

Agisoft Metashape

Processing Report
23 February 2026



Survey Data

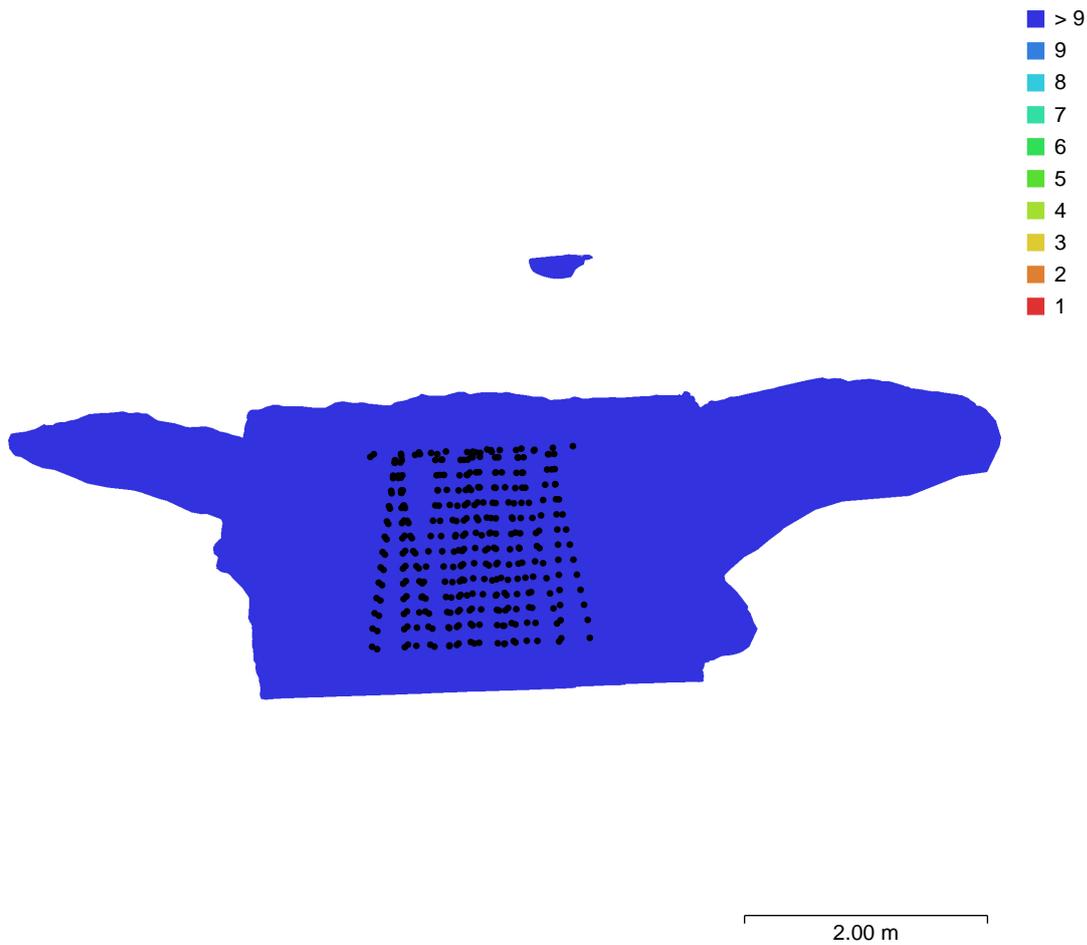


Fig. 1. Camera locations and image overlap.

Number of images:	336	Camera stations:	336
Flying altitude:	45.3 cm	Tie points:	120,832
Ground resolution:	0.501 mm/pix	Projections:	338,578
Coverage area:	13.0 m ²	Reprojection error:	0.301 pix

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
40	8660 x 5784	6 mm	4.17 x 4.17 um	No
41	8660 x 5784	6 mm	4.17 x 4.17 um	No
42	8660 x 5784	6 mm	4.17 x 4.17 um	No
43	8660 x 5784	6 mm	4.17 x 4.17 um	No
44	8660 x 5784	6 mm	4.17 x 4.17 um	No

Camera Model	Resolution	Focal Length	Pixel Size	Precalibrated
45	8660 x 5784	6 mm	4.17 x 4.17 um	No
46	8660 x 5784	6 mm	4.17 x 4.17 um	No
47	8660 x 5784	6 mm	4.17 x 4.17 um	No
48	8660 x 5784	6 mm	4.17 x 4.17 um	No
49	8660 x 5784	6 mm	4.17 x 4.17 um	No
50	8660 x 5784	6 mm	4.17 x 4.17 um	No
51	8660 x 5784	6 mm	4.17 x 4.17 um	No
52	8660 x 5784	6 mm	4.17 x 4.17 um	No
53	8660 x 5784	6 mm	4.17 x 4.17 um	No

Table 1. Cameras.

Camera Calibration

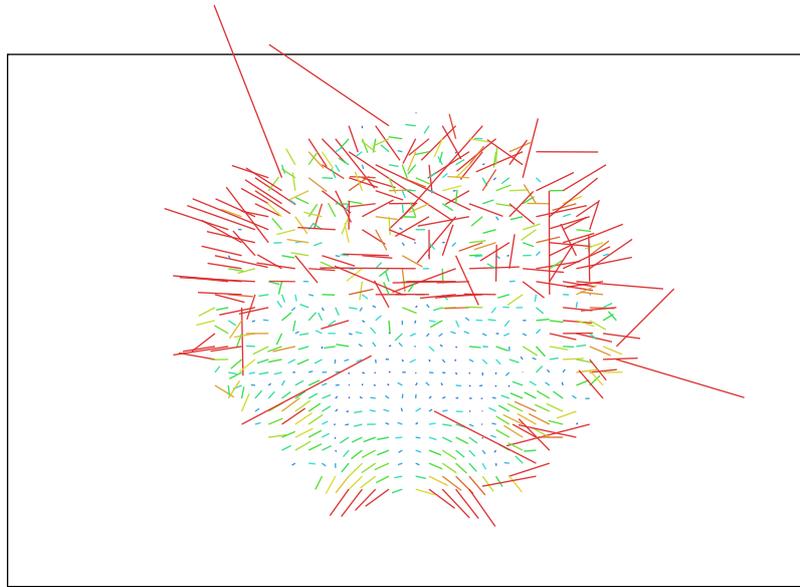


Fig. 2. Image residuals for 40.

