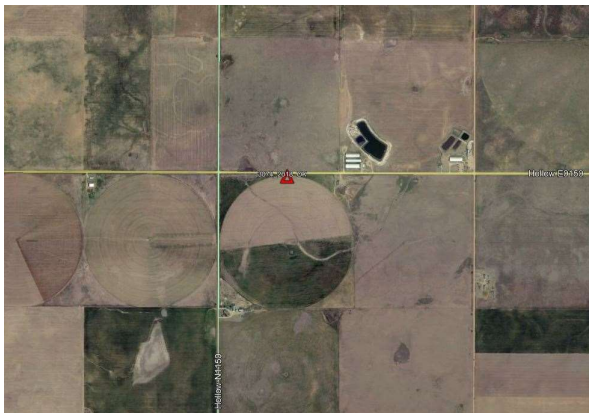


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3073_2018_OK	Northing (M) 4103256.582	Easting (M) 911826.792	Elevation (M) 692.658
Point Type VVA	Latitude (N) N36°59'07.08166"	Longitude (W) W100°22'25.59788"	Ellipsoid Height (M) 665.465
Location Photo  NORTH			
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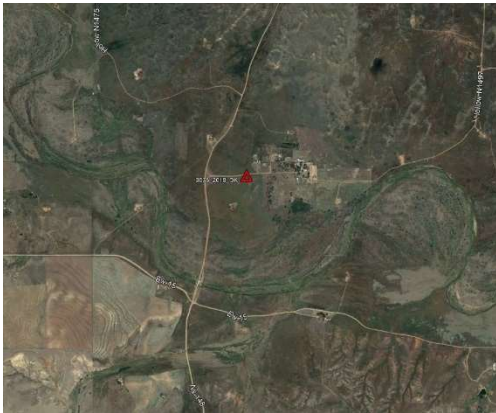


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3074_2018_OK	Northing (M) 4079290.277	Easting (M) 861477.908	Elevation (M) 837.603
Point Type VVA	Latitude (N) N36°47'25.74524"	Longitude (W) W100°56'57.87111"	Ellipsoid Height (M) 810.491
Location Photo  NORTH			
 3074_2018_OK, 3W, 20181023		 3074_2018_OK, 3N, 20181023	

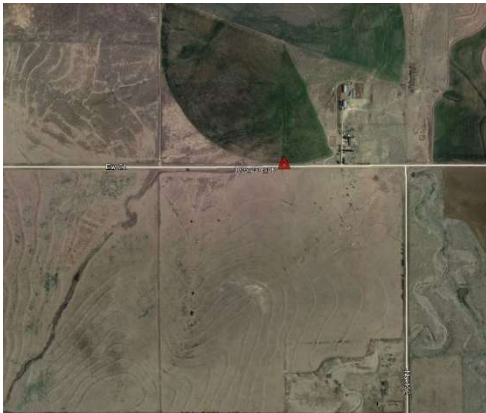


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3075_2018_OK	Northing (M) 4082357.941	Easting (M) 914387.942	Elevation (M) 707.967
Point Type VVA	Latitude (N) N36°47'47.05978"	Longitude (W) W100°21'23.41749"	Ellipsoid Height (M) 680.527
Location Photo  NORTH			
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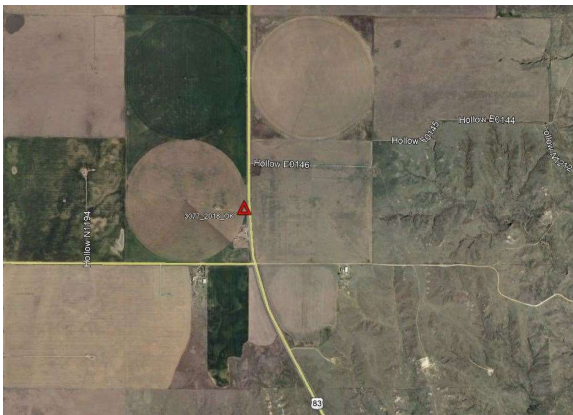


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3076_2018_OK	Northing (M) 4070796.193	Easting (M) 888350.203	Elevation (M) 834.923
Point Type VVA	Latitude (N) N36°42'12.62555"	Longitude (W) W100°39'12.11035"	Ellipsoid Height (M) 807.558
Location Photo  NORTH			
 3076_2018_OK, 3S, 20181025		 3076_2018_OK, 3E, 20181025	

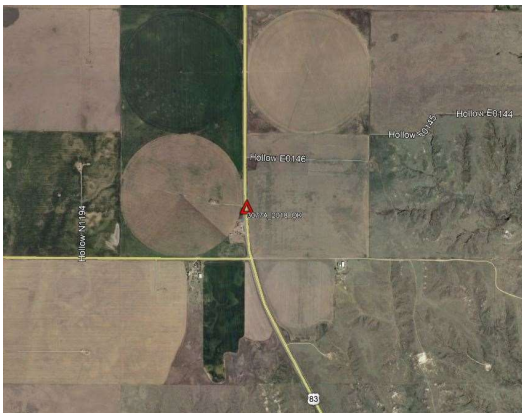


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3077_2018_OK	Northing (M) 4079961.517	Easting (M) 868992.326	Elevation (M) 831.263
Point Type VVA	Latitude (N) N36°47'37.04915"	Longitude (W) W100°51'54.27670"	Ellipsoid Height (M) 804.057
Location Photo  NORTH			
 3077_2018_OK, 3W, 20181023		 3077_2018_OK, 3N, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3077A_2018_OK	Northing (M) 4079932.630	Easting (M) 869036.369	Elevation (M) 831.063
Point Type VVA	Latitude (N) N36°47'36.05239"	Longitude (W) W100°51'52.55448"	Ellipsoid Height (M) 803.856
Location Photo  NORTH			
 3077A_2018_OK, 3N, 20181023		 3077A_2018_OK, 3E, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3078_2018_OK	Northing (M) 4089107.594	Easting (M) 863840.078	Elevation (M) 845.368
Point Type VVA	Latitude (N) N36°52'40.28228"	Longitude (W) W100°55'05.89549"	Ellipsoid Height (M) 818.326
Location Photo  NORTH			
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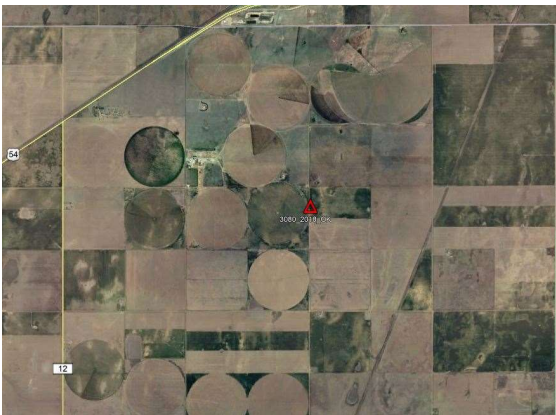


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3079_2018_OK	Northing (M) 4095241.676	Easting (M) 855965.113	Elevation (M) 872.806
Point Type VVA	Latitude (N) N36°56'09.66243"	Longitude (W) W101°00'12.85391"	Ellipsoid Height (M) 845.921
Location Photo  NORTH			
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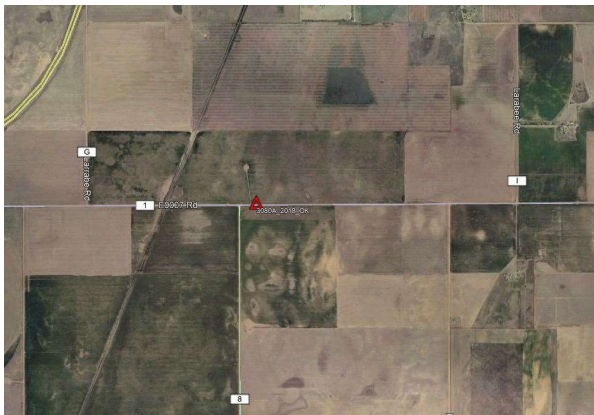


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3080_2018_OK	Northing (M) 4099882.190	Easting (M) 857749.972	Elevation (M) 876.104
Point Type VVA	Latitude (N) N36°58'37.45424"	Longitude (W) W100°58'52.97141"	Ellipsoid Height (M) 849.252
Location Photo  NORTH			
 3080_2018_OK, 3N, 20181023		 3080_2018_OK, 3E, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3080A_2018_OK	Northing (M) 4102410.927	Easting (M) 860971.589	Elevation (M) 869.299
Point Type VVA	Latitude (N) N36°59'54.88407"	Longitude (W) W100°56'38.63559"	Ellipsoid Height (M) 842.448
Location Photo  NORTH			
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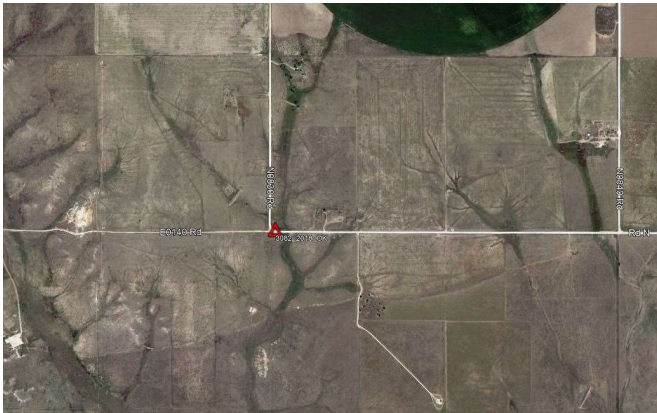


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3081_2018_OK	Northing (M) 4086727.235	Easting (M) 804265.096	Elevation (M) 1004.695
Point Type VVA	Latitude (N) N36°52'39.03555"	Longitude (W) W101°35'11.07628"	Ellipsoid Height (M) 978.743
Location Photo  NORTH			
			
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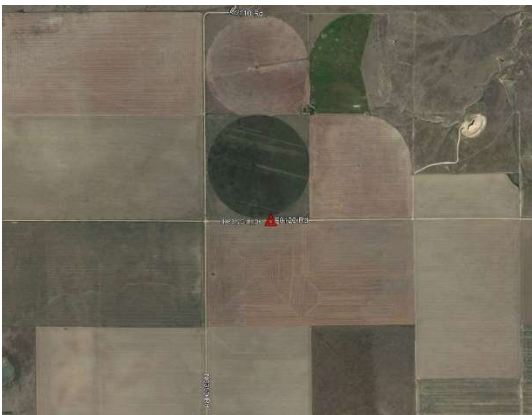


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3082_2018_OK	Northing (M) 4078998.100	Easting (M) 809762.160	Elevation (M) 958.161
Point Type VVA	Latitude (N) N36°48'22.23368"	Longitude (W) W101°31'40.76110"	Ellipsoid Height (M) 931.960
Location Photo  NORTH			
			
3082_2018_OK, 3W, 20181028		3082_2018_OK, 3N, 20181028	

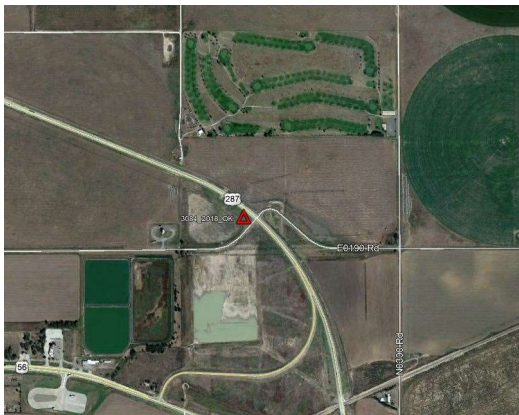


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3083_2018_OK	Northing (M) 4079771.878	Easting (M) 733100.339	Elevation (M) 1246.332
Point Type VVA	Latitude (N) N36°50'06.46190"	Longitude (W) W102°23'09.89258"	Ellipsoid Height (M) 1222.345
Location Photo  NORTH			
			
3083_2018_OK, 3W, 20181023		3083_2018_OK, 3N, 20181023	

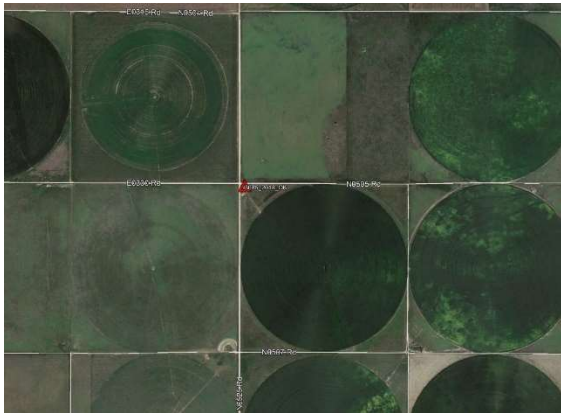


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3084_2018_OK	Northing (M) 4068374.821	Easting (M) 724294.508	Elevation (M) 1257.008
Point Type VVA	Latitude (N) N36°44'04.61500"	Longitude (W) W102°29'17.13759"	Ellipsoid Height (M) 1233.193
Location Photo  NORTH			
			
3084_2018_OK, 3W, 20181023		3084_2018_OK, 3N, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3085_2018_OK	Northing (M) 4046604.747	Easting (M) 757688.714	Elevation (M) 1152.537
Point Type VVA	Latitude (N) N36°31'48.46834"	Longitude (W) W102°07'18.52819"	Ellipsoid Height (M) 1127.565
Location Photo  NORTH			

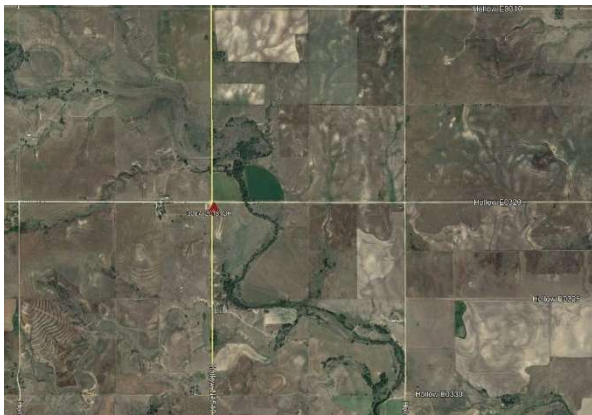


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3086_2018_OK	Northing (M) 4052541.776	Easting (M) 837931.800	Elevation (M) 904.738
Point Type VVA	Latitude (N) N36°33'30.83317"	Longitude (W) W101°13'28.23571"	Ellipsoid Height (M) 877.750
Location Photo  NORTH			
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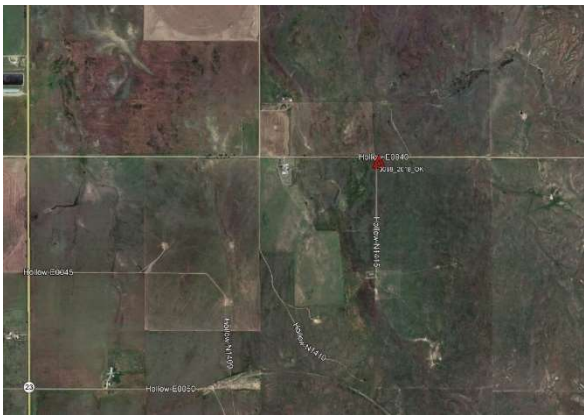
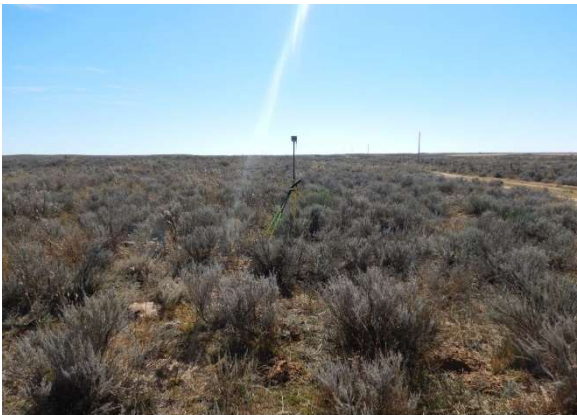


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3087_2018_OK	Northing (M) 4054440.231	Easting (M) 920192.013	Elevation (M) 769.187
Point Type VVA	Latitude (N) N36°32'34.88407"	Longitude (W) W100°18'25.03407"	Ellipsoid Height (M) 741.464
Location Photo  NORTH			
 3087_2018_OK, 3W, 20181026		 3087_2018_OK, 3N, 20181026	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3088_2018_OK	Northing (M) 4098949.099	Easting (M) 903657.743	Elevation (M) 766.283
Point Type VVA	Latitude (N) N36°57'00.47051"	Longitude (W) W100°28'03.28729"	Ellipsoid Height (M) 739.114
Location Photo  NORTH			
 3088_2018_OK, 3S, 20181027		 3088_2018_OK, 3E, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3089_2018_OK	Northing (M) 4105579.421	Easting (M) 895441.628	Elevation (M) 731.257
Point Type VVA	Latitude (N) N37°00'47.52781"	Longitude (W) W100°33'21.98688"	Ellipsoid Height (M) 704.213
Location Photo  NORTH			
 3089_2018_KS, 3W, 20181027		 3089_2018_KS, 3S, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3090_2018_OK	Northing (M) 4094729.837	Easting (M) 878892.318	Elevation (M) 831.870
Point Type VVA	Latitude (N) N36°55'20.94047"	Longitude (W) W100°44'49.37131"	Ellipsoid Height (M) 804.775
Location Photo  NORTH			
			

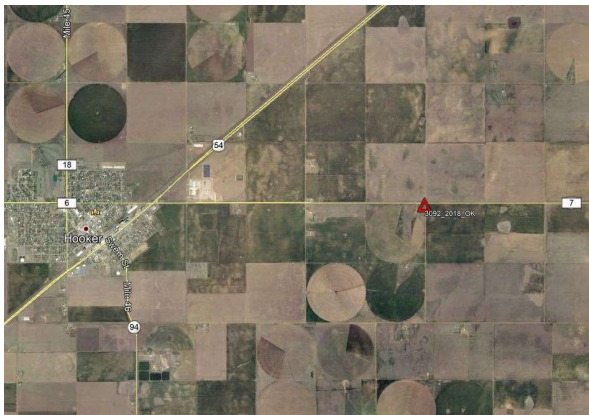


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3091_2018_OK	Northing (M) 4074103.615	Easting (M) 809128.037	Elevation (M) 948.514
Point Type VVA	Latitude (N) N36°45'44.42927"	Longitude (W) W101°32'13.45085"	Ellipsoid Height (M) 922.274
Location Photo  NORTH			
			
3091_2018_OK, 3S, 20181028		3091_2018_OK, 3E, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3092_2018_OK	Northing (M) 4086545.177	Easting (M) 842145.084	Elevation (M) 900.026
Point Type VVA	Latitude (N) N36°51'46.49581"	Longitude (W) W101°09'44.38732"	Ellipsoid Height (M) 873.268
Location Photo  NORTH			
			
