



April 02, 2025

West Whitehorse – 2024 LiDAR & Orthophoto

Submitted to: Yukon Government
Prepared by McElhanney

Contact

Azadeh Koohzare, Ph.D., P.Eng.
Division Manager
604-424-4784
akoohzare@mcelhanney.com

Address

200 – 858 Beatty Street,
Vancouver BC Canada,
V6B 1C1

Prepared by

Morteza Esfandiari, M.Sc., P.Eng.

Reviewed by

Azadeh Koohzare

Our file: 2611-19372-09

A faint, stylized topographic map of a mountainous region, likely the Sierra Nevada, serves as a background for the top portion of the page. The map features contour lines and a dashed line representing a boundary or path.

**Your Challenge.
Our Passion.**



Contents

Project Summary.....	4
1. Mission Plan.....	4
2. Equipment.....	5
3. Data Processing.....	6
4. Point Density.....	6
5. Calibration.....	7
6. Quality Control.....	8
7. Deliverables	10
Appendix A – LiDAR Flight Parameters.....	12
Appendix B – Error Analysis	15
Appendix C – Vertical Check Results	18
Appendix D – SimActive Orthophoto Processing Reports	74

Project Summary

McElhanney Ltd. performed a LiDAR and aerial photography acquisition for the West Whitehorse area, as shown in Figure 1. The site was flown on August 4th, 2024. This report describes the acquisition, post-processing and quality control methodology used to produce the final elevation models.

1. Mission Plan

Project: West Whitehorse

Flight Dates: 2024-08-04

Location: City of Whitehorse, YT

Topography: Low relief valley

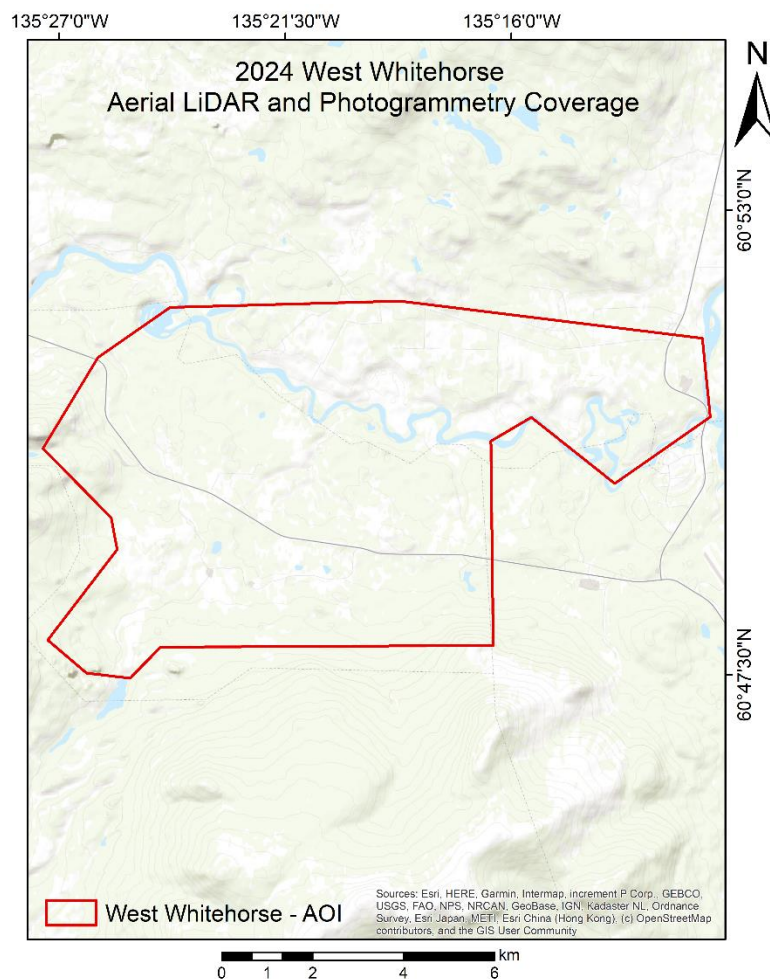


Figure 1 - LiDAR Survey Site

2. Equipment

McElhanney utilized the Leica TerrainMapper-2 (TM2), Hyperion2+ system for LiDAR Capture (Figure 2). For Product Specifications please see

<https://leica-geosystems.com/products/airborne-systems/topographic-lidar-sensors/leica-terrainmapper-2>

The LiDAR system is mounted on Piper Navajo fixed wing aircraft. On-board camera is Leica MFC150 / Leica MFC150-NIR Camera Head - simultaneous capture.



Figure 2 - Leica TerrainMapper-2 System Components

3. Data Processing

All GPS and IMU data were processed using Inertial Explorer v8.9 software. The laser data and images were extracted using Leica HxMap 4.5 software. The GPS antenna position in the airplane was calculated by post-processing the raw data at one (1) second intervals for the entire flight. We have used Precise Point Positioning (PPP) to process the trajectories, and the coordinates were calculated in NAD83(CSRS).

- The extracted LiDAR data was then classified using TerraScan software. The classified ground points were used to generate a surface model, which served as the foundation for orthoimage production.
- Raw images extracted from HxMap were processed in SimActive for aerial triangulation, bundle adjustment, orthorectification, seamline adjustment, enhancement, and tiling. Comprehensive reports from SimActive are provided in Appendix D.

4. Point Density

Bare earth point density varies with canopy closure, understory density and topographic features. The mean density of the point cloud for the project site was measured and is reported in Table 1.

Table 1 - LiDAR Point Densities

	Point-Cloud Density (points/m²)	Point-Cloud Spacing (m)	Bare-Earth Density (points/m²)	Bare-Earth Point Spacing (m)
West Whitehorse	35.31	0.17	15.05	0.26

5. Calibration

The LiDAR system was calibrated before data collection using a calibration dataset collected on April 11, 2024, over Red Deer, AB, Canada. A differential GNSS-based trajectory was computed using base station ABRD. The lever arm offsets between the GPS antenna, IMU, and laser mirror were refined from an initial physical measurement using this trajectory data. A total of 31 ground check points were used to assess the quality of the calibration LiDAR data and identify any systematic shifts.

System: Leica TM-2

2024 LiDAR Calibration flight:

Calibration Date: April 11, 2024, Location: Red Deer, AB

Base station used for calibration (in NAD83(CSRS) UTM Zone 12N Epoch 2010):

- ABRE E307796.528m N5794942.885m Ellipsoid Elevation 848.617m

Lever Arms

GPS Lever arms in (m):

X = -0.220 m Y = -0.217 m Z = 1.299 m

IMU Lever arms in (m):

x: 0 y: 0 z: 0

6. Quality Control

LiDAR data consistency was checked between flight lines using Leica HxMap during GNSS post-processing and TerraScan during classification and quality control.

6.1 Comparison of Bare Earth LiDAR Data with Control Data – Vertical Accuracy

LiDAR data quality was controlled using existing LiDAR bare-earth points distributed across various locations. The RMSE for this project was evaluated at 4 independent locations. The error analysis details are presented in Appendix B, and the full vertical check report is in Appendix C.

6.2 LiDAR Horizontal Accuracy

Establishing LiDAR horizontal accuracy involves a visual assessment relying on the ability to locate features in the LiDAR point cloud. When a feature is identified, its location is then compared to the location of control points measured at the feature in the field. The ability to locate features in LiDAR data is strongly linked to the point-cloud density, and thus, mean point-spacing achieved over the assessment area. Figure 3 and Figure 4 demonstrate the horizontal accuracy of the collected LiDAR dataset.

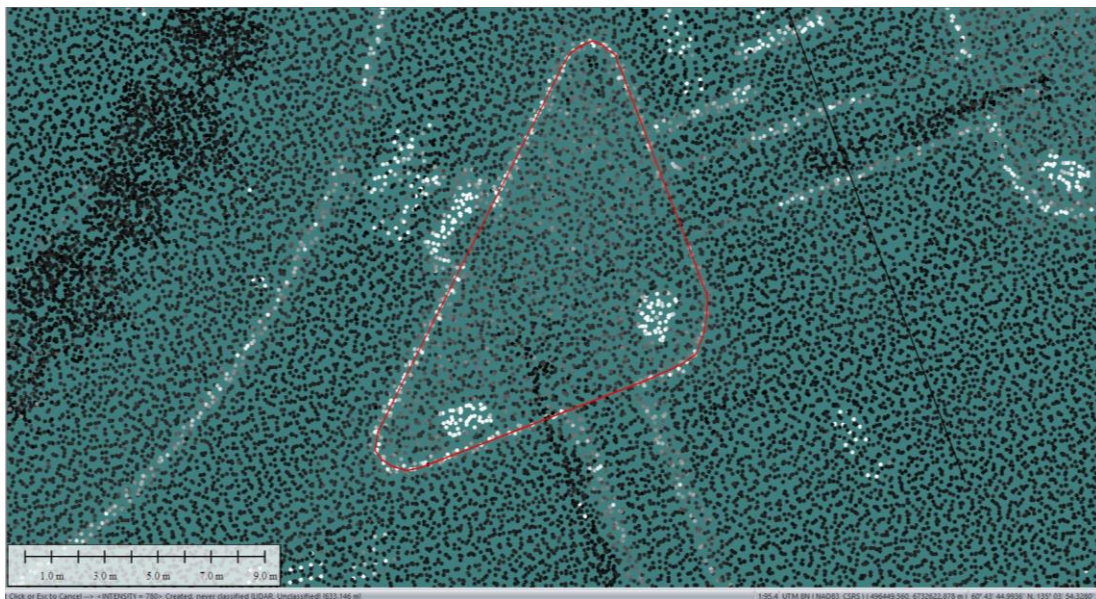


Figure 3 - Comparing LiDAR Horizontal Accuracy: Red lines are extracted from existing LiDAR data and overlaid on the current data.



Figure 4 - Comparing LiDAR Horizontal Accuracy: Red lines are extracted from existing LiDAR data and overlaid on the current data.

6.3 Orthophoto

The orthophotos were aligned with LiDAR data during sensor boresight calibration. During the ortho-generation process, several control points were used to ensure precise alignment between the orthophotos and the LiDAR dataset. The orthophoto was processed in three separate sections, and the spatial error for each section is reported below. Target accuracy for the horizontal alignment of orthophotos to LiDAR point clouds was two pixels or better than 0.20m.

Table 2 - Orthophoto Spatial Error

Spatial Error	
	GCP
<i>RMS X error (m)</i>	0.125
<i>RMS Y error (m)</i>	0.165
<i>RMS Z error (m)</i>	0.161
<i>Average XY error (m)</i>	0.180
<i>Average XYZ error (m)</i>	0.245

Additionally, during the QC stage, the orthophotos were cross-referenced with LiDAR data. The screenshots below confirms the alignment of the LiDAR and orthophoto.

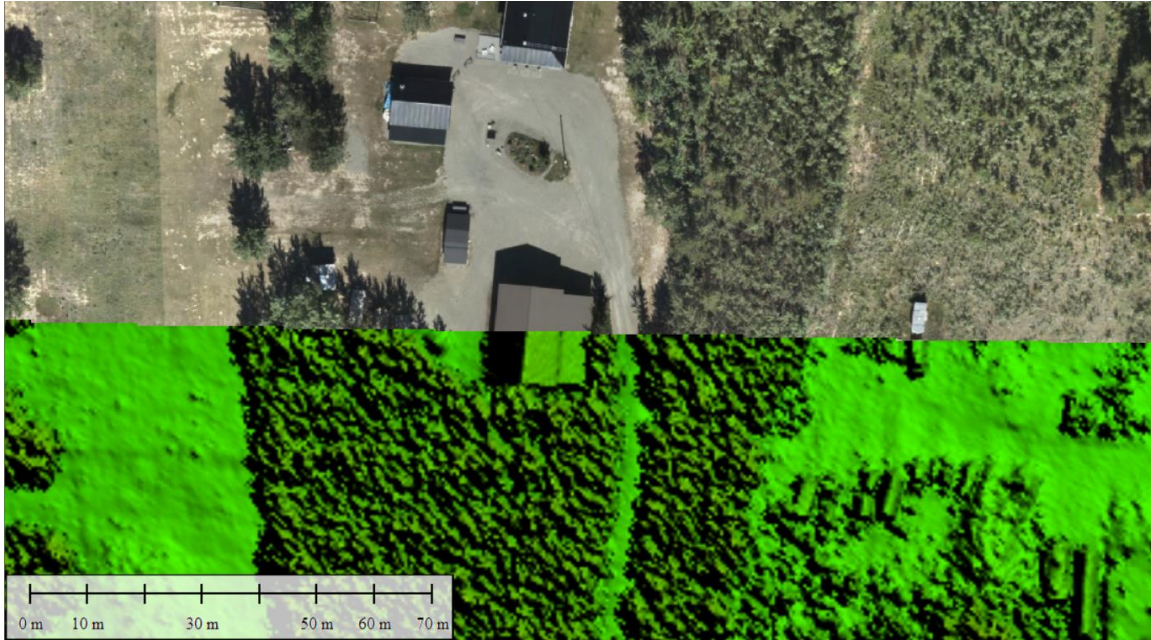


Figure 5 - Orthophoto and DSM Alignment Check

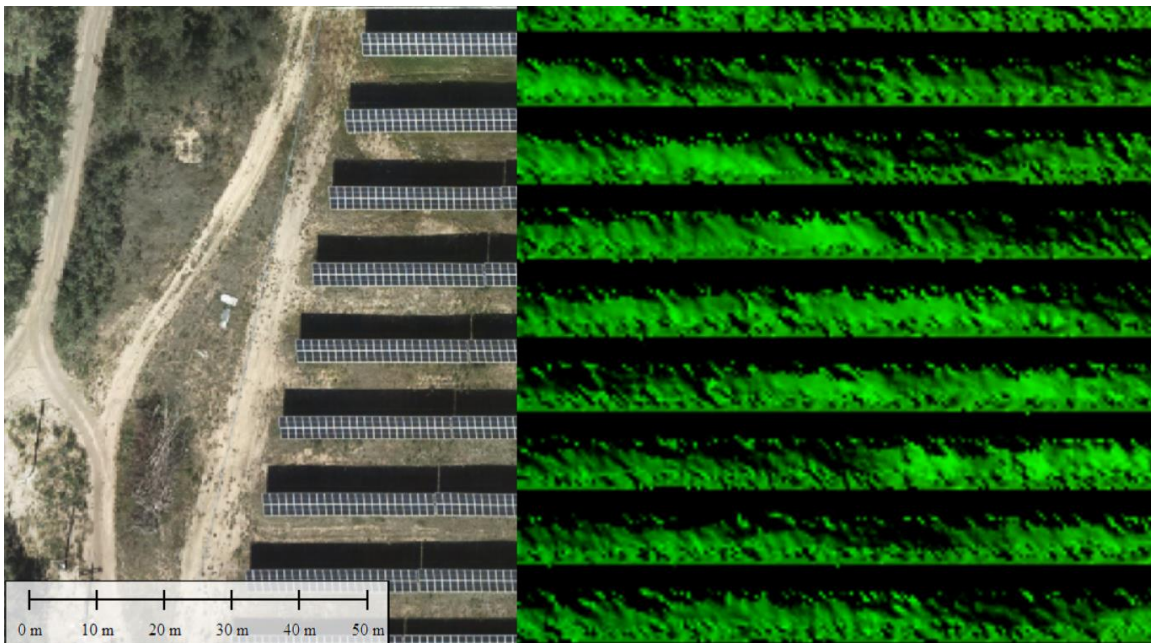


Figure 6 - Orthophoto and DSM Alignment Check

7. Deliverables

Final output data is provided in NAD83(CSRs) UTM Zone 08 and the elevations are based on CGVD28-HTv2 datum. The deliverables include:

- Classified LiDAR data in las and xyz file formats. 1km² tiles. Files are separated by bare-earth (ground points, BE filename suffix) and non-bare-earth points (above ground points, NBE filename suffix)
- LiDAR model key points in xyz format
- Index map
- 10 cm-pixel, 8-bit natural colour RGB orthophoto in 1km² Geotiff tiles and ecw ortho-mosaic formats
- Project report
- Metadata

Appendix A

LiDAR Flight Parameters

2024-08-04 Flight Parameters

Flight Line Label	Swath Width [m]	Alt MSL [m]	Length [m]	Scan Pattern	Used Laser Pulse Rate [Hz]	Used Scan Rate [Hz]	FOV [deg]	Flown Line Direction [deg]	Line begin time [UTC]	Line end time [UTC]
001	1374	2821	20614	Circle	1800000	150	40	335.4	15:52:44	15:57:34
002	1374	2805	27529	Circle	1800000	150	40	155.4	16:00:36	16:06:30
003	1374	2780	29266	Circle	1800000	150	40	335.5	16:09:16	16:16:01
004	1374	2747	29456	Circle	1800000	150	40	155.4	16:18:20	16:24:46
005	1374	2719	29401	Circle	1800000	150	40	335.5	16:27:03	16:33:54
006	1374	2695	29166	Circle	1800000	150	40	155.4	16:35:47	16:42:12
007	1374	2649	29074	Circle	1800000	150	40	335.5	16:44:24	16:51:08
008	1374	2646	28869	Circle	1800000	150	40	155.4	16:53:29	16:59:48
009	1374	2626	28823	Circle	1800000	150	40	335.5	17:01:59	17:08:45
010	1374	2597	28864	Circle	1800000	150	40	155.5	17:10:44	17:16:58
011	1374	2575	29233	Circle	1800000	150	40	335.5	17:18:57	17:25:37
012	1374	2558	29449	Circle	1800000	150	40	155.5	17:27:39	17:34:18
013	1374	2541	29931	Circle	1800000	150	40	335.5	17:36:21	17:43:14
014	1374	2529	30041	Circle	1800000	150	40	155.5	17:45:23	17:52:04
015	1374	2528	30117	Circle	1800000	150	40	335.4	17:54:04	18:00:59
016	1374	2528	29792	Circle	1800000	150	40	155.4	18:02:50	18:09:23
017	1374	2528	29820	Circle	1800000	150	40	335.5	18:11:50	18:18:32
018	1374	2528	29689	Circle	1800000	150	40	155.4	18:20:25	18:27:01
019	1374	2528	29223	Circle	1800000	150	40	335.5	18:28:43	18:35:07
020	1374	2528	28920	Circle	1800000	150	40	155.4	18:36:55	18:43:22
021	1374	2528	28668	Circle	1800000	150	40	335.5	18:45:02	18:51:24
022	1374	2528	28354	Circle	1800000	150	40	155.4	18:53:04	18:59:25
023	1374	2528	28118	Circle	1800000	150	40	335.6	19:00:57	19:07:13
024	1374	2528	27978	Circle	1800000	150	40	155.4	19:09:01	19:15:14
025	1374	2528	27644	Circle	1800000	150	40	335.5	19:16:48	19:22:58
026	1374	2528	27134	Circle	1800000	150	40	155.4	19:24:42	19:30:51
027	1374	2528	26322	Circle	1800000	150	40	335.4	19:32:23	19:38:13
028	1374	2528	24996	Circle	1800000	150	40	155.4	19:39:53	19:45:30
029	1374	2523	13628	Circle	1800000	150	40	276.6	21:47:08	21:50:14
030	1374	2513	19311	Circle	1800000	150	40	96.4	21:40:25	21:44:42
031	1374	2513	20546	Circle	1800000	150	40	276.6	21:34:06	21:38:42
032	1374	2513	21809	Circle	1800000	150	40	96.5	21:27:42	21:32:34
033	1374	2513	22532	Circle	1800000	150	40	276.5	21:20:59	21:26:03
034	1374	2513	23546	Circle	1800000	150	40	96.5	21:13:58	21:19:17
035	1374	2513	24290	Circle	1800000	150	40	276.5	21:06:48	21:12:13
036	1374	2513	24732	Circle	1800000	150	40	96.4	20:59:39	21:05:07

037	1374	2514	25425	Circle	1800000	150	40	276.5	20:52:14	20:58:00
038	1374	2517	25556	Circle	1800000	150	40	96.5	20:44:55	20:50:37
039	1374	2519	25354	Circle	1800000	150	40	276.5	20:37:30	20:43:10
040	1374	2522	25614	Circle	1800000	150	40	96.5	20:29:55	20:35:41
041	1374	2522	26413	Circle	1800000	150	40	276.4	20:22:29	20:28:21
042	1374	2523	27173	Circle	1800000	150	40	96.5	20:14:43	20:20:56
043	1374	2523	27566	Circle	1800000	150	40	276.5	20:06:38	20:12:44
044	1374	2523	27640	Circle	1800000	150	40	96.5	19:58:54	20:05:07
045	1374	2523	27607	Circle	1800000	150	40	276.4	19:51:13	19:57:12

Appendix B

Error Analysis

Error Analysis

According to ASPRS guidelines, the vertical accuracy of LiDAR is as follows:

$$RMSE_z = Sqrt[\sum (Z_{Lidar(i)} - Z_{check(i)})^2 / n]$$

Where the “Check” refers to the ground truth (In this project, existing LiDAR bare-earth points were used) and n is the number of check points.

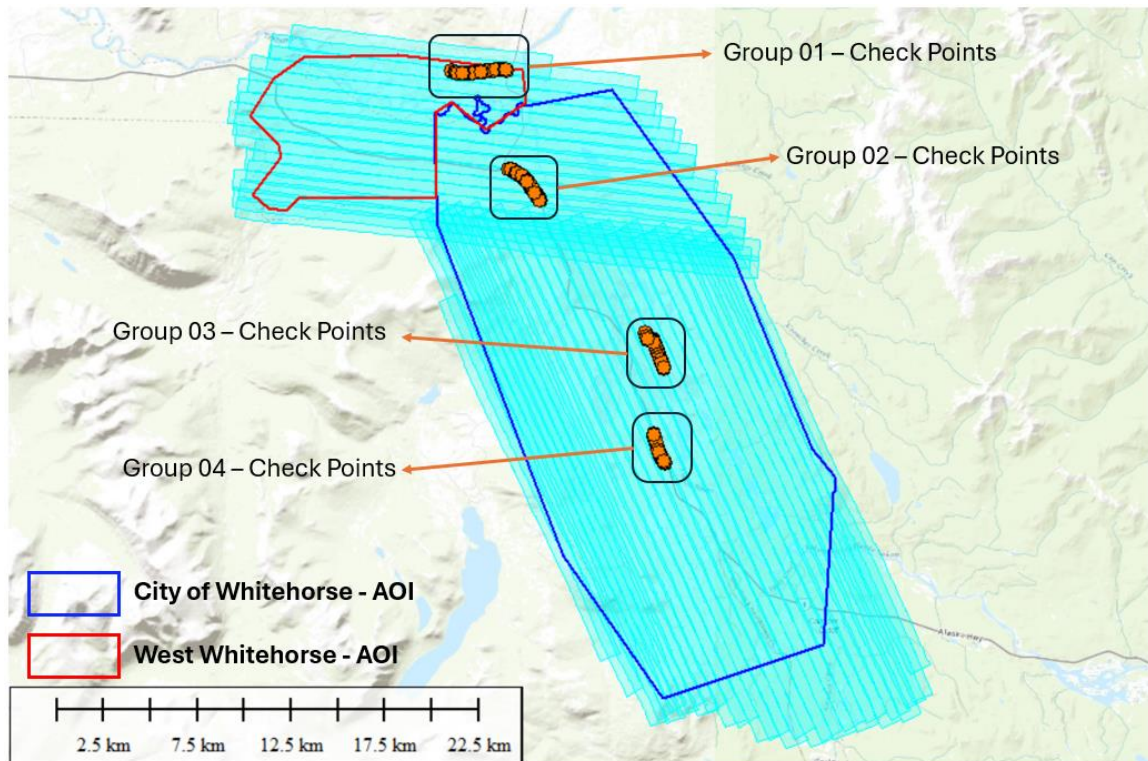


Figure 7 - Survey Control Points Overview.

