Appendix 1
AEM Interpretive Imagery

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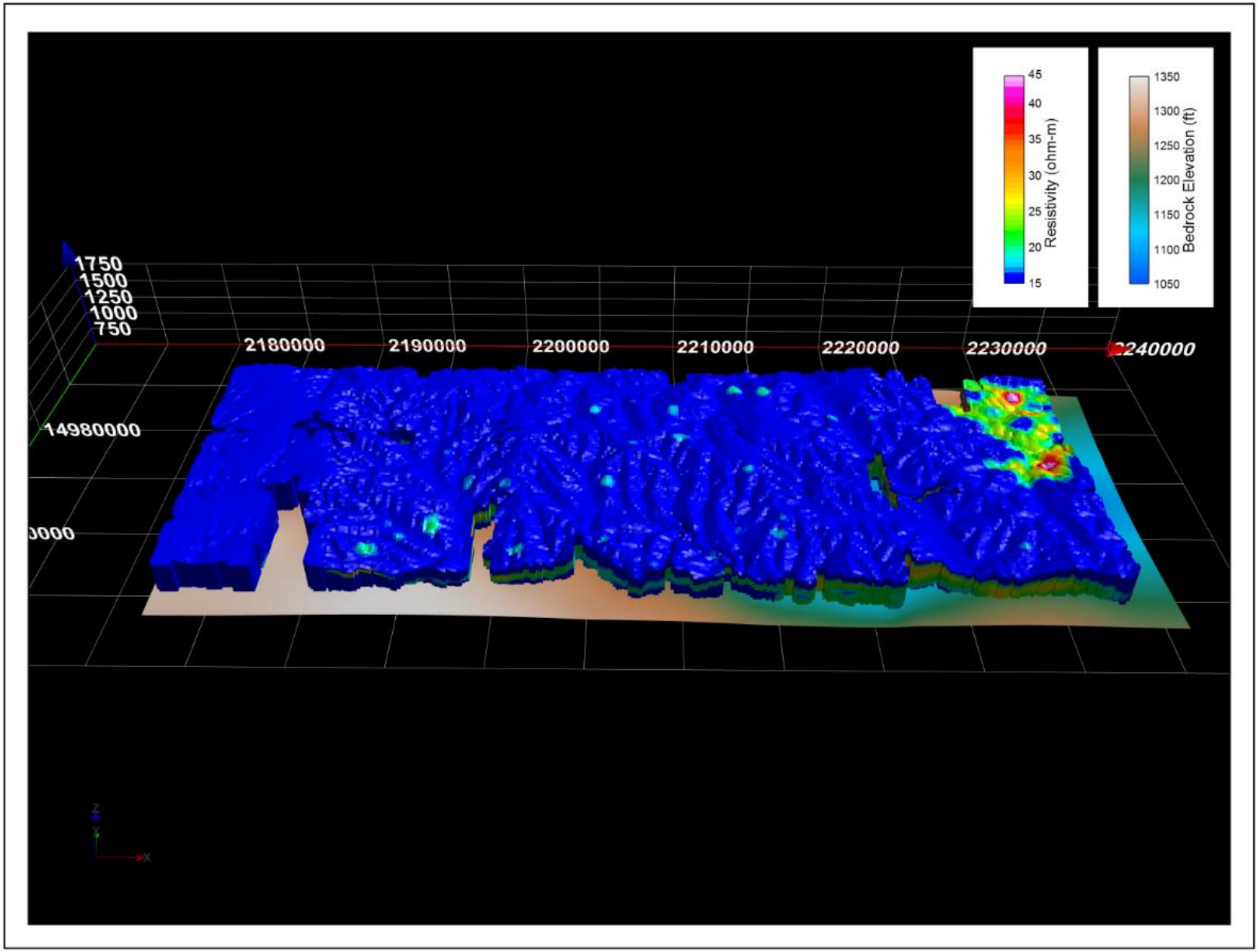


Figure A1-1: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the north flight block.

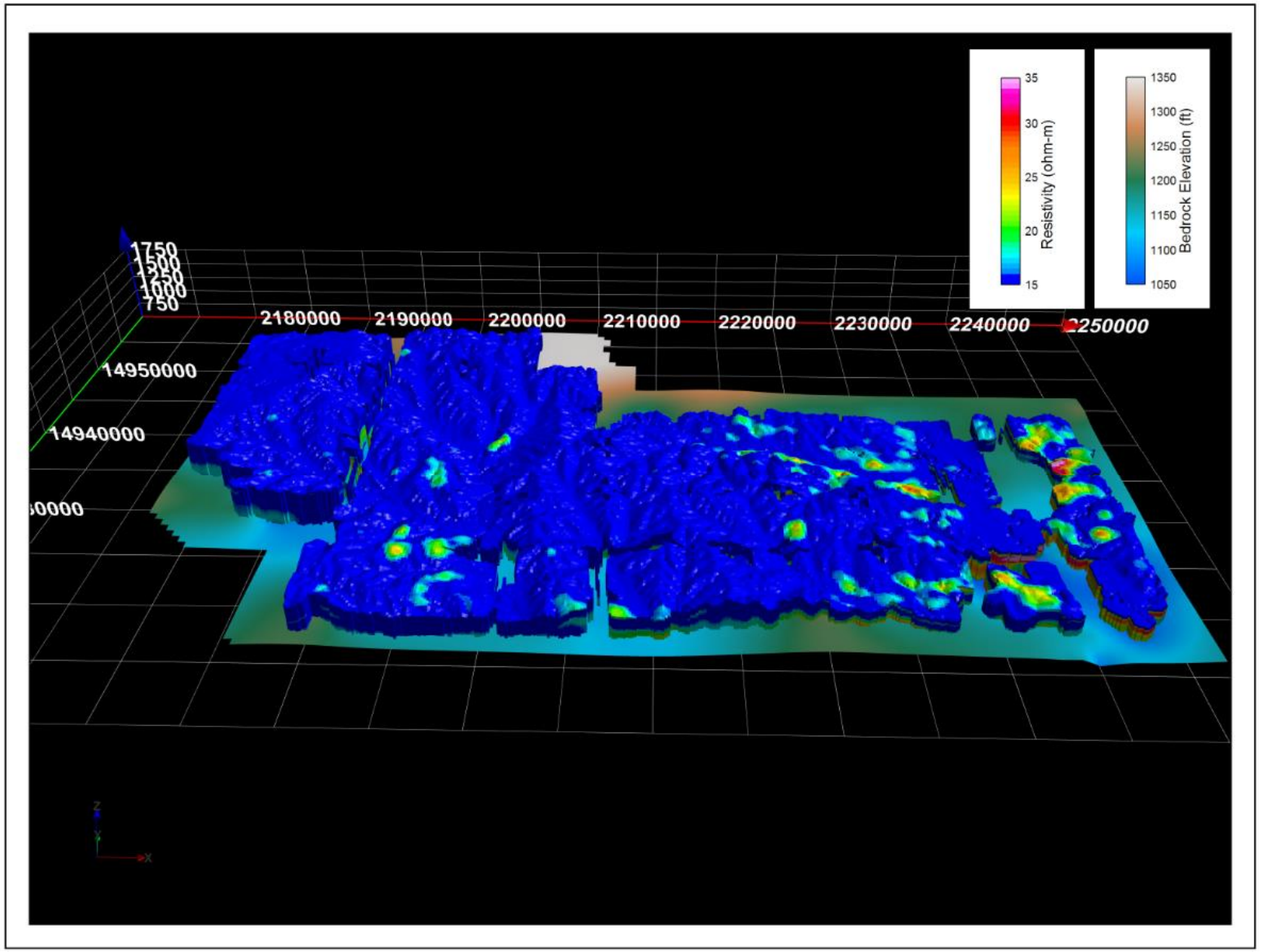


Figure A1-2: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the south flight block.

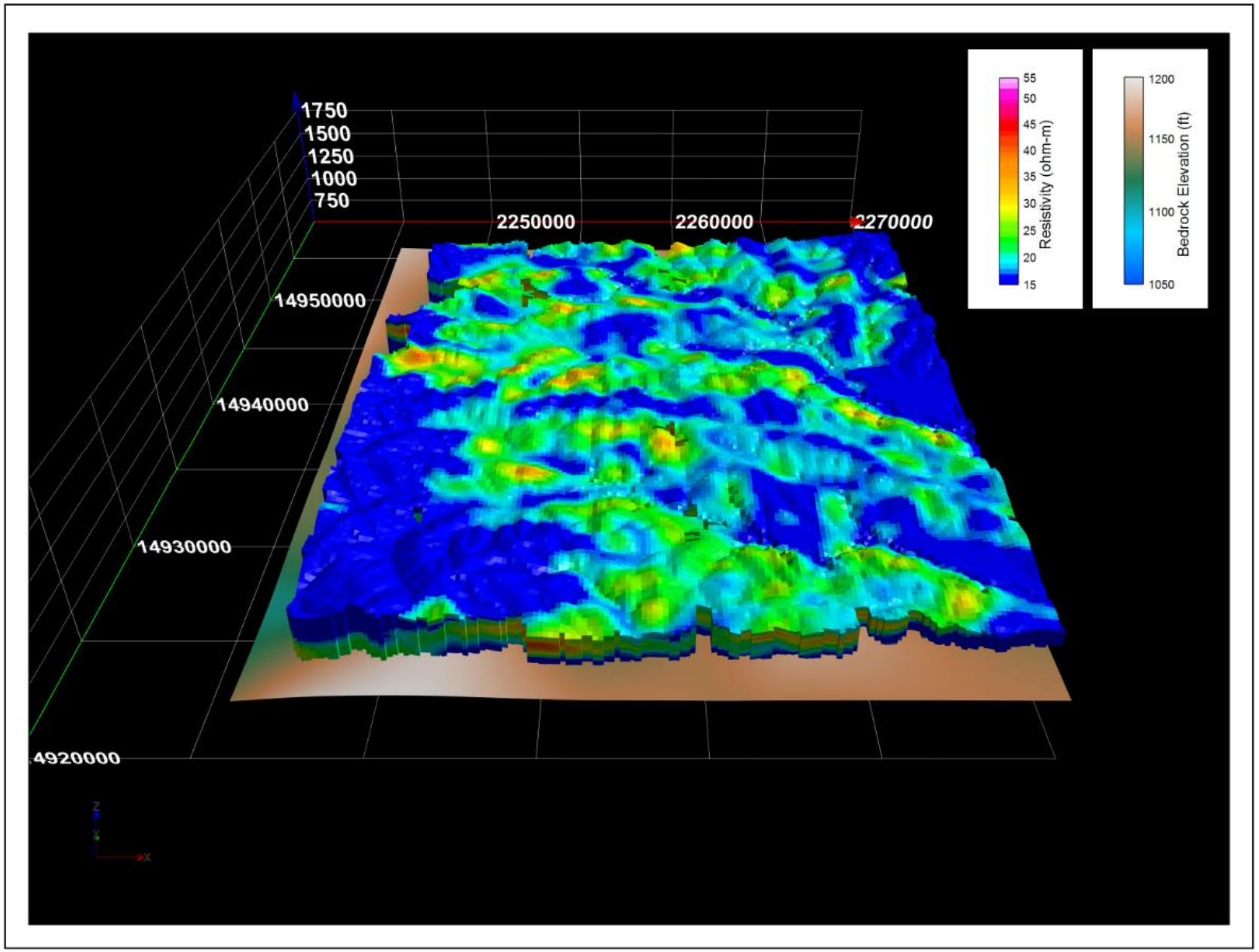


Figure A1-3: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the east flight block.

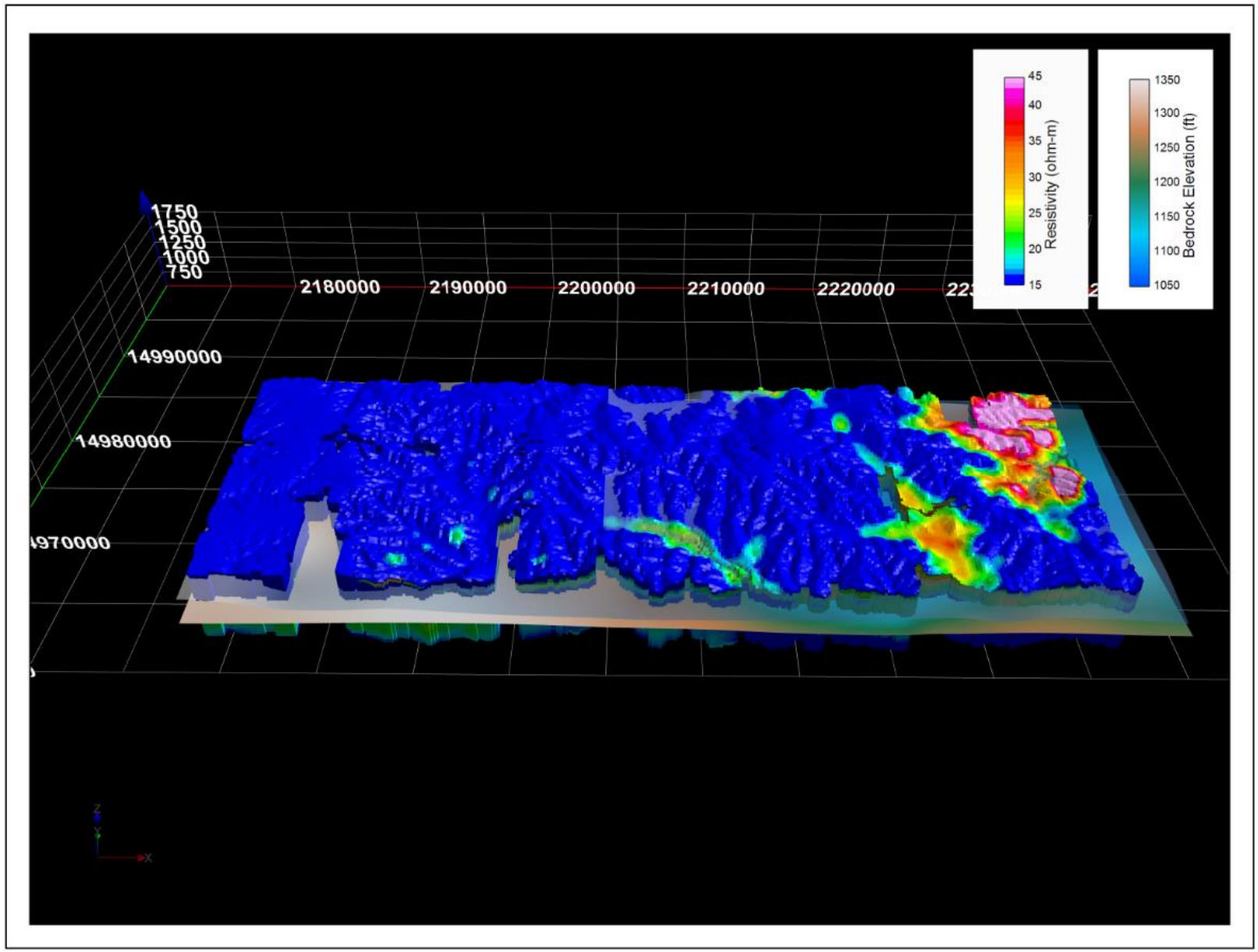


Figure A1-4: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the north flight block with a horizontal slice of material at a depth of 50 ft bgl and above removed from the eastern half of the block.

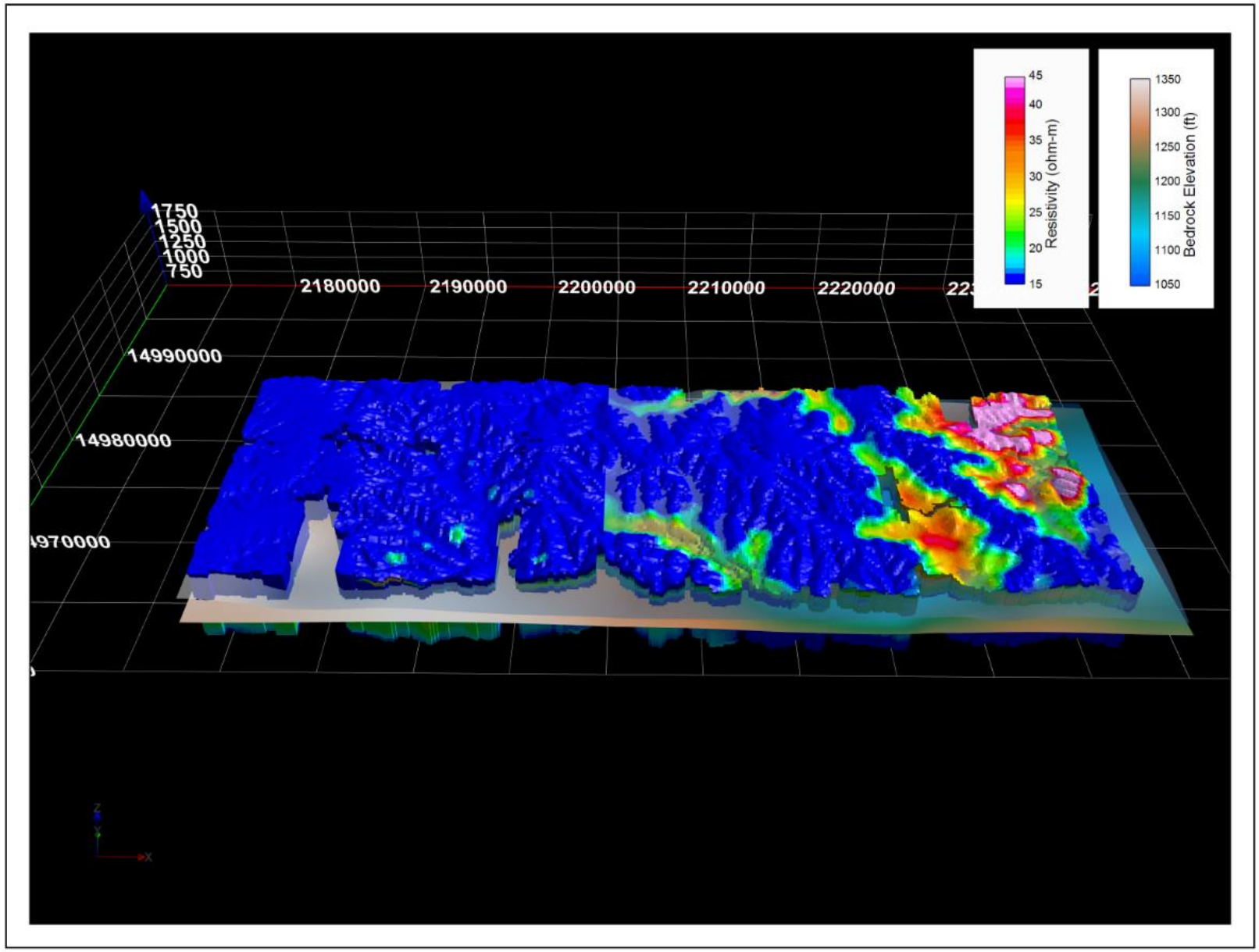


Figure A1-5: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the north flight block with a horizontal slice of material at a depth of 75 ft bgl and above removed from the eastern half of the block.

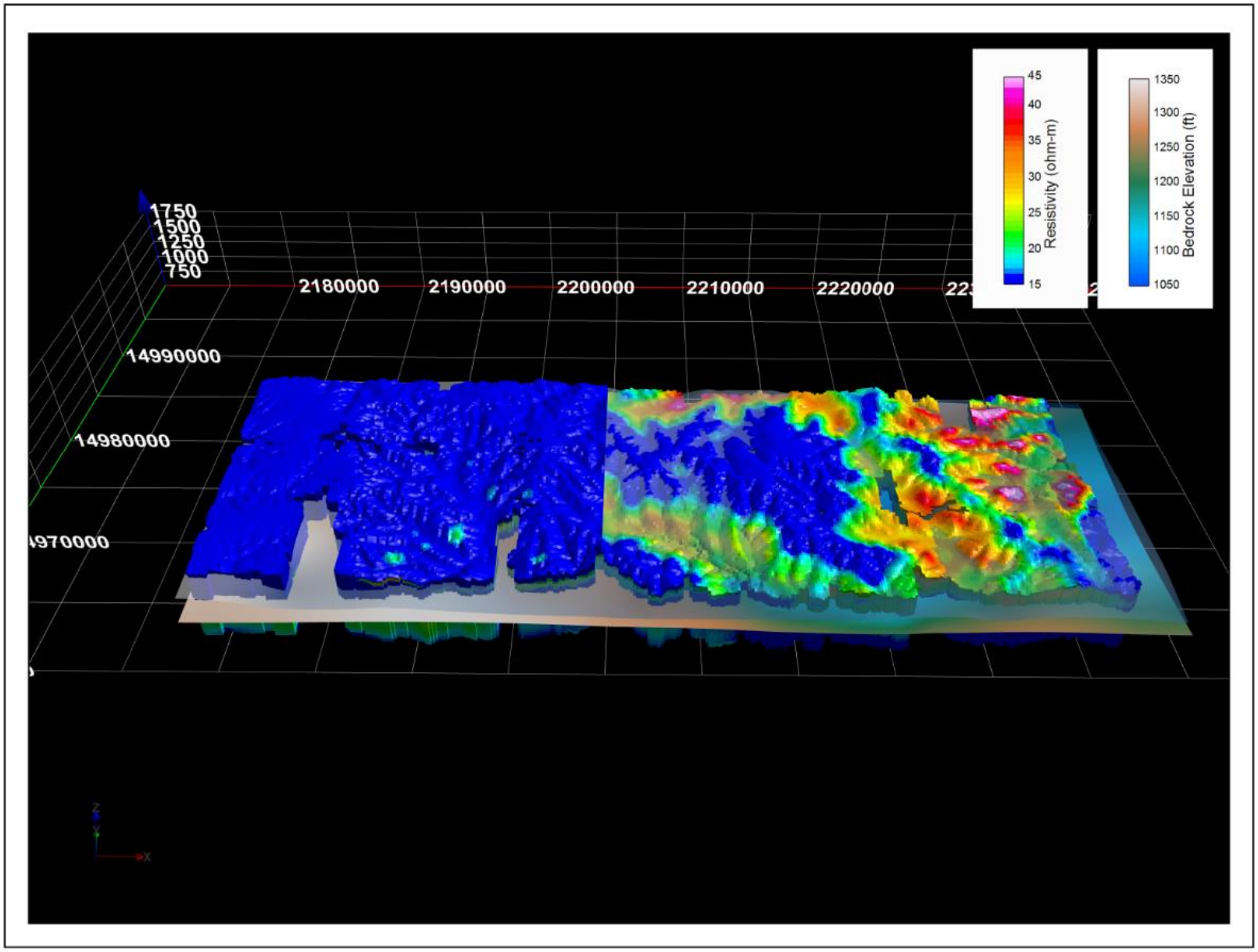


Figure A1-6: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the north flight block with a horizontal slice of material at a depth of 100 ft bgl and above removed from the eastern half of the block.

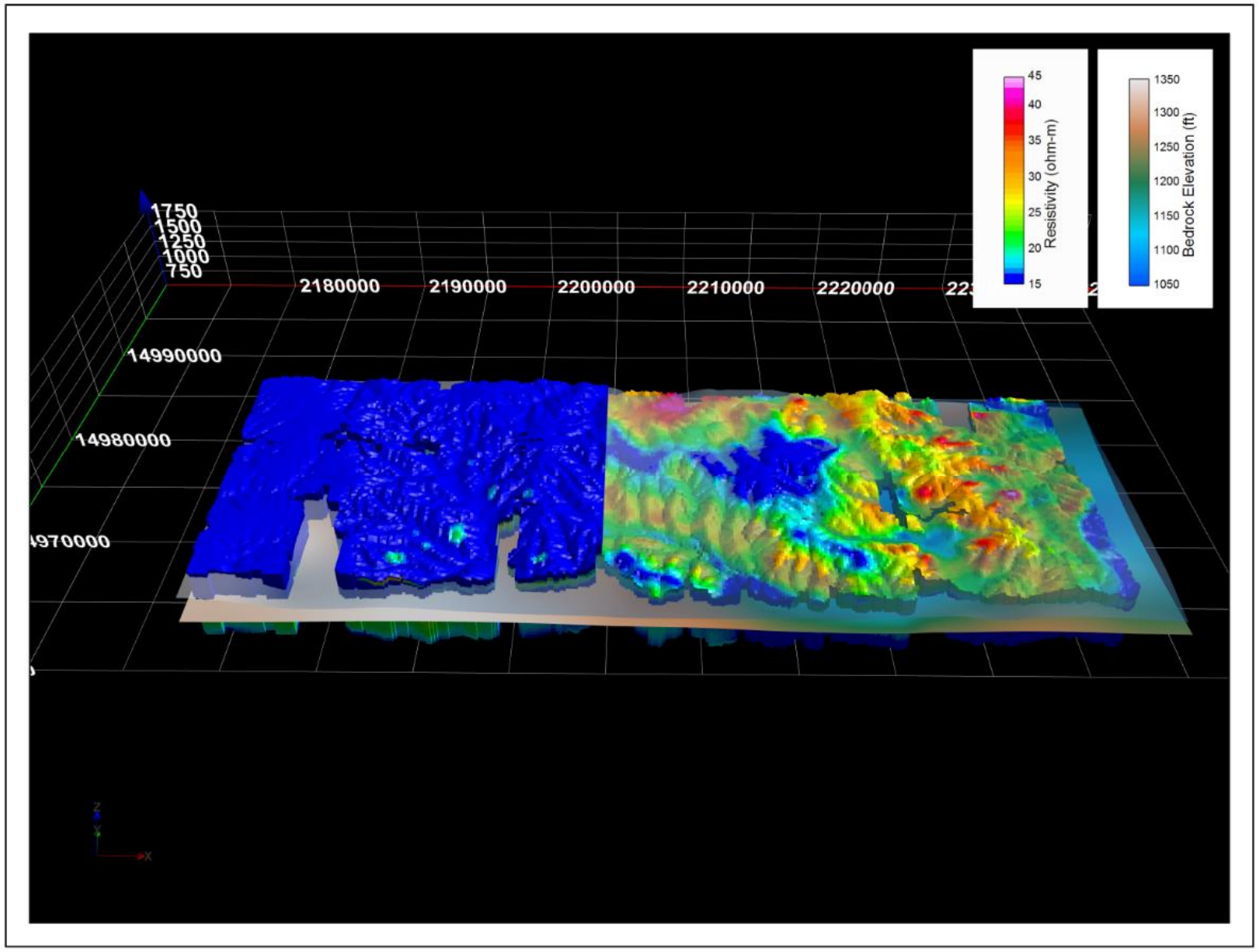


Figure A1-7: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the north flight block with a horizontal slice of material at a depth of 150 ft bgl and above removed from the eastern half of the block.

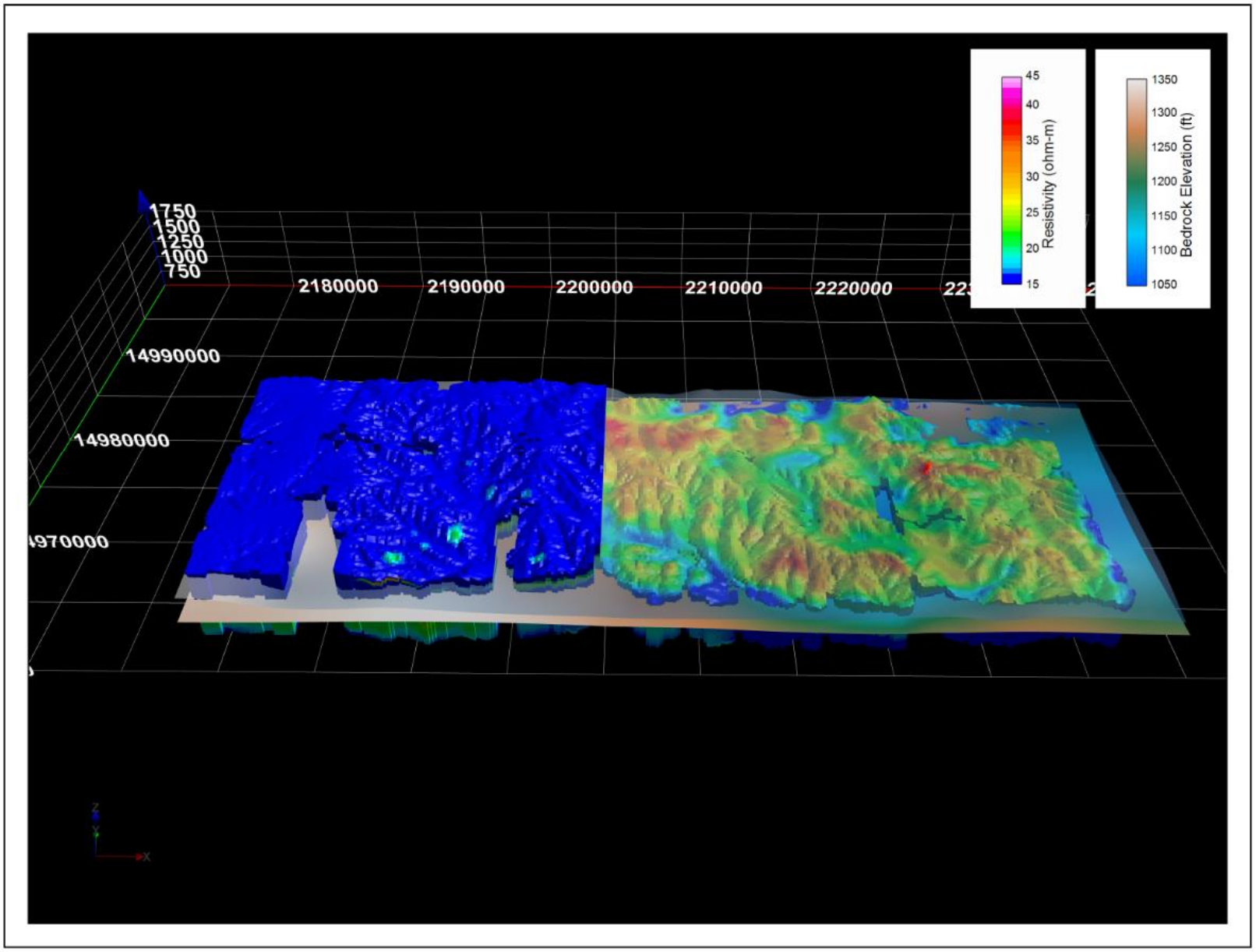


Figure A1-8: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the north flight block with a horizontal slice of material at a depth of 250 ft bgl and above removed from the eastern half of the block.

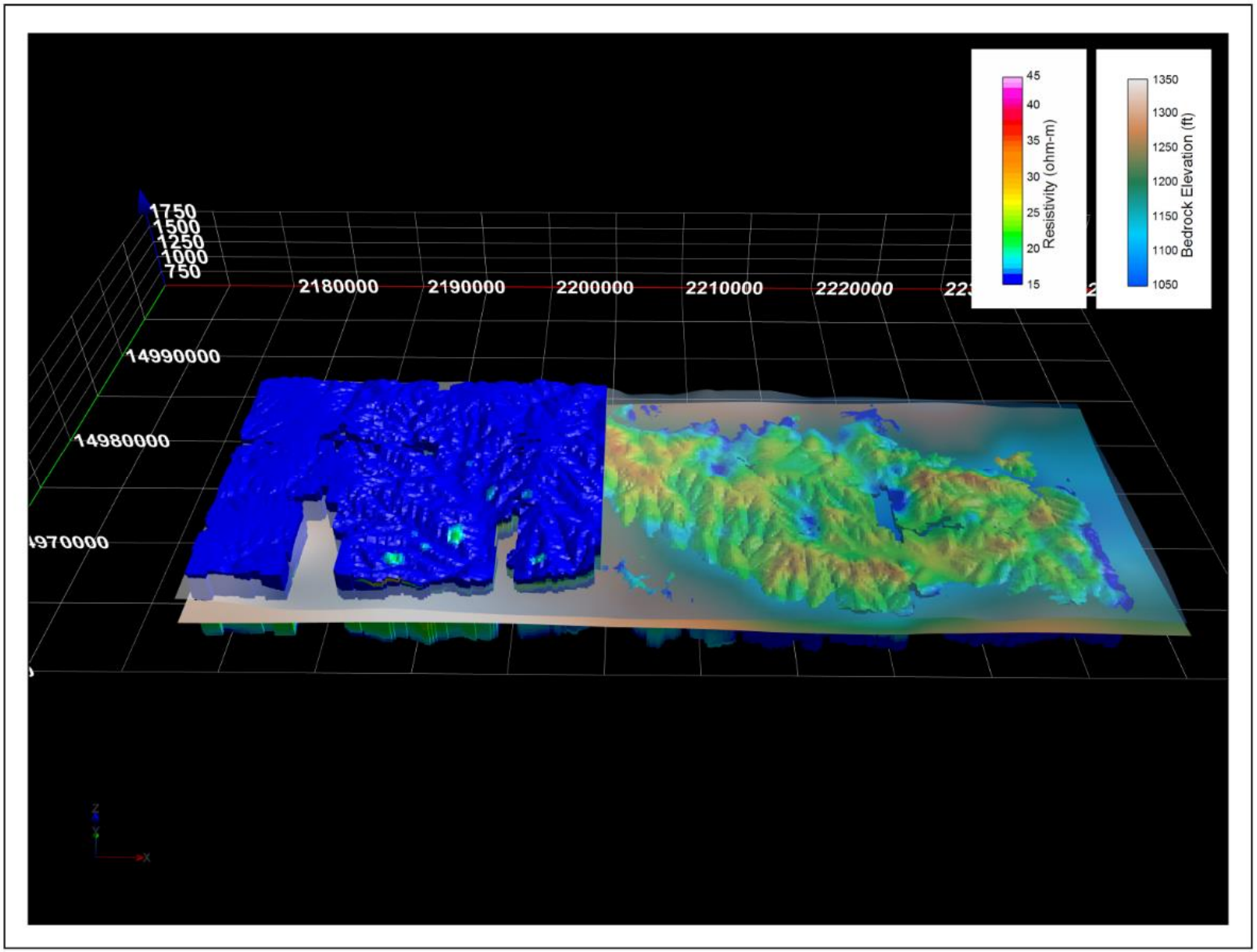


Figure A1-9: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the north flight block with a horizontal slice of material at a depth of 350 ft bgl and above removed from the eastern half of the block.