3092_2018_OK, 3W, 20181029		3092_2018_OK, 3N, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3093_2018_OK	Northing (M) 4083794.566	Easting (M) 852833.680	Elevation (M) 867.283
Point Type VVA	Latitude (N) N36°50'03.30047"	Longitude (W) W101°02'38.30511"	Ellipsoid Height (M) 840.329
Location Photo  NORTH			
 3093_2018_OK, 3N, 20181023		 3093_2018_OK, 3E, 20181023	

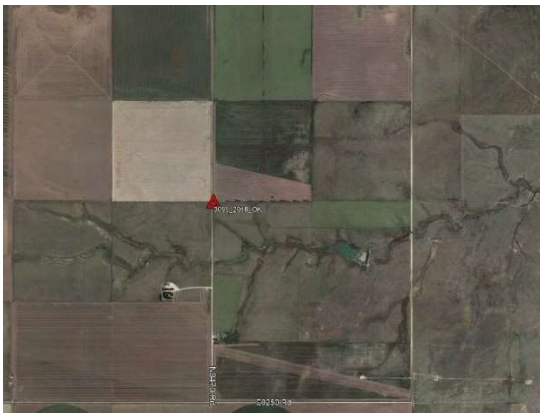


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3094_2018_OK	Northing (M) 4086650.079	Easting (M) 750338.383	Elevation (M) 1190.706
Point Type VVA	Latitude (N) N36°53'33.55022"	Longitude (W) W102°11'26.57217"	Ellipsoid Height (M) 1166.251
Location Photo  NORTH			
			
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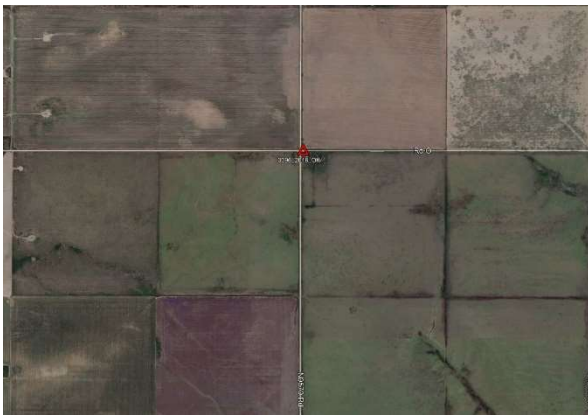


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3095_2018_OK	Northing (M) 4060979.531	Easting (M) 752453.879	Elevation (M) 1166.864
Point Type VVA	Latitude (N) N36°39'39.44900"	Longitude (W) W102°10'31.80137"	Ellipsoid Height (M) 1142.242
Location Photo  NORTH			
			
3095_2018_OK, 3S, 20181026		3095_2018_OK, 3E, 20181026	

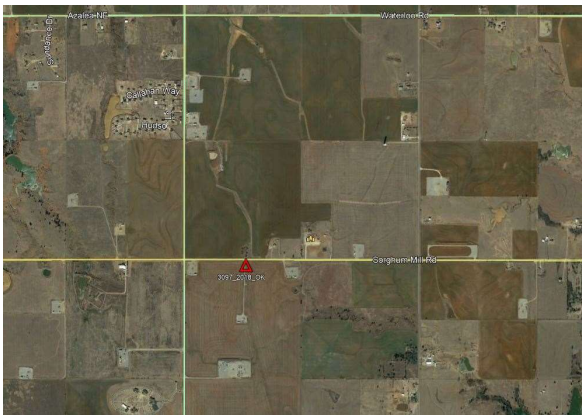
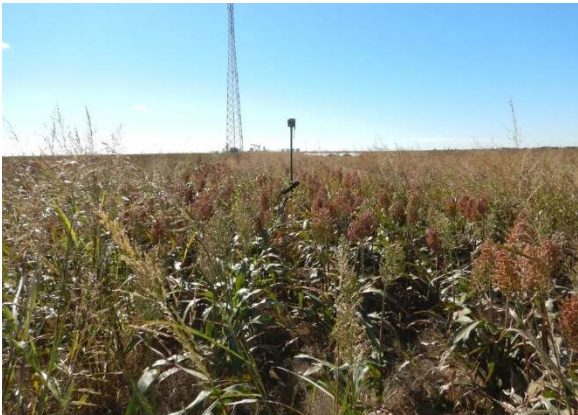


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3096_2018_OK	Northing (M) 4075943.508	Easting (M) 768027.770	Elevation (M) 1112.917
Point Type VVA	Latitude (N) N36°47'29.08594"	Longitude (W) W101°59'46.39381"	Ellipsoid Height (M) 1087.939
Location Photo  NORTH			
			
3096_2018_OK, 3W, 20181027		3096_2018_OK, 3N, 20181027	

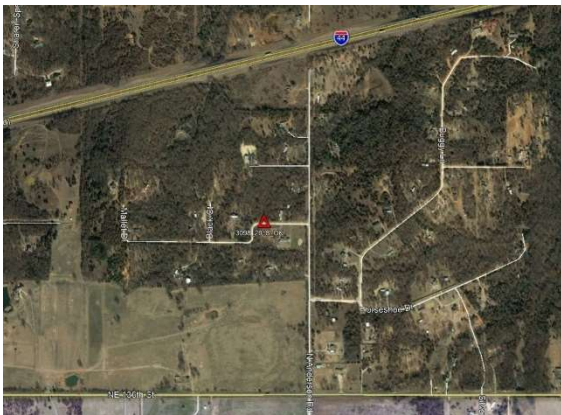


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3097_2018_OK	Northing (M) 3976727.508	Easting (M) 1163674.125	Elevation (M) 355.758
Point Type VVA	Latitude (N) N35°42'38.68307"	Longitude (W) W97°40'09.78814"	Ellipsoid Height (M) 328.502
Location Photo  NORTH			
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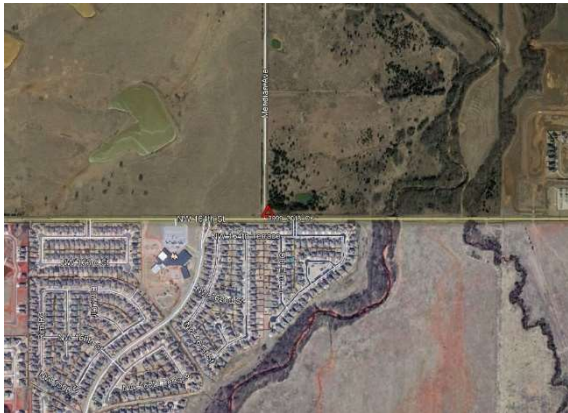


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3098_2018_OK	Northing (M) 3968469.466	Easting (M) 1196213.908	Elevation (M) 353.736
Point Type VVA	Latitude (N) N35°36'52.50154"	Longitude (W) W97°19'11.66452"	Ellipsoid Height (M) 326.386
Location Photo  NORTH			
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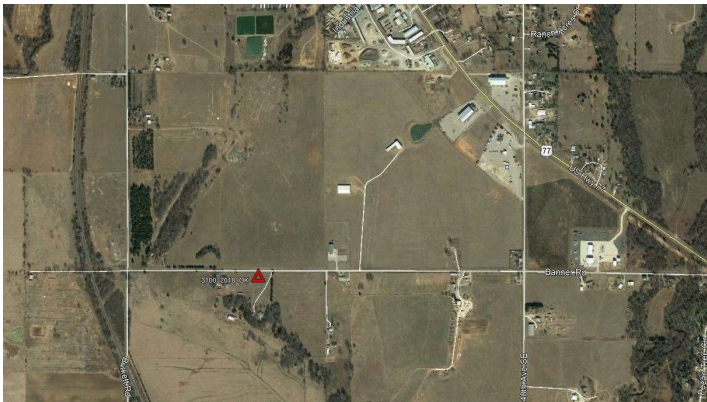


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3099_2018_OK	Northing (M) 3969181.749	Easting (M) 1170324.563	Elevation (M) 331.033
Point Type VVA	Latitude (N) N35°38'19.64426"	Longitude (W) W97°36'09.85563"	Ellipsoid Height (M) 303.835
Location Photo  NORTH			
 3099_2018_OK, 3S, 20181104		 3099_2018_OK, 3E, 20181104	

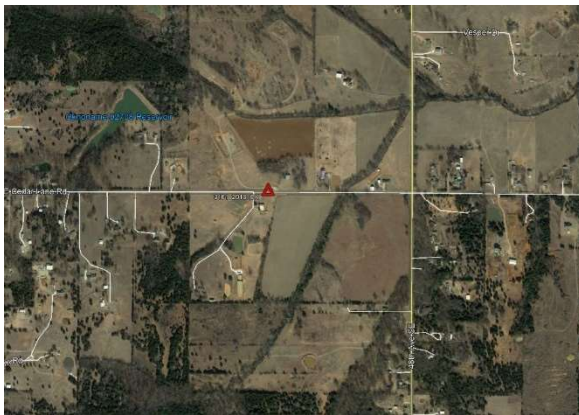


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3100_2018_OK	Northing (M) 3911041.029	Easting (M) 1194915.936	Elevation (M) 333.361
Point Type VVA	Latitude (N) N35°06'08.20495"	Longitude (W) W97°22'57.91644"	Ellipsoid Height (M) 307.066
Location Photo  NORTH			
			
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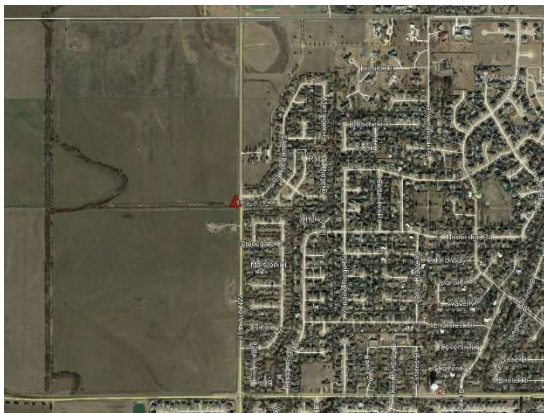


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3101_2018_OK	Northing (M) 3919185.158	Easting (M) 1194886.281	Elevation (M) 338.777
Point Type VVA	Latitude (N) N35°10'30.31157"	Longitude (W) W97°22'34.51274"	Ellipsoid Height (M) 312.329
Location Photo  NORTH			
 3101_2018_OK, 3S, 20181103		 3101_2018_OK, 3E, 20181103	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3102_2018_OK	Northing (M) 3925496.348	Easting (M) 1181923.912	Elevation (M) 343.525
Point Type VVA	Latitude (N) N35°14'25.29952"	Longitude (W) W97°30'43.80564"	Ellipsoid Height (M) 316.930
Location Photo  NORTH			
			
3102_2018_OK, 3W, 20181103		3102_2018_OK, 3S, 20181103	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3103_2018_OK	Northing (M) 3936883.895	Easting (M) 1172929.060	Elevation (M) 375.975
Point Type VVA	Latitude (N) N35°20'53.68418"	Longitude (W) W97°36'03.18577"	Ellipsoid Height (M) 349.169
Location Photo  NORTH			
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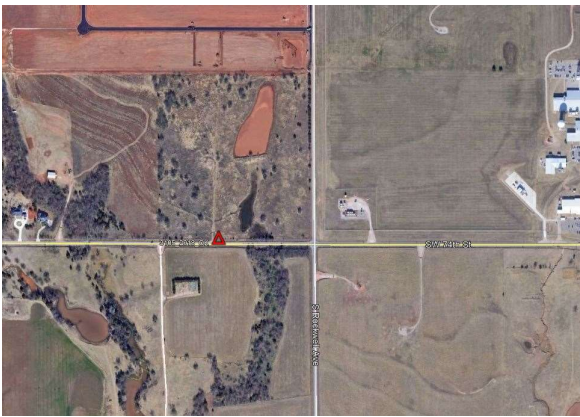


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3104_2018_OK	Northing (M) 3950582.163	Easting (M) 1166397.927	Elevation (M) 378.262
Point Type VVA	Latitude (N) N35°28'30.41089"	Longitude (W) W97°39'39.63848"	Ellipsoid Height (M) 351.300
Location Photo  NORTH			
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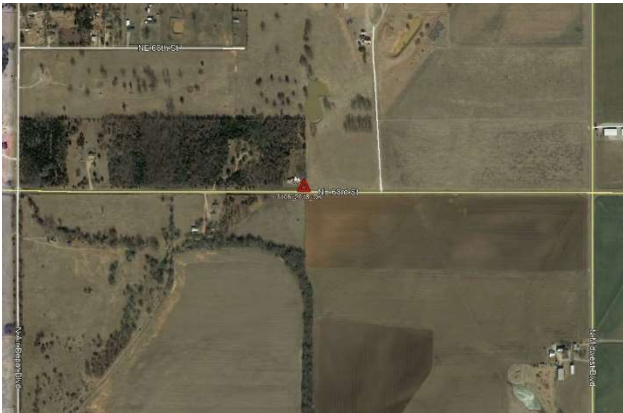


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3105_2018_OK	Northing (M) 3941465.416	Easting (M) 1169120.883	Elevation (M) 394.628
Point Type VVA	Latitude (N) N35°23'30.36009"	Longitude (W) W97°38'19.35102"	Ellipsoid Height (M) 367.760
Location Photo  NORTH			
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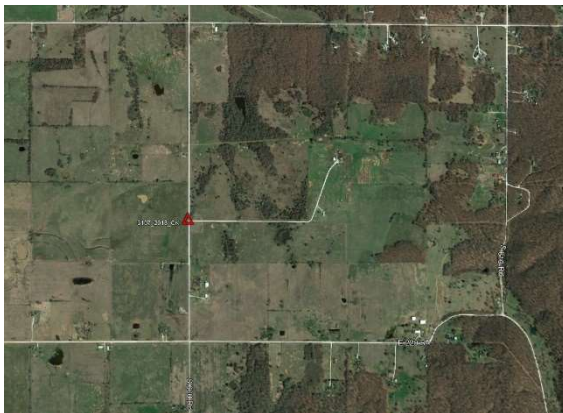


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3106_2018_OK	Northing (M) 3959273.822	Easting (M) 1189829.145	Elevation (M) 352.815
Point Type VVA	Latitude (N) N35°32'12.70502"	Longitude (W) W97°23'51.34689"	Ellipsoid Height (M) 325.674
Location Photo  NORTH			
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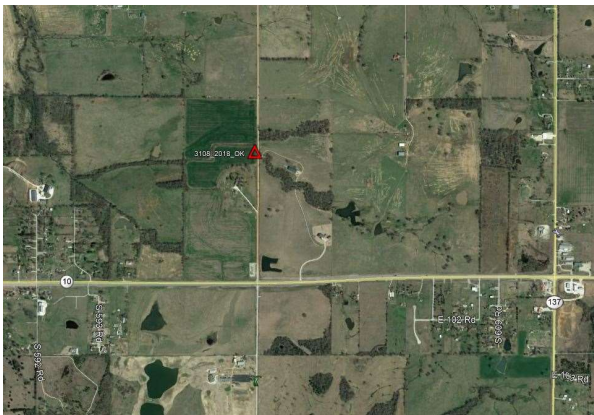


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3107_2018_OK	Northing (M) 4110981.577	Easting (M) 1412289.293	Elevation (M) 276.038
Point Type VVA	Latitude (N) N36°42'18.25083"	Longitude (W) W94°48'05.29209"	Ellipsoid Height (M) 246.917
Location Photo  NORTH			
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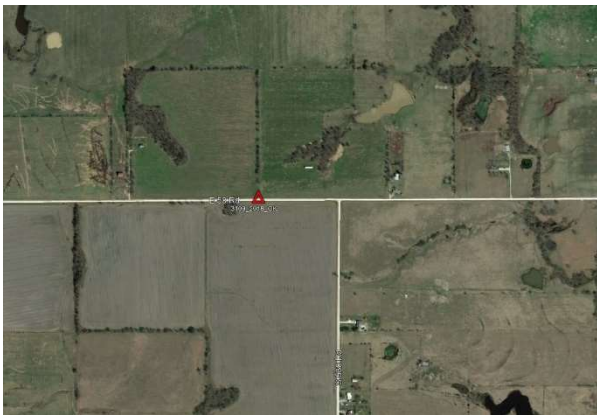


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3108_2018_OK	Northing (M) 4130144.561	Easting (M) 1409811.665	Elevation (M) 250.096
Point Type VVA	Latitude (N) N36°52'38.82515"	Longitude (W) W94°48'21.70198"	Ellipsoid Height (M) 220.736
Location Photo  NORTH			
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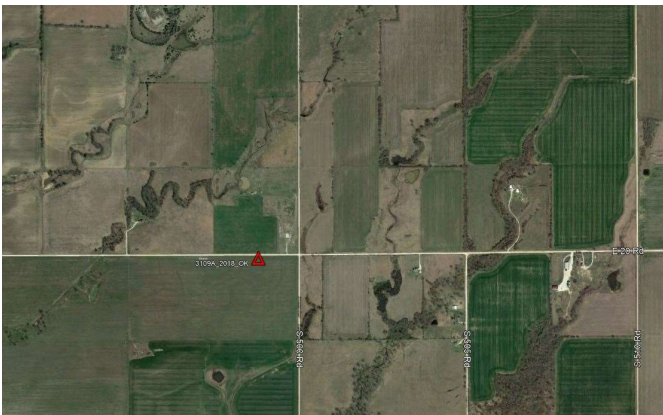


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3109_2018_OK	Northing (M) 4136272.483	Easting (M) 1397536.030	Elevation (M) 249.026
Point Type VVA	Latitude (N) N36°56'36.66346"	Longitude (W) W94°56'03.88333"	Ellipsoid Height (M) 219.477
Location Photo  NORTH			
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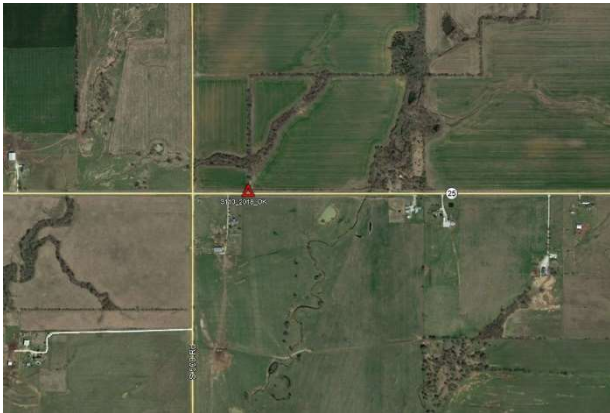