Figure 7 above shows the check point groups across the City of Whitehorse and West Whitehorse area. The vertical checks were done independently for each group and are reported below.

2022 - LiDAR bare-earth check points – Group 01	
Number of points:	668
Average dz	+0.030 m
Minimum dz	-0.010 m
Maximum dz	+0.066 m
Average magnitude	0.030 m
Root mean square	0.034 m
Std deviation	0.016 m
2022 - LiDAR bare-earth check points – Group 02	
Number of points:	492

Average dz	+0.009 m
Minimum dz	-0.038 m
Maximum dz	+0.065 m
Average magnitude	0.019 m
Root mean square	0.023 m
Std deviation	0.021 m
2022 - LiDAR bare-earth check points – Group 03	
Number of points:	896
Average dz	-0.044 m
Minimum dz	-0.094 m
Maximum dz	-0.008 m
Average magnitude	0.044 m
Root mean square	0.045 m
Std deviation	0.012 m
2022 - LiDAR bare-earth check points – Group 04	
Number of points:	277
Average dz	+0.025 m
Minimum dz	-0.001 m
Maximum dz	+0.087 m
Average magnitude	0.025 m
Root mean square	0.028 m
Std deviation	0.012 m

Appendix C

Vertical Check Results

Table 3 - Vertical Check Results – Vertical Check Points vs LiDAR after Final Point Cloud Adjustment

Group	Number	Easting	Northing	Known Z	Laser Z	Dz
G01	351	487715.8	6746864	669.828	669.894	0.066
G01	71	486482	6746748	688.753	688.818	0.065
G01	186	486706.3	6746751	681.738	681.803	0.065
G01	88	486197.4	6746817	693.393	693.457	0.064
G01	187	486726.8	6746753	681.129	681.192	0.063
G01	357	487591.1	6746848	670.163	670.226	0.063
G01	406	487360.7	6746820	670.792	670.854	0.062
G01	409	487318.4	6746815	670.938	671	0.062
G01	350	487739	6746867	669.775	669.836	0.061
G01	438	487279.9	6746811	671.091	671.152	0.061
G01	404	487476.9	6746834	670.498	670.559	0.061
G01	156	486544.7	6746742	686.792	686.852	0.06
G01	8	486153.3	6746832	693.43	693.489	0.059
G01	394	487410	6746826	670.674	670.733	0.059
G01	439	487298.1	6746813	671.037	671.096	0.059
G01	197	486906.9	6746770	675.478	675.536	0.058
G01	358	487586.8	6746848	670.175	670.233	0.058
G01	275	487404.8	6746825	670.69	670.748	0.058
G01	365	487394.9	6746824	670.717	670.775	0.058
G01	53	486476.6	6746748	688.907	688.964	0.057
G01	367	487367.1	6746821	670.798	670.855	0.057
G01	362	487456.1	6746832	670.562	670.618	0.056
G01	434	487205.7	6746803	671.458	671.514	0.056
G01	390	487378.5	6746822	670.753	670.809	0.056
G01	396	487417.1	6746827	670.668	670.723	0.055
G01	410	487316.2	6746815	670.952	671.007	0.055
G01	414	487247	6746807	671.203	671.258	0.055
G01	9	486243.3	6746804	693.441	693.496	0.055
G01	233	487051.4	6746786	673.214	673.269	0.055
G01	355	487643.9	6746855	670.047	670.102	0.055
G01	393	487576.4	6746846	670.21	670.265	0.055
G01	145	486791.4	6746759	679.107	679.161	0.054
G01	363	487455.5	6746831	670.564	670.618	0.054
G01	208	486801.6	6746760	678.812	678.866	0.054
G01	413	487252.1	6746808	671.182	671.236	0.054
G01	135	486017.8	6746877	693.335	693.388	0.053
G01	174	486520.6	6746744	687.517	687.57	0.053
G01	178	486605.7	6746742	684.932	684.985	0.053
G01	317	487591.4	6746848	670.171	670.224	0.053
G01	405	487496.1	6746836	670.447	670.5	0.053

G01	437	487246.4	6746807	671.203	671.256	0.053
G01	24	486134.3	6746838	693.371	693.423	0.052
G01	198	486924.4	6746772	675.075	675.127	0.052
G01	218	486975	6746778	674.097	674.149	0.052
G01	416	487220.7	6746804	671.352	671.404	0.052
G01	23	486110.7	6746846	693.386	693.437	0.051
G01	167	486431.9	6746755	690.334	690.385	0.051
G01	325	487318	6746815	670.954	671.005	0.051
G01	330	487388.9	6746824	670.735	670.786	0.051
G01	30	486201.8	6746816	693.415	693.465	0.05
G01	200	486936.5	6746774	674.803	674.853	0.05
G01	264	487207.3	6746803	671.444	671.494	0.05
G01	266	487236.4	6746806	671.251	671.301	0.05
G01	337	487380	6746822	670.747	670.797	0.05
G01	400	487445	6746830	670.603	670.653	0.05
G01	177	486574.9	6746742	685.825	685.875	0.05
G01	327	487326.3	6746816	670.913	670.963	0.05
G01	221	487022.8	6746783	673.483	673.532	0.049
G01	436	487238.5	6746806	671.251	671.3	0.049
G01	442	487359.7	6746820	670.81	670.859	0.049
G01	139	486073.2	6746858	693.389	693.438	0.049
G01	146	486767.6	6746756	679.875	679.924	0.049
G01	182	486677	6746748	682.671	682.72	0.049
G01	242	487005.2	6746781	673.678	673.727	0.049
G01	310	487640.2	6746854	670.063	670.112	0.049
G01	386	487635.8	6746854	670.063	670.112	0.049
G01	15	486336.3	6746778	692.724	692.772	0.048
G01	29	486376.6	6746767	691.912	691.96	0.048
G01	34	486348.1	6746775	692.509	692.557	0.048
G01	59	486870.9	6746767	676.631	676.679	0.048
G01	100	486635.9	6746745	683.981	684.029	0.048
G01	136	486153.6	6746832	693.424	693.472	0.048
G01	190	486773.4	6746757	679.679	679.727	0.048
G01	191	486775.2	6746757	679.621	679.669	0.048
G01	214	486920.8	6746772	675.139	675.187	0.048
G01	216	486937	6746774	674.793	674.841	0.048
G01	241	487003.4	6746781	673.712	673.76	0.048
G01	247	487029.9	6746784	673.367	673.415	0.048
G01	267	487252.2	6746808	671.182	671.23	0.048
G01	281	487487.8	6746835	670.467	670.515	0.048
G01	345	487770.1	6746870	669.686	669.734	0.048
G01	360	487529.5	6746841	670.327	670.375	0.048
G01	361	487456.7	6746832	670.564	670.612	0.048

G01	364	487416.9	6746827	670.658	670.706	0.048
G01	366	487388.2	6746823	670.727	670.775	0.048
G01	401	487528.3	6746840	670.348	670.396	0.048
G01	419	487168.2	6746799	671.842	671.89	0.048
G01	19	486017.8	6746877	693.341	693.388	0.047
G01	51	486498.8	6746746	688.22	688.267	0.047
G01	143	486017.3	6746877	693.343	693.39	0.047
G01	171	486482.4	6746748	688.751	688.798	0.047
G01	209	486807.7	6746760	678.632	678.679	0.047
G01	217	486969.9	6746777	674.172	674.219	0.047
G01	282	487501.1	6746837	670.431	670.478	0.047
G01	293	487737.8	6746866	669.781	669.828	0.047
G01	397	487558	6746844	670.278	670.325	0.047
G01	432	487195.2	6746802	671.549	671.596	0.047
G01	7	486144.4	6746835	693.397	693.444	0.047
G01	5	486063.2	6746862	693.385	693.431	0.046
G01	38	486328.2	6746781	692.862	692.908	0.046
G01	131	486073.3	6746858	693.391	693.437	0.046
G01	299	487731.9	6746866	669.805	669.851	0.046
G01	313	487602.6	6746850	670.137	670.183	0.046
G01	427	487100.9	6746791	672.592	672.638	0.046
G01	48	486506.9	6746745	687.97	688.016	0.046
G01	76	486391.9	6746764	691.522	691.568	0.046
G01	356	487623.5	6746852	670.07	670.116	0.046
G01	52	486479.7	6746748	688.819	688.864	0.045
G01	93	486871.6	6746767	676.617	676.662	0.045
G01	132	486070.9	6746859	693.395	693.44	0.045
G01	155	486546.1	6746742	686.746	686.791	0.045
G01	199	486930.9	6746773	674.929	674.974	0.045
G01	213	486885.7	6746768	676.127	676.172	0.045
G01	257	487159.9	6746798	671.954	671.999	0.045
G01	259	487169.6	6746799	671.824	671.869	0.045
G01	323	487241.7	6746807	671.237	671.282	0.045
G01	45	486482.9	6746747	688.739	688.784	0.045
G01	328	487428.1	6746828	670.633	670.678	0.045
G01	335	487382.9	6746823	670.753	670.798	0.045
G01	189	486768.3	6746756	679.853	679.897	0.044
G01	204	486952.5	6746775	674.458	674.502	0.044
G01	244	487020.2	6746783	673.512	673.556	0.044
G01	255	487140	6746796	672.161	672.205	0.044
G01	428	487094.7	6746791	672.661	672.705	0.044
G01	32	486366.2	6746770	692.145	692.189	0.044
G01	235	487040.7	6746785	673.321	673.365	0.044

G01	250	487068.8	6746788	672.976	673.02	0.044
G01	301	487678.1	6746859	669.948	669.992	0.044
G01	384	487713.6	6746863	669.842	669.886	0.044
G01	412	487288.8	6746812	671.065	671.109	0.044
G01	72	486457.5	6746751	689.483	689.526	0.043
G01	158	486472.1	6746749	689.031	689.074	0.043
G01	14	486308.9	6746786	693.125	693.168	0.043
G01	17	486002.7	6746882	693.342	693.385	0.043
G01	43	486456.3	6746752	689.519	689.562	0.043
G01	62	486890	6746769	675.985	676.028	0.043
G01	81	486289.5	6746791	693.337	693.38	0.043
G01	102	486613.8	6746743	684.69	684.733	0.043
G01	120	486337.7	6746778	692.708	692.751	0.043
G01	130	486095.2	6746851	693.39	693.433	0.043
G01	147	486764.1	6746756	679.984	680.027	0.043
G01	151	486675.3	6746748	682.723	682.766	0.043
G01	153	486600.4	6746742	685.078	685.121	0.043
G01	188	486764	6746756	679.986	680.029	0.043
G01	194	486824.3	6746762	678.097	678.14	0.043
G01	270	487314.5	6746815	670.978	671.021	0.043
G01	278	487452.2	6746831	670.583	670.626	0.043
G01	284	487536.9	6746841	670.335	670.378	0.043
G01	287	487590.4	6746848	670.173	670.216	0.043
G01	324	487472.8	6746834	670.516	670.559	0.043
G01	411	487312.4	6746814	670.982	671.025	0.043
G01	417	487214.3	6746804	671.394	671.437	0.043
G01	25	486151.9	6746832	693.404	693.446	0.042
G01	68	486550.3	6746742	686.624	686.666	0.042
G01	73	486454.7	6746752	689.572	689.614	0.042
G01	95	486805.1	6746760	678.704	678.746	0.042
G01	140	486041.6	6746869	693.362	693.404	0.042
G01	148	486724.1	6746752	681.225	681.267	0.042
G01	163	486420.9	6746757	690.699	690.741	0.042
G01	179	486649.7	6746746	683.554	683.596	0.042
G01	181	486671.1	6746748	682.853	682.895	0.042
G01	183	486680.8	6746748	682.545	682.587	0.042
G01	205	486968.5	6746777	674.192	674.234	0.042
G01	286	487578.5	6746847	670.21	670.252	0.042
G01	318	487581.6	6746847	670.211	670.253	0.042
G01	368	487366.7	6746821	670.798	670.84	0.042
G01	391	487380.6	6746823	670.749	670.791	0.042
G01	392	487585.4	6746847	670.185	670.227	0.042
G01	22	486096.6	6746850	693.402	693.444	0.042

G01	41	486313.5	6746785	693.075	693.117	0.042
G01	195	486855.4	6746765	677.128	677.17	0.042
G01	252	487071.5	6746788	672.94	672.982	0.042
G01	395	487413.5	6746826	670.676	670.718	0.042
G01	37	486234.2	6746806	693.467	693.508	0.041
G01	108	486458.2	6746751	689.463	689.504	0.041
G01	166	486427.4	6746756	690.505	690.546	0.041
G01	273	487385.8	6746823	670.741	670.782	0.041
G01	349	487744.6	6746867	669.769	669.81	0.041
G01	388	487623.4	6746852	670.082	670.123	0.041
G01	69	486515	6746745	687.691	687.732	0.041
G01	77	486389.5	6746764	691.59	691.631	0.041
G01	111	486416.6	6746758	690.825	690.866	0.041
G01	185	486701	6746750	681.916	681.957	0.041
G01	201	486939.1	6746774	674.753	674.794	0.041
G01	253	487078.9	6746789	672.831	672.872	0.041
G01	288	487600.6	6746849	670.143	670.184	0.041
G01	295	487786.6	6746873	669.647	669.688	0.041
G01	359	487559.4	6746844	670.278	670.319	0.041
G01	418	487188	6746801	671.647	671.688	0.041
G01	435	487229.4	6746805	671.301	671.342	0.041
G01	20	486075.1	6746858	693.387	693.427	0.04
G01	21	486082.4	6746855	693.385	693.425	0.04
G01	42	486304.3	6746787	693.165	693.205	0.04
G01	56	486809.3	6746760	678.582	678.622	0.04
G01	162	486417.7	6746758	690.799	690.839	0.04
G01	236	487032.2	6746784	673.353	673.393	0.04
G01	309	487069.3	6746788	672.972	673.012	0.04
G01	321	487555.8	6746844	670.286	670.326	0.04
G01	336	487382.2	6746823	670.747	670.787	0.04
G01	378	487816.6	6746876	669.56	669.6	0.04
G01	40	486319.7	6746783	692.984	693.024	0.04
G01	70	486498.1	6746746	688.25	688.29	0.04
G01	161	486417.2	6746758	690.803	690.843	0.04
G01	172	486492.3	6746747	688.446	688.486	0.04
G01	192	486779.8	6746758	679.471	679.511	0.04
G01	203	486947.4	6746775	674.572	674.612	0.04
G01	238	487018.4	6746782	673.532	673.572	0.04
G01	239	487009.9	6746781	673.63	673.67	0.04
G01	258	487160.8	6746798	671.928	671.968	0.04
G01	261	487176.6	6746800	671.767	671.807	0.04
G01	348	487750.6	6746868	669.743	669.783	0.04
G01	381	487741.7	6746867	669.777	669.817	0.04

G01	399	487539.9	6746842	670.335	670.375	0.04
G01	13	486292.3	6746790	693.305	693.344	0.039
G01	315	487599.6	6746849	670.151	670.19	0.039
G01	342	487901.2	6746887	669.329	669.368	0.039
G01	6	486079.4	6746856	693.389	693.428	0.039
G01	79	486387.8	6746765	691.64	691.679	0.039
G01	137	486145.3	6746834	693.397	693.436	0.039
G01	164	486421.2	6746757	690.691	690.73	0.039
G01	170	486468.4	6746750	689.143	689.182	0.039
G01	248	487057	6746787	673.166	673.205	0.039
G01	289	487658.3	6746856	670.03	670.069	0.039
G01	305	487034.8	6746784	673.331	673.37	0.039
G01	420	487150.2	6746797	672.058	672.097	0.039
G01	421	487146	6746796	672.091	672.13	0.039
G01	429	487084.9	6746790	672.763	672.802	0.039
G01	463	487841	6746879	669.503	669.542	0.039
G01	57	486815.4	6746761	678.398	678.436	0.038
G01	90	486191.2	6746819	693.429	693.467	0.038
G01	91	486168.6	6746827	693.448	693.486	0.038
G01	109	486448.3	6746753	689.792	689.83	0.038
G01	127	486204.4	6746815	693.429	693.467	0.038
G01	128	486194.1	6746819	693.433	693.471	0.038
G01	141	486036.4	6746870	693.344	693.382	0.038
G01	196	486902.9	6746770	675.604	675.642	0.038
G01	274	487386.4	6746823	670.737	670.775	0.038
G01	296	487783.9	6746872	669.673	669.711	0.038
G01	354	487648.2	6746855	670.051	670.089	0.038
G01	402	487461.7	6746832	670.558	670.596	0.038
G01	415	487238.7	6746806	671.253	671.291	0.038
G01	430	487084	6746789	672.775	672.813	0.038
G01	433	487201.6	6746802	671.494	671.532	0.038
G01	469	487938.6	6746891	669.219	669.257	0.038
G01	527	488258.5	6746931	668.359	668.397	0.038
G01	16	486370	6746769	692.063	692.1	0.037
G01	80	486293.2	6746790	693.299	693.336	0.037
G01	168	486434.5	6746755	690.264	690.301	0.037
G01	184	486692.5	6746749	682.194	682.231	0.037
G01	210	486834.9	6746763	677.755	677.792	0.037
G01	222	487028.5	6746783	673.395	673.432	0.037
G01	234	487047.5	6746786	673.26	673.297	0.037
G01	304	487033.8	6746784	673.345	673.382	0.037
G01	331	487387.1	6746823	670.735	670.772	0.037
G01	334	487383.2	6746823	670.749	670.786	0.037

G01	343	487853.9	6746881	669.471	669.508	0.037
G01	387	487627.7	6746853	670.078	670.115	0.037
G01	423	487141	6746796	672.149	672.186	0.037
G01	440	487303.7	6746813	671.028	671.065	0.037
G01	510	488370.6	6746944	668.079	668.116	0.037
G01	600	488619	6746958	665.773	665.81	0.037
G01	103	486608	6746742	684.868	684.905	0.037
G01	89	486195.2	6746818	693.419	693.455	0.036
G01	123	486274.1	6746795	693.434	693.47	0.036
G01	159	486463	6746751	689.305	689.341	0.036
G01	263	487202.9	6746802	671.492	671.528	0.036
G01	398	487433.7	6746829	670.625	670.661	0.036
G01	408	487342.3	6746818	670.889	670.925	0.036
G01	441	487350.1	6746819	670.853	670.889	0.036
G01	456	487681.1	6746859	669.943	669.979	0.036
G01	533	488372.5	6746944	668.078	668.114	0.036
G01	106	486507	6746745	687.974	688.01	0.036
G01	110	486432	6746755	690.35	690.386	0.036
G01	114	486397.4	6746763	691.378	691.414	0.036
G01	115	486395.3	6746763	691.436	691.472	0.036
G01	339	487987.1	6746897	669.085	669.121	0.036
G01	426	487109.5	6746792	672.494	672.53	0.036
G01	99	486644	6746745	683.746	683.781	0.035
G01	215	486928.5	6746773	674.987	675.022	0.035
G01	291	487688	6746860	669.901	669.936	0.035
G01	382	487737.9	6746866	669.789	669.824	0.035
G01	448	487922.8	6746890	669.256	669.291	0.035
G01	603	488628.2	6746958	665.665	665.7	0.035
G01	55	486403.5	6746761	691.197	691.232	0.035
G01	82	486270	6746796	693.436	693.471	0.035
G01	94	486848.3	6746764	677.346	677.381	0.035
G01	98	486696.8	6746750	682.072	682.107	0.035
G01	125	486254.7	6746801	693.469	693.504	0.035
G01	237	487021.5	6746783	673.517	673.552	0.035
G01	329	487347.1	6746819	670.875	670.91	0.035
G01	632	488037.5	6746904	668.955	668.99	0.035
G01	656	488705.3	6746957	664.764	664.799	0.035
G01	149	486722.1	6746752	681.281	681.315	0.034
G01	85	486238.7	6746805	693.467	693.501	0.034
G01	118	486360.4	6746772	692.255	692.289	0.034
G01	133	486030.3	6746872	693.341	693.375	0.034
G01	169	486436.6	6746755	690.196	690.23	0.034
G01	176	486554.7	6746742	686.486	686.52	0.034

G01	229	487107.3	6746792	672.528	672.562	0.034
G01	230	487106.1	6746792	672.544	672.578	0.034
G01	246	487025	6746783	673.467	673.501	0.034
G01	254	487122.4	6746794	672.344	672.378	0.034
G01	276	487420.2	6746827	670.662	670.696	0.034
G01	283	487526.5	6746840	670.364	670.398	0.034
G01	320	487560.4	6746844	670.272	670.306	0.034
G01	389	487611.3	6746851	670.13	670.164	0.034
G01	452	487823.9	6746877	669.556	669.59	0.034
G01	608	488887.8	6746936	663.442	663.476	0.034
G01	10	486248.8	6746802	693.473	693.506	0.033
G01	44	486468.4	6746750	689.151	689.184	0.033
G01	78	486388.3	6746765	691.624	691.657	0.033
G01	84	486256.3	6746800	693.467	693.5	0.033
G01	112	486404.2	6746761	691.193	691.226	0.033
G01	117	486364.1	6746771	692.189	692.222	0.033
G01	138	486108.2	6746847	693.39	693.423	0.033
G01	173	486504.7	6746746	688.046	688.079	0.033
G01	262	487187.3	6746801	671.659	671.692	0.033
G01	271	487355.6	6746820	670.838	670.871	0.033
G01	303	487023.9	6746783	673.479	673.512	0.033
G01	308	487060	6746787	673.116	673.149	0.033
G01	312	487620.8	6746852	670.096	670.129	0.033
G01	341	487920.8	6746889	669.268	669.301	0.033
G01	422	487144	6746796	672.131	672.164	0.033
G01	18	486012.5	6746878	693.353	693.385	0.032
G01	27	486166.7	6746827	693.452	693.484	0.032
G01	207	486999.7	6746780	673.77	673.802	0.032
G01	223	487032	6746784	673.355	673.387	0.032
G01	245	487021.7	6746783	673.509	673.541	0.032
G01	75	486410.1	6746760	691.017	691.049	0.032
G01	346	487757.9	6746869	669.714	669.746	0.032
G01	1	486034.4	6746871	693.346	693.377	0.031
G01	64	486629.6	6746744	684.199	684.23	0.031
G01	124	486265.6	6746798	693.452	693.483	0.031
G01	175	486549.8	6746742	686.644	686.675	0.031
G01	224	487036.8	6746784	673.323	673.354	0.031
G01	227	487154.8	6746797	672.026	672.057	0.031
G01	268	487267.6	6746809	671.132	671.163	0.031
G01	462	487823.5	6746877	669.554	669.585	0.031
G01	576	488217.3	6746926	668.454	668.485	0.031
G01	4	486060.3	6746862	693.408	693.439	0.031
G01	150	486695	6746750	682.118	682.149	0.031