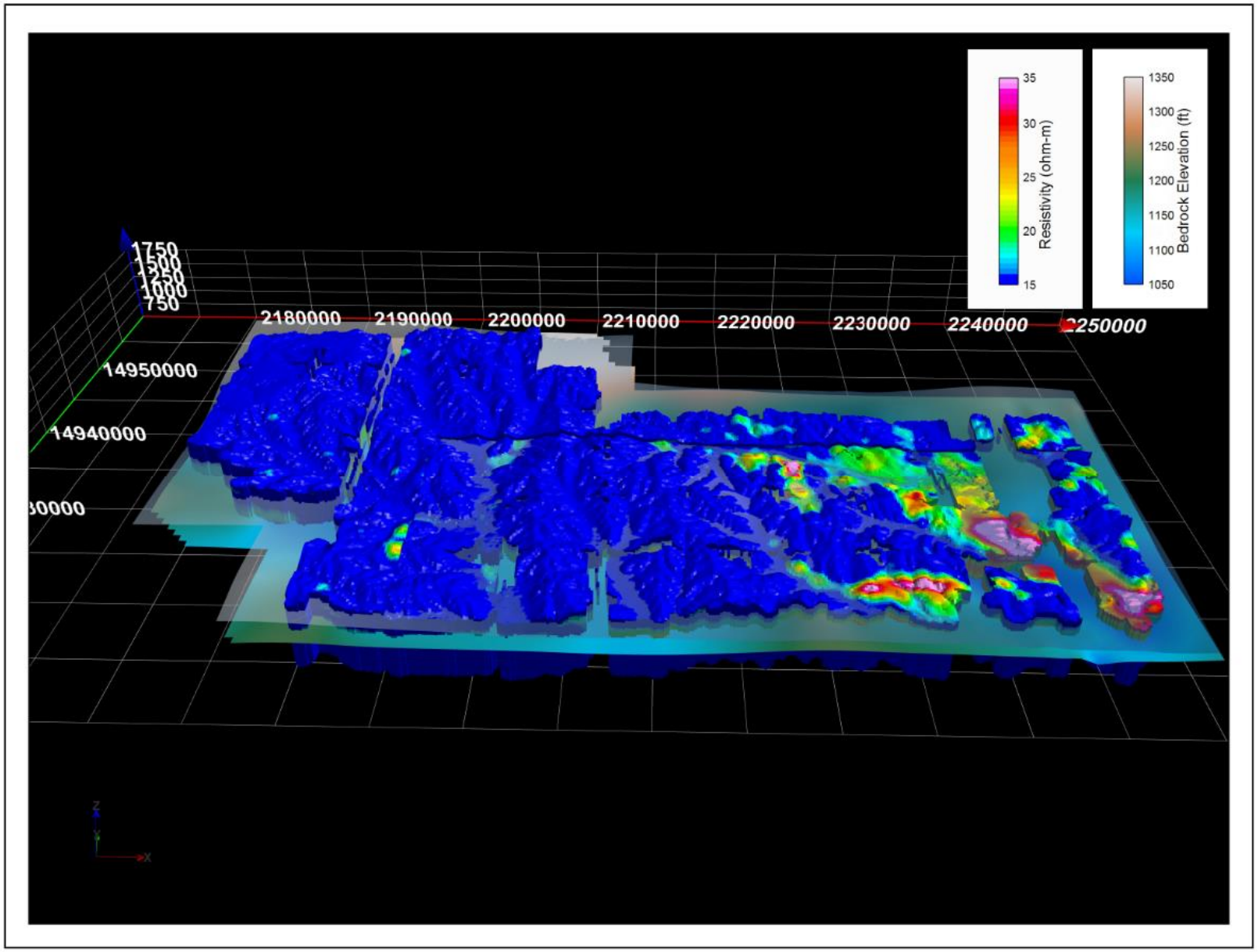


Figure A1-10: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the south flight block with a horizontal slice of material at a depth of 50 ft bgl and above removed from the southern two-thirds of the block.

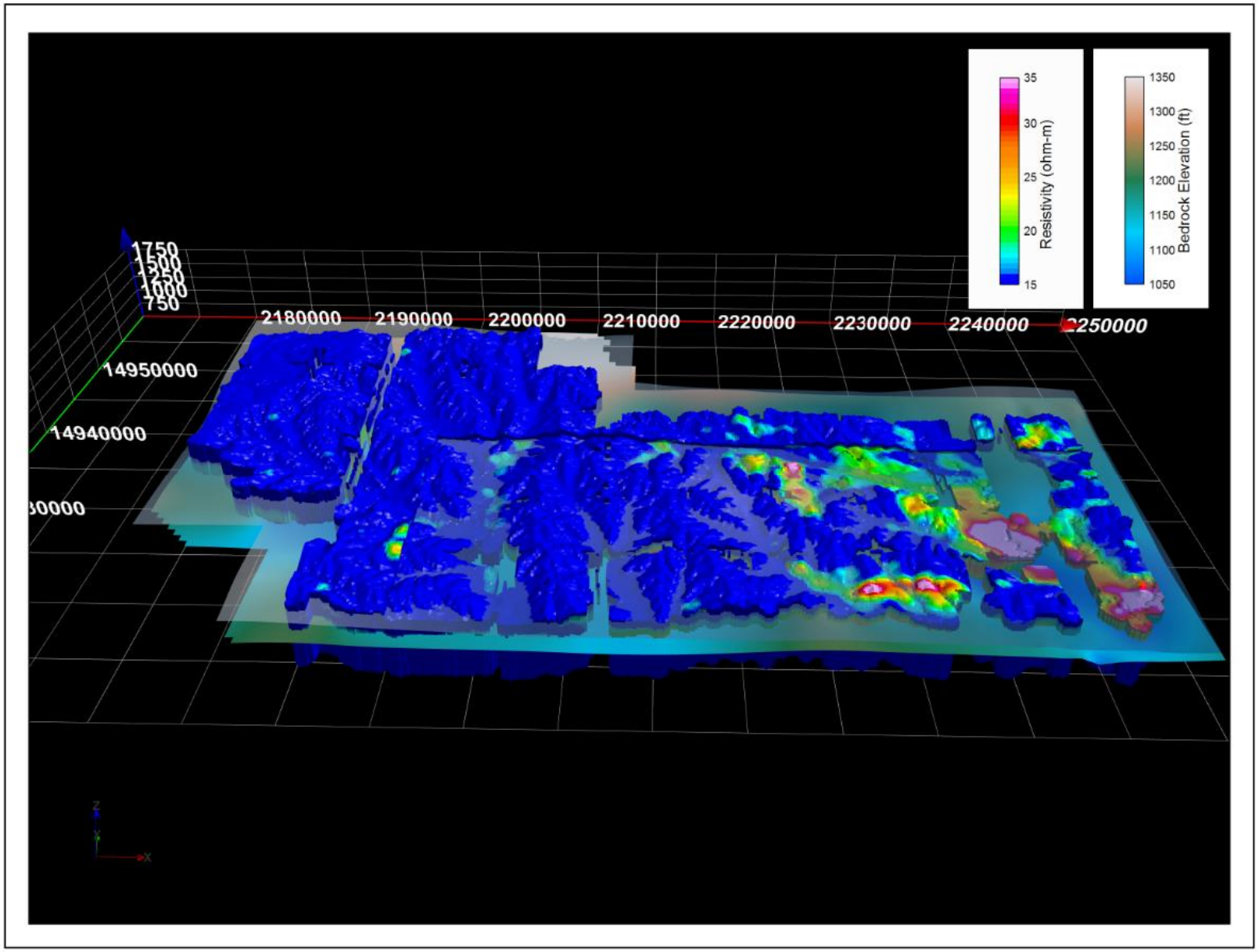


Figure A1-11: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the south flight block with a horizontal slice of material at a depth of 75 ft bgl and above removed from the southern two-thirds of the block.

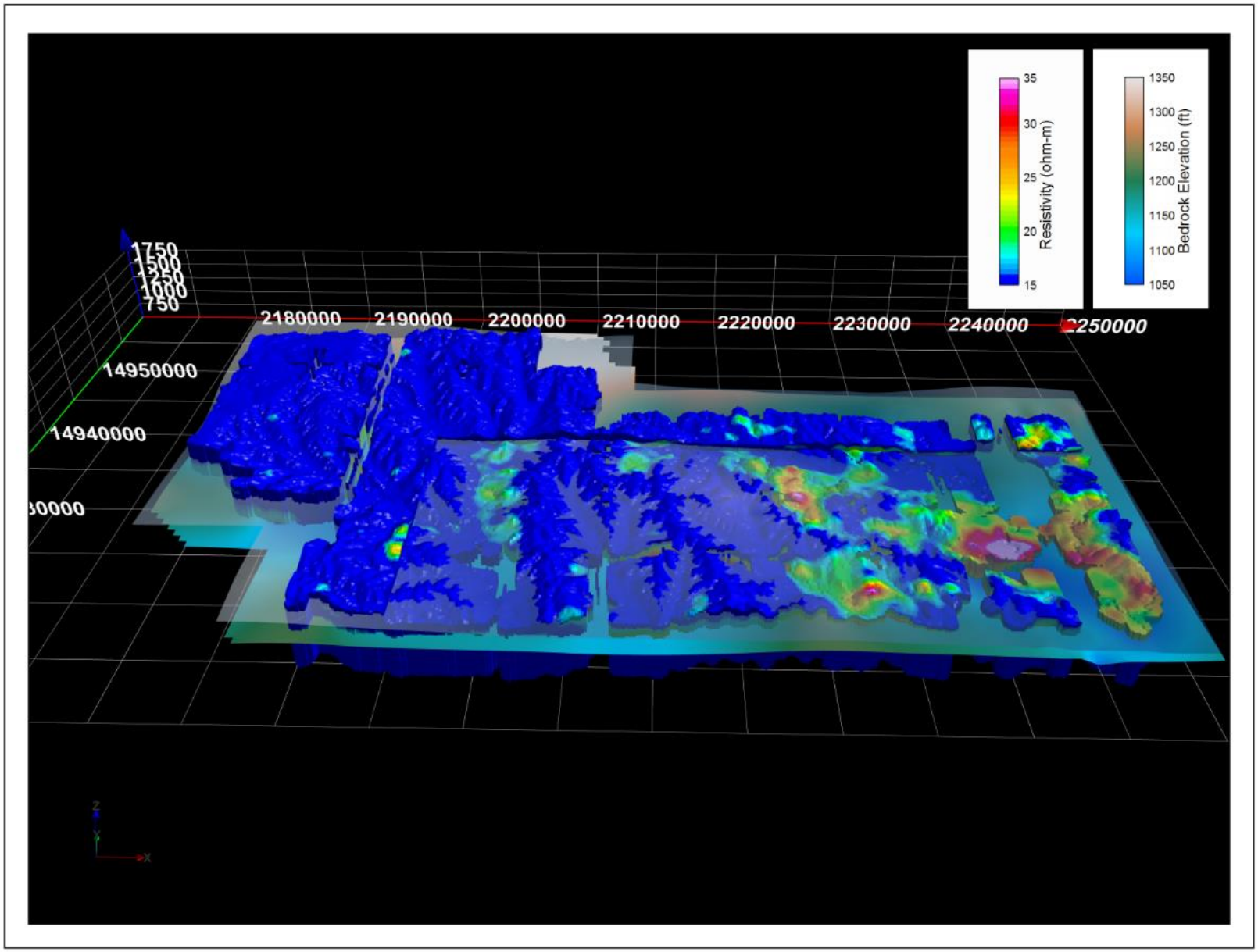


Figure A1-12: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the south flight block with a horizontal slice of material at a depth of 100 ft bgl and above removed from the southern two-thirds of the block.

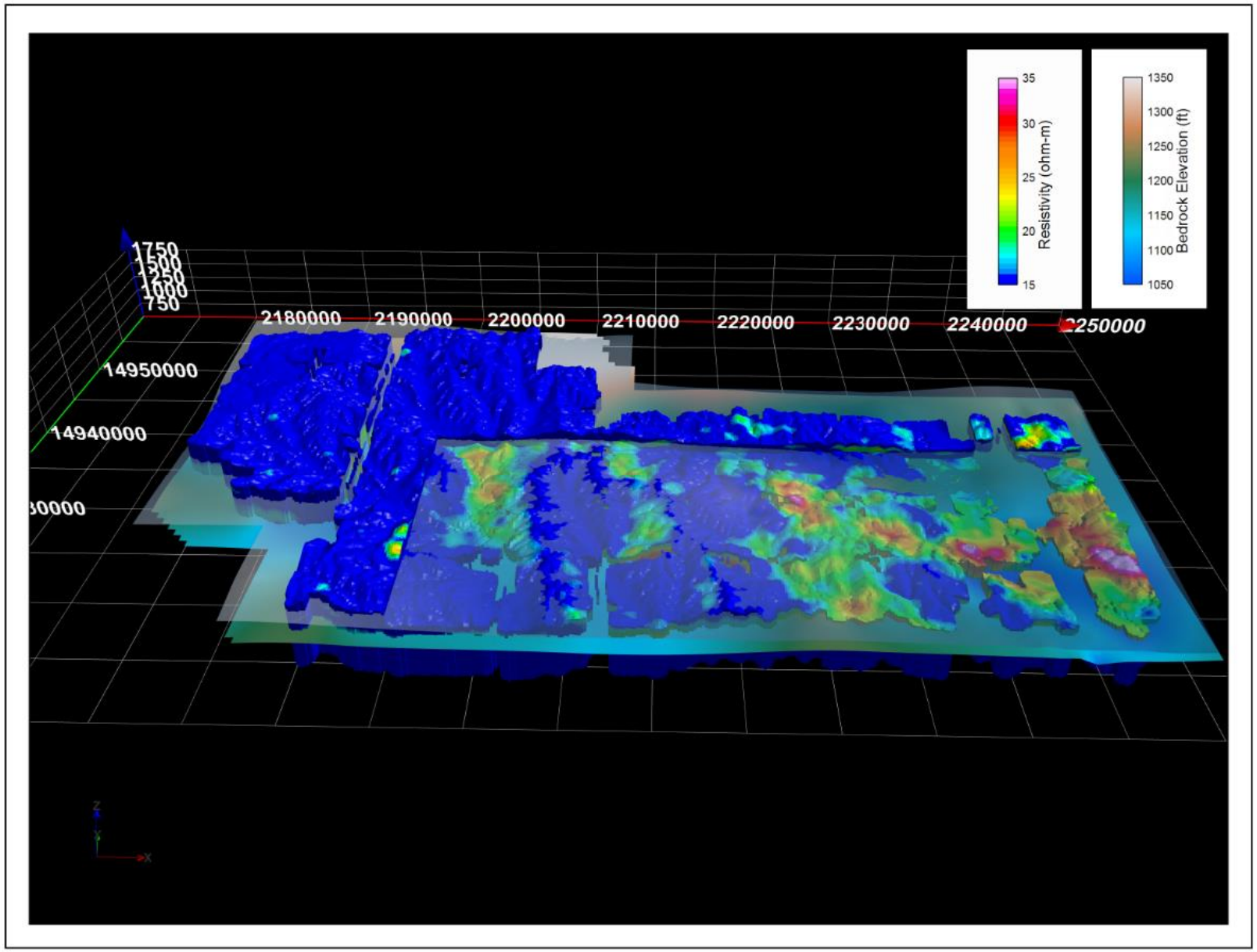


Figure A1-13: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the south flight block with a horizontal slice of material at a depth of 150 ft bgl and above removed from the southern two-thirds of the block.

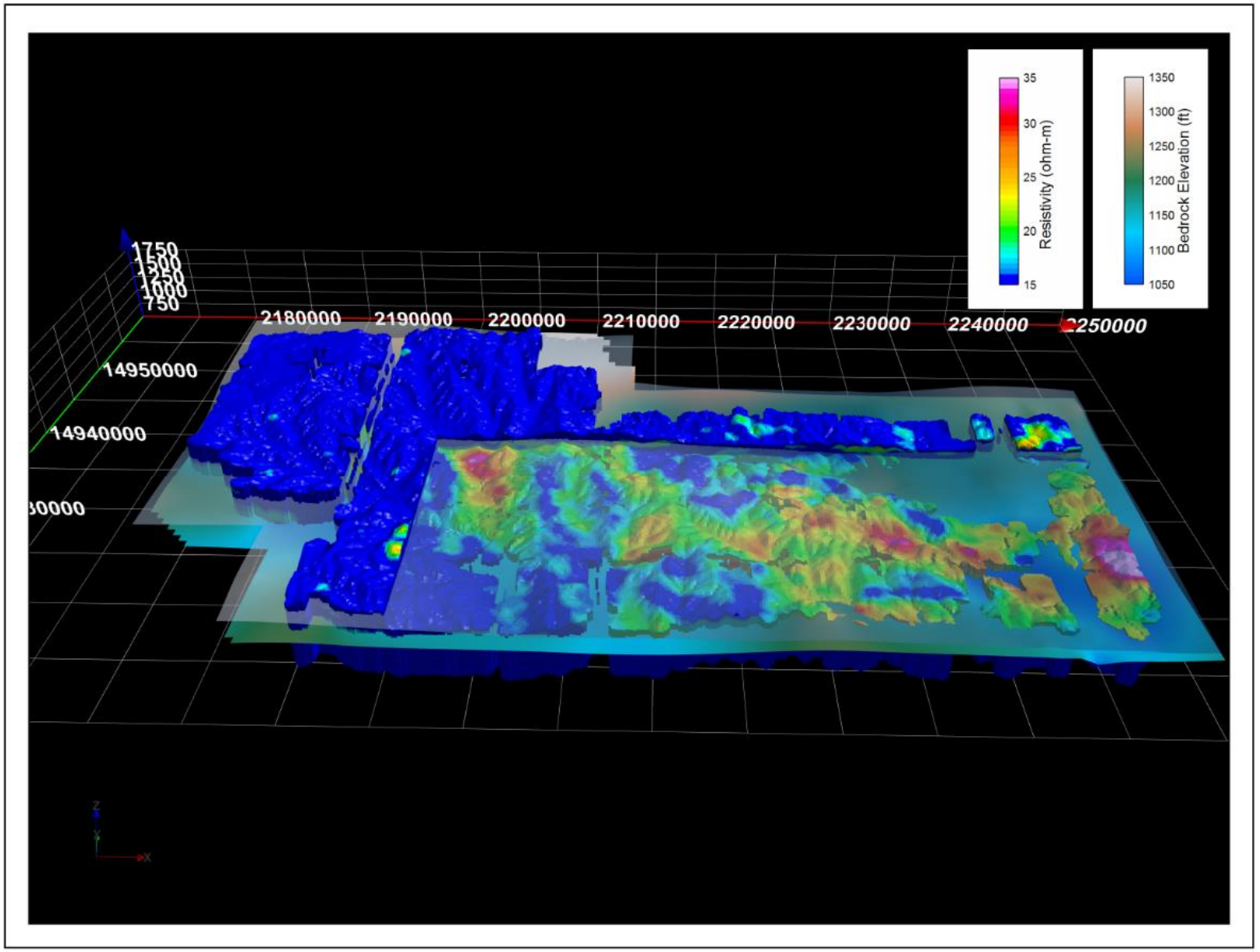


Figure A1-14: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the south flight block with a horizontal slice of material at a depth of 200 ft bgl and above removed from the southern two-thirds of the block.

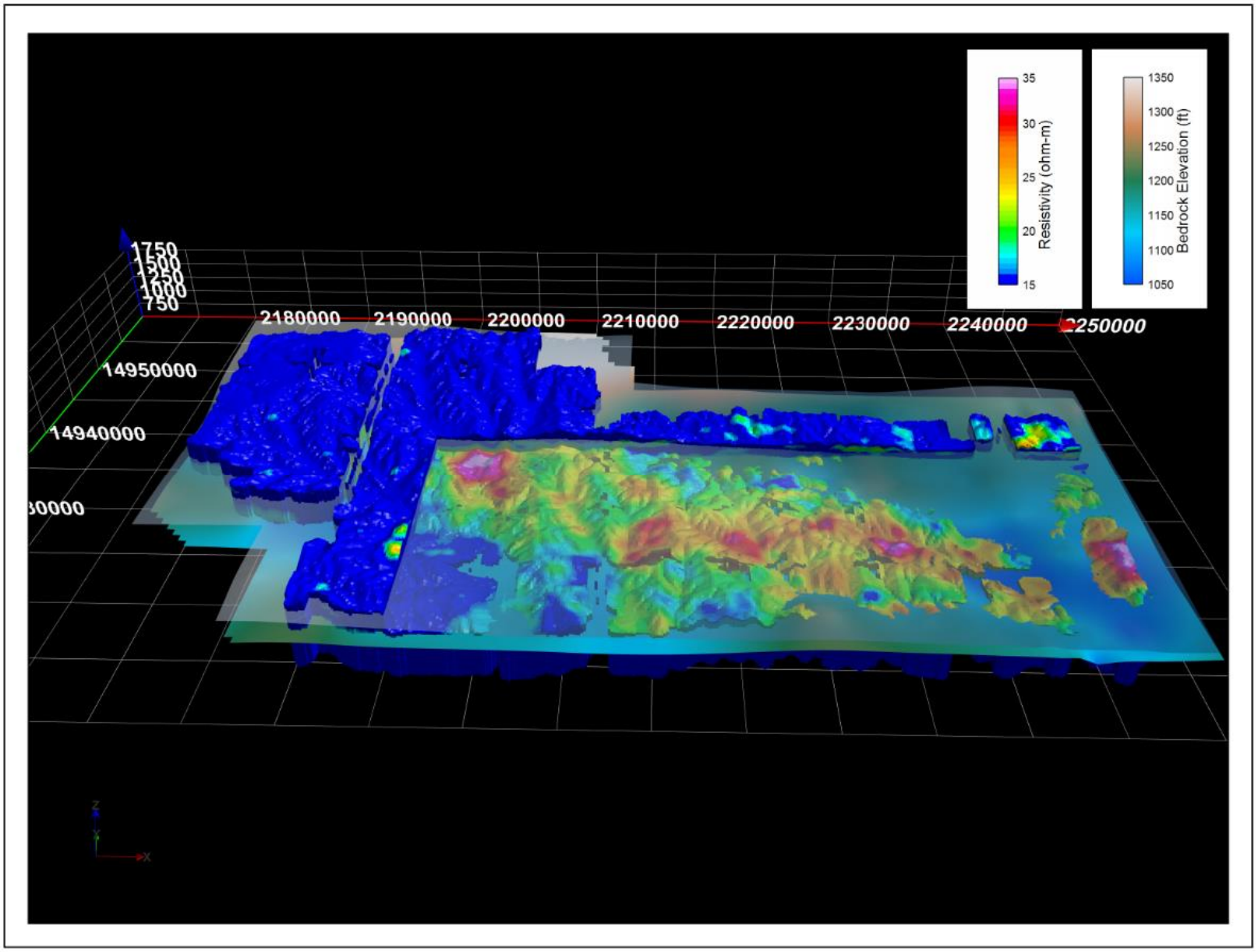


Figure A1-15: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the south flight block with a horizontal slice of material at a depth of 250 ft bgl and above removed from the southern two-thirds of the block.

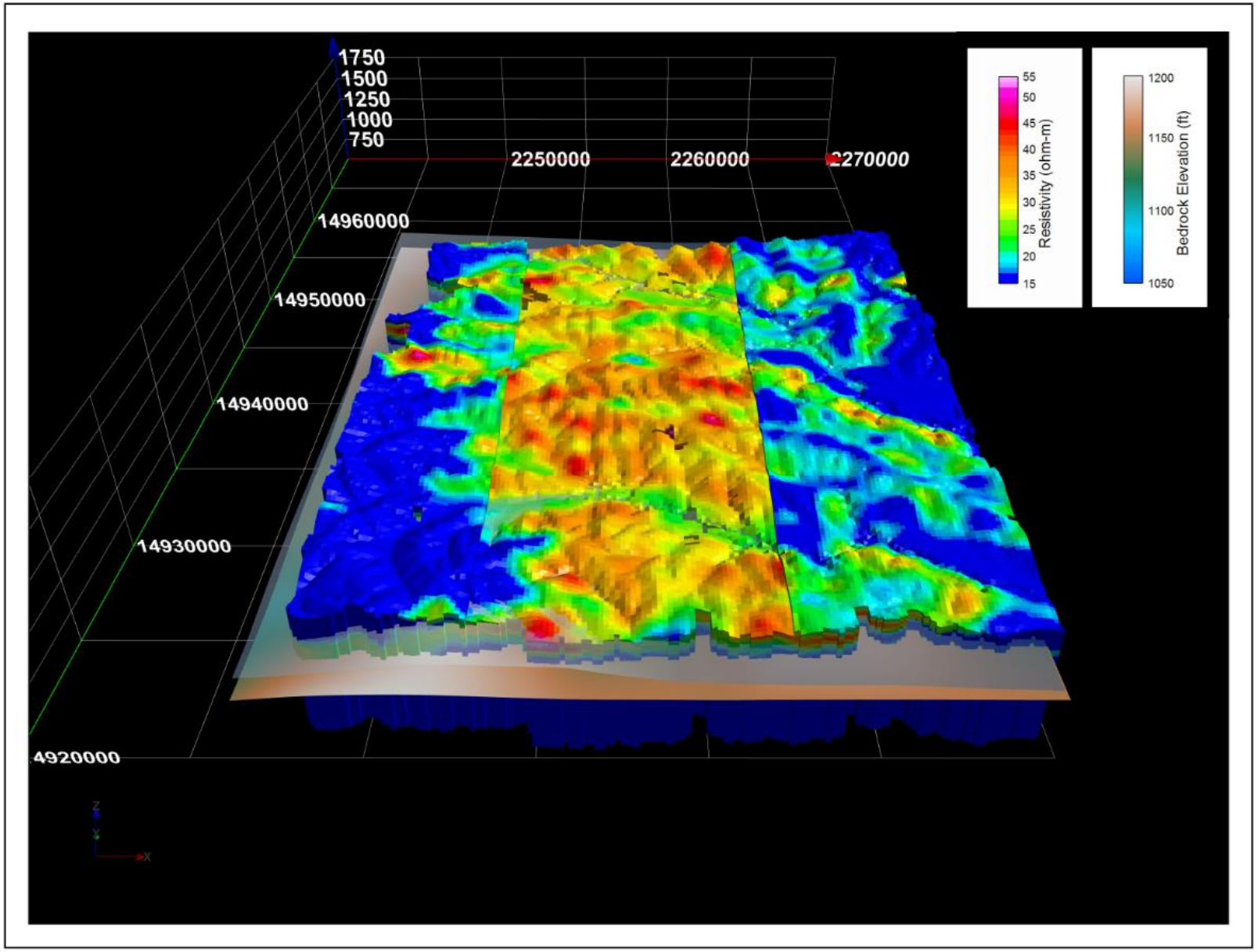


Figure A1-16: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the east flight block with a horizontal slice of material at a depth of 30 ft bgl and above removed from the middle one-third of the block.

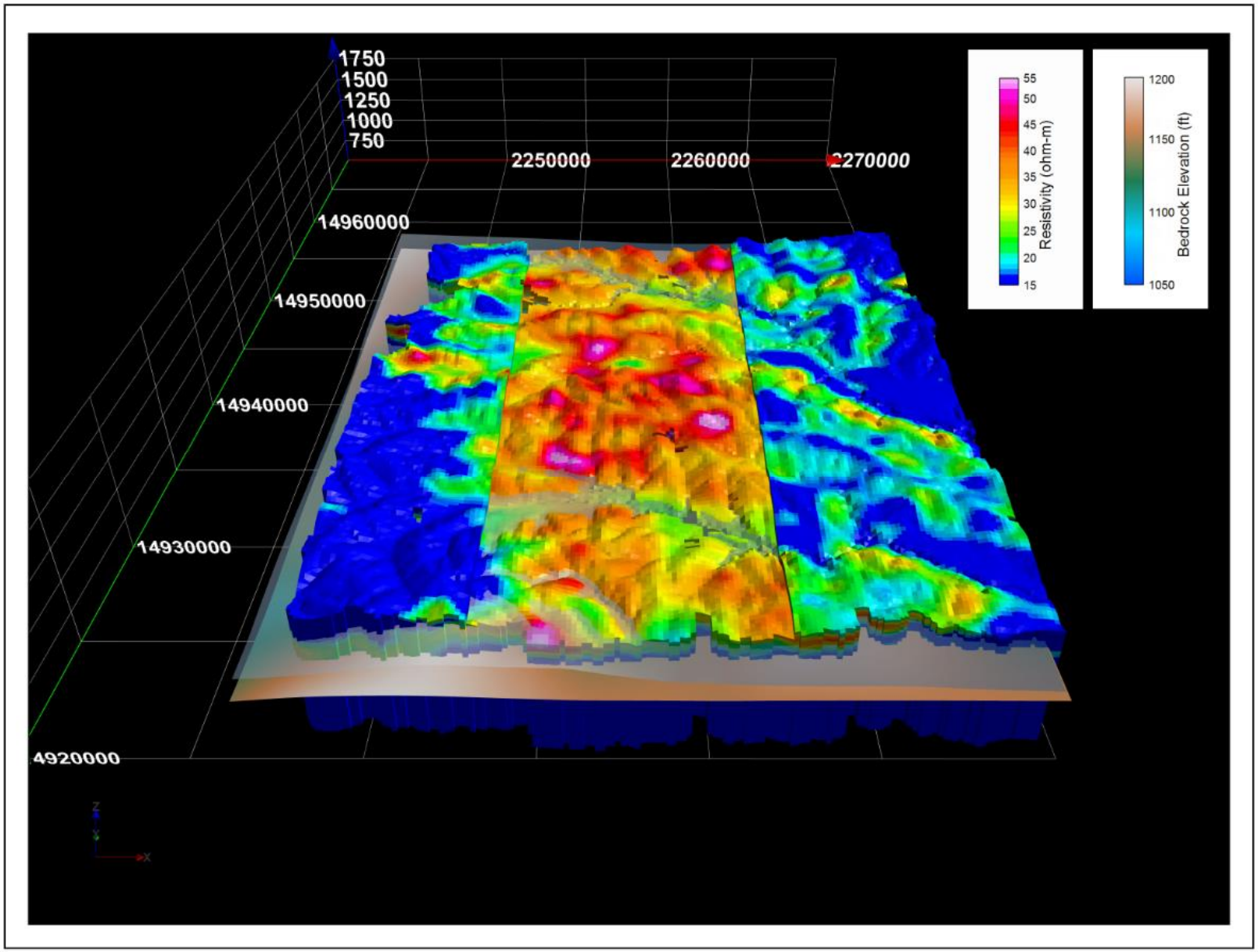


Figure A1-17: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the east flight block with a horizontal slice of material at a depth of 60 ft bgl and above removed from the middle one-third of the block.

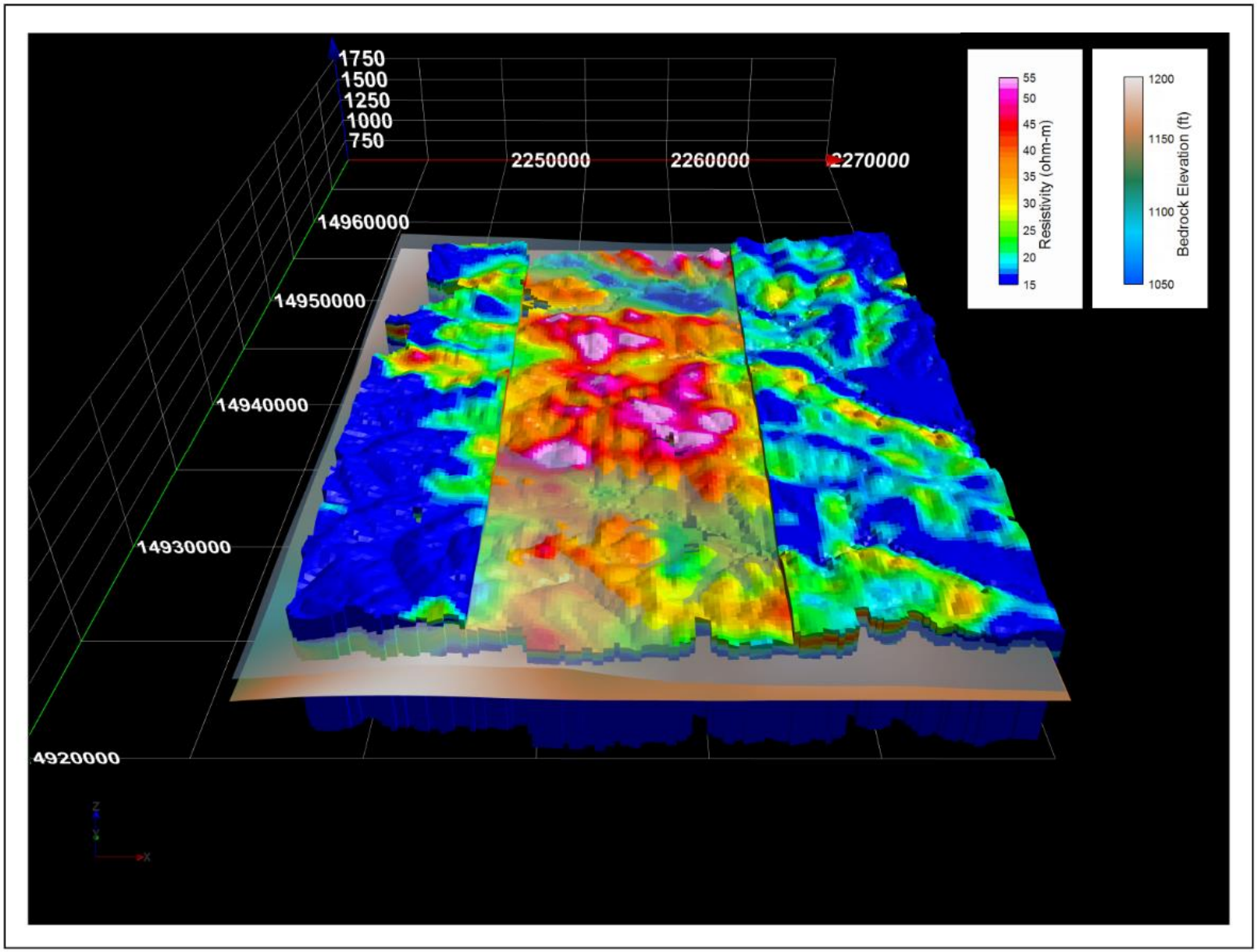


Figure A1-18: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the east flight block with a horizontal slice of material at a depth of 90 ft bgl and above removed from the middle one-third of the block.

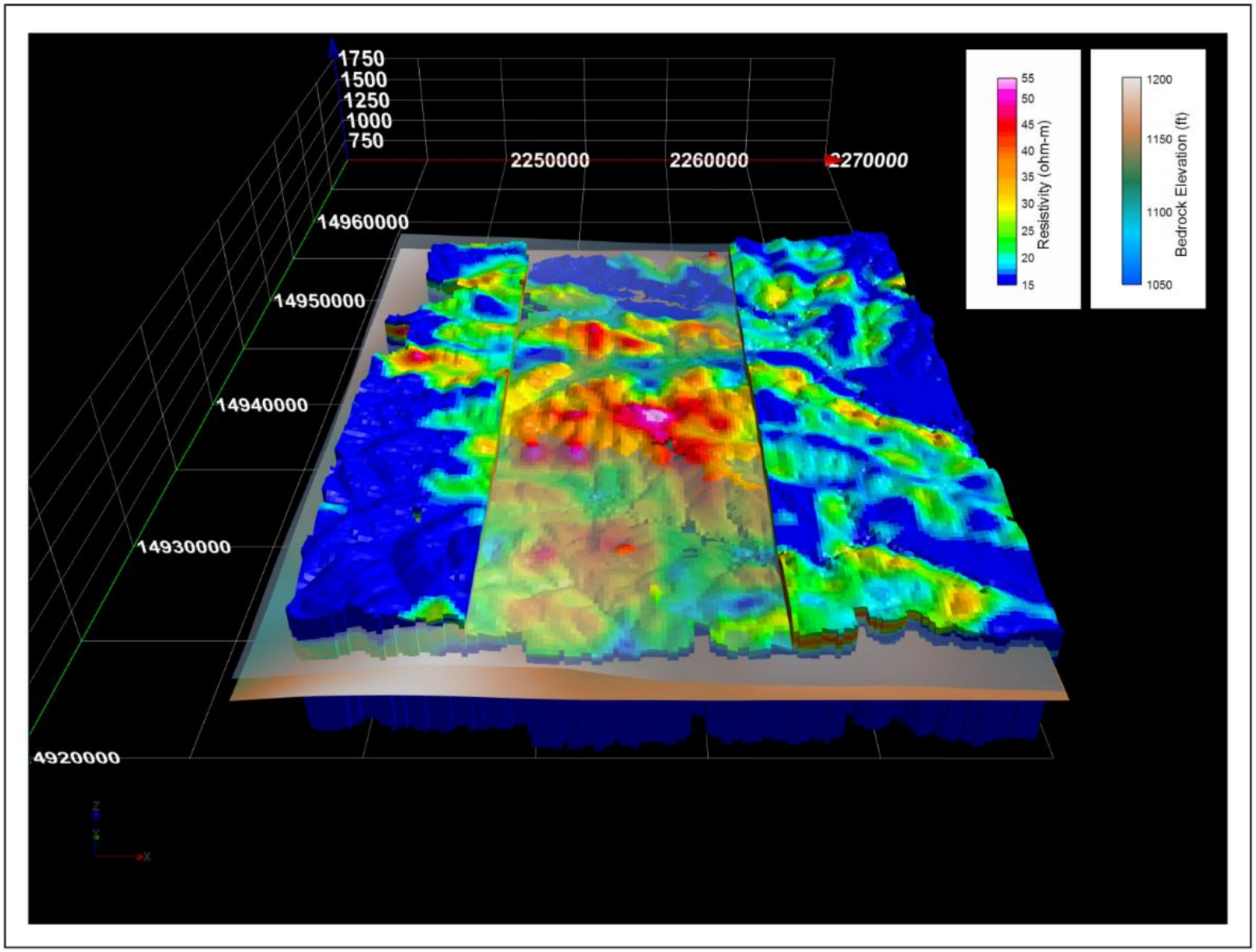


Figure A1-19: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the east flight block with a horizontal slice of material at a depth of 120 ft bgl and above removed from the middle one-third of the block.