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3109A_2018_OK	Northing (M) 4140659.334	Easting (M) 1393211.119	Elevation (M) 247.643
Point Type VVA	Latitude (N) N36°59'11.55859"	Longitude (W) W94°58'37.49527"	Ellipsoid Height (M) 218.000
Location Photo  NORTH			
 3109A_2018_OK, 3N, 20181107		 3109A_2018_OK, 3E, 20181107	

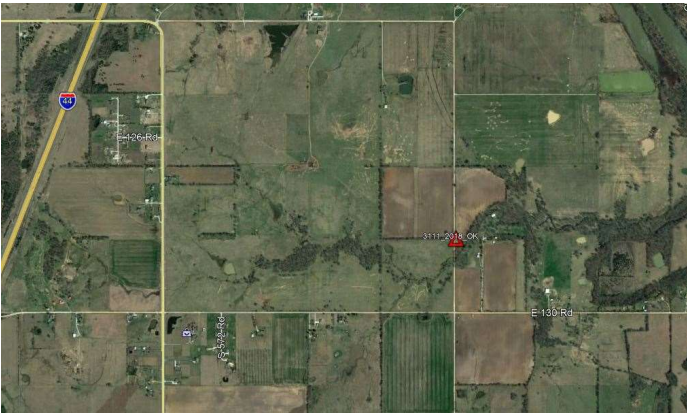


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3110_2018_OK	Northing (M) 4120004.759	Easting (M) 1395207.655	Elevation (M) 237.938
Point Type VVA	Latitude (N) N36°48'04.75186"	Longitude (W) W94°58'45.25045"	Ellipsoid Height (M) 208.580
Location Photo  NORTH			
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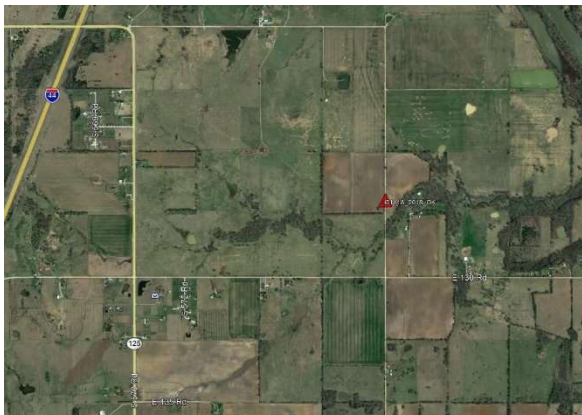


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3111_2018_OK	Northing (M) 4124967.968	Easting (M) 1407546.219	Elevation (M) 235.564
Point Type VVA	Latitude (N) N36°50'01.27460"	Longitude (W) W94°50'13.90509"	Ellipsoid Height (M) 206.254
Location Photo  NORTH			
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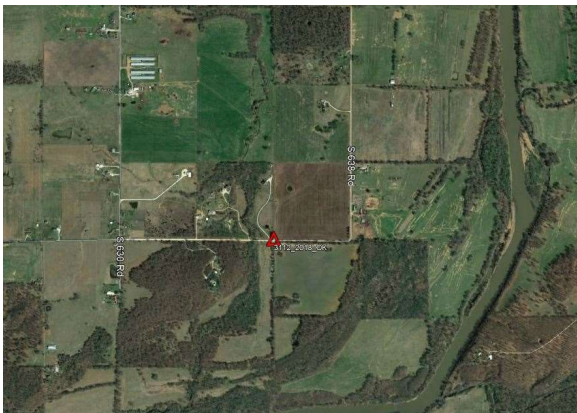


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3111A_2018_OK	Northing (M) 4125053.164	Easting (M) 1407527.621	Elevation (M) 235.925
Point Type VVA	Latitude (N) N36°50'04.05978"	Longitude (W) W94°50'14.28024"	Ellipsoid Height (M) 206.613
Location Photo  NORTH			
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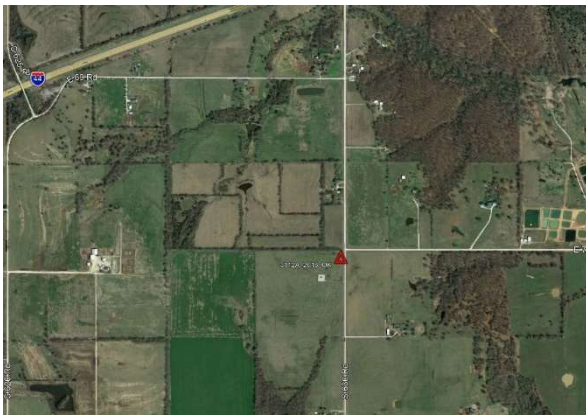


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3112_2018_OK	Northing (M) 4131697.865	Easting (M) 1415331.434	Elevation (M) 236.994
Point Type VVA	Latitude (N) N36°53'09.34532"	Longitude (W) W94°44'35.58097"	Ellipsoid Height (M) 207.648
Location Photo  NORTH			
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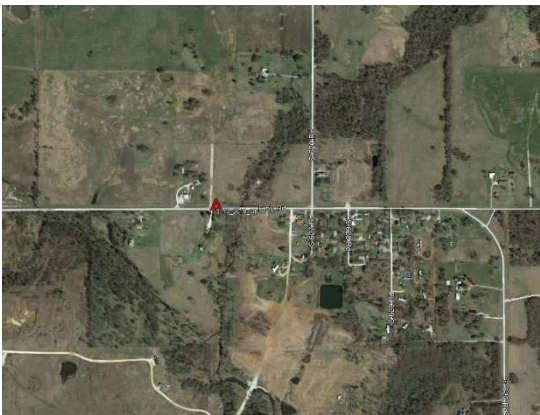


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3112A_2018_OK	Northing (M) 4134394.408	Easting (M) 1414202.533	Elevation (M) 261.731
Point Type VVA	Latitude (N) N36°54'39.36891"	Longitude (W) W94°45'08.82207"	Ellipsoid Height (M) 232.339
Location Photo  NORTH			
 3112A_2018_OK, 3W, 20181106		 3112A_2018_OK, 3S, 20181106	

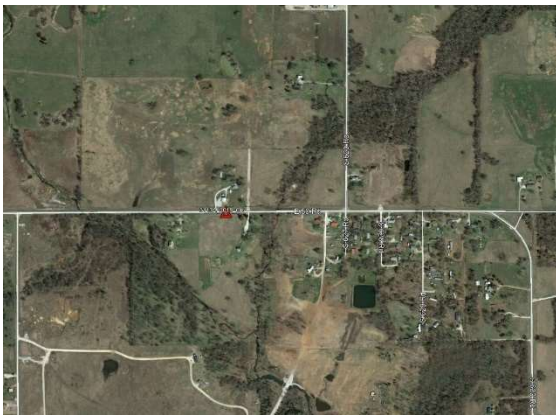


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3113_2018_OK	Northing (M) 4137967.658	Easting (M) 1412980.701	Elevation (M) 249.354
Point Type VVA	Latitude (N) N36°56'37.71246"	Longitude (W) W94°45'41.98973"	Ellipsoid Height (M) 219.894
Location Photo  NORTH			
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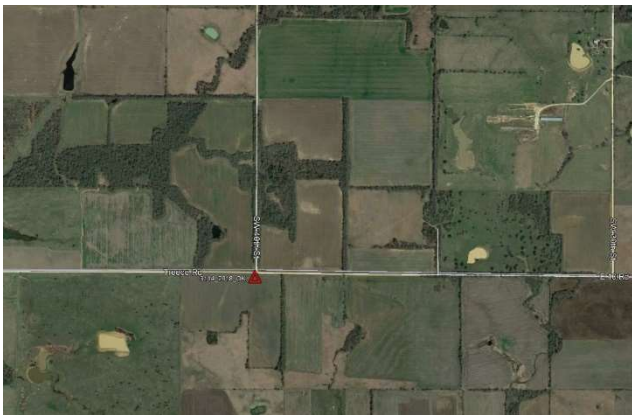


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3113A_2018_OK	Northing (M) 4137944.616	Easting (M) 1412899.431	Elevation (M) 251.018
Point Type VVA	Latitude (N) N36°56'37.25838"	Longitude (W) W94°45'45.32256"	Ellipsoid Height (M) 221.559
Location Photo  NORTH			
 3113A_2018_OK_3N_20181107		 3113A_2018_OK_3E_20181107	

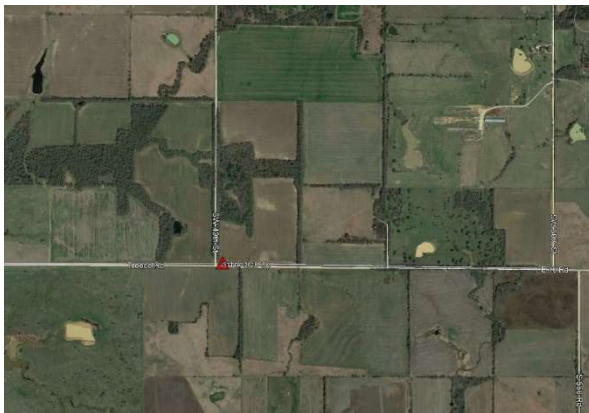


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3114_2018_OK	Northing (M) 4142727.637	Easting (M) 1399554.015	Elevation (M) 259.654
Point Type VVA	Latitude (N) N36°59'56.01008"	Longitude (W) W94°54'16.04496"	Ellipsoid Height (M) 230.014
Location Photo  NORTH			
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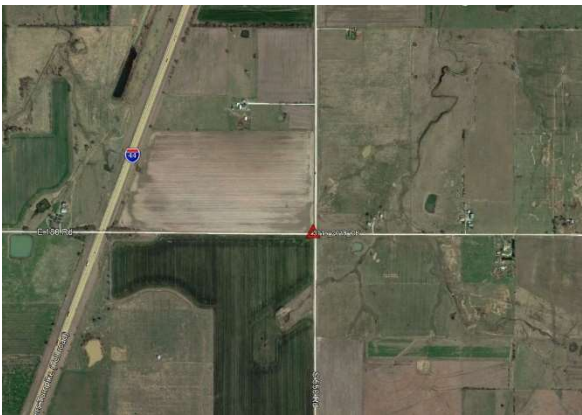


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3114A_2018_OK	Northing (M) 4142763.870	Easting (M) 1399591.565	Elevation (M) 258.661
Point Type VVA	Latitude (N) N36°59'57.03910"	Longitude (W) W94°54'14.39462"	Ellipsoid Height (M) 229.021
Location Photo  NORTH			
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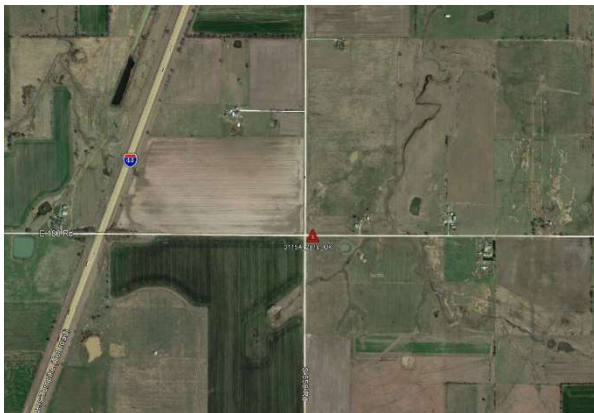


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3115_2018_OK	Northing (M) 4115969.784	Easting (M) 1403607.954	Elevation (M) 243.540
Point Type VVA	Latitude (N) N36°45'27.29831"	Longitude (W) W94°53'28.61190"	Ellipsoid Height (M) 214.284
Location Photo  NORTH			
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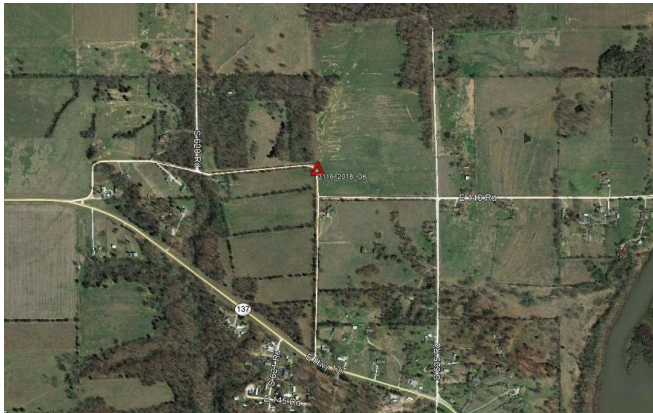


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3115A_2018_OK	Northing (M) 4115961.987	Easting (M) 1403650.117	Elevation (M) 243.328
Point Type VVA	Latitude (N) N36°45'26.90548"	Longitude (W) W94°53'26.97087"	Ellipsoid Height (M) 214.073
Location Photo  NORTH			
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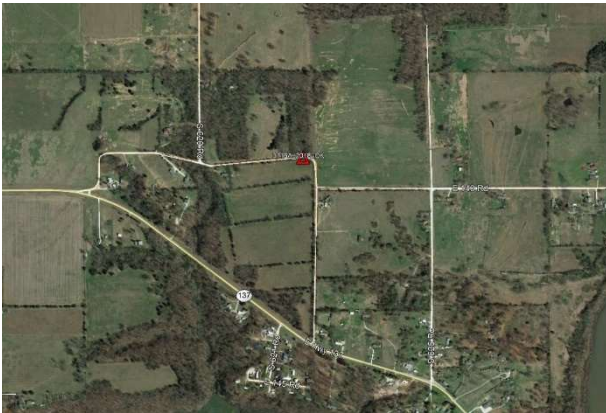


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3116_2018_OK	Northing (M) 4123454.087	Easting (M) 1414179.227	Elevation (M) 251.292
Point Type VVA	Latitude (N) N36°48'50.07837"	Longitude (W) W94°45'56.87570"	Ellipsoid Height (M) 222.054
Location Photo  NORTH			
 3116_2018_OK_3N_20181107		 3116_2018_OK_3E_20181107	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 3116A_2018_OK	Northing (M) 4123456.526	Easting (M) 1414133.218	Elevation (M) 251.156
Point Type VVA	Latitude (N) N36°48'50.31523"	Longitude (W) W94°45'58.69262"	Ellipsoid Height (M) 221.917
Location Photo  NORTH			
 3116A_2018_OK_3N_20181107		 3116A_2018_OK_3E_20181107	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 100_2018_OK	Northing (M) 3949734.851	Easting (M) 1175904.530	Elevation (M) 370.637
Point Type TSM	Latitude (N) N35°27'40.10283"	Longitude (W) W97°33'28.08187"	Ellipsoid Height (M) 343.689
Location Photo  NORTH			
			
100_2018_OK, 3W, 20181101		100_2018_OK, 3N, 20181101	

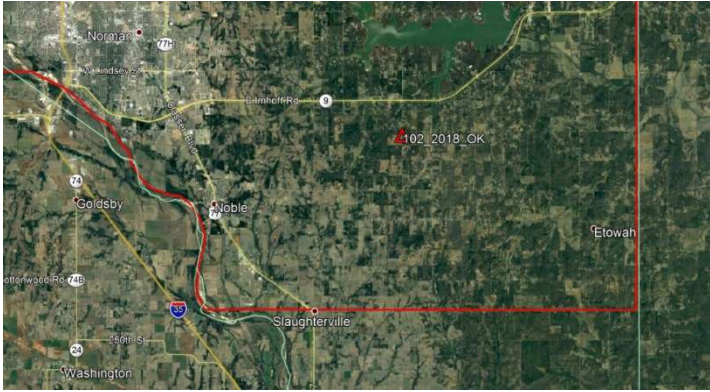


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 101_2018_OK	Northing (M) 3943722.996	Easting (M) 1209922.246	Elevation (M) 361.838
Point Type TSM	Latitude (N) N35°23'01.75690"	Longitude (W) W97°11'29.36908"	Ellipsoid Height (M) 334.885
Location Photo  NORTH			
 101_2018_OK, 3W, 20181102		 101_2018_OK, 3S, 20181102	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 102_2018_OK	Northing (M) 3919564.141	Easting (M) 1203440.098	Elevation (M) 365.062
Point Type TSM	Latitude (N) N35°10'21.15293"	Longitude (W) W97°16'58.21950"	Ellipsoid Height (M) 338.583
Location Photo  NORTH			
			
102_2018_OK, 3S, 20181103		102_2018_OK, 3E, 20181103	

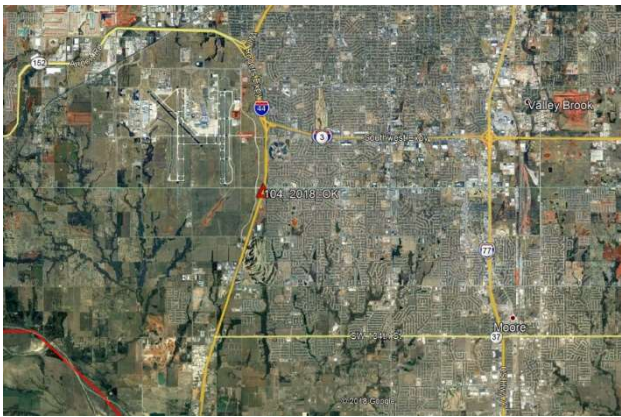


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 103_2018_OK	Northing (M) 3928101.136	Easting (M) 1184231.650	Elevation (M) 366.788
Point Type TSM	Latitude (N) N35°15'43.48408"	Longitude (W) W97°29'05.49910"	Ellipsoid Height (M) 340.159
Location Photo  NORTH			
			
103_2018_OK, 3W, 20181103		103_2018_OK, 3S, 20181103	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 104_2018_OK	Northing (M) 3940177.931	Easting (M) 1175029.838	Elevation (M) 392.123
Point Type TSM	Latitude (N) N35°22'34.62388"	Longitude (W) W97°34'30.89068"	Ellipsoid Height (M) 365.291
Location Photo  NORTH			
 104_2018_OK, 3W, 20181104		 104_2018_OK, 3N, 20181104	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 105_2018_OK	Northing (M) 3971783.774	Easting (M) 1171713.851	Elevation (M) 336.099
Point Type TSM	Latitude (N) N35°39'40.00957"	Longitude (W) W97°35'07.29409"	Ellipsoid Height (M) 308.852
Location Photo  NORTH			
			
105_2018_OK, 3S, 20181104		105_2018_OK, 3E, 20181104	

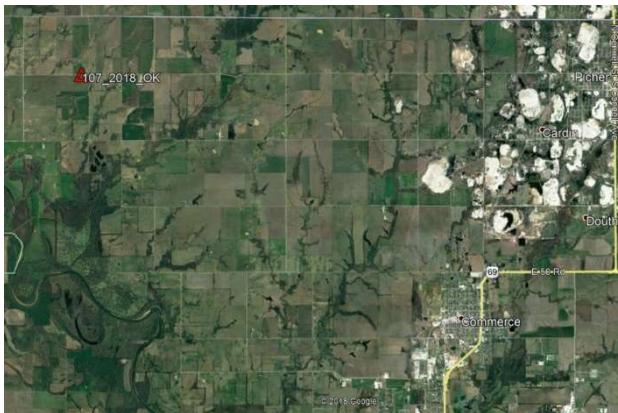


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 106_2018_OK	Northing (M) 4129535.573	Easting (M) 1410848.843	Elevation (M) 263.859
Point Type TSM	Latitude (N) N36°52'15.79847"	Longitude (W) W94°47'43.08407"	Ellipsoid Height (M) 234.516
Location Photo  NORTH			
			