40

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

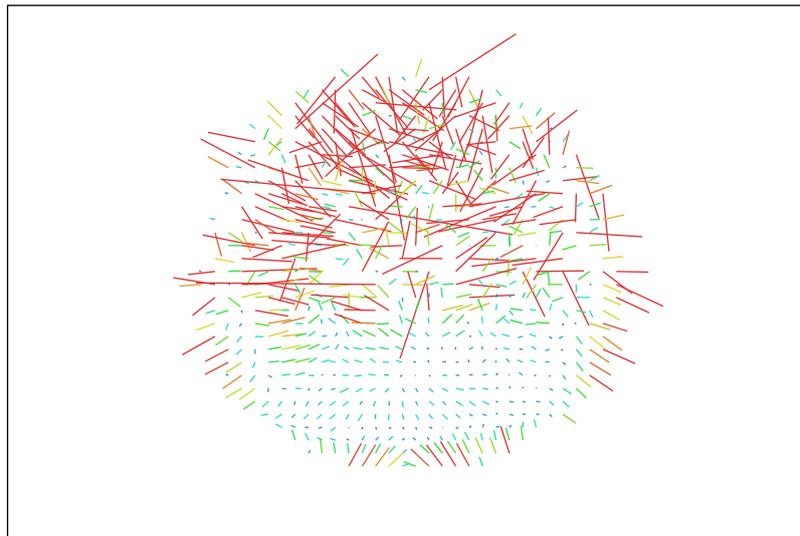
6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1443.96	0.043	1.00	0.02	-0.12	-0.74	0.62	-0.55	-0.01	0.18
Cx	14.1572	0.053		1.00	-0.02	-0.03	0.02	-0.02	-0.65	0.02
Cy	-19.1543	0.17			1.00	0.00	-0.01	0.02	0.01	-0.93
K1	-0.00657029	7e-05				1.00	-0.97	0.92	0.03	-0.03
K2	0.00196739	5.9e-05					1.00	-0.98	-0.02	0.01
K3	-0.00162495	1.5e-05						1.00	0.02	-0.00
P1	0.000273054	3.4e-06							1.00	-0.01
P2	0.000355504	1e-05								1.00

Table 2. Calibration coefficients and correlation matrix.

Camera Calibration



1 pix

Fig. 3. Image residuals for 41.

41

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1443.89	0.046	1.00	0.02	0.19	-0.80	0.69	-0.62	-0.01	-0.12
Cx	4.99528	0.047		1.00	0.00	-0.03	0.02	-0.02	-0.68	0.00
Cy	-33.9517	0.17			1.00	0.00	-0.03	0.02	-0.00	-0.96
K1	-0.00722778	5.9e-05				1.00	-0.97	0.92	0.01	-0.03
K2	0.00233282	4e-05					1.00	-0.98	-0.00	0.04
K3	-0.00163301	8.7e-06						1.00	-0.00	-0.04
P1	0.000234991	2.9e-06							1.00	-0.00
P2	0.000372259	1e-05								1.00

Table 3. Calibration coefficients and correlation matrix.

Camera Calibration

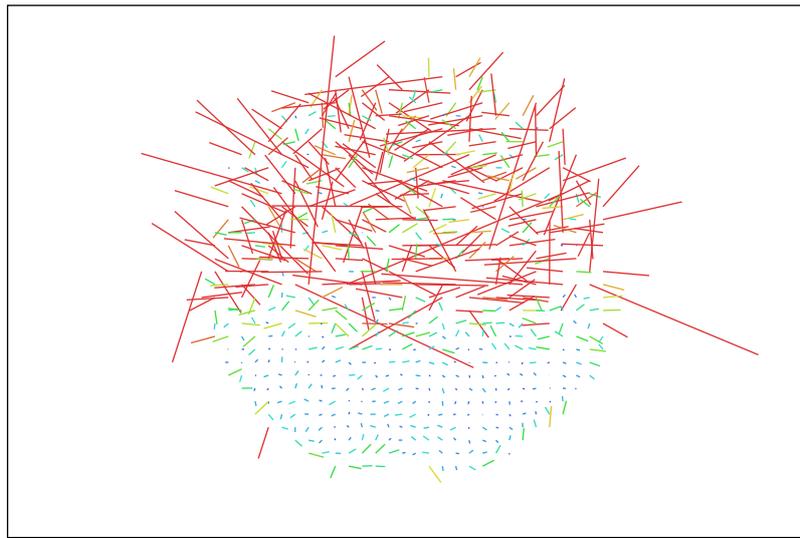


Fig. 4. Image residuals for 42.