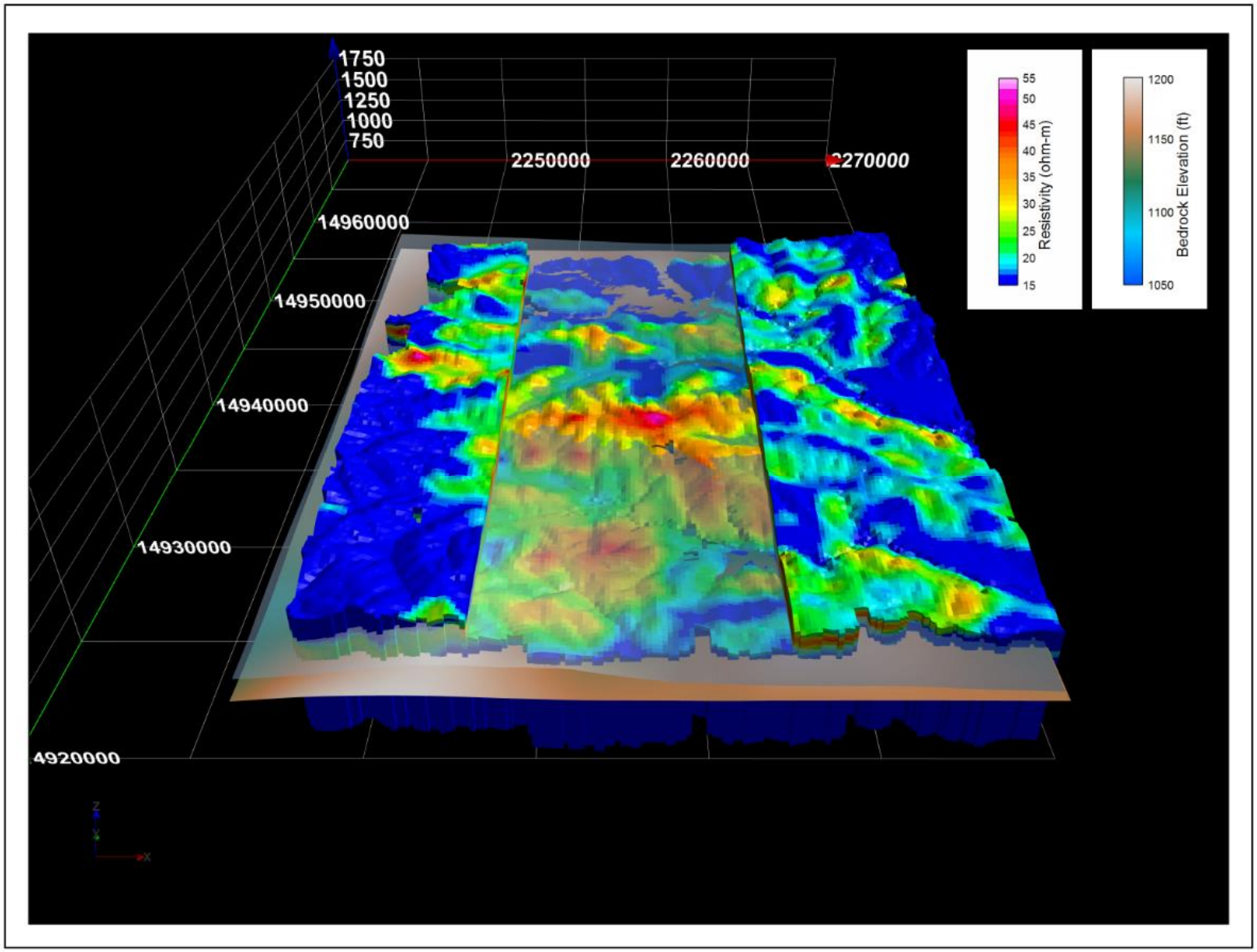


Figure A1-20: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the east flight block with a horizontal slice of material at a depth of 150 ft bgl and above removed from the middle one-third of the block.

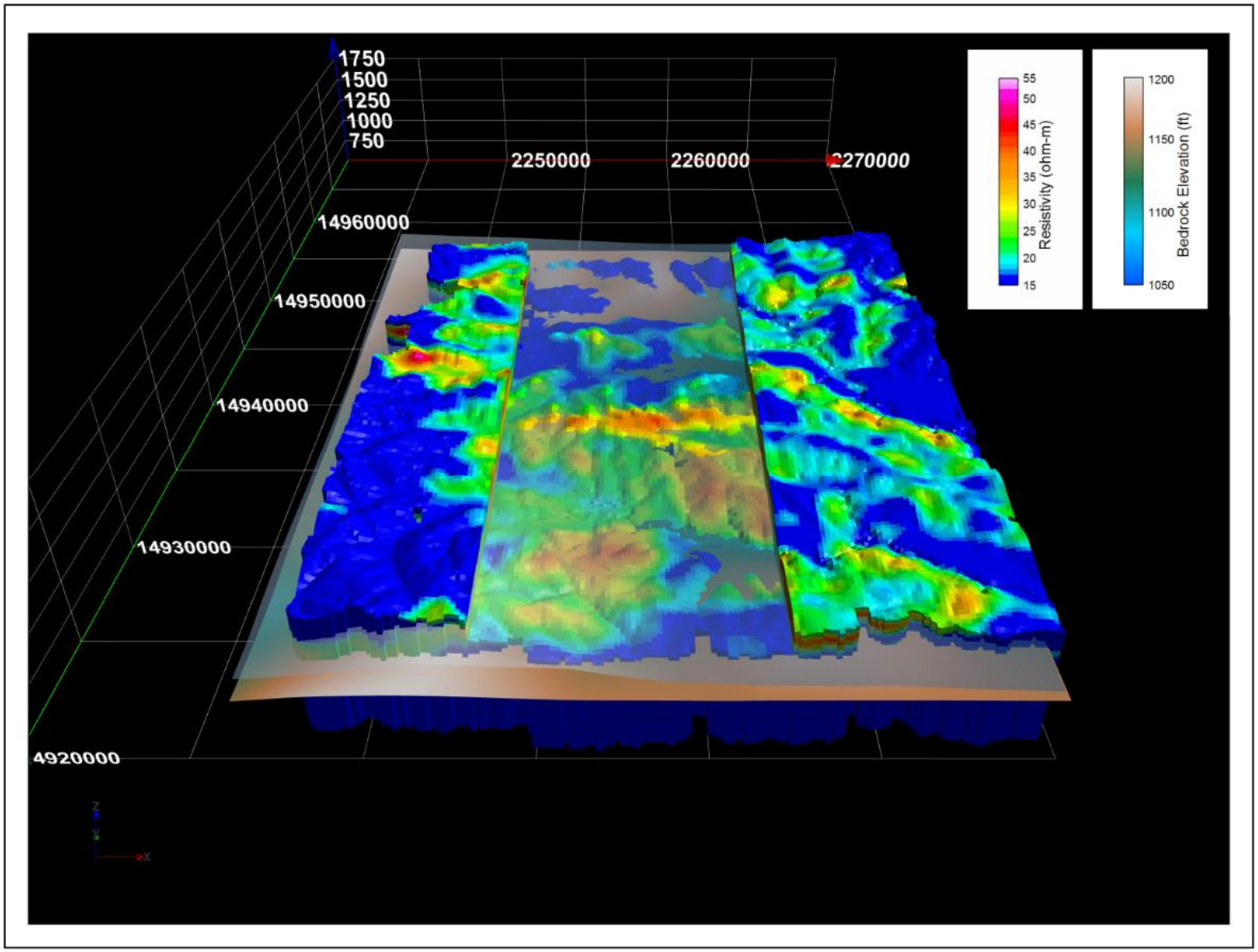


Figure A1-21: Resistivity model of all Quaternary materials overlying the interpreted Cretaceous bedrock surface in the east flight block with a horizontal slice of material at a depth of 180 ft bgl and above removed from the middle one-third of the block.

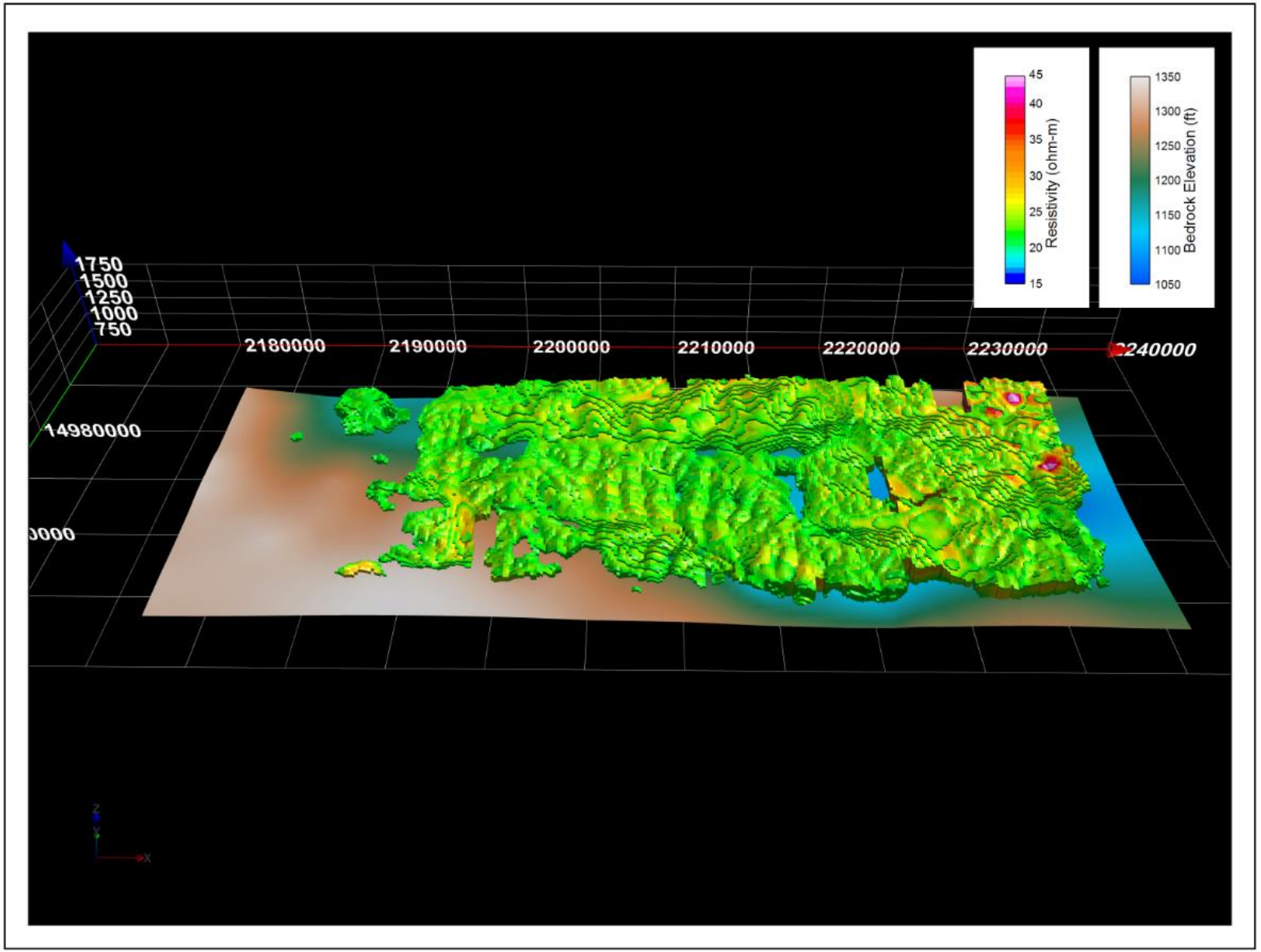


Figure A1-22: 3D voxel of Quaternary resistive materials greater than 21 ohm-m overlying the interpreted Cretaceous bedrock surface in the north flight block.

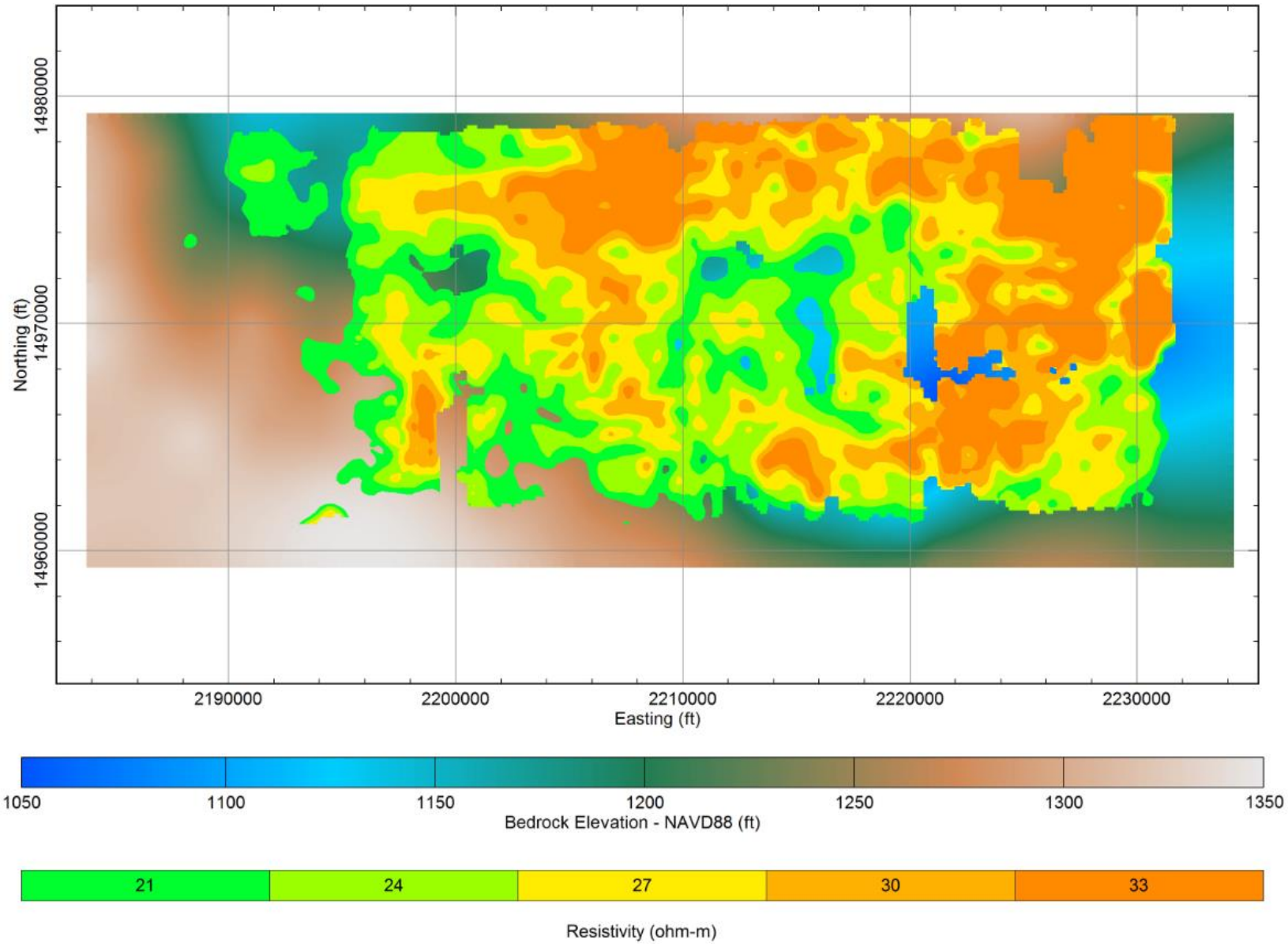


Figure A1-23: 2D map of resistivities greater than 21 ohm-m overlying the interpreted Cretaceous bedrock surface in the north flight block.

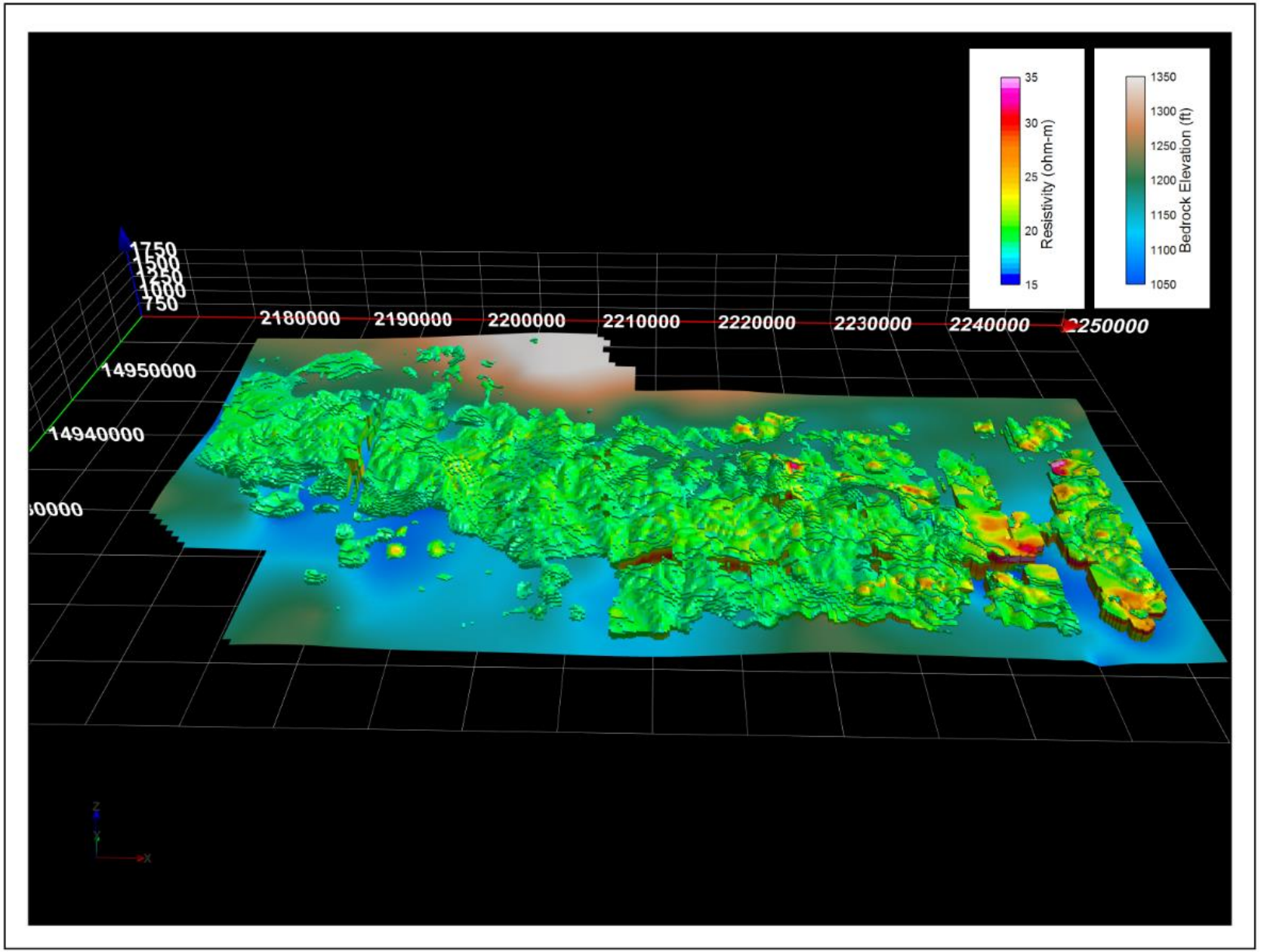


Figure A1-24: 3D voxel of Quaternary resistive materials greater than 18 ohm-m overlying the interpreted Cretaceous bedrock surface in the south flight block.

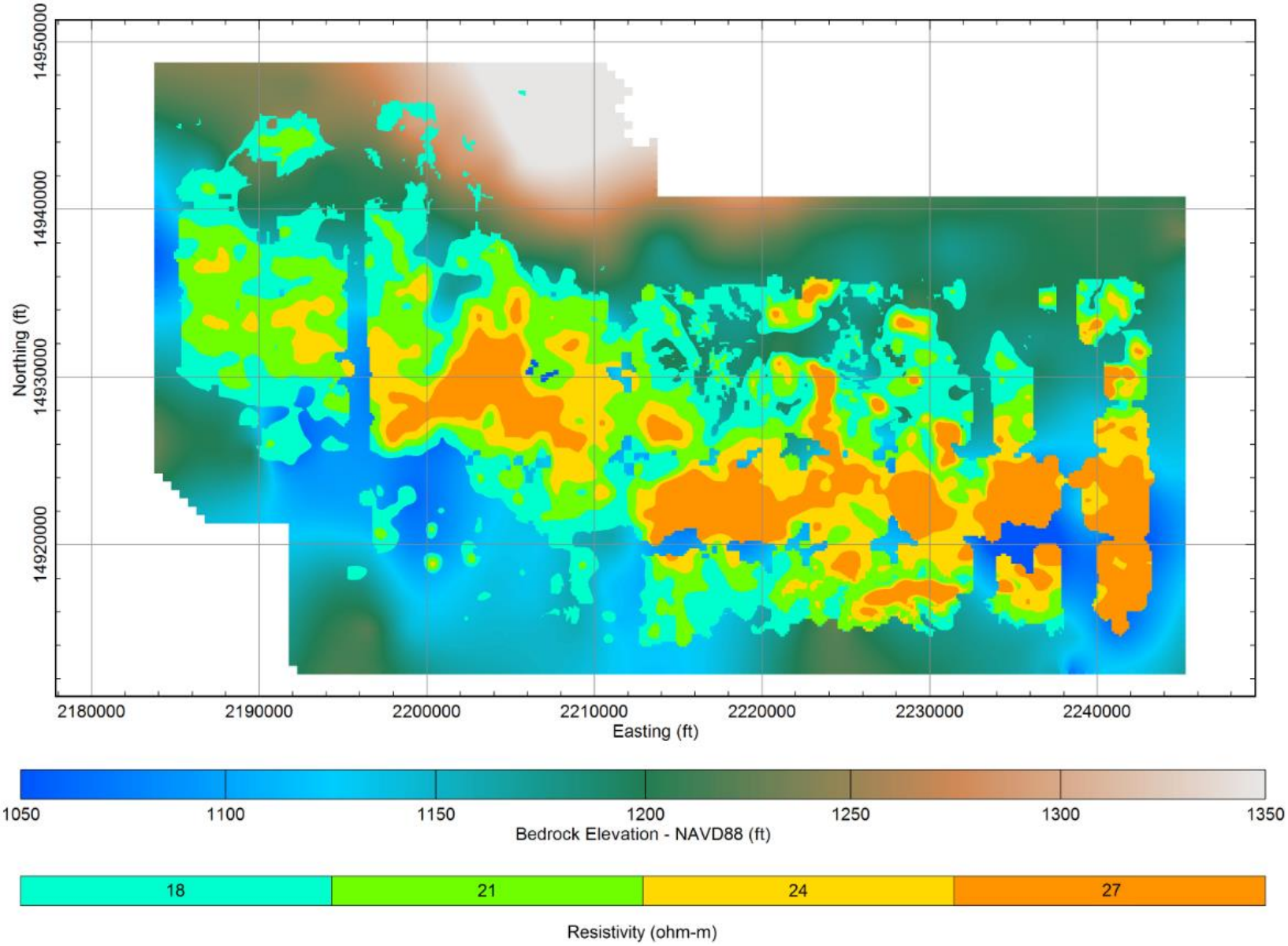


Figure A1-25: 2D map of resistivities greater than 18 ohm-m overlying the interpreted Cretaceous bedrock surface in the south flight block.

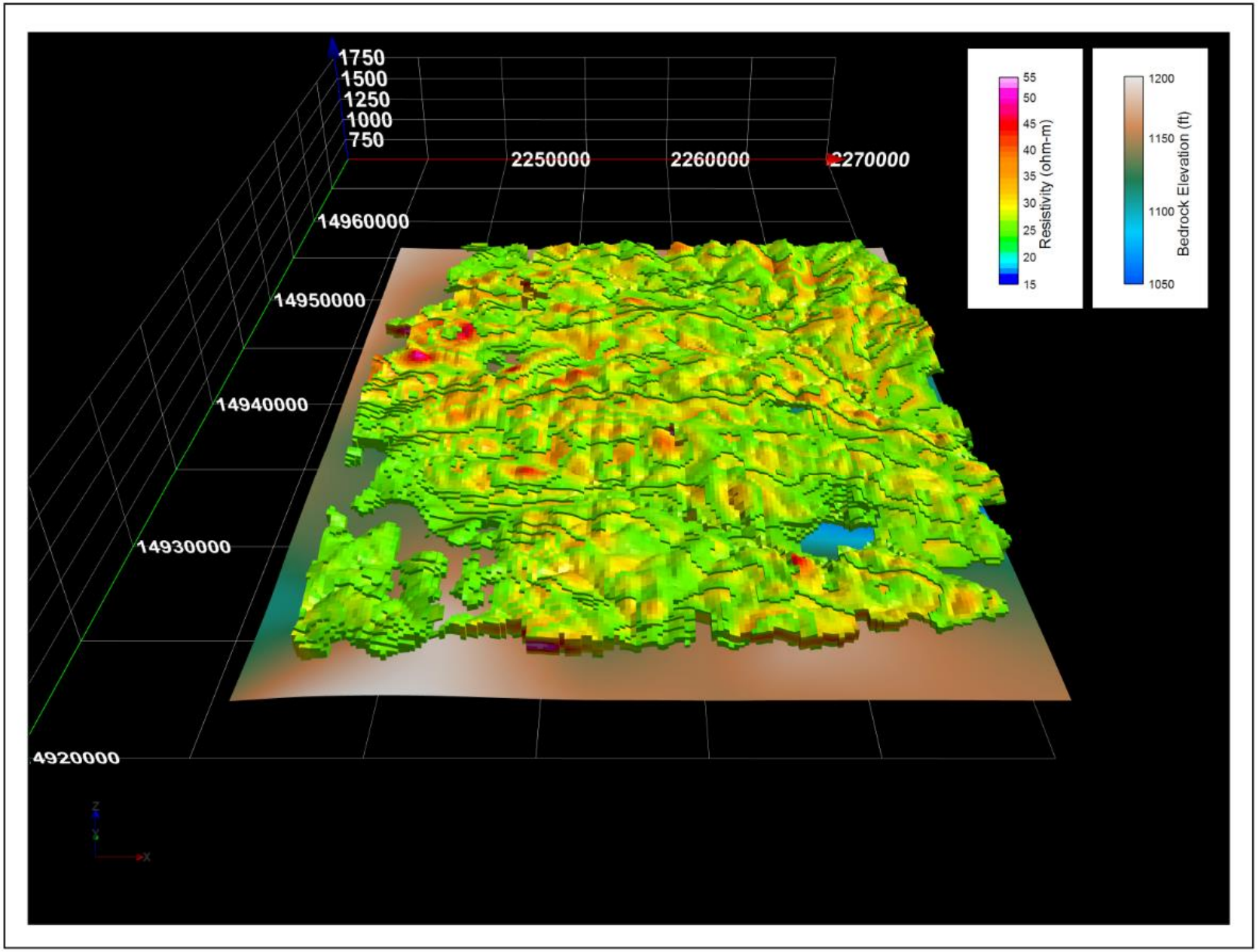


Figure A1-26: 3D voxel of Quaternary resistive materials greater than 24 ohm-m overlying the interpreted Cretaceous bedrock surface in the east flight block.

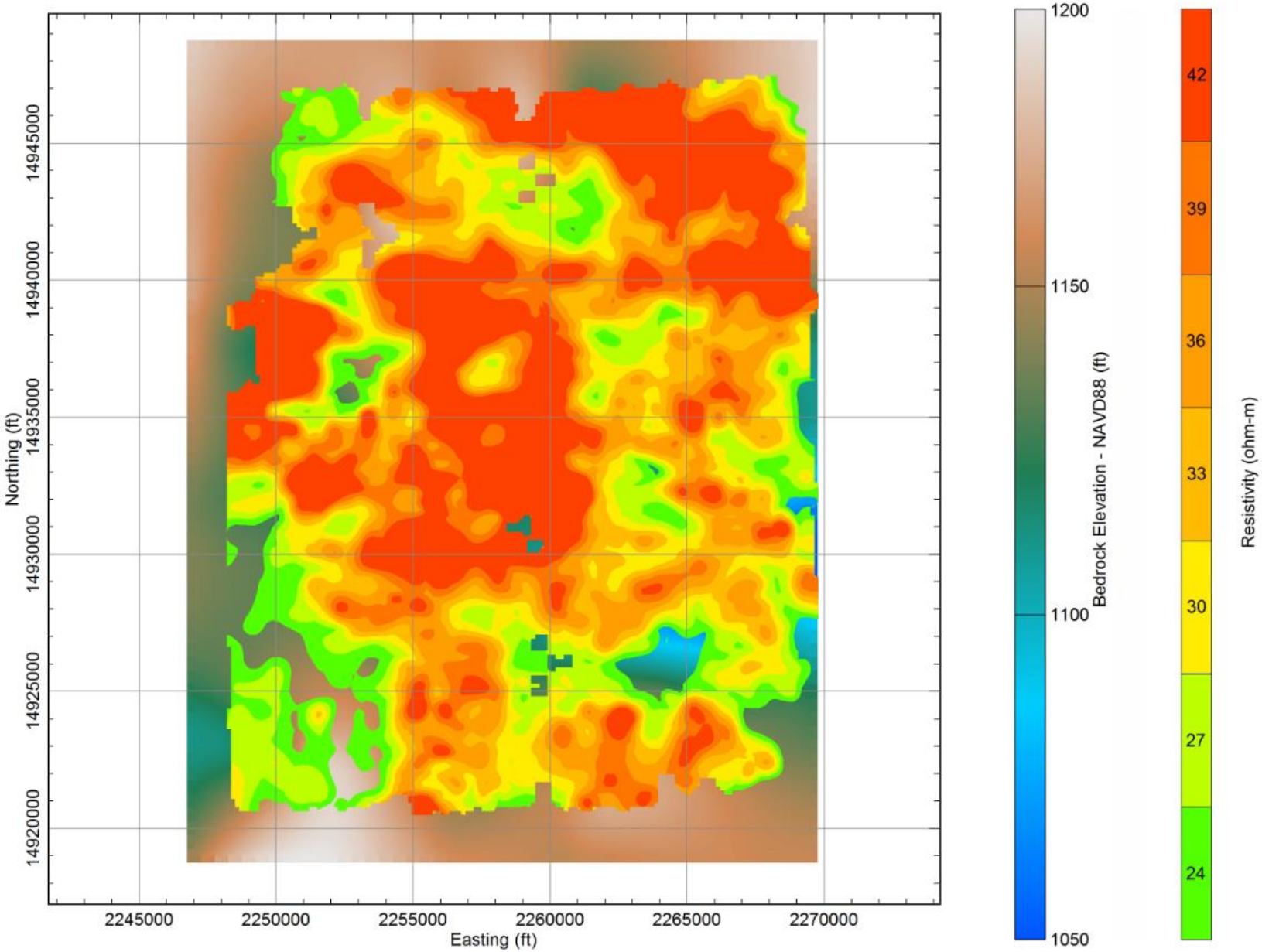


Figure A1-27: 2D map of resistivities greater than 24 ohm-m overlying the interpreted Cretaceous bedrock surface in the east flight block.

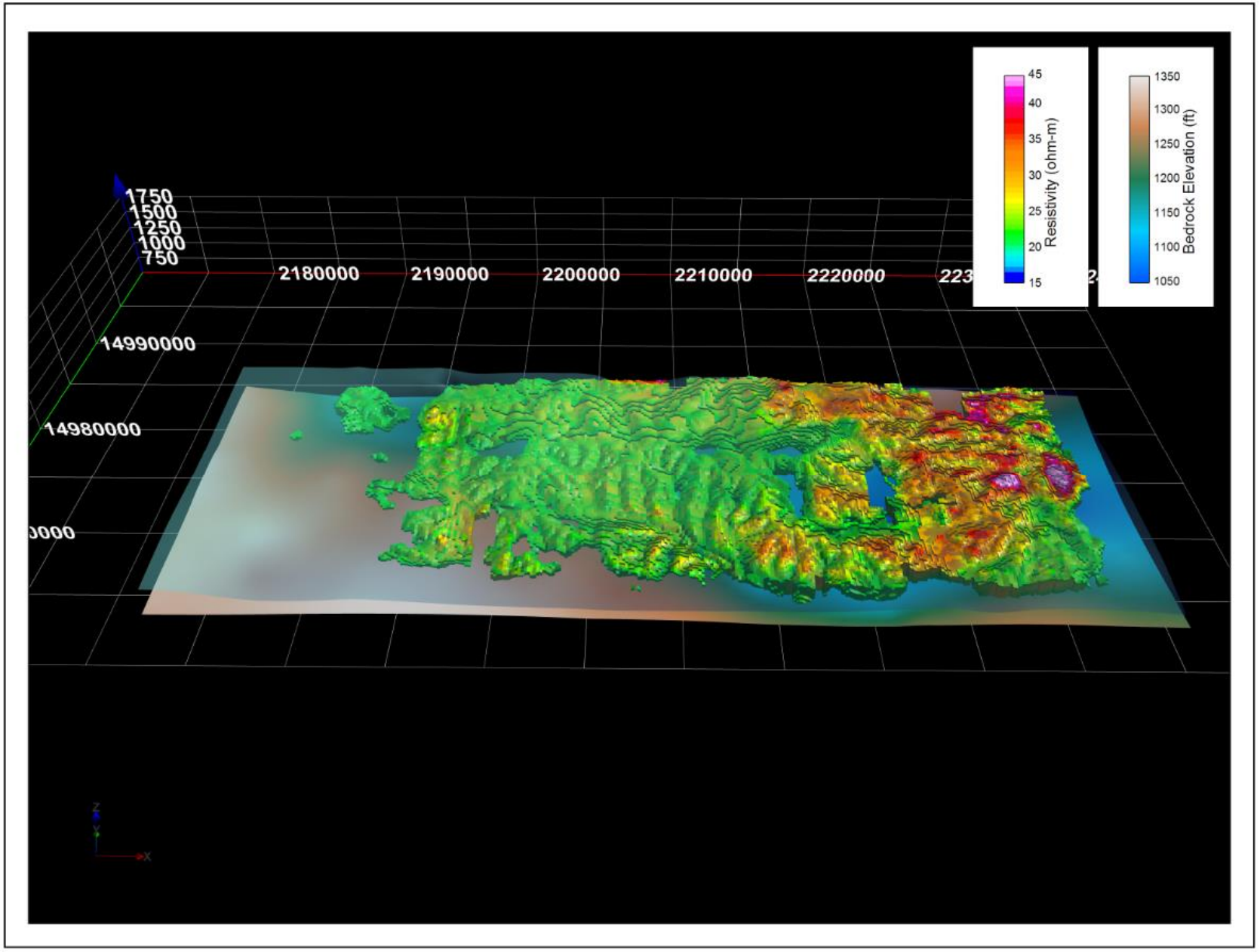


Figure A1-28: 3D voxel of Quaternary resistive materials greater than 21 ohm-m beneath the interpolated water level surface and above the interpreted Cretaceous bedrock surface in the north flight block.