106_2018_OK, 3S, 20181105		106_2018_OK, 3E, 20181105	

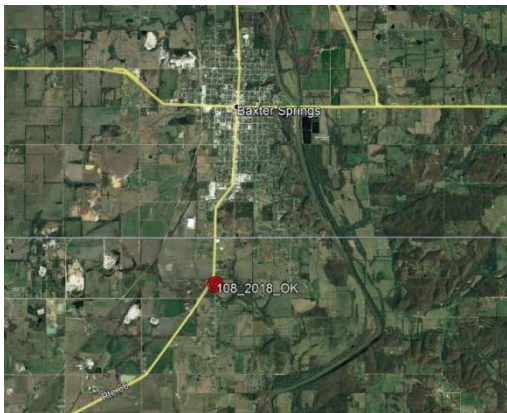


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 107_2018_OK	Northing (M) 4140684.044	Easting (M) 1393211.501	Elevation (M) 247.668
Point Type TSM	Latitude (N) N36°59'12.34694"	Longitude (W) W94°58'37.37539"	Ellipsoid Height (M) 218.024
Location Photo  NORTH			
 107_2018_OK, 3N, 20181107		 107_2018_OK, 3E, 20181107	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 108_2018_OK	Northing (M) 4143295.667	Easting (M) 1414309.682	Elevation (M) 253.641
Point Type TSM	Latitude (N) N36°59'23.23658"	Longitude (W) W94°44'26.04574"	Ellipsoid Height (M) 224.088
Location Photo  NORTH			
 108_2018_OK, 3S, 20181108		 108_2018_OK, 3E, 20181108	

OBSERVATION LOG SHEET				
Project Number 78983		Project Name OK Panhandle Lidar		Company Woolpert Inc
Field Operator E.Noyer				
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North	Geoid GEOID12B (Conus)
Station ID 150_2018_OK	Northing (M) 3968295.633	Easting (M) 1189884.919		Elevation (M) 324.057
Point Type TSM	Latitude (N) N35°37'02.82626"	Longitude (W) W97°23'21.54397"		Ellipsoid Height (M) 296.744
Location Photo NORTH				
150_2018_OK_3N_20181104		150_2018_OK_3E_20181104		



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 151_2018_OK	Northing (M) 4107729.059	Easting (M) 1421288.501	Elevation (M) 260.148
Point Type TSM	Latitude (N) N36°40'03.34441"	Longitude (W) W94°42'22.39290"	Ellipsoid Height (M) 231.158
Location Photo  NORTH			
 151_2018_OK_3N_20181105		 151_2018_OK_3E_20181105	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 152_2018_OK	Northing (M) 4109865.264	Easting (M) 1407690.009	Elevation (M) 264.028
Point Type TSM	Latitude (N) N36°41'58.34962"	Longitude (W) W94°51'12.48768"	Ellipsoid Height (M) 234.868
Location Photo  NORTH			
 152_2018_OK_3N_20181106		 152_2018_OK_3E_20181106	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 175_2018_OK	Northing (M) 4087685.297	Easting (M) 867857.457	Elevation (M) 835.394
Point Type TSM	Latitude (N) N36°51'48.64540"	Longitude (W) W100°52'26.50951"	Ellipsoid Height (M) 808.290
Location Photo  NORTH			
 175_2018_OK, 3W, 20181023		 175_2018_OK, 3N, 20181023	

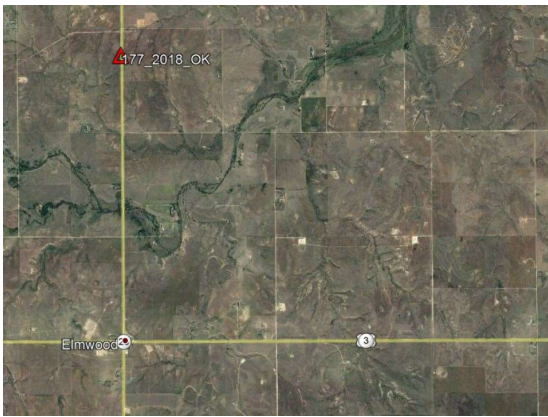


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 176_2018_OK	Northing (M) 4061368.449	Easting (M) 873006.663	Elevation (M) 883.676
Point Type TSM	Latitude (N) N36°37'29.58749"	Longitude (W) W100°49'45.33685"	Ellipsoid Height (M) 856.366
Location Photo  NORTH			
 176_2018_OK, 3W, 20181024		 176_2018_OK, 3N, 20181024	

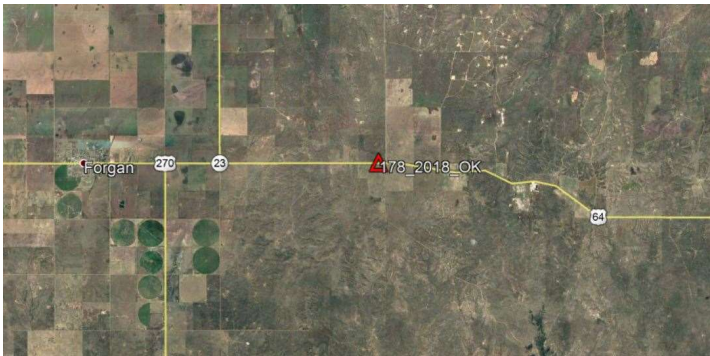


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 177_2018_OK	Northing (M) 4066049.514	Easting (M) 900229.244	Elevation (M) 818.589
Point Type TSM	Latitude (N) N36°39'21.32166"	Longitude (W) W100°31'23.69066"	Ellipsoid Height (M) 791.102
Location Photo  NORTH			
 177_2018_OK, 3W, 20181025		 177_2018_OK, 3S, 20181025	

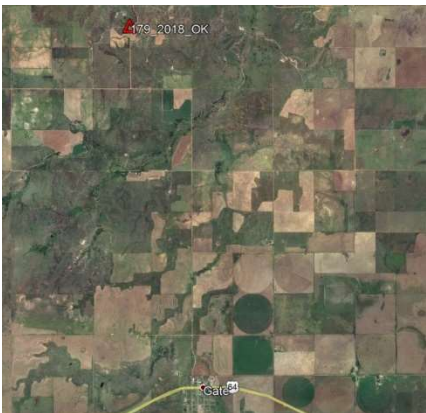
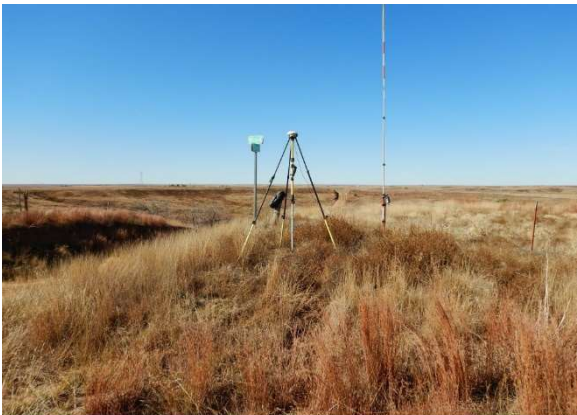


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 178_2018_OK	Northing (M) 4094266.258	Easting (M) 906096.864	Elevation (M) 817.705
Point Type TSM	Latitude (N) N36°54'25.21208"	Longitude (W) W100°26'34.01465"	Ellipsoid Height (M) 790.480
Location Photo  NORTH			
 178_2018_OK, 3W, 20181027		 178_2018_OK, 3N, 20181027	

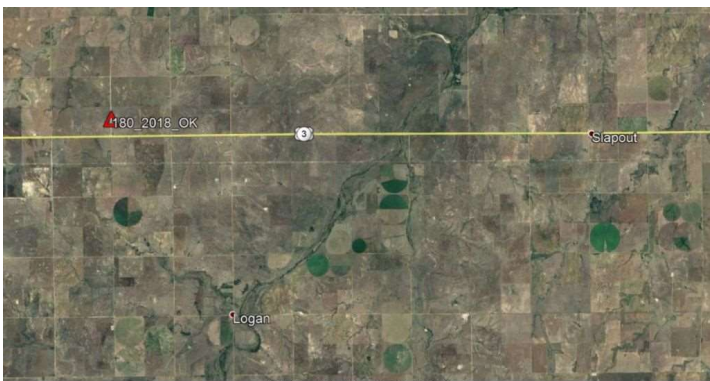


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 179_2018_OK	Northing (M) 4097051.104	Easting (M) 939176.449	Elevation (M) 683.361
Point Type TSM	Latitude (N) N36°55'01.96428"	Longitude (W) W100°04'16.14331"	Ellipsoid Height (M) 655.897
Location Photo  NORTH			
 179_2018_OK, 3W, 20181028		 179_2018_OK, 3S, 20181028	

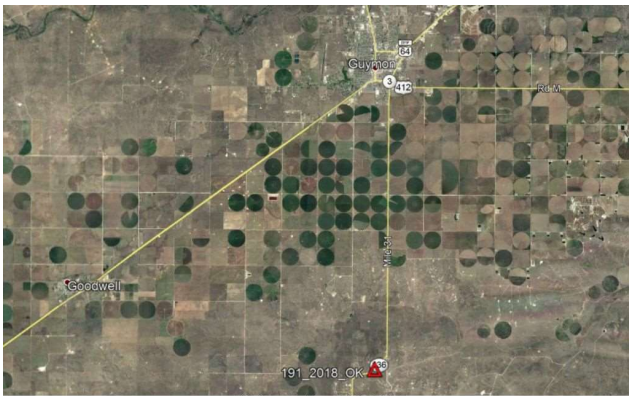


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 180_2018_OK	Northing (M) 4063269.267	Easting (M) 924566.087	Elevation (M) 800.778
Point Type TSM	Latitude (N) N36°37'13.48788"	Longitude (W) W100°15'12.19262"	Ellipsoid Height (M) 773.131
Location Photo  NORTH	 180_2018_OK_VIC		
 180_2018_OK, 3S, 20181029		 180_2018_OK, 3E, 20181029	

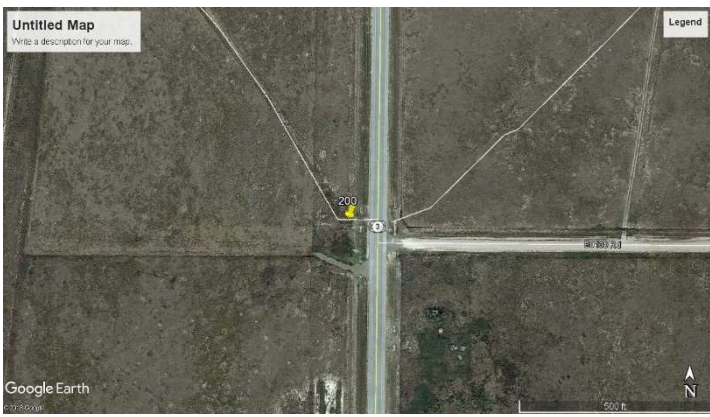


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 191_2018_OK	Northing (M) 4051905.125	Easting (M) 814934.483	Elevation (M) 963.504
Point Type TSM	Latitude (N) N36°33'38.49341"	Longitude (W) W101°28'52.49782"	Ellipsoid Height (M) 936.917
Location Photo  NORTH	 191_2018_OK_VIC		
 191_2018_OK, 3S, 20181029		 191_2018_OK, 3E, 20181029	

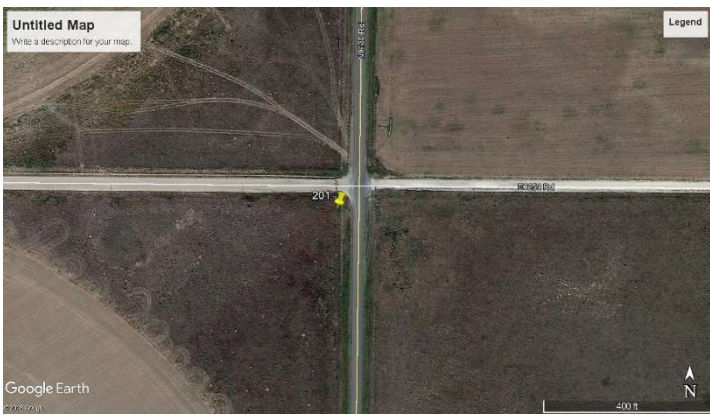


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 200_2018_OK	Northing (M) 4077853.874	Easting (M) 721411.942	Elevation (M) 1283.630
Point Type TSM	Latitude (N) N36°49'14.38763"	Longitude (W) W102°31'03.34304"	Ellipsoid Height (M) 1259.907
Location Photo  NORTH			
			
200_2018_OK, 3W, 20181023		200_2018_OK, 3S, 20181023	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 201_2018_OK	Northing (M) 4057948.045	Easting (M) 697840.481	Elevation (M) 1369.005
Point Type TSM	Latitude (N) N36°38'47.66266"	Longitude (W) W102°47'12.61244"	Ellipsoid Height (M) 1345.912
Location Photo  NORTH			
			
201_2018_OK, 3N, 20181024		201_2018_OK, 3E, 20181024	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 202_2018_OK	Northing (M) 4053479.136	Easting (M) 736507.686	Elevation (M) 1207.432
Point Type TSM	Latitude (N) N36°35'51.03866"	Longitude (W) W102°21'21.74792"	Ellipsoid Height (M) 1183.185
Location Photo  NORTH			

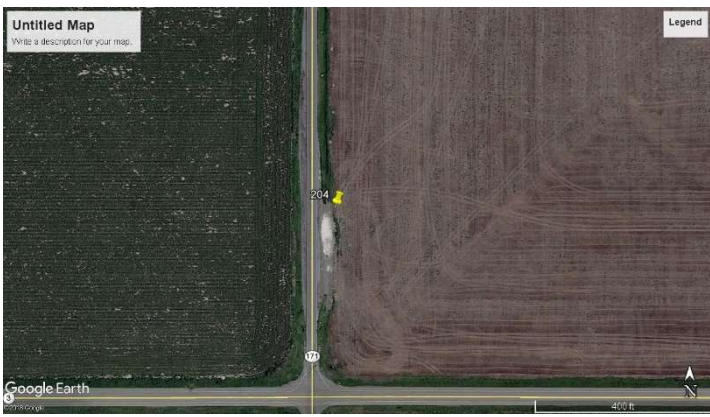
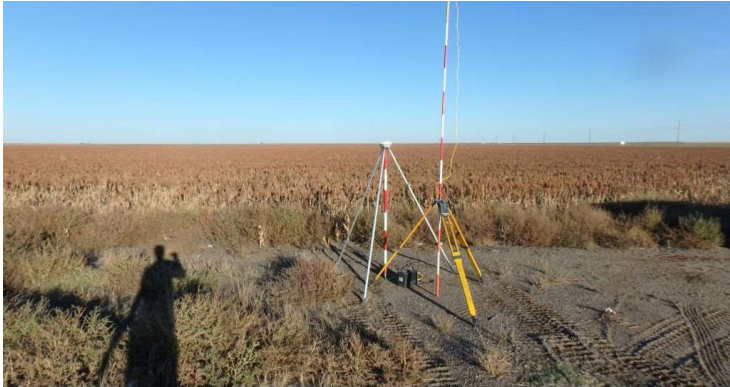


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 203_2018_OK	Northing (M) 4051333.395	Easting (M) 753900.159	Elevation (M) 1172.120
Point Type TSM	Latitude (N) N36°34'25.39330"	Longitude (W) W102°09'45.08672"	Ellipsoid Height (M) 1147.342
Location Photo  NORTH			
			
203_2018_OK, 3N, 20181026		203_2018_OK, 3E, 20181026	

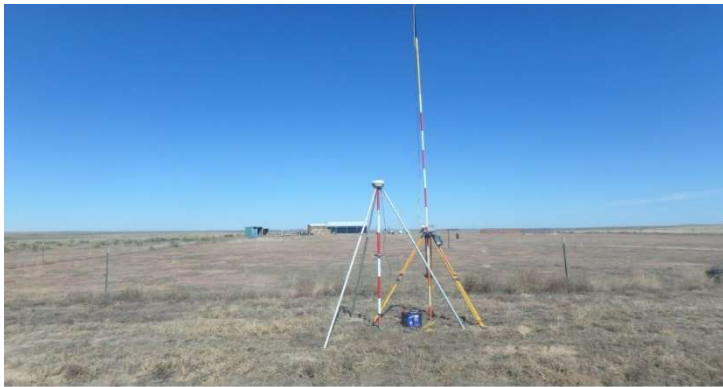


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 204_2018_OK	Northing (M) 4072222.149	Easting (M) 745708.228	Elevation (M) 1201.316
Point Type TSM	Latitude (N) N36°45'50.24527"	Longitude (W) W102°14'50.20915"	Ellipsoid Height (M) 1176.988
Location Photo  NORTH			
 204_2018_OK, 3N, 20181026		 204_2018_OK, 3E, 20181026	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 205_2018_OK	Northing (M) 4090166.416	Easting (M) 758217.762	Elevation (M) 1161.162
Point Type TSM	Latitude (N) N36°55'19.87612"	Longitude (W) W102°06'04.30268"	Ellipsoid Height (M) 1136.490
Location Photo  NORTH			
 205_2018_OK, 3N, 20181027		 205_2018_OK, 3E, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 206_2018_OK	Northing (M) 4072651.582	Easting (M) 765401.433	Elevation (M) 1122.894
Point Type TSM	Latitude (N) N36°45'45.05864"	Longitude (W) W102°01'36.34842"	Ellipsoid Height (M) 1097.973
Location Photo  NORTH			
 206_2018_OK, 3N, 20181027		 206_2018_OK, 3E, 20181027	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 207_2018_OK	Northing (M) 4061683.240	Easting (M) 778092.892	Elevation (M) 1061.013
Point Type TSM	Latitude (N) N36°39'36.53309"	Longitude (W) W101°53'19.52470"	Ellipsoid Height (M) 1035.568
Location Photo  NORTH			
 207_2018_OK, 3W, 20181028		 207_2018_OK, 3S, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 208_2018_OK	Northing (M) 4087855.404	Easting (M) 789741.641	Elevation (M) 1052.484
Point Type TSM	Latitude (N) N36°53'32.02998"	Longitude (W) W101°44'55.23133"	Ellipsoid Height (M) 1026.961
Location Photo  NORTH			
			