42

24 images

Type	Resolution	Focal Length	Pixel Size
Fisheye	8660 x 5784	6 mm	4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1437.22	0.049	1.00	0.02	0.19	-0.81	0.71	-0.65	-0.01	-0.12
Cx	2.68732	0.046		1.00	0.01	-0.03	0.02	-0.02	-0.71	-0.01
Cy	-7.37983	0.18			1.00	0.00	-0.03	0.02	-0.01	-0.96
K1	-0.00594023	6.2e-05				1.00	-0.97	0.93	0.01	-0.03
K2	0.00150721	4.2e-05					1.00	-0.99	-0.00	0.04
K3	-0.00151568	9e-06						1.00	-0.00	-0.04
P1	-0.000125227	2.9e-06							1.00	0.01
P2	-0.000250338	1e-05								1.00

Table 4. Calibration coefficients and correlation matrix.

Camera Calibration

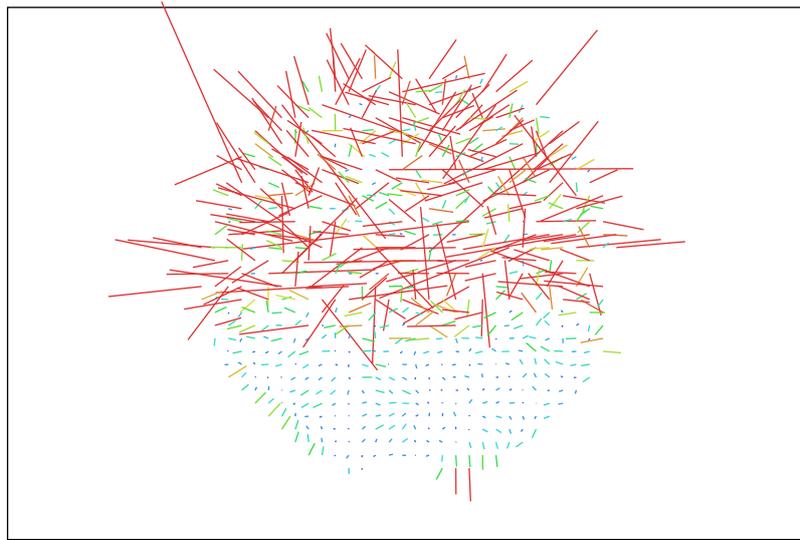


Fig. 5. Image residuals for 43.

43

24 images

Type	Resolution	Focal Length	Pixel Size
Fisheye	8660 x 5784	6 mm	4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1450.29	0.053	1.00	0.02	0.19	-0.82	0.73	-0.68	-0.00	-0.12
Cx	-6.03664	0.049		1.00	0.00	-0.02	0.02	-0.02	-0.74	0.00
Cy	-50.5826	0.18			1.00	0.01	-0.03	0.02	-0.01	-0.97
K1	-0.00564223	6.6e-05				1.00	-0.98	0.93	0.01	-0.03
K2	0.00113727	4.4e-05					1.00	-0.99	0.00	0.04
K3	-0.00144414	9.4e-06						1.00	-0.01	-0.04
P1	0.000253755	3e-06							1.00	0.00
P2	-0.000472164	1e-05								1.00

Table 5. Calibration coefficients and correlation matrix.

Camera Calibration

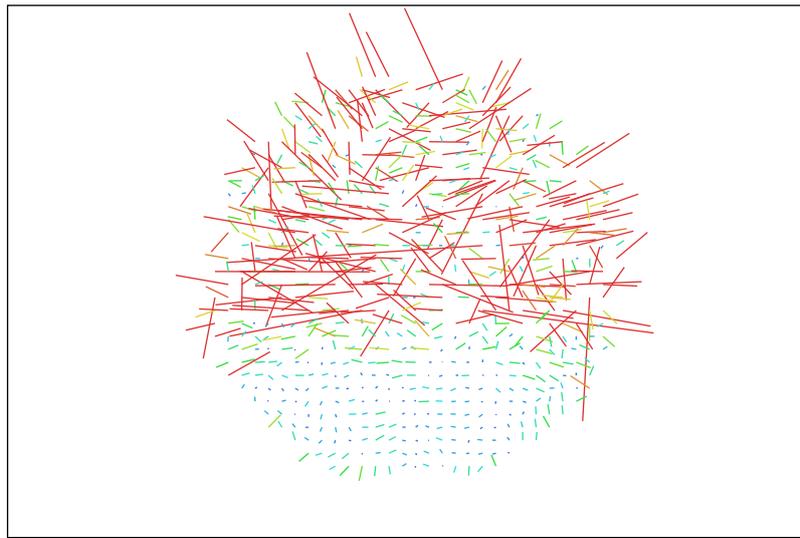


Fig. 6. Image residuals for 44.

44

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1444.42	0.06	1.00	0.01	0.18	-0.84	0.76	-0.71	-0.00	-0.12
Cx	28.9663	0.052		1.00	-0.00	-0.02	0.01	-0.01	-0.75	0.01
Cy	10.4112	0.19			1.00	0.00	-0.02	0.02	0.00	-0.97
K1	-0.00543278	7.3e-05				1.00	-0.98	0.94	0.00	-0.02
K2	0.00115507	4.8e-05					1.00	-0.99	0.00	0.03
K3	-0.00143112	1e-05						1.00	-0.01	-0.03
P1	0.000252096	3.1e-06							1.00	-0.01
P2	0.000255608	1.1e-05								1.00

Table 6. Calibration coefficients and correlation matrix.