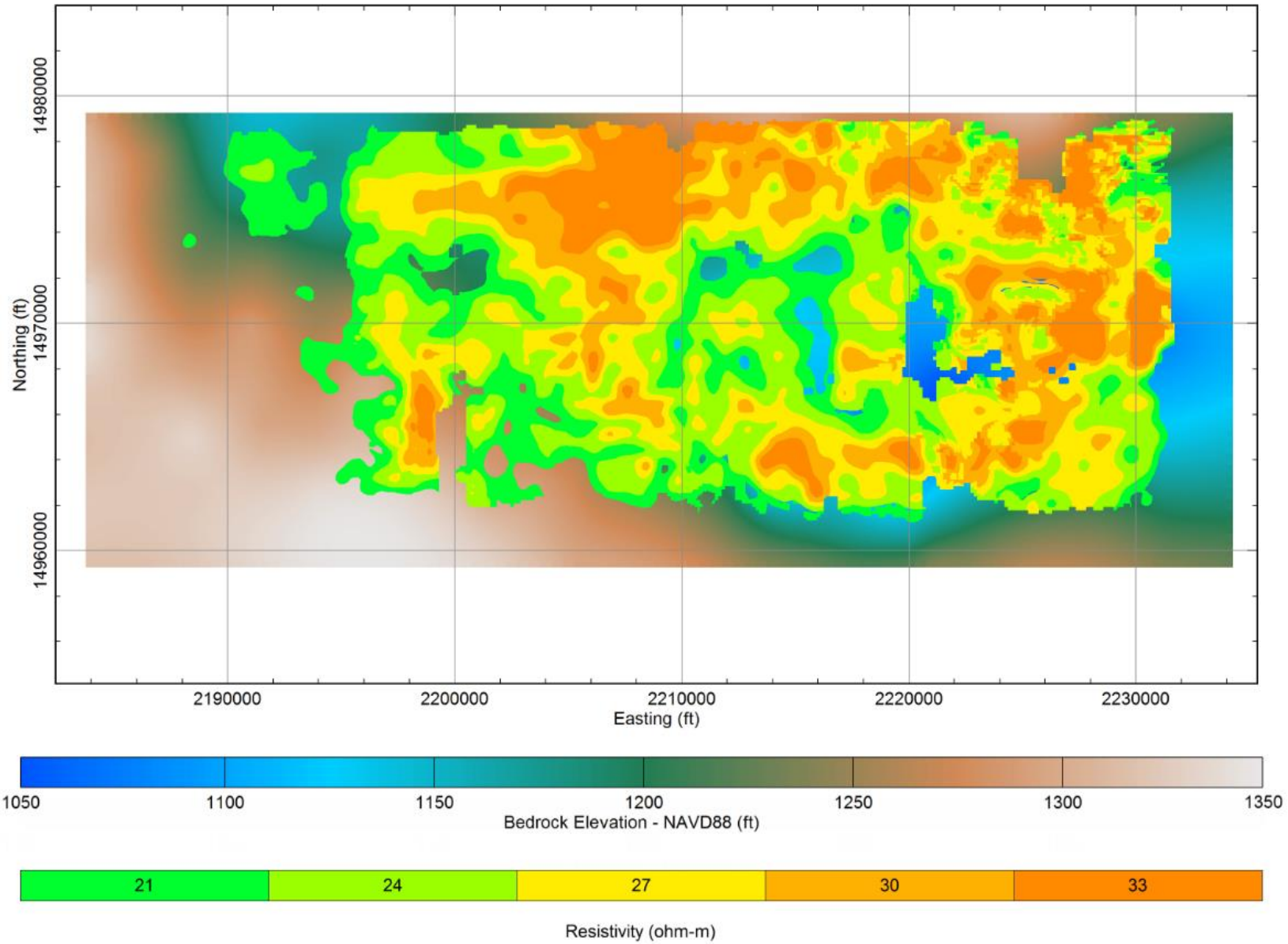


Figure A1-29: 2D map of resistivities greater than 21 ohm-m below the interpolated water level surface and above the overlying the interpreted Cretaceous bedrock surface in the north flight block.

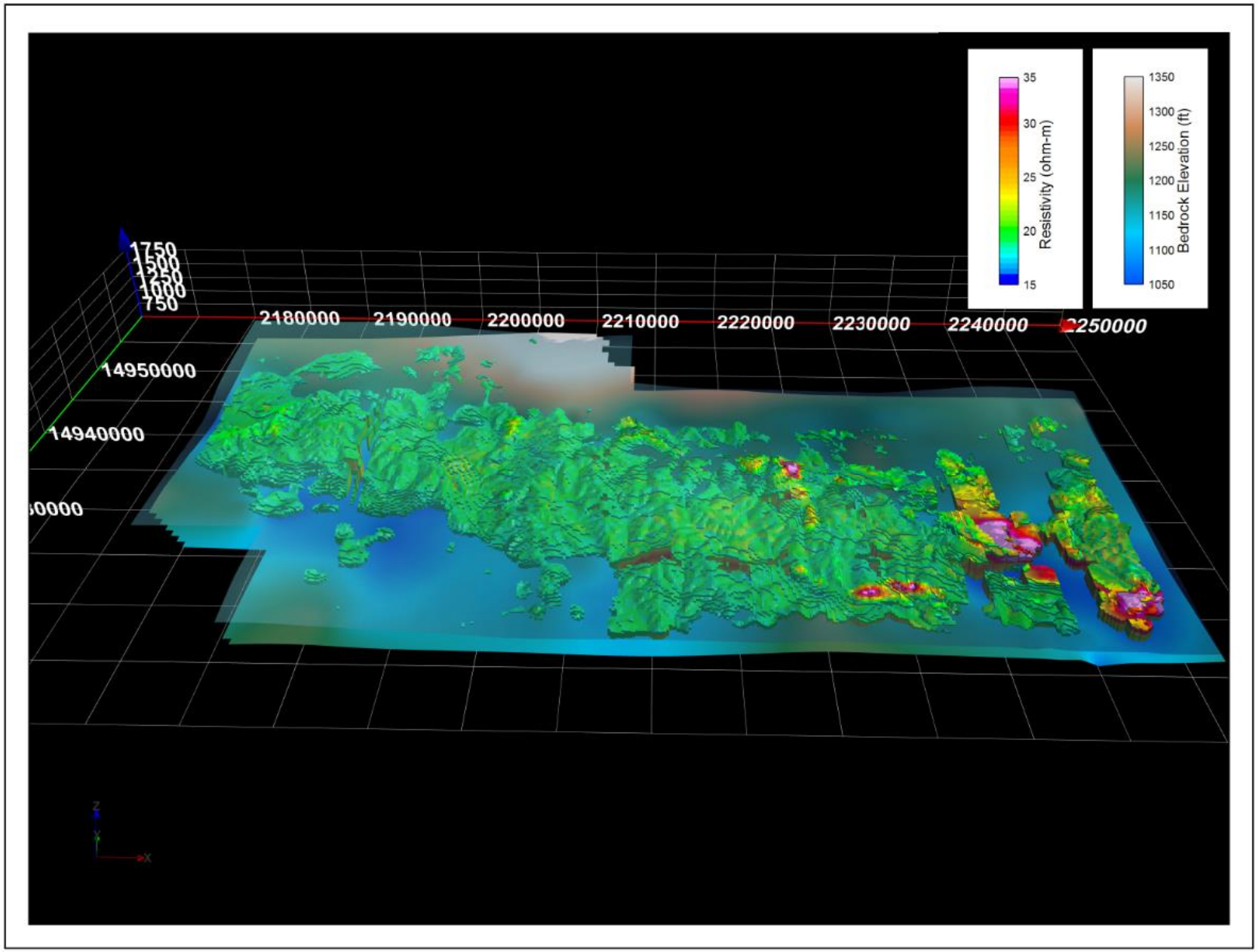


Figure A1-30: 3D voxel of Quaternary resistive materials greater than 18 ohm-m beneath the interpolated water level surface and above the interpreted Cretaceous bedrock surface in the south flight block.

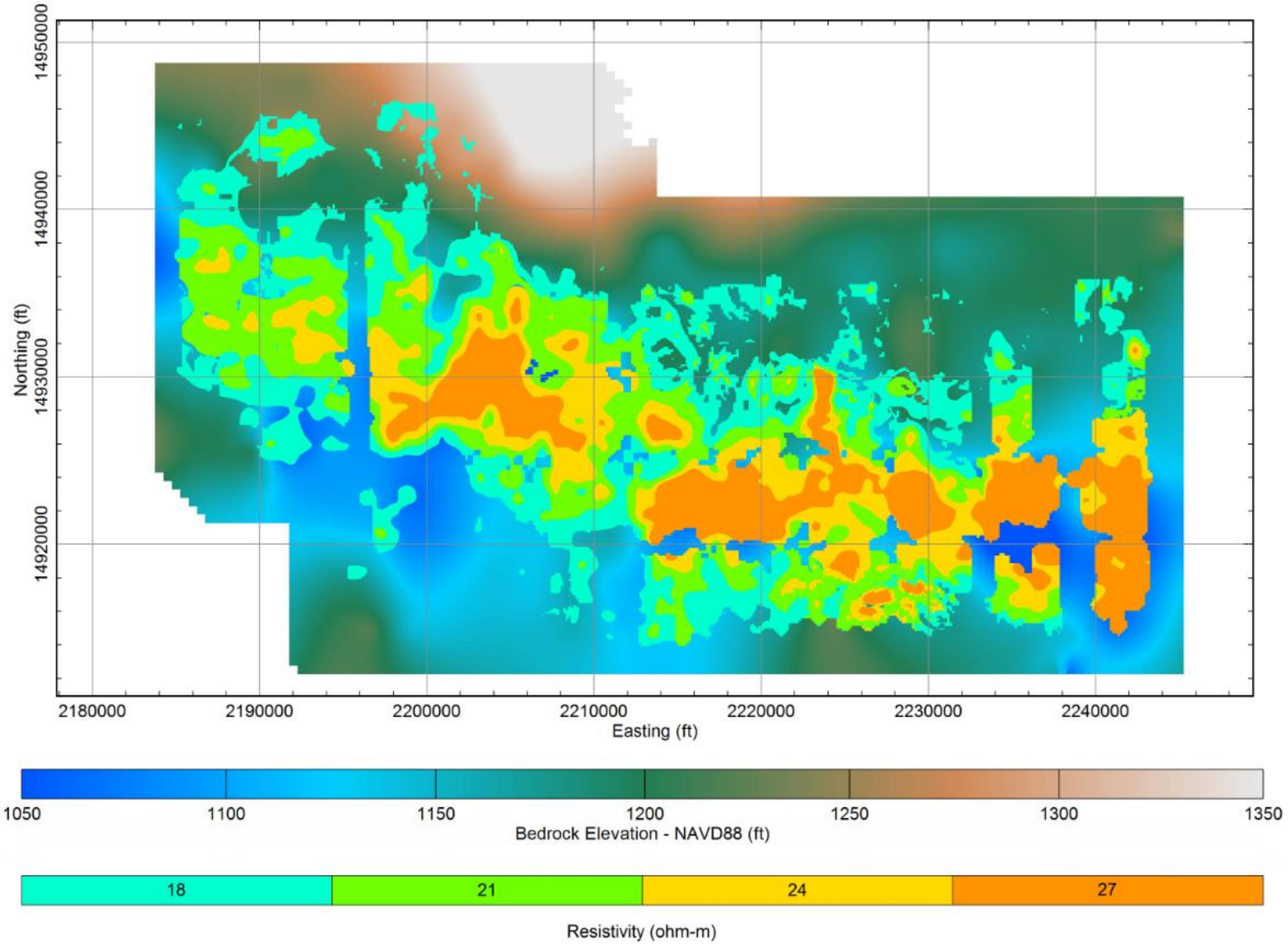


Figure A1-31: 2D map of resistivities greater than 18 ohm-m below the interpolated water level surface and above the overlying the interpreted Cretaceous bedrock surface in the south flight block.

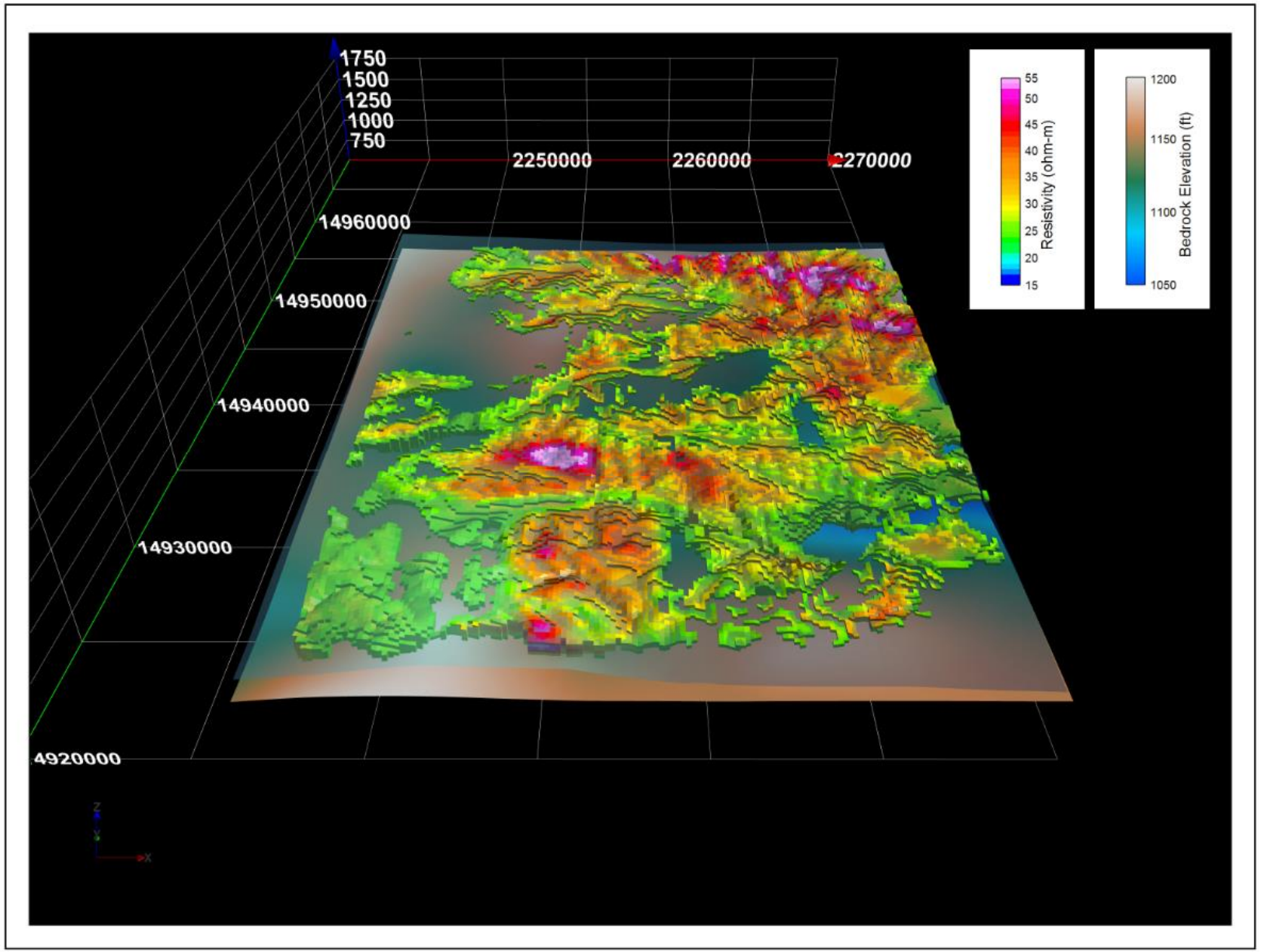


Figure A1-32: 3D voxel of Quaternary resistive materials greater than 24 ohm-m beneath the interpolated water level surface and above the interpreted Cretaceous bedrock surface in the east flight block.

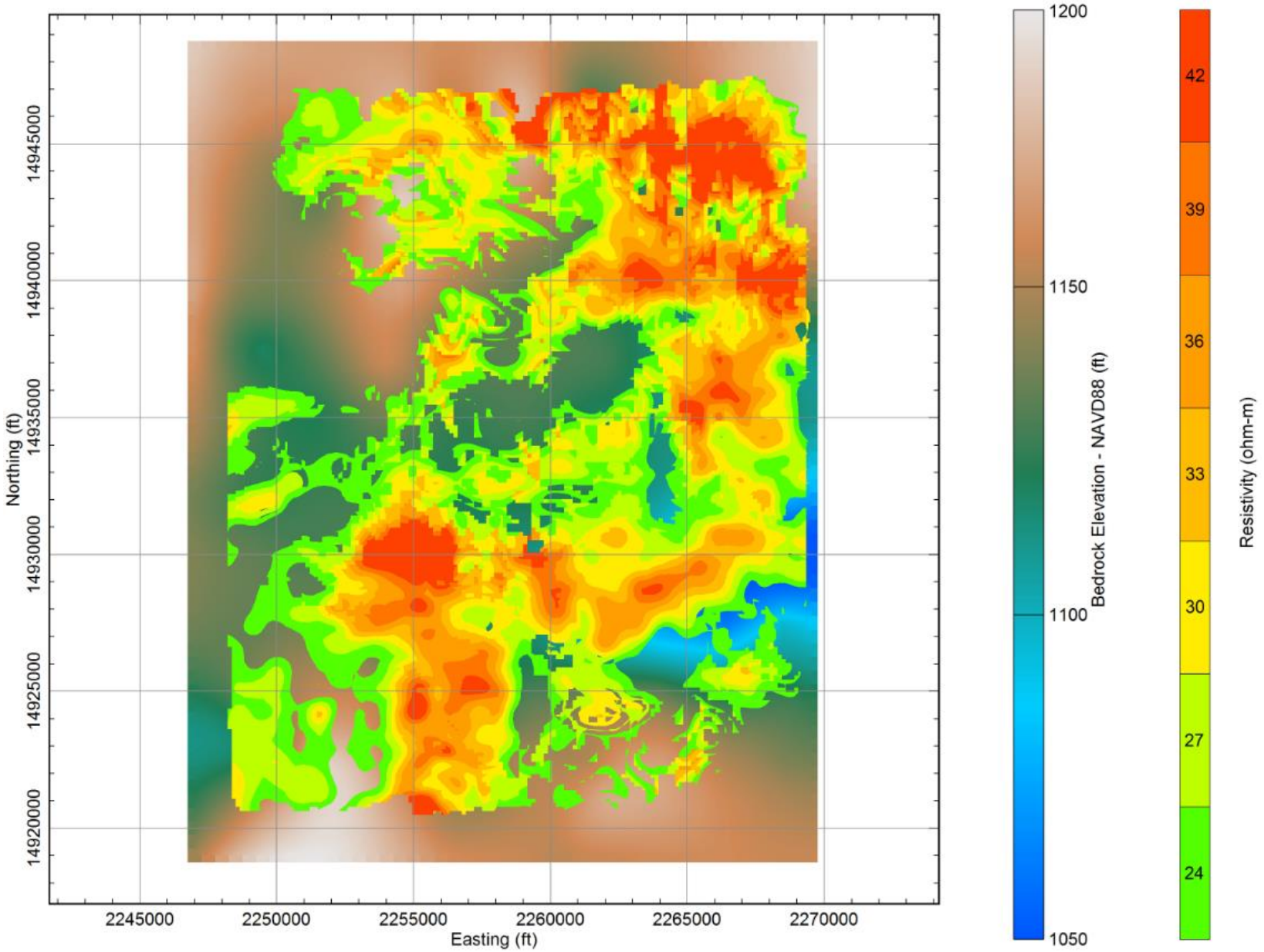


Figure A1-33: 2D map of resistivities greater than 24 ohm-m below the interpolated water level surface and above the overlying the interpreted Cretaceous bedrock surface in the east flight block.

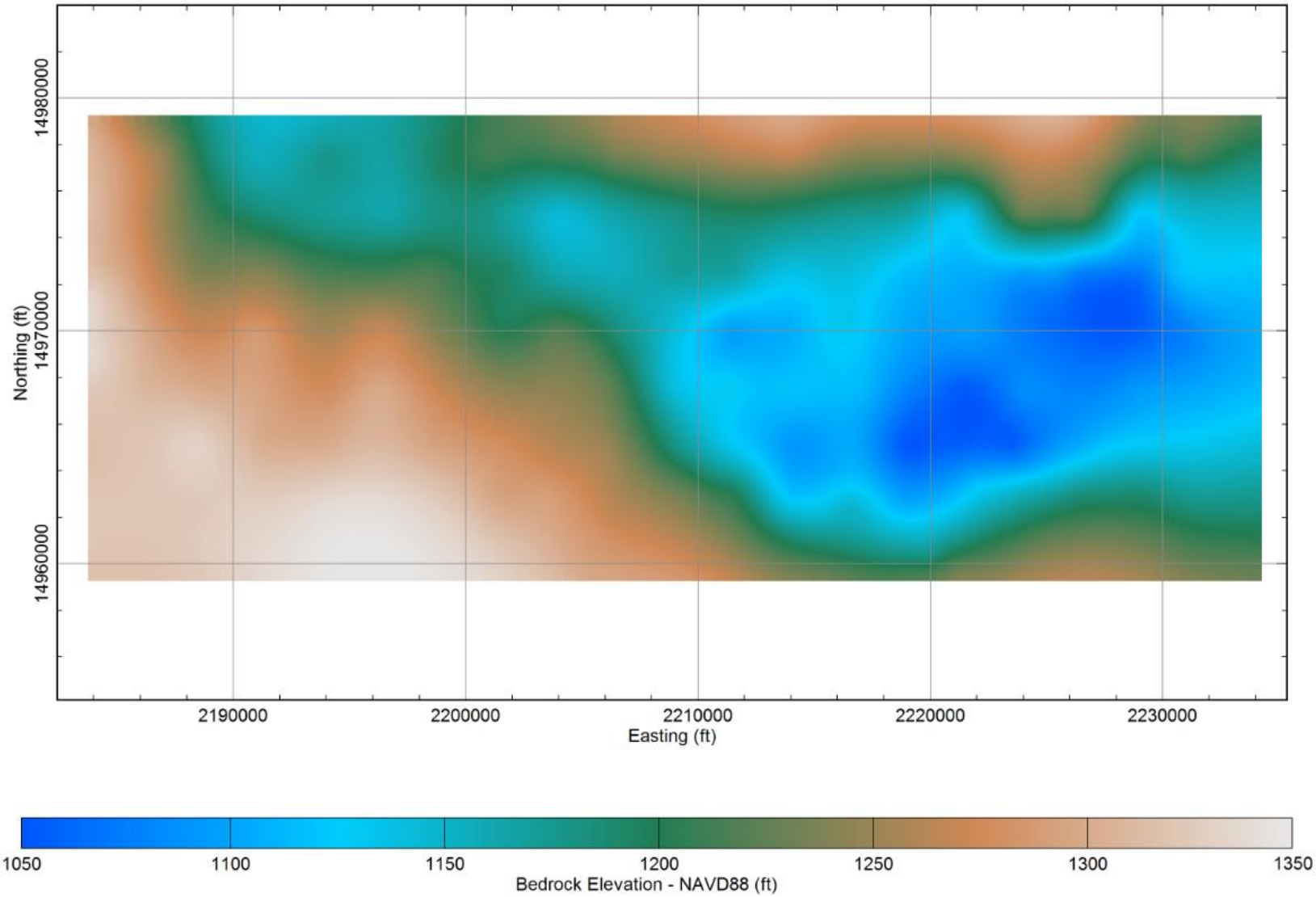


Figure A1-34: 2D map of interpreted Cretaceous bedrock surface elevations in the north flight block.

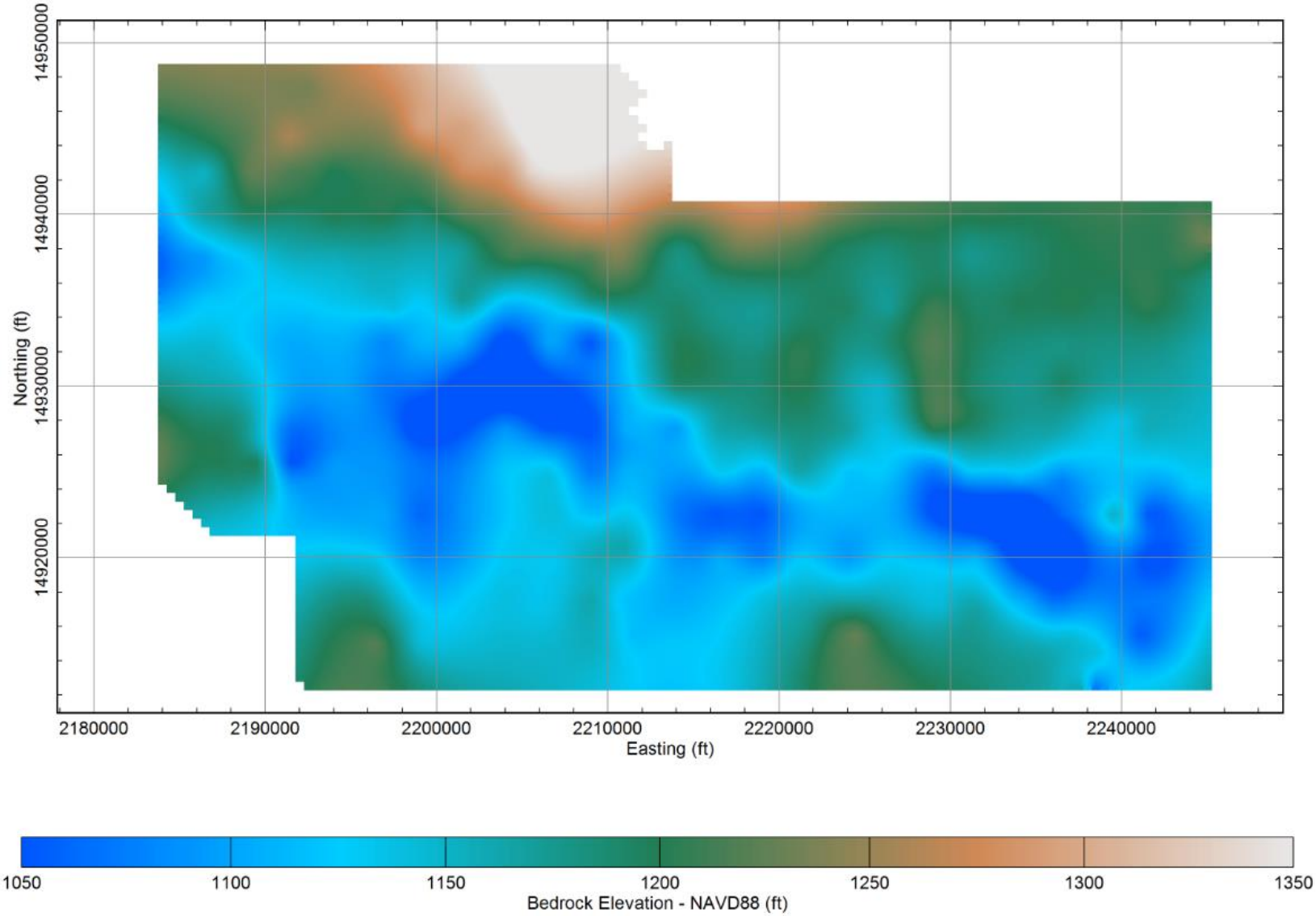


Figure A1-25: 2D map of interpreted Cretaceous bedrock surface elevations in the south flight block.

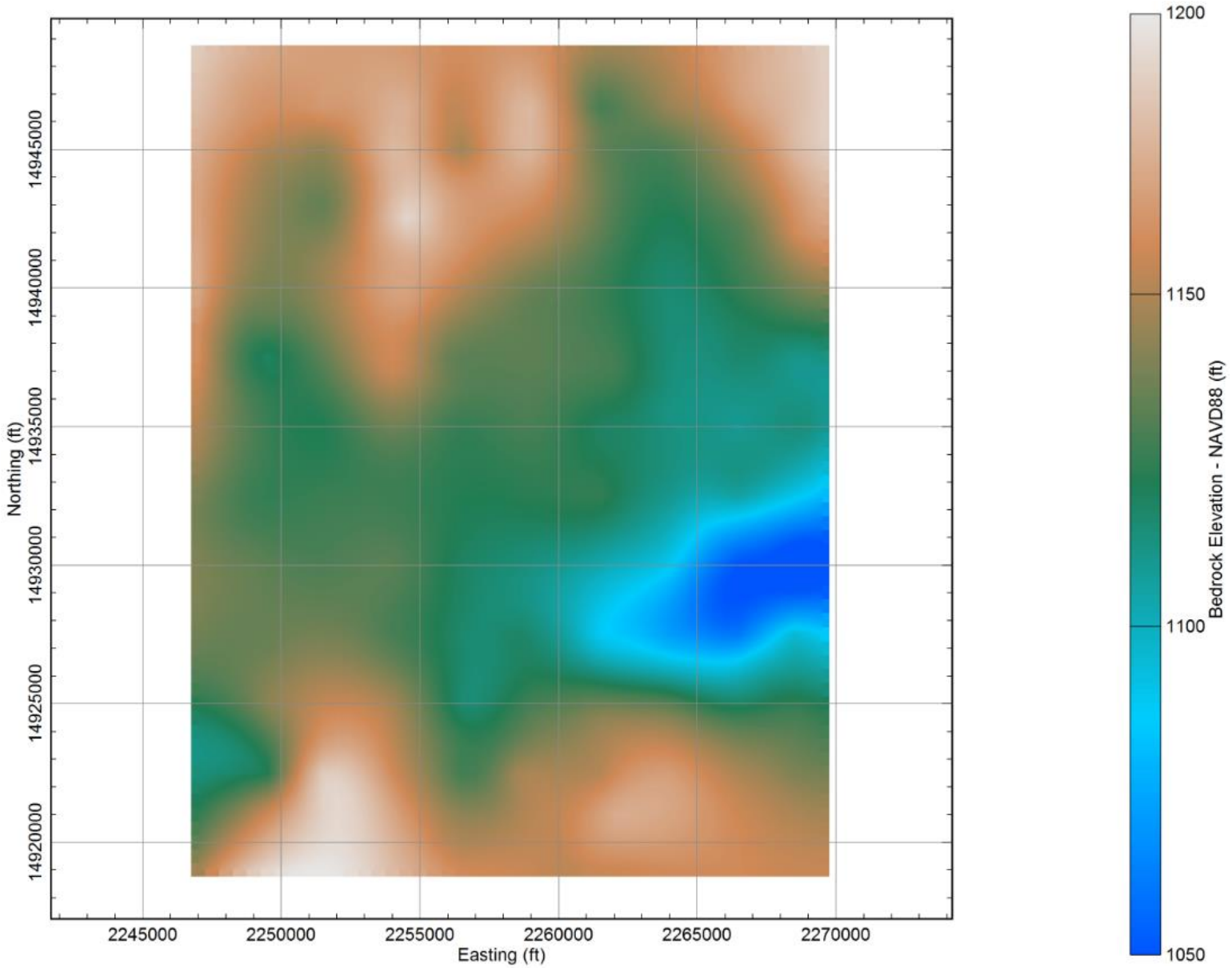


Figure A1-36: 2D map of interpreted Cretaceous bedrock surface elevations in the east flight block.

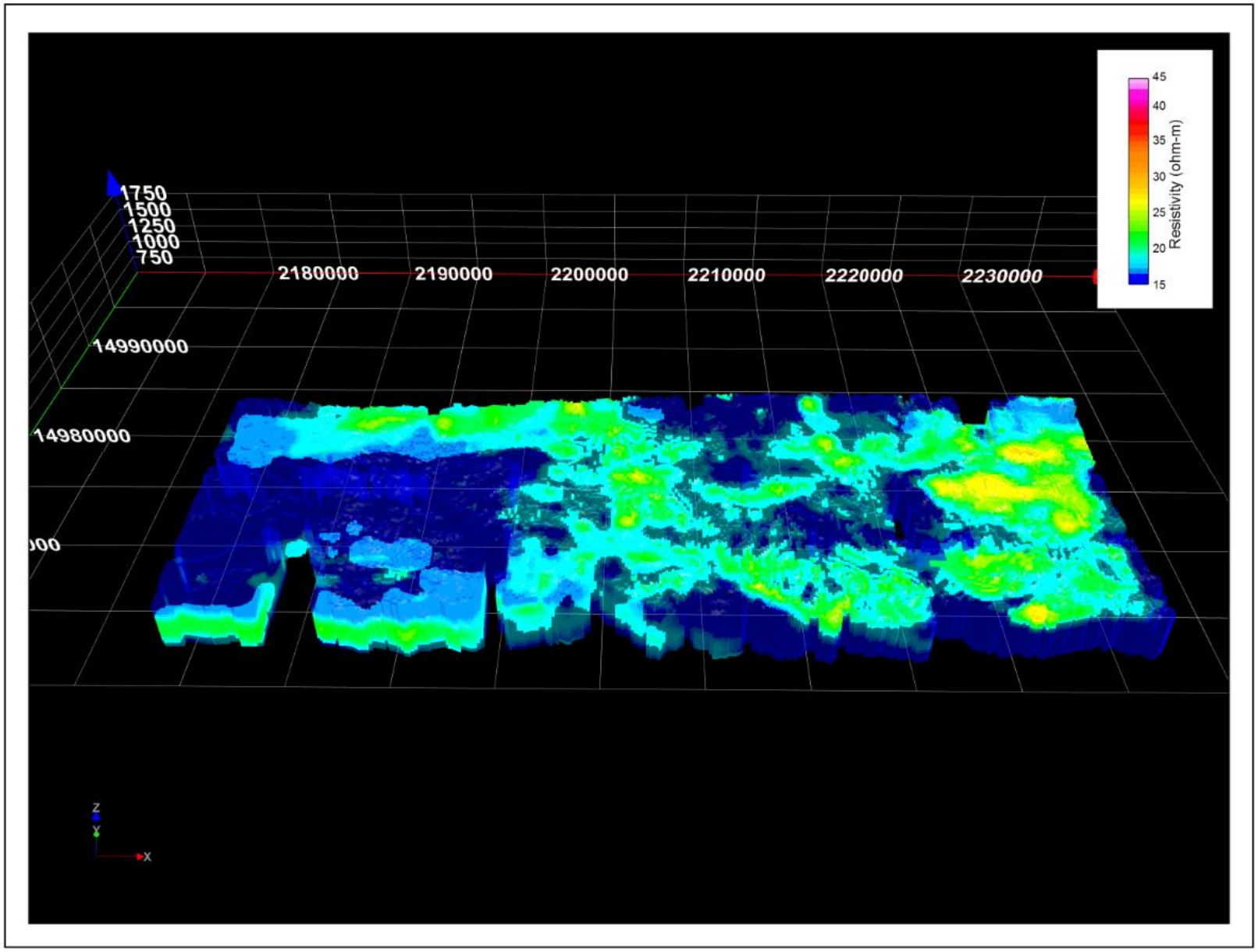


Figure A1-37: 3D voxel of resistivities in the north flight block below the interpreted bedrock surface with all resistivities below 21 ohm-m set as semi-transparent and all resistivities above 18 ohm-m set as opaque with the resistivity levels defined in the scale in the upper right.