G01	152	486660.4	6746747	683.224	683.255	0.031
G01	220	487001.7	6746781	673.744	673.775	0.031
G01	280	487482	6746835	670.493	670.524	0.031
G01	319	487168.8	6746799	671.844	671.875	0.031
G01	444	487953	6746893	669.181	669.212	0.031
G01	459	487778.2	6746871	669.682	669.713	0.031
G01	116	486394.5	6746763	691.472	691.502	0.03
G01	272	487383	6746823	670.751	670.781	0.03
G01	485	488343.6	6746941	668.15	668.18	0.03
G01	28	486184.1	6746822	693.445	693.475	0.03
G01	105	486515.5	6746745	687.687	687.717	0.03
G01	211	486840.9	6746764	677.577	677.607	0.03
G01	265	487213.6	6746804	671.404	671.434	0.03
G01	322	487550.7	6746843	670.313	670.343	0.03
G01	464	487852.9	6746881	669.481	669.511	0.03
G01	560	488763.3	6746955	664.162	664.192	0.03
G01	636	488170.2	6746920	668.576	668.606	0.03
G01	447	487934.5	6746891	669.233	669.262	0.029
G01	550	488641.8	6746958	665.483	665.512	0.029
G01	3	486051.7	6746865	693.402	693.431	0.029
G01	46	486499.1	6746746	688.23	688.259	0.029
G01	154	486583.9	6746742	685.557	685.586	0.029
G01	157	486496.1	6746746	688.33	688.359	0.029
G01	180	486657.6	6746747	683.304	683.333	0.029
G01	226	487065.5	6746787	673.038	673.067	0.029
G01	249	487059.8	6746787	673.12	673.149	0.029
G01	302	487008.5	6746781	673.654	673.683	0.029
G01	374	487902.5	6746887	669.337	669.366	0.029
G01	474	488109.9	6746913	668.745	668.774	0.029
G01	507	488011.9	6746901	669.034	669.063	0.029
G01	512	488405	6746948	667.995	668.024	0.029
G01	532	488368.4	6746944	668.099	668.128	0.029
G01	625	488173.7	6746921	668.58	668.609	0.029
G01	107	486473.9	6746749	688.995	689.023	0.028
G01	119	486353	6746774	692.427	692.455	0.028
G01	134	486019.7	6746876	693.343	693.371	0.028
G01	202	486941.9	6746774	674.691	674.719	0.028
G01	212	486875.8	6746767	676.487	676.515	0.028
G01	240	487158.2	6746798	671.974	672.002	0.028
G01	269	487303.2	6746813	671.038	671.066	0.028
G01	353	487653.6	6746856	670.021	670.049	0.028
G01	385	487637.8	6746854	670.077	670.105	0.028
G01	465	487884.6	6746885	669.379	669.407	0.028

G01	470	487955.8	6746894	669.167	669.195	0.028
G01	482	488271.2	6746933	668.338	668.366	0.028
G01	499	488151.7	6746918	668.593	668.621	0.028
G01	547	488625.6	6746958	665.693	665.721	0.028
G01	577	488221.9	6746927	668.42	668.448	0.028
G01	165	486423.1	6746757	690.641	690.668	0.027
G01	292	487700.8	6746862	669.853	669.88	0.027
G01	372	487917.2	6746889	669.278	669.305	0.027
G01	461	487809	6746875	669.596	669.623	0.027
G01	519	488392.8	6746947	668.04	668.067	0.027
G01	578	488260.2	6746931	668.357	668.384	0.027
G01	630	488032.5	6746903	668.954	668.981	0.027
G01	634	488154.3	6746918	668.603	668.63	0.027
G01	50	486506.2	6746745	687.994	688.021	0.027
G01	58	486732.4	6746753	681.003	681.03	0.027
G01	300	487684	6746860	669.921	669.948	0.027
G01	371	487939	6746892	669.219	669.246	0.027
G01	11	486275.4	6746795	693.43	693.456	0.026
G01	66	486931.7	6746773	674.923	674.949	0.026
G01	193	486781.2	6746758	679.435	679.461	0.026
G01	277	487441.7	6746830	670.621	670.647	0.026
G01	455	487803.2	6746875	669.621	669.647	0.026
G01	2	486050.3	6746866	693.392	693.418	0.026
G01	74	486440.8	6746754	690.062	690.088	0.026
G01	256	487142.2	6746796	672.139	672.165	0.026
G01	377	487826.3	6746878	669.538	669.564	0.026
G01	425	487116.5	6746793	672.408	672.434	0.026
G01	468	487931.1	6746891	669.248	669.274	0.026
G01	586	488396.9	6746947	668.014	668.04	0.026
G01	54	486440.7	6746754	690.064	690.089	0.025
G01	231	487065.6	6746787	673.036	673.061	0.025
G01	251	487070.2	6746788	672.958	672.983	0.025
G01	599	488610	6746958	665.882	665.907	0.025
G01	206	486985.1	6746779	673.975	674	0.025
G01	333	487384.3	6746823	670.755	670.78	0.025
G01	451	487843.6	6746880	669.499	669.524	0.025
G01	458	487723.6	6746865	669.846	669.871	0.025
G01	497	488207	6746925	668.515	668.54	0.025
G01	526	488257	6746931	668.371	668.396	0.025
G01	582	488354.6	6746942	668.115	668.14	0.025
G01	47	486505.8	6746746	688.012	688.036	0.024
G01	63	486635.5	6746745	684.007	684.031	0.024
G01	454	487806.9	6746875	669.608	669.632	0.024

G01	31	486368.1	6746770	692.119	692.143	0.024
G01	96	486753.7	6746755	680.326	680.35	0.024
G01	122	486293.6	6746790	693.299	693.323	0.024
G01	129	486172.7	6746825	693.462	693.486	0.024
G01	219	486985.2	6746779	673.977	674.001	0.024
G01	260	487174.8	6746799	671.795	671.819	0.024
G01	290	487662.1	6746857	670.016	670.04	0.024
G01	307	487654.5	6746856	670.037	670.061	0.024
G01	316	487596.3	6746849	670.167	670.191	0.024
G01	326	487321.9	6746816	670.942	670.966	0.024
G01	340	487934.1	6746891	669.235	669.259	0.024
G01	370	487949.7	6746893	669.181	669.205	0.024
G01	445	487938.9	6746892	669.223	669.247	0.024
G01	494	488240.2	6746929	668.423	668.447	0.024
G01	503	488095.1	6746911	668.777	668.801	0.024
G01	581	488331.5	6746940	668.188	668.212	0.024
G01	86	486230.3	6746807	693.466	693.489	0.023
G01	101	486616	6746743	684.631	684.654	0.023
G01	121	486300.6	6746788	693.213	693.236	0.023
G01	160	486415.2	6746759	690.867	690.89	0.023
G01	225	487042.1	6746785	673.321	673.344	0.023
G01	228	487127.8	6746794	672.283	672.306	0.023
G01	232	487055.4	6746786	673.176	673.199	0.023
G01	243	487017.1	6746782	673.554	673.577	0.023
G01	297	487777.8	6746871	669.692	669.715	0.023
G01	369	487989.4	6746898	669.097	669.12	0.023
G01	383	487724.5	6746865	669.84	669.863	0.023
G01	403	487511.7	6746838	670.432	670.455	0.023
G01	443	487995.2	6746898	669.073	669.096	0.023
G01	446	487935.8	6746891	669.235	669.258	0.023
G01	476	488219.7	6746926	668.434	668.457	0.023
G01	505	488054.5	6746906	668.907	668.93	0.023
G01	556	488741	6746956	664.403	664.426	0.023
G01	557	488745.1	6746956	664.361	664.384	0.023
G01	559	488755.5	6746956	664.246	664.269	0.023
G01	616	488703.5	6746957	664.792	664.815	0.023
G01	626	488188.4	6746922	668.569	668.592	0.023
G01	638	488198.3	6746924	668.563	668.586	0.023
G01	33	486220.3	6746810	693.468	693.49	0.022
G01	97	486738.5	6746754	680.809	680.831	0.022
G01	279	487474.7	6746834	670.514	670.536	0.022
G01	311	487095.4	6746791	672.659	672.681	0.022
G01	347	487754.2	6746868	669.737	669.759	0.022

G01	525	488247.5	6746930	668.411	668.433	0.022
G01	548	488633	6746958	665.605	665.627	0.022
G01	609	488860.2	6746942	663.459	663.481	0.022
G01	621	488023.2	6746902	669.016	669.038	0.022
G01	450	487873.1	6746883	669.426	669.448	0.022
G01	477	488229.6	6746927	668.416	668.438	0.022
G01	516	488431.1	6746951	667.83	667.852	0.022
G01	83	486259.4	6746799	693.477	693.498	0.021
G01	87	486216.8	6746811	693.476	693.497	0.021
G01	491	488270.7	6746933	668.348	668.369	0.021
G01	574	488945.6	6746919	663.458	663.479	0.021
G01	61	486657.5	6746747	683.316	683.337	0.021
G01	67	486933	6746773	674.897	674.918	0.021
G01	144	486013.3	6746878	693.359	693.38	0.021
G01	496	488224.1	6746927	668.432	668.453	0.021
G01	531	488359	6746943	668.113	668.134	0.021
G01	585	488383.2	6746946	668.062	668.083	0.021
G01	629	488031.1	6746903	668.98	669.001	0.021
G01	126	486205.9	6746815	693.444	693.464	0.02
G01	473	488092.1	6746910	668.785	668.805	0.02
G01	49	486510.9	6746745	687.845	687.865	0.02
G01	352	487684.2	6746860	669.921	669.941	0.02
G01	528	488278.6	6746934	668.322	668.342	0.02
G01	529	488290.5	6746935	668.288	668.308	0.02
G01	539	488471.5	6746954	667.541	667.561	0.02
G01	552	488685.7	6746957	664.971	664.991	0.02
G01	612	488686.9	6746957	664.955	664.975	0.02
G01	618	488042.4	6746904	668.941	668.961	0.02
G01	12	486277.8	6746794	693.422	693.441	0.019
G01	375	487900.9	6746887	669.341	669.36	0.019
G01	431	487130.8	6746795	672.255	672.274	0.019
G01	471	487989.9	6746898	669.085	669.104	0.019
G01	488	488316.2	6746938	668.225	668.244	0.019
G01	500	488141.5	6746917	668.645	668.664	0.019
G01	549	488635.4	6746958	665.575	665.594	0.019
G01	584	488368.2	6746944	668.103	668.122	0.019
G01	623	488143.2	6746917	668.627	668.646	0.019
G01	637	488181.6	6746922	668.59	668.609	0.019
G01	661	488645.8	6746958	665.442	665.461	0.019
G01	380	487778	6746871	669.688	669.706	0.018
G01	467	487925.1	6746890	669.262	669.28	0.018
G01	555	488733.6	6746957	664.497	664.515	0.018
G01	566	488859.6	6746942	663.465	663.483	0.018

G01	604	488929.3	6746924	663.494	663.512	0.018
G01	615	488761.2	6746955	664.18	664.198	0.018
G01	680	488828.1	6746948	663.582	663.6	0.018
G01	588	488477.6	6746955	667.469	667.487	0.018
G01	306	487657.6	6746856	670.038	670.055	0.017
G01	480	488242.1	6746929	668.429	668.446	0.017
G01	506	488015.1	6746901	669.044	669.061	0.017
G01	511	488373.5	6746945	668.092	668.109	0.017
G01	563	488825.6	6746949	663.588	663.605	0.017
G01	635	488164.9	6746919	668.596	668.613	0.017
G01	679	488827.7	6746948	663.578	663.595	0.017
G01	518	488415.5	6746949	667.955	667.972	0.017
G01	376	487844.1	6746880	669.497	669.513	0.016
G01	449	487888.9	6746885	669.377	669.393	0.016
G01	515	488433.6	6746951	667.818	667.834	0.016
G01	332	487384.7	6746823	670.755	670.771	0.016
G01	475	488136	6746916	668.667	668.683	0.016
G01	481	488248.6	6746930	668.403	668.419	0.016
G01	490	488271.3	6746933	668.346	668.362	0.016
G01	535	488427.5	6746951	667.864	667.88	0.016
G01	573	488923.1	6746926	663.479	663.495	0.016
G01	607	488905	6746931	663.469	663.485	0.016
G01	614	488693.8	6746957	664.883	664.899	0.016
G01	508	488002.1	6746899	669.069	669.084	0.015
G01	633	488075.7	6746908	668.824	668.839	0.015
G01	92	486950.5	6746775	674.506	674.521	0.015
G01	294	487740.8	6746867	669.783	669.798	0.015
G01	453	487817.6	6746876	669.576	669.591	0.015
G01	483	488294.3	6746935	668.289	668.304	0.015
G01	517	488415.7	6746949	667.947	667.962	0.015
G01	591	488502.7	6746956	667.178	667.193	0.015
G01	620	488124.8	6746915	668.712	668.727	0.015
G01	640	488978.3	6746905	663.447	663.462	0.015
G01	641	488984.5	6746902	663.453	663.468	0.015
G01	669	488757.1	6746956	664.238	664.253	0.015
G01	314	487133.8	6746795	672.225	672.239	0.014
G01	534	488394.9	6746947	668.044	668.058	0.014
G01	537	488452.5	6746953	667.703	667.717	0.014
G01	553	488695.4	6746957	664.873	664.887	0.014
G01	594	488539.5	6746957	666.748	666.762	0.014
G01	595	488551.6	6746957	666.592	666.606	0.014
G01	646	488860.8	6746942	663.467	663.481	0.014
G01	666	488709.6	6746957	664.742	664.756	0.014

G01	39	486251.2	6746802	693.489	693.502	0.013
G01	60	486664.8	6746747	683.076	683.089	0.013
G01	498	488179.5	6746921	668.588	668.601	0.013
G01	522	488364.8	6746944	668.111	668.124	0.013
G01	536	488451	6746953	667.722	667.735	0.013
G01	575	488981.2	6746904	663.435	663.448	0.013
G01	601	488947.1	6746918	663.468	663.481	0.013
G01	624	488164.6	6746919	668.596	668.609	0.013
G01	678	488854.1	6746943	663.471	663.484	0.013
G01	681	488828.6	6746948	663.576	663.589	0.013
G01	605	488917.1	6746928	663.479	663.492	0.013
G01	338	487997.4	6746899	669.077	669.089	0.012
G01	484	488317.1	6746938	668.227	668.239	0.012
G01	622	488019.7	6746902	669.03	669.042	0.012
G01	650	488795	6746953	663.837	663.849	0.012
G01	652	488758.3	6746956	664.228	664.24	0.012
G01	298	487732.8	6746866	669.821	669.833	0.012
G01	479	488233.2	6746928	668.426	668.438	0.012
G01	645	488862.9	6746941	663.475	663.487	0.012
G01	651	488767.4	6746955	664.118	664.13	0.012
G01	662	488635.8	6746958	665.581	665.593	0.012
G01	524	488237.3	6746928	668.43	668.441	0.011
G01	596	488565.4	6746958	666.435	666.446	0.011
G01	663	488616	6746958	665.819	665.83	0.011
G01	489	488308.9	6746937	668.259	668.27	0.011
G01	504	488070.8	6746908	668.856	668.867	0.011
G01	538	488455.7	6746954	667.687	667.698	0.011
G01	541	488508.2	6746956	667.113	667.124	0.011
G01	593	488537.5	6746957	666.76	666.771	0.011
G01	627	488195.6	6746923	668.571	668.582	0.011
G01	457	487719.7	6746864	669.848	669.858	0.01
G01	673	488788.1	6746954	663.901	663.911	0.01
G01	379	487810.6	6746876	669.594	669.604	0.01
G01	472	488074.9	6746908	668.826	668.836	0.01
G01	602	488932.7	6746923	663.508	663.518	0.01
G01	606	488913.6	6746929	663.475	663.485	0.01
G01	639	488978.7	6746905	663.451	663.461	0.01
G01	655	488717.1	6746957	664.66	664.67	0.01
G01	460	487783.3	6746872	669.691	669.7	0.009
G01	546	488603.4	6746958	665.958	665.967	0.009
G01	551	488683.9	6746957	664.987	664.996	0.009
G01	558	488751.3	6746956	664.295	664.304	0.009
G01	628	488198.1	6746924	668.561	668.57	0.009

G01	670	488766.5	6746955	664.132	664.141	0.009
G01	572	488905.8	6746931	663.485	663.493	0.008
G01	579	488291.2	6746935	668.297	668.305	0.008
G01	644	488920	6746927	663.481	663.489	0.008
G01	653	488750.5	6746956	664.313	664.321	0.008
G01	665	488688.9	6746957	664.941	664.949	0.008
G01	667	488940.8	6746921	663.496	663.504	0.008
G01	487	488323.4	6746939	668.202	668.209	0.007
G01	580	488330.5	6746940	668.192	668.199	0.007
G01	589	488491.8	6746955	667.308	667.315	0.007
G01	619	488118.9	6746914	668.726	668.733	0.007
G01	642	488967	6746909	663.457	663.464	0.007
G01	542	488545.7	6746957	666.68	666.686	0.006
G01	592	488525.9	6746956	666.911	666.917	0.006
G01	613	488771.1	6746955	664.068	664.074	0.006
G01	654	488742.2	6746956	664.409	664.415	0.006
G01	493	488248.9	6746930	668.407	668.412	0.005
G01	567	488865.6	6746941	663.469	663.474	0.005
G01	590	488496.3	6746955	667.26	667.265	0.005
G01	611	488784.3	6746954	663.939	663.944	0.005
G01	658	488683.5	6746957	664.999	665.004	0.005
G01	675	488792.3	6746953	663.863	663.868	0.005
G01	113	486399.5	6746762	691.336	691.34	0.004
G01	373	487907.9	6746888	669.333	669.337	0.004
G01	520	488377.2	6746945	668.086	668.09	0.004
G01	545	488591.1	6746958	666.098	666.102	0.004
G01	597	488588.4	6746958	666.14	666.144	0.004
G01	657	488691.5	6746957	664.915	664.919	0.004
G01	668	488756.3	6746956	664.25	664.254	0.004
G01	671	488908	6746930	663.467	663.471	0.004
G01	677	488860.9	6746942	663.471	663.475	0.004
G01	502	488120.4	6746914	668.73	668.733	0.003
G01	514	488413.9	6746949	667.967	667.97	0.003
G01	544	488559.7	6746958	666.496	666.499	0.003
G01	617	488050.5	6746905	668.937	668.94	0.003
G01	631	488035.6	6746903	668.971	668.974	0.003
G01	674	488891.1	6746935	663.47	663.473	0.003
G01	495	488235.4	6746928	668.43	668.432	0.002
G01	565	488850.4	6746944	663.481	663.483	0.002
G01	648	488809.9	6746951	663.708	663.71	0.002
G01	492	488254.8	6746931	668.393	668.395	0.002
G01	664	488620.6	6746958	665.763	665.765	0.002
G01	501	488130.1	6746915	668.698	668.699	0.001

G01	569	488876.5	6746939	663.478	663.479	0.001
G01	649	488804.1	6746952	663.761	663.762	0.001
G01	466	487902.9	6746887	669.355	669.356	0.001
G01	554	488699.7	6746957	664.83	664.831	0.001
G01	587	488434.3	6746951	667.822	667.823	0.001
G01	36	486230.5	6746807	693.484	693.483	-0.001
G01	523	488227	6746927	668.436	668.435	-0.001
G01	543	488550.6	6746957	666.608	666.607	-0.001
G01	643	488962.1	6746912	663.459	663.458	-0.001
G01	598	488989.9	6746900	663.45	663.448	-0.002
G01	610	488784.7	6746954	663.931	663.929	-0.002
G01	659	488676.2	6746957	665.075	665.073	-0.002
G01	486	488340.3	6746941	668.18	668.177	-0.003
G01	540	488479.7	6746955	667.458	667.455	-0.003
G01	561	488810.1	6746951	663.714	663.711	-0.003
G01	521	488374.6	6746945	668.098	668.094	-0.004
G01	562	488819.1	6746950	663.632	663.628	-0.004
G01	583	488361.1	6746943	668.127	668.122	-0.005
G01	530	488314.9	6746938	668.255	668.249	-0.006
G01	672	488780.5	6746954	663.995	663.989	-0.006
G01	564	488840	6746946	663.529	663.522	-0.007
G01	682	488844.5	6746945	663.505	663.498	-0.007
G01	478	488231.5	6746928	668.436	668.429	-0.007
G01	660	488661.2	6746958	665.264	665.256	-0.008
G01	509	488361.5	6746943	668.111	668.102	-0.009
G01	647	488838.7	6746946	663.533	663.523	-0.01
G02	928	490701.3	6740057	701.463	701.528	0.065
G02	1098	490641.6	6740146	701.592	701.657	0.065
G02	1078	490476.7	6740388	698.398	698.457	0.059
G02	1142	490609.2	6740194	701.072	701.131	0.059
G02	804	489599.6	6741391	685.901	685.959	0.058
G02	1096	490637.7	6740152	701.56	701.618	0.058
G02	1138	490585.6	6740228	700.455	700.511	0.056
G02	1081	490520.4	6740325	699.158	699.212	0.054
G02	1103	490698.5	6740062	701.527	701.58	0.053
G02	1080	490485.3	6740375	698.566	698.618	0.052
G02	1137	490577.2	6740240	700.229	700.28	0.051
G02	1131	490535.7	6740302	699.417	699.467	0.05
G02	931	490645.4	6740141	701.66	701.709	0.049
G02	1101	490684.4	6740083	701.655	701.704	0.049
G02	1125	490447.9	6740430	697.861	697.91	0.049
G02	1140	490604.9	6740200	700.97	701.019	0.049
G02	1143	490611.2	6740191	701.11	701.159	0.049

G02	1152	490727.8	6740012	700.71	700.759	0.049
G02	949	490664.3	6740113	701.745	701.793	0.048
G02	1084	490541.4	6740294	699.527	699.575	0.048
G02	1144	490656.1	6740125	701.729	701.777	0.048
G02	755	489920.3	6741169	686.121	686.168	0.047
G02	976	490284	6740671	690.721	690.768	0.047
G02	1108	490733.4	6740003	700.516	700.563	0.047
G02	1082	490524.5	6740319	699.242	699.288	0.046
G02	1145	490663.7	6740114	701.749	701.795	0.046
G02	1008	490080.2	6740969	686.058	686.103	0.045
G02	955	490557.5	6740270	699.841	699.886	0.045
G02	1105	490721	6740024	700.932	700.977	0.045
G02	1107	490732.1	6740005	700.574	700.618	0.044
G02	933	490607.1	6740197	701.022	701.066	0.044
G02	1092	490606.5	6740198	701.01	701.054	0.044
G02	953	490560.1	6740266	699.889	699.932	0.043
G02	1093	490608.2	6740195	701.044	701.087	0.043
G02	1079	490481.7	6740381	698.494	698.536	0.042
G02	1097	490639.8	6740149	701.576	701.618	0.042
G02	1083	490526.3	6740316	699.28	699.321	0.041
G02	948	490688.6	6740077	701.643	701.684	0.041
G02	1047	490165.9	6740844	685.945	685.986	0.041
G02	1074	490444.8	6740435	697.809	697.849	0.04
G02	1132	490536.7	6740301	699.449	699.489	0.04
G02	1046	490161.5	6740850	685.969	686.009	0.04
G02	1124	490443.2	6740438	697.777	697.817	0.04
G02	1139	490599.9	6740207	700.854	700.894	0.04
G02	936	490578.2	6740239	700.265	700.304	0.039
G02	959	490461.2	6740411	698.105	698.144	0.039
G02	1147	490691.9	6740072	701.619	701.658	0.039
G02	1150	490707	6740047	701.317	701.356	0.039
G02	1059	490258.4	6740709	689.284	689.322	0.038
G02	1094	490615.4	6740185	701.206	701.244	0.038
G02	1066	490317.1	6740622	692.605	692.642	0.037
G02	1114	490382.3	6740527	696.042	696.079	0.037
G02	1141	490607.6	6740196	701.04	701.077	0.037
G02	945	490730.9	6740007	700.612	700.648	0.036
G02	934	490594.5	6740215	700.701	700.737	0.036
G02	940	490471.8	6740395	698.301	698.337	0.036
G02	1123	490442.7	6740438	697.773	697.809	0.036
G02	964	490430.3	6740457	697.559	697.594	0.035
G02	1018	490167.4	6740842	685.977	686.012	0.035
G02	1043	490136.2	6740887	685.935	685.97	0.035