208_2018_OK, 3N, 20181028		208_2018_OK, 3E, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 209_2018_OK	Northing (M) 4091920.121	Easting (M) 812943.063	Elevation (M) 984.368
Point Type TSM	Latitude (N) N36°55'17.03456"	Longitude (W) W101°29'13.45571"	Ellipsoid Height (M) 958.220
Location Photo  NORTH			
 209_2018_OK, 3N, 20181028		 209_2018_OK, 3E, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 210_2018_OK	Northing (M) 4073860.872	Easting (M) 801368.291	Elevation (M) 1002.004
Point Type TSM	Latitude (N) N36°45'45.55537"	Longitude (W) W101°37'26.23256"	Ellipsoid Height (M) 975.996
Location Photo  NORTH			
 210_2018_OK, 3N, 20181028		 210_2018_OK, 3E, 20181028	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 211_2018_OK	Northing (M) 4093935.767	Easting (M) 846659.160	Elevation (M) 892.499
Point Type TSM	Latitude (N) N36°55'39.86454"	Longitude (W) W101°06'30.32878"	Ellipsoid Height (M) 865.732
Location Photo  NORTH			
			
211_2018_OK, 3N, 20181029		211_2018_OK, 3E, 20181029	

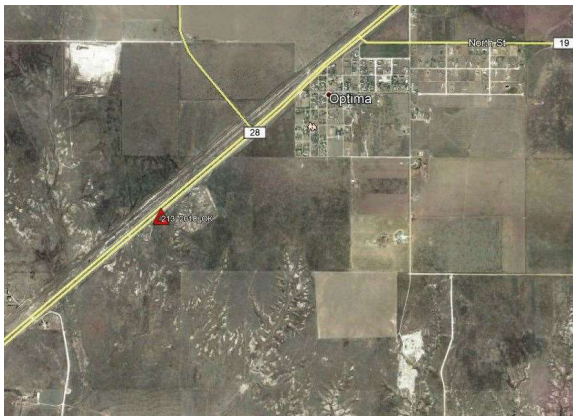
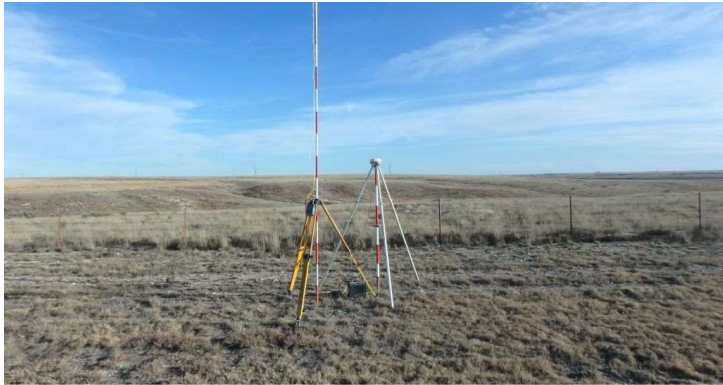


OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 212_2018_OK	Northing (M) 4084963.349	Easting (M) 836770.096	Elevation (M) 911.110
Point Type TSM	Latitude (N) N36°51'02.22210"	Longitude (W) W101°13'23.51845"	Ellipsoid Height (M) 884.427
Location Photo  NORTH			
			
212_2018_OK, 3NW, 20181029		212_2018_OK, 3NE, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID 213_2018_OK	Northing (M) 4073372.822	Easting (M) 824152.856	Elevation (M) 915.152
Point Type TSM	Latitude (N) N36°45'02.70691"	Longitude (W) W101°22'09.72350"	Ellipsoid Height (M) 888.542
Location Photo  NORTH			
			
213_2018_OK, 3SE, 20181029		213_2018_OK, 3NE, 20181029	



OBSERVATION LOG SHEET

Project Number 78983	Project Name OK Panhandle Lidar	Company Woolpert Inc	Field Operator E.Noyer
Coordinate System WorldWide UTM	Hor. Datum NAD 83 2011 Epoch – 2010.00	Ver. Datum NAVD 88	Zone 13 North
Station ID H 202	Northing (M) 4053647.248	Easting (M) 718865.910	Elevation (M) 1279.782
Point Type NGS V CONTROL	Latitude (N) N36°36'11.65018"	Longitude (W) W102°33'10.95908"	Ellipsoid Height (M) 1256.016
Location Photo  NORTH			
			
H 202, GL1313, 3N, 20181025		H 202, GL1313, 3E, 20181025	

Section 4: Geodetic Control Information and Resources

This section contains NGS Datasheets and the solutions returned from Online Positioning User Service (OPUS) for the control stations that was used to establish 3-dimensional coordinates for the newly established calibration and check points for the project.

STATION H 202

The NGS Data SheetSee file [dsdata.pdf](#) for more information about the datasheet.

PROGRAM = datasheet95, VERSION = 8.12.5.2

1 National Geodetic Survey, Retrieval Date = NOVEMBER 16, 2018

GL1313 *****

GL1313 DESIGNATION - H 202

GL1313 PID - GL1313

GL1313 STATE/COUNTY- OK/CIMARRON

GL1313 COUNTRY - US

GL1313 USGS QUAD - BOISE CITY SE (1969)

GL1313

GL1313 *CURRENT SURVEY CONTROL

GL1313

GL1313* NAD 83(1986) POSITION- 36 36 11.65 (N) 102 33 10.96 (W) HD_HELD1

GL1313* [NAVD 88](#) ORTHO HEIGHT - 1279.782 (meters) 4198.75 (feet) ADJUSTED

GL1313

GL1313 GEOID HEIGHT - -23.765 (meters) GEOID12B

GL1313 DYNAMIC HEIGHT - 1278.363 (meters) 4194.10 (feet) COMP

GL1313 MODELED GRAVITY - 979,478.5 (mgal) NAVD 88

GL1313

GL1313 VERT ORDER - FIRST CLASS II

GL1313

GL1313.The horizontal coordinates were determined by differentially corrected

GL1313.hand held GPS observations or other comparable positioning techniques

GL1313.and have an estimated accuracy of +/- 3 meters.

GL1313.

GL1313.The orthometric height was determined by differential leveling and

GL1313.adjusted by the NATIONAL GEODETIC SURVEY

GL1313.in June 1991.

GL1313

GL1313.Significant digits in the geoid height do not necessarily reflect accuracy.

GL1313.GEOID12B height accuracy estimate available [here](#).

GL1313

GL1313.The dynamic height is computed by dividing the NAVD 88

GL1313.geopotential number by the normal gravity value computed on the

GL1313.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

GL1313.degrees latitude (g = 980.6199 gals.).

GL1313

GL1313.The modeled gravity was interpolated from observed gravity values.

GL1313

GL1313; North East Units Estimated Accuracy

GL1313;SPC OK N - 187,437.4 192,789.7 MT (+/- 3 meters HH1 GPS)

GL1313

GL1313_U.S. NATIONAL GRID SPATIAL ADDRESS: 13SGA1886553647(NAD 83)

GL1313

GL1313 SUPERSEDED SURVEY CONTROL

GL1313

GL1313.No superseded survey control is available for this station.

GL1313

GL1313_MARKER: I = METAL ROD

GL1313_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+))

GL1313_STAMPING: H 202 1985

GL1313_MARK LOGO: NGS
 GL1313_PROJECTION: FLUSH
 GL1313_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 GL1313_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 GL1313+SATELLITE: SATELLITE OBSERVATIONS - October 10, 2007
 GL1313_ROD/PIPE-DEPTH: 4.9 meters
 GL1313

GL1313	HISTORY	- Date	Condition	Report By
GL1313	HISTORY	- 1985	MONUMENTED	NGS
GL1313	HISTORY	- 20071010	GOOD	INDIV

 GL1313
 GL1313 STATION DESCRIPTION
 GL1313
 GL1313'DESCRIBED BY NATIONAL GEODETIC SURVEY 1985
 GL1313'15.8 KM (9.8 MI) SOUTH FROM BOISE CITY.
 GL1313'15.8 KM (9.8 MI) SOUTHERLY ALONG U.S. HIGHWAY 385 FROM THE COURTHOUSE
 GL1313'IN BOISE CITY, 15.3 M (50.2 FT) EAST OF THE CENTERLINE OF THE HIGHWAY,
 GL1313'14.0 M (45.7 FT) NORTH OF THE CENTER OF A DIRT ROAD LEADING EAST,
 GL1313'7.6 M (24.9 FT) SOUTH OF A UTILITY POLE, AND 5.8 M (19.0 FT) NORTH OF
 GL1313'A FENCE CORNER. NOTE--ACCESS TO DATUM POINT IS HAD THROUGH A 5-INCH
 GL1313'LOGO CAP.
 GL1313'THE MARK IS 0.3 METERS W FROM A WITNESS POST AND FENCE
 GL1313'THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.
 GL1313
 GL1313 STATION RECOVERY (2007)
 GL1313
 GL1313'RECOVERY NOTE BY INDIVIDUAL CONTRIBUTORS 2007 (SGK)
 GL1313'FOUND IN GOOD CONDITION. THE LID OF THE VAULT IS NOW 0.3 FEET BELOW
 GL1313'THE LEVEL OF THE GROUND. THE DIRT ROAD LEADING EAST NOW HAS A
 GL1313'FENCELINE OVER IT AND IS NOW BEING TILLED.

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:11 PM
To: Zarlengo, Mike
Subject: OPUS solution : H_202_15203040.18o OP1542388118745
Attachments: h_20304q.18o.xml

FILE: H_202_15203040.18o OP1542388118745

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C598f8b5388904cf0833e08d64be68de9%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779850929647593&sd=JXR1wLaEUZq3ljJdovgH3qwWCz1WH71c5gUnzLBOU%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: h_20304q.18o TIME: 17:10:42 UTC

SOFTWARE: page5 1603.24 master51.pl 160321 START: 2018/10/31 16:22:00
 EPHEMERIS: igs20253.eph [precise] STOP: 2018/10/31 19:07:00
 NAV FILE: brdc3040.18n OBS USED: 6582 / 7055 : 93%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 43 / 45 : 96%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8322)

X: -1114401.549(m) 0.002(m) -1114402.417(m) 0.002(m)
 Y: -5004808.775(m) 0.004(m) -5004807.412(m) 0.004(m)
 Z: 3782886.358(m) 0.012(m) 3782886.213(m) 0.012(m)

LAT: 36 36 11.65018 0.012(m) 36 36 11.66850 0.012(m)
 E LON: 257 26 49.04092 0.002(m) 257 26 48.99494 0.002(m)
 W LON: 102 33 10.95908 0.002(m) 102 33 11.00506 0.002(m)
 EL HGT: 1256.037(m) 0.007(m) 1255.034(m) 0.007(m)
 ORTHO HGT: 1279.802(m) 0.016(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES
 UTM (Zone 13) SPC (3501 OK N)
 Northing (Y) [meters] 4053647.247 187437.373
 Easting (X) [meters] 718865.910 192789.707
 Convergence [degrees] 1.45962500 -2.68696667
 Point Scale 1.00019020 0.99997426
 Combined Factor 0.99999308 0.99977718

1

STATION 175_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Monday, November 12, 2018 1:09 PM
To: Zarlengo, Mike
Subject: OPUS solution : 175_2018_OK_15202960.18o OP1542045981448
Attachments: 175_296n.18o.xml

FILE: 175_2018_OK_15202960.18o OP1542045981448

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Ca85eaa9551b6451f83ee08d648c9f96a%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636776429647632123&data=AyoOgAvbN9I7gJQ5EV%2F3WEK3GZ4ogy%2FWDMVaUNPe2BU%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 12, 2018
 RINEX FILE: 175_296n.18o TIME: 18:08:47 UTC

SOFTWARE: page5 1603.24 master80.pl 160321 START: 2018/10/23 13:08:00
 EPHEMERIS: igs20242.eph [precise] STOP: 2018/10/23 21:57:00
 NAV FILE: brdc2960.18n OBS USED: 20999 / 22106 : 95%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 100 / 107 : 93%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.016(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8103)

X:	-963954.409(m)	0.007(m)	-963955.276(m)	0.007(m)
Y:	-5017992.130(m)	0.002(m)	-5017990.761(m)	0.002(m)
Z:	3805770.385(m)	0.025(m)	3805770.245(m)	0.025(m)

LAT:	36 51 48.64540	0.021(m)	36 51 48.66476	0.021(m)
E LON:	259 7 33.49049	0.007(m)	259 7 33.44570	0.007(m)
W LON:	100 52 26.50951	0.007(m)	100 52 26.55430	0.007(m)
EL HGT:	808.290(m)	0.014(m)	807.261(m)	0.014(m)
ORTHO HGT:	835.394(m)	0.014(m)	[NAVD88 (Computed using GEOID12B)]	

UTM COORDINATES STATE PLANE COORDINATES

	UTM (Zone 14)	SPC (3501 OK N)
Northing (Y) [meters]	4081370.807	210563.744
Easting (X) [meters]	332950.156	343753.753
Convergence [degrees]	-1.12451111	-1.69610000
Point Scale	0.99994379	1.00001910
Combined Factor	0.99981696	0.99989227

STATION 176_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Monday, November 12, 2018 1:11 PM
To: Zarlengo, Mike
Subject: OPUS solution : 176_2018_OK_15202970.18o OP1542046056059
Attachments: 176_297o.18o.xml

FILE: 176_2018_OK_15202970.18o OP1542046056059

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C668bd8c6d90a45b826bc08d648ca3142%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636776430579787251&data=seQnx5CmV3G4kl48t6HVOfnlZbVDmeGIQPOBoNqq1V8%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 12, 2018
 RINEX FILE: 176_297o.18o TIME: 18:09:01 UTC

SOFTWARE: page5 1603.24 master91.pl 160321 START: 2018/10/24 14:55:00
 EPHEMERIS: igs20243.eph [precise] STOP: 2018/10/24 19:31:00
 NAV FILE: brdc2970.18n OBS USED: 10734 / 11319 : 95%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 70 / 75 : 93%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.017(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8129)

X: -963017.216(m) 0.006(m) -963018.081(m) 0.006(m)
 Y: -5034343.720(m) 0.007(m) -5034342.348(m) 0.007(m)
 Z: 3784576.660(m) 0.024(m) 3784576.518(m) 0.024(m)

LAT: 36 37 29.58751 0.014(m) 36 37 29.60677 0.014(m)
 E LON: 259 10 14.66324 0.005(m) 259 10 14.61868 0.005(m)
 W LON: 100 49 45.33676 0.005(m) 100 49 45.38132 0.005(m)
 EL HGT: 856.358(m) 0.021(m) 855.322(m) 0.021(m)
 ORTHO HGT: 883.668(m) 0.021(m) [H = h-N (N = GEOID12B HGT)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 00) *** NOTE ***

Northing (Y) [meters] 0.000 Please manually select
 Easting (X) [meters] 0.000 SPC zone.
 Convergence [degrees] 0.00000000
 Point Scale 0.00000000
 Combined Factor 0.00000000

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Monday, November 12, 2018 1:12 PM
To: Zarlengo, Mike
Subject: OPUS solution : 176_2018_OK_15202980.18o OP1542046123931
Attachments: 176_298p.18o.xml

FILE: 176_2018_OK_15202980.18o OP1542046123931

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Cc41e9724e48474d5a08d648ca561c%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636776431199692095&sdata=u%2B3mjJE66NA7kE2vHxj1CkhhVI%2F%2Fdd4Hcl3kSGvRZXg%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 12, 2018
 RINEX FILE: 176_298p.18o TIME: 18:09:57 UTC

SOFTWARE: page5 1603.24 master94.pl 160321 START: 2018/10/25 15:10:00
 EPHEMERIS: igs20244.eph [precise] STOP: 2018/10/25 19:12:00
 NAV FILE: brdc2980.18n OBS USED: 9817 / 10354 : 95%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 73 / 78 : 94%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.016(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8157)

X: -963017.223(m) 0.003(m) -963018.088(m) 0.003(m)
 Y: -5034343.733(m) 0.025(m) -5034342.361(m) 0.025(m)
 Z: 3784576.669(m) 0.025(m) 3784576.527(m) 0.025(m)

LAT: 36 37 29.58748 0.019(m) 36 37 29.60674 0.019(m)
 E LON: 259 10 14.66306 0.004(m) 259 10 14.61850 0.004(m)
 W LON: 100 49 45.33694 0.004(m) 100 49 45.38150 0.004(m)
 EL HGT: 856.374(m) 0.030(m) 855.339(m) 0.030(m)
 ORTHO HGT: 883.684(m) 0.033(m) [H = h-N (N = GEOID12B HGT)]

UTM COORDINATES STATE PLANE COORDINATES
 UTM (Zone 00) *** NOTE ***

Northing (Y) [meters] 0.000 Please manually select
 Easting (X) [meters] 0.000 SPC zone.
 Convergence [degrees] 0.00000000
 Point Scale 0.00000000
 Combined Factor 0.00000000

STATION 177_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Monday, November 12, 2018 1:12 PM
To: Zarlengo, Mike
Subject: OPUS solution : 177_2018_OK_15202981.18o OP1542046166814
Attachments: 177_298u.18o.xml

FILE: 177_2018_OK_15202981.18o OP1542046166814

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Ca1c0b0a3972a4370f76608d648ca5484%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636776431171277620&sd=8vHsPqCiP2Jf30mXJC9xlfgsPpclHXnK4SkPZ%2Bg6Q%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 12, 2018
 RINEX FILE: 177_298u.18o TIME: 18:10:28 UTC

SOFTWARE: page5 1603.24 master74.pl 160321 START: 2018/10/25 20:31:00
 EPHEMERIS: igs20244.eph [precise] STOP: 2018/10/25 22:32:00
 NAV FILE: brdc2980.18n OBS USED: 5657 / 6041 : 94%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 58 / 58 : 100%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8162)

X: -935730.510(m) 0.008(m) -935731.375(m) 0.008(m)
 Y: -5037342.649(m) 0.017(m) -5037341.276(m) 0.017(m)
 Z: 3787301.719(m) 0.016(m) 3787301.578(m) 0.016(m)

LAT: 36 39 21.32165 0.019(m) 36 39 21.34105 0.019(m)
 E LON: 259 28 36.30947 0.009(m) 259 28 36.26512 0.009(m)
 W LON: 100 31 23.69053 0.009(m) 100 31 23.73488 0.009(m)
 EL HGT: 791.108(m) 0.014(m) 790.068(m) 0.014(m)
 ORTHO HGT: 818.595(m) 0.020(m) [H = h-N (N = GEOID12B HGT)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 00) *** NOTE ***

Northing (Y) [meters] 0.000 Please manually select
 Easting (X) [meters] 0.000 SPC zone.
 Convergence [degrees] 0.00000000
 Point Scale 0.00000000
 Combined Factor 0.00000000

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Monday, November 12, 2018 1:13 PM
To: Zarlengo, Mike
Subject: OPUS solution : 177_2018_OK_15202990.18o OP1542046200735
Attachments: 177_2990.18o.xml

