Report of the Skagafjörður Archaeological Settlement Survey 2008:

Coring and Resistivity at Torfgarður

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Torfgarður Cores

Starting June 10, 2008 we began a coring program around the modern farm buildings at Torfgarður (Site 106) with the goal of finding the original farm mound midden. The ultimate goal was to place a test pit to accurately determine a farm establishment date. A stream cut and topography indicated that there was some remnants of the farmmound. An earlier 1x1 m test pit had been placed in the farmmound in 2002, which yielded a post 1000 date.

We used a JMS backsaver core with two extensions if necessary. Core locations were recorded with the local grid set up with a total station using ISNet base points with sub cm accuracy. In general we first placed cores on a 10m grid. The spacing was then confined to identify the deepest part of the midden as well as the oldest part of the midden (closed to the LNS).

Seventy-Two cores were taken. Of those, we encountered 7 instances of a black grainy tephra that is either the 1300 or the 1766 tephra. Below that 31 had H1, 3 had the 1000 layer, 25 had the LNS, and 6 cores went deep enough to encounter the H3 or H4 tephras. These are difficult to distinguish unless there is a break. Therefore we termed them H3. Four of the cores hit rocks before non-cultural material was encountered at the bottom of the core.

We identified a single area of deep midden, but nothing deeper than 50cm of midden. All of the cores of that midden were near to the northeast running stream (609, 647, 648, & 669). Because of sheep, horse and water damage and erosion, we wished to establish an area fare enough to the southeast to get good profiles all around.

Torfgarður Resistivity lines.

Using the Syscal Kid 24 we ran 18 roll over resistivity lines, which produced a series of pseudo-profiles of average restivity. We used 2D modeling to create interpretable profiles. In general, the displayed scale is the log of ohms/m, which brings out many of the features. In many of the profiles, specific walls and outlines of buildings could be tentatively identified. More importantly, the profiles were used in conjunction with the coring data to create a detailed picture of the shape and layout of the midden.

Figures

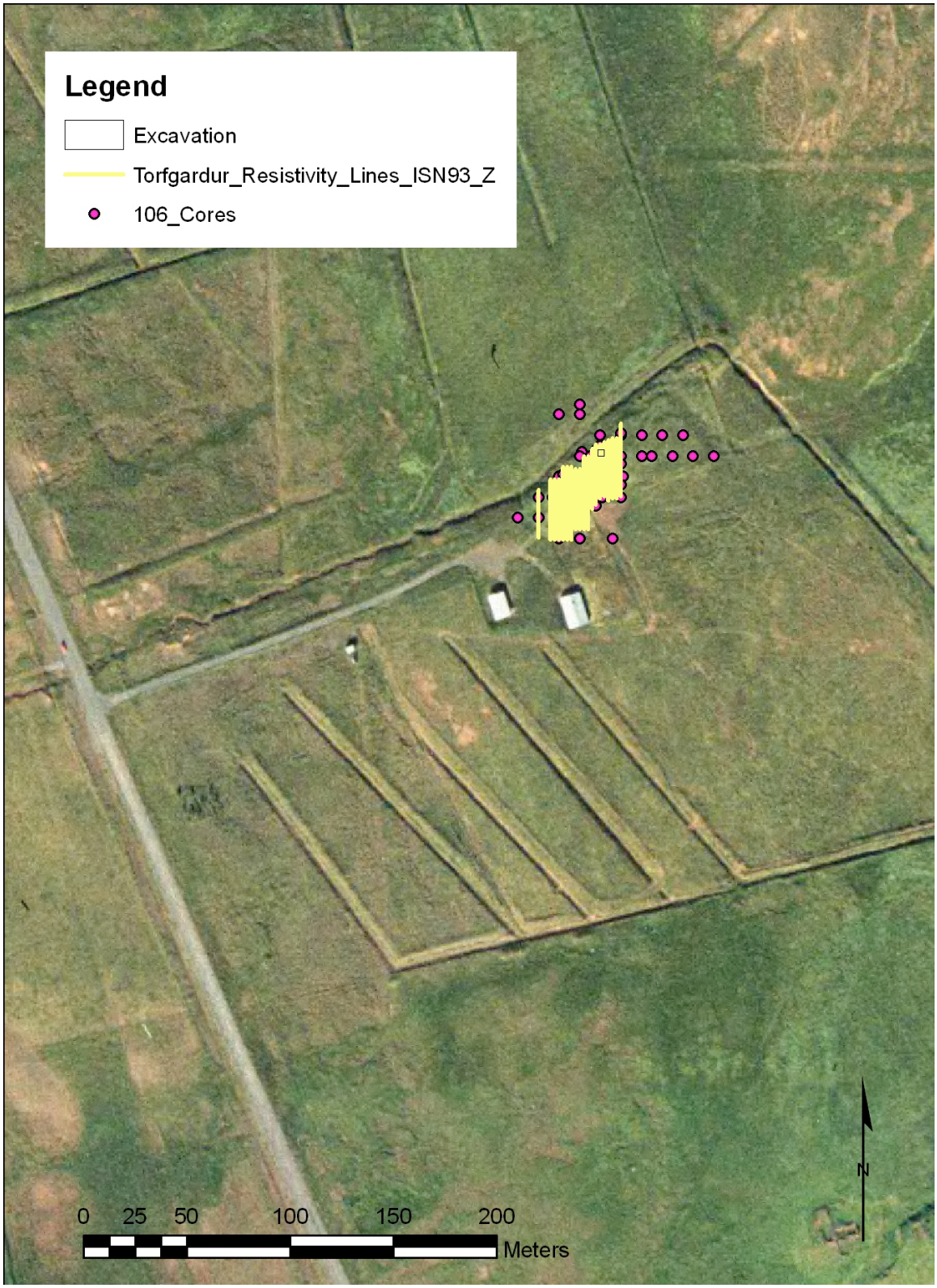


Figure 1. Torfgarður overview resistivity lines and cores.

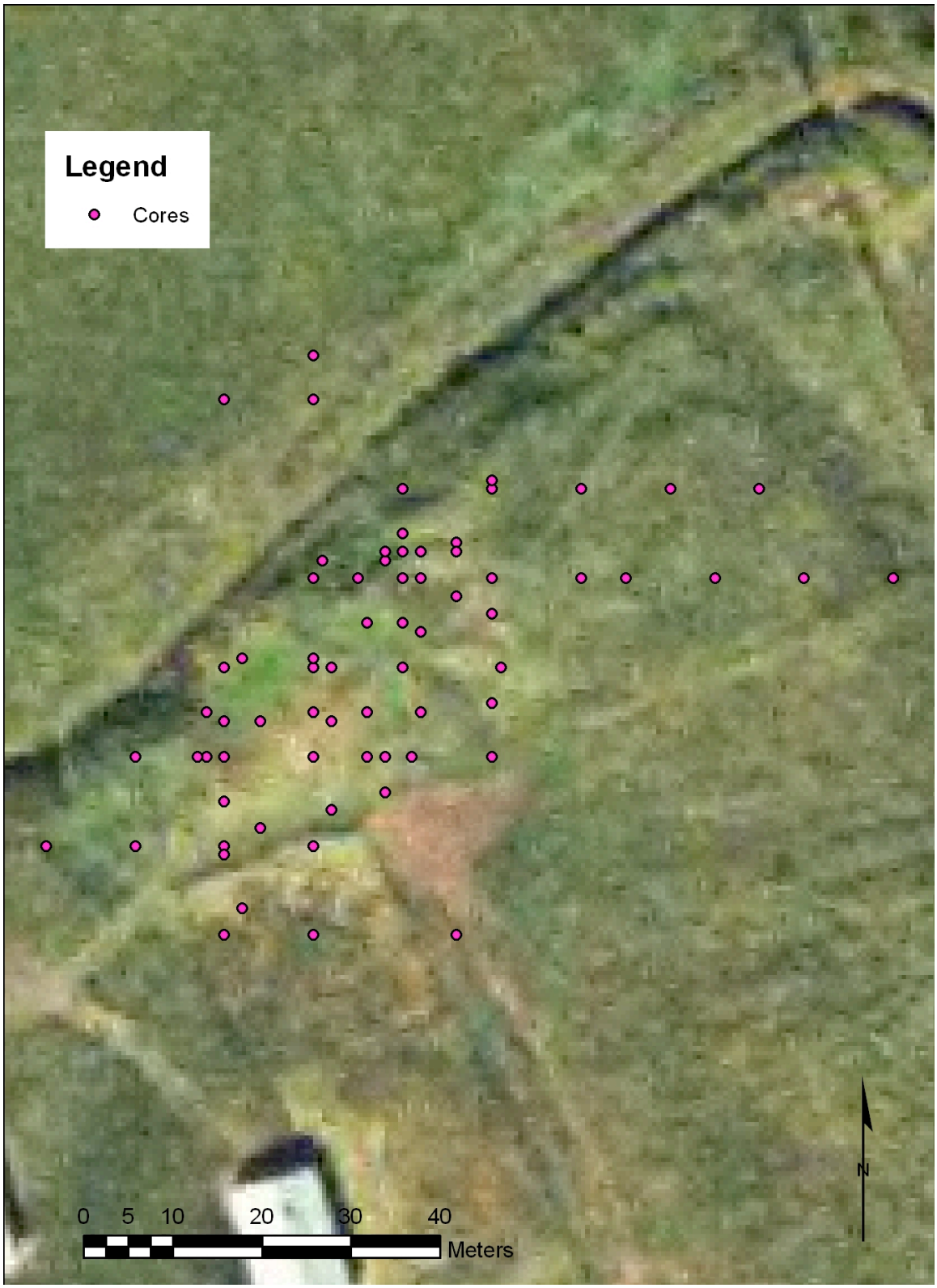


Figure 2. Torfgarður distribution of cores.