Camera Calibration

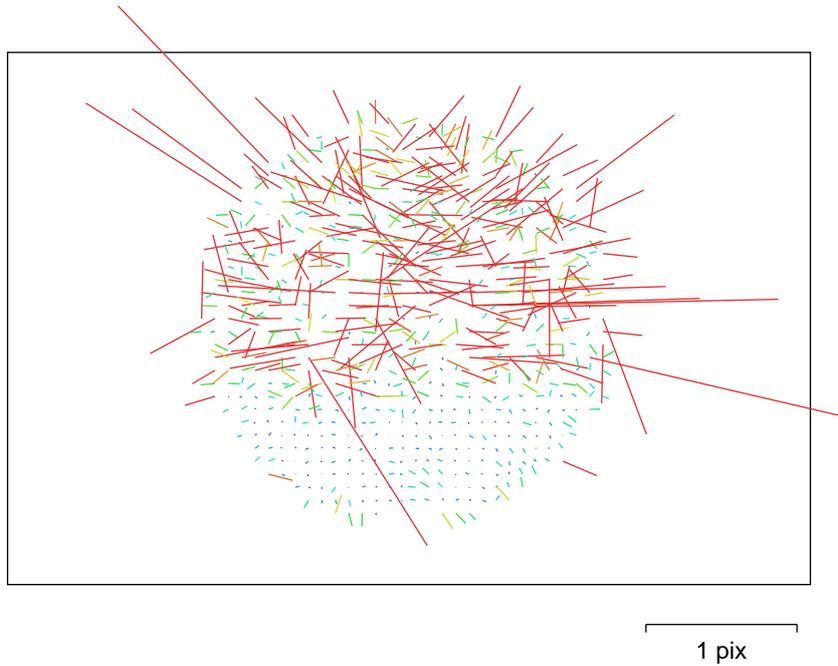


Fig. 7. Image residuals for 45.

45

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

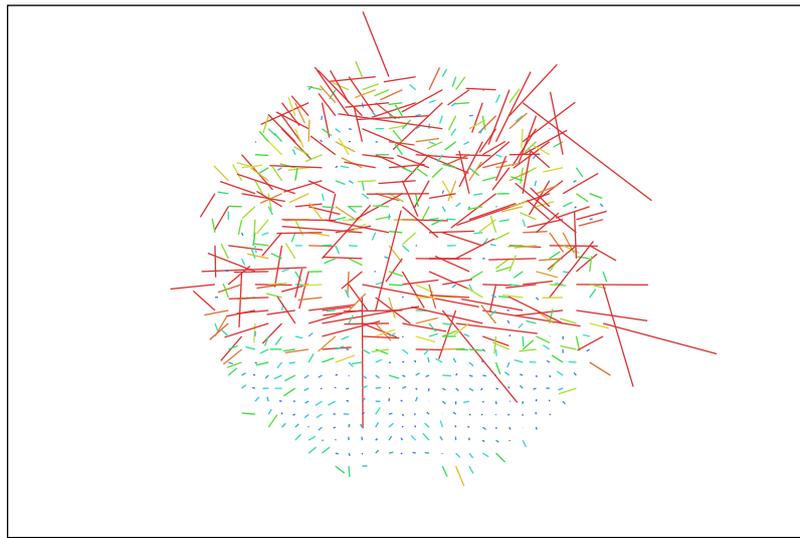
6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1449.89	0.063	1.00	0.01	0.17	-0.84	0.77	-0.72	-0.01	-0.12
Cx	1.98398	0.056		1.00	0.02	-0.01	0.01	-0.01	-0.78	-0.02
Cy	-31.7066	0.2			1.00	0.00	-0.02	0.02	-0.02	-0.97
K1	-0.0051616	7.7e-05				1.00	-0.98	0.95	0.01	-0.02
K2	0.000881898	5e-05					1.00	-0.99	-0.00	0.03
K3	-0.00139505	1.1e-05						1.00	0.00	-0.02
P1	-9.67243e-05	3.2e-06							1.00	0.02
P2	-0.000372748	1.1e-05								1.00

Table 7. Calibration coefficients and correlation matrix.

Camera Calibration



1 pix

Fig. 8. Image residuals for 46.

46

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1437.9	0.069	1.00	0.02	0.16	-0.86	0.79	-0.75	-0.01	-0.12
Cx	-14.3532	0.06		1.00	0.02	-0.01	0.01	-0.01	-0.79	-0.02
Cy	-10.3904	0.2			1.00	-0.00	-0.01	0.01	-0.02	-0.97
K1	-0.00554778	8.5e-05				1.00	-0.98	0.95	0.02	-0.01
K2	0.00107252	5.6e-05					1.00	-0.99	-0.01	0.01
K3	-0.00143724	1.2e-05						1.00	0.02	-0.01
P1	-0.000140854	3.5e-06							1.00	0.02
P2	-0.000225649	1.2e-05								1.00

Table 8. Calibration coefficients and correlation matrix.

Camera Calibration

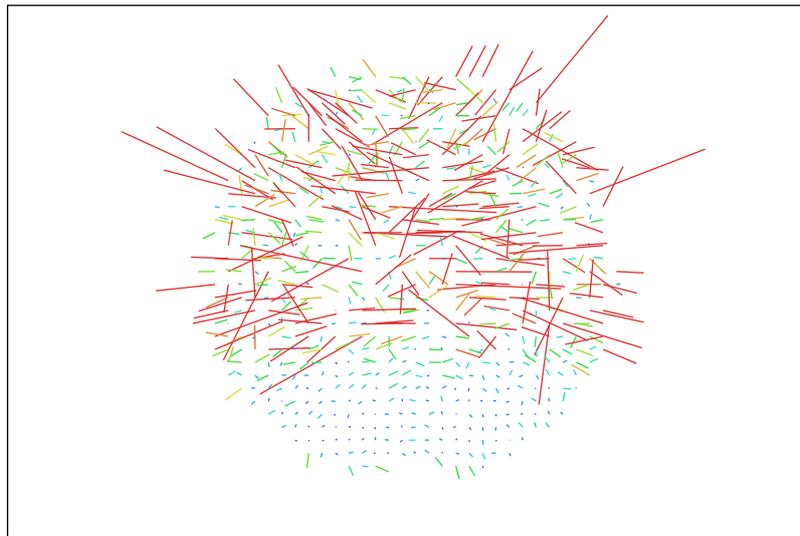


Fig. 9. Image residuals for 47.