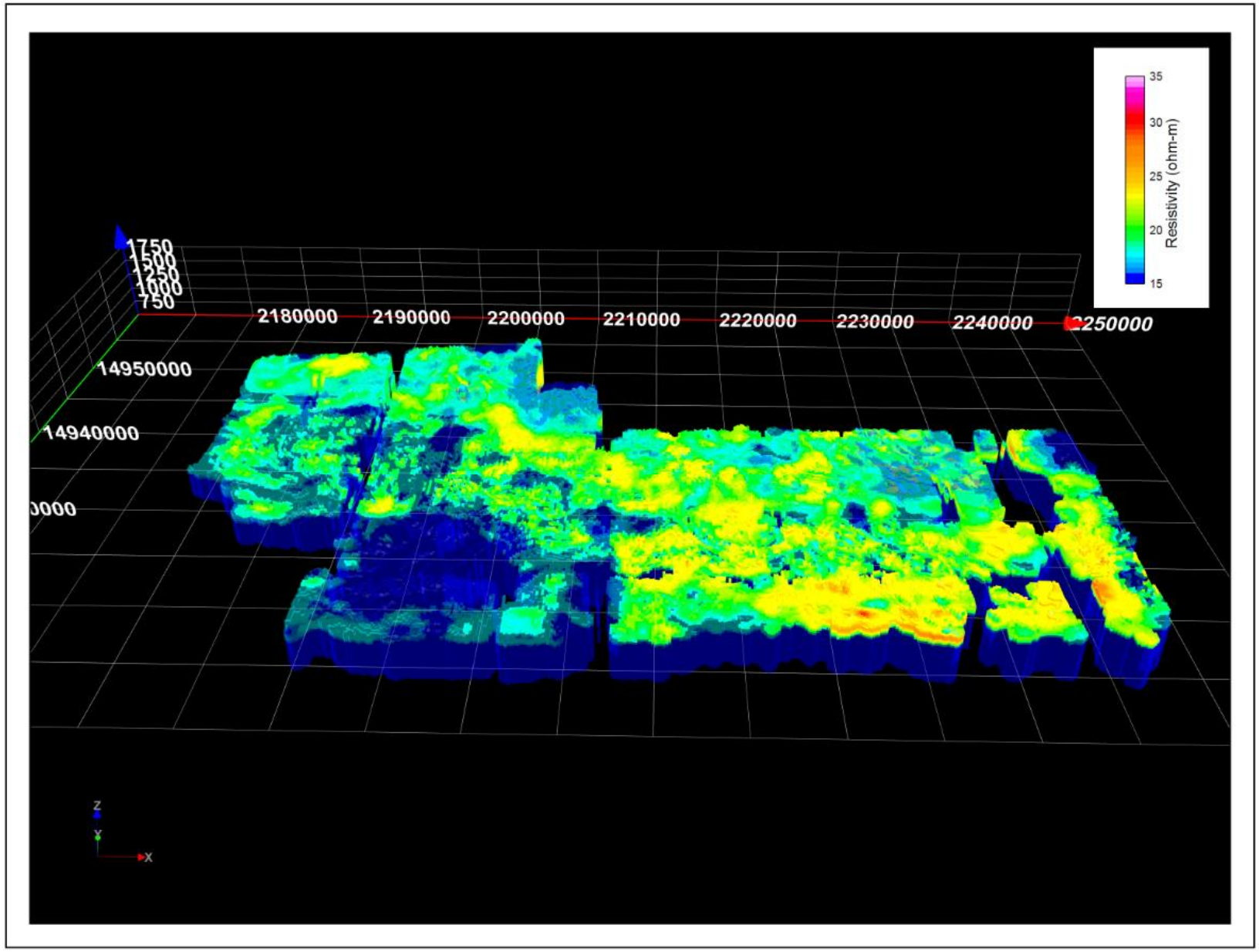


Figure A1-38: 3D voxel of resistivities in the south flight block below the interpreted bedrock surface with all resistivities below 18 ohm-m set as semi-transparent and all resistivities above 18 ohm-m set as opaque with the resistivity levels defined in the scale in the upper right.

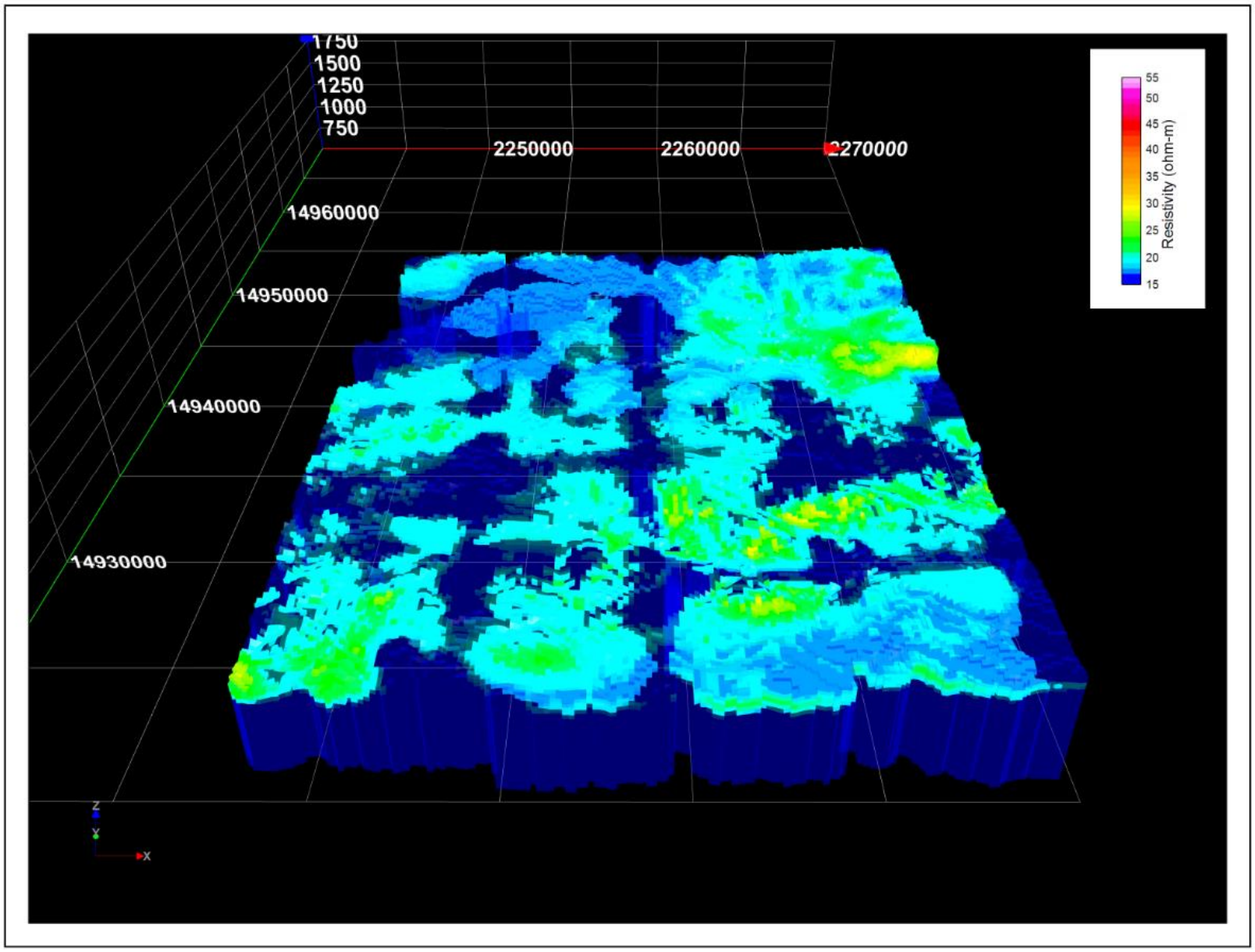


Figure A1-39: 3D voxel of resistivities in the east flight block below the interpreted bedrock surface with all resistivities below 24 ohm-m set as semi-transparent and all resistivities above 24 ohm-m set as opaque with the resistivity levels defined in the scale in the upper right.

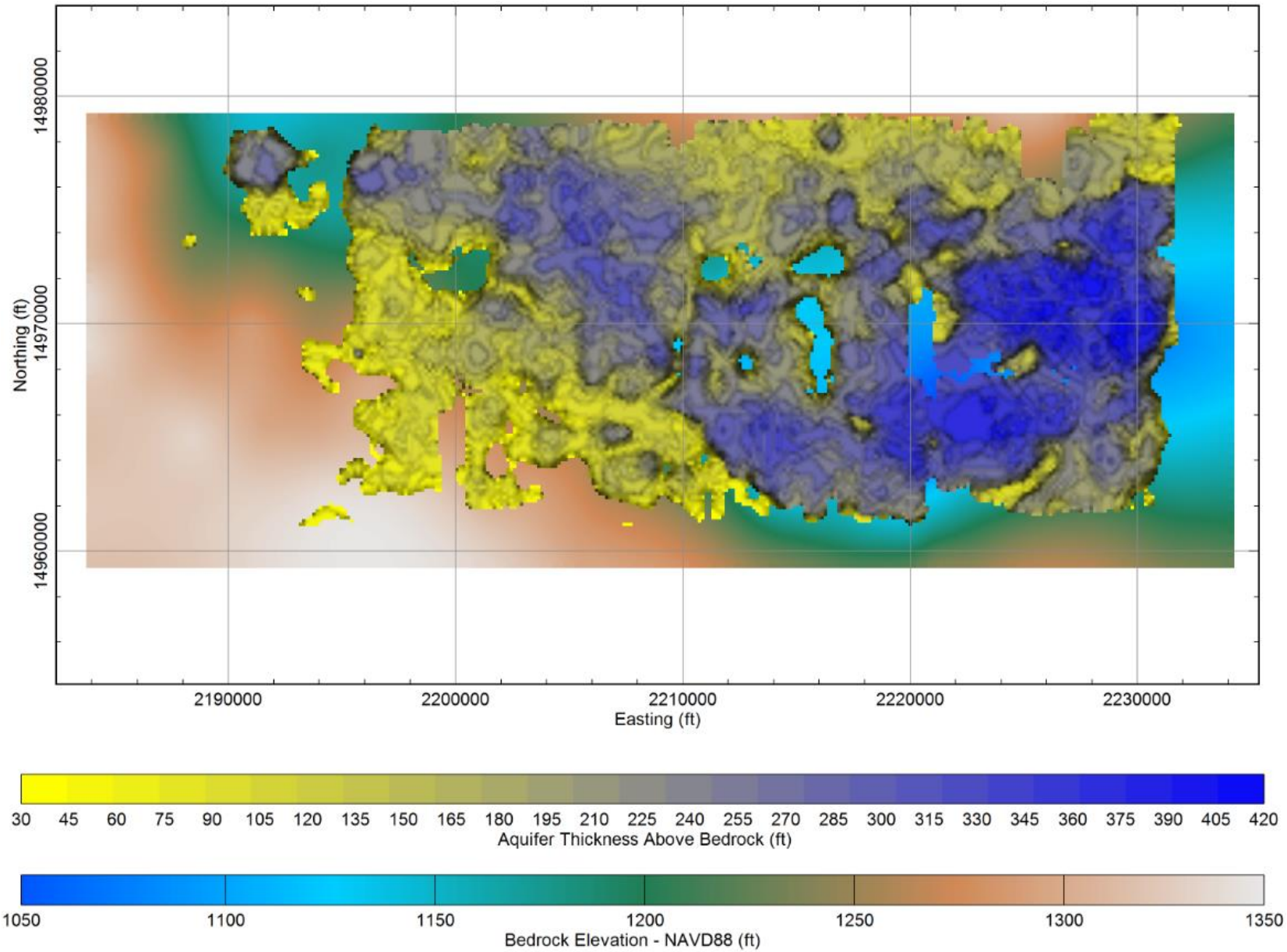


Figure A1-40: Total voxel thickness of the Quaternary deposits in the north block, with thickness ranging from 30 to over 400 feet. Blank areas indicate where less permeable to no aquifer material is present. The voxel overlies the interpreted bedrock surface.

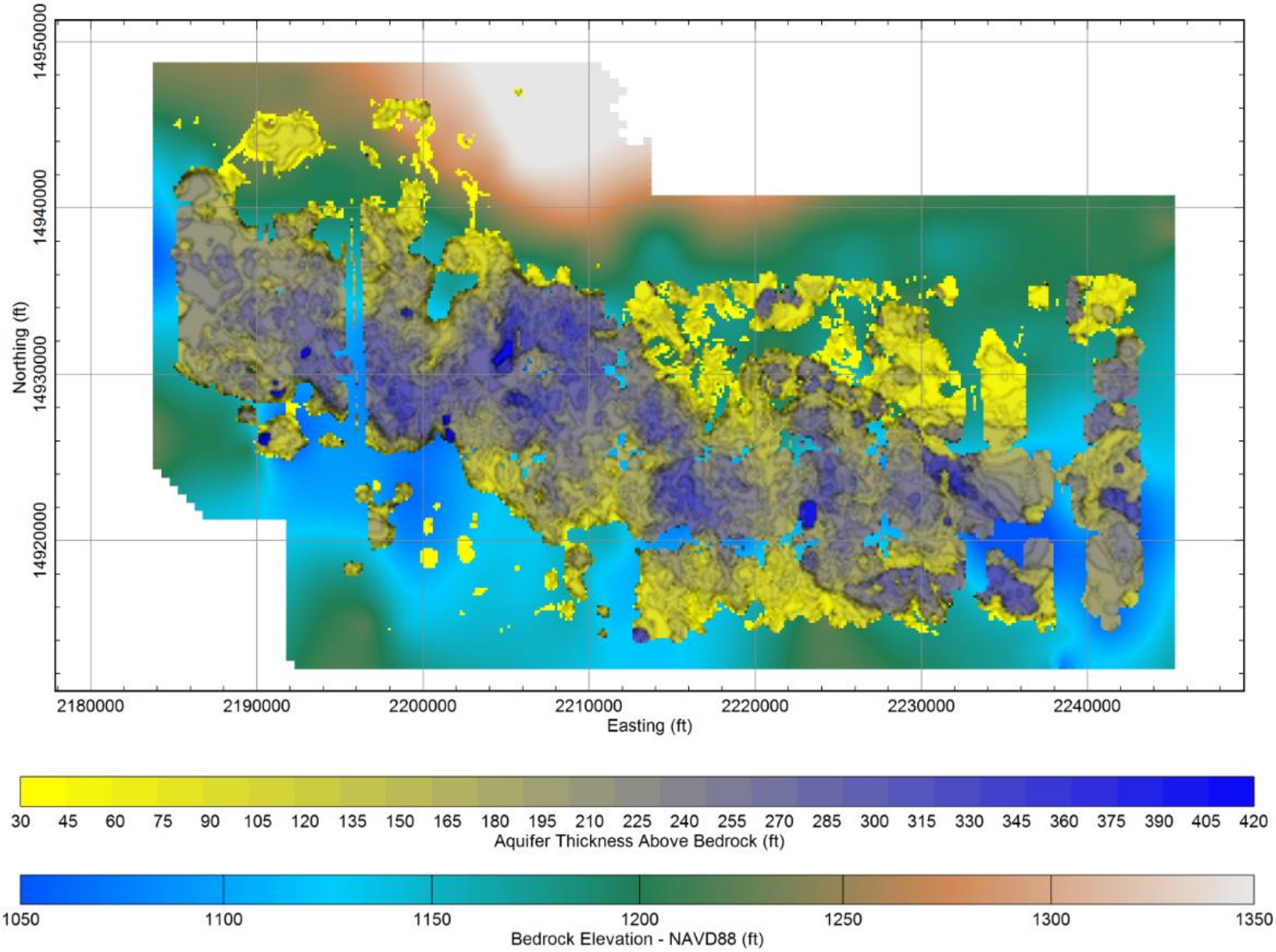


Figure A1-41: Total voxel thickness of the Quaternary deposits in the south block, with thickness ranging from 30 to over 400 feet. Blank areas indicate where less permeable to no aquifer material is present. The voxel overlies the interpreted bedrock surface.

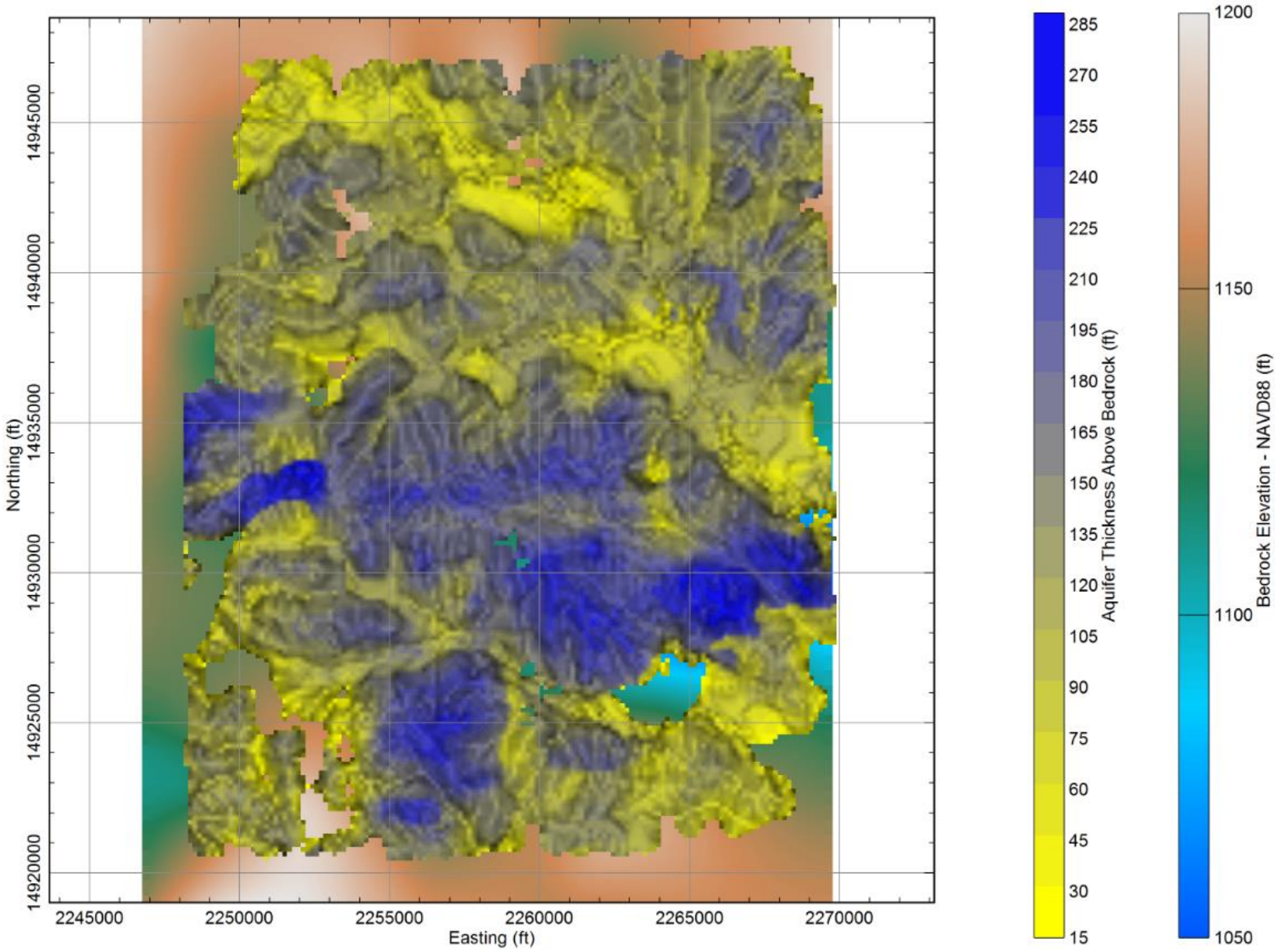


Figure A1-42: Total voxel thickness of the Quaternary deposits in the east block, with thickness ranging from 15 to 285 feet. Blank areas indicate where less permeable to no aquifer material is present. The voxel overlies the interpreted Cretaceous bedrock surface.

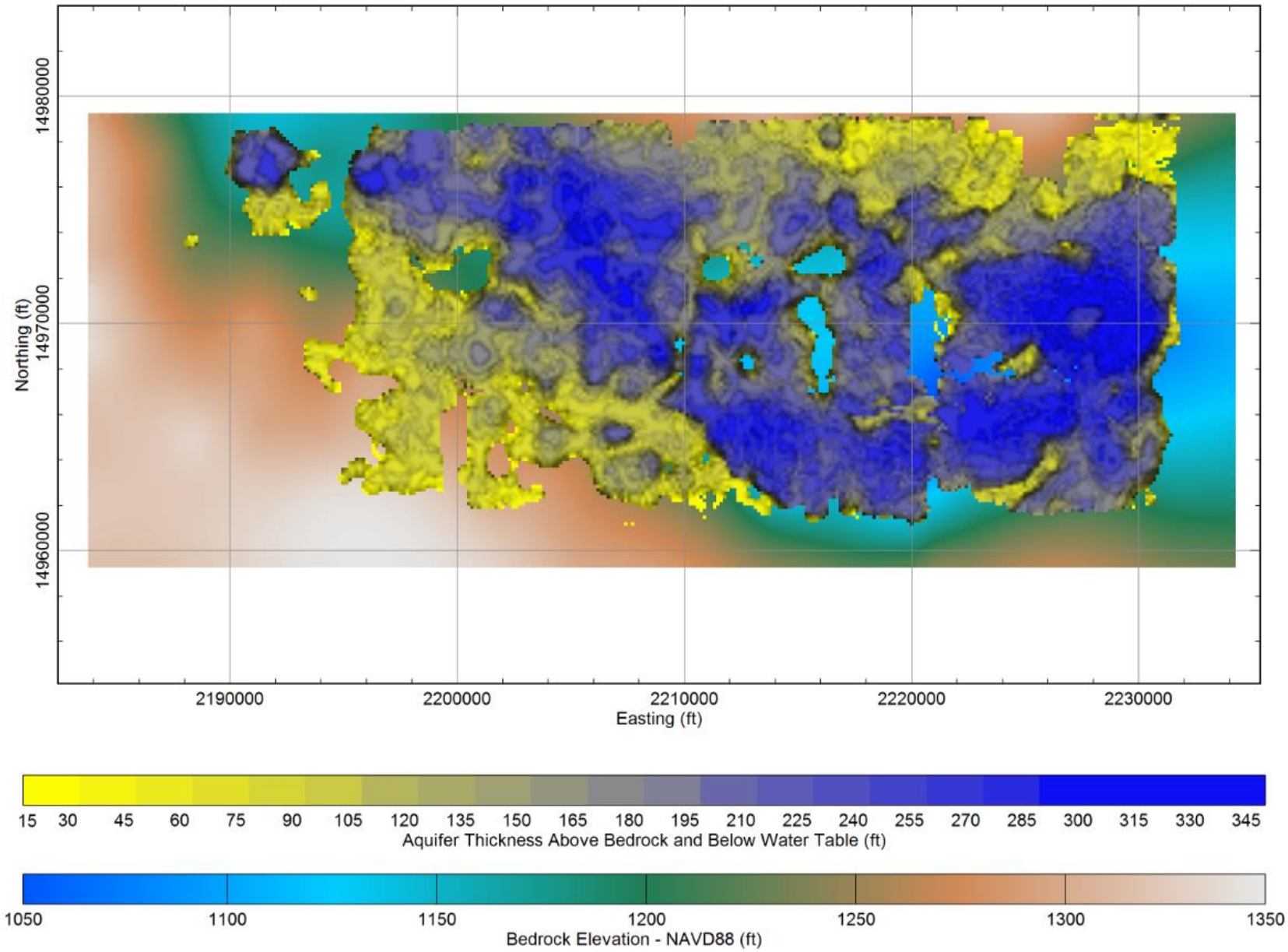


Figure A1-43: Total voxel thickness of the Quaternary deposits beneath the water level surface and above the Cretaceous bedrock in the north block, with thickness ranging from 15 to 350 feet. Blank areas indicate where less permeable to no aquifer material is present. The voxel overlies the interpreted Cretaceous bedrock surface.

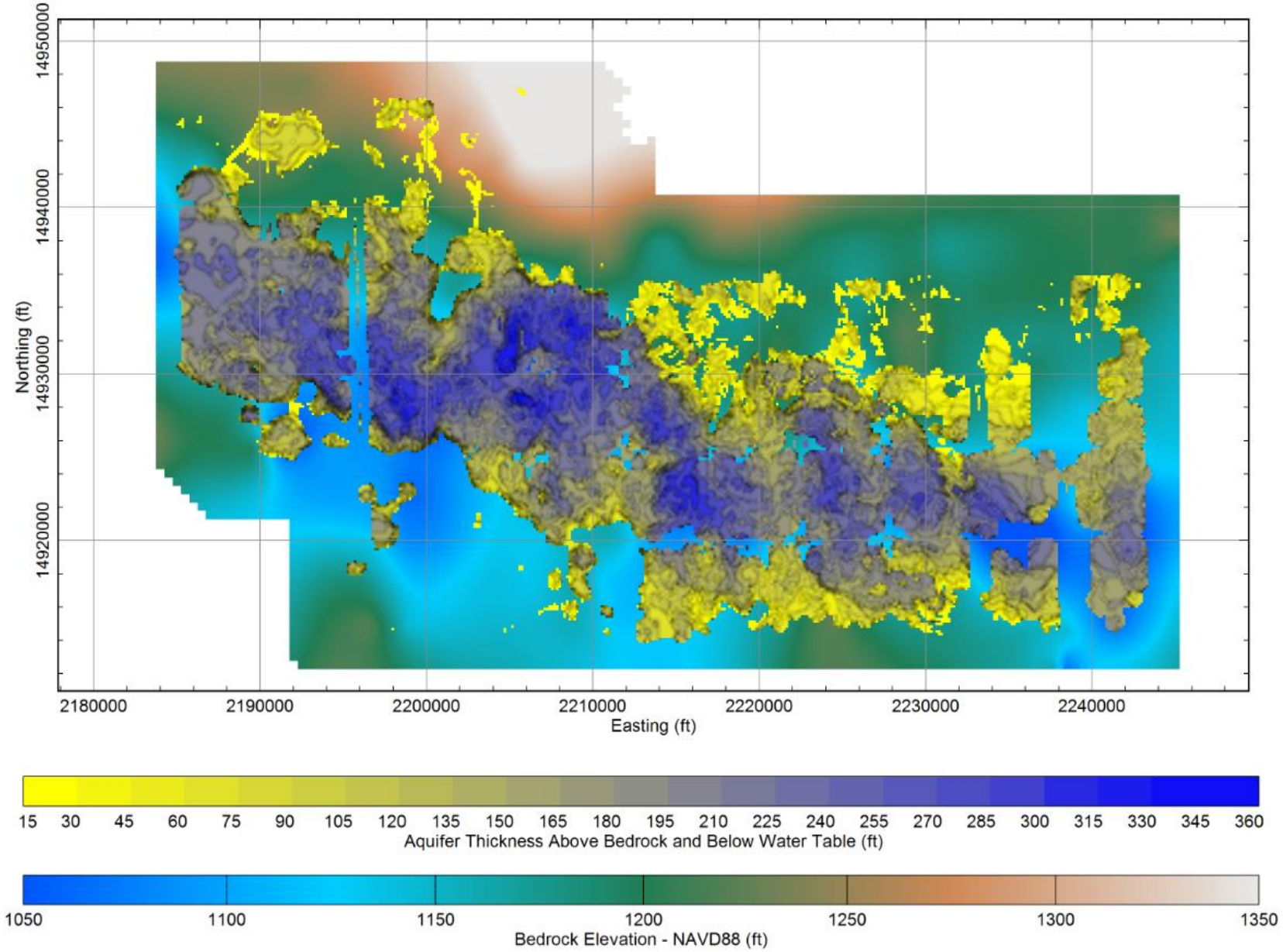


Figure A1-44: Total voxel thickness of the Quaternary deposits beneath the water level surface and above the Cretaceous bedrock in the south block, with thickness ranging from 15 to 360 feet. Blank areas indicate where less permeable to no aquifer material is present. The voxel overlies the interpreted bedrock surface.

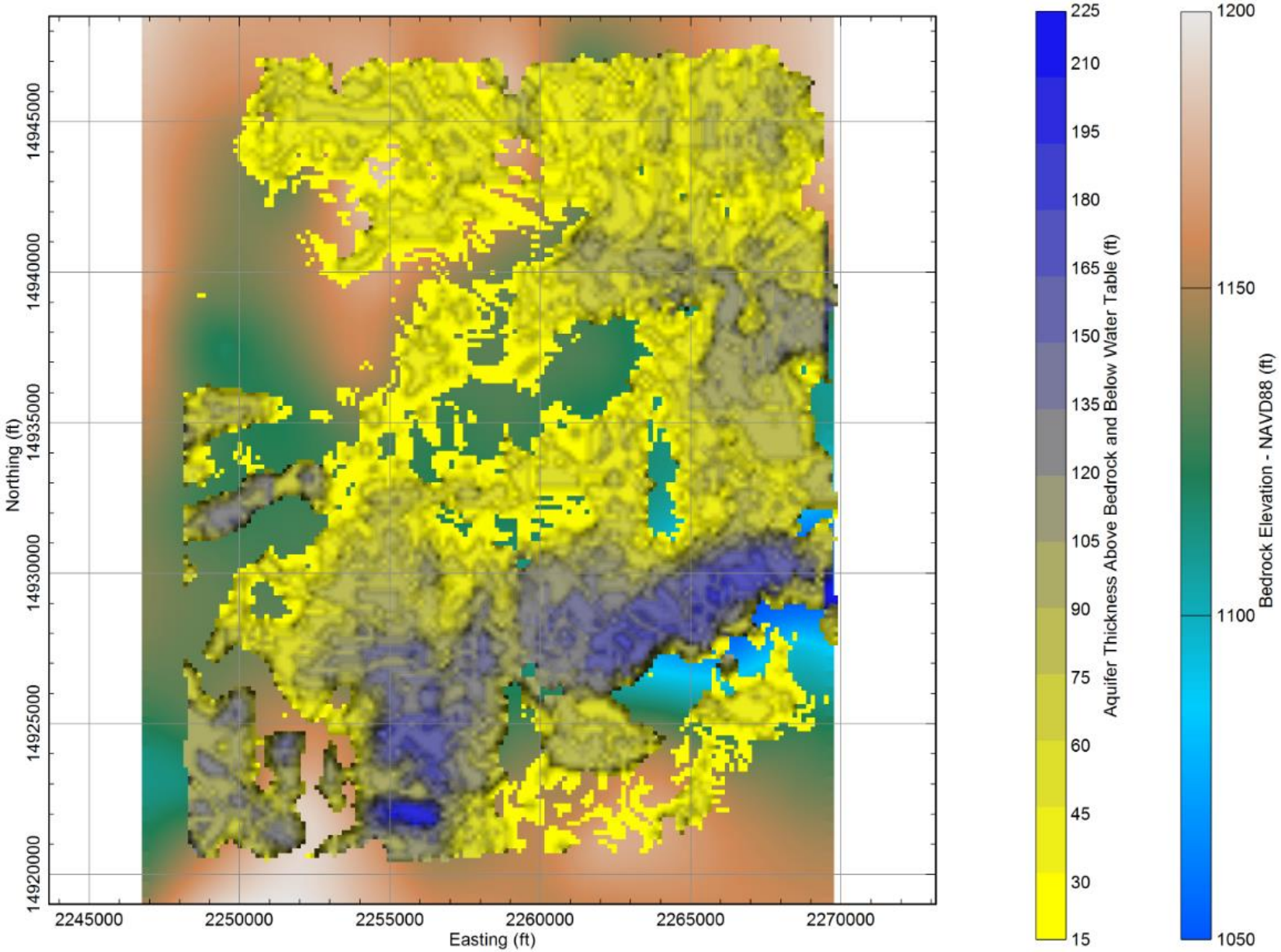


Figure A1-45: Total voxel thickness of the Quaternary deposits beneath the water level surface and above the Cretaceous bedrock in the east block, with thickness ranging from 15 to 225 ft. Blank areas indicate where less permeable to no aquifer material is present. The voxel overlies the interpreted bedrock surface.

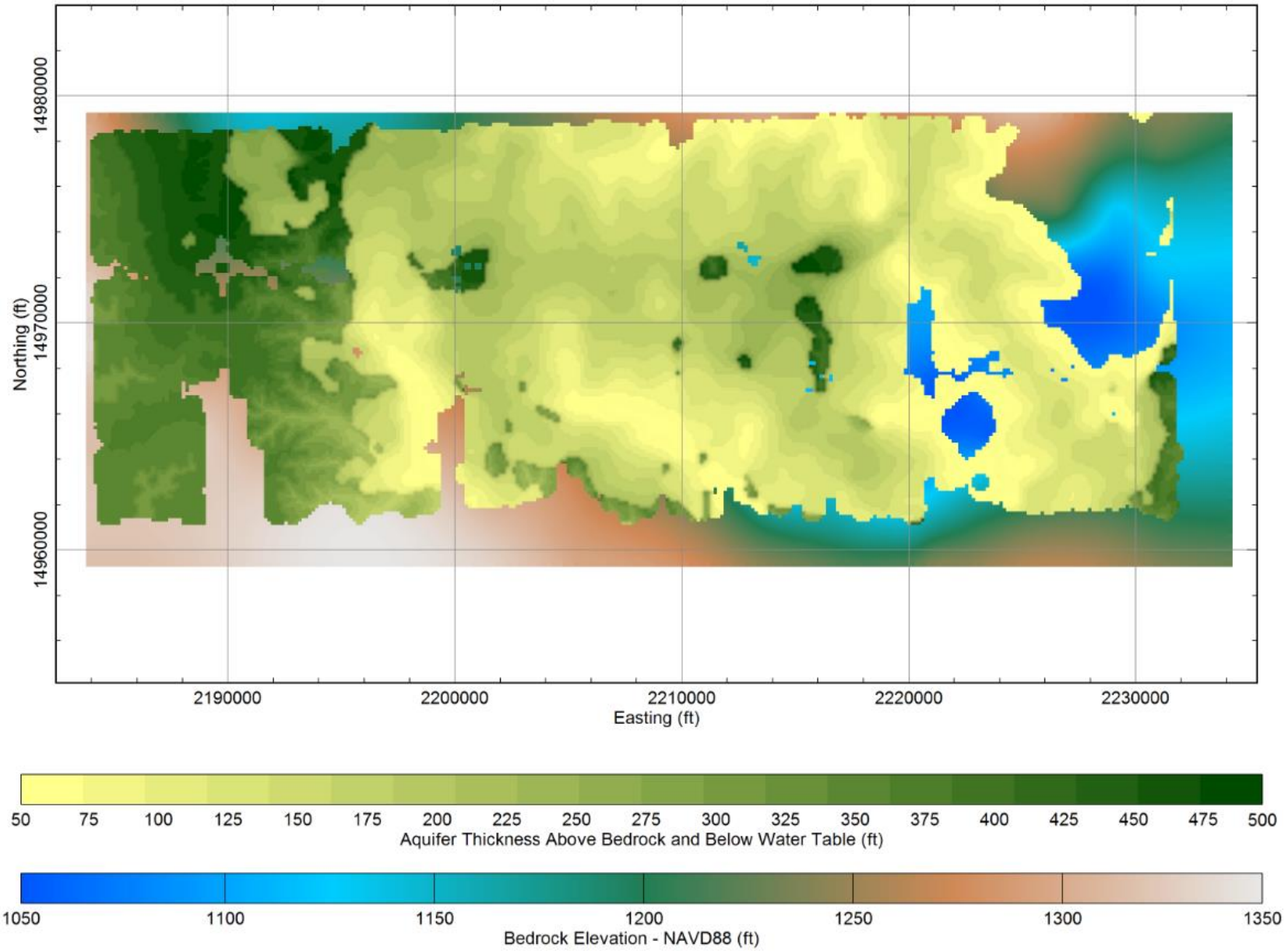


Figure A1-46: Total thickness of glacial till and loess above the principal aquifer in the north block, with thickness ranging from 0 to nearly 500 feet.