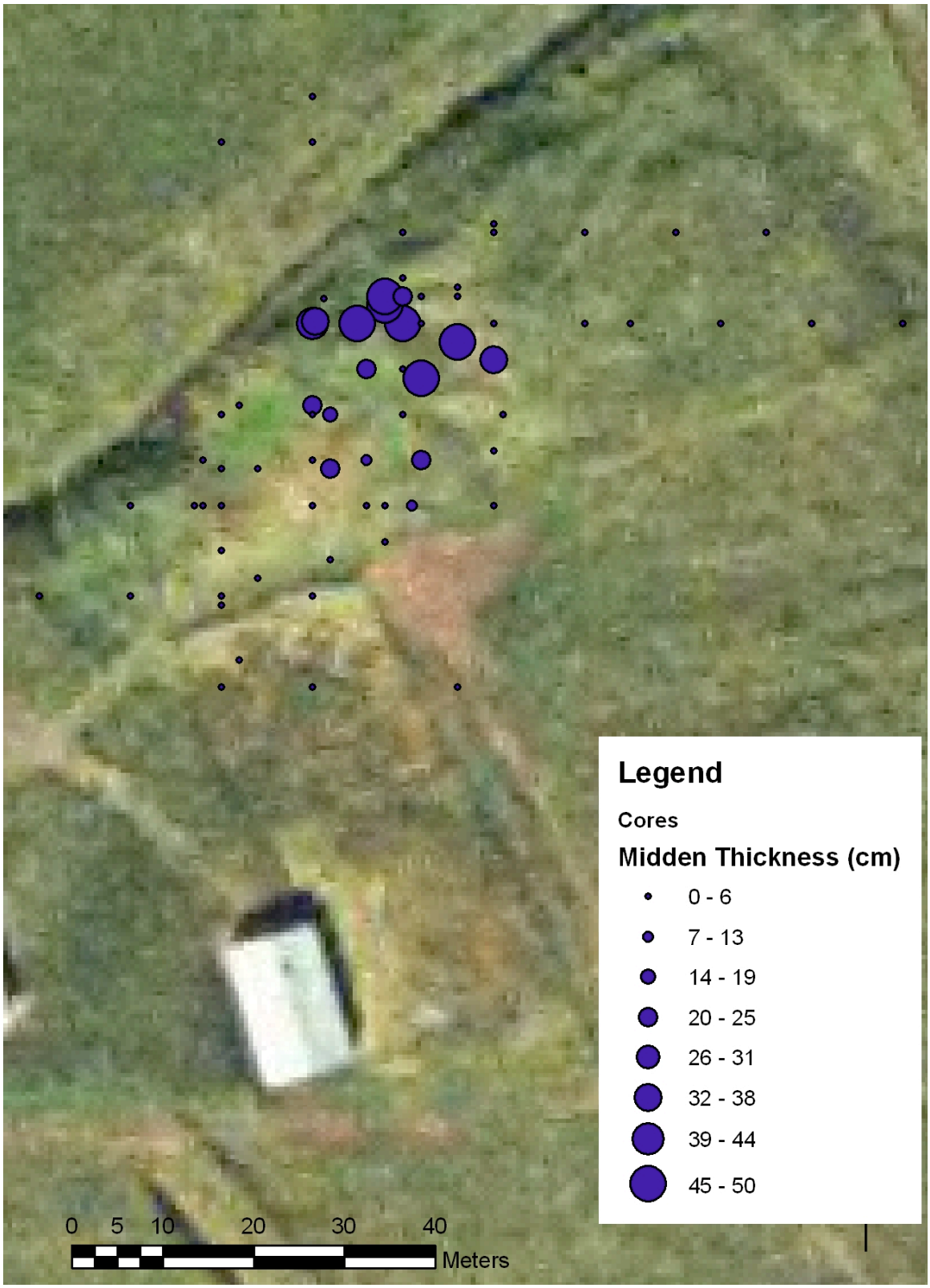


Figure 3. Torfgarður core midden thickness.

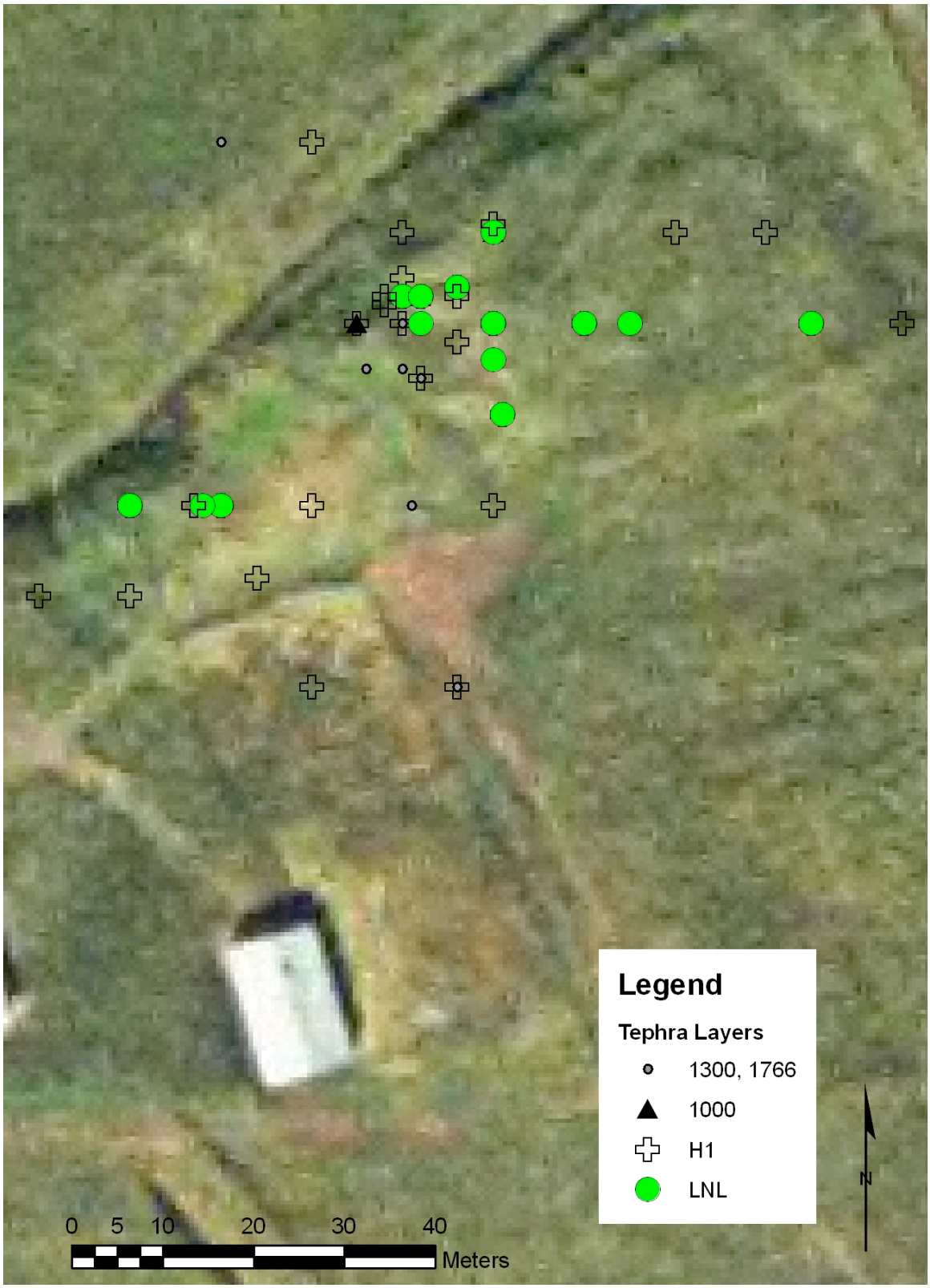


Figure 4. Distribution of Teprha layers identified in cores at Torfgarður.

Figure 5. Syscal Kid resistivity lines at Torfgarður

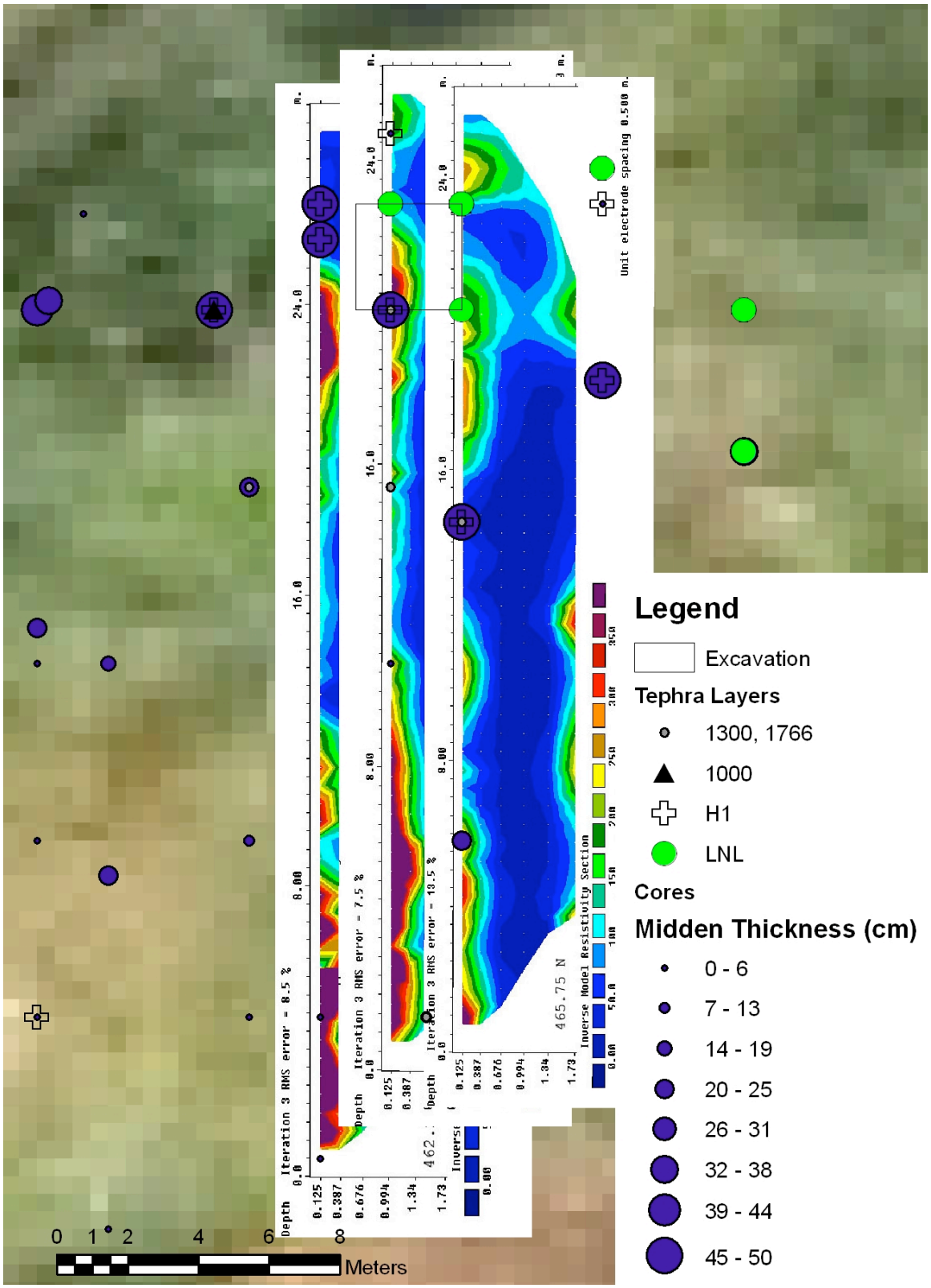


Figure 6. Three Syscal Kid lines and teprha and midden data used to place excavation pit.