47

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1449.86	0.075	1.00	0.00	0.15	-0.87	0.80	-0.75	-0.01	-0.13
Cx	16.623	0.069		1.00	0.02	-0.00	-0.00	0.00	-0.82	-0.03
Cy	-35.2952	0.21			1.00	0.00	-0.02	0.01	-0.03	-0.97
K1	-0.00432661	9.2e-05				1.00	-0.98	0.95	0.01	-0.01
K2	0.000419599	6e-05					1.00	-0.99	-0.01	0.01
K3	-0.0013162	1.2e-05						1.00	0.01	-0.01
P1	-0.000125718	3.8e-06							1.00	0.03
P2	-0.000149164	1.2e-05								1.00

Table 9. Calibration coefficients and correlation matrix.

Camera Calibration

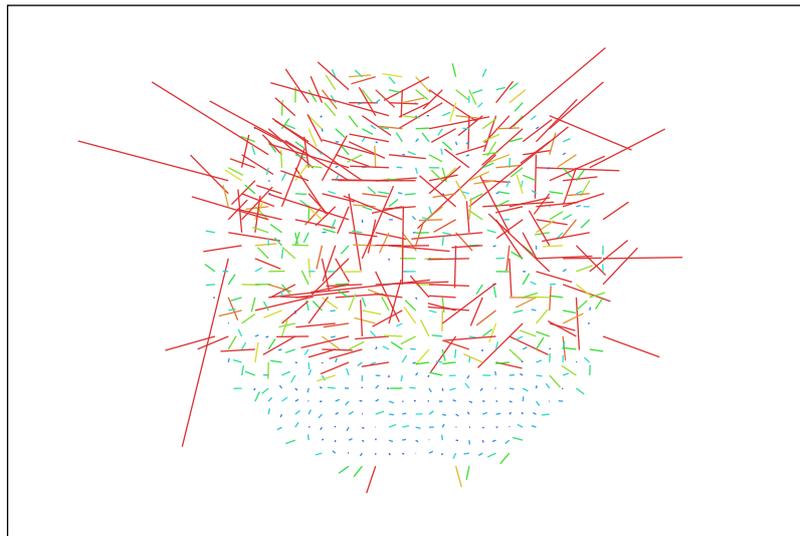


Fig. 10. Image residuals for 48.

48

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

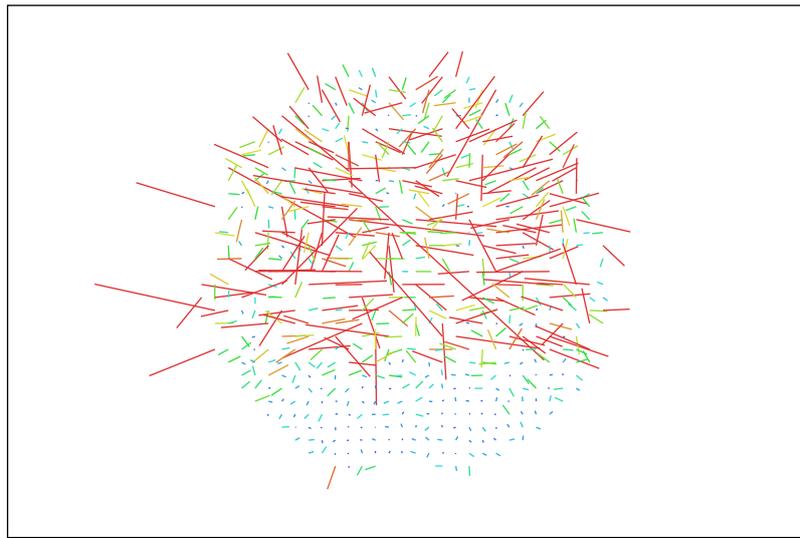
6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1437.79	0.086	1.00	0.02	0.14	-0.88	0.82	-0.77	-0.02	-0.12
Cx	10.211	0.081		1.00	-0.00	-0.01	0.01	-0.01	-0.84	0.00
Cy	-35.7962	0.22			1.00	-0.00	-0.00	-0.00	-0.00	-0.96
K1	-0.00442589	0.00011				1.00	-0.98	0.95	0.02	0.00
K2	0.000630535	7e-05					1.00	-0.99	-0.01	-0.01
K3	-0.00134152	1.4e-05						1.00	0.01	0.01
P1	0.000389672	4.2e-06							1.00	-0.00
P2	-0.000428979	1.3e-05								1.00

Table 10. Calibration coefficients and correlation matrix.

Camera Calibration



1 pix

Fig. 11. Image residuals for 49.

49

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1435.5	0.087	1.00	-0.00	0.15	-0.88	0.81	-0.76	0.01	-0.14
Cx	-10.6222	0.078		1.00	-0.00	-0.00	0.00	-0.00	-0.83	-0.00
Cy	-15.2892	0.22			1.00	-0.01	-0.00	-0.00	-0.00	-0.96
K1	-0.00440663	0.00011				1.00	-0.98	0.95	-0.00	0.00
K2	0.000527098	7e-05					1.00	-0.99	0.00	-0.01
K3	-0.00132191	1.4e-05						1.00	0.00	0.01
P1	-8.31636e-05	4.2e-06							1.00	-0.00
P2	-0.000207167	1.3e-05								1.00

Table 11. Calibration coefficients and correlation matrix.