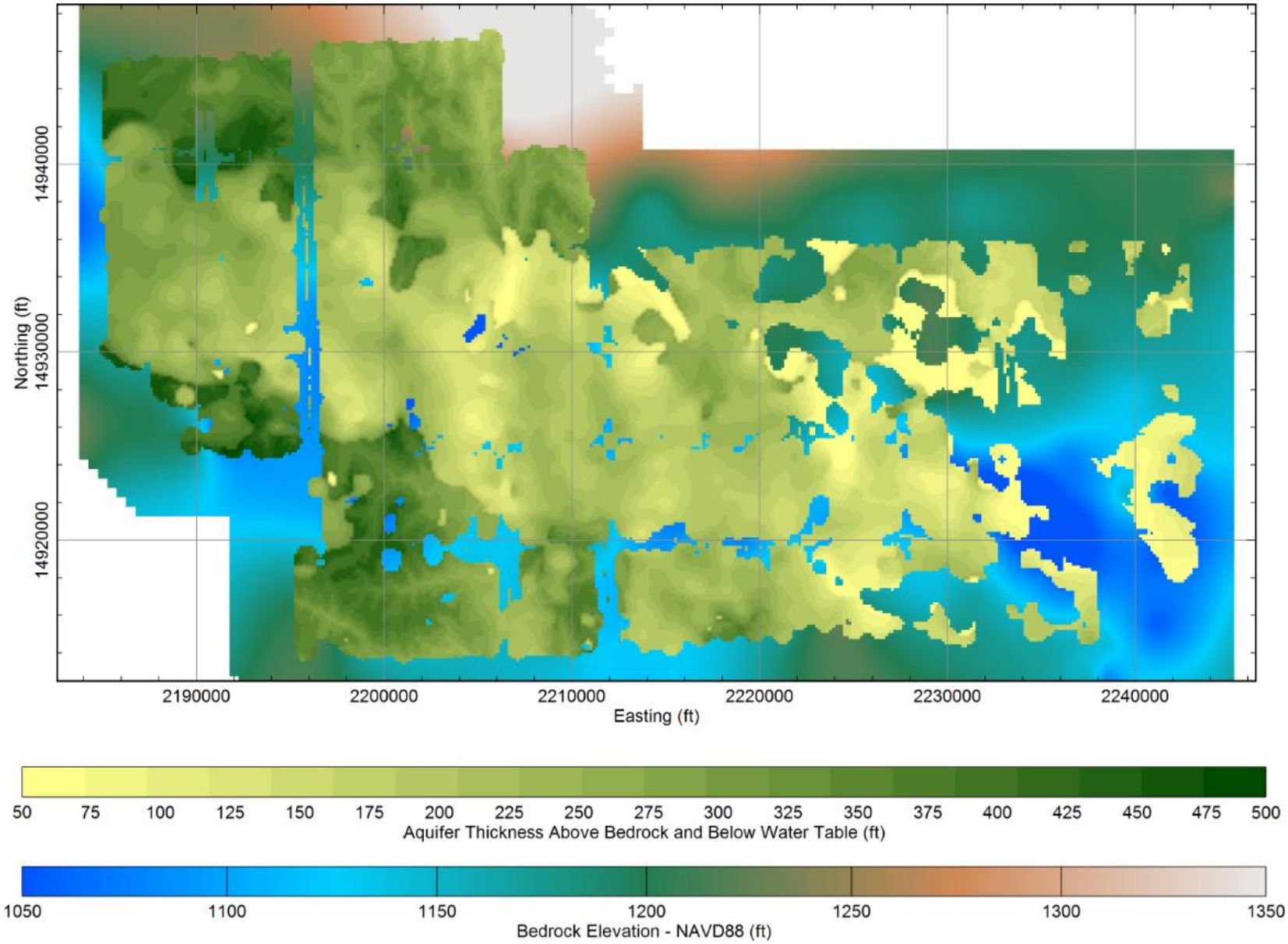


Figure A1-47: Total thickness of glacial till and loess above the principal aquifer in the south block, with thickness ranging from 0 to over 480 feet.

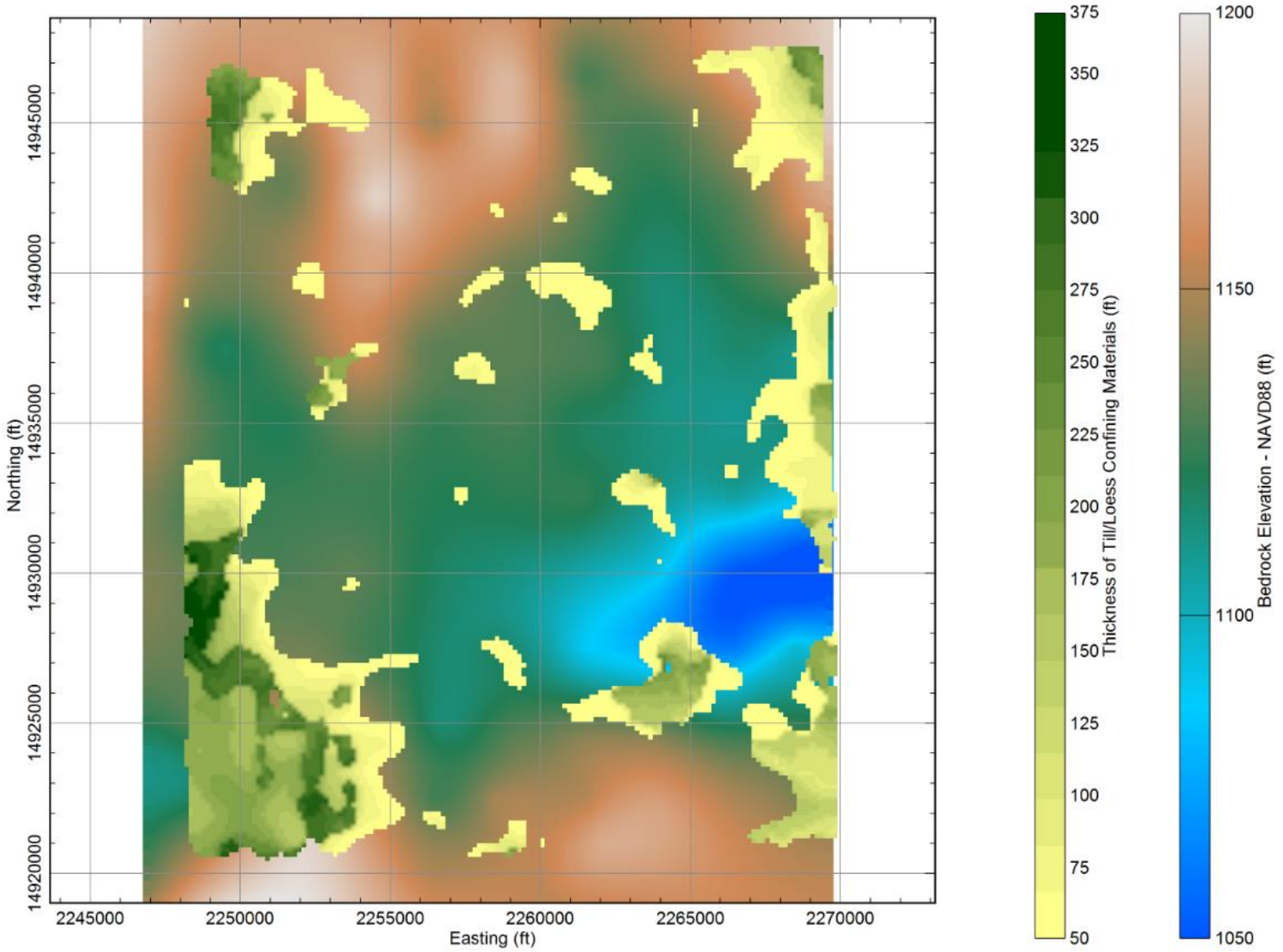


Figure A1-48: Total thickness of glacial till and loess above the principal aquifer in the east block, with thickness ranging from 0 to 375 feet.

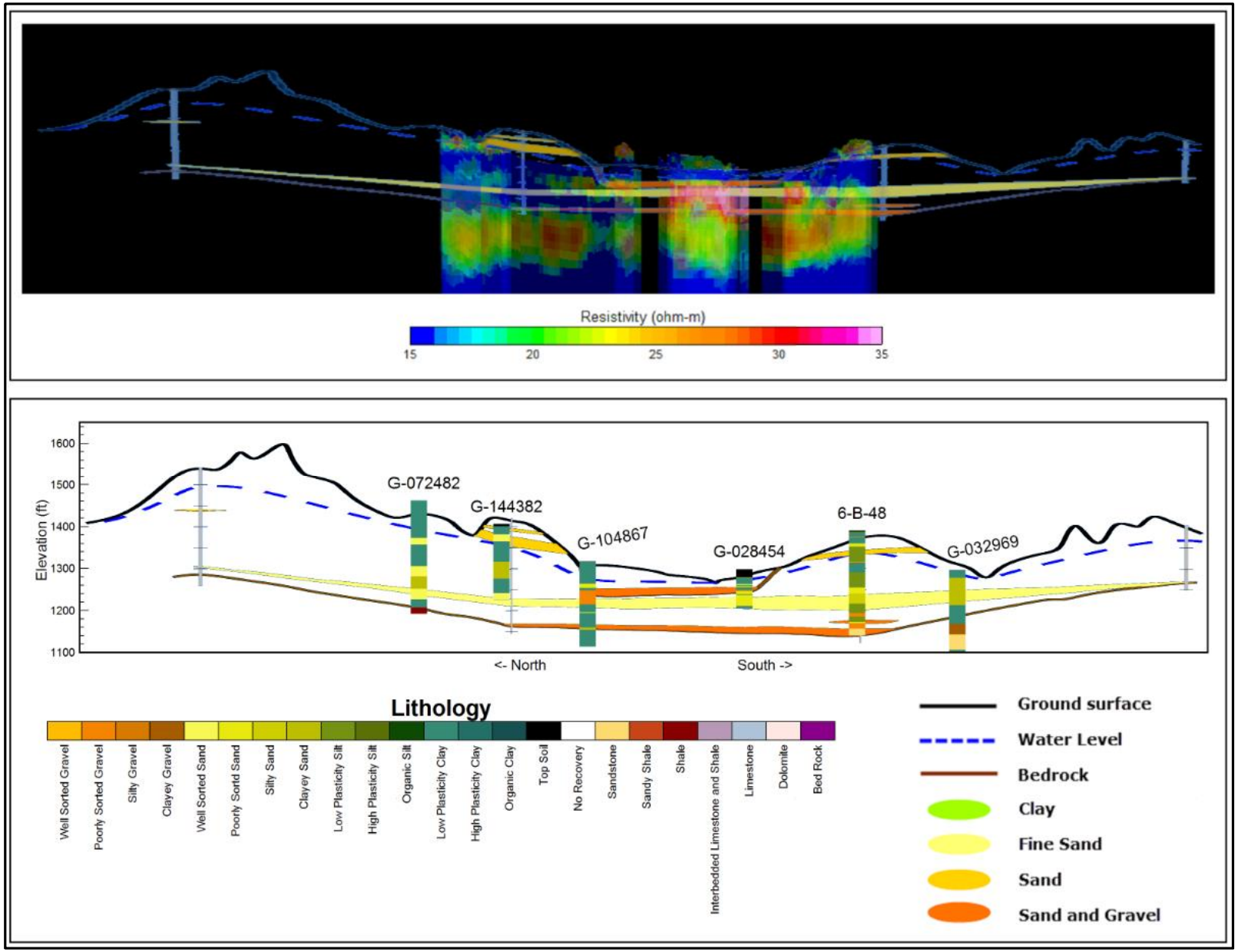


Figure A1-49: Historic cross-section SAU-205 in profile view with the AEM data in the south block. The lithologic color codes of the historic cross section are shown in the bottom right of the figure, and the lithology color codes for the CSD and NDNR boreholes are displayed on the color bar to the left. The location of the profile is shown in red on Figure 4-14 in the main body of the report.

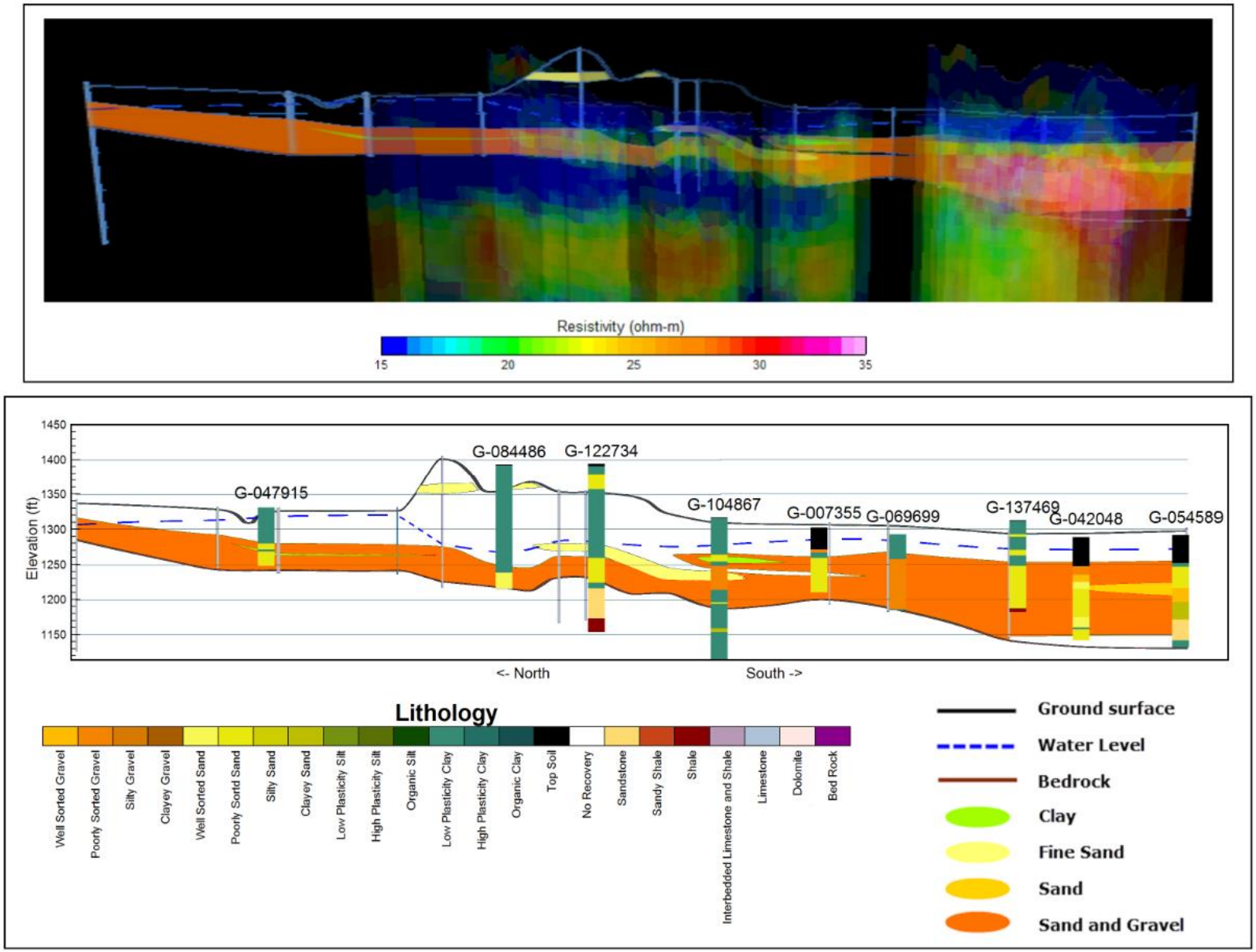


Figure A1-50: Historic cross-section SAU-216 in profile view with the AEM data in the south block. The lithologic color codes of the historic cross section are shown in the bottom right of the figure, and the lithology color codes for the CSD and NDNR boreholes are displayed on the color bar to the left. The location of the profile is shown in red on Figure 4-14 in the main body of the report.

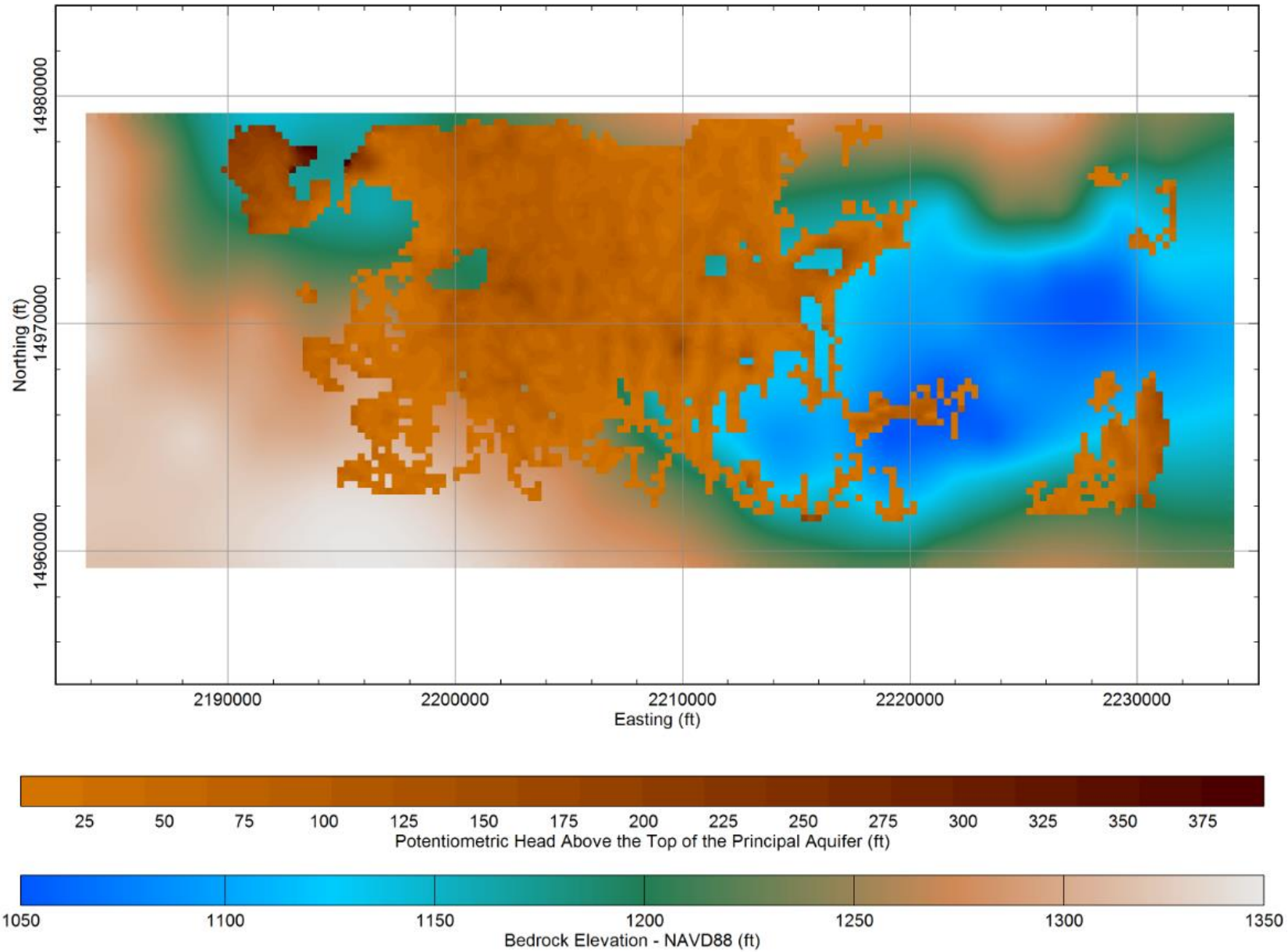


Figure A1-51: Level of potentiometric head in feet above the top of the principal aquifer in the north block based on the interpolated water level surface created from NDNR and USGS water levels.

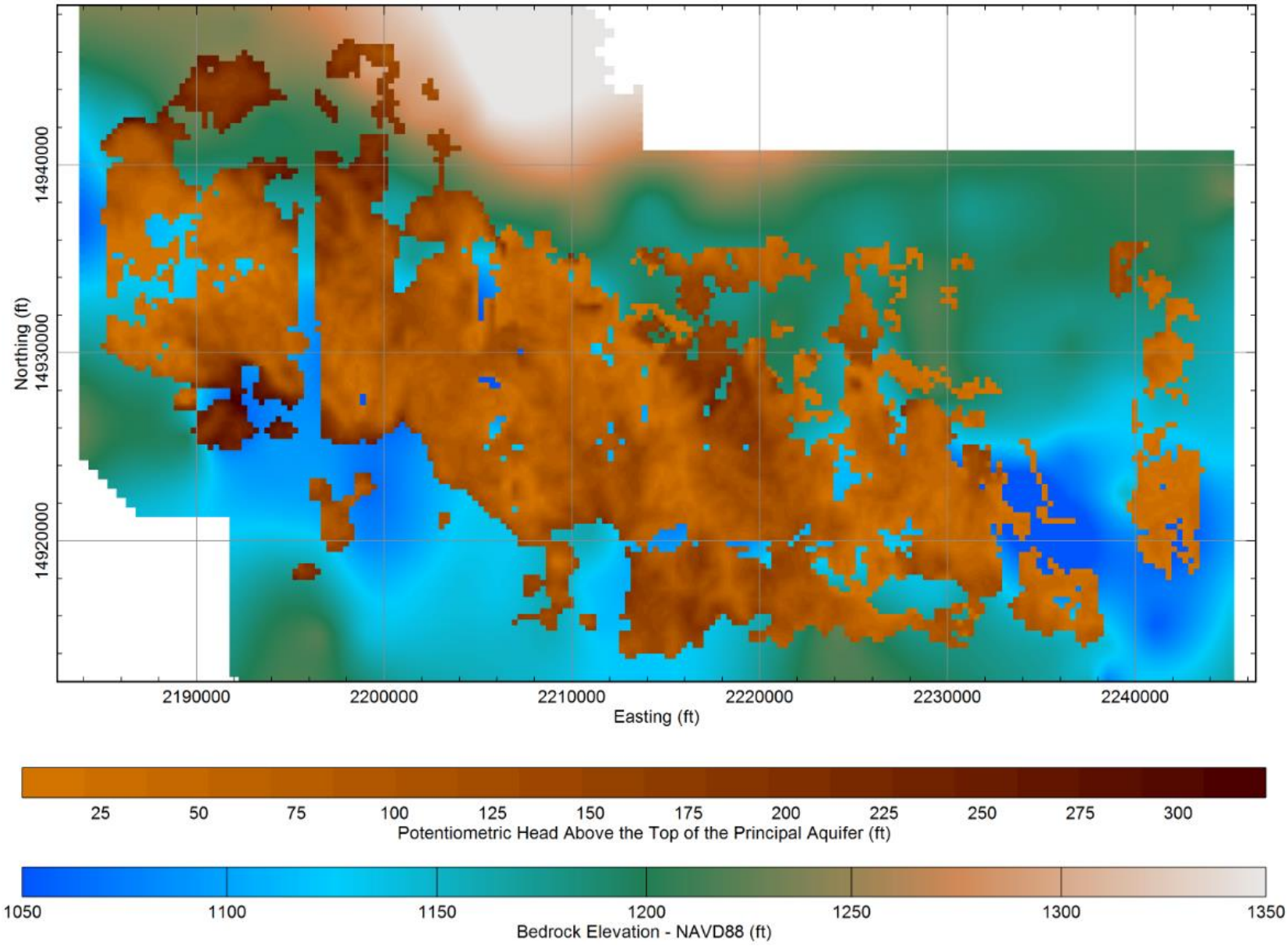


Figure A1-52: Level of potentiometric head in feet above the top of the principal aquifer in the south block based on the interpolated water level surface created from NDNR and USGS water levels.

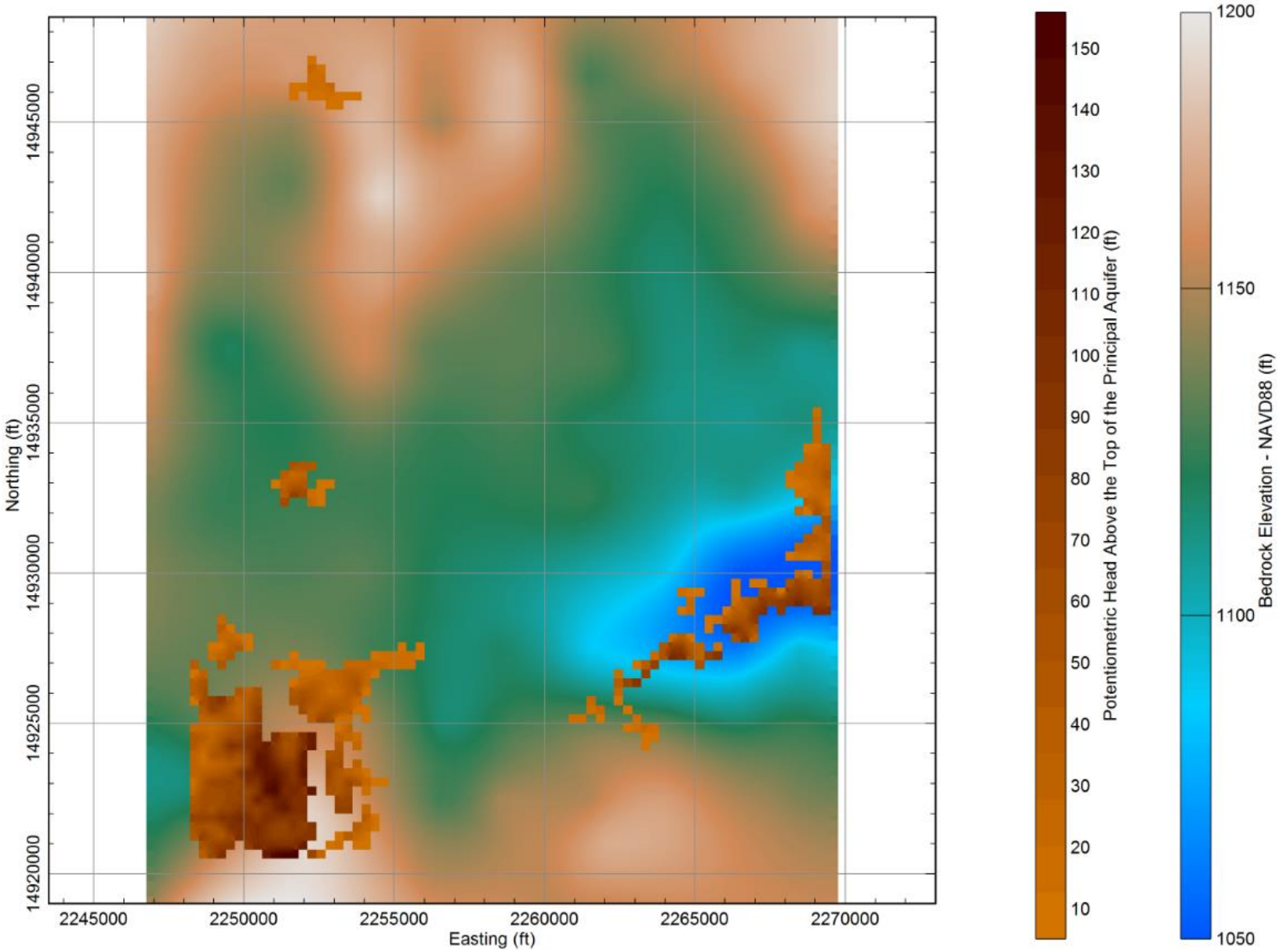


Figure A1-53: Level of potentiometric head in feet above the top of the principal aquifer in the east block based on the interpolated water level surface created from NDNR and USGS water levels.

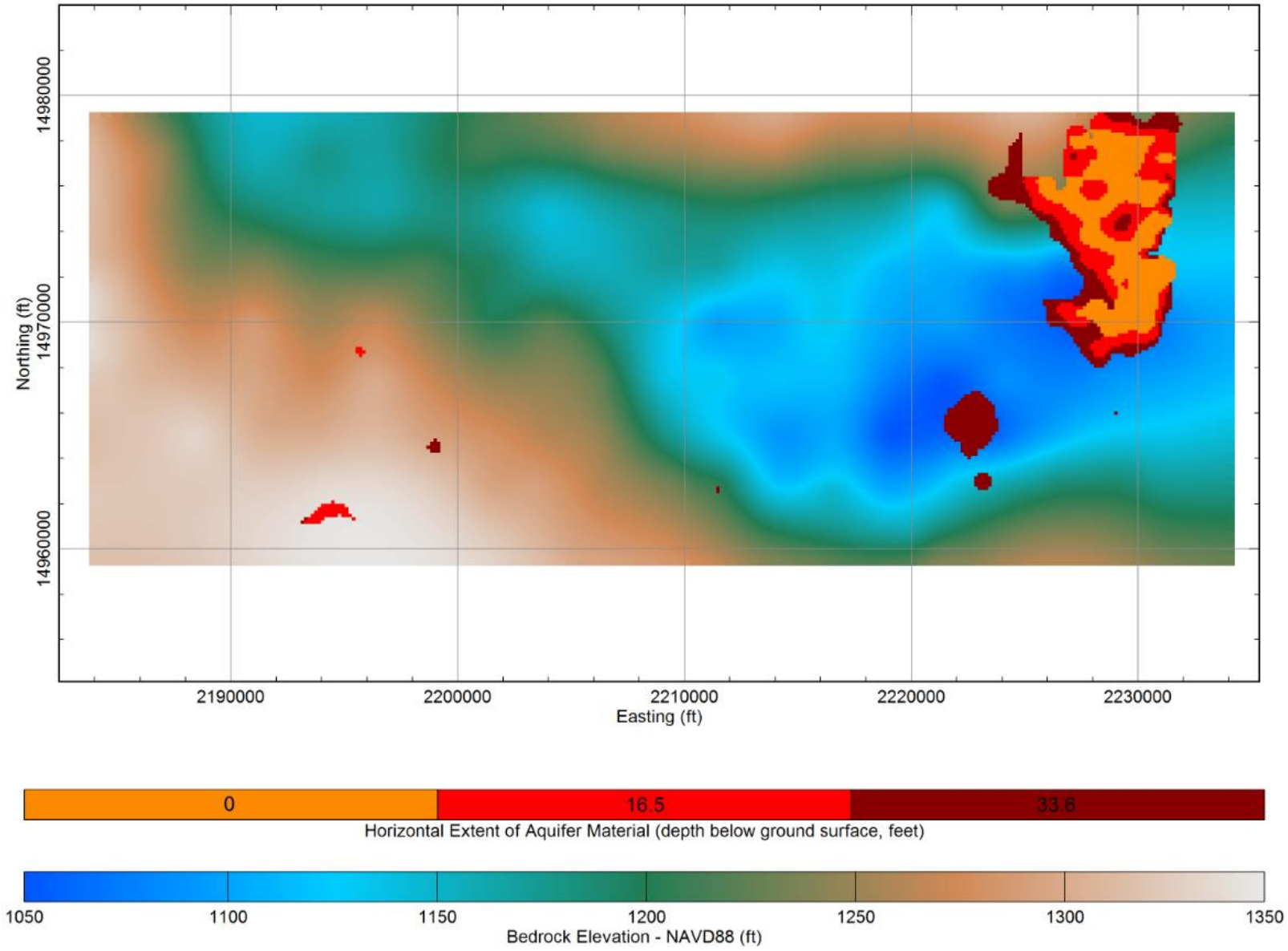


Figure A1-54: Two-dimensional map representing the areas of potential recharge in the north block. Orange areas indicate resistive material 21 ohm-m or greater at the land surface, red areas indicating resistive material within 16 ft of the land surface, and maroon areas indicating areas with resistive material within 33 ft of the land surface.

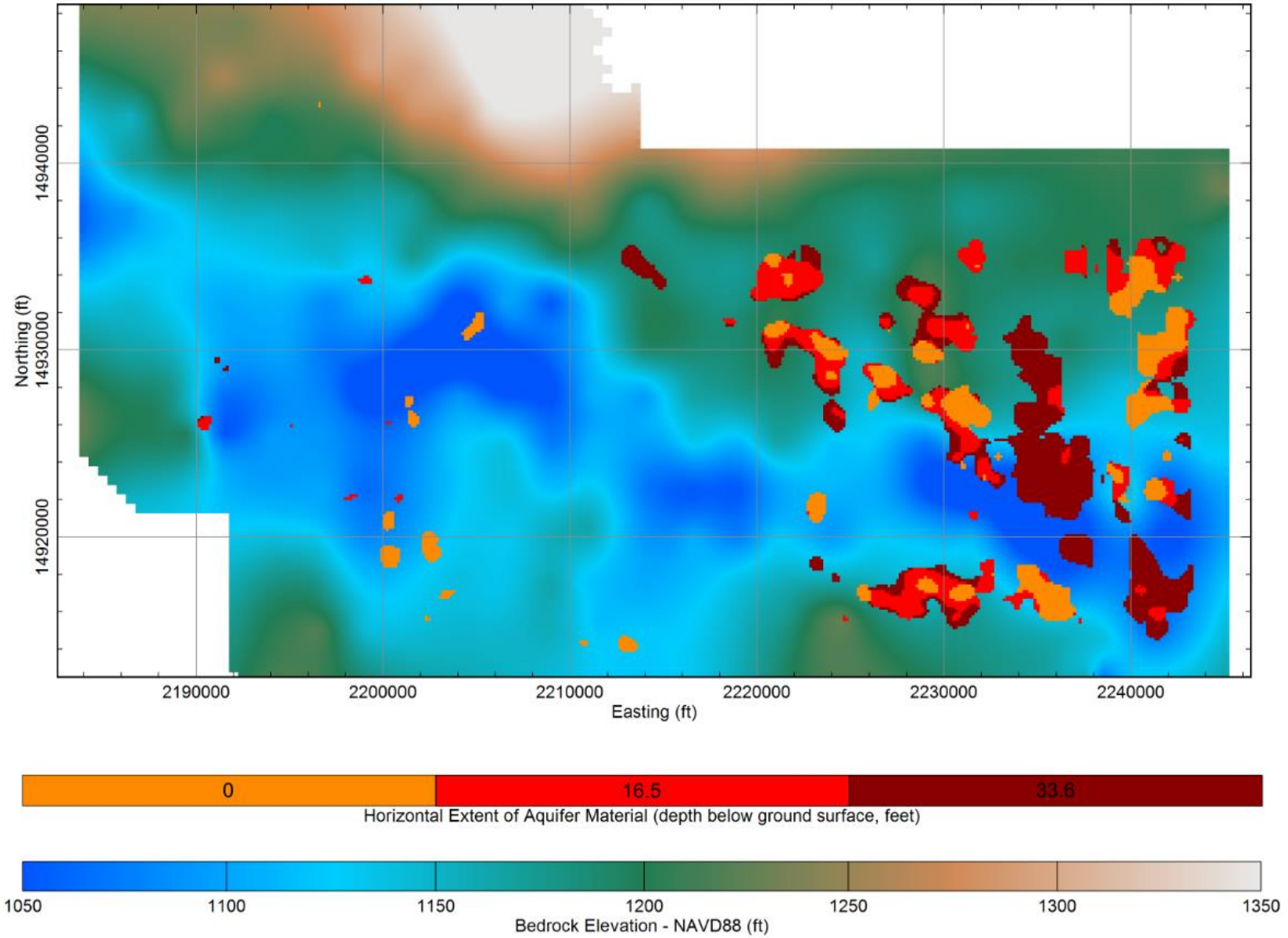


Figure A1-55: Two-dimensional map representing the areas of potential recharge in the south block. Orange areas indicate resistive material 18 ohm-m or greater at the land surface, red areas indicating resistive material within 16 ft of the land surface, and maroon areas indicating areas with resistive material within 33 ft of the land surface.

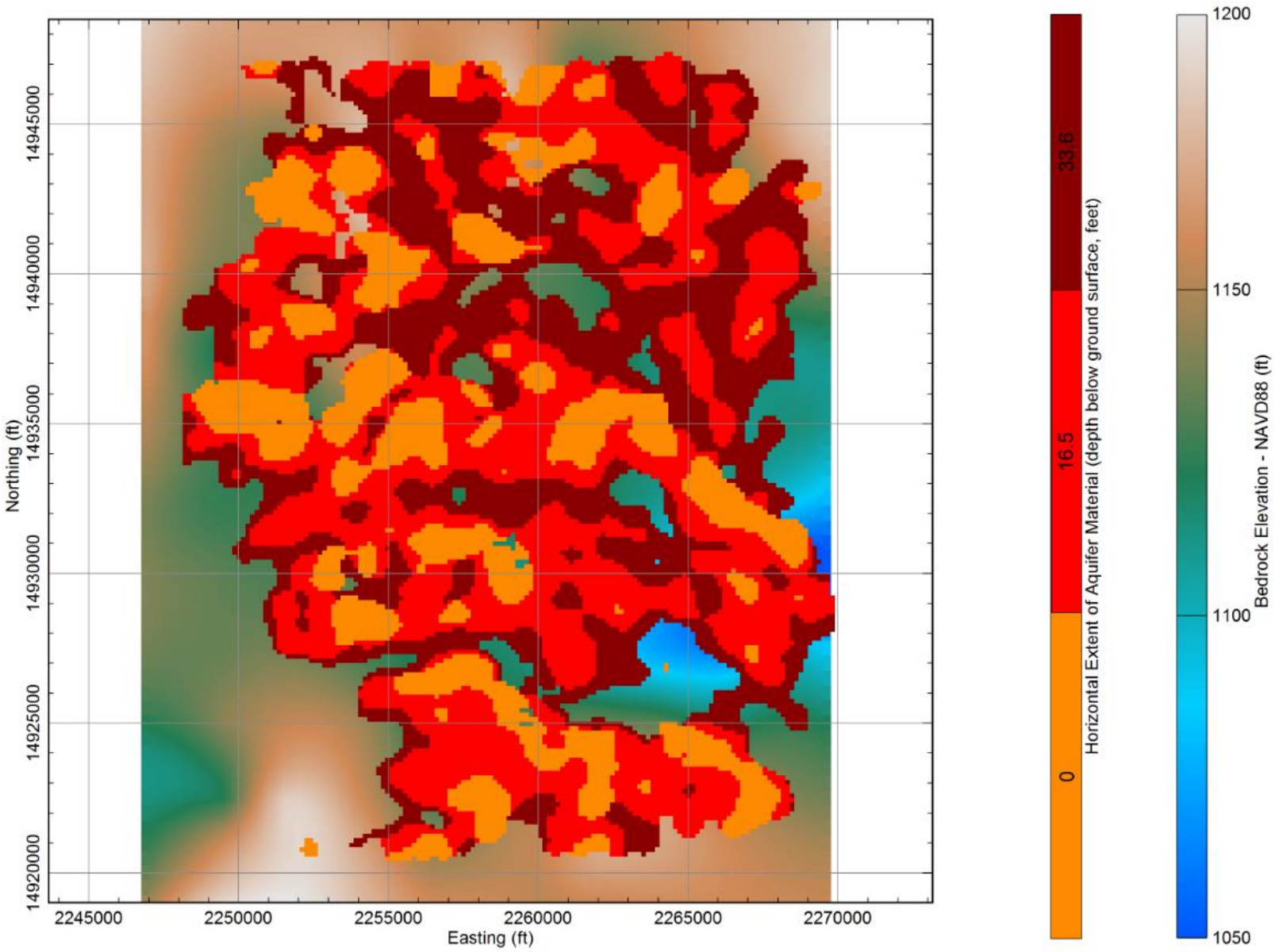


Figure A1-56: Two-dimensional map representing the areas of potential recharge in the east block. Orange areas indicate resistive material 24 ohm-m or greater at the land surface, red areas indicating resistive material within 16 ft of the land surface, and maroon areas indicating areas with resistive material within 33 ft of the land surface.