G02	1148	490701.8	6740056	701.463	701.498	0.035
G02	683	489008	6741685	683.937	683.972	0.035
G02	1102	490696.6	6740065	701.557	701.592	0.035
G02	1011	490101.1	6740939	685.978	686.012	0.034
G02	1113	490380.6	6740530	695.968	696.002	0.034
G02	935	490584.2	6740230	700.433	700.467	0.034
G02	1001	490151.6	6740865	685.951	685.985	0.034
G02	1049	490180.4	6740823	686.131	686.165	0.034
G02	932	490639	6740150	701.58	701.613	0.033
G02	984	490351.6	6740571	694.534	694.567	0.033
G02	989	490307	6740637	692.025	692.058	0.033
G02	1010	490093.3	6740950	685.996	686.029	0.033
G02	1048	490175.1	6740831	686.051	686.084	0.033
G02	1135	490561.1	6740264	699.901	699.934	0.033
G02	929	490675.8	6740096	701.731	701.763	0.032
G02	930	490674.5	6740098	701.745	701.777	0.032
G02	1004	490117.7	6740914	685.982	686.014	0.032
G02	1019	490168.6	6740840	685.975	686.007	0.032
G02	1033	490258.6	6740708	689.292	689.324	0.032
G02	1034	490262.3	6740703	689.506	689.538	0.032
G02	1052	490212.6	6740775	686.986	687.018	0.032
G02	1073	490441.6	6740440	697.757	697.789	0.032
G02	1089	490579.1	6740238	700.285	700.317	0.032
G02	1136	490576.1	6740242	700.211	700.243	0.032
G02	958	490464.4	6740406	698.169	698.2	0.031
G02	974	490316	6740624	692.559	692.59	0.031
G02	1020	490184.7	6740817	686.173	686.204	0.031
G02	1035	490285.7	6740668	690.813	690.844	0.031
G02	1086	490561.4	6740264	699.905	699.936	0.031
G02	1127	490470.2	6740398	698.271	698.302	0.031
G02	1151	490725.9	6740015	700.79	700.821	0.031
G02	991	490297.3	6740652	691.489	691.52	0.031
G02	999	490115.1	6740918	685.994	686.025	0.031
G02	1085	490546.6	6740286	699.629	699.66	0.031
G02	1099	490647	6740138	701.682	701.713	0.031
G02	1121	490421.4	6740470	697.379	697.41	0.031
G02	1133	490538.5	6740298	699.489	699.52	0.031
G02	963	490436.7	6740447	697.655	697.685	0.03
G02	1015	490145.1	6740874	685.939	685.969	0.03
G02	1022	490193.8	6740803	686.299	686.329	0.03
G02	1072	490434.3	6740451	697.621	697.651	0.03
G02	1090	490580.6	6740235	700.329	700.359	0.03
G02	952	490566.8	6740256	700.023	700.053	0.03

G02	1007	490069.2	6740986	686.12	686.15	0.03
G02	1129	490481.2	6740381	698.504	698.534	0.03
G02	1026	490219.1	6740766	687.25	687.279	0.029
G02	1070	490428.2	6740460	697.509	697.538	0.029
G02	1091	490586.2	6740227	700.481	700.51	0.029
G02	1111	490367.6	6740548	695.386	695.415	0.029
G02	927	490701.7	6740056	701.467	701.495	0.028
G02	944	490370.4	6740544	695.54	695.568	0.028
G02	993	490275.4	6740683	690.273	690.301	0.028
G02	1149	490705.1	6740050	701.387	701.415	0.028
G02	1171	490013.6	6741064	686.149	686.177	0.028
G02	1051	490191.4	6740807	686.241	686.268	0.027
G02	1069	490392.6	6740512	696.476	696.503	0.027
G02	1095	490630.1	6740163	701.528	701.555	0.027
G02	1128	490478.7	6740385	698.452	698.479	0.027
G02	951	490593	6740217	700.671	700.698	0.027
G02	957	490493.7	6740363	698.714	698.741	0.027
G02	1027	490221.3	6740762	687.34	687.367	0.027
G02	1088	490571.4	6740249	700.109	700.136	0.027
G02	937	490574.1	6740245	700.169	700.195	0.026
G02	954	490558	6740269	699.853	699.879	0.026
G02	1104	490705.8	6740049	701.371	701.397	0.026
G02	1106	490724.8	6740017	700.828	700.854	0.026
G02	1112	490376.9	6740535	695.814	695.84	0.026
G02	926	490716.1	6740032	701.071	701.097	0.026
G02	943	490385.7	6740522	696.19	696.216	0.026
G02	1016	490156.7	6740857	685.979	686.005	0.026
G02	1071	490431	6740456	697.567	697.593	0.026
G02	956	490529.9	6740311	699.352	699.377	0.025
G02	961	490441.1	6740441	697.757	697.782	0.025
G02	1005	490068	6740987	686.126	686.151	0.025
G02	938	490536.6	6740301	699.465	699.49	0.025
G02	950	490593.3	6740217	700.681	700.706	0.025
G02	975	490284.6	6740670	690.769	690.794	0.025
G02	995	490216.9	6740769	687.164	687.189	0.025
G02	1012	490101.5	6740938	685.994	686.019	0.025
G02	1024	490207.7	6740783	686.798	686.823	0.025
G02	1044	490139.7	6740882	685.945	685.97	0.025
G02	1130	490505.3	6740347	698.884	698.909	0.025
G02	1068	490340.3	6740588	693.901	693.925	0.024
G02	876	489545.6	6741424	685.909	685.933	0.024
G02	972	490319.8	6740618	692.765	692.789	0.024
G02	1025	490210.2	6740779	686.908	686.932	0.024

G02	1028	490237.3	6740740	688.134	688.158	0.024
G02	1055	490240	6740736	688.272	688.296	0.024
G02	1076	490464.3	6740406	698.171	698.195	0.024
G02	1146	490691.6	6740073	701.625	701.649	0.024
G02	869	489789.7	6741271	686.073	686.096	0.023
G02	962	490438.7	6740444	697.685	697.708	0.023
G02	970	490340.5	6740588	693.909	693.932	0.023
G02	990	490300.1	6740648	691.657	691.68	0.023
G02	994	490268.5	6740694	689.876	689.899	0.023
G02	939	490481.4	6740381	698.51	698.532	0.022
G02	967	490406.6	6740492	696.956	696.978	0.022
G02	1023	490200	6740794	686.447	686.469	0.022
G02	1087	490570	6740251	700.085	700.107	0.022
G02	1100	490676.2	6740095	701.729	701.751	0.022
G02	1119	490411.2	6740485	697.099	697.121	0.022
G02	942	490393.8	6740510	696.54	696.561	0.021
G02	996	490203.9	6740788	686.622	686.643	0.021
G02	1063	490298.2	6740650	691.539	691.56	0.021
G02	1110	490363.8	6740554	695.184	695.205	0.021
G02	1116	490389.4	6740517	696.348	696.369	0.021
G02	1153	490728.6	6740011	700.708	700.729	0.021
G02	981	490219.1	6740766	687.264	687.285	0.021
G02	1054	490225.8	6740756	687.532	687.553	0.021
G02	1065	490314.2	6740627	692.451	692.472	0.021
G02	1067	490321.2	6740616	692.841	692.862	0.021
G02	986	490344	6740582	694.112	694.132	0.02
G02	1062	490294.4	6740656	691.319	691.339	0.02
G02	1064	490307.1	6740637	692.045	692.065	0.02
G02	1117	490391.2	6740514	696.42	696.44	0.02
G02	906	489935.4	6741154	686.111	686.131	0.02
G02	1013	490105.5	6740932	685.998	686.018	0.02
G02	1036	490312.2	6740630	692.337	692.357	0.02
G02	1037	490334.3	6740597	693.571	693.591	0.02
G02	1042	490131.1	6740894	685.943	685.963	0.02
G02	1056	490240.2	6740735	688.288	688.308	0.02
G02	1109	490360.8	6740558	695.024	695.044	0.02
G02	1058	490245.7	6740727	688.584	688.603	0.019
G02	983	490165.5	6740845	685.979	685.998	0.019
G02	992	490278.2	6740679	690.421	690.44	0.019
G02	997	490163.4	6740848	685.977	685.996	0.019
G02	1030	490248.5	6740723	688.738	688.757	0.019
G02	1061	490289.2	6740663	691.009	691.028	0.019
G02	1158	490054.9	6741006	686.144	686.163	0.019

G02	1003	490121	6740909	685.98	685.998	0.018
G02	1050	490183.9	6740818	686.173	686.191	0.018
G02	1060	490274.2	6740685	690.201	690.219	0.018
G02	1122	490423.1	6740468	697.429	697.447	0.018
G02	1134	490538.7	6740298	699.505	699.523	0.018
G02	714	489064.2	6741679	684.265	684.282	0.017
G02	941	490432	6740455	697.585	697.602	0.017
G02	987	490320.7	6740617	692.819	692.835	0.016
G02	985	490344.2	6740582	694.134	694.15	0.016
G02	1126	490464.8	6740405	698.181	698.197	0.016
G02	779	489411.4	6741508	685.883	685.898	0.015
G02	966	490415.8	6740478	697.241	697.256	0.015
G02	979	490228.2	6740752	687.672	687.687	0.015
G02	968	490378.4	6740533	695.882	695.896	0.014
G02	1017	490167.1	6740842	685.975	685.989	0.014
G02	1041	490099.1	6740942	686	686.014	0.014
G02	833	489238.5	6741615	685.319	685.332	0.013
G02	978	490230.6	6740749	687.802	687.815	0.013
G02	1009	490089.3	6740956	686.018	686.031	0.013
G02	1040	490089.3	6740956	686.018	686.031	0.013
G02	1057	490240.9	6740734	688.328	688.341	0.013
G02	1120	490420.8	6740471	697.385	697.398	0.013
G02	697	489176.4	6741646	685.075	685.088	0.013
G02	947	490711.2	6740040	701.211	701.223	0.012
G02	960	490458.2	6740415	698.053	698.065	0.012
G02	902	489911.5	6741177	686.182	686.194	0.012
G02	998	490130.7	6740895	685.951	685.963	0.012
G02	923	489955.4	6741133	686.136	686.147	0.011
G02	1006	490064.8	6740992	686.136	686.147	0.011
G02	1029	490242	6740733	688.382	688.393	0.011
G02	1166	490001.7	6741079	686.131	686.142	0.011
G02	988	490307.6	6740637	692.075	692.086	0.011
G02	1000	490152.4	6740863	685.965	685.976	0.011
G02	1045	490145.7	6740873	685.951	685.962	0.011
G02	1053	490224.8	6740757	687.5	687.511	0.011
G02	1115	490388.9	6740517	696.326	696.337	0.011
G02	725	489289.2	6741585	685.335	685.345	0.01
G02	788	489954.3	6741134	686.136	686.146	0.01
G02	722	489171.2	6741648	685.031	685.04	0.009
G02	765	489749	6741297	685.989	685.998	0.009
G02	868	489524	6741438	685.952	685.961	0.009
G02	969	490361.5	6740557	695.068	695.077	0.009
G02	1031	490254.8	6740714	689.092	689.101	0.009

G02	1038	490348.1	6740577	694.346	694.355	0.009
G02	889	489765.4	6741287	686.05	686.058	0.008
G02	910	489962.3	6741126	686.14	686.148	0.008
G02	980	490227.7	6740753	687.646	687.654	0.008
G02	1077	490472.7	6740394	698.331	698.339	0.008
G02	1161	490025.8	6741048	686.183	686.191	0.008
G02	878	489561.1	6741415	685.921	685.929	0.008
G02	1002	490122.4	6740907	685.974	685.982	0.008
G02	1032	490256.2	6740712	689.166	689.174	0.008
G02	903	489914.3	6741174	686.173	686.18	0.007
G02	946	490724.5	6740018	700.846	700.853	0.007
G02	1169	490009.9	6741069	686.159	686.166	0.007
G02	805	489565.4	6741412	685.927	685.934	0.007
G02	871	489502.1	6741452	685.961	685.968	0.007
G02	872	489502.1	6741452	685.961	685.968	0.007
G02	920	489911.7	6741177	686.182	686.189	0.007
G02	973	490317	6740622	692.619	692.626	0.007
G02	1160	490009	6741070	686.153	686.16	0.007
G02	1162	490030.2	6741041	686.187	686.194	0.007
G02	1014	490110.8	6740924	686.002	686.008	0.006
G02	1174	490055.3	6741006	686.146	686.152	0.006
G02	797	489785.8	6741273	686.087	686.093	0.006
G02	838	489280.3	6741590	685.322	685.328	0.006
G02	860	489705.6	6741325	685.97	685.976	0.006
G02	1163	490037.1	6741032	686.185	686.19	0.005
G02	694	489136.4	6741660	684.672	684.677	0.005
G02	759	489877.9	6741206	686.064	686.069	0.005
G02	776	489420.9	6741502	685.893	685.898	0.005
G02	811	489461.9	6741477	685.934	685.939	0.005
G02	851	489095.4	6741672	684.354	684.359	0.005
G02	904	489916.2	6741173	686.173	686.178	0.005
G02	971	490325.1	6740610	693.073	693.078	0.005
G02	721	489162.4	6741652	684.955	684.959	0.004
G02	892	489822.1	6741249	686.08	686.084	0.004
G02	911	489982.9	6741102	686.096	686.1	0.004
G02	914	489816.3	6741253	686.068	686.072	0.004
G02	917	489858.7	6741222	686.081	686.085	0.004
G02	1172	490018.7	6741057	686.189	686.193	0.004
G02	785	489988.6	6741095	686.082	686.085	0.003
G02	810	489468.2	6741473	685.952	685.955	0.003
G02	925	489997	6741085	686.107	686.11	0.003
G02	787	489958.2	6741130	686.142	686.145	0.003
G02	841	489253	6741606	685.32	685.323	0.003

G02	705	489307.3	6741573	685.409	685.411	0.002
G02	795	489838.1	6741238	686.084	686.086	0.002
G02	865	489544.1	6741425	685.923	685.925	0.002
G02	1118	490404.2	6740495	696.882	696.884	0.002
G02	1155	490018.6	6741058	686.185	686.187	0.002
G02	766	489731	6741308	685.975	685.977	0.002
G02	792	489905.9	6741182	686.182	686.184	0.002
G02	880	489574.8	6741406	685.95	685.952	0.002
G02	885	489685	6741338	685.951	685.953	0.002
G02	891	489820	6741250	686.07	686.072	0.002
G02	1021	490191.8	6740806	686.267	686.269	0.002
G02	695	489145.9	6741657	684.776	684.777	0.001
G02	916	489845.1	6741233	686.079	686.08	0.001
G02	762	489866.9	6741215	686.067	686.068	0.001
G02	827	489277.4	6741592	685.332	685.333	0.001
G02	859	489564.3	6741413	685.937	685.938	0.001
G02	861	489711.4	6741321	685.974	685.975	0.001
G02	875	489511.2	6741446	685.97	685.971	0.001
G02	881	489588.9	6741397	685.964	685.965	0.001
G02	909	489956.3	6741132	686.14	686.141	0.001
G02	977	490259.1	6740708	689.34	689.341	0.001
G02	790	489947.9	6741141	686.127	686.127	0
G02	900	489868.9	6741214	686.055	686.055	0
G02	713	489034.2	6741683	684.114	684.114	0
G02	715	489076.7	6741676	684.307	684.307	0
G02	742	489418.4	6741504	685.905	685.905	0
G02	752	489970.6	6741117	686.136	686.136	0
G02	778	489413.7	6741507	685.891	685.891	0
G02	843	489228.2	6741620	685.297	685.297	0
G02	867	489529.1	6741435	685.956	685.956	0
G02	895	489833.3	6741241	686.08	686.08	0
G02	919	489907.1	6741181	686.172	686.172	0
G02	1159	490025.9	6741047	686.193	686.193	0
G02	706	489357.7	6741541	685.699	685.698	-0.001
G02	740	489409.6	6741509	685.882	685.881	-0.001
G02	760	489876.7	6741207	686.069	686.068	-0.001
G02	921	489948	6741141	686.127	686.126	-0.001
G02	982	490198.8	6740796	686.437	686.436	-0.001
G02	727	489334.5	6741556	685.562	685.56	-0.002
G02	822	489330.5	6741559	685.552	685.55	-0.002
G02	840	489267.8	6741598	685.338	685.336	-0.002
G02	896	489857.2	6741224	686.087	686.085	-0.002
G02	898	489866.9	6741215	686.067	686.065	-0.002

G02	1165	490042	6741025	686.175	686.173	-0.002
G02	690	489081.9	6741675	684.33	684.328	-0.002
G02	816	489394.7	6741518	685.82	685.818	-0.002
G02	731	489431.4	6741496	685.905	685.902	-0.003
G02	757	489895.3	6741191	686.146	686.143	-0.003
G02	829	489259	6741603	685.338	685.335	-0.003
G02	887	489713.2	6741320	685.976	685.973	-0.003
G02	691	489094.7	6741672	684.368	684.365	-0.003
G02	702	489250.7	6741608	685.32	685.317	-0.003
G02	789	489953.6	6741135	686.148	686.145	-0.003
G02	866	489768.7	6741284	686.07	686.067	-0.003
G02	918	489868.1	6741214	686.065	686.062	-0.003
G02	1039	490078.8	6740972	686.1	686.097	-0.003
G02	1154	490052.2	6741010	686.148	686.145	-0.003
G02	734	489509.1	6741447	685.978	685.974	-0.004
G02	812	489444.1	6741488	685.944	685.94	-0.004
G02	855	489009.7	6741685	683.977	683.973	-0.004
G02	685	489013	6741685	683.995	683.991	-0.004
G02	724	489267.6	6741598	685.34	685.336	-0.004
G02	739	489405.6	6741512	685.856	685.852	-0.004
G02	784	489995.6	6741087	686.105	686.101	-0.004
G02	800	489635.4	6741369	685.95	685.946	-0.004
G02	830	489252	6741607	685.332	685.328	-0.004
G02	870	489511.5	6741446	685.964	685.96	-0.004
G02	922	489951.9	6741137	686.142	686.138	-0.004
G02	688	489045.8	6741681	684.178	684.173	-0.005
G02	743	489600.6	6741390	685.955	685.95	-0.005
G02	748	489507.3	6741449	685.982	685.977	-0.005
G02	786	489965.5	6741123	686.146	686.141	-0.005
G02	794	489845.4	6741232	686.095	686.09	-0.005
G02	856	489634.6	6741369	685.95	685.945	-0.005
G02	912	489987.4	6741096	686.088	686.083	-0.005
G02	965	490416.7	6740477	697.279	697.274	-0.005
G02	696	489157.9	6741653	684.894	684.888	-0.006
G02	704	489287.5	6741586	685.341	685.335	-0.006
G02	719	489110.5	6741668	684.459	684.453	-0.006
G02	732	489444.5	6741488	685.948	685.942	-0.006
G02	747	489564.5	6741413	685.939	685.933	-0.006
G02	751	489985.8	6741099	686.104	686.098	-0.006
G02	773	489471.7	6741471	685.948	685.942	-0.006
G02	802	489613	6741383	685.957	685.951	-0.006
G02	815	489398.3	6741516	685.824	685.818	-0.006
G02	817	489386.6	6741524	685.792	685.786	-0.006

G02	864	489735.4	6741306	685.977	685.971	-0.006
G02	890	489804.7	6741261	686.079	686.073	-0.006
G02	907	489937.2	6741152	686.131	686.125	-0.006
G02	883	489634.5	6741369	685.95	685.944	-0.006
G02	693	489115.2	6741667	684.473	684.466	-0.007
G02	749	489513.7	6741444	685.978	685.971	-0.007
G02	764	489774.8	6741280	686.072	686.065	-0.007
G02	744	489486.8	6741462	685.951	685.944	-0.007
G02	767	489712.4	6741320	685.974	685.967	-0.007
G02	901	489901.7	6741186	686.166	686.159	-0.007
G02	905	489932.6	6741157	686.147	686.14	-0.007
G02	913	489810.6	6741257	686.065	686.058	-0.007
G02	712	489026.6	6741684	684.087	684.079	-0.008
G02	801	489633.5	6741370	685.948	685.94	-0.008
G02	879	489572.8	6741407	685.958	685.95	-0.008
G02	814	489402.6	6741514	685.86	685.852	-0.008
G02	831	489247.8	6741609	685.331	685.323	-0.008
G02	877	489554.4	6741419	685.925	685.916	-0.009
G02	908	489945.3	6741144	686.131	686.122	-0.009
G02	708	489379.3	6741528	685.774	685.765	-0.009
G02	754	489920.8	6741169	686.187	686.178	-0.009
G02	836	489285.9	6741587	685.337	685.328	-0.009
G02	1167	490001.9	6741079	686.137	686.127	-0.01
G02	686	489018.9	6741684	684.057	684.047	-0.01
G02	710	489008.1	6741685	683.987	683.977	-0.01
G02	741	489410.8	6741509	685.901	685.891	-0.01
G02	777	489415.9	6741505	685.891	685.881	-0.01
G02	782	489329.7	6741559	685.55	685.54	-0.01
G02	783	489315.2	6741568	685.476	685.466	-0.01
G02	809	489472.9	6741470	685.952	685.942	-0.01
G02	813	489425.5	6741499	685.901	685.891	-0.01
G02	819	489377.8	6741529	685.769	685.759	-0.01
G02	821	489342.3	6741551	685.618	685.608	-0.01
G02	824	489315.2	6741568	685.474	685.464	-0.01
G02	849	489103.1	6741670	684.42	684.41	-0.01
G02	874	489504.4	6741450	685.969	685.959	-0.01
G02	884	489657.2	6741355	685.942	685.932	-0.01
G02	1173	490025.5	6741048	686.189	686.179	-0.01
G02	711	489015.5	6741685	684.025	684.014	-0.011
G02	758	489885.4	6741199	686.11	686.099	-0.011
G02	763	489798.2	6741265	686.093	686.082	-0.011
G02	803	489607.8	6741386	685.953	685.942	-0.011
G02	873	489502.8	6741451	685.973	685.962	-0.011

G02	888	489736.9	6741305	685.987	685.976	-0.011
G02	746	489496.9	6741455	685.961	685.949	-0.012
G02	882	489623.5	6741376	685.951	685.939	-0.012
G02	915	489819.2	6741251	686.08	686.068	-0.012
G02	689	489071.3	6741678	684.305	684.292	-0.013
G02	768	489710.1	6741322	685.982	685.969	-0.013
G02	823	489319	6741566	685.482	685.469	-0.013
G02	832	489245.6	6741611	685.333	685.32	-0.013
G02	886	489706.9	6741324	685.972	685.959	-0.013
G02	1075	490446.4	6740433	697.887	697.874	-0.013
G02	723	489254.5	6741605	685.33	685.317	-0.013
G02	769	489694.7	6741331	685.98	685.967	-0.013
G02	796	489811.4	6741256	686.075	686.062	-0.013
G02	825	489313.5	6741569	685.45	685.437	-0.013
G02	844	489222	6741623	685.291	685.278	-0.013
G02	850	489092.2	6741673	684.364	684.351	-0.013
G02	862	489713.9	6741319	685.984	685.971	-0.013
G02	753	489942.1	6741147	686.137	686.123	-0.014
G02	899	489867.9	6741215	686.069	686.055	-0.014
G02	733	489456.3	6741480	685.94	685.926	-0.014
G02	839	489269.5	6741597	685.352	685.338	-0.014
G02	858	489692.4	6741333	685.984	685.97	-0.014
G02	1157	490014.7	6741063	686.193	686.179	-0.014
G02	717	489102.8	6741670	684.414	684.399	-0.015
G02	842	489231.5	6741618	685.315	685.3	-0.015
G02	924	489961.6	6741127	686.146	686.131	-0.015
G02	1164	490040.2	6741028	686.179	686.164	-0.015
G02	1170	490011	6741068	686.175	686.16	-0.015
G02	700	489198.4	6741636	685.198	685.182	-0.016
G02	756	489906.6	6741181	686.198	686.182	-0.016
G02	894	489831.7	6741242	686.078	686.062	-0.016
G02	1156	490016.6	6741060	686.191	686.175	-0.016
G02	692	489108.2	6741669	684.463	684.446	-0.017
G02	791	489942.3	6741147	686.137	686.12	-0.017
G02	818	489383.3	6741526	685.794	685.777	-0.017
G02	1168	490006.5	6741073	686.159	686.142	-0.017
G02	726	489305.4	6741575	685.407	685.39	-0.017
G02	730	489425.8	6741499	685.913	685.896	-0.017
G02	761	489872.3	6741211	686.061	686.044	-0.017
G02	808	489473.9	6741470	685.945	685.928	-0.017
G02	893	489829.7	6741243	686.08	686.063	-0.017
G02	793	489881	6741203	686.09	686.072	-0.018
G02	835	489288.2	6741585	685.349	685.331	-0.018