Camera Calibration

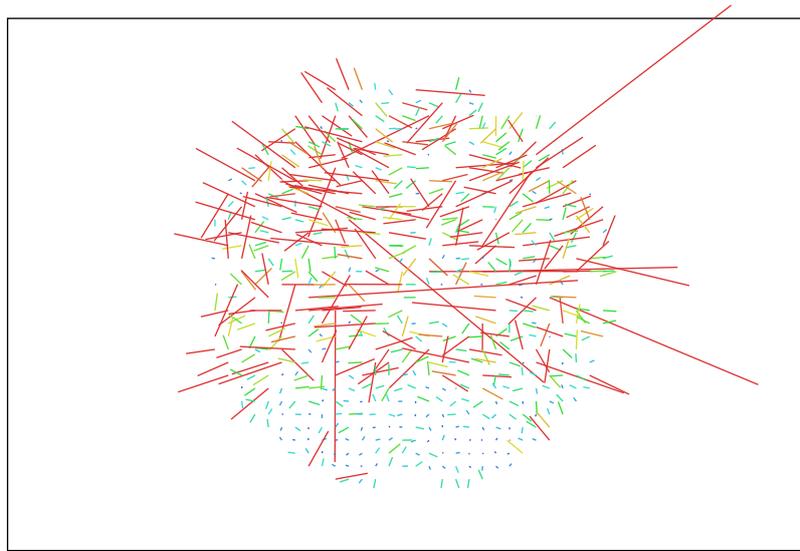


Fig. 12. Image residuals for 50.

50

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1444.11	0.1	1.00	0.03	0.14	-0.89	0.82	-0.77	-0.04	-0.14
Cx	10.478	0.085		1.00	-0.01	-0.03	0.03	-0.02	-0.83	0.01
Cy	-18.3601	0.22			1.00	-0.00	0.00	-0.00	0.01	-0.95
K1	-0.00535559	0.00013				1.00	-0.98	0.95	0.04	0.02
K2	0.000902641	8.4e-05					1.00	-0.99	-0.04	-0.02
K3	-0.00140125	1.7e-05						1.00	0.04	0.03
P1	0.000293461	4.6e-06							1.00	-0.00
P2	-0.000161804	1.3e-05								1.00

Table 12. Calibration coefficients and correlation matrix.

Camera Calibration

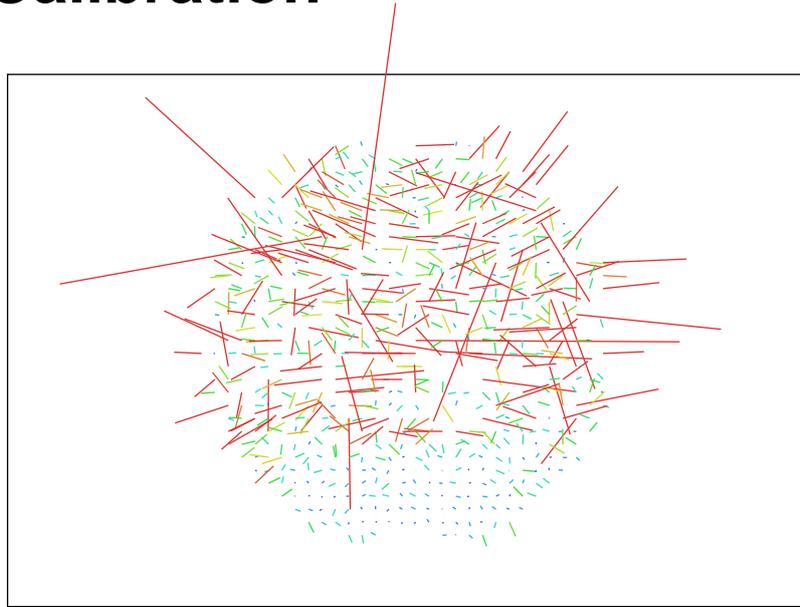


Fig. 13. Image residuals for 51.

51

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

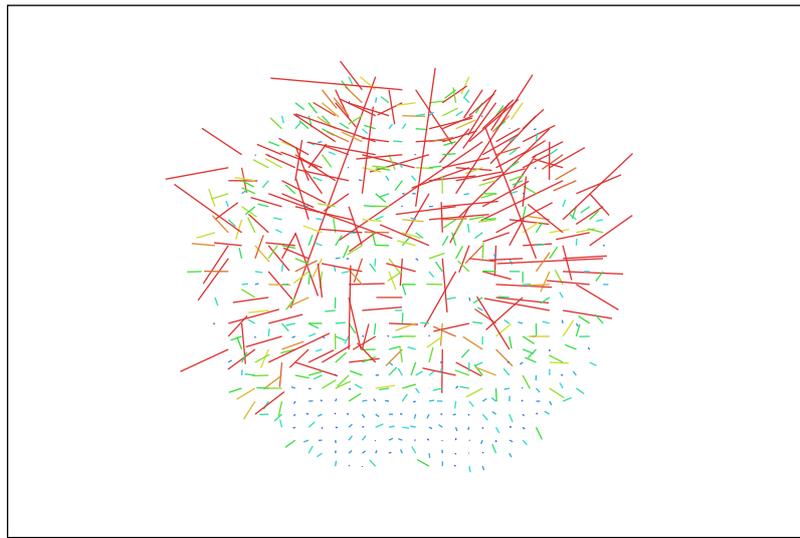
6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1440.51	0.097	1.00	0.02	0.13	-0.89	0.83	-0.78	-0.02	-0.13
Cx	-0.723791	0.076		1.00	0.00	-0.01	0.01	-0.01	-0.79	-0.00
Cy	1.35835	0.21			1.00	0.01	-0.01	0.00	-0.01	-0.94
K1	-0.00440168	0.00013				1.00	-0.98	0.95	0.03	-0.00
K2	0.000635059	8.4e-05					1.00	-0.99	-0.03	-0.01
K3	-0.00137166	1.8e-05						1.00	0.03	0.02
P1	-5.98816e-05	4.2e-06							1.00	0.00
P2	-0.000746767	1.3e-05								1.00

Table 13. Calibration coefficients and correlation matrix.