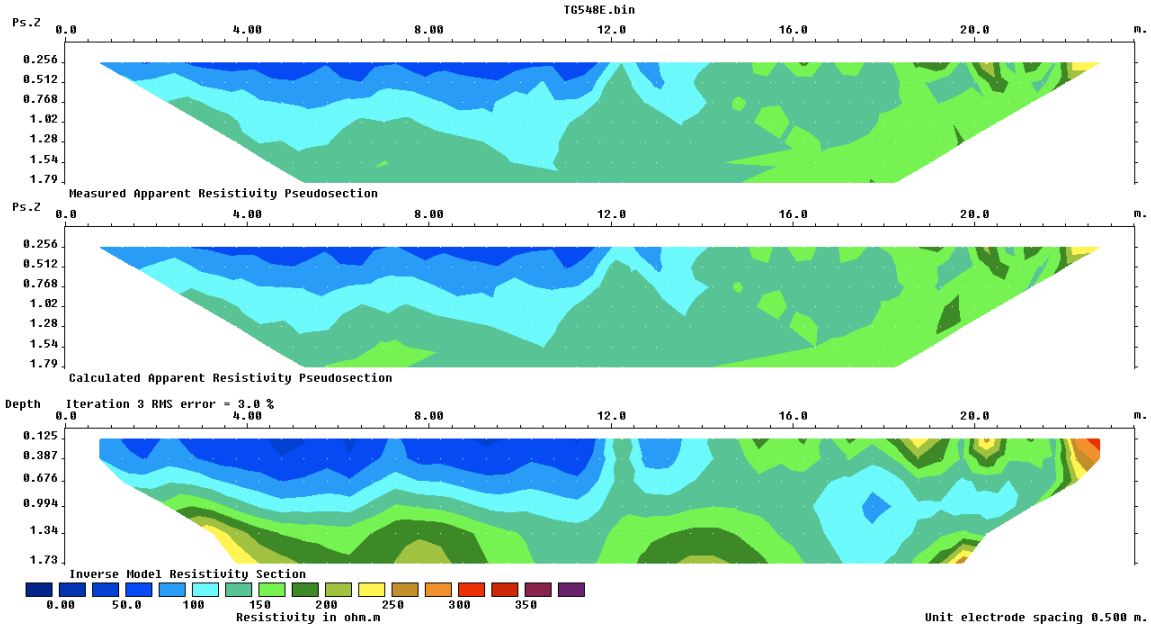


Figure 7. Syscal Kid Line East 548

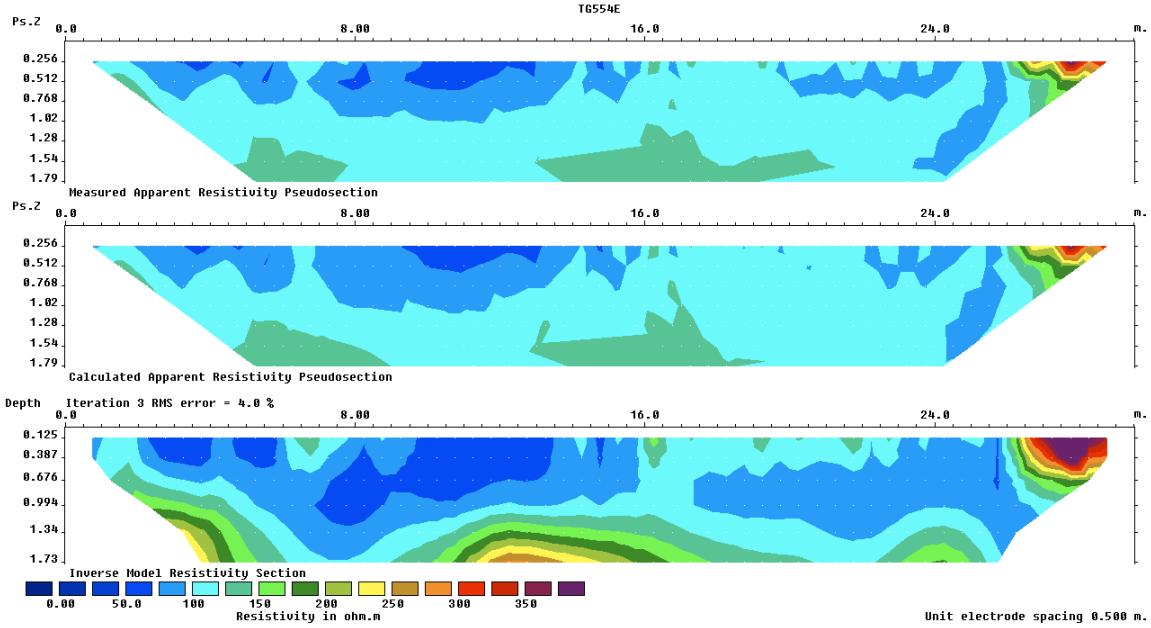


Figure 8. Syscal Kid Line East 554

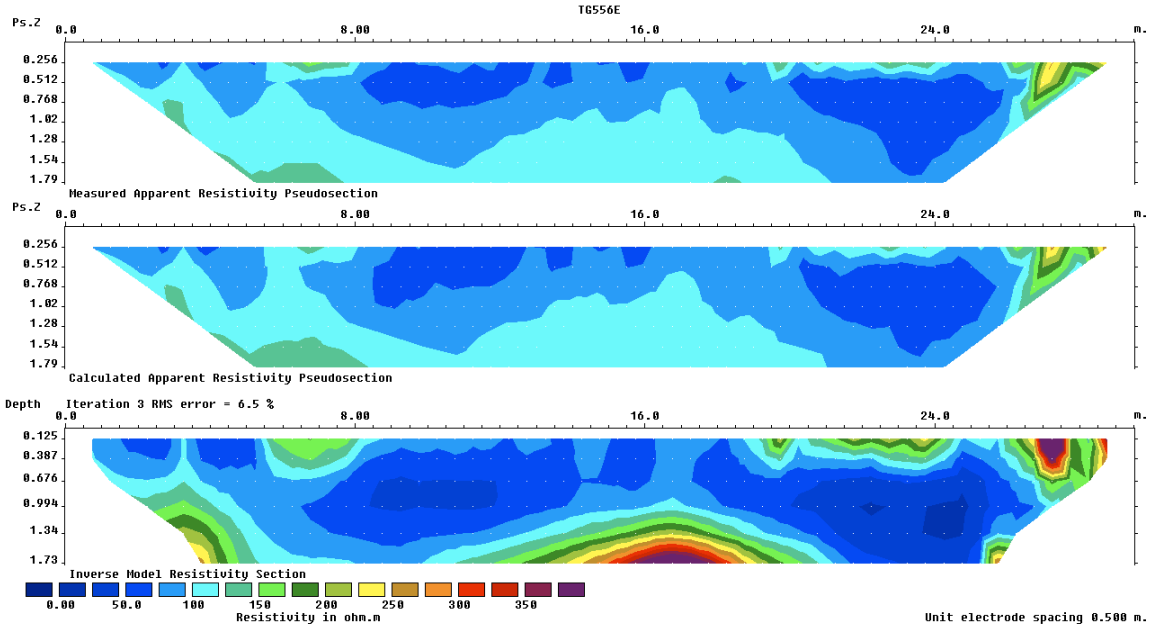


Figure 9. Syscal Kid Line East 556

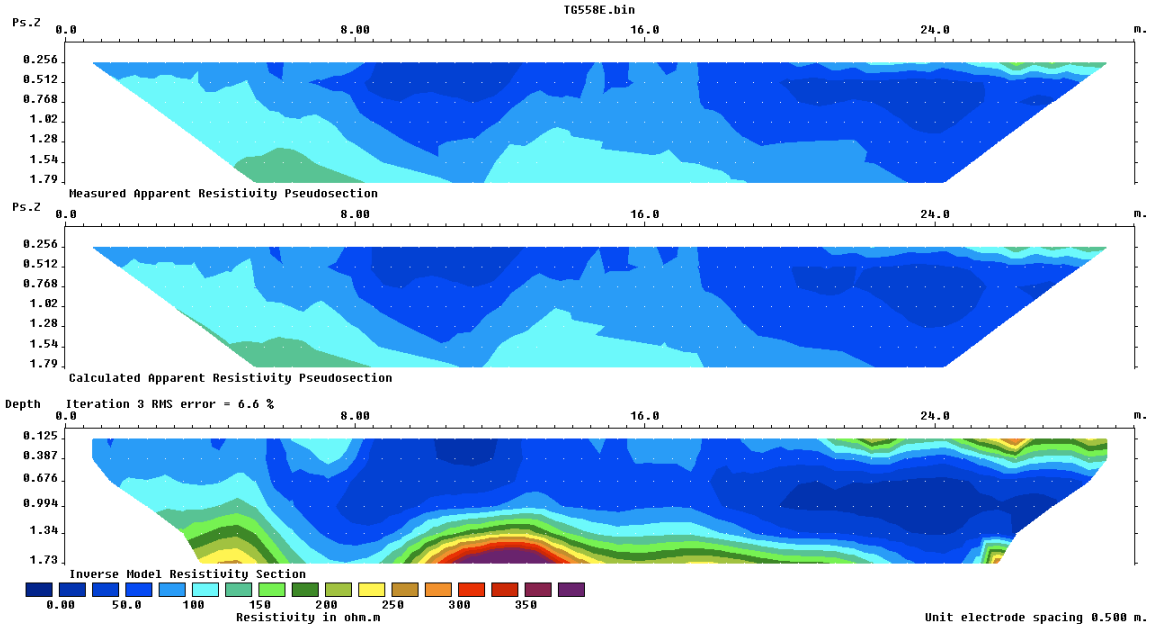


Figure 10. Syscal Kid Line East 558

