Overview of Survey & Design Equipment used for Conservation Practices

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Basic Level

Measures the difference in height between two or more points. $600

Does not measure distance or angle.

Relies on hand written notes

Survey Grade GPS

Measures the location of a point or multiple points - $25,000

Requirements:

- **A controller and software $10,000**
- **Clear view of the sky**
- **A second GPS unit over a known monument.**

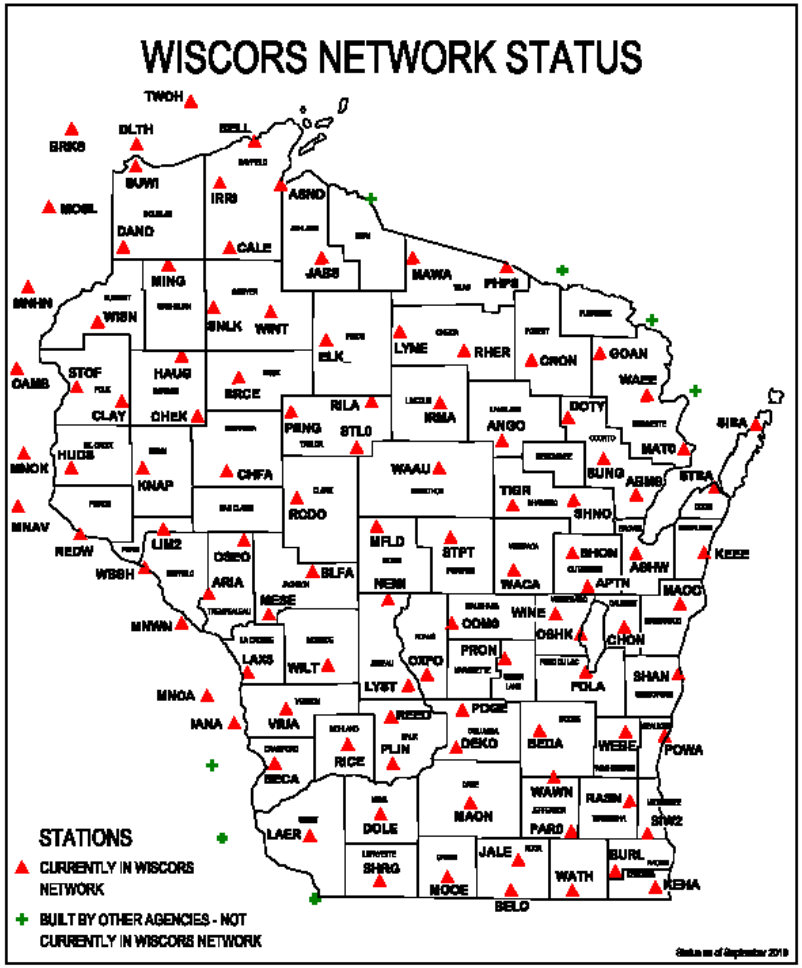
WISCORS Network

Continuously Operating Reference System
No Cost

GPS has some inherent error. Up to 3 feet horizontally and 6 feet vertically without corrections.

WISCORS broadcasts corrections from known locations that our equipment can use to provide real time measurements with an accuracy of 1 centimeter or less.

WISCORS Network



Survey Grade GPS

R6 Receiver

R10 Receiver

TSC7 Controller

T10 Controller

Robotic Total Station

Measures the location of a point or multiple points.
Extremely Accurate - $25,000

Requirements:
- **Uses same controller and software as GPS**
- **Line of sight**
- **Reflective Prism or point and shoot**

Integrated Surveying

Combines the benefits of GPS and Total Station

Survey Points

- Import to Computer Aided Drafting (CAD) software
- Develop a "Surface" model
- Combine with LiDAR surface
- Design features to be constructed
- Export design features to survey controller
- Stake out design features in the field
- Survey the constructed feature

Survey Processing

1012	508537.0	745107.0	992.87	GS
1013	508546.6	745107.7	993.17	GS
1014	508566.0	745109.7	993.90	GS
1015	508587.4	745111.1	995.04	GS
1016	508625.8	745115.7	997.83	GS
1017	508611.4	745177.0	994.54	GS
1018	508587.7	745172.6	992.45	GS
1019	508568.4	745167.4	991.36	GS
1020	508544.6	745166.4	990.56	GS
1021	508531.6	745165.8	990.17	GS
1022	508520.2	745165.3	990.01	GS
1023	508507.8	745163.9	990.30	GS
1024	508489.5	745160.5	991.20	GS
1025	508458.2	745157.1	993.07	GS
1026	508443.7	745154.2	994.28	GS
1027	508441.3	745203.4	990.97	GS
1028	508464.2	745206.0	989.45	GS
1029	508482.8	745207.7	988.46	GS
1030	508500.9	745209.1	987.68	GS
1031	508513.1	745211.3	987.28	GS
1032	508522.5	745213.7	987.69	GS
1033	508531.4	745214.8	987.88	GS
1034	508543.2	745215.2	988.08	GS
1035	508562.6	745216.0	989.43	GS