Appendix 2
Water Quality Data Interpretation and Maps

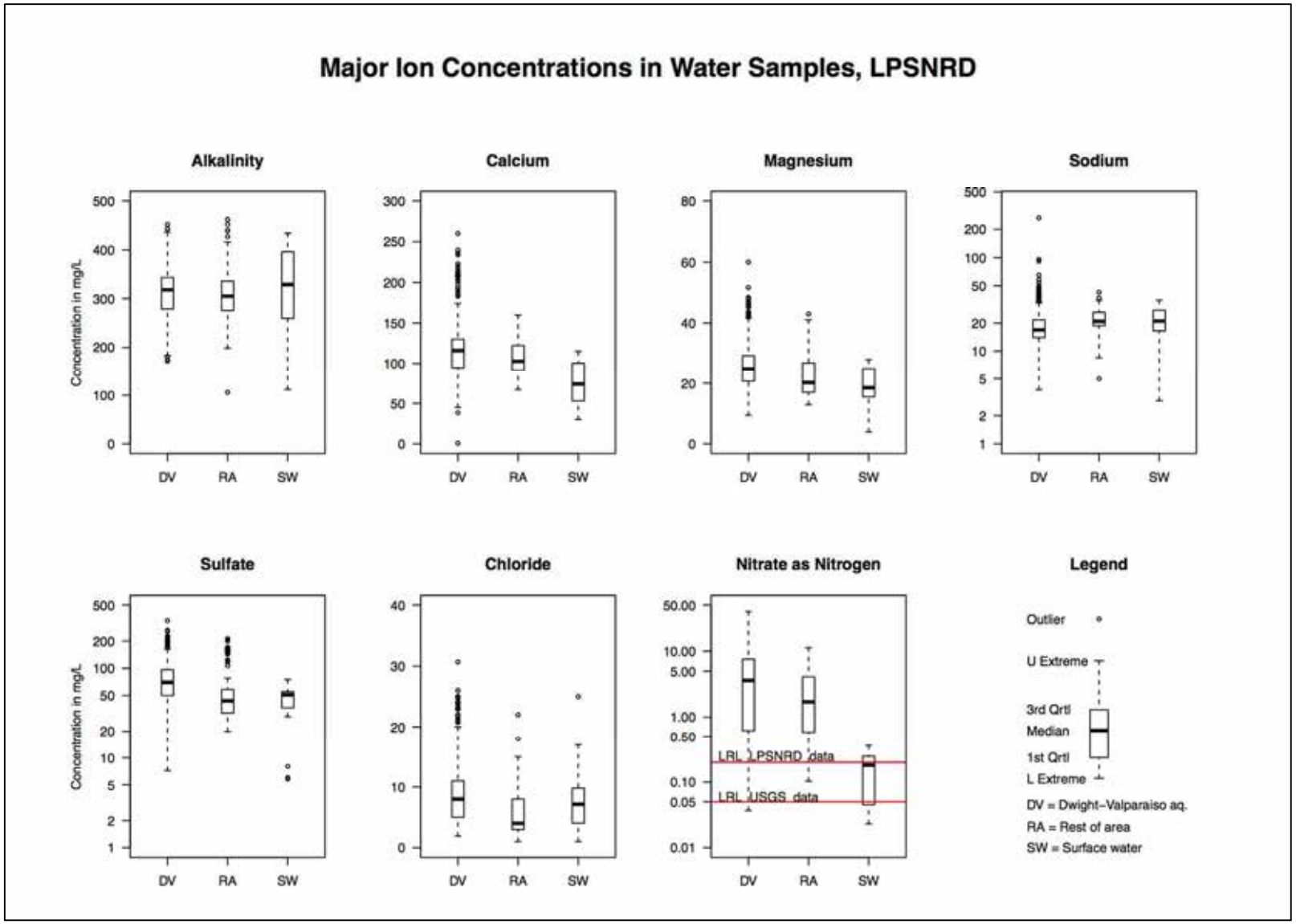


Figure A2-1: Distribution of selected chemical constituents by aquifer from water samples in or near the project area, Lower Platte South NRD (Alkalinity as CaCO3; LRL, laboratory reporting limit; LPSNRD, Lower Platte South Natural Resources District; USGS, U.S. Geological Survey; Qtrl, statistical quantile; U, upper; L, lower (data from Lower Platte South NRD and USGS; Cretaceous Dakota aquifer not shown due to small sample size).

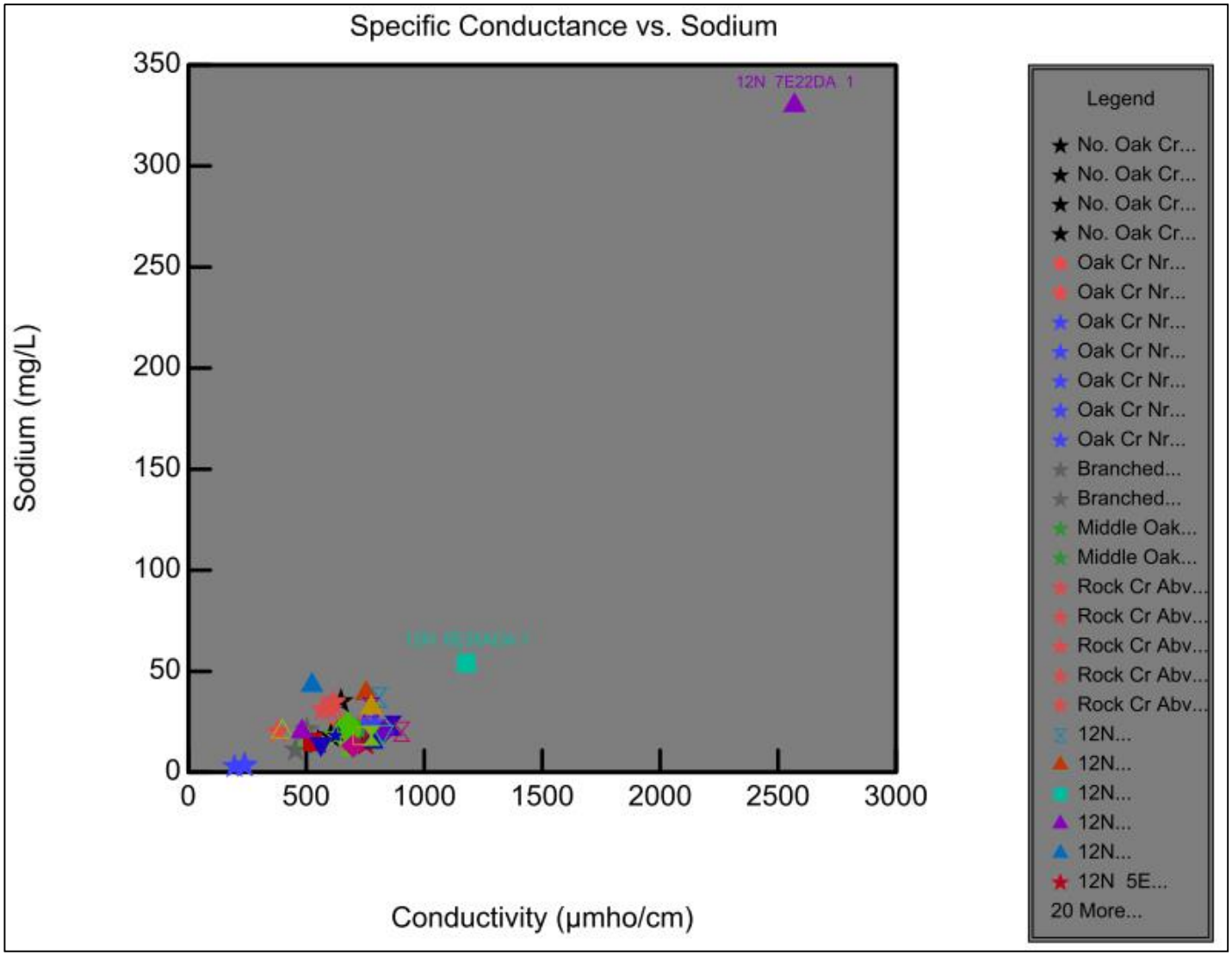


Figure A2-2: Specific conductance vs. sodium at surface and groundwater sample locations across the project area (source: USGS).

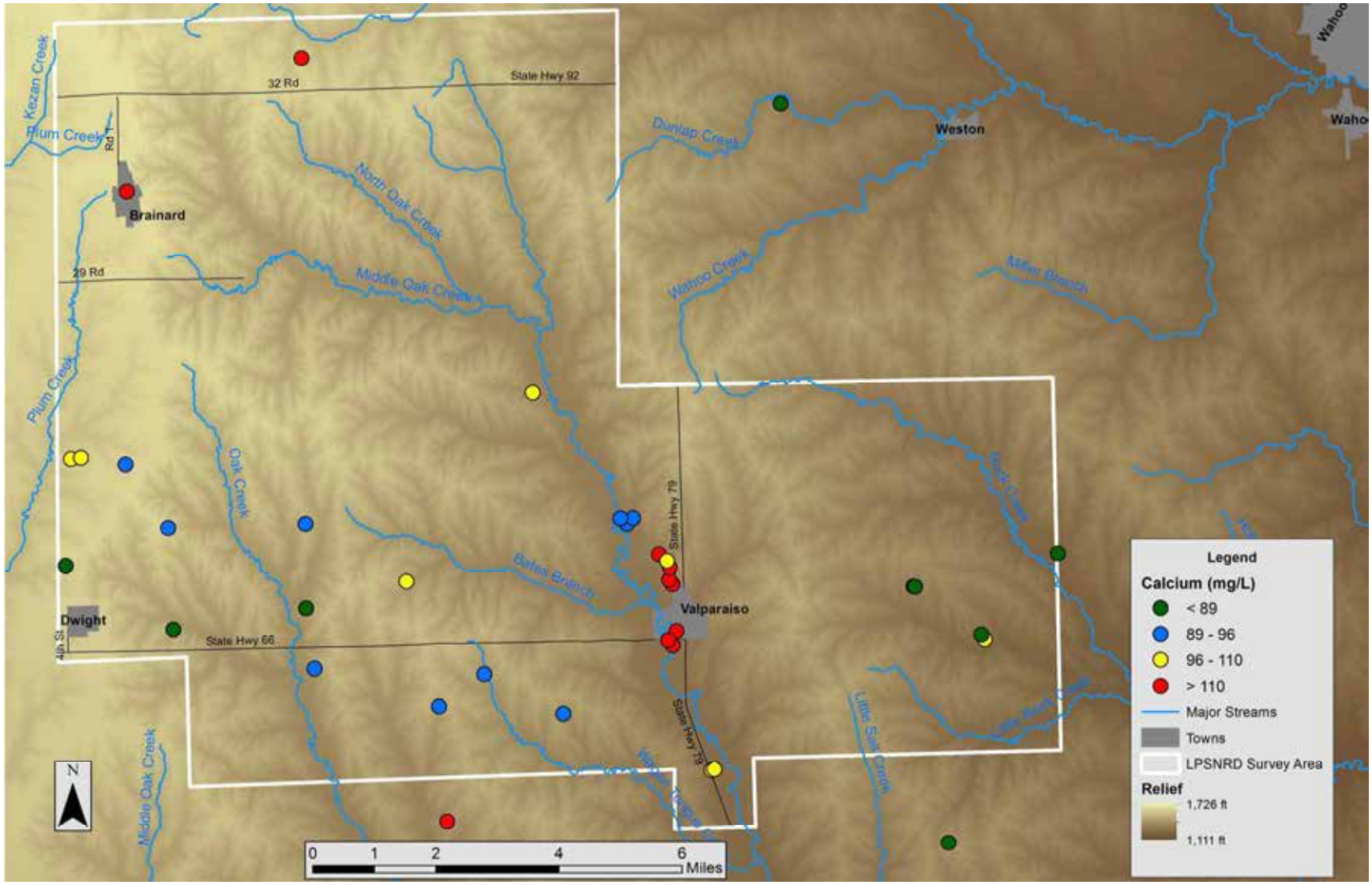


Figure A2-2: **Median concentration of calcium in groundwater samples within and near the LPSNRD (Source: LPSNRD & USGS)**.

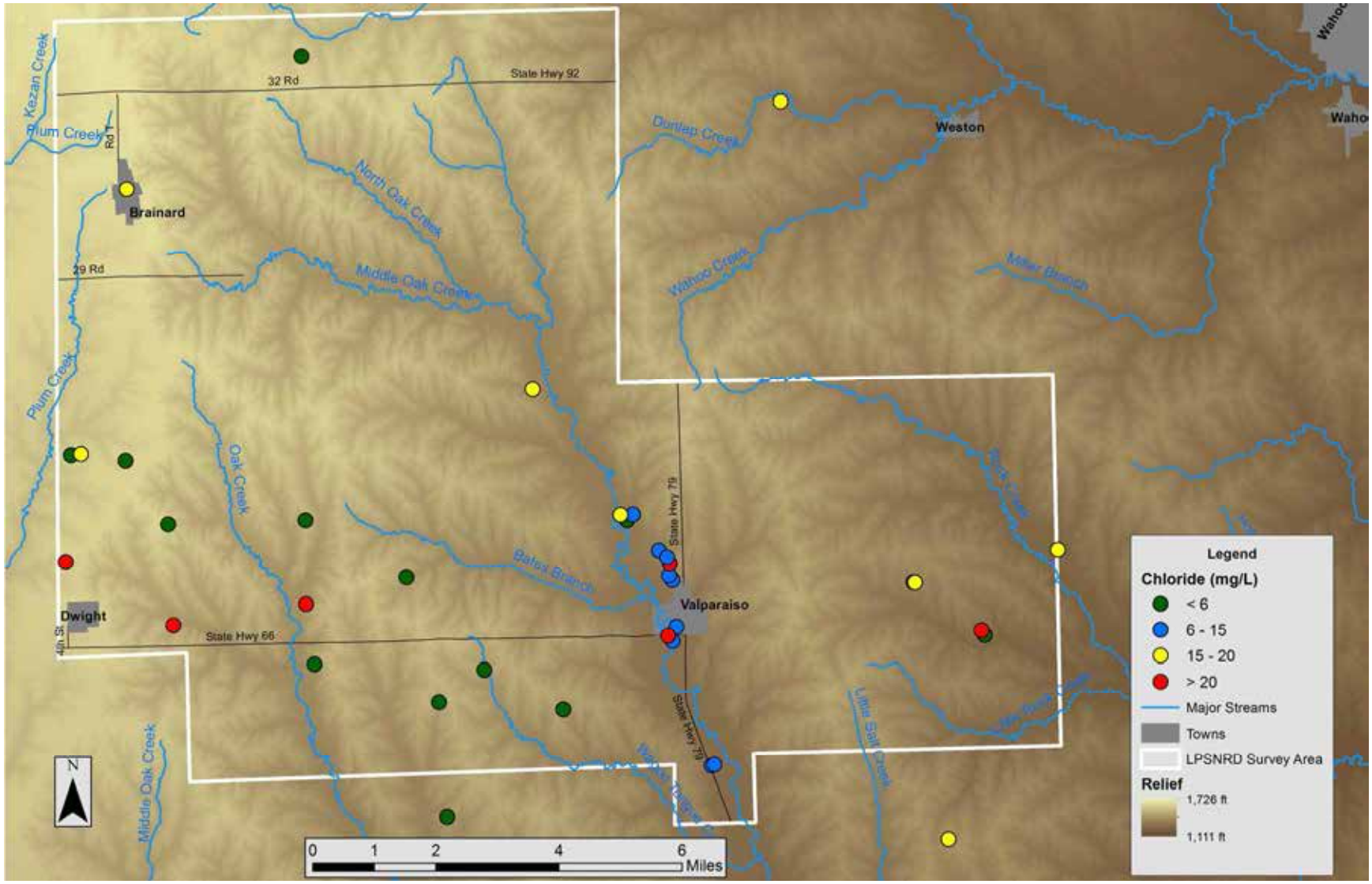


Figure A2-3: Median concentration of chloride in groundwater samples within and near the LPSNRD (Source: LPSNRD & USGS).

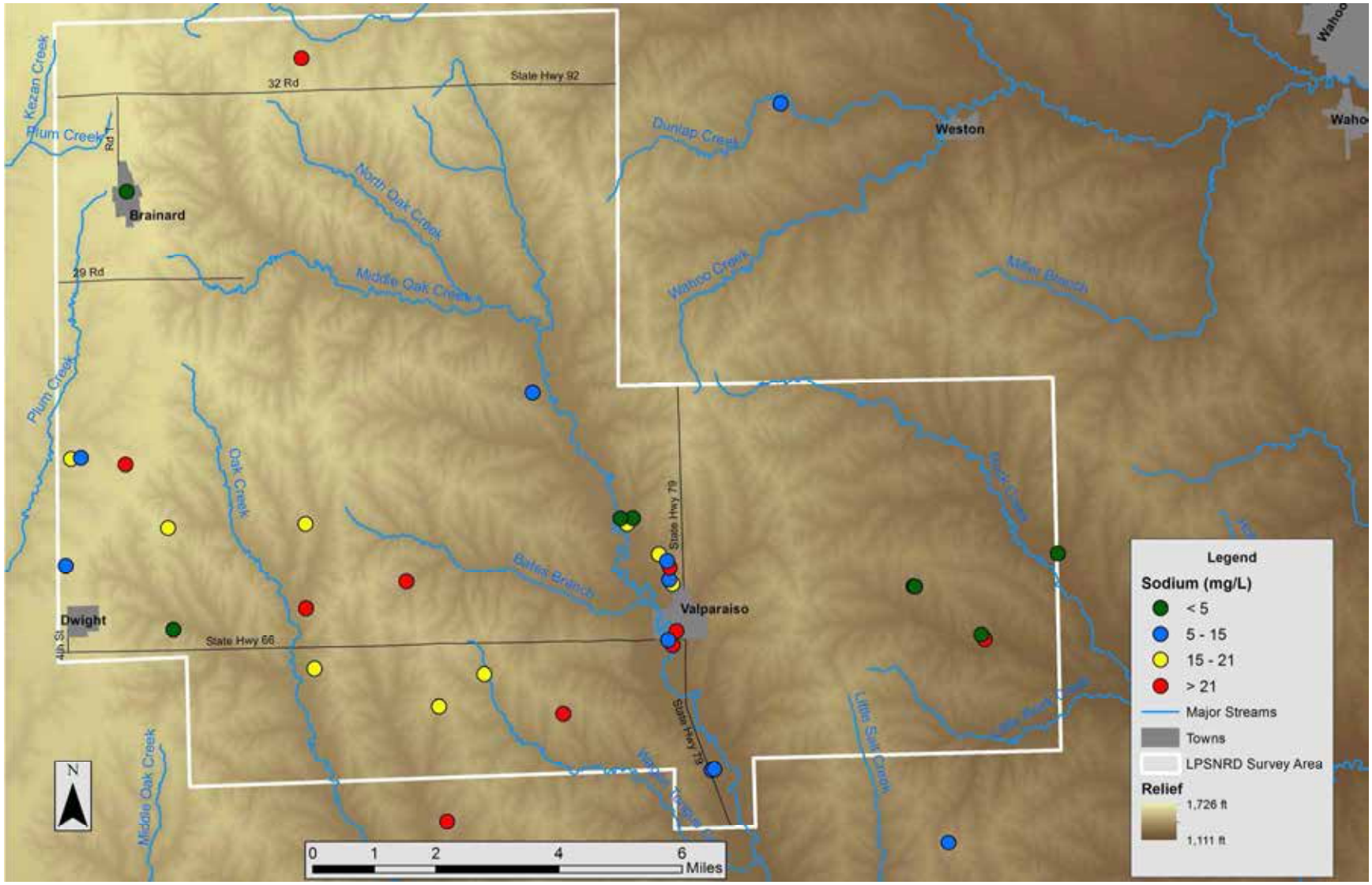


Figure A2-4: Median concentration of sodium in groundwater samples within and near the LPSNRD (Source: LPSNRD & USGS).

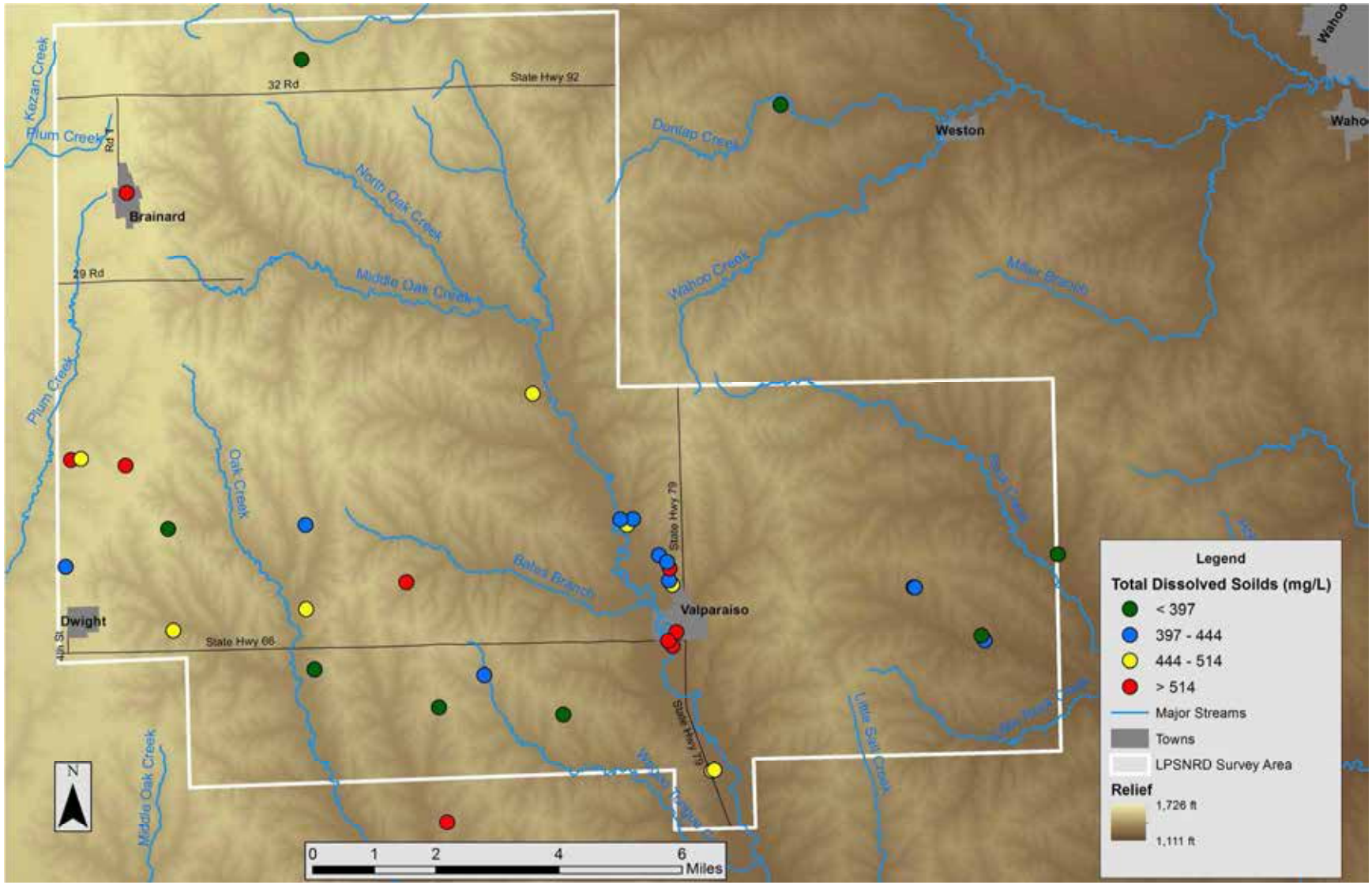


Figure A2-5: Median concentration of total dissolved solids in groundwater samples within and near the LPSNRD (Source: LPSNRD & USGS).

Table A2-1: Summary table of water quality parameters evaluated in project area wells.

Results of water-quality samples from sites in or near the project area, Lower Platte South NRD [Depth in feet; specific conductance , in microSiemens per centimeter at 25°C; pH in standard units; other units in milligrams per liter unless specified; NA, no sample or not available]

Source	Site	Date	Depth, in feet	Specific conductance	pH, in	Hardness	Alkalinity as CaCO3	Calcium	Magnesium	Sodium	Potassium	Sulfate	Chloride	Fluoride	Silica	Iron	Manganese	Total dissolved solids	Nirate as N	Calcium, in milliequivalents	Magnesium, in milliequivalents	Sodium, in milliequivalents	Sodium Adsorption Ratio
DV	A-017212	8/6/1996	NA	551	7.5	282	270	95	16.0	7.5	6.0	93.0	3.7	0.33	55	<0.05	0.02	400	0.5	2.37	0.66	0.33	0.27
DV	A-017212	7/29/1997	NA	604	7.3	290	270	170	19.0	7.0	8.9	60.0	6.0	0.4	3.3	0.4	0.07	400	1.6	4.24	0.78	0.30	0.19
DV	A-017212	9/22/1998	NA	644	7.5	230	268	62	19.0	11.0	6.1	62.7	NA	0.68	NA	NA	NA	450	4	1.55	0.78	0.48	0.44
DV	A-017212	7/14/1999	NA	669	7.72	357	273	107	21.3	13.9	7.4	59.0	6.0	0.2	25	<0.05	0.03	480	3.5	2.67	0.88	0.60	0.45
DV	A-017212	4/27/2000	NA	649	7.88	354	276	106	21.1	13.7	6.4	58.0	5.0	0.2	28	<0.05	0.02	472	4	2.64	0.87	0.60	0.45
DV	A-017212	7/13/2000	NA	710	7.7	422	292	129	23.9	14.2	8.0	72.0	8.0	0.2	32	<0.05	0.03	555	7.1	3.22	0.98	0.62	0.43
DV	A-017212	10/3/2000	NA	675	7.61	371	287	111	22.3	13.9	6.9	63.0	7.0	0.3	27	<0.05	0.02	467	6.1	2.77	0.92	0.60	0.45
DV	A-017212	1/22/2001	NA	652	7.48	379	283	114	22.7	14.4	6.8	64.0	7.0	0.3	28	<0.05	0.03	467	5.8	2.84	0.93	0.63	0.46
DV	A-017212	7/11/2001	NA	712	7.4	368	290	111	21.4	15.5	6.9	71.0	7.0	0.2	26	<0.05	0.06	487	5.8	2.77	0.88	0.67	0.50
DV	A-017212	10/30/2001	NA	651	7.57	395	242	116	25.2	15.5	7.4	71.0	8.0	0.2	28	<0.05	0.03	417	6.3	2.89	1.04	0.67	0.48
DV	A-017212	1/10/2002	NA	673	7.45	365	275	108	22.8	14.7	7.7	64.0	6.0	0.2	27	<0.05	0.02	515	5.6	2.69	0.94	0.64	0.47
DV	A-017212	4/15/2002	NA	700	7.81	393	241	119	22.5	14.9	7.4	58.0	6.0	0.2	30	<0.05	0.02	450	5.7	2.97	0.93	0.65	0.46
DV	A-017212	7/23/2002	NA	783	7.3	372	281	114	21.1	14.5	7.0	84.2	8.7	0.3	56.7	<0.05	0.032	564	8	2.84	0.87	0.63	0.46
DV	A-017212	11/4/2002	NA	712	7.2	371	284	114	20.9	14.2	7.0	70.6	7.3	0.3	55.6	<0.05	0.021	496	4.4	2.84	0.86	0.62	0.45
DV	A-017212	1/9/2003	NA	722	7.4	357	267	110	19.9	13.4	7.0	66.7	6.3	0.2	55.3	<0.05	0.025	384	6	2.74	0.82	0.58	0.44
DV	A-017212	5/6/2003	NA	794	7.4	364	275	111	20.9	14.0	7.0	75.8	7.8	0.3	55.5	<0.05	0.03	488	7	2.77	0.86	0.61	0.45
DV	A-017212	7/24/2003	NA	783	7.48	416	292	125	24.6	15.5	7.6	81.0	8.0	NA	24	<0.05	0.03	570	8.9	3.12	1.01	0.67	0.47
DV	A-017212	10/8/2003	NA	768	7.2	423	281	127	25.2	15.5	8.1	83.0	9.0	0.2	23	<0.05	0.02	528	9	3.17	1.04	0.67	0.46
DV	A-017212	7/28/2004	NA	824	7.3	376	264	112	23.1	14.8	7.0	67.5	8.5	0.3	57.7	<0.05	0.024	508	8.6	2.79	0.95	0.64	0.47
DV	A-017212	4/12/2005	NA	644	7.2	339	257	104	19.4	13.3	7.0	49.4	4.8	0.4	62.1	<0.05	0.012	408	3.8	2.59	0.80	0.58	0.44
DV	A-017212	11/1/2005	NA	689	7.58	369	277	112	21.6	14.3	7.4	51.0	5.0	0.5	28	<0.05	0.01	408	6.2	2.79	0.89	0.62	0.46
DV	A-017212	4/25/2006	NA	644	7.53	352	278	107	20.7	14.0	7.2	56.0	5.0	0.3	25	<0.05	0.01	412	4.6	2.67	0.85	0.61	0.46
DV	A-017212	10/16/2006	NA	654	8.21	369	282	112	21.7	14.1	7.0	63.0	7.0	0.3	26	<0.05	0.01	434	5.3	2.79	0.89	0.61	0.45
DV	A-017212	4/27/2007	NA	655	7.78	470	276	104.1	20.6	18.8	7.3	58.0	6.0	0.3	26.64	<0.05	0.01	438	5.1	2.60	0.85	0.82	0.62
DV	A-017212	9/4/2007	NA	706	8.04	296	272	89	17.7	11.3	NA	64.0	7.0	0.2	NA	<0.05	0.01	426	6.5	2.22	0.73	0.49	0.40
DV	A-017212	5/14/2008	NA	585	7.4	329	266	100.06	19.3	14.1	6.5	57.0	6.0	0.2	25.08	<0.05	0.01	430	4	2.50	0.79	0.61	0.48
DV	A-017212	12/10/2008	NA	610	7.52	296	270	88.95	17.9	14.1	7.0	52.0	5.0	0.3	22.65	<0.05	<0.01	438	3.3	2.22	0.74	0.61	0.50
DV	A-017212	5/12/2009	NA	568	7.33	277	269	85.87	15.2	12.4	5.6	45.0	4.0	0.3	23.13	<0.05	<0.01	418	2.3	2.14	0.62	0.54	0.46
DV	A-017212	11/5/2009	NA	657	7.44	293	264	89.05	17.2	12.4	6.1	54.0	5.0	0.3	23.36	<0.05	<0.01	406	5.5	2.22	0.71	0.54	0.45
DV	A-017212	5/26/2010	NA	613	7.36	308	260	94.84	17.2	12.9	6.6	48.0	5.0	0.3	23.6	0.01	0.01	372	3.4	2.37	0.71	0.56	0.45
DV	A-017212	11/9/2010	NA	628	7.41	327	274	100.98	18.2	12.7	6.4	59.0	6.0	0.3	25.26	<0.05	<0.01	358	5.3	2.52	0.75	0.55	0.43
DV	A-017212	6/8/2011	NA	592	7.34	278	264	84.63	16.0	11.9	6.0	45.0	4.0	0.3	24.79	<0.05	<0.01	384	2.1	2.11	0.66	0.52	0.44
DV	A-017212	11/1/2011	NA	596	7.45	255	267	74.48	17.1	22.1	3.2	51.0	5.0	0.3	14.71	<0.05	0.01	398	2.6	1.86	0.70	0.96	0.85
DV	A-017212	5/16/2012	NA	703	7.21	311	278	96.47	17.4	31.2	4.2	71.0	14.0	0.2	14.8	<0.05	0.18	450	2.1	2.41	0.72	1.36	1.09
DV	A-017212	5/23/2012	NA	602	7.47	311	262	96.47	16.1	31.2	4.2	71.0	3.8	0.3	14.8	<0.05	0.03	384	1.4	2.41	0.66	1.36	1.10
DV	A-017212	5/23/2012	NA	703	7.21	278.8	278	85.14	17.4	11.8	6.3	43.7	14.0	0.2	24.96	<0.05	0.18	450	2.1	2.12	0.72	0.51	0.43
DV	A-017212	12/3/2012	NA	603	7.46	305.7	265	93.73	17.4	12.6	6.4	48.4	4.8	0.2	26.96	<0.05	<0.01	342	2.45	2.34	0.72	0.55	0.44
DV	A-017212	5/23/2013	NA	596	7.55	285.1	261	88.24	15.7	12.1	6.1	40.2	3.6	0.3	25.35	<0.05	<0.01	350	1.65	2.20	0.65	0.52	0.44
DV	A-017212	10/1/2013	NA	609	7.5	313.8	268	95.94	18.0	13.0	6.4	47.1	5.4	0.3	24.36	<0.05	0.01	388	3.82	2.39	0.74	0.56	0.45
DV	G-007355	4/21/2003	92	925	7.1	452	376	135	27.9	24.9	9.0	90.6	12.4	0.3	41.4	<0.05	0.297	576	0.4	3.37	1.15	1.08	0.72
DV	G-007355	8/21/2003	92	1131	7.06	627	452	185	39.0	41.8	12.6	134.0	26.0	0.4	14	<0.05	0.43	720	4.9	4.62	1.60	1.82	1.03
DV	G-007355	10/8/2003	92	855	7	455	382	133	29.3	25.0	9.1	85.0	12.0	0.3	16	<0.05	0.68	502	0.5	3.32	1.21	1.09	0.72
DV	G-007355	7/28/2004	92	1380	7.1	584	443	174	39.2	44.9	12.0	172.0	30.7	0.2	36.8	<0.05	0.812	812	5.1	4.34	1.61	1.95	1.13
DV	G-007355	7/11/2006	92	957	7.87	502	413	147	32.7	31.6	10.8	99.0	14.0	0.2	18	<0.05	0.81	588	1.4	3.67	1.35	1.37	0.87
DV	G-007355	7/9/2009	92	842	7.29	438	379	128.06	28.8	28.5	9.2	97.0	8.0	0.3	17.46	<0.05	0.57	576	2.1	3.20	1.18	1.24	0.84
DV	G-007355	7/25/2011	92	1018	7.19	436	422	125.97	29.4	34.3	11.0	109.0	14.0	0.3	15.14	<0.05	0.33	650	2.2	3.14	1.21	1.49	1.01
DV	G-028676A	7/25/1995	NA	801	7.2	370	304	110	23.0	15.0	6.0	68.0	8.7	0.3	42	0.007	<0.01	485	7.1	2.74	0.95	0.57	0.42
DV	G-028676A	8/6/1996	NA	710	7.3	392	310	120	22.0	8.2	5.2	100.0	9.0	0.4	45	<0.05	<0.01	520	8.3	2.99	0.91	0.36	0.26
DV	G-028676A	7/29/1997	NA	699	7.2	360	330	210	27.0	6.0	6.6	54.0	5.0	0.4	2.1	1.2	0.02	490	37	5.24	1.11	0.26	0.15
DV	G-028676A	9/22/1998	NA	654	7.4	400	303	120	25.0	10.0	5.9	57.0	9.7	0.79	NA	NA	NA	490	6.7	2.99	1.03	0.44	0.31
DV	G-028676A	7/14/1999	NA	778	7.55	424	309	126	25.8	13.5	6.2	54.0	11.0	0.2	20	<0.05	<0.01	562	8.7	3.14	1.06	0.59	0.40
DV	G-028676A	4/27/2000	NA	772	7.78	433	314	129	26.5	13.7	5.8	57.0	12.0	0.3	21	<0.05	<0.01	542	10.9	3.22	1.09	0.60	0.41
DV	G-028676A	7/13/2000	NA	755	7.57	447	329	136	25.6	13.3	5.8	64.0	10.0	0.4	23	<0.05	<0.01	577	8.5	3.39	1.05	0.58	0.39
DV	G-028676A	10/3/2000	NA	744	7.31	429	334	128	26.1	14.0	6.3	61.0	9.0	0.5	20	<0.05	<0.01	485	6.9	3.19	1.07	0.61	0.42
DV	G-028676A	1/22/2001	NA	745	7.3	435	328	129	26.8	14.6	5.9	62.0	10.0	0.3	21	<0.05	<0.01	513	8.4	3.22	1.10	0.64	0.43
DV	G-028676A	4/9/2001	NA	773	8.64	397	329	118	24.1	13.6	6.9	61.0	11.0	0.3	21	<0.05	<0.01	495	8.3	2.94	0.99	0.59	0.42
DV	G-028676A	7/11/2001	NA	788	7.21	418	325	126	24.9	15.5	5.5	65.0	11.0	0.4	21	<0.05	<0.01	528	8.2	3.14	1.02	0.67	0.47
DV	G-028676A	10/30/2001	NA	745	7.34	460	309	135	29.6	16.0	6.8	73.0	11.0	0.3	21	<0.05	<0.01	443	6.7	3.37	1.22	0.70	0.46
DV	G-028676A	1/10/2002	NA	771	7.29	436	303	128	27.6	15.3	7.0	67.0	11.0	0.3	21	<0.05	<0.01	578	7.6	3.19	1.14	0.67	0.45
DV	G-028676A	4/15/2002	NA	845	7.78	475	299	144	27.7	15.4	7.0	67.0	11.0	0.2	23	<0.05	<0.01	540	8.7	3.59	1.14	0.67	0.44
DV	G-028676A	7/23/2002	NA	821	7.1	398	320	122	22.6	14.4	6.0	69.0	11.0	0.4	44.9	<0.05	<0.01	540	4.2	3.04	0.93	0.63	0.44
DV	G-028676A	11/4/2002	NA	796	7	430	328	131	24.8	15.2	6.0	72.1	11.2	0.3	43.9	<0.05	<0.01	544	5.6	3.27	1.02	0.66	0.45
DV	G-028676A	1/9/2003	NA	801	7.2	425	316	130	24.3	14.8	6.0	69.4	10.8	0.3	43	<0.05	<0.01	376	6.9	3.24	1.00	0.64	0.44
DV	G-028676B	8/16/1994	NA	790	7.2	430	341	130	26.0	13.0	7.0	83.0	13.0	0.4	38	<0.05	0.026	545	6.8	3.24	1.07	0.57	0.39
DV	G-028676B	7/24/1995	NA	885	7.1	400	318	120	25.0	13.0	6.9	81.0	13.0	0.2	37	0.023	0.04	518	7.1	2.99	1.03	0.57	0.40
DV	G-028676B	8/6/1996	NA	780	7.3	383	340	130	24.0	7.9	5.2	127.0	12.0	0.3	37	<0.05	<0.01	560	5.6	3.24	0.99	0.34	0.24
DV	G-028676B	7/29/1997	NA	771	7.1	420	360	210	41.0	8.5	7.3	74.0	13.0	0.4	19	1.6	0.04	590	16	5.24	1.69	0.37	0.20
DV	G-028676B	9/22/1998	NA	747	7.4	320	340	84	26.0	9.5	7.2	85.0	NA	0.75	NA	NA	NA	550	5.6	2.10	1.07	0.41	0.33
DV	G-028676B	7/14/1999	NA	860	7.64	483	344	145	28.8	13.9	6.7	75.0	12.0	0.3	16	<0.05	0.02	595	7.5	3.62	1.18	0.60	0.39
DV	G-028676B	4/27/2000	NA	860	7.8	494	366	148	29.4	14.1	5.9	82.0	13.0	0.4	18	<0.05	0.01	608	7.9	3.69	1.21	0.61	0.39
DV	G-028676B	7/13/2000	NA	828	7.6	518	356	158	29.5	13.8	6.8	84.0	12.0	0.5	21	<0.05	0.04	633	6.4	3.94	1.21	0.60	0.37
DV	G-028676B	10/3/2000	NA	787	7.28	459	353	138	27.4	13.3	6.6	73.0	9.0	0.5	17	<0.05	0.03	528	5.5	3.44	1.13	0.58	0.38