FILE: 177_2018_OK_15202990.18o OP1542046200735

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Ca923fd5aa08a4a4d7ea208d648ca83dd%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636776431962431599&sd=ILWjLUGVjhk%2FpZx75YedBYWJvNB4HrbqcSjpetEIQXo%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 12, 2018
 RINEX FILE: 177_2990.18o TIME: 18:12:01 UTC

SOFTWARE: page5 1603.24 master91.pl 160321 START: 2018/10/26 14:24:00
 EPHEMERIS: igs20245.eph [precise] STOP: 2018/10/26 21:40:00
 NAV FILE: brdc2990.18n OBS USED: 18073 / 18872 : 96%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 87 / 89 : 98%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8185)

X: -935730.514(m) 0.005(m) -935731.379(m) 0.005(m)
 Y: -5037342.637(m) 0.013(m) -5037341.264(m) 0.013(m)
 Z: 3787301.713(m) 0.022(m) 3787301.572(m) 0.022(m)

LAT: 36 39 21.32168 0.022(m) 36 39 21.34112 0.022(m)
 E LON: 259 28 36.30922 0.002(m) 259 28 36.26490 0.002(m)
 W LON: 100 31 23.69078 0.002(m) 100 31 23.73510 0.002(m)
 EL HGT: 791.096(m) 0.013(m) 790.055(m) 0.013(m)
 ORTHO HGT: 818.583(m) 0.013(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)
 Northing (Y) [meters] 4057784.452 186665.285
 Easting (X) [meters] 363854.538 374423.101
 Convergence [degrees] -0.90953056 -1.48908611
 Point Scale 0.99982836 0.99998167
 Combined Factor 0.99970424 0.99985753

STATION 178_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Monday, November 12, 2018 1:14 PM
To: Zarlengo, Mike
Subject: OPUS solution : 178_2018_OK_15203000.18o OP1542046265388
Attachments: 178_300o.18o.xml

FILE: 178_2018_OK_15203000.18o OP1542046265388

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Cd1016668486b43d3ab6e08d648ca97ac%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636776432300642727&data=9djpaZKjYvROICoGwmR2wECM2jK1tnmmgto8%2B%2BG4JR%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 12, 2018
 RINEX FILE: 178_300o.18o TIME: 18:13:15 UTC

SOFTWARE: page5 1603.24 master54.pl 160321 START: 2018/10/27 14:06:00
 EPHEMERIS: igs20246.eph [precise] STOP: 2018/10/27 21:15:00
 NAV FILE: brdc3000.18n OBS USED: 16493 / 18001 : 92%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 102 / 112 : 91%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8212)

X: -925630.787(m) 0.004(m) -925631.654(m) 0.004(m)
 Y: -5022242.059(m) 0.013(m) -5022240.688(m) 0.013(m)
 Z: 3809620.529(m) 0.010(m) 3809620.390(m) 0.010(m)

LAT: 36 54 25.21217 0.010(m) 36 54 25.23175 0.010(m)
 E LON: 259 33 25.98523 0.006(m) 259 33 25.94077 0.006(m)
 W LON: 100 26 34.01477 0.006(m) 100 26 34.05923 0.006(m)
 EL HGT: 790.477(m) 0.010(m) 789.441(m) 0.010(m)
 ORTHO HGT: 817.702(m) 0.010(m) [H = h-N (N = GEOID12B HGT)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 00) *** NOTE ***

Northing (Y) [meters] 0.000 Please manually select
 Easting (X) [meters] 0.000 SPC zone.
 Convergence [degrees] 0.00000000
 Point Scale 0.00000000
 Combined Factor 0.00000000

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:09 PM
To: Zarlengo, Mike
Subject: OPUS solution : 178_2018_OK_15203010.18o OP1542387802739
Attachments: 178_301n.18o.xml

FILE: 178_2018_OK_15203010.18o OP1542387802739

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Cca17f1f808064f1c3cfb08d64be6230c%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779849132598241&sdata=FNCg2bQj8Gn8a4f9NyrWwB2sfyY%2BscSSz9%2FPX9jv4e0%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 178_301n.18o TIME: 17:07:25 UTC

SOFTWARE: page5 1603.24 master91.pl 160321 START: 2018/10/28 13:52:00
 EPHEMERIS: igs20250.eph [precise] STOP: 2018/10/28 16:00:00
 NAV FILE: brdc3010.18n OBS USED: 4155 / 4494 : 92%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 35 / 36 : 97%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.014(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8236)

X: -925630.782(m) 0.018(m) -925631.649(m) 0.018(m)
 Y: -5022242.068(m) 0.035(m) -5022240.697(m) 0.035(m)
 Z: 3809620.529(m) 0.024(m) 3809620.390(m) 0.024(m)

LAT: 36 54 25.21199 0.003(m) 36 54 25.23161 0.003(m)
 E LON: 259 33 25.98548 0.012(m) 259 33 25.94102 0.012(m)
 W LON: 100 26 34.01452 0.012(m) 100 26 34.05898 0.012(m)
 EL HGT: 790.483(m) 0.045(m) 789.447(m) 0.045(m)
 ORTHO HGT: 817.708(m) 0.047(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)
 Northing (Y) [meters] 4085527.973 214335.897
 Easting (X) [meters] 371466.956 382316.128
 Convergence [degrees] -0.86653611 -1.44160000
 Point Scale 0.99980352 1.00002862
 Combined Factor 0.99967951 0.99990458

STATION 179_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:09 PM
To: Zarlengo, Mike
Subject: OPUS solution : 179_2018_OK_15203011.18o OP1542387840391
Attachments: 179_301r.18o.xml

FILE: 179_2018_OK_15203011.18o OP1542387840391

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C06be4fe08ba944a869d808d64be62c12%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779849286908087&data=nb8YczmOMISNM3%2FAdCRA6tuHELJPr6AXnyVmZrz79WA%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 179_301r.18o TIME: 17:07:38 UTC

SOFTWARE: page5 1603.24 master97.pl 160321 START: 2018/10/28 17:04:00
 EPHEMERIS: igs20250.eph [precise] STOP: 2018/10/28 20:57:00
 NAV FILE: brdc3010.18n OBS USED: 9566 / 10202 : 94%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 48 / 50 : 96%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.013(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8241)

X: -892898.541(m) 0.004(m) -892899.407(m) 0.004(m)
 Y: -5027364.212(m) 0.019(m) -5027362.839(m) 0.019(m)
 Z: 3810445.660(m) 0.027(m) 3810445.522(m) 0.027(m)

LAT: 36 55 1.96428 0.020(m) 36 55 1.98408 0.020(m)
 E LON: 259 55 43.85669 0.002(m) 259 55 43.81252 0.002(m)
 W LON: 100 4 16.14331 0.002(m) 100 4 16.18748 0.002(m)
 EL HGT: 655.897(m) 0.023(m) 654.855(m) 0.023(m)
 ORTHO HGT: 683.361(m) 0.027(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)
 Northing (Y) [meters] 4086224.270 214698.745
 Easting (X) [meters] 404588.413 415452.004
 Convergence [degrees] -0.64344722 -1.22228333
 Point Scale 0.99971215 1.00003093
 Combined Factor 0.99960926 0.99992801

STATION 180_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:10 PM
To: Zarlengo, Mike
Subject: OPUS solution : 180_15203020.18o OP1542387900288
Attachments: 180_302o.18o.xml

FILE: 180_15203020.18o OP1542387900288

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Cf1d5c93adec84f99058d08d64be64919%7C49c1e384218e47a1a464d59d76daf482%7C0%7C636779849777840096&data=2495k7WddomKzstQKKcIBQKAUzg3v9L0JWkIZ55Prx%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 180_302o.18o TIME: 17:08:37 UTC

SOFTWARE: page5 1603.24 master55.pl 160321 START: 2018/10/29 14:08:00
 EPHEMERIS: igs20251.eph [precise] STOP: 2018/10/29 17:03:00
 NAV FILE: brdc3020.18n OBS USED: 6134 / 6842 : 90%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 48 / 51 : 94%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.017(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8264)

X:	-912410.624(m)	0.008(m)	-912411.488(m)	0.008(m)
Y:	-5043994.079(m)	0.011(m)	-5043992.704(m)	0.011(m)
Z:	3784128.660(m)	0.025(m)	3784128.519(m)	0.025(m)

LAT:	36 37 13.48788	0.021(m)	36 37 13.50739	0.021(m)
E LON:	259 44 47.80738	0.008(m)	259 44 47.76331	0.008(m)
W LON:	100 15 12.19262	0.008(m)	100 15 12.23669	0.008(m)
EL HGT:	773.131(m)	0.024(m)	772.084(m)	0.024(m)
ORTHO HGT:	800.779(m)	0.027(m)	[NAVD88 (Computed using GEOID12B)]	

UTM COORDINATES STATE PLANE COORDINATES

	UTM (Zone 14)	SPC (3501 OK N)
Northing (Y) [meters]	4053496.244	182132.437
Easting (X) [meters]	387924.057	398452.446
Convergence [degrees]	-0.74773611	-1.32983056
Point Scale	0.99975475	0.99997658
Combined Factor	0.99963346	0.99985526

STATION 191_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:09 PM
To: Zarlengo, Mike
Subject: OPUS solution : 191_15203021.18o OP1542387946631
Attachments: 191_302t.18o.xml

FILE: 191_15203021.18o OP1542387946631

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C296c641d5af342584ada08d64be637fb%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779849485458855&data=os2HhmFLdFdOPr78auFY7bQ4O1WaijmG8ckSm508NZc%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 191_302t.18o TIME: 17:07:33 UTC

SOFTWARE: page5 1603.24 master75.pl 160321 START: 2018/10/29 19:04:00
 EPHEMERIS: igs20251.eph [precise] STOP: 2018/10/29 21:06:00
 NAV FILE: brdc3020.18n OBS USED: 5519 / 5722 : 96%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 36 / 37 : 97%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.013(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8270)

X: -1021099.472(m) 0.007(m) -1021100.338(m) 0.007(m)
 Y: -5027284.967(m) 0.017(m) -5027283.598(m) 0.017(m)
 Z: 3778904.490(m) 0.023(m) 3778904.346(m) 0.023(m)

LAT: 36 33 38.49347 0.012(m) 36 33 38.51230 0.012(m)
 E LON: 258 31 7.50216 0.005(m) 258 31 7.45709 0.005(m)
 W LON: 101 28 52.49784 0.005(m) 101 28 52.54291 0.005(m)
 EL HGT: 936.915(m) 0.023(m) 935.890(m) 0.023(m)
 ORTHO HGT: 963.501(m) 0.027(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)

Northing (Y) [meters] 4049005.516 178752.908
 Easting (X) [meters] 277944.266 288431.086
 Convergence [degrees] -1.47861944 -2.05445000
 Point Scale 1.00020754 0.99996890
 Combined Factor 1.00006049 0.99982189

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Tuesday, November 27, 2018 7:35 AM
To: Zarlengo, Mike
Subject: OPUS solution : 191_2018_OK_15203030.18o OP1543321910116
Attachments: 191_303p.18o.xml

FILE: 191_2018_OK_15203030.18o OP1543321910116

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C622023abd6134b4417e908d65464c030%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636789189046651355&sd=VHlvDbSux2HVROALfb0ehorL6zRwGe3YR0xuHEXn3aY%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 27, 2018
 RINEX FILE: 191_303p.18o TIME: 12:33:50 UTC

SOFTWARE: page5 1603.24 master91.pl 160321 START: 2018/10/30 15:33:00
 EPHEMERIS: igs20252.eph [precise] STOP: 2018/10/30 21:42:00
 NAV FILE: brdc3030.18n OBS USED: 15712 / 16948 : 93%
 ANT NAME: TRMR8-4 NONE # FIXED AMB: 84 / 84 : 100%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.013(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8295)

X: -1021099.472(m) 0.003(m) -1021100.338(m) 0.003(m)
 Y: -5027284.972(m) 0.010(m) -5027283.603(m) 0.010(m)
 Z: 3778904.490(m) 0.016(m) 3778904.346(m) 0.016(m)

LAT: 36 33 38.49336 0.012(m) 36 33 38.51219 0.012(m)
 E LON: 258 31 7.50220 0.001(m) 258 31 7.45712 0.001(m)
 W LON: 101 28 52.49780 0.001(m) 101 28 52.54288 0.001(m)
 EL HGT: 936.919(m) 0.014(m) 935.894(m) 0.014(m)
 ORTHO HGT: 963.505(m) 0.019(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)
 Northing (Y) [meters] 4049005.513 178752.904
 Easting (X) [meters] 277944.267 288431.087
 Convergence [degrees] -1.47861944 -2.05445000
 Point Scale 1.00020754 0.99996890
 Combined Factor 1.00006049 0.99982189

STATION 200_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:24 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2002960.18o OP1542388887118
Attachments: 2002296n.18o.xml

FILE: 2002960.18o OP1542388887118

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Cb00af7ee3665474f666b08d64be8433e%7C49c1e384218e47a1a464d59d76daf482%7C0%7C636779858264753750&sdata=l6dUSHi6BvBUpPzhvGpS2Cj8vVGcVvbZ2zhm0dwF9t4%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2002296n.18o TIME: 17:22:54 UTC

SOFTWARE: page5 1603.24 master56.pl 160321 START: 2018/10/23 13:13:00
 EPHEMERIS: igs20242.eph [precise] STOP: 2018/10/23 20:56:00
 NAV FILE: brdc2960.18n OBS USED: 18324 / 19139 : 96%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 95 / 99 : 96%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.017(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8102)

X: -1108178.720(m) 0.004(m) -1108179.589(m) 0.004(m)
 Y: -4991416.652(m) 0.016(m) -4991415.291(m) 0.016(m)
 Z: 3802235.019(m) 0.014(m) 3802234.876(m) 0.014(m)

LAT: 36 49 14.38763 0.003(m) 36 49 14.40610 0.003(m)
 E LON: 257 28 56.65696 0.001(m) 257 28 56.61084 0.001(m)
 W LON: 102 31 3.34304 0.001(m) 102 31 3.38916 0.001(m)
 EL HGT: 1259.907(m) 0.021(m) 1258.908(m) 0.021(m)
 ORTHO HGT: 1283.630(m) 0.025(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (3501 OK N)

Northing (Y) [meters] 4077853.874 211391.310
 Easting (X) [meters] 721411.942 197080.159
 Convergence [degrees] 1.48833889 -2.66604444
 Point Scale 1.00020399 1.00001030
 Combined Factor 1.00000627 0.99981261

STATION 201_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:27 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2012970.18o OP1542388933369
Attachments: 2012297n.18o.xml

FILE: 2012970.18o OP1542388933369

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C8a9243e10cf0460cdb2f08d64be8c900%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779860514307029&sdata=FLd6wj4XSoK5NJ0QVHJz2xVJbf6e3KgGag4YCKhEDM%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2012297n.18o TIME: 17:26:03 UTC

SOFTWARE: page5 1603.24 master96.pl 160321 START: 2018/10/24 13:55:00
 EPHEMERIS: igs20243.eph [precise] STOP: 2018/10/24 22:28:00
 NAV FILE: brdc2970.18n OBS USED: 20842 / 22493 : 93%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 146 / 154 : 95%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.019(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8131)

X: -1134194.947(m) 0.002(m) -1134195.816(m) 0.002(m)
 Y: -4997491.791(m) 0.007(m) -4997490.429(m) 0.007(m)
 Z: 3786800.356(m) 0.011(m) 3786800.211(m) 0.011(m)

LAT: 36 38 47.66266 0.005(m) 36 38 47.68087 0.005(m)
 E LON: 257 12 47.38756 0.001(m) 257 12 47.34130 0.001(m)
 W LON: 102 47 12.61244 0.001(m) 102 47 12.65870 0.001(m)
 EL HGT: 1345.912(m) 0.012(m) 1344.914(m) 0.012(m)
 ORTHO HGT: 1369.005(m) 0.018(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (3501 OK N)

Northing (Y) [meters] 4057948.045 193246.277
 Easting (X) [meters] 697840.481 172133.556
 Convergence [degrees] 1.32141667 -2.82493889
 Point Scale 1.00008224 0.99998029
 Combined Factor 0.99987104 0.99976911

STATION 202_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:28 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2022980.18o OP1542388976792
Attachments: 2022298t.18o.xml

FILE: 2022980.18o OP1542388976792

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C77fb611eb2cd4617ad5508d64be8edd9%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779861131944386&data=NPP8hpfMqvXcvJ7yLCtLqy8dG%2BlwDqdIOz9lUICQf1o%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2022298t.18o TIME: 17:27:26 UTC

SOFTWARE: page5 1603.24 master95.pl 160321 START: 2018/10/25 19:47:00
 EPHEMERIS: igs20244.eph [precise] STOP: 2018/10/25 23:43:00
 NAV FILE: brdc2980.18n OBS USED: 11629 / 12103 : 96%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 88 / 92 : 96%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8162)

X: -1097255.259(m) 0.004(m) -1097256.127(m) 0.004(m)
 Y: -5008923.869(m) 0.009(m) -5008922.505(m) 0.009(m)
 Z: 3782332.755(m) 0.008(m) 3782332.610(m) 0.008(m)

LAT: 36 35 51.03866 0.010(m) 36 35 51.05706 0.010(m)
 E LON: 257 38 38.25208 0.005(m) 257 38 38.20625 0.005(m)
 W LON: 102 21 21.74792 0.005(m) 102 21 21.79375 0.005(m)
 EL HGT: 1183.185(m) 0.006(m) 1182.178(m) 0.006(m)
 ORTHO HGT: 1207.432(m) 0.015(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (3501 OK N)

Northing (Y) [meters] 4053479.136 185994.258
 Easting (X) [meters] 736507.686 210368.471
 Convergence [degrees] 1.57703333 -2.57070556
 Point Scale 1.00028920 0.99997351
 Combined Factor 1.00010349 0.99978786

STATION 203_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:28 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2032990.18o OP1542389044875
Attachments: 2032299o.18o.xml

FILE: 2032990.18o OP1542389044875

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Cf713ecc4633d47c7d80408d64be8edf1%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779861128173994&data=OscEe7V6k%2FMwSuQWe4Arlt0VVsfWvn1nLjyPz4Ri8YE%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2032299o.18o TIME: 17:27:33 UTC

SOFTWARE: page5 1603.24 master93.pl 160321 START: 2018/10/26 14:29:00
 EPHEMERIS: igs20245.eph [precise] STOP: 2018/10/26 18:00:00
 NAV FILE: brdc2990.18n OBS USED: 8366 / 8685 : 96%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 35 / 36 : 97%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8183)

X: -1080656.861(m) 0.006(m) -1080657.728(m) 0.006(m)
 Y: -5014111.620(m) 0.011(m) -5014110.255(m) 0.011(m)
 Z: 3780191.157(m) 0.020(m) 3780191.012(m) 0.020(m)