Survey Processing

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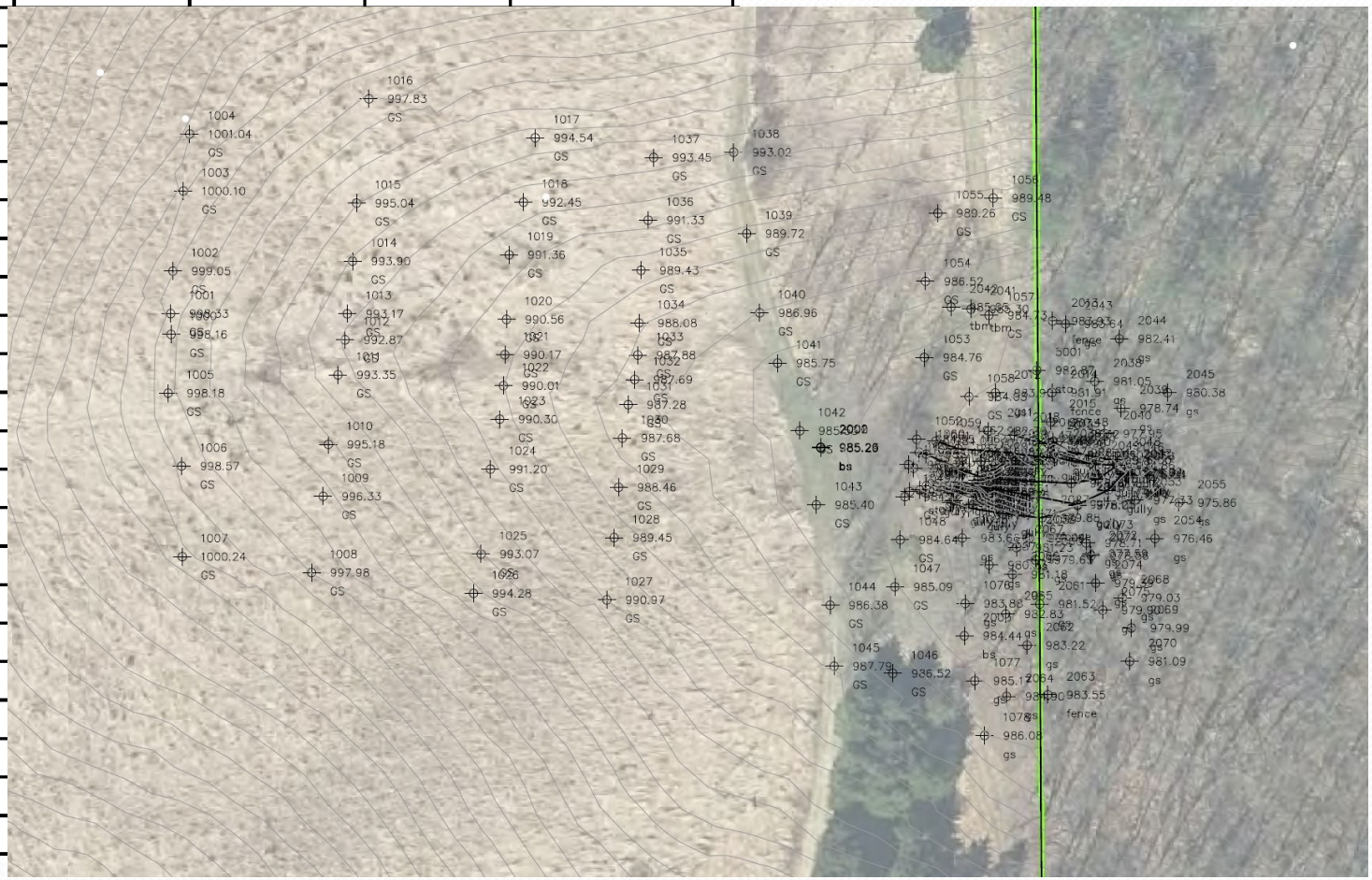