G02	806	489555.5	6741418	685.935	685.916	-0.019
G02	720	489134.4	6741661	684.648	684.629	-0.019
G02	737	489655.1	6741356	685.958	685.939	-0.019
G02	770	489688.4	6741335	685.963	685.944	-0.019
G02	781	489336.5	6741555	685.58	685.561	-0.019
G02	799	489646.7	6741362	685.948	685.929	-0.019
G02	863	489546.8	6741424	685.929	685.91	-0.019
G02	736	489649.2	6741360	685.942	685.922	-0.02
G02	774	489469.7	6741472	685.962	685.942	-0.02
G02	780	489393.6	6741519	685.828	685.808	-0.02
G02	798	489672	6741346	685.941	685.921	-0.02
G02	709	489006.3	6741685	683.99	683.969	-0.021
G02	834	489204.7	6741632	685.218	685.197	-0.021
G02	848	489137.6	6741660	684.704	684.683	-0.021
G02	854	489028.1	6741683	684.115	684.094	-0.021
G02	684	489009.1	6741685	683.989	683.968	-0.021
G02	771	489661.1	6741353	685.955	685.934	-0.021
G02	807	489477.5	6741467	685.955	685.934	-0.021
G02	826	489310.1	6741572	685.441	685.42	-0.021
G02	828	489260.4	6741602	685.354	685.333	-0.021
G02	897	489862.4	6741219	686.079	686.057	-0.022
G02	738	489385.3	6741524	685.806	685.784	-0.022
G02	716	489082.2	6741675	684.324	684.301	-0.023
G02	820	489359.3	6741540	685.709	685.686	-0.023
G02	837	489282	6741589	685.341	685.318	-0.023
G02	857	489657.6	6741355	685.95	685.927	-0.023
G02	718	489107.1	6741669	684.453	684.429	-0.024
G02	728	489337.7	6741554	685.592	685.568	-0.024
G02	852	489084.1	6741675	684.344	684.32	-0.024
G02	687	489042.6	6741682	684.164	684.139	-0.025
G02	701	489216	6741626	685.262	685.237	-0.025
G02	846	489159.7	6741652	684.933	684.908	-0.025
G02	847	489155.1	6741654	684.886	684.86	-0.026
G02	707	489368.8	6741535	685.753	685.726	-0.027
G02	703	489262.9	6741600	685.362	685.334	-0.028
G02	750	489523.3	6741438	685.978	685.949	-0.029
G02	698	489176.7	6741646	685.095	685.065	-0.03
G02	699	489184.5	6741642	685.165	685.135	-0.03
G02	775	489447.5	6741486	685.958	685.927	-0.031
G02	745	489569.6	6741409	685.952	685.92	-0.032
G02	853	489031.5	6741683	684.122	684.089	-0.033
G02	729	489398.9	6741516	685.852	685.819	-0.033
G02	735	489526.6	6741436	685.97	685.936	-0.034

G02	772	489547.8	6741423	685.945	685.908	-0.037
G02	845	489168.4	6741649	685.037	684.999	-0.038
G03	1201	496936.2	6732124	634.048	634.04	-0.008
G03	1805	497166.4	6731514	635.862	635.853	-0.009
G03	1804	497169.8	6731505	635.81	635.8	-0.01
G03	1889	497156	6731542	635.978	635.965	-0.013
G03	1775	497331.9	6731075	636.795	636.781	-0.014
G03	1901	497220.7	6731370	635.137	635.123	-0.014
G03	1199	496941.8	6732109	634.053	634.039	-0.014
G03	1799	497196.9	6731433	635.267	635.253	-0.014
G03	1745	497322.4	6731101	636.525	636.509	-0.016
G03	1806	497162.3	6731525	635.926	635.909	-0.017
G03	1835	497046.9	6731831	634.581	634.564	-0.017
G03	1394	496982.1	6732002	634.419	634.401	-0.018
G03	1283	496398.9	6732788	632.375	632.357	-0.018
G03	1612	496339.5	6732946	633.146	633.127	-0.019
G03	1534	496974.9	6732022	634.525	634.505	-0.02
G03	1822	497002.7	6731948	634.172	634.152	-0.02
G03	1840	497075.5	6731755	634.716	634.696	-0.02
G03	1925	497004.2	6731944	634.17	634.15	-0.02
G03	1281	496362.5	6732885	632.865	632.844	-0.021
G03	1386	496938.2	6732119	634.028	634.007	-0.021
G03	1697	496881.8	6732268	633.221	633.2	-0.021
G03	1749	497298.2	6731165	636.207	636.186	-0.021
G03	1888	497152.6	6731551	636.034	636.013	-0.021
G03	1618	496350.1	6732918	633.032	633.011	-0.021
G03	1243	496951.8	6732083	634.207	634.185	-0.022
G03	1708	496927.3	6732148	633.886	633.864	-0.022
G03	1320	496861.7	6732322	632.941	632.919	-0.022
G03	1518	496982.2	6732002	634.431	634.409	-0.022
G03	1772	497123.2	6731628	635.767	635.745	-0.022
G03	1906	497280.6	6731211	636.037	636.015	-0.022
G03	1502	496458.3	6732630	632.772	632.749	-0.023
G03	1734	496894.3	6732235	633.451	633.428	-0.023
G03	2034	497298.3	6731165	636.219	636.196	-0.023
G03	1181	496986.1	6731992	634.382	634.358	-0.024
G03	1903	497251.8	6731288	635.728	635.704	-0.024
G03	1932	497018.2	6731907	634.122	634.098	-0.024
G03	1244	496941.7	6732110	634.061	634.037	-0.024
G03	1262	496819.5	6732433	632.384	632.36	-0.024
G03	1341	496434.1	6732694	632.446	632.422	-0.024
G03	1754	497258.6	6731270	635.832	635.808	-0.024
G03	1814	497062.1	6731790	634.767	634.743	-0.024

G03	1858	497173.6	6731495	635.736	635.712	-0.024
G03	1863	497014.6	6731916	634.092	634.068	-0.024
G03	1916	497274.4	6731228	635.971	635.947	-0.024
G03	1924	497330.4	6731079	636.775	636.751	-0.024
G03	1279	496384.9	6732825	632.551	632.526	-0.025
G03	1285	496348.9	6732921	633.052	633.027	-0.025
G03	1744	497330.6	6731079	636.779	636.754	-0.025
G03	1803	497173.3	6731496	635.758	635.733	-0.025
G03	1837	497048.7	6731826	634.585	634.56	-0.025
G03	1867	497048.5	6731826	634.593	634.568	-0.025
G03	1904	497258.7	6731269	635.834	635.809	-0.025
G03	1300	496401.4	6732781	632.355	632.329	-0.026
G03	1648	496428	6732711	632.384	632.358	-0.026
G03	1232	496777.4	6732545	632.397	632.371	-0.026
G03	1782	497284.9	6731200	636.089	636.063	-0.026
G03	1212	496883.4	6732264	633.241	633.214	-0.027
G03	1759	497230.2	6731345	635.334	635.307	-0.027
G03	1788	497255.7	6731277	635.8	635.773	-0.027
G03	1827	497025.2	6731888	634.223	634.196	-0.027
G03	1397	496324.7	6732985	633.432	633.405	-0.027
G03	1609	496777.4	6732545	632.403	632.376	-0.027
G03	1812	497086.8	6731725	634.936	634.909	-0.027
G03	1813	497079	6731746	634.768	634.741	-0.027
G03	1838	497072.9	6731762	634.73	634.703	-0.027
G03	1911	497240	6731319	635.498	635.471	-0.027
G03	1921	497305.9	6731144	636.311	636.284	-0.027
G03	1912	497258.8	6731269	635.834	635.806	-0.028
G03	1986	497049.6	6731824	634.603	634.575	-0.028
G03	1176	496983.2	6732000	634.402	634.374	-0.028
G03	1240	496752.8	6732610	632.82	632.792	-0.028
G03	1257	496850.2	6732352	632.738	632.71	-0.028
G03	1365	496862.3	6732320	632.951	632.923	-0.028
G03	1385	496978.6	6732012	634.481	634.453	-0.028
G03	1646	496424.7	6732719	632.346	632.318	-0.028
G03	1731	496881.8	6732268	633.225	633.197	-0.028
G03	1746	497320.1	6731107	636.549	636.521	-0.028
G03	1817	497037.2	6731856	634.461	634.433	-0.028
G03	1821	497010.3	6731928	634.086	634.058	-0.028
G03	1868	497058	6731801	634.717	634.689	-0.028
G03	1870	497060.3	6731795	634.741	634.713	-0.028
G03	1914	497261.8	6731261	635.861	635.833	-0.028
G03	1918	497294.7	6731174	636.191	636.163	-0.028
G03	1957	497128.2	6731615	635.813	635.785	-0.028

G03	1968	497150.2	6731557	636.08	636.052	-0.028
G03	1343	496753.3	6732609	632.81	632.781	-0.029
G03	1398	496324.8	6732985	633.406	633.377	-0.029
G03	1774	497084.7	6731731	634.906	634.877	-0.029
G03	1220	496843.2	6732371	632.684	632.655	-0.029
G03	1263	496818.2	6732437	632.384	632.355	-0.029
G03	1292	496330.7	6732969	633.314	633.285	-0.029
G03	1392	496976.1	6732019	634.513	634.484	-0.029
G03	1494	496427.8	6732711	632.386	632.357	-0.029
G03	1569	496399.9	6732785	632.363	632.334	-0.029
G03	1642	496412.3	6732752	632.246	632.217	-0.029
G03	1786	497269.2	6731242	635.963	635.934	-0.029
G03	1792	497236.5	6731328	635.46	635.431	-0.029
G03	1866	497036.5	6731858	634.457	634.428	-0.029
G03	1882	497120.2	6731637	635.765	635.736	-0.029
G03	1884	497123.6	6731627	635.773	635.744	-0.029
G03	2050	497229.1	6731348	635.324	635.295	-0.029
G03	1178	496986.1	6731992	634.386	634.356	-0.03
G03	1205	496920.7	6732165	633.752	633.722	-0.03
G03	1288	496325.7	6732982	633.394	633.364	-0.03
G03	1319	496856.5	6732336	632.831	632.801	-0.03
G03	1362	496849.4	6732354	632.742	632.712	-0.03
G03	1373	496914.5	6732182	633.674	633.644	-0.03
G03	1439	496424.5	6732720	632.342	632.312	-0.03
G03	1491	496418.7	6732735	632.246	632.216	-0.03
G03	1547	496339.7	6732945	633.156	633.126	-0.03
G03	1551	496342.7	6732937	633.138	633.108	-0.03
G03	1591	496443.5	6732669	632.65	632.62	-0.03
G03	1626	496818.4	6732436	632.4	632.37	-0.03
G03	1761	497211	6731396	635.023	634.993	-0.03
G03	1816	497055.2	6731809	634.663	634.633	-0.03
G03	1898	497199.6	6731426	635.223	635.193	-0.03
G03	1907	497282.6	6731206	636.061	636.031	-0.03
G03	2007	497171.3	6731501	635.798	635.768	-0.03
G03	1296	496370.4	6732864	632.801	632.771	-0.03
G03	1699	496889.8	6732247	633.363	633.333	-0.03
G03	1709	496927.5	6732147	633.892	633.862	-0.03
G03	1820	497012.8	6731921	634.07	634.04	-0.03
G03	1204	496922.8	6732160	633.78	633.749	-0.031
G03	1224	496795.9	6732496	632.209	632.178	-0.031
G03	1509	496961.3	6732058	634.361	634.33	-0.031
G03	1750	497295.5	6731172	636.203	636.172	-0.031
G03	1796	497209.5	6731400	635.015	634.984	-0.031

G03	1892	497171.3	6731501	635.8	635.769	-0.031
G03	1983	497181.3	6731475	635.602	635.571	-0.031
G03	2014	497208.7	6731402	635.029	634.998	-0.031
G03	1338	496372.9	6732857	632.753	632.722	-0.031
G03	1428	496401.5	6732781	632.363	632.332	-0.031
G03	1651	496429.7	6732706	632.398	632.367	-0.031
G03	1698	496885.6	6732258	633.287	633.256	-0.031
G03	1828	497013.4	6731919	634.094	634.063	-0.031
G03	1945	497075.6	6731755	634.734	634.703	-0.031
G03	1470	496364.8	6732879	632.861	632.829	-0.032
G03	1483	496405.6	6732770	632.285	632.253	-0.032
G03	1598	496750.3	6732617	632.91	632.878	-0.032
G03	1608	496774.3	6732553	632.435	632.403	-0.032
G03	1628	496372.6	6732858	632.757	632.725	-0.032
G03	1900	497214.9	6731386	635.049	635.017	-0.032
G03	1309	496767.6	6732571	632.519	632.487	-0.032
G03	1326	496910.9	6732191	633.652	633.62	-0.032
G03	1418	496381.1	6732835	632.625	632.593	-0.032
G03	1443	496434.5	6732693	632.452	632.42	-0.032
G03	1459	496456.4	6732635	632.764	632.732	-0.032
G03	1686	496845.6	6732364	632.734	632.702	-0.032
G03	1971	497151.6	6731553	636.056	636.024	-0.032
G03	2008	497175.2	6731491	635.726	635.694	-0.032
G03	1406	496349.1	6732920	633.06	633.027	-0.033
G03	1429	496402.2	6732779	632.353	632.32	-0.033
G03	1500	496456.5	6732635	632.766	632.733	-0.033
G03	1206	496917.2	6732175	633.698	633.665	-0.033
G03	1223	496802.2	6732479	632.183	632.15	-0.033
G03	1230	496778.9	6732541	632.375	632.342	-0.033
G03	1266	496803.9	6732475	632.229	632.196	-0.033
G03	1323	496894	6732236	633.447	633.414	-0.033
G03	1330	496331	6732968	633.316	633.283	-0.033
G03	1498	496449.1	6732654	632.74	632.707	-0.033
G03	1538	496323.7	6732988	633.452	633.419	-0.033
G03	1595	496453.5	6732643	632.754	632.721	-0.033
G03	1655	496449.1	6732654	632.74	632.707	-0.033
G03	1679	496819.9	6732432	632.422	632.389	-0.033
G03	1700	496894.9	6732234	633.467	633.434	-0.033
G03	1764	497196.3	6731435	635.289	635.256	-0.033
G03	1793	497228.1	6731350	635.298	635.265	-0.033
G03	1825	497050.6	6731821	634.597	634.564	-0.033
G03	1905	497260.8	6731264	635.85	635.817	-0.033
G03	2047	497210	6731399	635.027	634.994	-0.033

G03	1522	496949.5	6732089	634.209	634.175	-0.034
G03	1843	497095.1	6731703	635.084	635.05	-0.034
G03	1182	496994.5	6731970	634.29	634.256	-0.034
G03	1278	496403.1	6732777	632.393	632.359	-0.034
G03	1327	496911.3	6732190	633.654	633.62	-0.034
G03	1383	496970.7	6732033	634.503	634.469	-0.034
G03	1413	496369.1	6732867	632.821	632.787	-0.034
G03	1430	496402.9	6732777	632.377	632.343	-0.034
G03	1457	496331.3	6732968	633.312	633.278	-0.034
G03	1476	496379	6732841	632.653	632.619	-0.034
G03	1489	496412.7	6732751	632.252	632.218	-0.034
G03	1568	496399.5	6732786	632.377	632.343	-0.034
G03	1583	496424.4	6732720	632.344	632.31	-0.034
G03	1620	496801	6732482	632.197	632.163	-0.034
G03	1623	496803.9	6732475	632.229	632.195	-0.034
G03	1652	496432.7	6732698	632.448	632.414	-0.034
G03	1757	497239.3	6731321	635.502	635.468	-0.034
G03	1758	497236.8	6731328	635.458	635.424	-0.034
G03	1776	497324.6	6731095	636.585	636.551	-0.034
G03	1779	497305.1	6731147	636.301	636.267	-0.034
G03	1802	497174.9	6731492	635.716	635.682	-0.034
G03	1823	497075.4	6731755	634.726	634.692	-0.034
G03	1856	497166.7	6731513	635.88	635.846	-0.034
G03	1860	497001.8	6731950	634.194	634.16	-0.034
G03	1877	497097.6	6731696	635.152	635.118	-0.034
G03	1897	497187.4	6731458	635.469	635.435	-0.034
G03	1913	497260.3	6731265	635.852	635.818	-0.034
G03	1919	497297.1	6731168	636.199	636.165	-0.034
G03	1920	497302.1	6731154	636.237	636.203	-0.034
G03	1943	497057.9	6731802	634.727	634.693	-0.034
G03	1969	497150.4	6731557	636.078	636.044	-0.034
G03	1250	496913.9	6732183	633.672	633.637	-0.035
G03	1316	496811.8	6732454	632.312	632.277	-0.035
G03	1337	496370.3	6732864	632.797	632.762	-0.035
G03	1346	496766.3	6732574	632.549	632.514	-0.035
G03	1376	496940	6732114	634.048	634.013	-0.035
G03	1387	496939.8	6732115	634.052	634.017	-0.035
G03	1422	496394.9	6732799	632.437	632.402	-0.035
G03	1453	496326.8	6732980	633.372	633.337	-0.035
G03	1548	496340.2	6732944	633.146	633.111	-0.035
G03	1550	496342.5	6732938	633.138	633.103	-0.035
G03	1577	496419.7	6732733	632.268	632.233	-0.035
G03	1585	496430.7	6732703	632.424	632.389	-0.035

G03	1590	496442.8	6732671	632.632	632.597	-0.035
G03	1743	496938.3	6732119	634.034	633.999	-0.035
G03	1770	497150.7	6731556	636.06	636.025	-0.035
G03	1783	497279	6731216	636.059	636.024	-0.035
G03	1830	497004.9	6731942	634.15	634.115	-0.035
G03	1873	497066.7	6731778	634.744	634.709	-0.035
G03	1895	497186.4	6731461	635.461	635.426	-0.035
G03	1967	497149.5	6731559	636.084	636.049	-0.035
G03	1192	496985.4	6731994	634.402	634.367	-0.035
G03	1255	496857.1	6732334	632.849	632.814	-0.035
G03	1367	496867.8	6732306	633.089	633.054	-0.035
G03	1448	496323.5	6732988	633.426	633.391	-0.035
G03	1710	496934.5	6732129	634.022	633.987	-0.035
G03	1771	497150.6	6731556	636.07	636.035	-0.035
G03	1216	496865.6	6732311	633.039	633.003	-0.036
G03	1339	496382.9	6732830	632.577	632.541	-0.036
G03	1461	496335	6732958	633.276	633.24	-0.036
G03	1544	496333.1	6732963	633.308	633.272	-0.036
G03	1588	496441.8	6732674	632.596	632.56	-0.036
G03	1601	496752.1	6732612	632.858	632.822	-0.036
G03	1669	496788.9	6732515	632.275	632.239	-0.036
G03	1839	497074.2	6731759	634.718	634.682	-0.036
G03	1844	497096.4	6731700	635.13	635.094	-0.036
G03	1887	497144.2	6731573	636.021	635.985	-0.036
G03	1910	497238	6731324	635.472	635.436	-0.036
G03	1963	497143.6	6731575	636.021	635.985	-0.036
G03	1974	497163.4	6731522	635.924	635.888	-0.036
G03	1246	496927.9	6732146	633.902	633.866	-0.036
G03	1247	496922.9	6732159	633.792	633.756	-0.036
G03	1336	496366	6732875	632.859	632.823	-0.036
G03	1649	496428.5	6732709	632.388	632.352	-0.036
G03	1693	496867.9	6732305	633.089	633.053	-0.036
G03	1733	496890.7	6732245	633.383	633.347	-0.036
G03	1832	497016.6	6731911	634.104	634.068	-0.036
G03	1915	497266.5	6731249	635.927	635.891	-0.036
G03	1953	497112.3	6731658	635.581	635.545	-0.036
G03	2064	497319.9	6731107	636.557	636.521	-0.036
G03	1363	496855.1	6732339	632.829	632.792	-0.037
G03	1399	496327.5	6732978	633.358	633.321	-0.037
G03	1414	496369.3	6732867	632.819	632.782	-0.037
G03	1449	496447.6	6732658	632.728	632.691	-0.037
G03	1454	496327.6	6732978	633.358	633.321	-0.037
G03	1553	496352.1	6732912	633.012	632.975	-0.037

G03	1672	496800.5	6732484	632.199	632.162	-0.037
G03	1824	497060.5	6731795	634.757	634.72	-0.037
G03	1829	497011.2	6731925	634.084	634.047	-0.037
G03	1834	497041.2	6731846	634.545	634.508	-0.037
G03	1869	497059.8	6731797	634.761	634.724	-0.037
G03	1951	497103.1	6731682	635.334	635.297	-0.037
G03	1305	496750	6732618	632.922	632.885	-0.037
G03	1322	496893.5	6732237	633.445	633.408	-0.037
G03	1350	496789.4	6732513	632.259	632.222	-0.037
G03	1355	496822.1	6732427	632.45	632.413	-0.037
G03	1452	496326.6	6732980	633.38	633.343	-0.037
G03	1484	496407.2	6732766	632.269	632.232	-0.037
G03	1493	496426.5	6732715	632.37	632.333	-0.037
G03	1511	496962.1	6732056	634.379	634.342	-0.037
G03	1584	496429.8	6732706	632.402	632.365	-0.037
G03	1587	496435	6732692	632.45	632.413	-0.037
G03	1592	496448.6	6732656	632.74	632.703	-0.037
G03	1629	496821.6	6732428	632.45	632.413	-0.037
G03	1630	496375.6	6732850	632.715	632.678	-0.037
G03	1989	497195.2	6731438	635.321	635.284	-0.037
G03	2056	497276.4	6731223	636.033	635.996	-0.037
G03	1431	496404.2	6732774	632.401	632.363	-0.038
G03	1826	497039.6	6731850	634.521	634.483	-0.038
G03	1184	496985.3	6731994	634.402	634.364	-0.038
G03	1347	496766.8	6732573	632.523	632.485	-0.038
G03	1377	496950.8	6732085	634.217	634.179	-0.038
G03	1391	496972.7	6732028	634.503	634.465	-0.038
G03	1393	496981.5	6732004	634.443	634.405	-0.038
G03	1403	496344.6	6732932	633.12	633.082	-0.038
G03	1415	496371.7	6732860	632.783	632.745	-0.038
G03	1486	496409	6732761	632.253	632.215	-0.038
G03	1488	496412.5	6732752	632.25	632.212	-0.038
G03	1514	496974.7	6732022	634.533	634.495	-0.038
G03	1536	496979.7	6732009	634.485	634.447	-0.038
G03	1604	496769.6	6732566	632.501	632.463	-0.038
G03	1619	496351.5	6732914	633.018	632.98	-0.038
G03	1650	496429.2	6732707	632.404	632.366	-0.038
G03	1726	496866.6	6732309	633.067	633.029	-0.038
G03	1740	496919.5	6732168	633.746	633.708	-0.038
G03	1791	497240.2	6731318	635.52	635.482	-0.038
G03	1818	497030.4	6731875	634.323	634.285	-0.038
G03	1881	497119.2	6731639	635.749	635.711	-0.038
G03	1961	497141.7	6731580	635.991	635.953	-0.038