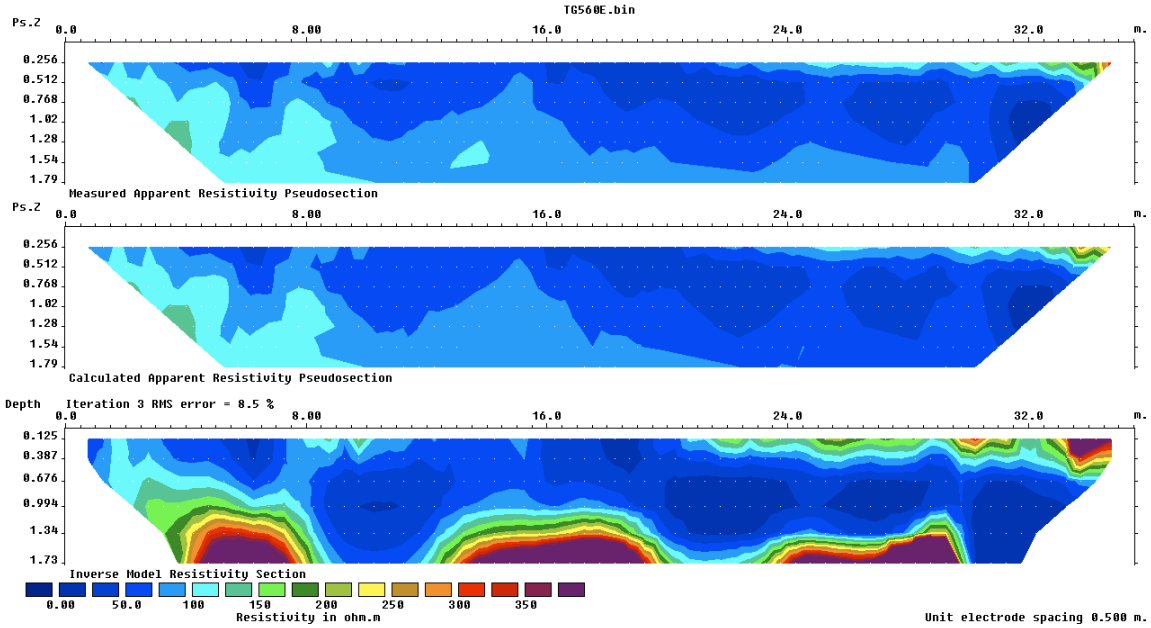


Figure 11. Syscal Kid Line East 560

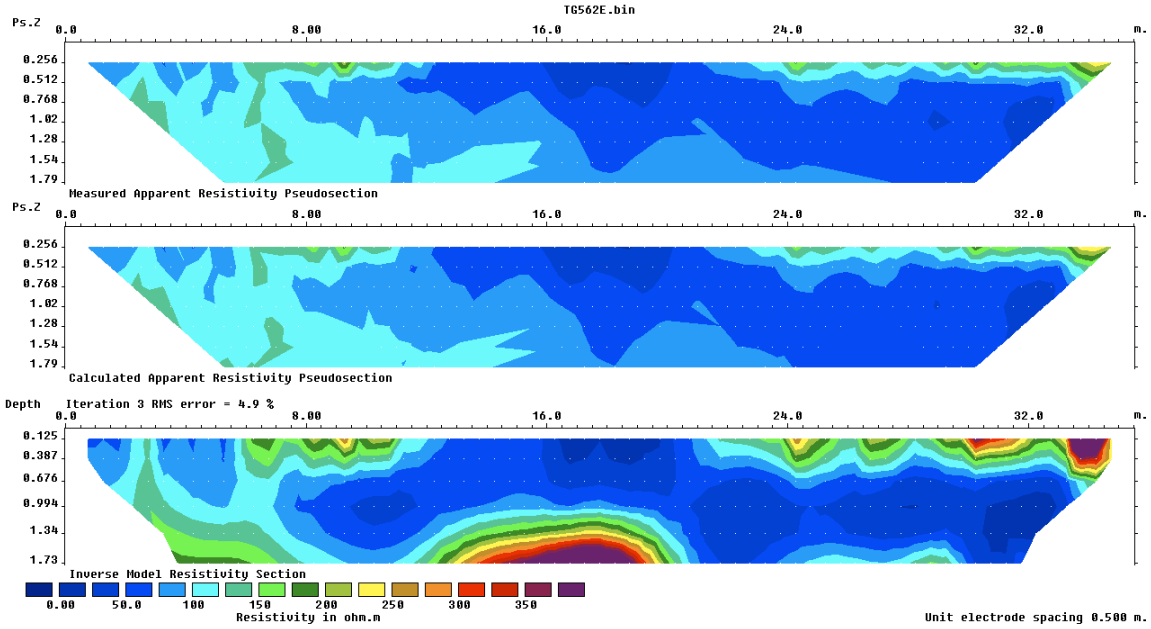


Figure 12. Syscal Kid Line East 562

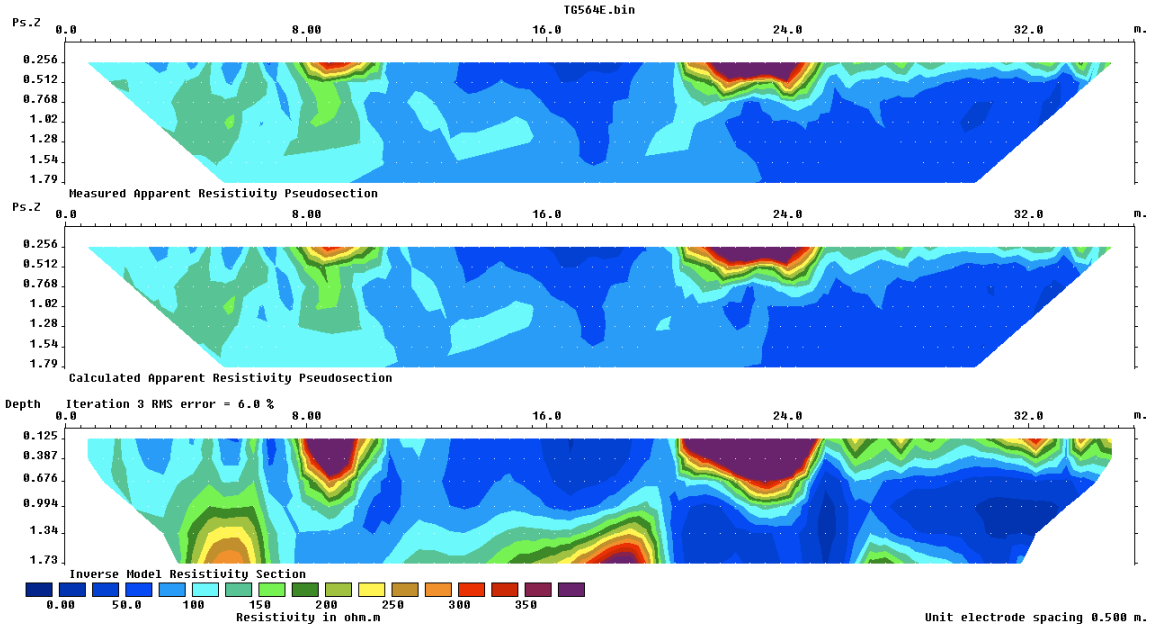


Figure 13. Syscal Kid Line East 564

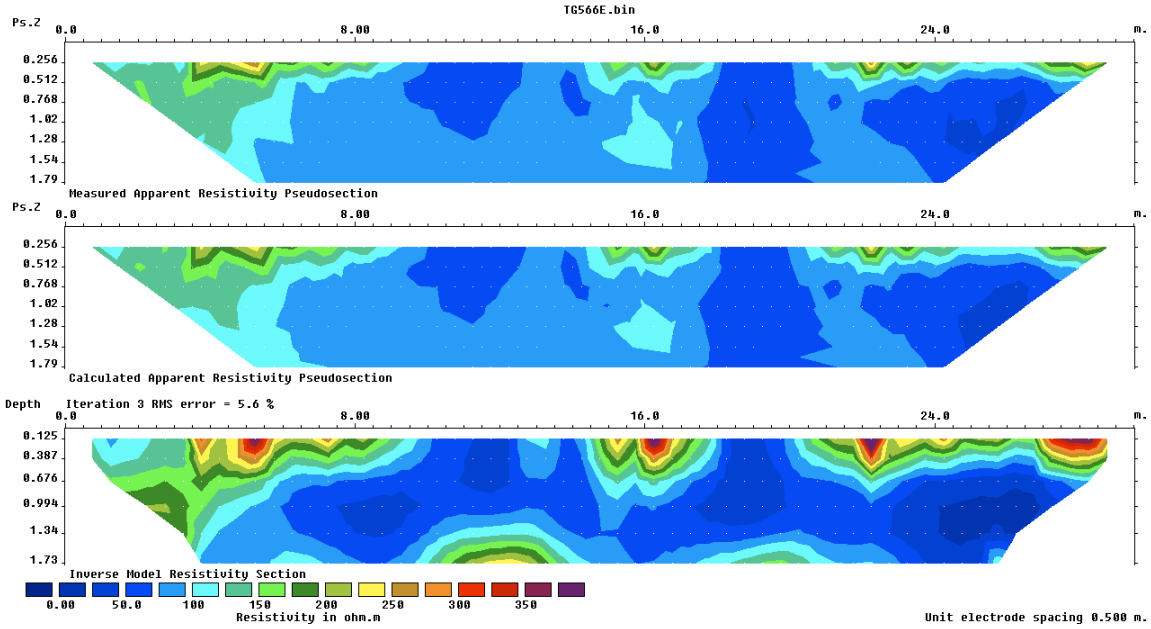


Figure 14. Syscal Kid Line East 566