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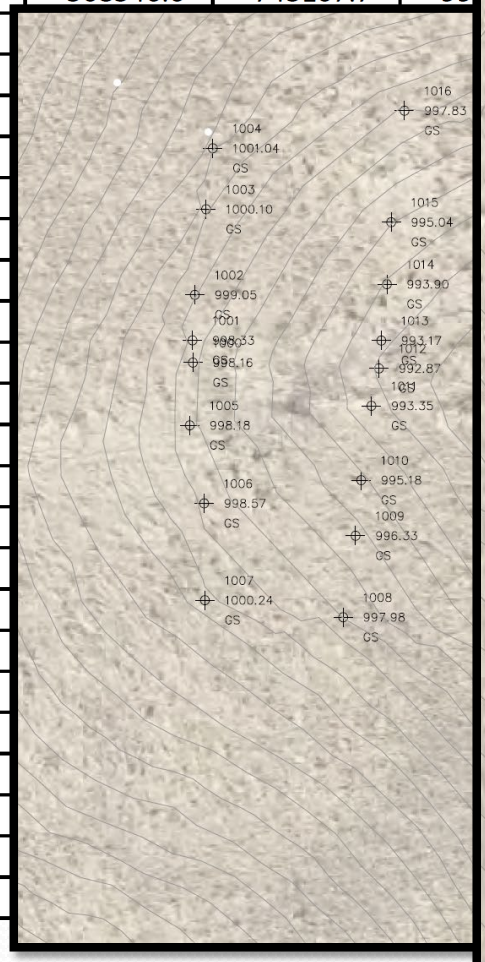