G03	2038	497305	6731147	636.309	636.271	-0.038
G03	2042	497200.5	6731424	635.217	635.179	-0.038
G03	1196	496977.5	6732015	634.487	634.448	-0.039
G03	1200	496937.1	6732122	634.026	633.987	-0.039
G03	1241	496960.2	6732060	634.325	634.286	-0.039
G03	1258	496846.4	6732362	632.74	632.701	-0.039
G03	1261	496823.1	6732424	632.444	632.405	-0.039
G03	1306	496755.2	6732604	632.762	632.723	-0.039
G03	1308	496765.1	6732578	632.573	632.534	-0.039
G03	1342	496446.6	6732661	632.714	632.675	-0.039
G03	1345	496765.1	6732578	632.573	632.534	-0.039
G03	1434	496415.2	6732745	632.252	632.213	-0.039
G03	1467	496355.6	6732903	632.958	632.919	-0.039
G03	1473	496375.9	6732849	632.707	632.668	-0.039
G03	1474	496378.3	6732843	632.663	632.624	-0.039
G03	1530	496963.9	6732051	634.413	634.374	-0.039
G03	1565	496380	6732838	632.641	632.602	-0.039
G03	1594	496452.2	6732646	632.754	632.715	-0.039
G03	1643	496417	6732740	632.23	632.191	-0.039
G03	1668	496786.7	6732520	632.293	632.254	-0.039
G03	1696	496874.8	6732287	633.141	633.102	-0.039
G03	1712	496831.9	6732401	632.518	632.479	-0.039
G03	1807	497153.5	6731548	636.004	635.965	-0.039
G03	1890	497157.1	6731539	635.958	635.919	-0.039
G03	1891	497167.7	6731511	635.862	635.823	-0.039
G03	1908	497210.6	6731397	635.035	634.996	-0.039
G03	1935	497035.3	6731862	634.433	634.394	-0.039
G03	1958	497131.2	6731607	635.807	635.768	-0.039
G03	1995	497113.5	6731654	635.605	635.566	-0.039
G03	2006	497160.3	6731530	635.958	635.919	-0.039
G03	2040	497311.5	6731129	636.407	636.368	-0.039
G03	2044	497333.5	6731071	636.633	636.594	-0.039
G03	1271	496771.3	6732561	632.475	632.435	-0.04
G03	1310	496772	6732559	632.467	632.427	-0.04
G03	1331	496333.4	6732962	633.312	633.272	-0.04
G03	1396	496323.3	6732989	633.43	633.39	-0.04
G03	1433	496413.8	6732748	632.246	632.206	-0.04
G03	1445	496439.2	6732681	632.54	632.5	-0.04
G03	1446	496441.3	6732675	632.582	632.542	-0.04
G03	1447	496446.1	6732662	632.712	632.672	-0.04
G03	1475	496378.7	6732842	632.661	632.621	-0.04
G03	1482	496399.3	6732787	632.379	632.339	-0.04
G03	1487	496409.8	6732759	632.239	632.199	-0.04

G03	1492	496423	6732724	632.31	632.27	-0.04
G03	1560	496367.7	6732871	632.841	632.801	-0.04
G03	1624	496361.8	6732886	632.875	632.835	-0.04
G03	1644	496417.6	6732738	632.228	632.188	-0.04
G03	1658	496752.9	6732610	632.834	632.794	-0.04
G03	1735	496896.6	6732229	633.487	633.447	-0.04
G03	1847	497118.7	6731641	635.755	635.715	-0.04
G03	1851	497128.4	6731615	635.803	635.763	-0.04
G03	1874	497079.2	6731745	634.788	634.748	-0.04
G03	1929	497013.5	6731919	634.098	634.058	-0.04
G03	1981	497035.9	6731860	634.443	634.403	-0.04
G03	2012	497189.5	6731453	635.449	635.409	-0.04
G03	2023	497243.1	6731311	635.566	635.526	-0.04
G03	2059	497294.1	6731176	636.199	636.159	-0.04
G03	1280	496383.5	6732829	632.575	632.535	-0.04
G03	1513	496972.9	6732027	634.517	634.477	-0.04
G03	1615	496345.5	6732930	633.104	633.064	-0.04
G03	1211	496896.5	6732230	633.471	633.43	-0.041
G03	1233	496776.4	6732548	632.409	632.368	-0.041
G03	1290	496344.7	6732932	633.116	633.075	-0.041
G03	1340	496388.4	6732816	632.497	632.456	-0.041
G03	1426	496399.8	6732785	632.375	632.334	-0.041
G03	1532	496967.5	6732041	634.471	634.43	-0.041
G03	1606	496773.7	6732555	632.443	632.402	-0.041
G03	1763	497201	6731422	635.209	635.168	-0.041
G03	1819	497021.5	6731898	634.154	634.113	-0.041
G03	1853	497136.3	6731594	635.891	635.85	-0.041
G03	1864	497014.8	6731916	634.088	634.047	-0.041
G03	1938	497038.3	6731854	634.505	634.464	-0.041
G03	2004	497151.7	6731553	636.054	636.013	-0.041
G03	1185	496990.3	6731981	634.36	634.319	-0.041
G03	1202	496933.3	6732132	633.994	633.953	-0.041
G03	1209	496911.4	6732190	633.658	633.617	-0.041
G03	1221	496835.6	6732391	632.57	632.529	-0.041
G03	1366	496865.6	6732311	633.037	632.996	-0.041
G03	1463	496463.7	6732616	632.897	632.856	-0.041
G03	1501	496456.7	6732634	632.772	632.731	-0.041
G03	1510	496961.5	6732057	634.359	634.318	-0.041
G03	1562	496370.1	6732864	632.807	632.766	-0.041
G03	1665	496776.3	6732548	632.413	632.372	-0.041
G03	1797	497208.8	6731402	635.027	634.986	-0.041
G03	1854	497145.9	6731569	636.038	635.997	-0.041
G03	2043	497332.4	6731074	636.807	636.766	-0.041

G03	1175	496986.6	6731991	634.39	634.348	-0.042
G03	1297	496389.7	6732812	632.473	632.431	-0.042
G03	1311	496776.1	6732548	632.411	632.369	-0.042
G03	1315	496810.7	6732457	632.31	632.268	-0.042
G03	1401	496338.9	6732948	633.174	633.132	-0.042
G03	1424	496395.8	6732796	632.425	632.383	-0.042
G03	1549	496341.9	6732940	633.132	633.09	-0.042
G03	1647	496425.5	6732717	632.366	632.324	-0.042
G03	1730	496878.9	6732276	633.169	633.127	-0.042
G03	1923	497324.8	6731094	636.583	636.541	-0.042
G03	1930	497013.8	6731918	634.102	634.06	-0.042
G03	1948	497079.4	6731745	634.794	634.752	-0.042
G03	1975	497163.9	6731521	635.92	635.878	-0.042
G03	1980	497035.5	6731861	634.443	634.401	-0.042
G03	2063	497318.4	6731111	636.531	636.489	-0.042
G03	1437	496420.2	6732731	632.272	632.23	-0.042
G03	1455	496451.7	6732647	632.75	632.708	-0.042
G03	1472	496370.8	6732862	632.797	632.755	-0.042
G03	1537	496980.7	6732006	634.469	634.427	-0.042
G03	1572	496408.4	6732763	632.263	632.221	-0.042
G03	1582	496423.4	6732723	632.33	632.288	-0.042
G03	1663	496770.3	6732564	632.489	632.447	-0.042
G03	1721	496853.9	6732342	632.801	632.759	-0.042
G03	1780	497303.3	6731151	636.273	636.231	-0.042
G03	1794	497220.5	6731371	635.139	635.097	-0.042
G03	1909	497212.1	6731393	635.057	635.015	-0.042
G03	1186	496992.7	6731975	634.31	634.267	-0.043
G03	1215	496878.1	6732278	633.161	633.118	-0.043
G03	1344	496754	6732607	632.81	632.767	-0.043
G03	1349	496776	6732549	632.411	632.368	-0.043
G03	1561	496369.1	6732867	632.829	632.786	-0.043
G03	1593	496451.2	6732649	632.752	632.709	-0.043
G03	1751	497284.7	6731201	636.093	636.05	-0.043
G03	1815	497058.1	6731801	634.733	634.69	-0.043
G03	1198	496950.2	6732087	634.213	634.17	-0.043
G03	1251	496911.6	6732189	633.668	633.625	-0.043
G03	1259	496846.2	6732363	632.734	632.691	-0.043
G03	1276	496432.8	6732698	632.456	632.413	-0.043
G03	1333	496344.8	6732932	633.112	633.069	-0.043
G03	1334	496357.2	6732899	632.934	632.891	-0.043
G03	1348	496767.5	6732571	632.533	632.49	-0.043
G03	1357	496832	6732400	632.514	632.471	-0.043
G03	1378	496952.3	6732082	634.215	634.172	-0.043

G03	1423	496395.3	6732797	632.427	632.384	-0.043
G03	1436	496417.9	6732737	632.24	632.197	-0.043
G03	1442	496433.8	6732695	632.456	632.413	-0.043
G03	1460	496334.4	6732959	633.292	633.249	-0.043
G03	1468	496357.8	6732897	632.926	632.883	-0.043
G03	1480	496388.9	6732815	632.489	632.446	-0.043
G03	1531	496965.6	6732046	634.441	634.398	-0.043
G03	1570	496402.5	6732778	632.359	632.316	-0.043
G03	1635	496400.9	6732782	632.369	632.326	-0.043
G03	1645	496419.8	6732732	632.266	632.223	-0.043
G03	1656	496450	6732652	632.748	632.705	-0.043
G03	1660	496758.4	6732595	632.672	632.629	-0.043
G03	1673	496802.7	6732478	632.211	632.168	-0.043
G03	1690	496863	6732318	632.989	632.946	-0.043
G03	1701	496896.6	6732229	633.487	633.444	-0.043
G03	1739	496918.3	6732172	633.732	633.689	-0.043
G03	1841	497081.2	6731740	634.822	634.779	-0.043
G03	1977	497026.7	6731884	634.273	634.23	-0.043
G03	1997	497116.6	6731646	635.703	635.66	-0.043
G03	1999	497125.5	6731623	635.797	635.754	-0.043
G03	2013	497201.4	6731421	635.201	635.158	-0.043
G03	2054	497247	6731300	635.644	635.601	-0.043
G03	2057	497277.5	6731220	636.041	635.998	-0.043
G03	1264	496813.5	6732449	632.328	632.284	-0.044
G03	1274	496449.5	6732653	632.75	632.706	-0.044
G03	1275	496445.2	6732665	632.692	632.648	-0.044
G03	1321	496882.9	6732265	633.245	633.201	-0.044
G03	1352	496802.4	6732479	632.215	632.171	-0.044
G03	1370	496903.2	6732212	633.568	633.524	-0.044
G03	1372	496914.3	6732182	633.684	633.64	-0.044
G03	1389	496966.6	6732044	634.455	634.411	-0.044
G03	1390	496966.8	6732043	634.457	634.413	-0.044
G03	1441	496430.9	6732703	632.43	632.386	-0.044
G03	1477	496379.2	6732840	632.653	632.609	-0.044
G03	1499	496455.6	6732637	632.766	632.722	-0.044
G03	1517	496980.4	6732007	634.479	634.435	-0.044
G03	1539	496325.4	6732983	633.404	633.36	-0.044
G03	1546	496337.9	6732950	633.192	633.148	-0.044
G03	1617	496798.8	6732488	632.211	632.167	-0.044
G03	1625	496811.4	6732455	632.32	632.276	-0.044
G03	1682	496830.7	6732404	632.522	632.478	-0.044
G03	1691	496866.8	6732308	633.075	633.031	-0.044
G03	1727	496872.2	6732294	633.135	633.091	-0.044

G03	1762	497207.5	6731405	635.045	635.001	-0.044
G03	1777	497323	6731099	636.571	636.527	-0.044
G03	1800	497196.4	6731435	635.295	635.251	-0.044
G03	1808	497142.6	6731577	636.003	635.959	-0.044
G03	1809	497138.1	6731589	635.943	635.899	-0.044
G03	1850	497127.9	6731616	635.811	635.767	-0.044
G03	1871	497063.8	6731786	634.779	634.735	-0.044
G03	1928	497010.1	6731928	634.104	634.06	-0.044
G03	1947	497077.5	6731750	634.768	634.724	-0.044
G03	1982	497179.5	6731479	635.654	635.61	-0.044
G03	1988	497055.1	6731809	634.671	634.627	-0.044
G03	1990	497058.6	6731800	634.745	634.701	-0.044
G03	1991	497197.6	6731431	635.269	635.225	-0.044
G03	2000	497127.4	6731617	635.813	635.769	-0.044
G03	2005	497155.5	6731543	635.992	635.948	-0.044
G03	1324	496894.4	6732235	633.461	633.416	-0.045
G03	1381	496965.4	6732047	634.437	634.392	-0.045
G03	1411	496365	6732878	632.865	632.82	-0.045
G03	1450	496447.8	6732658	632.728	632.683	-0.045
G03	1465	496343.2	6732936	633.136	633.091	-0.045
G03	1479	496387.7	6732818	632.509	632.464	-0.045
G03	1490	496413.9	6732748	632.246	632.201	-0.045
G03	1515	496976.2	6732018	634.509	634.464	-0.045
G03	1516	496976.3	6732018	634.505	634.46	-0.045
G03	1520	496943.1	6732106	634.101	634.056	-0.045
G03	1637	496403.9	6732775	632.413	632.368	-0.045
G03	1638	496404.3	6732774	632.403	632.358	-0.045
G03	1676	496814.7	6732446	632.35	632.305	-0.045
G03	1683	496830.9	6732403	632.514	632.469	-0.045
G03	1787	497263.1	6731258	635.891	635.846	-0.045
G03	1848	497124.8	6731624	635.799	635.754	-0.045
G03	1876	497091	6731714	635.018	634.973	-0.045
G03	2021	497240.6	6731318	635.528	635.483	-0.045
G03	1425	496396.3	6732795	632.417	632.372	-0.045
G03	1432	496410.8	6732756	632.243	632.198	-0.045
G03	1573	496409.6	6732759	632.243	632.198	-0.045
G03	1613	496343.4	6732935	633.128	633.083	-0.045
G03	1616	496347.3	6732925	633.09	633.045	-0.045
G03	1632	496389.2	6732814	632.489	632.444	-0.045
G03	1640	496409.6	6732759	632.243	632.198	-0.045
G03	1208	496911.8	6732189	633.67	633.624	-0.046
G03	1369	496898.6	6732224	633.51	633.464	-0.046
G03	1416	496376.9	6732846	632.693	632.647	-0.046

G03	1427	496400	6732785	632.371	632.325	-0.046
G03	1578	496419.9	6732732	632.266	632.22	-0.046
G03	1610	496331.6	6732967	633.318	633.272	-0.046
G03	1634	496395.6	6732797	632.435	632.389	-0.046
G03	1681	496826.6	6732415	632.492	632.446	-0.046
G03	1728	496874.3	6732288	633.149	633.103	-0.046
G03	1781	497291.3	6731183	636.183	636.137	-0.046
G03	1885	497124.8	6731624	635.799	635.753	-0.046
G03	2062	497316.4	6731117	636.505	636.459	-0.046
G03	1197	496966.8	6732043	634.455	634.409	-0.046
G03	1236	496436.1	6732689	632.464	632.418	-0.046
G03	1294	496357.4	6732898	632.936	632.89	-0.046
G03	1409	496356.9	6732899	632.942	632.896	-0.046
G03	1435	496416.4	6732741	632.24	632.194	-0.046
G03	1440	496425.6	6732717	632.368	632.322	-0.046
G03	1464	496464.8	6732613	632.961	632.915	-0.046
G03	1478	496385.2	6732824	632.547	632.501	-0.046
G03	1504	496944.6	6732102	634.119	634.073	-0.046
G03	1552	496345.3	6732930	633.11	633.064	-0.046
G03	1622	496354.5	6732906	632.97	632.924	-0.046
G03	1883	497123.3	6731628	635.783	635.737	-0.046
G03	1191	496984.7	6731996	634.41	634.363	-0.047
G03	1235	496437.5	6732685	632.502	632.455	-0.047
G03	1237	496770.1	6732564	632.483	632.436	-0.047
G03	1374	496931.1	6732138	633.978	633.931	-0.047
G03	1388	496956.9	6732069	634.237	634.19	-0.047
G03	1412	496366.7	6732873	632.853	632.806	-0.047
G03	1523	496949.7	6732089	634.213	634.166	-0.047
G03	1611	496781.6	6732534	632.353	632.306	-0.047
G03	1689	496861.5	6732322	632.953	632.906	-0.047
G03	1736	496905.5	6732205	633.588	633.541	-0.047
G03	1742	496927.8	6732147	633.91	633.863	-0.047
G03	2052	497235	6731332	635.444	635.397	-0.047
G03	1219	496847.7	6732359	632.744	632.697	-0.047
G03	1301	496417.8	6732738	632.236	632.189	-0.047
G03	1318	496849.1	6732355	632.744	632.697	-0.047
G03	1358	496833.2	6732397	632.538	632.491	-0.047
G03	1458	496333.4	6732962	633.316	633.269	-0.047
G03	1485	496407.9	6732764	632.263	632.216	-0.047
G03	1505	496951.1	6732085	634.217	634.17	-0.047
G03	1555	496355.6	6732903	632.96	632.913	-0.047
G03	1599	496751.8	6732613	632.868	632.821	-0.047
G03	1657	496751.8	6732613	632.868	632.821	-0.047

G03	1738	496912.4	6732187	633.672	633.625	-0.047
G03	1836	497048.2	6731827	634.589	634.542	-0.047
G03	1846	497109.2	6731666	635.481	635.434	-0.047
G03	1946	497075.8	6731754	634.734	634.687	-0.047
G03	1993	497074.2	6731758	634.724	634.677	-0.047
G03	1755	497255.9	6731277	635.81	635.762	-0.048
G03	1859	497195.8	6731436	635.305	635.257	-0.048
G03	1187	496993.4	6731972	634.308	634.26	-0.048
G03	1193	496985.6	6731993	634.402	634.354	-0.048
G03	1293	496341.3	6732941	633.14	633.092	-0.048
G03	1360	496838.2	6732384	632.594	632.546	-0.048
G03	1382	496966.5	6732044	634.453	634.405	-0.048
G03	1417	496378.4	6732842	632.671	632.623	-0.048
G03	1677	496816.3	6732442	632.364	632.316	-0.048
G03	1737	496911.3	6732190	633.668	633.62	-0.048
G03	1741	496920.4	6732166	633.758	633.71	-0.048
G03	1778	497314.9	6731121	636.491	636.443	-0.048
G03	1842	497092.5	6731710	635.042	634.994	-0.048
G03	1849	497127.4	6731617	635.811	635.763	-0.048
G03	1964	497144.8	6731571	636.029	635.981	-0.048
G03	1976	497165.6	6731516	635.9	635.852	-0.048
G03	2010	497179.8	6731479	635.644	635.596	-0.048
G03	2066	497332.7	6731073	636.767	636.719	-0.048
G03	2067	497333.9	6731070	636.639	636.591	-0.048
G03	1218	496848.7	6732356	632.754	632.705	-0.049
G03	1260	496834.7	6732393	632.552	632.503	-0.049
G03	1268	496785.8	6732523	632.299	632.25	-0.049
G03	1282	496417.3	6732739	632.236	632.187	-0.049
G03	1332	496335.7	6732956	633.254	633.205	-0.049
G03	1379	496959.8	6732062	634.321	634.272	-0.049
G03	1408	496356.8	6732900	632.942	632.893	-0.049
G03	1526	496952.5	6732081	634.223	634.174	-0.049
G03	1533	496971.3	6732031	634.507	634.458	-0.049
G03	1543	496332	6732966	633.312	633.263	-0.049
G03	1554	496353.1	6732910	633.002	632.953	-0.049
G03	1579	496420	6732732	632.268	632.219	-0.049
G03	1627	496371	6732862	632.795	632.746	-0.049
G03	1641	496411.8	6732754	632.252	632.203	-0.049
G03	1684	496840.5	6732378	632.628	632.579	-0.049
G03	1716	496841.5	6732375	632.656	632.607	-0.049
G03	1784	497276.8	6731221	636.019	635.97	-0.049
G03	1790	497241	6731316	635.53	635.481	-0.049
G03	1795	497210.3	6731398	635.029	634.98	-0.049

G03	1855	497149	6731560	636.084	636.035	-0.049
G03	1879	497116.1	6731647	635.691	635.642	-0.049
G03	1886	497137.5	6731591	635.923	635.874	-0.049
G03	1896	497187.2	6731459	635.463	635.414	-0.049
G03	1922	497322.2	6731101	636.559	636.51	-0.049
G03	1927	497009.1	6731931	634.114	634.065	-0.049
G03	1941	497044	6731839	634.591	634.542	-0.049
G03	1944	497059.1	6731799	634.749	634.7	-0.049
G03	2003	497146.6	6731566	636.062	636.013	-0.049
G03	2011	497187.5	6731458	635.481	635.432	-0.049
G03	2015	497214.1	6731388	635.057	635.008	-0.049
G03	2016	497218.2	6731377	635.101	635.052	-0.049
G03	2018	497220.8	6731370	635.151	635.102	-0.049
G03	2037	497304.7	6731148	636.303	636.254	-0.049
G03	1273	496754.2	6732607	632.796	632.747	-0.049
G03	1760	497223.9	6731362	635.214	635.165	-0.049
G03	1785	497275.1	6731226	635.993	635.944	-0.049
G03	1966	497005.6	6731940	634.142	634.093	-0.049
G03	1179	496983.9	6731998	634.414	634.364	-0.05
G03	1207	496912.3	6732187	633.674	633.624	-0.05
G03	1272	496757.9	6732597	632.694	632.644	-0.05
G03	1277	496409.1	6732761	632.259	632.209	-0.05
G03	1335	496361.9	6732886	632.885	632.835	-0.05
G03	1351	496796.6	6732494	632.223	632.173	-0.05
G03	1404	496346.8	6732926	633.102	633.052	-0.05
G03	1451	496324.5	6732986	633.506	633.456	-0.05
G03	1506	496953.6	6732078	634.221	634.171	-0.05
G03	1556	496357	6732899	632.934	632.884	-0.05
G03	1575	496411.7	6732754	632.254	632.204	-0.05
G03	1581	496422.8	6732724	632.312	632.262	-0.05
G03	1596	496454.5	6732640	632.76	632.71	-0.05
G03	1636	496402.5	6732778	632.361	632.311	-0.05
G03	1675	496812	6732453	632.324	632.274	-0.05
G03	1747	497301.6	6731156	636.249	636.199	-0.05
G03	1748	497300.5	6731159	636.237	636.187	-0.05
G03	1752	497278.2	6731218	636.045	635.995	-0.05
G03	1926	497007	6731936	634.132	634.082	-0.05
G03	2022	497241.1	6731316	635.534	635.484	-0.05
G03	2028	497253.5	6731283	635.786	635.736	-0.05
G03	2039	497308.3	6731138	636.361	636.311	-0.05
G03	2041	497315	6731120	636.487	636.437	-0.05
G03	2058	497290.4	6731185	636.189	636.139	-0.05
G03	2061	497297.9	6731166	636.223	636.173	-0.05