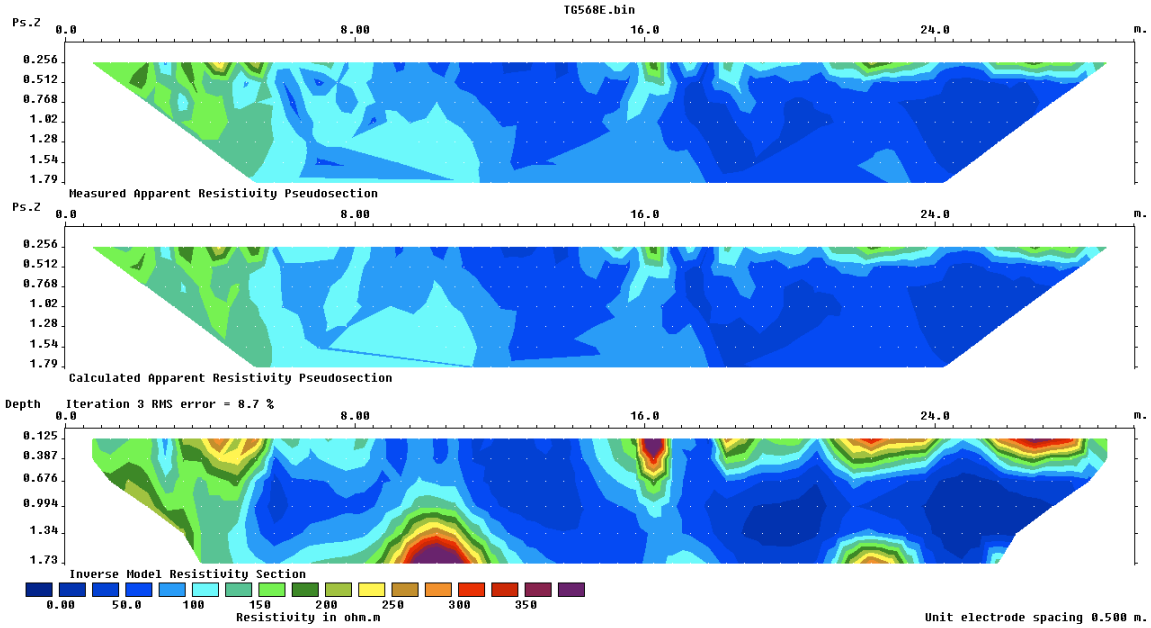


Figure 15. Syscal Kid Line East 568

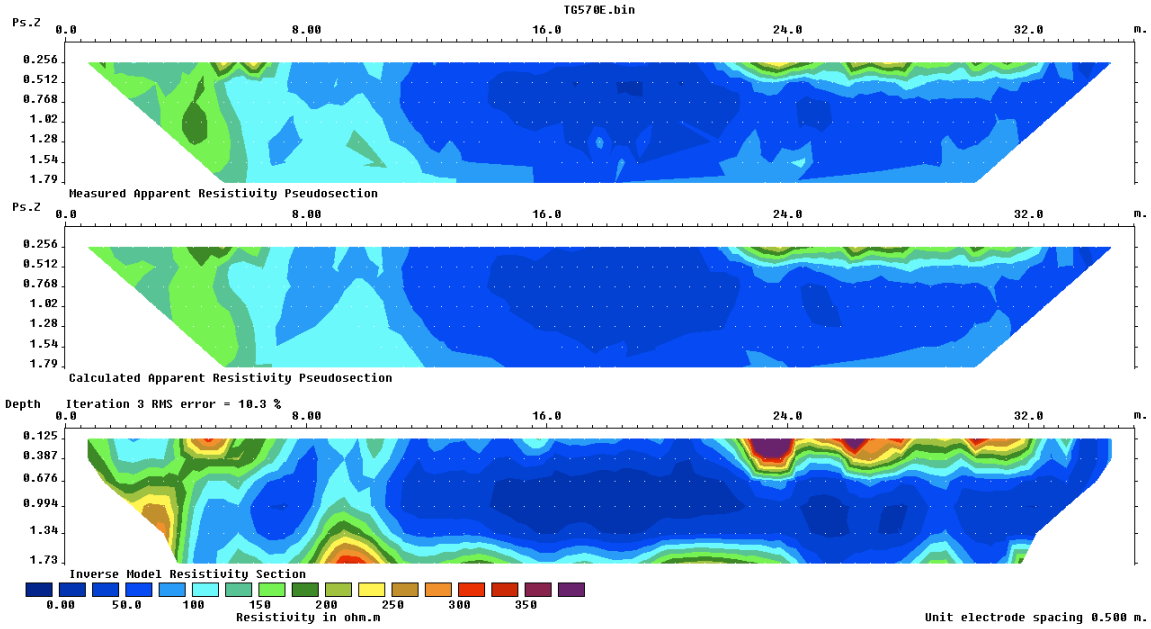
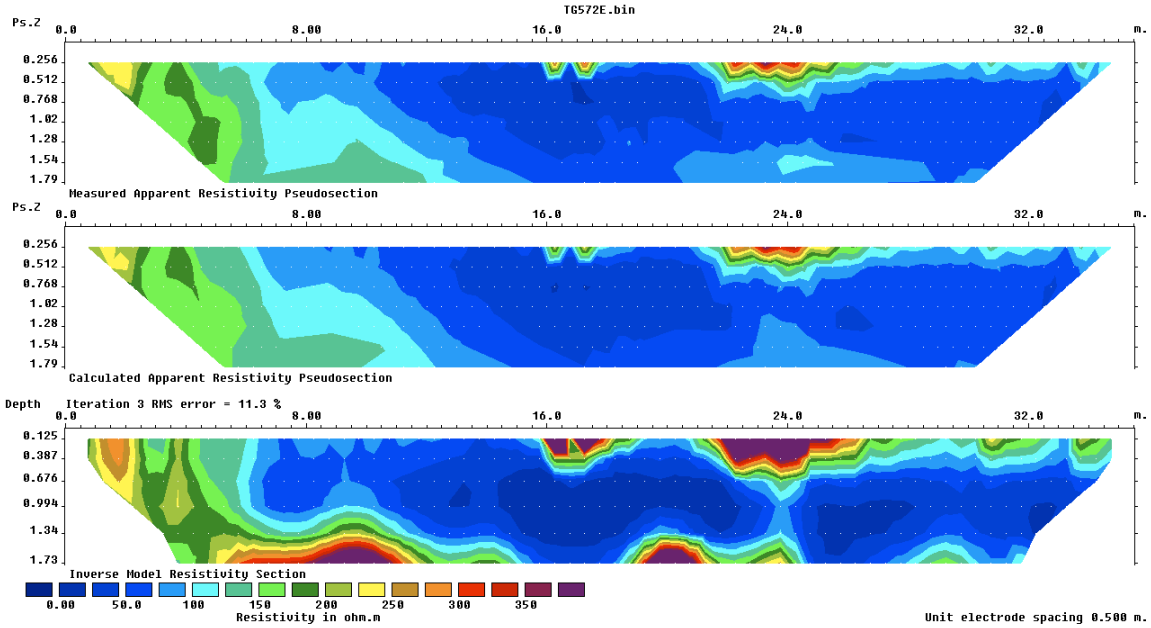


Figure 16. Syscal Kid Line East 570



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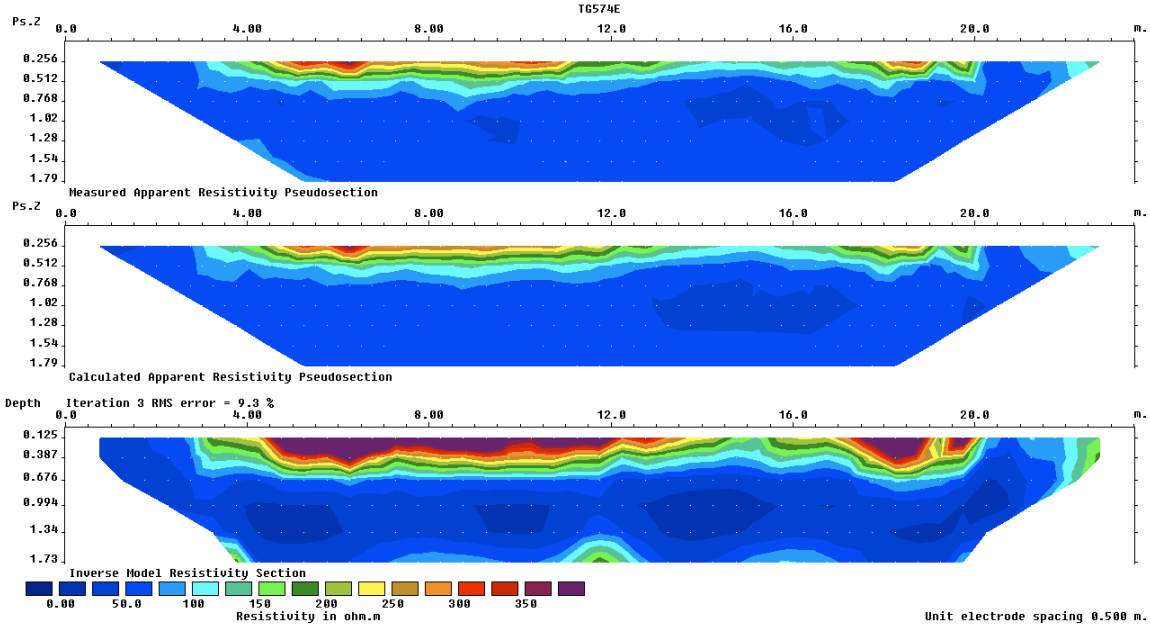