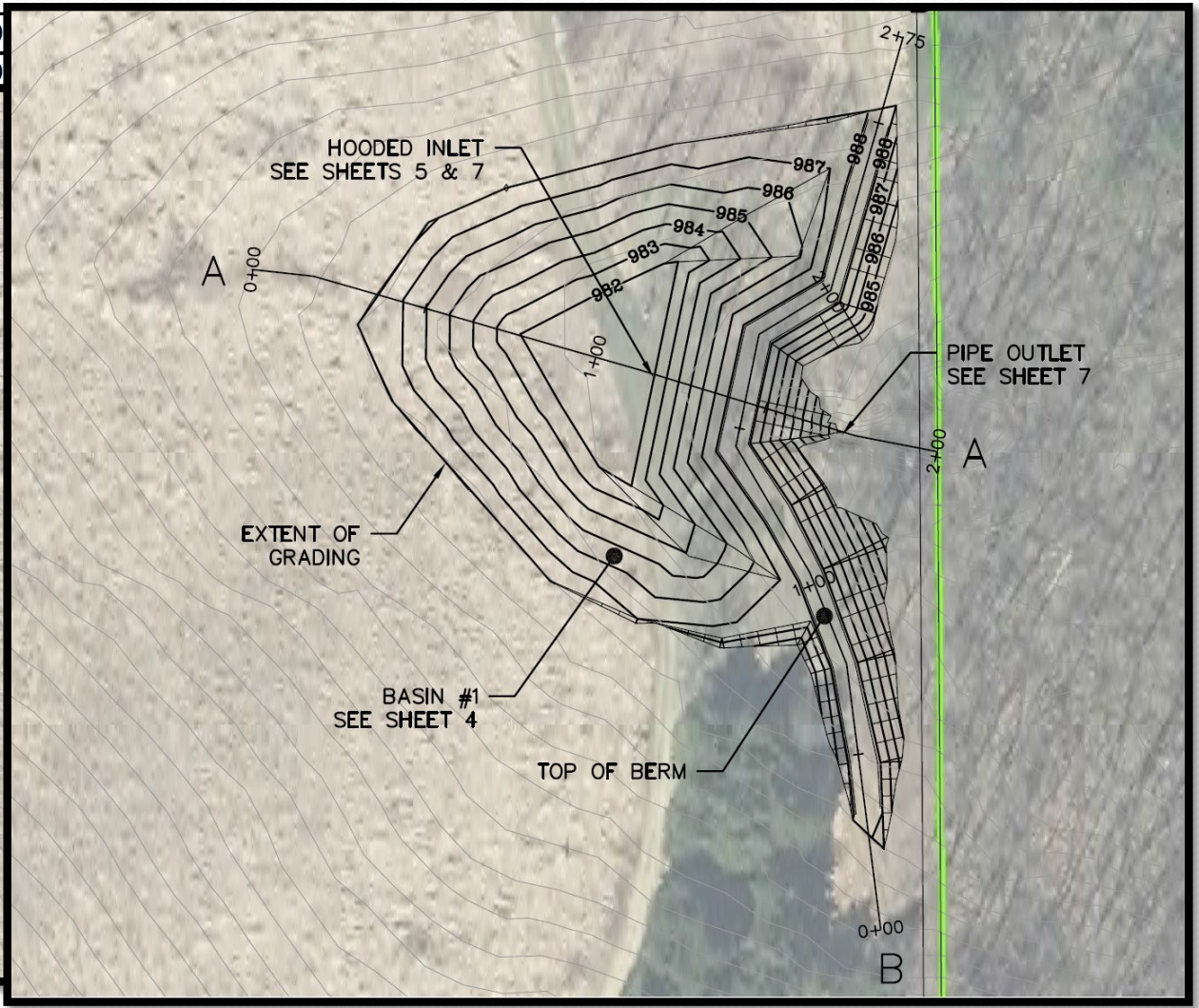

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