LAT: 36 34 25.39330 0.010(m) 36 34 25.41180 0.010(m)
 E LON: 257 50 14.91328 0.006(m) 257 50 14.86763 0.006(m)
 W LON: 102 9 45.08672 0.006(m) 102 9 45.13237 0.006(m)
 EL HGT: 1147.342(m) 0.019(m) 1146.330(m) 0.019(m)
 ORTHO HGT: 1172.120(m) 0.024(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (3501 OK N)

Northing (Y) [meters] 4051333.395 182597.357
 Easting (X) [meters] 753900.159 227553.836
 Convergence [degrees] 1.69163333 -2.45650278
 Point Scale 1.00039431 0.99997048
 Combined Factor 1.00021421 0.99979045

STATION 204_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:29 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2042991.18o OP1542389074794
Attachments: 2042299t.18o.xml

FILE: 2042991.18o OP1542389074794

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C7696213429ed411ebcc408d64be8f594%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779861251554124&psdata=m5Jx0jrLSjJHCo1rY62Trxkgut4tAyb4DivBk5wXo%2Fk%3D&psreserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2042299t.18o TIME: 17:27:30 UTC

SOFTWARE: page5 1603.24 master90.pl 160321 START: 2018/10/26 19:13:00
 EPHEMERIS: igs20245.eph [precise] STOP: 2018/10/26 22:45:00
 NAV FILE: brdc2990.18n OBS USED: 10051 / 10552 : 95%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 60 / 61 : 98%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.017(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8188)

X: -1085403.111(m) 0.002(m) -1085403.979(m) 0.002(m)
 Y: -5000208.301(m) 0.002(m) -5000206.938(m) 0.002(m)
 Z: 3797144.963(m) 0.010(m) 3797144.820(m) 0.010(m)

LAT: 36 45 50.24527 0.007(m) 36 45 50.26385 0.007(m)
 E LON: 257 45 9.79085 0.002(m) 257 45 9.74502 0.002(m)
 W LON: 102 14 50.20915 0.002(m) 102 14 50.25498 0.002(m)
 EL HGT: 1176.988(m) 0.006(m) 1175.982(m) 0.006(m)
 ORTHO HGT: 1201.316(m) 0.015(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (3501 OK N)

Northing (Y) [meters] 4072222.149 204016.111
 Easting (X) [meters] 745708.228 220898.202
 Convergence [degrees] 1.64838056 -2.50651944
 Point Scale 1.00034384 0.99999951
 Combined Factor 1.00015910 0.99981483

STATION 205_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 1:14 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2053000.18o OP1542391936566
Attachments: 2053300o.18o.xml

FILE: 2053000.18o OP1542391936566

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Cece6b15395e5498db4d108d64bef4e03%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779888517850404&data=CKITsl6AjliyMglORs9qCu7KxSHjIW2TFltpQPdJ4EM%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2053300o.18o TIME: 18:13:14 UTC

SOFTWARE: page5 1603.24 master94.pl 160321 START: 2018/10/27 14:16:00
 EPHEMERIS: igs20246.eph [precise] STOP: 2018/10/27 17:44:00
 NAV FILE: brdc3000.18n OBS USED: 7946 / 8468 : 94%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 38 / 43 : 88%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8210)

X: -1070436.210(m) 0.007(m) -1070437.079(m) 0.007(m)
 Y: -4992630.682(m) 0.028(m) -4992629.320(m) 0.028(m)
 Z: 3811175.854(m) 0.009(m) 3811175.713(m) 0.009(m)

LAT: 36 55 19.87612 0.012(m) 36 55 19.89484 0.012(m)
 E LON: 257 53 55.69732 0.002(m) 257 53 55.65145 0.002(m)
 W LON: 102 6 4.30268 0.002(m) 102 6 4.34855 0.002(m)
 EL HGT: 1136.490(m) 0.027(m) 1135.486(m) 0.027(m)
 ORTHO HGT: 1161.162(m) 0.031(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (3501 OK N)
 Northing (Y) [meters] 4090166.416 220999.705
 Easting (X) [meters] 758217.762 234671.057
 Convergence [degrees] 1.74236111 -2.42030833
 Point Scale 1.00042149 1.00003208
 Combined Factor 1.00024309 0.99985375

STATION 206_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 1:14 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2063001.18o OP1542391977222
Attachments: 2063300t.18o.xml

FILE: 2063001.18o OP1542391977222

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C91ffc1d83bae4ca27baa08d64bef54f8%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779888629719734&data=tam%2BbVjyAaAWs3MX9fjM1jmO8NNK3aP5oWDvg541mlo%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2063300t.18o TIME: 18:13:42 UTC

SOFTWARE: page5 1603.24 master53.pl 160321 START: 2018/10/27 19:05:00
 EPHEMERIS: igs20246.eph [precise] STOP: 2018/10/27 21:31:00
 NAV FILE: brdc3000.18n OBS USED: 6573 / 7012 : 94%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 37 / 39 : 95%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.016(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8215)

X: -1066157.344(m) 0.008(m) -1066158.212(m) 0.008(m)
 Y: -5004380.395(m) 0.019(m) -5004379.031(m) 0.019(m)
 Z: 3796969.564(m) 0.003(m) 3796969.421(m) 0.003(m)

LAT: 36 45 45.05864 0.009(m) 36 45 45.07729 0.009(m)
 E LON: 257 58 23.65158 0.006(m) 257 58 23.60590 0.006(m)
 W LON: 102 1 36.34842 0.006(m) 102 1 36.39410 0.006(m)
 EL HGT: 1097.973(m) 0.017(m) 1096.963(m) 0.017(m)
 ORTHO HGT: 1122.894(m) 0.022(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (3501 OK N)
 Northing (Y) [meters] 4072651.582 203017.642
 Easting (X) [meters] 765401.433 240562.769
 Convergence [degrees] 1.78051944 -2.37638333
 Point Scale 1.00046787 0.99999925
 Combined Factor 1.00029551 0.99982697

STATION 207_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:28 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2073010.18o OP1542389172052
Attachments: 2073301m.18o.xml

FILE: 2073010.18o OP1542389172052

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C632d1d6c33b24567033408d64be8d6a8%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779860737896329&sdata=i4B5Lo1T0gpsjq2trS28QAr0PXA5b7qv%2BBC27JS2sTk%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2073301m.18o TIME: 17:27:21 UTC

SOFTWARE: page5 1603.24 master71.pl 160321 START: 2018/10/28 12:54:00
 EPHEMERIS: igs20250.eph [precise] STOP: 2018/10/28 14:59:00
 NAV FILE: brdc3010.18n OBS USED: 3824 / 4178 : 92%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 28 / 28 : 100%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.014(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8235)

X: -1055489.289(m) 0.007(m) -1055490.156(m) 0.007(m)
 Y: -5013531.229(m) 0.015(m) -5013529.863(m) 0.015(m)
 Z: 3787823.881(m) 0.001(m) 3787823.737(m) 0.001(m)

LAT: 36 39 36.53309 0.010(m) 36 39 36.55177 0.010(m)
 E LON: 258 6 40.47530 0.006(m) 258 6 40.42984 0.006(m)
 W LON: 101 53 19.52470 0.006(m) 101 53 19.57016 0.006(m)
 EL HGT: 1035.568(m) 0.013(m) 1034.553(m) 0.013(m)
 ORTHO HGT: 1061.013(m) 0.019(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)

Northing (Y) [meters] 4061060.806 191164.653
 Easting (X) [meters] 241798.707 252419.926
 Convergence [degrees] -1.72573611 -2.29493889
 Point Scale 1.00042143 0.99998230
 Combined Factor 1.00025887 0.99981981

STATION 208_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:28 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2083011.18o OP1542389195149
Attachments: 2083301p.18o.xml

FILE: 2083011.18o OP1542389195149

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Cc5039695b7ed4dfb7de308d64be8e750%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779861023120909&data=zojBrhtaSCSj6hGKLi8JjZNzaTQHOftRDGTgQbrys%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2083301p.18o TIME: 17:27:37 UTC

SOFTWARE: page5 1603.24 master52.pl 160321 START: 2018/10/28 15:46:00
 EPHEMERIS: igs20250.eph [precise] STOP: 2018/10/28 18:06:00
 NAV FILE: brdc3010.18n OBS USED: 5711 / 6187 : 92%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 37 / 38 : 97%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.017(m)

REF FRAME: NAD_83(2011){EPOCH:2010.0000} IGS08 (EPOCH:2018.8238)

X: -1040087.078(m) 0.002(m) -1040087.946(m) 0.002(m)
 Y: -5000991.356(m) 0.004(m) -5000989.992(m) 0.004(m)
 Z: 3808451.300(m) 0.020(m) 3808451.159(m) 0.020(m)

LAT: 36 53 32.02998 0.015(m) 36 53 32.04888 0.015(m)
 E LON: 258 15 4.76867 0.001(m) 258 15 4.72313 0.001(m)
 W LON: 101 44 55.23133 0.001(m) 101 44 55.27687 0.001(m)
 EL HGT: 1026.961(m) 0.014(m) 1025.949(m) 0.014(m)
 ORTHO HGT: 1052.484(m) 0.020(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)
 Northing (Y) [meters] 4086445.799 216408.038
 Easting (X) [meters] 255062.479 265928.370
 Convergence [degrees] -1.65088333 -2.21226944
 Point Scale 1.00033916 1.00002532
 Combined Factor 1.00017797 0.99986418

STATION 209_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:29 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2093012.18o OP1542389222605
Attachments: 2093301s.18o.xml

FILE: 2093012.18o OP1542389222605

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Cb20cf860e3e74d36091008d64be90995%7C49c1e384218e47a1a464d59d76daf482%7C0%7C636779861601203972&data=2fgVXt8uU3dV8VIAA2nZ18k4dveW7ZD9teccoMEvTfY%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2093301s.18o TIME: 17:28:11 UTC

SOFTWARE: page5 1603.24 master75.pl 160321 START: 2018/10/28 18:45:00
 EPHEMERIS: igs20250.eph [precise] STOP: 2018/10/28 20:57:00
 NAV FILE: brdc3010.18n OBS USED: 5778 / 5994 : 96%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 36 / 36 : 100%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8242)

X: -1016844.390(m) 0.005(m) -1016845.258(m) 0.005(m)
 Y: -5003729.043(m) 0.007(m) -5003727.678(m) 0.007(m)
 Z: 3810998.723(m) 0.023(m) 3810998.582(m) 0.023(m)

LAT: 36 55 17.03456 0.021(m) 36 55 17.05361 0.021(m)
 E LON: 258 30 46.54429 0.005(m) 258 30 46.49893 0.005(m)
 W LON: 101 29 13.45571 0.005(m) 101 29 13.50107 0.005(m)
 EL HGT: 958.220(m) 0.010(m) 957.204(m) 0.010(m)
 ORTHO HGT: 984.368(m) 0.017(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)
 Northing (Y) [meters] 4089042.320 218774.211
 Easting (X) [meters] 278463.091 289347.665
 Convergence [degrees] -1.49463889 -2.05788611
 Point Scale 1.00020465 1.00003189
 Combined Factor 1.00005427 0.99988153

STATION 210_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:30 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2103013.18o OP1542389255583
Attachments: 2103301v.18o.xml

FILE: 2103013.18o OP1542389255583

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C49509713450d486bf02808d64be9145d%7C49c1e384218e47a1a464d59d76daf482%7C0%7C636779861775011017&data=7OWoGCB0a1HoRDFObghf2RU9p%2FuJ00%2FQwuLr1e9m1mE%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2103301v.18o TIME: 17:28:51 UTC

SOFTWARE: page5 1603.24 master72.pl 160321 START: 2018/10/28 21:33:00
 EPHEMERIS: igs20250.eph [precise] STOP: 2018/10/28 23:52:00
 NAV FILE: brdc3010.18n OBS USED: 7199 / 7450 : 97%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 39 / 40 : 98%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.016(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8245)

X: -1030927.154(m) 0.004(m) -1030928.021(m) 0.004(m)
 Y: -5011647.438(m) 0.021(m) -5011646.072(m) 0.021(m)
 Z: 3796908.830(m) 0.012(m) 3796908.688(m) 0.012(m)

LAT: 36 45 45.55537 0.018(m) 36 45 45.57427 0.018(m)
 E LON: 258 22 33.76744 0.007(m) 258 22 33.72211 0.007(m)
 W LON: 101 37 26.23256 0.007(m) 101 37 26.27789 0.007(m)
 EL HGT: 975.996(m) 0.015(m) 974.979(m) 0.015(m)
 ORTHO HGT: 1002.004(m) 0.020(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)
 Northing (Y) [meters] 4071754.513 201616.208
 Easting (X) [meters] 265783.853 276501.361
 Convergence [degrees] -1.57115556 -2.13866667
 Point Scale 1.00027588 0.99999927
 Combined Factor 1.00012269 0.99984612

STATION 211_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:31 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2113020.18o OP1542389361781
Attachments: 2113302n.18o.xml

FILE: 2113020.18o OP1542389361781

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C41d939e02f0d428b8aec08d64be952e7%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779862840262745&data=YdOj1Y%2FuQPM%2Be2P2QN5Ah%2FmLI3duBTV%2B0x3rOkKUKfy%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2113302n.18o TIME: 17:30:46 UTC

SOFTWARE: page5 1603.24 master92.pl 160321 START: 2018/10/29 13:31:00
 EPHEMERIS: igs20251.eph [precise] STOP: 2018/10/29 15:46:00
 NAV FILE: brdc3020.18n OBS USED: 4478 / 4750 : 94%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 33 / 34 : 97%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.016(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8263)

X:	-983658.936(m)	0.003(m)	-983659.804(m)	0.003(m)
Y:	-5009852.181(m)	0.007(m)	-5009850.814(m)	0.007(m)
Z:	3811505.856(m)	0.030(m)	3811505.716(m)	0.030(m)

LAT:	36 55 39.86454	0.027(m)	36 55 39.88380	0.027(m)
E LON:	258 53 29.67122	0.003(m)	258 53 29.62619	0.003(m)
W LON:	101 6 30.32878	0.003(m)	101 6 30.37381	0.003(m)
EL HGT:	865.732(m)	0.016(m)	864.709(m)	0.016(m)
ORTHO HGT:	892.499(m)	0.021(m)	[NAVD88 (Computed using GEOID12B)]	

UTM COORDINATES STATE PLANE COORDINATES

	UTM (Zone 14)	SPC (3501 OK N)
Northing (Y) [meters]	4088932.854	218331.838
Easting (X) [meters]	312211.397	323090.395
Convergence [degrees]	-1.26712778	-1.83442778
Point Scale	1.00003445	1.00003336
Combined Factor	0.99989860	0.99989751

STATION 212_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 1:16 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2123021.18o OP1542392015266
Attachments: 2123302q.18o.xml

FILE: 2123021.18o OP1542392015266

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C8dfafd2ffa64402fcf3308d64bef89ee%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779889514329749&sdata=qFsv7D05GP3oA4DnwqBPgljdxamRsT8Vq4EUyym5EQ%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2123302q.18o TIME: 18:14:45 UTC

SOFTWARE: page5 1603.24 master57.pl 160321 START: 2018/10/29 16:09:00
 EPHEMERIS: igs20251.eph [precise] STOP: 2018/10/29 20:38:00
 NAV FILE: brdc3020.18n OBS USED: 11107 / 11798 : 94%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 64 / 73 : 88%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.016(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8268)

X: -994695.670(m) 0.003(m) -994696.537(m) 0.003(m)
 Y: -5012926.334(m) 0.013(m) -5012924.967(m) 0.013(m)
 Z: 3804670.859(m) 0.030(m) 3804670.718(m) 0.030(m)

LAT: 36 51 2.22210 0.028(m) 36 51 2.24125 0.028(m)
 E LON: 258 46 36.48155 0.004(m) 258 46 36.43651 0.004(m)
 W LON: 101 13 23.51845 0.004(m) 101 13 23.56349 0.004(m)
 EL HGT: 884.427(m) 0.017(m) 883.404(m) 0.017(m)
 ORTHO HGT: 911.110(m) 0.022(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)

Northing (Y) [meters] 4080608.011 210110.984
 Easting (X) [meters] 301788.060 312585.428
 Convergence [degrees] -1.33375556 -1.90216111
 Point Scale 1.00008403 1.00001639
 Combined Factor 0.99994524 0.99987761

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 1:14 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2063001.18o OP1542391977222
Attachments: 2063300t.18o.xml

FILE: 2063001.18o OP1542391977222

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C91ffc1d83bae4ca27baa08d64bef54f8%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779888629719734&data=tam%2BbVjyAaAWs3MX9fJM1jmO8NNK3aP5oWDvg541mlo%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2063300t.18o TIME: 18:13:42 UTC

SOFTWARE: page5 1603.24 master53.pl 160321 START: 2018/10/27 19:05:00
 EPHEMERIS: igs20246.eph [precise] STOP: 2018/10/27 21:31:00
 NAV FILE: brdc3000.18n OBS USED: 6573 / 7012 : 94%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 37 / 39 : 95%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.016(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8215)

X: -1066157.344(m) 0.008(m) -1066158.212(m) 0.008(m)
 Y: -5004380.395(m) 0.019(m) -5004379.031(m) 0.019(m)
 Z: 3796969.564(m) 0.003(m) 3796969.421(m) 0.003(m)

LAT: 36 45 45.05864 0.009(m) 36 45 45.07729 0.009(m)
 E LON: 257 58 23.65158 0.006(m) 257 58 23.60590 0.006(m)
 W LON: 102 1 36.34842 0.006(m) 102 1 36.39410 0.006(m)
 EL HGT: 1097.973(m) 0.017(m) 1096.963(m) 0.017(m)
 ORTHO HGT: 1122.894(m) 0.022(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (3501 OK N)
 Northing (Y) [meters] 4072651.582 203017.642
 Easting (X) [meters] 765401.433 240562.769
 Convergence [degrees] 1.78051944 -2.37638333
 Point Scale 1.00046787 0.99999925
 Combined Factor 1.00029551 0.99982697

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 1:14 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2053000.18o OP1542391936566
Attachments: 2053300o.18o.xml

FILE: 2053000.18o OP1542391936566

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7Cece6b15395e5498db4d108d64bef4e03%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779888517850404&sdata=CKITsl6AjliiyMglORs9qCu7KxSHjIW2TFLtpQPdJ4EM%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2053300o.18o TIME: 18:13:14 UTC

SOFTWARE: page5 1603.24 master94.pl 160321 START: 2018/10/27 14:16:00
 EPHEMERIS: igs20246.eph [precise] STOP: 2018/10/27 17:44:00
 NAV FILE: brdc3000.18n OBS USED: 7946 / 8468 : 94%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 38 / 43 : 88%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8210)