G03	1245	496930.8	6732139	633.97	633.92	-0.05
G03	1249	496916.1	6732178	633.69	633.64	-0.05
G03	1400	496335.4	6732957	633.268	633.218	-0.05
G03	1419	496381.6	6732834	632.613	632.563	-0.05
G03	1481	496396.2	6732795	632.417	632.367	-0.05
G03	1541	496331.2	6732968	633.32	633.27	-0.05
G03	1706	496911.9	6732189	633.676	633.626	-0.05
G03	1902	497248.1	6731298	635.652	635.602	-0.05
G03	1942	497057.7	6731802	634.719	634.669	-0.05
G03	2035	497298.6	6731164	636.229	636.179	-0.05
G03	1270	496777.8	6732544	632.409	632.358	-0.051
G03	1295	496361.9	6732886	632.885	632.834	-0.051
G03	1354	496820.5	6732431	632.428	632.377	-0.051
G03	1597	496456.9	6732634	632.776	632.725	-0.051
G03	1633	496392.5	6732805	632.457	632.406	-0.051
G03	1654	496447.1	6732660	632.722	632.671	-0.051
G03	1678	496817.4	6732439	632.386	632.335	-0.051
G03	1707	496921.7	6732163	633.776	633.725	-0.051
G03	1845	497101.9	6731685	635.3	635.249	-0.051
G03	1940	497040.1	6731849	634.531	634.48	-0.051
G03	1956	497125.8	6731622	635.809	635.758	-0.051
G03	2031	497274.2	6731228	635.983	635.932	-0.051
G03	1210	496905.4	6732206	633.6	633.549	-0.051
G03	1225	496460.9	6732623	632.758	632.707	-0.051
G03	1228	496783	6732530	632.335	632.284	-0.051
G03	1525	496951.2	6732084	634.225	634.174	-0.051
G03	1535	496976.4	6732018	634.503	634.452	-0.051
G03	1653	496436.1	6732689	632.47	632.419	-0.051
G03	1713	496832	6732400	632.524	632.473	-0.051
G03	1861	497004.5	6731943	634.172	634.121	-0.051
G03	1949	497090.7	6731715	635.014	634.963	-0.051
G03	1959	497135.1	6731597	635.859	635.808	-0.051
G03	2017	497219.6	6731373	635.129	635.078	-0.051
G03	1252	496881.2	6732270	633.223	633.171	-0.052
G03	1325	496898	6732225	633.506	633.454	-0.052
G03	1722	496855	6732339	632.833	632.781	-0.052
G03	1769	497151.8	6731553	636.05	635.998	-0.052
G03	1962	497142.7	6731577	636.011	635.959	-0.052
G03	2033	497294.8	6731174	636.203	636.151	-0.052
G03	1189	496996.4	6731965	634.274	634.222	-0.052
G03	1194	496989.8	6731982	634.368	634.316	-0.052
G03	1214	496879	6732276	633.173	633.121	-0.052
G03	1229	496780.4	6732537	632.369	632.317	-0.052

G03	1242	496954.5	6732076	634.205	634.153	-0.052
G03	1303	496435.8	6732690	632.464	632.412	-0.052
G03	1313	496793.2	6732503	632.225	632.173	-0.052
G03	1371	496903.6	6732211	633.58	633.528	-0.052
G03	1410	496360.7	6732889	632.889	632.837	-0.052
G03	1438	496422.9	6732724	632.312	632.26	-0.052
G03	1462	496336.7	6732953	633.22	633.168	-0.052
G03	1466	496353.4	6732909	632.994	632.942	-0.052
G03	1469	496364.7	6732879	632.861	632.809	-0.052
G03	1507	496957.7	6732067	634.249	634.197	-0.052
G03	1508	496960.1	6732061	634.323	634.271	-0.052
G03	1519	496940.8	6732112	634.071	634.019	-0.052
G03	1558	496360.1	6732891	632.894	632.842	-0.052
G03	1574	496410.2	6732758	632.241	632.189	-0.052
G03	1600	496752	6732612	632.866	632.814	-0.052
G03	1605	496322.9	6732990	633.44	633.388	-0.052
G03	1718	496843	6732371	632.688	632.636	-0.052
G03	1719	496849.4	6732354	632.754	632.702	-0.052
G03	1878	497115.6	6731649	635.669	635.617	-0.052
G03	1917	497278.5	6731217	636.041	635.989	-0.052
G03	1950	497099.9	6731690	635.23	635.178	-0.052
G03	1955	497118.1	6731642	635.741	635.689	-0.052
G03	1998	497118.1	6731642	635.741	635.689	-0.052
G03	2049	497220	6731372	635.139	635.087	-0.052
G03	2053	497242.5	6731312	635.558	635.506	-0.052
G03	1659	496756.6	6732600	632.728	632.675	-0.053
G03	1265	496812.4	6732452	632.328	632.275	-0.053
G03	1289	496349.7	6732919	633.05	632.997	-0.053
G03	1312	496786.2	6732522	632.307	632.254	-0.053
G03	1402	496341.5	6732941	633.14	633.087	-0.053
G03	1456	496329.2	6732973	633.344	633.291	-0.053
G03	1528	496955.6	6732073	634.221	634.168	-0.053
G03	1580	496421.4	6732728	632.28	632.227	-0.053
G03	1639	496406.5	6732768	632.273	632.22	-0.053
G03	1661	496767.2	6732572	632.541	632.488	-0.053
G03	1666	496780.9	6732536	632.359	632.306	-0.053
G03	1767	497157.1	6731539	635.972	635.919	-0.053
G03	1811	497113.6	6731654	635.611	635.558	-0.053
G03	1894	497185.6	6731463	635.485	635.432	-0.053
G03	1970	497150.9	6731555	636.076	636.023	-0.053
G03	1973	497017	6731910	634.114	634.061	-0.053
G03	2020	497226.6	6731355	635.268	635.215	-0.053
G03	2024	497244.5	6731307	635.59	635.537	-0.053

G03	2045	497207	6731407	635.061	635.008	-0.053
G03	2060	497294.9	6731174	636.203	636.15	-0.053
G03	1254	496863.7	6732316	633.003	632.949	-0.054
G03	1298	496392.1	6732806	632.461	632.407	-0.054
G03	1307	496760	6732591	632.626	632.572	-0.054
G03	1328	496923.4	6732158	633.808	633.754	-0.054
G03	1564	496377.3	6732845	632.691	632.637	-0.054
G03	1567	496396.6	6732794	632.423	632.369	-0.054
G03	1586	496433.6	6732696	632.458	632.404	-0.054
G03	1603	496762.5	6732584	632.6	632.546	-0.054
G03	1702	496899.5	6732222	633.52	633.466	-0.054
G03	1703	496906.3	6732203	633.596	633.542	-0.054
G03	1705	496908.3	6732198	633.622	633.568	-0.054
G03	1714	496836.1	6732389	632.574	632.52	-0.054
G03	1753	497272.2	6731234	635.951	635.897	-0.054
G03	1765	497194.9	6731438	635.321	635.267	-0.054
G03	1766	497167.4	6731511	635.866	635.812	-0.054
G03	1768	497152.4	6731551	636.042	635.988	-0.054
G03	1801	497193.3	6731443	635.369	635.315	-0.054
G03	1833	497017.4	6731909	634.116	634.062	-0.054
G03	1872	497065.6	6731781	634.762	634.708	-0.054
G03	1937	497038.1	6731854	634.497	634.443	-0.054
G03	1972	497157.5	6731538	635.964	635.91	-0.054
G03	1177	496997.7	6731961	634.256	634.201	-0.055
G03	1195	496990.4	6731980	634.362	634.307	-0.055
G03	1234	496438	6732684	632.514	632.459	-0.055
G03	1256	496852.3	6732347	632.78	632.725	-0.055
G03	1361	496848.9	6732355	632.75	632.695	-0.055
G03	1407	496350.6	6732916	633.04	632.985	-0.055
G03	1495	496433	6732697	632.454	632.399	-0.055
G03	1524	496950.2	6732087	634.223	634.168	-0.055
G03	1545	496337.3	6732952	633.206	633.151	-0.055
G03	1576	496419.5	6732733	632.264	632.209	-0.055
G03	1302	496431.7	6732701	632.436	632.381	-0.055
G03	1503	496940.8	6732112	634.071	634.016	-0.055
G03	1563	496371.2	6732862	632.797	632.742	-0.055
G03	1893	497185.4	6731464	635.493	635.438	-0.055
G03	1540	496326.3	6732981	633.386	633.33	-0.056
G03	1631	496384.8	6732825	632.555	632.499	-0.056
G03	1671	496792.4	6732505	632.241	632.185	-0.056
G03	1852	497132.8	6731603	635.823	635.767	-0.056
G03	1931	497016	6731913	634.102	634.046	-0.056
G03	2027	497252.2	6731287	635.762	635.706	-0.056

G03	2036	497300.3	6731159	636.231	636.175	-0.056
G03	2055	497272.8	6731232	635.963	635.907	-0.056
G03	1287	496344.2	6732933	633.138	633.082	-0.056
G03	1471	496367.4	6732872	632.849	632.793	-0.056
G03	1521	496944	6732103	634.113	634.057	-0.056
G03	1566	496391.5	6732807	632.469	632.413	-0.056
G03	1571	496403.9	6732775	632.413	632.357	-0.056
G03	1602	496754.7	6732605	632.782	632.726	-0.056
G03	1723	496864.7	6732314	633.023	632.967	-0.056
G03	1865	497019.4	6731904	634.134	634.078	-0.056
G03	1954	497116	6731648	635.697	635.641	-0.056
G03	1984	497185.3	6731464	635.495	635.439	-0.056
G03	2001	497142.8	6731577	636.013	635.957	-0.056
G03	2019	497222.6	6731365	635.187	635.131	-0.056
G03	1314	496806.7	6732467	632.233	632.176	-0.057
G03	1542	496331.5	6732967	633.324	633.267	-0.057
G03	1589	496442.3	6732672	632.612	632.555	-0.057
G03	1992	497070.9	6731767	634.742	634.685	-0.057
G03	1231	496778	6732543	632.395	632.338	-0.057
G03	1284	496370.8	6732863	632.801	632.744	-0.057
G03	1291	496334.6	6732959	633.304	633.247	-0.057
G03	1329	496324	6732987	633.544	633.487	-0.057
G03	1420	496387.6	6732818	632.515	632.458	-0.057
G03	1664	496771.3	6732561	632.485	632.428	-0.057
G03	1670	496791.5	6732508	632.245	632.188	-0.057
G03	1692	496867.1	6732307	633.085	633.028	-0.057
G03	1934	497032	6731870	634.375	634.318	-0.057
G03	1936	497036.8	6731858	634.475	634.418	-0.057
G03	1985	497047.8	6731828	634.599	634.542	-0.057
G03	1286	496346.4	6732928	633.108	633.05	-0.058
G03	1384	496974.1	6732024	634.531	634.473	-0.058
G03	1217	496864.3	6732315	633.023	632.965	-0.058
G03	1359	496833.7	6732396	632.53	632.472	-0.058
G03	1405	496348.4	6732922	633.076	633.018	-0.058
G03	1496	496438.4	6732683	632.522	632.464	-0.058
G03	1607	496324	6732987	633.542	633.484	-0.058
G03	1694	496868.1	6732305	633.099	633.041	-0.058
G03	1711	496829.1	6732408	632.52	632.462	-0.058
G03	1756	497251.3	6731289	635.738	635.68	-0.058
G03	1773	497117.9	6731643	635.731	635.673	-0.058
G03	1899	497210.4	6731398	635.035	634.977	-0.058
G03	1996	497115.4	6731649	635.671	635.613	-0.058
G03	2032	497293.2	6731178	636.197	636.139	-0.058

G03	1213	496879.1	6732275	633.179	633.12	-0.059
G03	1269	496780.4	6732537	632.375	632.316	-0.059
G03	1356	496824	6732422	632.472	632.413	-0.059
G03	1380	496965.1	6732048	634.437	634.378	-0.059
G03	1421	496389.5	6732813	632.491	632.432	-0.059
G03	1512	496972.4	6732028	634.511	634.452	-0.059
G03	1717	496842.6	6732372	632.684	632.625	-0.059
G03	1933	497028.2	6731880	634.303	634.244	-0.059
G03	2046	497335.4	6731066	636.635	636.576	-0.059
G03	1729	496878.2	6732278	633.171	633.112	-0.059
G03	1222	496833.6	6732396	632.54	632.48	-0.06
G03	1317	496830.1	6732405	632.526	632.466	-0.06
G03	1614	496795	6732498	632.227	632.167	-0.06
G03	2029	497260.7	6731264	635.86	635.8	-0.06
G03	1190	496996.7	6731964	634.272	634.212	-0.06
G03	1304	496442.3	6732673	632.614	632.554	-0.06
G03	1497	496438.5	6732683	632.53	632.469	-0.061
G03	1559	496360.4	6732890	632.895	632.834	-0.061
G03	1732	496887.7	6732253	633.323	633.262	-0.061
G03	1253	496864.9	6732313	633.037	632.976	-0.061
G03	1687	496847.1	6732360	632.748	632.687	-0.061
G03	1444	496438	6732684	632.512	632.45	-0.062
G03	1557	496358.5	6732895	632.912	632.85	-0.062
G03	1667	496785.7	6732523	632.303	632.241	-0.062
G03	1857	497171.5	6731501	635.802	635.74	-0.062
G03	1880	497118	6731642	635.731	635.669	-0.062
G03	2030	497270	6731240	635.967	635.905	-0.062
G03	1183	496996.1	6731966	634.284	634.221	-0.063
G03	1395	496322.7	6732990	633.44	633.377	-0.063
G03	1527	496955	6732074	634.223	634.16	-0.063
G03	1662	496769.9	6732565	632.503	632.44	-0.063
G03	1674	496810.4	6732457	632.308	632.245	-0.063
G03	1979	497028.9	6731879	634.317	634.254	-0.063
G03	2025	497245.9	6731303	635.622	635.559	-0.063
G03	1353	496808.7	6732462	632.286	632.222	-0.064
G03	1529	496958.4	6732065	634.269	634.205	-0.064
G03	1720	496850.4	6732352	632.76	632.696	-0.064
G03	1994	497105.7	6731675	635.411	635.347	-0.064
G03	1248	496919.6	6732168	633.76	633.695	-0.065
G03	1831	497003.6	6731946	634.178	634.113	-0.065
G03	1862	497004.7	6731943	634.164	634.099	-0.065
G03	1203	496933	6732133	634.004	633.939	-0.065
G03	2002	497143.2	6731576	636.015	635.949	-0.066

G03	2048	497212.3	6731392	635.049	634.983	-0.066
G03	1227	496784.6	6732526	632.327	632.261	-0.066
G03	1299	496397.2	6732792	632.421	632.355	-0.066
G03	1375	496939	6732117	634.056	633.99	-0.066
G03	1685	496844.8	6732366	632.726	632.66	-0.066
G03	1789	497245.6	6731304	635.614	635.548	-0.066
G03	2026	497251.2	6731289	635.734	635.668	-0.066
G03	1724	496865.8	6732311	633.055	632.988	-0.067
G03	1960	497135.8	6731595	635.877	635.81	-0.067
G03	1226	496790	6732512	632.267	632.2	-0.067
G03	1368	496869.6	6732301	633.119	633.052	-0.067
G03	1987	497188.8	6731455	635.463	635.396	-0.067
G03	1939	497039.5	6731851	634.523	634.455	-0.068
G03	1965	497145.5	6731570	636.04	635.972	-0.068
G03	1239	496763.8	6732581	632.583	632.514	-0.069
G03	1798	497198.7	6731428	635.255	635.186	-0.069
G03	1978	497027.8	6731881	634.299	634.229	-0.07
G03	1188	496996.1	6731965	634.288	634.218	-0.07
G03	1238	496766.9	6732573	632.541	632.471	-0.07
G03	1952	497108.9	6731667	635.483	635.411	-0.072
G03	1621	496801.2	6732482	632.207	632.135	-0.072
G03	1688	496857.6	6732333	632.875	632.803	-0.072
G03	1725	496866.3	6732309	633.059	632.987	-0.072
G03	2065	497320.4	6731106	636.561	636.489	-0.072
G03	1810	497114	6731653	635.629	635.556	-0.073
G03	1180	496984.5	6731996	634.41	634.336	-0.074
G03	1267	496801.2	6732482	632.209	632.135	-0.074
G03	1715	496838.8	6732382	632.608	632.534	-0.074
G03	1704	496907.3	6732201	633.612	633.537	-0.075
G03	2009	497176.3	6731488	635.704	635.628	-0.076
G03	2051	497232.6	6731339	635.406	635.325	-0.081
G03	1695	496869.5	6732301	633.121	633.039	-0.082
G03	1875	497080.5	6731742	634.82	634.737	-0.083
G03	1680	496821.2	6732429	632.442	632.358	-0.084
G03	1364	496857.5	6732333	632.877	632.783	-0.094
G04	2334	497383.3	6726047	730.283	730.37	0.087
G04	2086	496907.6	6727127	724.221	724.273	0.052
G04	2250	497029.9	6726720	725.446	725.498	0.052
G04	2249	497025.3	6726733	725.17	725.221	0.051
G04	2341	497386.9	6726041	730.253	730.304	0.051
G04	2317	497265.4	6726233	732.388	732.437	0.049
G04	2156	496886.6	6727198	724.565	724.613	0.048
G04	2273	497222	6726306	732.802	732.849	0.047

G04	2237	497026.4	6726730	725.248	725.295	0.047
G04	2134	496916.6	6727095	724.085	724.131	0.046
G04	2154	496873.4	6727242	724.765	724.81	0.045
G04	2252	497012.2	6726770	724.398	724.443	0.045
G04	2106	496791.6	6727513	725.707	725.751	0.044
G04	2107	496796.8	6727499	725.751	725.795	0.044
G04	2113	496825.4	6727414	725.39	725.434	0.044
G04	2309	497186.5	6726370	732.491	732.535	0.044
G04	2340	497383.9	6726046	730.317	730.361	0.044
G04	2322	497282.6	6726206	732.108	732.151	0.043
G04	2155	496881.7	6727214	724.615	724.658	0.043
G04	2276	497242.8	6726270	732.721	732.763	0.042
G04	2323	497286.4	6726200	732.028	732.07	0.042
G04	2258	497056.2	6726650	726.878	726.919	0.041
G04	2288	497072.8	6726610	727.719	727.76	0.041
G04	2294	497108.5	6726528	729.465	729.506	0.041
G04	2338	497409.8	6726005	729.901	729.941	0.04
G04	2151	496850.2	6727324	725.187	725.227	0.04
G04	2153	496872.5	6727245	724.793	724.833	0.04
G04	2247	497012.8	6726769	724.434	724.473	0.039
G04	2082	496931.5	6727043	723.885	723.924	0.039
G04	2262	497120.4	6726501	729.986	730.025	0.039
G04	2185	497111.6	6726521	729.611	729.649	0.038
G04	2236	497027.6	6726726	725.314	725.352	0.038
G04	2290	497081.6	6726589	728.153	728.191	0.038
G04	2081	496933.2	6727037	723.847	723.884	0.037
G04	2239	497014.4	6726764	724.538	724.575	0.037
G04	2233	497036.2	6726703	725.772	725.809	0.037
G04	2169	497361.2	6726082	730.75	730.786	0.036
G04	2313	497218.1	6726313	732.784	732.82	0.036
G04	2326	497310.3	6726162	731.579	731.615	0.036
G04	2117	496831.5	6727392	725.426	725.462	0.036
G04	2280	497277.9	6726214	732.182	732.218	0.036
G04	2152	496852.9	6727314	725.121	725.156	0.035
G04	2266	497171.9	6726397	732.117	732.152	0.035
G04	2332	497372.6	6726064	730.512	730.547	0.035
G04	2342	497394.7	6726029	730.165	730.2	0.035
G04	2160	496913.4	6727107	724.149	724.184	0.035
G04	2232	497056.9	6726648	726.928	726.963	0.035
G04	2324	497289.4	6726195	731.98	732.015	0.035
G04	2325	497296.1	6726184	731.868	731.903	0.035
G04	2098	496841.1	6727357	725.324	725.358	0.034
G04	2120	496843.9	6727347	725.276	725.31	0.034

G04	2145	496804	6727479	725.733	725.767	0.034
G04	2158	496908.2	6727124	724.213	724.247	0.034
G04	2110	496809.4	6727464	725.698	725.732	0.034
G04	2115	496826.8	6727409	725.424	725.458	0.034
G04	2127	496872.9	6727243	724.779	724.813	0.034
G04	2129	496884.5	6727205	724.581	724.615	0.034
G04	2200	497318.9	6726148	731.461	731.495	0.034
G04	2254	497037.8	6726698	725.864	725.898	0.034
G04	2267	497186.9	6726369	732.505	732.539	0.034
G04	2268	497188.2	6726367	732.527	732.561	0.034
G04	2308	497186	6726370	732.481	732.515	0.034
G04	2316	497263	6726237	732.442	732.476	0.034
G04	2327	497313.1	6726158	731.535	731.569	0.034
G04	2087	496906.3	6727131	724.249	724.282	0.033
G04	2234	497032.6	6726713	725.592	725.625	0.033
G04	2242	497395.9	6726027	730.157	730.19	0.033
G04	2255	497047.1	6726673	726.404	726.437	0.033
G04	2297	497117	6726509	729.847	729.88	0.033
G04	2306	497183.7	6726375	732.431	732.464	0.033
G04	2094	496857.3	6727298	725.081	725.113	0.032
G04	2105	496787.7	6727527	725.707	725.739	0.032
G04	2121	496848.1	6727332	725.213	725.245	0.032
G04	2126	496865.2	6727269	724.917	724.949	0.032
G04	2130	496884.9	6727203	724.577	724.609	0.032
G04	2133	496915.3	6727100	724.115	724.147	0.032
G04	2194	497007.2	6726786	724.132	724.164	0.032
G04	2222	497110.5	6726523	729.563	729.595	0.032
G04	2226	497077.6	6726598	727.951	727.983	0.032
G04	2230	497061	6726638	727.14	727.172	0.032
G04	2285	497356.9	6726089	730.824	730.856	0.032
G04	2291	497086.4	6726577	728.391	728.423	0.032
G04	2292	497094.2	6726559	728.779	728.811	0.032
G04	2336	497393.9	6726030	730.173	730.205	0.032
G04	2344	497409.7	6726005	729.903	729.935	0.032
G04	2310	497189.6	6726364	732.561	732.593	0.032
G04	2077	496853.1	6727314	725.127	725.158	0.031
G04	2148	496826.8	6727409	725.428	725.459	0.031
G04	2203	497284.8	6726202	732.072	732.103	0.031
G04	2296	497116.7	6726509	729.833	729.864	0.031
G04	2333	497380.7	6726051	730.376	730.407	0.031
G04	2162	496920.1	6727083	724.027	724.058	0.031
G04	2320	497276	6726216	732.214	732.245	0.031
G04	2335	497385.6	6726043	730.297	730.328	0.031