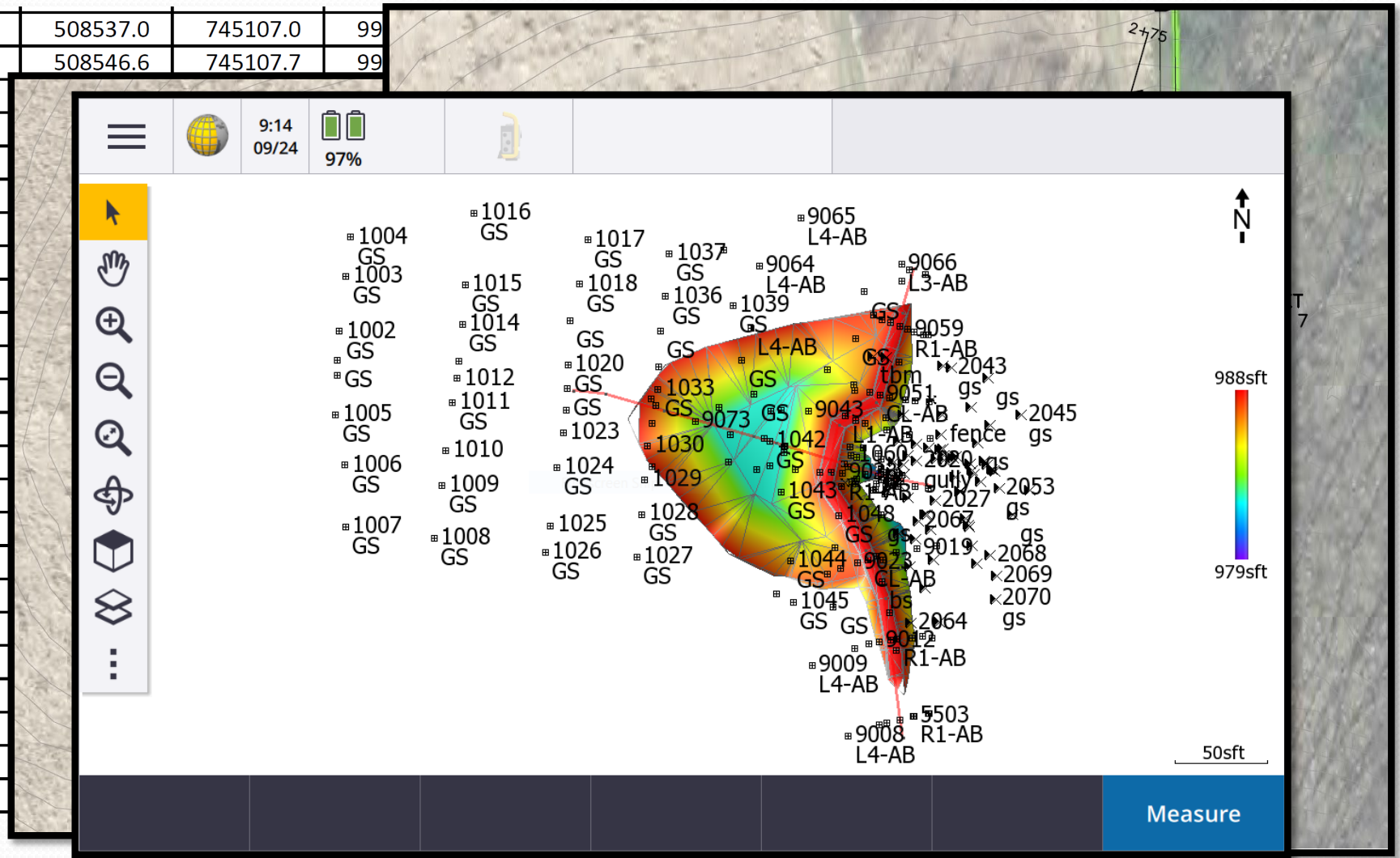
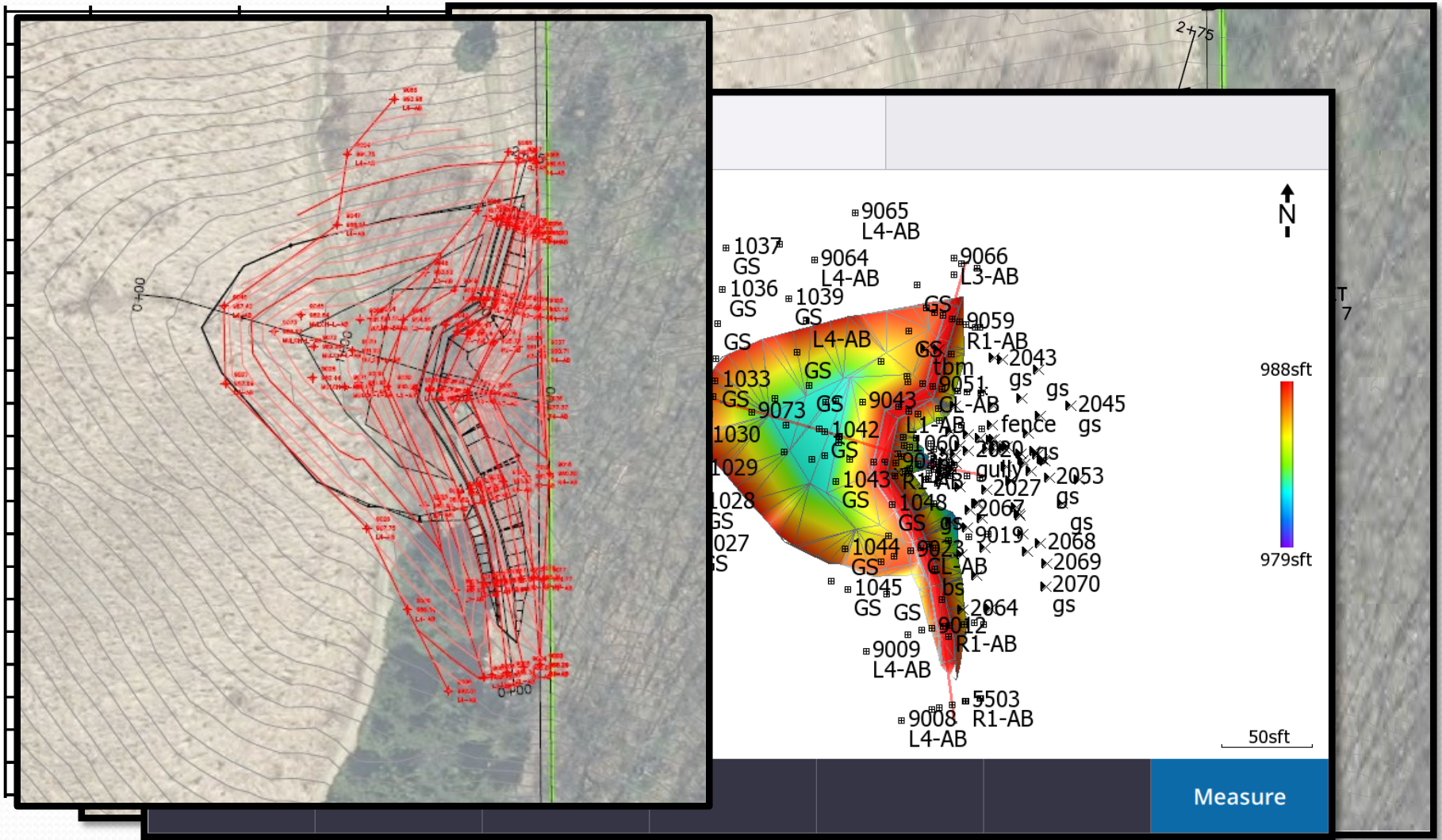


Survey Processing



Questions?