Camera Calibration



1 pix

Fig. 14. Image residuals for 52.

52

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

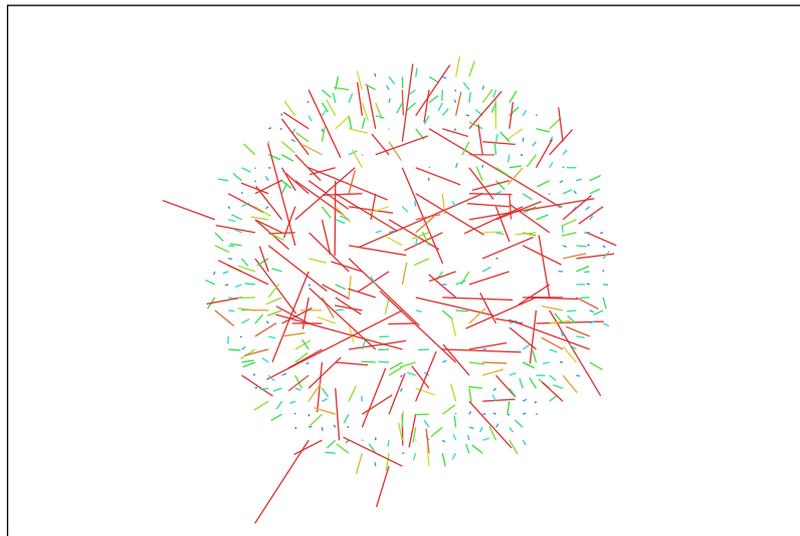
6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1442.03	0.11	1.00	0.03	0.10	-0.90	0.83	-0.78	-0.04	-0.09
Cx	-16.6077	0.081		1.00	0.00	-0.02	0.02	-0.02	-0.78	-0.01
Cy	-9.97005	0.21			1.00	0.03	-0.02	0.02	-0.01	-0.92
K1	-0.00483143	0.00014				1.00	-0.98	0.95	0.03	-0.03
K2	0.000840882	9.4e-05					1.00	-0.99	-0.03	-0.00
K3	-0.00138264	2e-05						1.00	0.04	0.01
P1	0.00023757	4.5e-06							1.00	0.01
P2	-0.000372426	1.3e-05								1.00

Table 14. Calibration coefficients and correlation matrix.

Camera Calibration



1 pix

Fig. 15. Image residuals for 53.

53

24 images

Type

Resolution

Focal Length

Pixel Size

Fisheye

8660 x 5784

6 mm

4.17 x 4.17 um

	Value	Error	F	Cx	Cy	K1	K2	K3	P1	P2
F	1373.64	0.63	1.00	-0.08	-0.01	-0.78	0.50	-0.38	0.11	0.02
Cx	25.6988	0.092		1.00	-0.04	0.02	0.00	-0.01	-0.83	0.00
Cy	-53.9525	0.1			1.00	0.14	-0.20	0.23	0.02	-0.86
K1	0.0371185	0.00063				1.00	-0.93	0.85	-0.06	-0.16
K2	-0.0111191	0.00042					1.00	-0.98	0.02	0.24
K3	-0.000349006	9.6e-05						1.00	-0.02	-0.28
P1	-0.000145954	1.4e-05							1.00	0.01
P2	-0.000261279	1.6e-05								1.00

Table 15. Calibration coefficients and correlation matrix.

Scale Bars

Label	Distance (m)	Error (m)
002a. 4-5	0.249883	-0.000117455
002b. 5-6	0.249996	9.6379e-05
005a. 12-13	0.250123	0.00014349
005b. 13-14	0.249887	-2.82465e-06
008a. 20-21	0.249736	-0.000294027
008b. 21-22	0.249492	-0.000387737
Total		0.000216207

Table 16. Control scale bars.