G04	2116	496831.2	6727394	725.424	725.454	0.03
G04	2161	496914.3	6727103	724.127	724.157	0.03
G04	2217	497154.5	6726431	731.502	731.532	0.03
G04	2269	497195.9	6726353	732.655	732.685	0.03
G04	2076	496887.2	6727196	724.565	724.595	0.03
G04	2083	496927.2	6727058	723.937	723.967	0.03
G04	2097	496853	6727314	725.129	725.159	0.03
G04	2131	496909.6	6727120	724.197	724.227	0.03
G04	2259	497056.7	6726649	726.918	726.948	0.03
G04	2201	497304.7	6726171	731.685	731.714	0.029
G04	2270	497199.5	6726346	732.694	732.723	0.029
G04	2093	496863.6	6727275	724.981	725.01	0.029
G04	2140	496782.9	6727544	725.655	725.684	0.029
G04	2147	496820.4	6727433	725.528	725.557	0.029
G04	2227	497076.4	6726601	727.883	727.912	0.029
G04	2228	497073.1	6726609	727.743	727.772	0.029
G04	2301	497135.7	6726469	730.722	730.751	0.029
G04	2305	497161	6726418	731.735	731.764	0.029
G04	2114	496826.5	6727410	725.436	725.464	0.028
G04	2118	496835	6727379	725.384	725.412	0.028
G04	2138	496774.2	6727574	725.635	725.663	0.028
G04	2149	496841.8	6727355	725.318	725.346	0.028
G04	2187	497074.1	6726607	727.797	727.825	0.028
G04	2274	497223.1	6726304	732.816	732.844	0.028
G04	2281	497285.5	6726201	732.052	732.08	0.028
G04	2282	497338.4	6726118	731.141	731.169	0.028
G04	2328	497321.2	6726145	731.441	731.469	0.028
G04	2329	497324.7	6726139	731.393	731.421	0.028
G04	2330	497359.9	6726084	730.77	730.798	0.028
G04	2088	496900.9	6727150	724.365	724.392	0.027
G04	2104	496786.6	6727531	725.709	725.736	0.027
G04	2137	496941.8	6727007	723.685	723.712	0.027
G04	2143	496791.3	6727515	725.727	725.754	0.027
G04	2186	497099.9	6726547	729.055	729.082	0.027
G04	2195	497366.4	6726074	730.648	730.675	0.027
G04	2219	497143.9	6726452	731.106	731.133	0.027
G04	2221	497126	6726489	730.254	730.281	0.027
G04	2265	497158.7	6726423	731.648	731.675	0.027
G04	2278	497260.7	6726241	732.491	732.518	0.027
G04	2321	497280.4	6726209	732.158	732.185	0.027
G04	2251	497011.3	6726773	724.354	724.381	0.027
G04	2080	496829.6	6727399	725.452	725.478	0.026
G04	2175	497218.8	6726312	732.798	732.824	0.026

G04	2204	497248	6726261	732.683	732.709	0.026
G04	2311	497195.4	6726353	732.655	732.681	0.026
G04	2125	496853.9	6727311	725.105	725.131	0.026
G04	2289	497080.8	6726591	728.109	728.135	0.026
G04	2298	497120.7	6726501	730.014	730.04	0.026
G04	2096	496854	6727310	725.107	725.132	0.025
G04	2101	496770.7	6727586	725.621	725.646	0.025
G04	2188	497068.8	6726620	727.564	727.589	0.025
G04	2253	497023.4	6726738	725.084	725.109	0.025
G04	2286	497375.4	6726059	730.472	730.497	0.025
G04	2176	497210.6	6726326	732.74	732.765	0.025
G04	2256	497048.5	6726669	726.498	726.523	0.025
G04	2277	497256.6	6726248	732.557	732.582	0.025
G04	2284	497352.6	6726096	730.892	730.917	0.025
G04	2257	497048.8	6726668	726.502	726.526	0.024
G04	2091	496864.7	6727271	724.945	724.969	0.024
G04	2103	496780.3	6727553	725.663	725.687	0.024
G04	2132	496912.1	6727111	724.157	724.181	0.024
G04	2141	496786.2	6727532	725.707	725.731	0.024
G04	2260	497061.5	6726637	727.16	727.184	0.024
G04	2318	497269	6726228	732.328	732.352	0.024
G04	2144	496795.4	6727503	725.755	725.778	0.023
G04	2206	497232.2	6726289	732.835	732.858	0.023
G04	2295	497110.3	6726524	729.561	729.584	0.023
G04	2303	497150.4	6726439	731.36	731.383	0.023
G04	2304	497153.2	6726433	731.466	731.489	0.023
G04	2312	497211.2	6726325	732.752	732.775	0.023
G04	2163	496932.6	6727039	723.863	723.886	0.023
G04	2085	496923.9	6727070	723.973	723.995	0.022
G04	2211	497206	6726334	732.732	732.754	0.022
G04	2302	497144.1	6726452	731.112	731.134	0.022
G04	2108	496800.9	6727488	725.767	725.789	0.022
G04	2213	497196.8	6726351	732.672	732.694	0.022
G04	2225	497090.1	6726569	728.589	728.611	0.022
G04	2231	497060.8	6726639	727.138	727.16	0.022
G04	2337	497408.9	6726006	729.917	729.939	0.022
G04	2224	497097.7	6726552	728.959	728.98	0.021
G04	2246	497009.7	6726779	724.26	724.281	0.021
G04	2073	496910.2	6727118	724.199	724.219	0.02
G04	2135	496919.8	6727084	724.035	724.055	0.02
G04	2202	497286.7	6726199	732.04	732.06	0.02
G04	2209	497220.7	6726308	732.81	732.83	0.02
G04	2272	497217.1	6726315	732.78	732.8	0.02

G04	2307	497185.5	6726371	732.477	732.497	0.02
G04	2079	496846.6	6727337	725.253	725.273	0.02
G04	2089	496898.2	6727159	724.397	724.417	0.02
G04	2146	496811.8	6727457	725.69	725.71	0.02
G04	2165	496937.6	6727022	723.759	723.779	0.02
G04	2177	497177.8	6726386	732.301	732.321	0.02
G04	2181	497146.1	6726448	731.198	731.218	0.02
G04	2184	497116.1	6726511	729.817	729.837	0.02
G04	2196	497353.4	6726094	730.874	730.894	0.02
G04	2197	497346.3	6726105	731.004	731.024	0.02
G04	2243	497407.9	6726008	729.941	729.961	0.02
G04	2248	497020.2	6726747	724.884	724.904	0.02
G04	2300	497134.9	6726471	730.688	730.708	0.02
G04	2124	496853.3	6727313	725.127	725.146	0.019
G04	2150	496849.5	6727327	725.193	725.212	0.019
G04	2235	497031.5	6726716	725.546	725.565	0.019
G04	2238	497019	6726751	724.818	724.837	0.019
G04	2241	497001.6	6726804	723.826	723.845	0.019
G04	2072	496919	6727087	724.057	724.075	0.018
G04	2122	496848.8	6727329	725.203	725.221	0.018
G04	2128	496879.6	6727221	724.663	724.681	0.018
G04	2157	496905.9	6727133	724.263	724.281	0.018
G04	2174	497280.1	6726210	732.16	732.178	0.018
G04	2179	497154.4	6726431	731.496	731.514	0.018
G04	2293	497099.7	6726547	729.047	729.065	0.018
G04	2343	497404	6726014	730.005	730.023	0.018
G04	2283	497347.9	6726103	730.974	730.992	0.018
G04	2075	496895.6	6727168	724.423	724.44	0.017
G04	2164	496936.5	6727026	723.783	723.8	0.017
G04	2170	497347.2	6726104	730.992	731.009	0.017
G04	2173	497309.7	6726163	731.607	731.624	0.017
G04	2182	497144	6726452	731.116	731.133	0.017
G04	2207	497231.8	6726289	732.833	732.85	0.017
G04	2215	497187	6726369	732.515	732.532	0.017
G04	2240	497002.1	6726802	723.856	723.873	0.017
G04	2261	497076.6	6726601	727.911	727.928	0.017
G04	2159	496908.9	6727122	724.205	724.222	0.017
G04	2092	496833.8	6727384	725.406	725.422	0.016
G04	2095	496856.7	6727301	725.089	725.105	0.016
G04	2111	496812.2	6727456	725.68	725.695	0.015
G04	2119	496836.8	6727373	725.374	725.389	0.015
G04	2189	497067	6726624	727.47	727.485	0.015
G04	2071	496927.4	6727058	723.949	723.963	0.014

G04	2099	496761.8	6727616	725.567	725.581	0.014
G04	2100	496764.5	6727607	725.573	725.587	0.014
G04	2102	496776.2	6727567	725.631	725.645	0.014
G04	2136	496927.2	6727058	723.945	723.959	0.014
G04	2198	497335.4	6726122	731.183	731.197	0.014
G04	2245	497398.6	6726023	730.109	730.123	0.014
G04	2078	496851.7	6727318	725.167	725.18	0.013
G04	2109	496802.2	6727484	725.765	725.778	0.013
G04	2172	497320.9	6726145	731.449	731.462	0.013
G04	2190	497048.3	6726670	726.492	726.505	0.013
G04	2210	497210.1	6726327	732.744	732.757	0.013
G04	2214	497195.1	6726354	732.651	732.664	0.013
G04	2218	497146.9	6726446	731.25	731.263	0.013
G04	2229	497064.5	6726630	727.342	727.355	0.013
G04	2263	497126.8	6726488	730.292	730.305	0.013
G04	2319	497269.5	6726227	732.322	732.335	0.013
G04	2193	497018.9	6726751	724.81	724.822	0.012
G04	2315	497245.8	6726265	732.709	732.721	0.012
G04	2069	496936.5	6727026	723.789	723.8	0.011
G04	2084	496926.7	6727060	723.959	723.97	0.011
G04	2212	497198.6	6726348	732.704	732.715	0.011
G04	2271	497212.1	6726323	732.756	732.767	0.011
G04	2192	497030.3	6726719	725.498	725.509	0.011
G04	2180	497153.5	6726433	731.478	731.488	0.01
G04	2299	497132.3	6726476	730.574	730.584	0.01
G04	2090	496872.6	6727244	724.809	724.819	0.01
G04	2123	496852.6	6727315	725.139	725.149	0.01
G04	2208	497225	6726301	732.826	732.836	0.01
G04	2068	496940	6727013	723.723	723.732	0.009
G04	2142	496787.5	6727528	725.717	725.726	0.009
G04	2244	497399.6	6726021	730.099	730.108	0.009
G04	2331	497365.4	6726075	730.684	730.693	0.009
G04	2070	496927.6	6727057	723.949	723.957	0.008
G04	2171	497321.7	6726144	731.443	731.451	0.008
G04	2183	497120.8	6726500	730.03	730.038	0.008
G04	2178	497162.7	6726415	731.805	731.812	0.007
G04	2191	497039.9	6726692	726.002	726.009	0.007
G04	2264	497139.1	6726462	730.9	730.907	0.007
G04	2314	497226.8	6726298	732.846	732.853	0.007
G04	2339	497412.1	6726001	729.875	729.882	0.007
G04	2275	497233.5	6726286	732.819	732.824	0.005
G04	2205	497247.6	6726262	732.703	732.708	0.005
G04	2166	496938.5	6727019	723.751	723.755	0.004

G04	2168	497375.8	6726059	730.472	730.476	0.004
G04	2279	497261.8	6726239	732.485	732.489	0.004
G04	2220	497135.4	6726470	730.726	730.729	0.003
G04	2139	496778.5	6727559	725.671	725.674	0.003
G04	2112	496818.8	6727438	725.61	725.612	0.002
G04	2223	497105.7	6726534	729.345	729.347	0.002
G04	2199	497325.2	6726139	731.401	731.402	0.001
G04	2167	497389.8	6726037	730.243	730.244	0.001
G04	2216	497161.3	6726418	731.753	731.754	0.001
G04	2074	496909.1	6727122	724.213	724.212	-0.001
G04	2287	497375.8	6726059	730.468	730.467	-0.001

Appendix D

SimActive Orthophoto Processing Reports

1. PROJECT SUMMARY

PROJECT

Project type	Aerial
Projection	EPSG:3155 NAD83(CSRs) UTM zone 8N
Planar units	METERS
Elevation units	METERS
Leica-MFC150	788 images
Total images	788

IMAGE TIE POINTS

Quality assessment	EXCELLENT
Average projection error	0.47 pixels
Standard deviation	0.30 pixels
Average number of tie points per image	104.6

GROUND CONTROL POINTS

Average XY error	0.180 m
RMS Z error	0.161 m
Average projection error	0.39 pixels
Standard deviation	0.23 pixels
Number of GCPs	41

CHECK POINTS

Average XY error	-
RMS Z error	-
Average projection error	-
Standard deviation	-
Number of check points	0

2. BUNDLE ADJUSTMENT PARAMETERS

SENSOR CALIBRATION

Type of sensor calibration	Fixed
----------------------------	-------

Pixel size	Fixed
------------	-------

Xmm	Fixed
-----	-------

Ymm	Fixed
-----	-------

Focal length	Fixed
--------------	-------

K0	Fixed
----	-------

K1	Fixed
----	-------

K2	Fixed
----	-------

K3	Fixed
----	-------

K4	Fixed
----	-------

K5	Fixed
----	-------

K6	Fixed
----	-------

K7	Fixed
----	-------

P1	Fixed
----	-------

P2	Fixed
----	-------

P3	Fixed
----	-------

P4	Fixed
----	-------

EO ADJUSTMENT

EO adjustment type	Constrained
--------------------	-------------

Boresight calibration	Yes
-----------------------	-----

X	1.00000
---	---------

Y	1.00000
---	---------

Z	1.00000
---	---------

Omega	60.00000
-------	----------

Phi	60.00000
-----	----------

Kappa	90.00000
-------	----------

GROUND REFERENCE

Ground reference type	GCP
-----------------------	-----

Uncertainty X	Fixed
---------------	-------

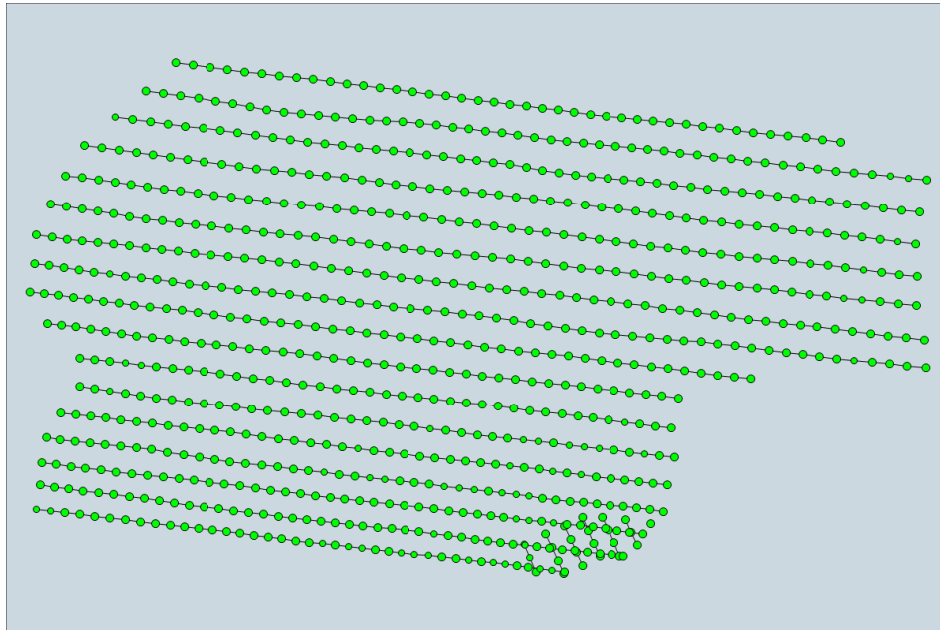
Uncertainty Y	Fixed
---------------	-------

Uncertainty Z	Fixed
---------------	-------

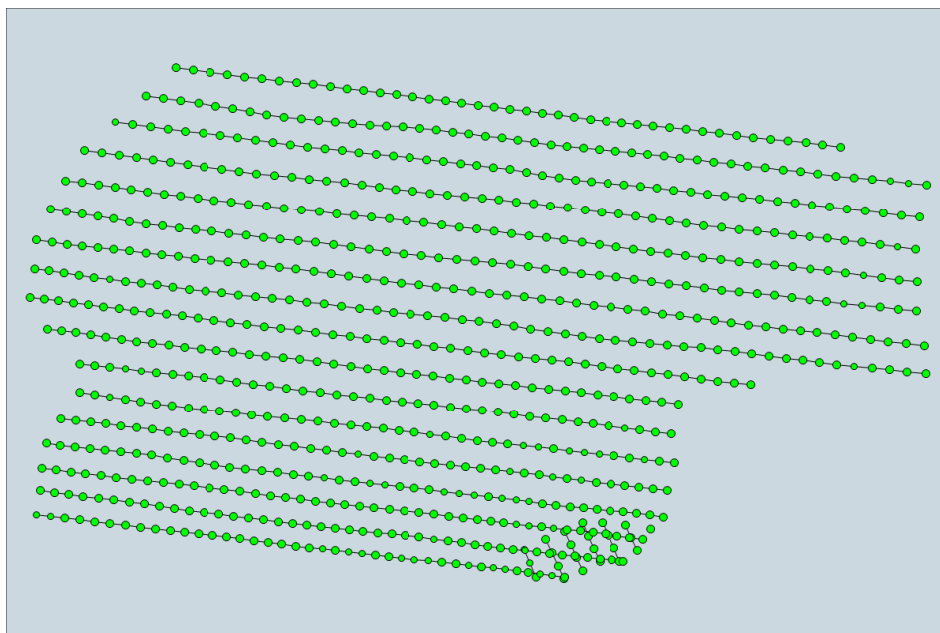
Sample radius	Fixed
---------------	-------

3. AERIAL TRIANGULATION OVERVIEW

TIE POINT RESIDUAL ERROR BEFORE ADJUSTMENT



TIE POINT RESIDUAL ERROR AFTER ADJUSTMENT



N/A
 0-0.75 pixels
 0.75-1.5 pixels
 >1.5 pixels

4. IMAGE ADJUSTMENT

IMAGE ADJUSTMENT FOR CAMERA SYSTEM 0

	AVERAGE	MAXIMUM
X	0.002 m	0.003 m
Y	0.002 m	0.002 m
Z	0.018 m	0.018 m
Omega	0.000°	0.001°
Phi	0.000°	0.001°
Kappa	0.000°	0.003°

5. SENSOR CALIBRATION

Leica-MFC150

Camera ID: 1 (Part of group 1)

	INITIAL VALUE	ADJUSTED VALUE
Pixel size	3.76000	3.76000
Xmm	0.00000	0.00000
Ymm	0.00000	0.00000
Focal length	71.00000	71.00000
K0	0.0000E+00	0.0000E+00
K1	0.0000E+00	0.0000E+00
K2	0.0000E+00	0.0000E+00
K3	0.0000E+00	0.0000E+00
K4	0.0000E+00	0.0000E+00
K5	0.0000E+00	0.0000E+00
K6	0.0000E+00	0.0000E+00
K7	0.0000E+00	0.0000E+00
P1	0.0000E+00	0.0000E+00
P2	0.0000E+00	0.0000E+00
P3	0.0000E+00	0.0000E+00
P4	0.0000E+00	0.0000E+00

6. CONTROL POINT ANALYSIS

PROJECTION ERROR

	GCP	Check Points
Average (pixels)	0.39	0.00
Standard deviation (pixels)	0.23	0.00
Min, Max (pixels)	[0.01, 1.86]	[0.00, 0.00]

SPATIAL ERROR

	GCP	Check Points
RMS X error (m)	0.125	0.000
RMS Y error (m)	0.165	0.000
RMS Z error (m)	0.161	0.000
Average XY error (m)	0.180	0.000
Average XYZ error (m)	0.245	0.000

DETAILED ERROR (1 / 3)

POINT ID	TYPE	X (m)	Y (m)	Z (m)	XYZ (m)	PIXELS
LCP_2	GCP	0.046	-0.037	0.159	0.170	0.201
LCP_3	GCP	0.199	0.253	0.074	0.330	0.187
LCP_4	GCP	0.099	-0.055	0.082	0.140	0.654
LCP_5	GCP	-0.037	-0.038	0.258	0.263	0.468
LCP_6	GCP	-0.003	0.080	0.118	0.143	0.182
LCP_7	GCP	0.115	-0.305	-0.088	0.338	0.469
LCP_8	GCP	-0.101	-0.081	0.207	0.244	0.464
LCP_9	GCP	0.197	-0.098	-0.007	0.220	0.482
LCP_10	GCP	0.018	0.024	-0.056	0.064	0.440
LCP_11	GCP	0.175	0.253	-0.095	0.322	0.121
LCP_12	GCP	-0.043	-0.186	-0.097	0.214	0.225
LCP_13	GCP	0.050	0.098	-0.094	0.145	0.226
LCP_14	GCP	-0.019	0.135	-0.185	0.230	0.708
LCP_15	GCP	-0.220	-0.313	-0.114	0.399	0.614

DETAILED ERROR (2 / 3)

POINT ID	TYPE	X (m)	Y (m)	Z (m)	XYZ (m)	PIXELS
LCP_16	GCP	-0.354	-0.092	0.039	0.368	0.141
LCP_17	GCP	-0.014	0.059	-0.177	0.187	0.158
LCP_18	GCP	-0.070	0.050	-0.051	0.100	0.921
LCP_19	GCP	-0.037	0.063	0.222	0.234	0.512
LCP_20	GCP	-0.140	0.089	-0.159	0.230	0.920
LCP_21	GCP	0.029	0.096	0.036	0.107	0.700
LCP_22	GCP	0.075	-0.211	0.122	0.255	0.345
LCP_23	GCP	0.089	-0.150	-0.001	0.174	0.509
LCP_24	GCP	0.248	-0.043	0.275	0.373	0.247
LCP_25	GCP	0.028	-0.049	0.306	0.311	0.181
LCP_26	GCP	-0.103	-0.185	0.185	0.281	0.215
LCP_27	GCP	0.202	-0.070	-0.158	0.266	0.364
LCP_28	GCP	-0.086	0.255	0.235	0.357	0.280
LCP_29	GCP	-0.050	0.167	-0.089	0.196	0.057

DETAILED ERROR (3 / 3)

POINT ID	TYPE	X (m)	Y (m)	Z (m)	XYZ (m)	PIXELS
LCP_30	GCP	-0.002	-0.242	-0.056	0.248	0.428
LCP_31	GCP	0.024	0.166	-0.138	0.217	0.103
LCP_32	GCP	0.066	-0.264	0.244	0.365	0.552
LCP_33	GCP	-0.079	0.094	0.220	0.252	0.120
LCP_34	GCP	-0.062	0.138	-0.176	0.232	0.674
LCP_35	GCP	-0.047	-0.017	-0.017	0.053	0.582
LCP_36	GCP	0.084	0.289	-0.316	0.436	0.388
LCP_37	GCP	0.228	0.013	-0.116	0.256	0.488
LCP_38	GCP	-0.225	0.326	0.178	0.434	0.861
LCP_39	GCP	0.071	0.014	0.175	0.189	0.192
LCP_40	GCP	0.031	-0.132	-0.188	0.232	0.262
LCP_41	GCP	0.140	0.270	0.016	0.305	0.097
LCP_42	GCP	-0.054	-0.033	-0.170	0.181	0.247

7. SYSTEM INFORMATION

Software version	Correlator3D 10.1.16
Correlator3D license	77244619736499150 - 656910861
Operating system	Windows 10 Pro
OpenCL GPU	NVIDIA Quadro RTX 4000, 8191MB RAM
OpenCL GPU driver version	552.23, OpenCL 3.0 CUDA, OpenCL C 1.2
OpenCL CPU	No OpenCL-enabled CPU found
OpenCL CPU driver version	N/A

Contact

Azadeh Koohzare, Ph.D., P.Eng.

604-424-4784

akoohzare@mcelhanney.com