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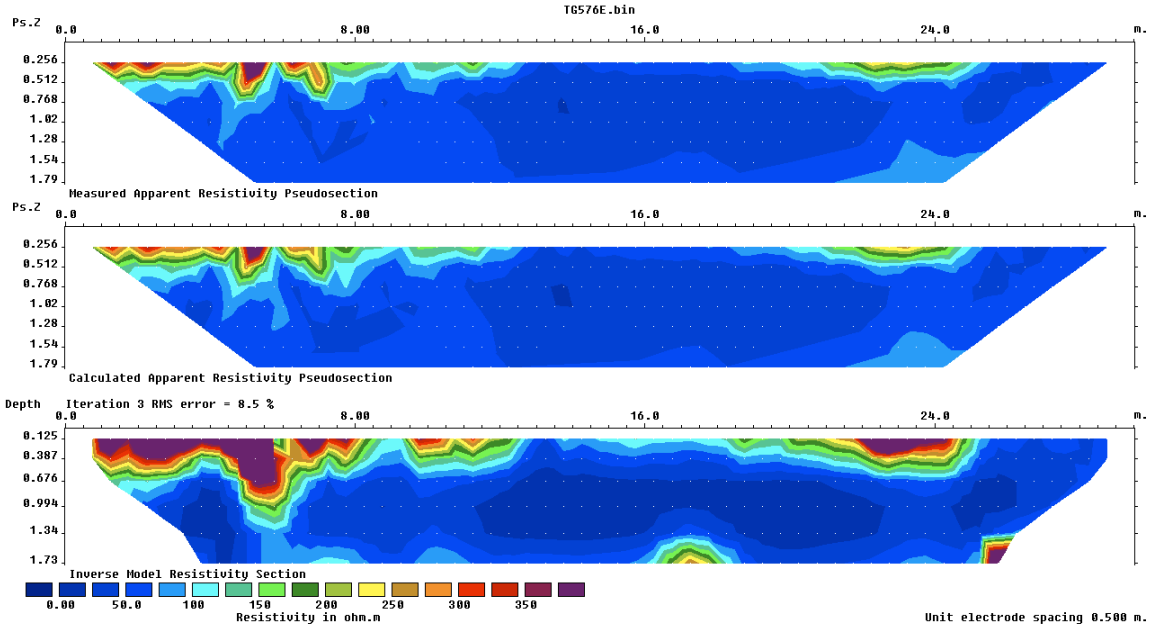