Digital Elevation Model

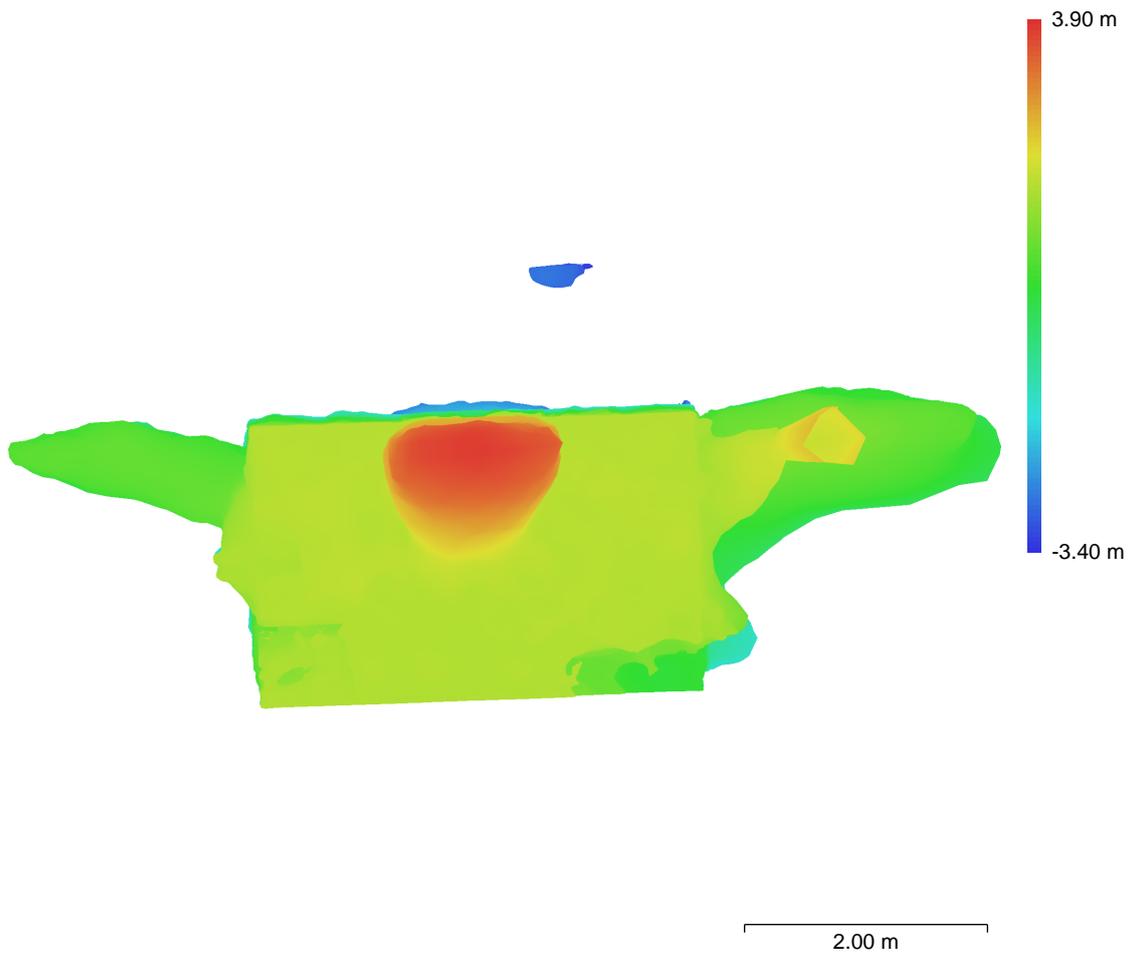


Fig. 16. Reconstructed digital elevation model.

Resolution: 4.11 mm/pix
Point density: 5.91 points/cm²

Processing Parameters

General

Images	336
Aligned images	336
Markers	11
Scale bars	6
Coordinate system	Local Coordinates (m)
Rotation angles	Yaw, Pitch, Roll

Tie Points

Points	120,832 of 351,212
RMS reprojection error	0.202445 (0.300573 pix)
Max reprojection error	0.971725 (5.02415 pix)
Mean key point size	1.38326 pix
Point colors	3 bands, uint8
Key points	1.59 GB
Average tie point multiplicity	2.84399

Alignment parameters

Accuracy	Highest
Generic preselection	Yes
Reference preselection	Estimated
Key point limit	60,000
Key point limit per Mpx	1,000
Tie point limit	0
Exclude stationary tie points	Yes
Guided image matching	No
Adaptive camera model fitting	No
Matching time	2 minutes 19 seconds
Matching memory usage	2.42 GB
Alignment time	31 seconds
Alignment memory usage	485.86 MB

Optimization parameters

Parameters	f, cx, cy, k1-k3, p1, p2
Adaptive camera model fitting	No
Exclude corners	No
Optimization time	0 seconds
Date created	2026:01:13 18:54:15
Software version	2.0.2.16404
File size	1.61 GB

Depth Maps

Count	322
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Depth maps generation parameters

Quality	Medium
Filtering mode	Mild
Max neighbors	16
Processing time	2 minutes 28 seconds
Memory usage	2.69 GB
Date created	2026:02:23 12:36:03
Software version	2.2.2.21287
File size	280.67 MB

Point Cloud

Points	19,427,018
Coordinate precision	0.501 mm

Point attributes	
Color	3 bands, uint8
Normal	
Point classes	
Created (never classified)	19,427,018
Depth maps generation parameters	
Quality	Medium
Filtering mode	Mild
Max neighbors	16
Processing time	2 minutes 28 seconds
Memory usage	2.69 GB
Point cloud generation parameters	
Source data	Depth maps
Processing time	11 minutes 55 seconds
Memory usage	12.20 GB
Date created	2026:02:23 12:47:59
Software version	2.2.2.21287
File size	258.40 MB
Model	
Faces	1,490,150
Vertices	745,193
Vertex colors	3 bands, uint8
Texture	16,384 x 16,384, 3 bands, uint8
Depth maps generation parameters	
Quality	Medium
Filtering mode	Mild
Max neighbors	16
Processing time	2 minutes 28 seconds
Memory usage	2.69 GB
Reconstruction parameters	
Surface type	Arbitrary
Source data	Depth maps
Interpolation	Enabled
Strict volumetric masks	No
Processing time	45 seconds
Memory usage	6.07 GB
Texturing parameters	
Mapping mode	Generic
Blending mode	Mosaic
Texture size	16,384
Page count	1
Enable hole filling	Yes
Enable ghosting filter	Yes
UV mapping time	1 minutes 56 seconds
UV mapping memory usage	1.13 GB
Blending time	1 minutes 25 seconds
Blending memory usage	11.56 GB
Blending GPU memory usage	7.58 GB
Date created	2026:02:23 12:48:42
Software version	2.2.2.21287
File size	238.52 MB
System	
Software name	Agisoft Metashape Professional
Software version	2.2.2 build 21287
OS	Windows 64 bit
RAM	255.52 GB

CPU
GPU(s)

AMD Ryzen Threadripper PRO 7975WX 32-Cores
NVIDIA GeForce RTX 5090
NVIDIA GeForce RTX 5090