X: -1070436.210(m) 0.007(m) -1070437.079(m) 0.007(m)
 Y: -4992630.682(m) 0.028(m) -4992629.320(m) 0.028(m)
 Z: 3811175.854(m) 0.009(m) 3811175.713(m) 0.009(m)

LAT: 36 55 19.87612 0.012(m) 36 55 19.89484 0.012(m)
 E LON: 257 53 55.69732 0.002(m) 257 53 55.65145 0.002(m)
 W LON: 102 6 4.30268 0.002(m) 102 6 4.34855 0.002(m)
 EL HGT: 1136.490(m) 0.027(m) 1135.486(m) 0.027(m)
 ORTHO HGT: 1161.162(m) 0.031(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (3501 OK N)

Northing (Y) [meters] 4090166.416 220999.705
 Easting (X) [meters] 758217.762 234671.057
 Convergence [degrees] 1.74236111 -2.42030833
 Point Scale 1.00042149 1.00003208
 Combined Factor 1.00024309 0.99985375

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:32 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2133022.18o OP1542389400968
Attachments: 2133302v.18o.xml

FILE: 2133022.18o OP1542389400968

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C37aeee2e8e3c434e1e7508d64be95e30%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779863015323664&sd=0ABhTU21%2FPcaiqLLi8R4xdz%2FhOIvabJQM3WrHkjaR4%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2133302v.18o TIME: 17:30:45 UTC

SOFTWARE: page5 1603.24 master51.pl 160321 START: 2018/10/29 21:02:00
 EPHEMERIS: igs20251.eph [precise] STOP: 2018/10/29 23:04:00
 NAV FILE: brdc3020.18n OBS USED: 5840 / 6478 : 90%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 53 / 55 : 96%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8272)

X:	-1008790.517(m)	0.006(m)	-1008791.384(m)	0.006(m)
Y:	-5016885.058(m)	0.012(m)	-5016883.690(m)	0.012(m)
Z:	3795798.105(m)	0.003(m)	3795797.963(m)	0.003(m)

LAT:	36 45 2.70691	0.008(m)	36 45 2.72596	0.008(m)
E LON:	258 37 50.27650	0.007(m)	258 37 50.23139	0.007(m)
W LON:	101 22 9.72350	0.007(m)	101 22 9.76861	0.007(m)
EL HGT:	888.542(m)	0.008(m)	887.520(m)	0.008(m)
ORTHO HGT:	915.152(m)	0.016(m)	[NAVD88 (Computed using GEOID12B)]	

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14)		SPC (3501 OK N)	
Northing (Y) [meters]	4069840.748	199477.659	
Easting (X) [meters]	288479.589	299172.120	
Convergence [degrees]	-1.41820278	-1.98842222	
Point Scale	1.00015123	0.99999714	
Combined Factor	1.00001178	0.99985772	

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:31 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2113020.18o OP1542389361781
Attachments: 2113302n.18o.xml

FILE: 2113020.18o OP1542389361781

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C41d939e02f0d428b8aec08d64be952e7%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779862840262745&data=YdOj1Y%2FuQPM%2Be2P2QN5Ah%2FmLI3duBTV%2B0x3rOkKUKFY%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2113302n.18o TIME: 17:30:46 UTC

SOFTWARE: page5 1603.24 master92.pl 160321 START: 2018/10/29 13:31:00
 EPHEMERIS: igs20251.eph [precise] STOP: 2018/10/29 15:46:00
 NAV FILE: brdc3020.18n OBS USED: 4478 / 4750 : 94%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 33 / 34 : 97%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.016(m)

REF FRAME: NAD_83(2011){EPOCH:2010.0000} IGS08 (EPOCH:2018.8263)

X: -983658.936(m) 0.003(m) -983659.804(m) 0.003(m)
 Y: -5009852.181(m) 0.007(m) -5009850.814(m) 0.007(m)
 Z: 3811505.856(m) 0.030(m) 3811505.716(m) 0.030(m)

LAT: 36 55 39.86454 0.027(m) 36 55 39.88380 0.027(m)
 E LON: 258 53 29.67122 0.003(m) 258 53 29.62619 0.003(m)
 W LON: 101 6 30.32878 0.003(m) 101 6 30.37381 0.003(m)
 EL HGT: 865.732(m) 0.016(m) 864.709(m) 0.016(m)
 ORTHO HGT: 892.499(m) 0.021(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)

Northing (Y) [meters] 4088932.854 218331.838
 Easting (X) [meters] 312211.397 323090.395
 Convergence [degrees] -1.26712778 -1.83442778
 Point Scale 1.00003445 1.00003336
 Combined Factor 0.99989860 0.99989751

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:30 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2103013.18o OP1542389255583
Attachments: 2103301v.18o.xml

FILE: 2103013.18o OP1542389255583

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C49509713450d486bf02808d64be9145d%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779861775011017&sd=70WoGCB0a1HoRDFObghf2RU9p%2Fuj00%2FQwuLr1e9m1mE%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2103301v.18o TIME: 17:28:51 UTC

SOFTWARE: page5 1603.24 master72.pl 160321 START: 2018/10/28 21:33:00
 EPHEMERIS: igs20250.eph [precise] STOP: 2018/10/28 23:52:00
 NAV FILE: brdc3010.18n OBS USED: 7199 / 7450 : 97%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 39 / 40 : 98%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.016(m)

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2018.8245)

X: -1030927.154(m) 0.004(m) -1030928.021(m) 0.004(m)
 Y: -5011647.438(m) 0.021(m) -5011646.072(m) 0.021(m)
 Z: 3796908.830(m) 0.012(m) 3796908.688(m) 0.012(m)

LAT: 36 45 45.55537 0.018(m) 36 45 45.57427 0.018(m)
 E LON: 258 22 33.76744 0.007(m) 258 22 33.72211 0.007(m)
 W LON: 101 37 26.23256 0.007(m) 101 37 26.27789 0.007(m)
 EL HGT: 975.996(m) 0.015(m) 974.979(m) 0.015(m)
 ORTHO HGT: 1002.004(m) 0.020(m) [NAVD88 (Computed using GEOID12B)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)
 Northing (Y) [meters] 4071754.513 201616.208
 Easting (X) [meters] 265783.853 276501.361
 Convergence [degrees] -1.57115556 -2.13866667
 Point Scale 1.00027588 0.99999927
 Combined Factor 1.00012269 0.99984612

STATION 213_2018_OK

Zarlengo, Mike

From: opus <opus@ngs.noaa.gov>
Sent: Friday, November 16, 2018 12:32 PM
To: Zarlengo, Mike
Subject: OPUS solution : 2133022.18o OP1542389400968
Attachments: 2133302v.18o.xml

FILE: 2133022.18o OP1542389400968

NGS OPUS SOLUTION REPORT
 =====

All computed coordinate accuracies are listed as peak-to-peak values.

For additional information:

<https://na01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.ngs.noaa.gov%2FOPUS%2Fabout.jsp%23accuracy&data=02%7C01%7Cmichael.zarlengo%40woolpert.com%7C37aeee2e8e3c434e1e7508d64be95e30%7C49c1e384218e47a1a464d59d76daf482%7C0%7C0%7C636779863015323664&data=oABhTU21%2FpcaiqLLi8R4xdz%2FhOIvabJQM3WrHkjgaR4%3D&reserved=0>

USER: michael.zarlengo@woolpert.com DATE: November 16, 2018
 RINEX FILE: 2133302v.18o TIME: 17:30:45 UTC

SOFTWARE: page5 1603.24 master51.pl 160321 START: 2018/10/29 21:02:00
 EPHEMERIS: igs20251.eph [precise] STOP: 2018/10/29 23:04:00
 NAV FILE: brdc3020.18n OBS USED: 5840 / 6478 : 90%
 ANT NAME: TRMR8_GNSS3 NONE # FIXED AMB: 53 / 55 : 96%
 ARP HEIGHT: 2.000 OVERALL RMS: 0.015(m)

REF FRAME: NAD_83(2011){EPOCH:2010.0000} IGS08 {EPOCH:2018.8272}

X: -1008790.517(m) 0.006(m) -1008791.384(m) 0.006(m)
 Y: -5016885.058(m) 0.012(m) -5016883.690(m) 0.012(m)
 Z: 3795798.105(m) 0.003(m) 3795797.963(m) 0.003(m)

LAT: 36 45 2.70691 0.008(m) 36 45 2.72596 0.008(m)
 E LON: 258 37 50.27650 0.007(m) 258 37 50.23139 0.007(m)
 W LON: 101 22 9.72350 0.007(m) 101 22 9.76861 0.007(m)
 EL HGT: 888.542(m) 0.008(m) 887.520(m) 0.008(m)
 ORTHO HGT: 915.152(m) 0.016(m) [NAVD88 (Computed using GEOID12B)]

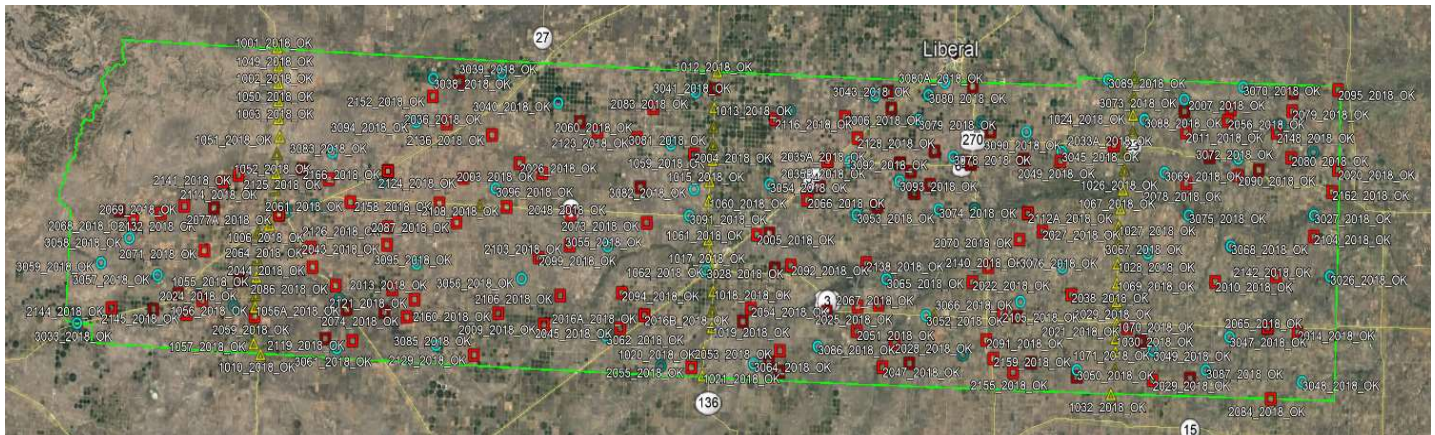
UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 14) SPC (3501 OK N)
 Northing (Y) [meters] 4069840.748 199477.659
 Easting (X) [meters] 288479.589 299172.120
 Convergence [degrees] -1.41820278 -1.98842222
 Point Scale 1.00015123 0.99999714
 Combined Factor 1.00001178 0.99985772

Section 5: GPS Control Diagrams

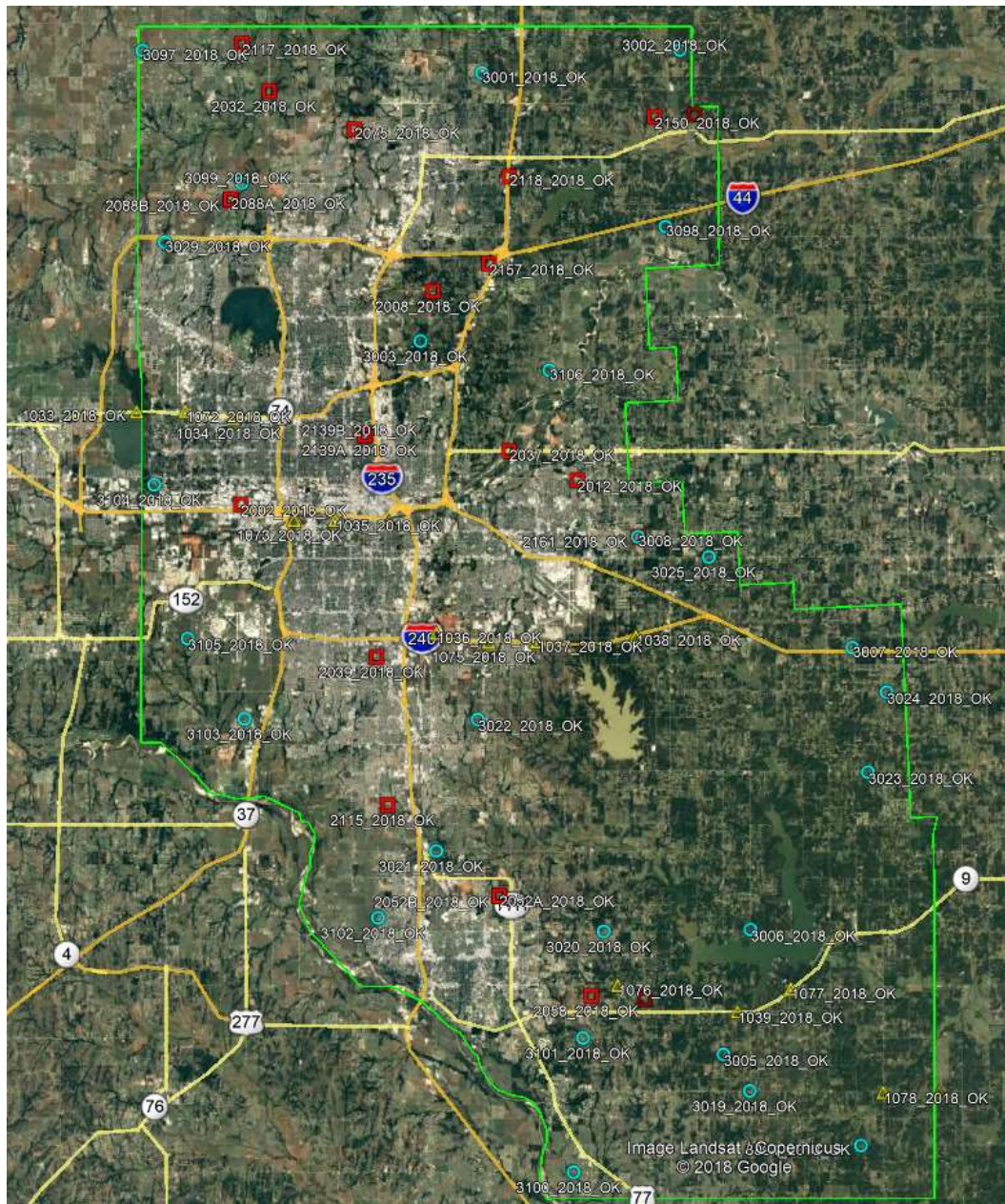
This section contains graphical representations of the new and existing control stations used for the project.

Oklahoma Panhandle AOI



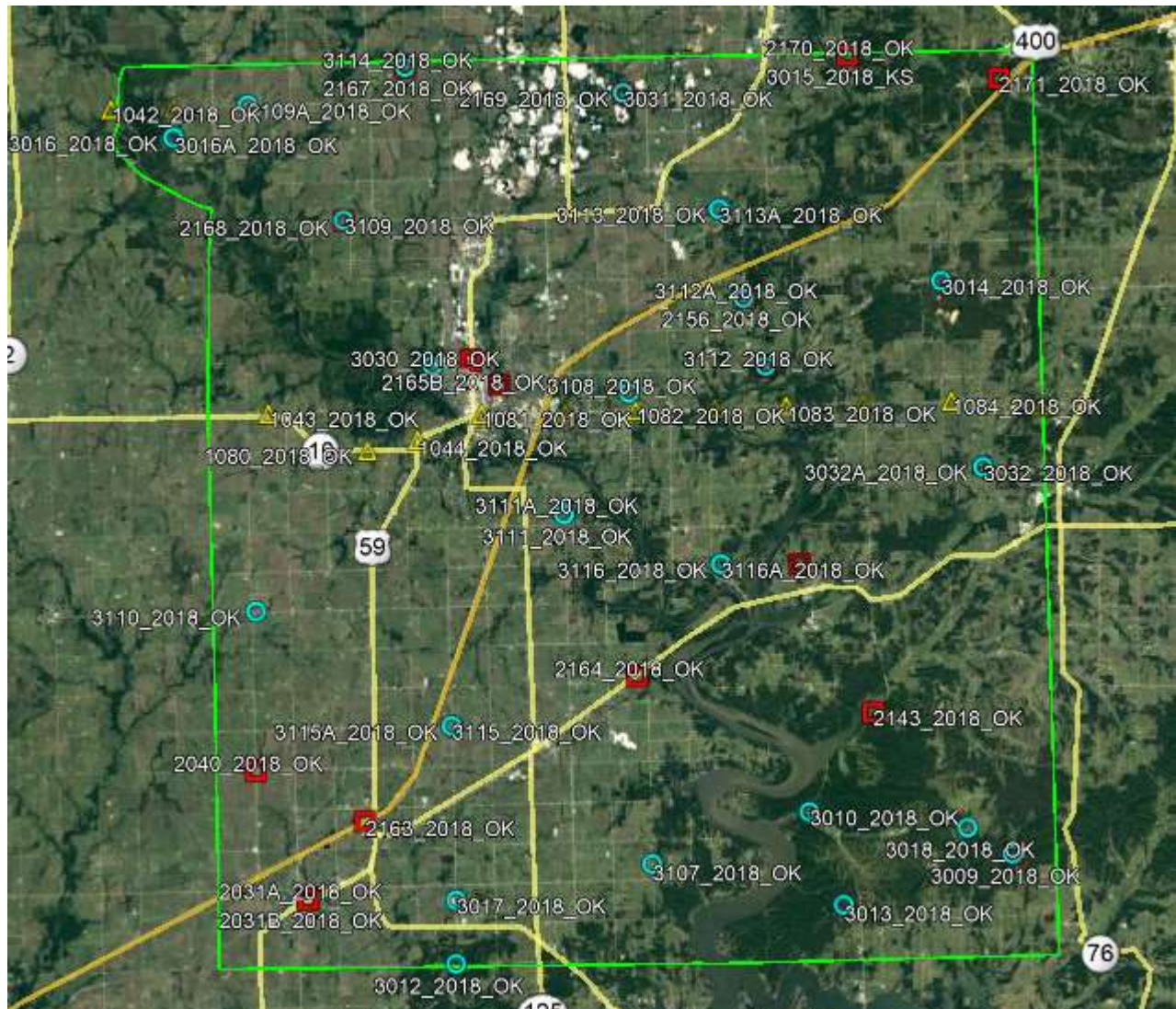
Not to Scale

Oklahoma City AOI



Not to Scale

Ottawa Co AOI



Not to Scale