Figure 20. Syscal Kid Line East 576

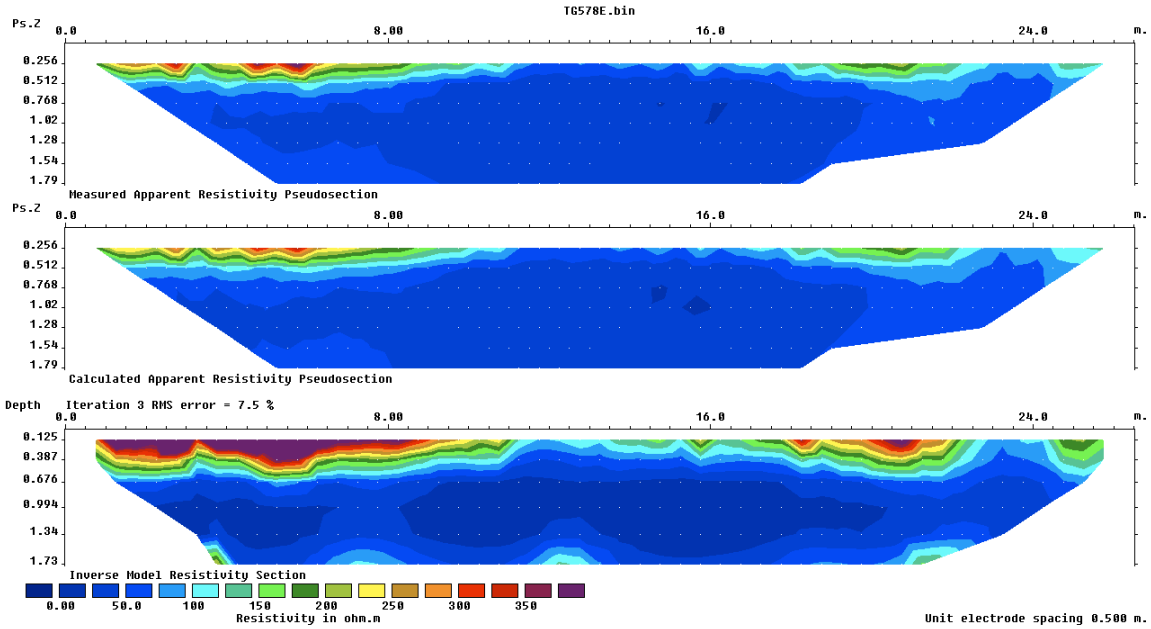

Figure 21. Syscal Kid Line East 578

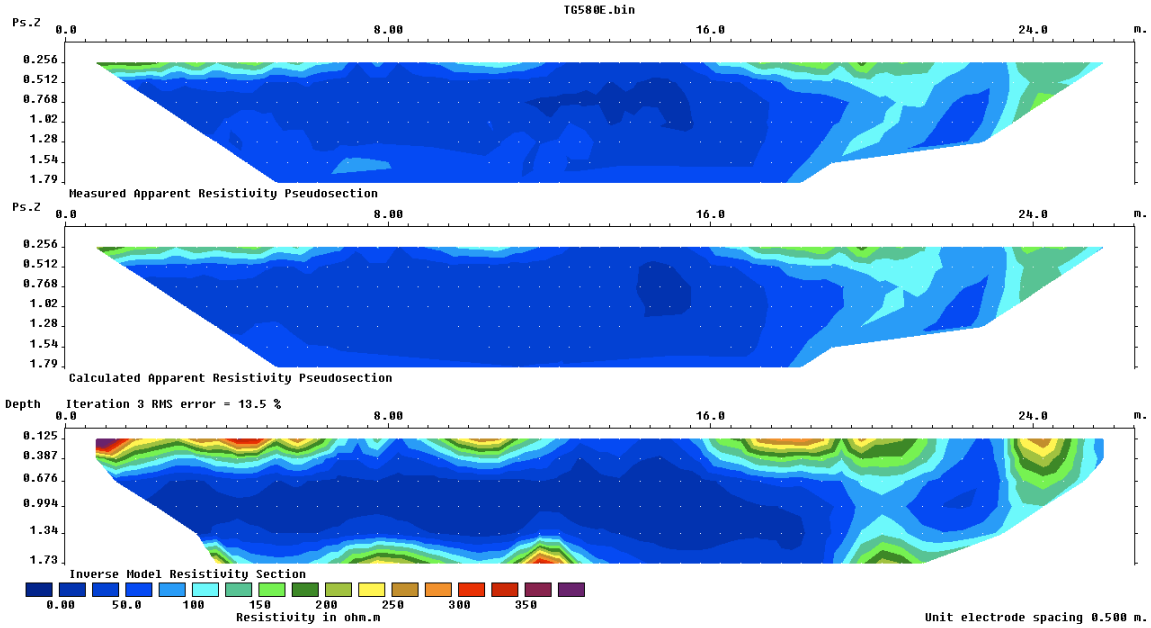

Figure 11. Syscal Kid Line East 580

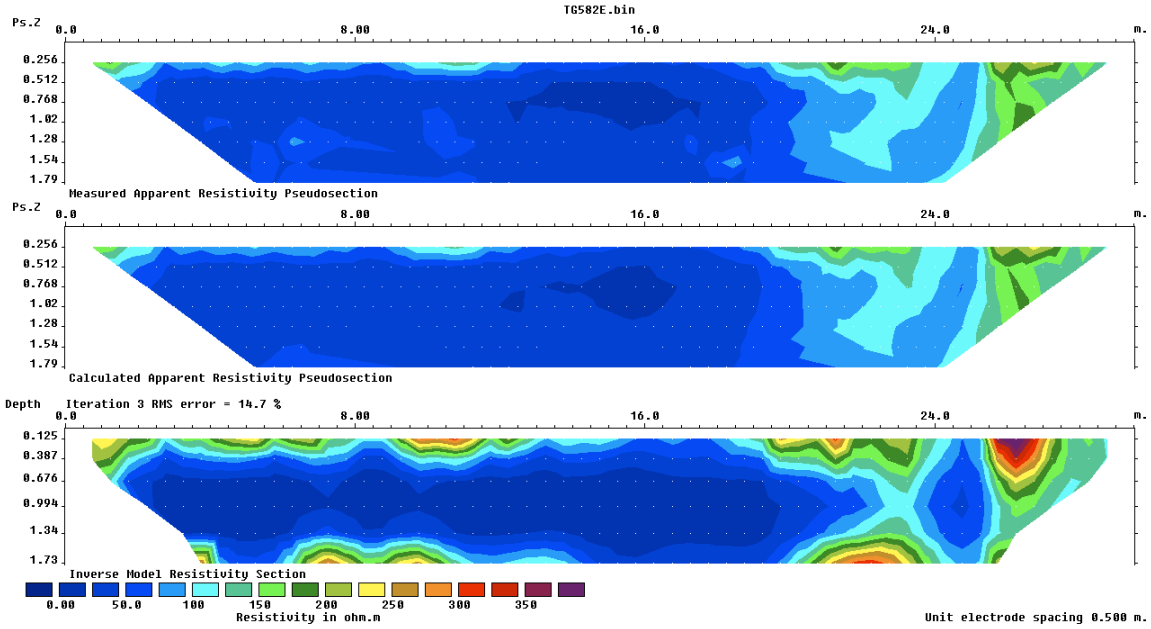

Figure 23. Syscal Kid Line East 582

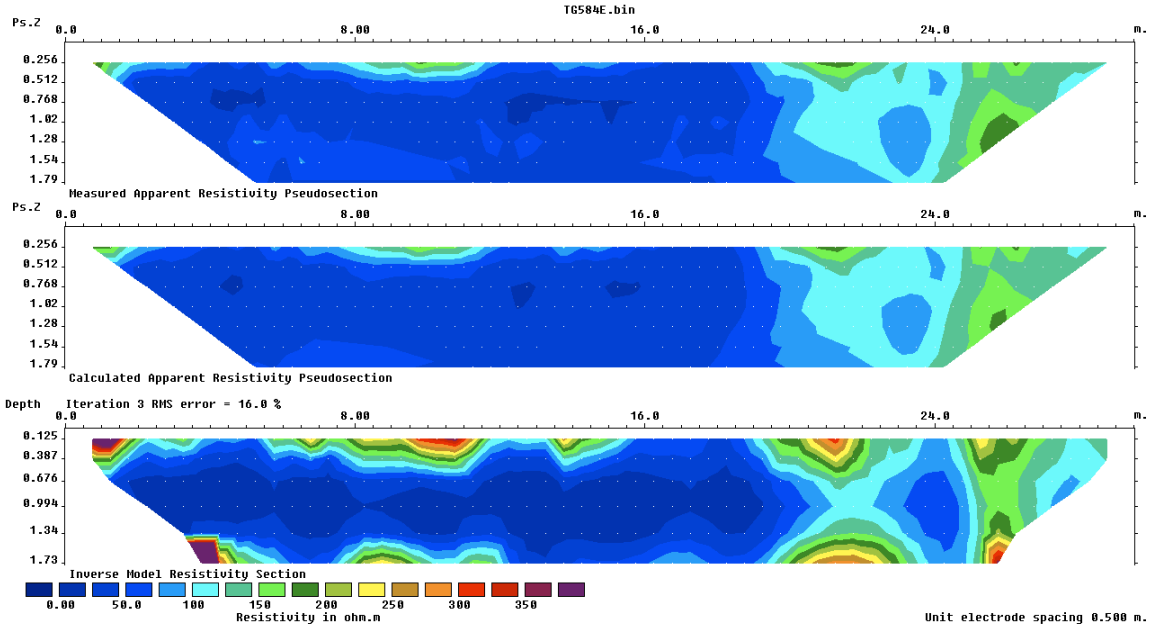

Figure 24. Syscal Kid Line East 584

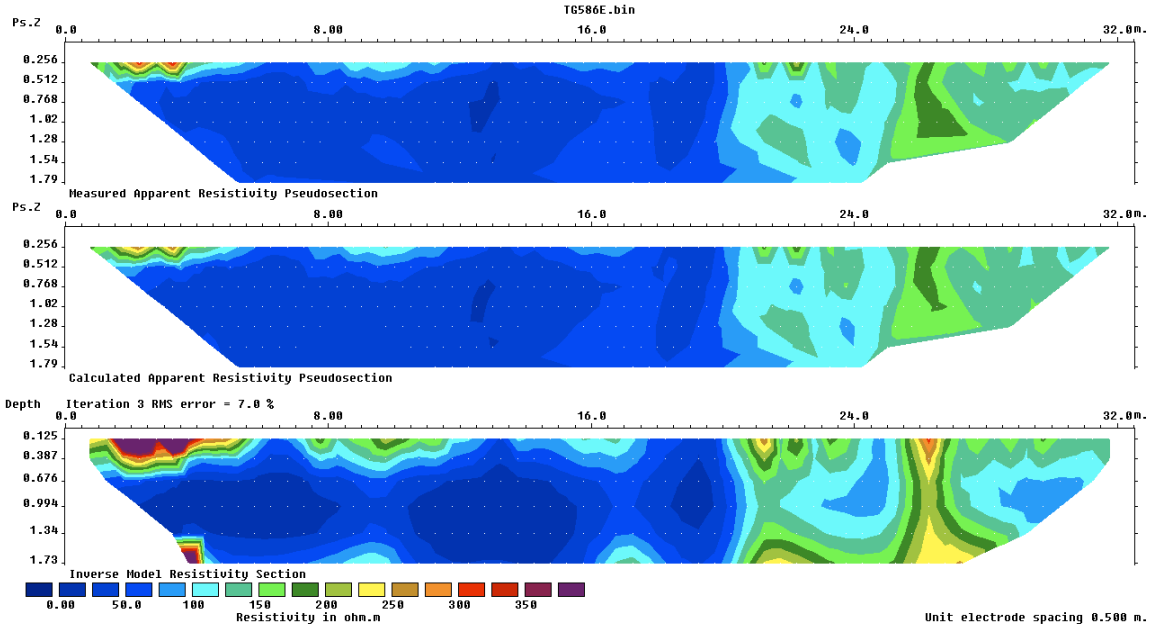

Figure 25. Syscal Kid Line East 586

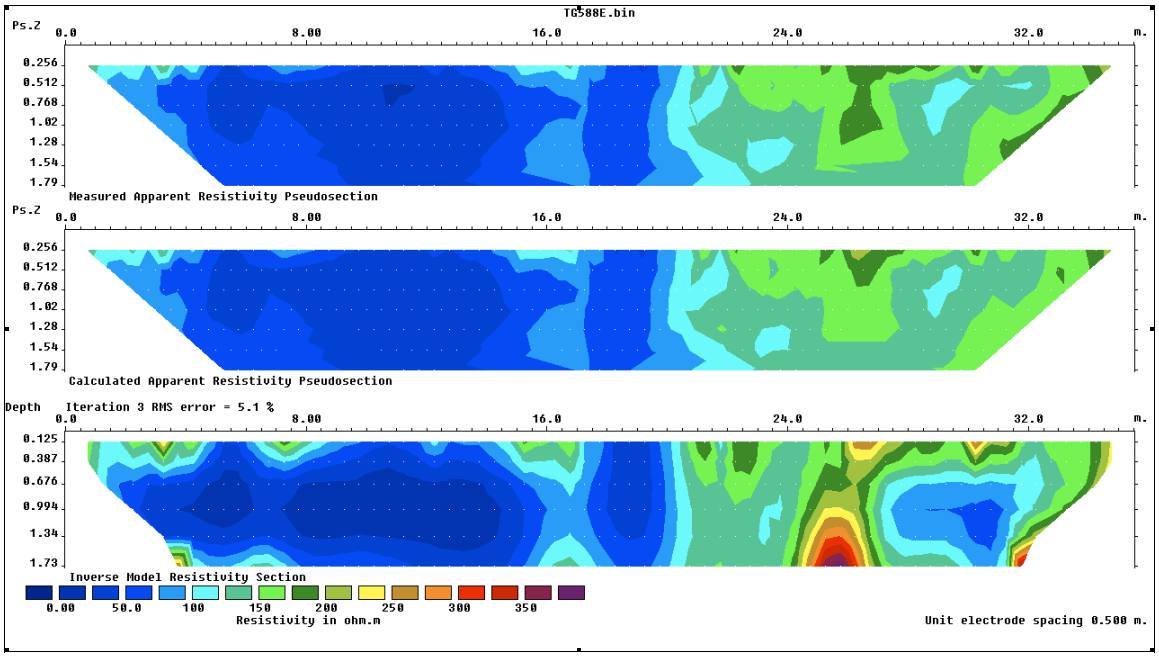

Figure 26. Syscal Kid Line East 588

	description		top depth		bottom depth	Thickness
CORE	601	477584		564446		
	Humus		0		20	20
	Aeolian Deposit		20		90	70
CORE	602	477558		564466		
	Humus		0		30	30
	Turf		30		65	35
	Ash		65		80	15
	Sand		80		85	5
	Natural Turf		85		90	5
	Aeolian Deposit		90		95	5
	Clay		95		100	5
CORE	603	477558		564446		
	Humus		0		30	30
	Turf		30		40	10
	Aeolian Deposit		40		80	40
	Clay		80		90	10
	Gravel		90		100	10
CORE	604	477558		564456		
	Humus		0		45	45
	Aeolian Deposit		45		90	45
	Gravel		90		100	10
CORE	605	477568		564456		
	Aeolian Deposit		0		80	80
	Turf		80		95	15
	Gravel		95		100	5
CORE	606	477568		564466		
	Humus		0		20	20
	Disturbed		20		65	45
	Turf		65		95	30
	Midden/Ash		95		100	5
CORE	607	477568		564446		
	Humus		0		10	10
	Disturbed		10		40	30
	Iron Pan		40		75	35
CORE	608	477579		564466		
	Disturbed		0		50	50
	Turf		50		90	40

	description		top depth		bottom depth	Thickness
	Midden		90		100	10
CORE	609	477578		564486		
	Disturbed		0		50	50
	Midden		50		100	50
CORE	610	477588		564486		
	Disturbed		0		75	75
	Low Density Cultural		75		85	10
	Clay		85		100	15
CORE	611	477603		564486		
	Disturbed		0		40	40
	Buried Humic		40		45	5
	Turf w/ H1		45		85	40
	Iron Pan		85		90	5
	Clay		90		100	10
CORE	612	477623		564486		
	Disturbed		0		30	30
	Turf w/ H1		30		45	15
	Low Density Cultural		45		80	35
	Clay		80		87	7
	Iron Pan		87		90	3
CORE	613	477538		564456		
	Disturbed		0		35	35
	Turf		35		50	15
	Aeolian Deposit		50		60	10
	Silt		60		80	20
	Clay		80		90	10
CORE	614	477548		564456		
	Disturbed		0		85	85
	Turf		85		90	5
	Silt		90		95	5
CORE	615	477548		564466		
	Humus		0		20	20
	Aeolian Deposit		20		75	55
	Turf w/ H1		75		90	15
	Clay		90		100	10
CORE	616	477558		564476		
	Humus		0		15	15
	Natural Turf		15		100	85

	description		top depth		bottom depth	Thickness
CORE	617	477568		564476		
	Humus		0		10	10
	Turf/Hay		10		80	70
	Turf		80		95	15
	Ash		95		100	5
CORE	618	477578		564476		
	Humus		0		20	20
	Disturbed		20		65	45
	Turf		65		85	20
	Floor		85		95	10
CORE	619	477598		564486		
	Disturbed		0		30	30
	Low Density Cultural		30		40	10
	Aeolian Deposit		40		50	10
CORE	620	477613		564486		
	Disturbed		0		40	40
	Turf		40		60	20
	Upcast with Mottled H3/4		60		88	28
	Clay		88		95	7
	Gravel		95		97	2
CORE	621	477633		564486		
	Natural Turf		0		90	90
	Clay		90		100	10
CORE	622	477588		564496		
	Disturbed		0		25	25
	Turf w/ H1		25		45	20
	Aeolian Deposit		45		58	13
	Gravel		58		60	2
CORE	623	477598		564496		
	Disturbed		0		50	50
	Turf		50		90	40
	Glacial Sand		90		95	5
	Iron Pan		95		95	0
	Glacial Sand		95		100	5
CORE	624	477608		564496		
	Disturbed		0		30	30
	Natural Turf		30		70	40
	Glacial Sand		75		80	5

	description		top depth		bottom depth	Thickness
CORE	625	477589		564476		
	Disturbed		0		50	50
	Turf		50		90	40
	Midden		90		95	5
	Iron Pan		95		100	5
CORE	626	477588		564466		
	Disturbed		0		50	50
	Low Density Cultural		50		95	45
	Turf w/H3		95		100	5
CORE	627	477618		564496		
	Disturbed		0		30	30
	Turf		30		80	50
	Aeolian Deposit		80		90	10
	Gravel		90		100	10
CORE	628	477578		564496		
	Disturbed		0		55	55
	Buried Humic		55		60	5
	Low Density Cultural		60		70	10
	Gravel/Clay		70		80	10
CORE	629	477578		564491		
	Disturbed		0		50	50
	Low Density Cultural		50		90	40
	Iron Pan		90		90	0
	Sand		90		100	10
CORE	630	477578		564489		
	Disturbed		0		50	50
	Midden		50		70	20
	Aeolian Deposit		70		95	25
	Iron Pan		95		100	5
CORE	631	477578		564481		
	Disturbed		0		85	85
	Cultural Layer		85		95	10
	Midden		95		100	5
CORE	632	477580		564486		
	Disturbed		0		20	20
	Low Density Cultural		20		60	40
	Turf w/ H1		60		85	25
	Aeolian Deposit		85		95	10
	Iron Pan		95		97	2

	description		top depth		bottom depth	Thickness
	Glacial Sand		97		100	3
CORE	633	477573		564486		
	Turf		0		40	40
	Midden		40		85	45
	Aeolian Deposit		85		90	5
	Iron Pan		95		100	5
CORE	637	477568		564486		
	Disturbed		0		50	50
	Midden		50		90	40
	Glacial Till		90		100	10
CORE	638	477568		564506		
	Humus		0		20	20
	Natural Turf		20		90	70
	Gravel		90		100	10
CORE	639	477568		564511		
	Turf		0		80	80
	Gravel		80		100	20
CORE	640	477558		564506		
	Disturbed		0		55	55
	Natural Turf		55		65	10
	Iron Pan		65		75	10
	River Sand		75		80	5
CORE	641	477560		564449		
	Disturbed		0		5	5
	Turf		5		80	75
	Disturbed		0		10	10
	Turf		10		35	25
	Aeolian Deposit		35		40	5
CORE	642	477562		564458		
	Disturbed		0		10	10
	Turf		10		80	70
	Cultural Layer		80		87	7
	Charcoal		87		90	3
	Clay		95		100	5
CORE	643	477568		564471		
	Disturbed		0		10	10
	Turf		10		75	65
	Cultural Layer		75		95	20
	Floor		95		100	5

	description		top depth		bottom depth	Thickness
CORE	644	477570		564476		
	Turf/Hay		0		35	35
	Midden		35		50	15
	Turf		50		58	8
	Rock		58		60	2
CORE	645	477570		564470		
	Disturbed		0		35	35
	Turf w/ Midden		35		45	10
	Midden		45		65	20
	Turf		65		90	25
	Low Density Cultural		90		100	10
CORE	646	477574		564481		
	Disturbed		0		50	50
	Turf		50		80	30
	Midden		80		100	20
CORE	647	477576		564488		
	Disturbed		0		50	50
	Midden		50		100	50
CORE	648	477576		564489		
	Disturbed		0		50	50
	Midden		50		100	50
CORE	649	477576		564466		
	Turf Burned		0		80	80
	Cultural Layer		80		95	15
	Floor		95		100	5
CORE	650	477576		564462		
	Disturbed		0		40	40
	Cultural Layer		40		95	55
	Floor		95		100	5
CORE	651	477556		564471		
	Clay		0		100	100
CORE	652	477558		564461		
	Disturbed		0		40	40
	Turf		40		90	50
	Midden		90		95	5
	Iron Pan		95		100	5
CORE	653	477562		564458		
	Disturbed		0		45	45

	description		top depth		bottom depth	Thickness
	Turf		45		85	40
	Midden/Charcoal		85		95	10
	Clay		95		100	5
CORE	654	477570		564460		
	Disturbed		0		85	85
	Floor		85		95	10
	Turf		95		100	5
CORE	655	477580		564471		
	Disturbed		0		75	75
	Midden		75		95	20
	Floor		95		100	5
CORE	656	477580		564489		
	Disturbed		0		60	60
	Cultural Layer		60		90	30
	Iron Pan		90		95	5
	Glacial Sand		95		100	5
CORE	657	477584		564490		
	Disturbed		0		40	40
	Aeolian Deposit		40		78	38
	Clay		83		85	2
	Glacial Sand		90		100	10
CORE	658	477584		564489		
	Disturbed		0		55	55
	Midden		55		60	5
	Natural Turf		60		95	35
	Glacial Sand		95		100	5
CORE	659	477556		564466		
	Disturbed		0		50	50
	Clay		50		85	35
	Iron Pan		85		90	5
	Aeolian Deposit		90		95	5
CORE	660	477555		564466		
	Disturbed		0		50	50
	Low Density Cultural		50		85	35
	Clay		90		100	10
CORE	661	477558		564455		
	Rock		0		100	100
CORE	662	477558		564470		
	Disturbed		0		60	60

	description		top depth		bottom depth	Thickness
	Cultural Layer		60		95	35
CORE	663	477560		564477		
	Turf w/Rocks		0		100	100
CORE	664	477562		564470		
	Disturbed		0		55	55
	Aeolian Deposit		55		80	25
	Midden/Charcoal		80		90	10
	Floor		90		100	10
CORE	665	477574		564471		
	Turf		0		75	75
	Midden		75		85	10
	Turf		85		95	10
	Floor		95		100	5
CORE	666	477574		564466		
	Rock		0		100	100
CORE	667	477569.30		564488.72		
	Disturbed		0		80	80
	Natural Turf		80		95	15
	Gravel		95		100	5
CORE	668	477568.32		564486.27		
	Disturbed		0		50	50
	Midden		50		85	35
	Gravel		85		100	15
CORE	669	477580		564480		
	Disturbed		0		50	50
	Midden		50		100	50
CORE	670	477584		564484		
	Disturbed		0		40	40
	Midden		40		88	48
	Natural Turf		88		90	2
	Iron Pan		90		94	4
	Gravel		94		98	4
	Iron Pan		98		100	2
CORE	671	477588		564472		
	Disturbed		0		45	45
	Aeolian Deposit		45		65	20
	Low Density Cultural		65		95	30
	Iron Pan		95		100	5

	description		top depth		bottom depth	Thickness
CORE	672	477588		564482		
	Disturbed		0		20	20
	Aeolian Deposit		20		50	30
	Midden		50		85	35
	Natural Turf		85		100	15
CORE	673	477568		564477		
	Turf		0		80	80
	Midden		80		100	20
CORE	674	477588		564497		
	Disturbed		0		75	75
	Natural Turf		75		85	10
	Glacial Sand		85		90	5

		Tephra Layer	Depth	East	North
Core	601			477584	564446
		1300, 1766	75		
		H1	85		
Core	602			477558	564466
		H1	80		
		LNL	95		
Core	603			477558	564446
		H3	70		
Core	606			477568	564466
		H1	65		
Core	607			477568	564446
		H1	40		
		H3	70		
Core	608			477579	564466
		1300, 1766	95		
Core	609			477578	564486
		1300, 1766	75		
		H1	95		
Core	610			477588	564486
		H1	80		
		LNL	85		
		H3	90		
		H4	97		
Core	611			477603	564486
		LNL	80		
		H3	85		
Core	612			477623	564486
		H1	70		
		LNL	80		
		H3	85		
Core	613			477538	564456
		H1	65		
Core	614			477548	564456
		H1	65		
		H3	87		
Core	615			477548	564466
		H1	85		
		LNL	95		
Core	617			477568	564476

		Tephra Layer	Depth	East	North
Core	619			477598	564486
		H1	28		
		LNL	40		
		H3	48		
Core	620			477613	564486
		H3	80		
Core	621			477633	564486
		H1	85		
		H3	95		
Core	622			477588	564496
		1000	50		
		LNL	55		
Core	624			477608	564496
		H1	50		
		H3	70		
Core	625			477589	564476
		H1	90		
		LNL	95		
Core	626			477588	564466
		H1	90		
Core	627			477618	564496
		H1	35		
Core	628			477578	564496
		H1	65		
Core	629			477578	564491
		H1	80		
		H3	95		
Core	630			477578	564489
		H1	85		
		LNL	87		
		H3	98		
Core	631			477578	564481
		1300_1766	95		
Core	632			477580	564486
		LNL	95		
		H3	97		
Core	633			477573	564486
		H1	55		
		1000	85		
		H3	90		

		Tephra Layer	Depth	East	North
Core	638			477568	564506
		H1	75		
Core	639			477568	564511
		H3	90		
Core	640			477558	564506
		1300, 1766	77		
Core	642			477562	564458
		H3	90		
Core	646			477574	564481
		1300, 1766	90		
Core	647			477576	564488
		H1	95		
Core	648			477576	564489
		H1	95		
Core	651			477556	564471
		H3	90		
		H4	95		
Core	652			477558	564461
		H3	95		
Core	653			477562	564458
		H1	65		
Core	656			477580	564489
		H1	72		
		1000	78		
		LNL	85		
		H3	95		
Core	657			477584	564490
		H1	73		
		LNL	78		
		H3	80		
		H4	85		
Core	658			477584	564489
		H1	65		
		H3	93		
Core	659			477556	564466
		LNL	82		
		H3	95		
Core	660			477555	564466
		H1	50		
		H3	85		
		H4	95		

		Tephra Layer	Depth	East	North
Core	662			477558	564470
		H3	95		
Core	669			477580	564480
		1300, 1766	90		
		H1	95		
Core	670			477584	564484
		H1	88		
Core	672			477588	564482
		LNL	95		
Core	674			477588	564497
		H1	78		
		H3	85		