Source	Site	Date	Depth, in feet	Specific conductance	pH, in	Hardness	Alkalinity as CaCO3	Calcium	Magnesium	Sodium	Potassium	Sulfate	Chloride	Fluoride	Silica	Iron	Manganese	Total dissolved solids	Nirate as N	Calcium, in millequivalents	Magnesium, in millequivalents	Sodium, in millequivalents	Sodium Adsorption Ratio
DV	G-028676B	1/22/2001	NA	769	7.33	472	349	141	28.4	14.1	6.6	77.0	11.0	0.4	18	<0.05	<0.01	535	5.6	3.52	1.17	0.61	0.40
DV	G-028676B	4/9/2001	NA	814	8.58	434	360	130	25.8	13.2	7.6	77.0	11.0	0.3	18	<0.05	<0.01	532	5.6	3.24	1.06	0.57	0.39
DV	G-028676B	7/11/2001	NA	838	7.22	454	351	137	26.5	14.8	6.9	81.0	11.0	0.1	17	<0.05	0.04	568	6	3.42	1.09	0.64	0.43
DV	G-028676B	10/30/2001	NA	758	7.37	481	276	141	30.6	15.0	6.9	82.0	11.0	0.3	19	<0.05	0.02	482	4.5	3.52	1.26	0.65	0.42
DV	G-028676B	1/10/2002	NA	808	7.3	460	351	136	28.9	14.6	7.6	77.0	10.0	0.4	18	<0.05	0.02	598	5.5	3.39	1.19	0.64	0.42
DV	G-028676B	4/15/2002	NA	882	7.73	504	315	154	28.9	14.9	7.7	78.0	10.0	0.3	20	<0.05	0.03	517	5	3.84	1.19	0.65	0.41
DV	G-028676B	7/23/2002	NA	804	7.2	400	324	123	22.5	13.5	6.0	73.0	9.3	0.3	38.8	<0.05	0.036	516	0.7	3.07	0.93	0.59	0.42
DV	G-028676B	11/4/2002	NA	800	7	437	332	134	24.7	13.8	7.0	74.3	9.5	0.3	37.2	<0.05	<0.01	488	3.6	3.34	1.02	0.60	0.41
DV	G-028676B	1/9/2003	NA	804	7.2	455	342	140	25.4	13.4	7.0	73.8	9.1	0.3	37.6	<0.05	<0.01	480	4.2	3.49	1.04	0.58	0.39
DV	G-028676B	5/6/2003	NA	896	7.3	422	333	129	24.2	13.2	6.0	76.3	9.8	0.4	37	<0.05	0.023	516	3.9	3.22	1.00	0.57	0.40
DV	G-028676B	7/24/2003	NA	810	7.31	452	344	136	26.7	13.8	7.5	69.0	9.0	0.3	16	<0.05	0.04	506	4.3	3.39	1.10	0.60	0.40
DV	G-028676B	10/8/2003	NA	799	7.1	441	338	133	26.0	13.7	7.4	70.0	9.0	0.3	15	<0.05	0.03	548	4.6	3.32	1.07	0.60	0.40
DV	G-028676B	7/28/2004	NA	880	7.1	421	329	126	25.5	14.1	7.0	65.1	8.6	0.3	39.5	<0.05	0.057	500	3.7	3.14	1.05	0.61	0.42
DV	G-028676B	4/12/2005	NA	814	7.2	440	232	134	25.6	13.8	7.0	74.3	9.0	0.3	40.2	<0.05	0.017	476	4.1	3.34	1.05	0.60	0.40
DV	G-028676B	11/1/2005	NA	792	7.15	439	344	133	26.0	14.1	6.7	59.0	7.0	0.6	19	<0.05	0.03	448	3.8	3.32	1.07	0.61	0.41
DV	G-028676B	4/25/2006	NA	800	7.3	460	352	139	27.3	14.4	7.2	78.0	10.0	0.3	16	<0.05	0.01	530	3.7	3.47	1.12	0.63	0.41
DV	G-028676B	10/16/2006	NA	753	7.77	445	335	135	26.2	13.8	6.5	71.0	9.0	0.3	17	<0.05	0.03	482	3.6	3.37	1.08	0.60	0.40
DV	G-028676B	4/27/2007	NA	793	7.72	296	349	138.46	27.6	17.4	7.4	74.0	9.0	0.3	18.76	0.01	<0.01	510	3.9	3.45	1.13	0.76	0.50
DV	G-028676B	9/4/2007	NA	824	7.88	389	342	117.4	23.6	12.1	6.5	75.0	9.0	0.3	15.49	<0.05	0.02	474	3.5	2.93	0.97	0.52	0.38
DV	G-028676B	5/14/2008	NA	742	7.57	396	343	119.91	23.5	13.2	5.9	78.0	10.0	0.4	15.37	<0.05	0.02	518	3.2	2.99	0.97	0.58	0.41
DV	G-028676B	12/10/2008	NA	798	7.41	380	339	113.81	23.1	13.6	6.6	76.0	10.0	0.3	14.18	<0.05	<0.01	524	3.1	2.84	0.95	0.59	0.43
DV	G-028676B	5/12/2009	NA	762	7.2	393	349	121.2	22.1	13.6	6.1	78.0	9.0	0.3	15.08	<0.05	0.01	526	2.3	3.02	0.91	0.59	0.42
DV	G-028676B	11/5/2009	NA	813	7.32	397	335	119.93	23.6	13.5	6.6	72.0	8.0	0.3	16.34	<0.05	0.01	494	2.5	2.99	0.97	0.59	0.42
DV	G-028676B	5/26/2010	NA	799	7.17	408	349	124.82	23.4	13.3	6.9	75.0	9.0	0.3	15.2	<0.05	<0.01	496	2.3	3.11	0.96	0.58	0.41
DV	G-028676B	11/9/2010	NA	754	7.26	403	347	123.34	23.0	13.1	6.3	72.0	8.0	0.3	16.16	<0.05	<0.01	422	2.5	3.08	0.94	0.57	0.40
DV	G-028676B	6/8/2011	NA	790	7.15	396	348	119.85	23.4	13.0	6.5	74.0	9.0	0.3	16.37	<0.05	<0.01	500	2.4	2.99	0.96	0.57	0.40
DV	G-028676B	11/1/2011	NA	702	7.27	352	309	107.24	20.5	14.7	6.4	59.0	9.0	1.2	21.6	<0.05	<0.01	464	<0.2	2.68	0.84	0.64	0.48
DV	G-028676B	5/23/2012	NA	832	7.16	408.1	351	123.8	24.0	13.0	6.5	76.5	9.9	0.3	16.36	<0.05	0.03	516	2.7	3.09	0.99	0.57	0.40
DV	G-028676B	12/3/2012	NA	779	7.21	404.8	345	123.3	23.5	13.0	6.7	72.0	8.6	0.3	17.59	<0.05	<0.01	430	2.37	3.08	0.97	0.57	0.40
DV	G-028676B	5/23/2013	NA	828	7.32	427.4	352	131	24.4	13.9	6.9	74.0	9.3	0.3	16.61	<0.05	0.03	488	2.79	3.27	1.00	0.61	0.41
DV	G-028676B	10/1/2013	NA	757	7.22	405.6	344	123.1	23.8	13.4	6.7	68.5	7.5	0.3	16.07	<0.05	0.01	494	2.28	3.07	0.98	0.58	0.41
DV	G-033528	7/25/1995	120	870	7.1	410	368	120	27.0	23.0	7.7	96.0	6.5	0.3	38	0.3	0.72	541	0.28	2.99	1.11	1.00	0.70
DV	G-033528	7/18/1997	120	762	7.4	380	400	240	34.0	12.0	9.1	120.0	6.6	0.4	1.1	0.7	0.69	600	0.3	5.99	1.40	0.52	0.27
DV	G-033528	8/30/1999	120	888	7.72	443	368	125	31.4	32.6	10.4	121.0	9.0	0.3	16	<0.05	0.61	473	1.7	3.12	1.29	1.42	0.95
DV	G-033528	7/27/2000	120	861	7.28	480	378	138	32.4	31.8	9.8	112.0	8.0	0.4	16	0.1	0.63	568	1.7	3.44	1.33	1.38	0.90
DV	G-033528	7/18/2001	120	935	7.33	444	333	124	32.0	38.4	11.0	121.0	10.0	0.4	17	<0.05	0.6	632	2.9	3.09	1.32	1.67	1.12
DV	G-033528	6/28/2002	120	968	7.2	440	384	130	27.9	31.1	9.0	21.9	9.1	0.3	31.5	0.211	0.662	600	0.8	3.24	1.15	1.35	0.91
DV	G-033528	7/15/2003	120	906	7.34	183	376	50	13.6	264.0	8.3	114.0	10.0	0.5	12	<0.05	0.14	488	1.4	1.25	0.56	11.48	12.08
DV	G-033528	8/11/2004	120	979	7.3	458	367	130	32.4	36.2	11.0	141.0	11.5	0.3	35.8	0.165	0.627	532	2.5	3.24	1.33	1.57	1.04
DV	G-033528	7/13/2005	120	916	7.42	468	332	135	31.7	33.0	11.3	111.0	10.0	0.5	17	<0.05	0.65	544	1.8	3.37	1.30	1.44	0.94
DV	G-033528	7/5/2006	120	866	7.66	472	364	137	31.5	29.5	10.6	88.0	8.0	0.1	17	<0.05	0.67	662	1.2	3.42	1.30	1.28	0.84
DV	G-033528	7/17/2007	120	716	7.83	423	366	121	29.4	28.0	10.0	101.0	8.0	0.4	16	<0.05	0.62	520	1.3	3.02	1.21	1.22	0.84
DV	G-033528	7/30/2008	120	828	7.45	404	361	119.18	25.8	24.5	9.2	95.0	8.0	0.6	15.2	<0.05	0.61	516	0.5	2.97	1.06	1.07	0.75
DV	G-033528	7/22/2009	120	868	7.44	400	359	114.95	27.4	31.0	9.7	101.0	8.0	0.3	14.87	<0.05	0.58	578	2.6	2.87	1.13	1.35	0.96
DV	G-033528	7/25/2011	120	877	7.33	393	364	112.21	27.6	28.9	10.5	96.0	9.0	0.3	15.08	<0.05	0.42	566	1.4	2.80	1.13	1.26	0.90
DV	G-035717	8/14/1995	91	754	7.5	360	303	110	21.0	14.0	8.8	60.0	7.6	0.3	35	0.005	0.57	446	1.6	2.74	0.86	0.61	0.45
DV	G-035717	7/17/1997	91	650	6.9	340	340	260	24.0	7.0	8.7	71.0	8.7	0.4	7	0.8	0.6	510	<0.2	6.49	0.99	0.30	0.16
DV	G-035717	8/3/2000	91	707	7.36	401	328	121	23.5	14.7	8.0	57.0	9.0	0.2	19	<0.05	0.6	447	1	3.02	0.97	0.64	0.45
DV	G-035717	7/31/2001	91	743	7.24	436	287	131	25.8	16.3	9.3	59.0	11.0	0.4	19	<0.05	0.67	477	1.2	3.27	1.06	0.71	0.48
DV	G-035717	7/8/2002	91	747	7.3	342	339	104	19.8	14.5	8.0	59.8	9.1	0.3	41.5	<0.05	0.642	440	0.3	2.59	0.81	0.63	0.48
DV	G-035717	7/8/2003	91	736	7.53	413	320	126	23.3	15.1	9.0	61.0	10.0	0.2	17	<0.05	0.61	484	0.3	3.14	0.96	0.66	0.46
DV	G-035717	7/19/2004	91	795	6.9	379	331	115	22.8	14.2	10.0	60.1	10.4	0.3	38.6	0.036	0.679	436	<0.2	2.87	0.94	0.62	0.45
DV	G-035717	7/13/2005	91	744	7.51	413	286	127	23.3	14.5	9.2	61.0	11.0	0.4	18	<0.05	0.4	428	0.7	3.17	0.96	0.63	0.44
DV	G-035717	6/26/2006	91	711	7.62	403	349	124	22.6	14.5	9.1	57.0	11.0	0.3	17	<0.05	0.71	432	0.3	3.09	0.93	0.63	0.44
DV	G-035717	7/5/2007	91	735	8.28	349	323	106.43	20.4	13.6	8.5	62.0	13.0	0.3	15.78	<0.05	0.58	436	0.4	2.66	0.84	0.59	0.45
DV	G-035717	7/7/2009	91	695	7.32	339	312	103.34	19.6	15.8	8.3	63.0	18.0	0.3	16.34	<0.05	0.5	446	16.1	2.58	0.81	0.69	0.53
DV	G-047651	8/23/1994	365	830	7.3	390	332	110	25.0	20.0	8.1	100.0	5.9	0.4	49	0.006	0.067	530	1.9	2.74	1.19	0.87	0.62
DV	G-047651	7/27/1995	365	825	7.1	390	261	110	29.0	20.0	7.5	97.0	5.5	0.4	47	<0.05	0.24	480	1.5	2.74	1.19	0.87	0.62
DV	G-047651	8/27/1997	365	710	6.9	370	330	190	60.0	11.0	8.3	81.0	5.5	0.3	5.1	0.35	0.22	29	1.5	4.74	2.47	0.48	0.25
DV	G-047651	8/4/1999	365	795	7.4	432	324	120	33.9	22.1	8.1	101.0	6.0	0.4	23	<0.05	0.2	650	1.6	2.99	1.39	0.96	0.65
DV	G-047651	7/27/2000	365	759	7.19	433	329	121	31.4	20.8	7.5	95.0	6.0	0.4	23	NA	0.3	545	1.4	3.02	1.29	0.90	0.62
DV	G-047651	8/8/2001	365	810	7.44	437	295	118	33.7	21.4	8.4	97.0	6.0	0.2	23	<0.05	0.3	628	1.4	2.94	1.39	0.93	0.63
DV	G-047651	7/8/2002	365	811	7.2	352	337	101	24.2	20.5	8.0	19.0	6.1	0.3	51.4	<0.05	0.269	504	0.9	2.52	1.00	0.89	0.67
DV	G-047651	7/8/2003	365	800	7.28	450	327	127	31.9	20.4	8.0	106.0	6.0	0.3	22	<0.05	0.05	594	1.5	3.17	1.31	0.89	0.59
DV	G-047915	7/16/1984	83	NA	7	368	340	99	NA	20.0	NA	36.0	16.0	0.37	NA	0.4	1.4	514	0.1	2.47	#VALUE!	0.87	#VALUE!
DV	G-047915	7/25/1995	83	510	7.3	320	315	94	21.0	16.0	7.0	44.0	3.5	0.3	35	0.068	0.85	411	0.19	2.35	0.86	0.70	0.55
DV	G-047915	7/21/1998	83	614	7.2	328	331	107	21.0	4.0	5.5	38.0	2.6	0.5	NA	NA	NA	481	1.8	2.67	0.86	0.17	0.13
DV	G-048577	7/27/1984	135	NA	7.3	228	172	50	NA	20.0	NA	34.0	6.0	0.29	NA	<0.05	<0.01	442	7.4	1.25	#VALUE!	0.87	#VALUE!
DV	G-048577	8/26/1994	135	441	6.9	170	174	46	13.0	21.0	3.7	18.0	2.0	0.3	49	0.008	0.002	290	1.6	1.15	0.53	0.91	1.00
DV	G-048577	8/2/2007	135	447	7.54	176	181	48.7	13.0	23.2	3.2	17.0	2.0	0.2	22.25	<0.05	<0.01	278	7	1.22	0.53	1.01	1.08
DV	G-048577	7/7/2009	135	452	7.36	196	206	54.44	14.9	22.2	4.3	25.0	2.0	0.3	20.28	<0.05	<0.01	314	0.6	1.36	0.61	0.96	0.97
DV	G-048577	7/20/2011	135	482	7.4	205	226	58.83	14.0	21.4	5.5	27.0	3.0	0.3	19.86	<0.05	<0.01	318	2.3	1.47	0.58	0.93	0.92
DV	G-055048	8/29/1994	235	399	7	150	183	45	9.4	20.0	4.4	7.2	2.4	0.3	50	0.02	0.001	262	3.2	2.00	#VALUE!	0.70	#VALUE!
DV	G-055048	8/15/1995	235	632	7.1	290	271	88	18.0	19.0	5.4	66.0	2.5	0.2	46	3	0.021	412	3.1	1.12	0.39	0.87	1.00
DV	G-055048	7/18/1997	235	653	7.4	260	270	160	18.0	9.0	6.0	60.0	1.9	0.4	5.7	0.2	<0.01	460	1.2	2.20	0.74	0.83	0.68
DV	G-055048	9/2/1999	235	589	7.36	301	248	87	20.0	22.1	6.1	57.0	3.0	0.2	24	<0.05	<0.01	413	2.4	3.99	0.74	0.39	0.25
DV	G-055048	8/3/2000	235	615	7.17	327	270	97	20.2	20.4	5.8	65.0	3.0	0.2	23	<0.05	<0.01	403	2.1	2.17	0.82	0.96	0.79

Source	Site	Date	Depth, in feet	Specific conductance	pH, in	Hardness	Alkalinity as CaCO3	Calcium	Magnesium	Sodium	Potassium	Sulfate	Chloride	Fluoride	Silica	Iron	Manganese	Total dissolved solids	Nirate as N	Calcium, in millequivale nts	Magnesium, in millequivale nts	Sodium, in millequivale nts	Sodium Adsorption Ratio
OV	G-055048	7/18/2001	235	620	7.05	286	233	83	18.8	22.8	5.9	64.0	4.0	0.3	25	<0.05	<0.01	412	2.4	2.42	0.83	0.89	0.70
OV	G-055048	6/28/2002	235	651	7	298	259	91	17.1	21.3	5.0	63.6	3.4	0.2	42.3	<0.05	<0.01	448	2	2.07	0.77	0.99	0.83
OV	G-055048	7/8/2003	235	624	7.21	331	253	99	20.1	22.3	5.9	61.0	3.0	NA	21	<0.05	<0.01	342	2.5	2.27	0.70	0.93	0.76
OV	G-055048	7/19/2004	235	579	6.6	248	213	71.9	16.6	24.2	6.0	41.8	3.4	0.3	49.6	<0.05	<0.01	352	3.6	2.47	0.83	0.97	0.76
OV	G-055048	7/12/2005	235	630	7.22	327	222	98	20.0	21.0	6.0	66.0	3.0	0.3	26	<0.05	<0.01	362	2.1	1.79	0.68	1.05	0.95
OV	G-055048	6/29/2006	235	608	7.63	310	270	92	19.4	21.2	5.7	54.0	3.0	0.2	22	<0.05	<0.01	384	2.5	2.45	0.82	0.91	0.71
OV	G-055048	7/5/2007	235	506	8.06	199	207	58.28	13.1	21.1	5.1	31.0	3.0	0.3	21.63	<0.05	<0.01	316	6.1	2.30	0.80	0.92	0.74
OV	G-055048	7/28/2009	235	664	7.21	278	262	83	17.3	21.0	5.3	65.0	3.0	0.3	19.84	<0.05	<0.01	408	2	1.45	0.54	0.92	0.92
OV	G-055048	7/27/2011	235	619	7.15	255	248	75.27	16.5	21.7	5.6	56.0	3.0	0.3	19.55	<0.05	<0.01	394	3.4	2.07	0.71	0.91	0.77
OV	G-060001	7/16/2004	245	982	6.8	455	372	124	35.2	30.9	9.0	124.0	5.8	0.3	48.9	<0.05	0.096	564	<0.2	1.88	0.68	0.94	0.83
OV	G-060001	7/13/2005	245	881	7.44	476	297	141	30.1	23.7	7.9	112.0	5.0	0.4	25	<0.05	<0.01	542	1.7	3.09	1.45	1.34	0.89
OV	G-060001	6/20/2006	245	860	7.77	481	394	142	30.7	24.5	8.1	109.0	6.0	0.3	24	<0.05	<0.01	610	1.5	3.52	1.24	1.03	0.67
OV	G-060001	7/23/2007	245	873	8.37	422	348	124.81	26.8	16.3	7.7	113.0	4.0	0.3	22.93	<0.05	<0.01	552	4.2	3.54	1.26	1.07	0.69
OV	G-060001	7/30/2008	245	887	7.4	425	372	120.26	30.2	28.8	8.3	125.0	6.0	0.4	19.73	0.02	0.02	596	0.2	3.11	1.10	0.71	0.49
OV	G-060001	7/22/2009	245	879	7.27	427	368	124.35	28.3	28.8	7.7	116.0	5.0	0.3	21.14	<0.05	<0.01	614	0.8	3.00	1.24	1.25	0.86
OV	G-060001	8/2/2011	245	781	7.6	404	376	116.17	27.8	26.7	7.9	110.0	5.0	0.3	20.68	<0.05	0.01	586	0.4	3.10	1.16	1.25	0.86
OV	G-067893	7/24/1995	191	781	7.3	350	282	100	25.0	15.0	9.0	69.0	6.5	0.3	35	0.17	0.38	432	0.65	2.90	1.14	1.16	0.82
OV	G-067893	7/29/1997	191	731	7.2	360	360	220	33.0	8.0	9.6	60.0	6.7	0.4	0.35	0.6	0.41	460	0.3	2.50	1.03	0.65	0.49
OV	G-067893	7/21/1998	191	677	7.4	376	354	122	21.0	4.0	6.7	54.0	6.0	0.4	NA	NA	NA	601	2.1	5.49	1.36	0.35	0.19
OV	G-067893	8/30/1999	191	771	7.75	413	348	117	28.6	16.5	9.4	71.0	7.0	0.1	17	<0.05	0.4	438	<0.2	3.04	0.86	0.17	0.12
OV	G-067893	8/9/2000	191	829	7.33	503	345	146	33.3	18.6	8.7	107.0	8.0	0.5	19	0.16	0.31	653	8.3	2.92	1.18	0.72	0.50
OV	G-067893	7/18/2001	191	851	7.27	425	303	121	29.6	19.8	9.1	100.0	9.0	0.3	20	<0.05	0.33	547	4.9	3.64	1.37	0.81	0.51
OV	G-067893	8/10/2001	191	928	7.58	519	303	147	36.6	21.0	8.9	122.0	10.0	0.2	19	0.01	0.3	682	9.5	3.02	1.22	0.86	0.59
OV	G-067893	6/28/2002	191	959	7.1	459	322	137	28.2	17.8	6.0	23.8	9.2	0.3	36	0.162	0.317	620	6.4	3.67	1.51	0.91	0.57
OV	G-067893	7/23/2002	191	940	7.2	430	328	127	27.2	16.6	8.0	123.0	10.1	0.3	39.8	0.143	0.247	676	7.6	3.42	1.16	0.77	0.51
OV	G-067893	8/12/2003	191	888	7.28	505	330	148	32.5	19.0	9.0	114.0	9.0	0.4	20	<0.05	0.27	656	7.6	3.17	1.12	0.72	0.49
OV	G-067893	8/3/2004	191	888	7.3	443	322	128	30.2	18.0	9.0	107.0	13.5	0.4	43	0.168	0.27	552	8.3	3.69	1.34	0.83	0.52
OV	G-067893	7/6/2005	191	811	7.61	450	342	130	30.4	18.1	9.1	83.0	7.0	0.3	18	<0.05	0.33	454	0.3	3.19	1.24	0.78	0.53
OV	G-067893	7/12/2006	191	842	7.84	458	333	133	30.6	17.3	9.5	85.0	12.0	0.2	20	<0.05	0.26	524	7.4	3.24	1.25	0.79	0.53
OV	G-067893	7/17/2007	191	716	7.98	381	346	109.89	25.9	15.0	8.7	81.0	6.0	0.4	15.78	<0.05	0.26	494	2	3.32	1.26	0.75	0.50
OV	G-067893	8/7/2009	191	867	7.32	407	329	118.95	26.8	18.0	8.2	90.0	8.0	0.3	18.5	<0.05	0.21	562	5.6	2.74	1.06	0.65	0.47
OV	G-070473	7/16/2004	400	677	7	310	264	79.8	26.8	19.0	7.0	66.7	6.1	0.4	45.5	1.45	0.172	396	0.7	2.97	1.10	0.78	0.55
OV	G-070473	10/14/2004	400	639	7.1	322	298	81.1	29.0	17.6	7.0	45.6	6.4	0.4	56.9	0.602	0.122	416	1	1.99	1.10	0.83	0.66
OV	G-070473	1/14/2005	400	649	7.3	300	277	79.2	24.7	16.5	6.0	37.3	4.8	0.4	52.6	0.312	0.097	428	0.7	2.02	1.19	0.77	0.60
OV	G-070473	4/26/2005	400	584	7.3	273	259	73	21.9	15.3	6.0	39.3	6.2	0.4	49.2	0.194	0.085	332	0.3	1.98	1.02	0.72	0.59
OV	G-070473	7/6/2005	400	582	7.71	302	258	80	24.9	18.2	7.0	37.0	5.0	0.3	23	<0.05	0.07	316	0.4	1.82	0.90	0.67	0.57
OV	G-070473	10/28/2005	400	648	7.61	350	297	92	29.2	17.7	7.6	47.0	6.0	0.6	30	<0.05	0.08	290	1.1	2.00	1.02	0.79	0.64
OV	G-070473	1/18/2006	400	604	8.01	319	288	80	28.9	18.5	7.7	42.0	5.0	0.7	27	0.01	0.04	364	<0.2	2.30	1.20	0.77	0.58
OV	G-070473	4/19/2006	400	561	7.43	302	261	81	24.1	17.0	7.0	39.0	5.0	0.3	25	<0.05	0.06	400	0.4	2.00	1.19	0.80	0.64
OV	G-070473	7/20/2006	400	637	8.36	315	281	81	27.3	17.7	7.8	44.0	6.0	0.2	25	<0.05	0.06	388	1	2.02	0.99	0.74	0.60
OV	G-070473	6/20/2007	400	565	7.88	285	264	77.01	22.5	15.6	6.7	39.0	6.0	0.5	24.8	<0.05	0.06	344	0.4	2.02	1.12	0.77	0.61
OV	G-070473	6/10/2008	400	583	8	262	261	71.14	20.6	15.7	6.0	39.0	5.0	0.2	18.89	<0.05	0.06	346	0.3	1.92	0.92	0.68	0.57
OV	G-070473	9/15/2009	400	585	7.71	248	259	57.68	25.2	17.1	7.2	35.0	5.0	0.3	17.37	0.01	0.06	320	<0.2	1.77	0.85	0.68	0.60
OV	G-070473	6/30/2011	400	469	7.76	204	245	38.45	26.2	17.5	7.0	12.0	6.0	0.4	15.21	0.13	0.15	278	<0.2	1.44	1.04	0.74	0.67
OV	G-070473	6/30/2011	400	572	7.82	265	275	68.97	22.7	16.1	6.6	34.0	6.0	0.4	21.25	0.04	0.05	366	10.1	0.96	1.08	0.76	0.76
OV	G-070766	3/24/1988	319	NA	7.8	252	284	91	NA	17.0	NA	54.0	6.0	0.28	NA	0.8	0.5	376	<0.2	1.72	0.93	0.70	0.61
OV	G-070766	11/6/2001	319	579	7.42	335	260	103	18.4	18.9	6.2	48.0	6.0	0.2	20	<0.05	0.49	412	<0.2	2.27	#VALUE!	0.74	#VALUE!
OV	G-070766	1/10/2002	319	589	7.52	309	245	94	17.5	16.8	6.7	48.0	6.0	0.2	19	<0.05	0.49	470	<0.2	2.57	0.76	0.82	0.64
OV	G-070766	4/10/2002	319	578	7.77	330	250	102	17.9	17.2	6.2	51.0	5.0	0.1	21	<0.05	0.49	435	<0.2	2.35	0.72	0.73	0.59
OV	G-070766	7/23/2002	319	622	7.1	287	269	89.6	15.2	15.5	6.0	59.1	5.4	0.2	41.6	0.133	0.491	404	<0.2	2.54	0.74	0.75	0.58
OV	G-070766	10/22/2002	319	681	7.2	241	274	73.7	13.7	13.2	5.0	59.9	5.6	0.2	37.5	0.111	0.419	400	<0.2	2.24	0.63	0.67	0.56
OV	G-070766	1/8/2003	319	610	7.2	316	273	100	16.0	16.4	6.0	48.5	5.3	0.2	39.4	0.112	0.524	328	<0.2	1.84	0.56	0.57	0.52
OV	G-070766	5/1/2003	319	640	7.3	287	263	89.6	15.3	16.0	6.0	50.9	5.8	0.3	43.8	0.151	0.515	396	<0.2	2.50	0.66	0.71	0.57
OV	G-070766	7/24/2003	319	616	7.31	324	274	101	17.4	16.8	6.7	51.0	5.0	NA	18	<0.05	0.49	374	<0.2	2.24	0.63	0.70	0.58
OV	G-070766	10/1/2004	319	709	7	326	272	100	18.4	18.3	7.0	74.5	5.7	0.4	44.7	0.036	0.49	428	<0.2	2.52	0.72	0.73	0.57
OV	G-070766	7/28/2005	319	668	7.29	350	277	108	19.4	17.6	6.9	73.0	4.0	0.2	20	<0.05	0.58	418	<0.2	2.50	0.76	0.80	0.62
OV	G-070766	7/20/2006	319	687	8.27	343	283	105	19.6	18.0	7.6	72.0	5.0	0.3	21	<0.05	0.57	422	<0.2	2.69	0.80	0.77	0.58
OV	G-070766	7/20/2007	319	623	8.37	290	265	89.81	15.8	15.4	6.3	51.0	6.0	0.3	17.1	<0.05	0.48	372	<0.2	2.62	0.81	0.78	0.60
OV	G-070766	6/11/2008	319	645	7.71	230	264	65.96	15.8	46.6	3.0	33.0	6.0	0.3	11.73	<0.05	<0.01	370	7.2	2.24	0.65	0.67	0.56
OV	G-070766	9/9/2009	319	663	7.39	327	275	101.58	17.8	17.1	6.8	74.0	5.0	0.3	17.75	<0.05	0.5	426	<0.2	1.65	0.65	2.03	1.89
OV	G-070766	9/21/2011	319	584	7.65	285	269	89.53	14.7	16.6	6.5	50.0	5.0	0.2	18.47	<0.05	0.47	392	<0.2	2.53	0.73	0.74	0.58
OV	G-071040	7/11/2005	328	743	7.53	401	282	118	25.9	20.5	7.5	84.0	5.0	0.3	24	<0.05	0.43	432	<0.2	2.23	0.60	0.72	0.60
OV	G-071040	7/19/2006	328	759	8.36	390	318	114	25.6	20.0	8.2	82.0	5.0	0.3	21	<0.05	0.44	482	<0.2	2.94	1.07	0.89	0.63
OV	G-071040	7/2/2007	328	719	7.99	342	311	100.39	22.3	17.1	7.4	78.0	5.0	0.4	19.22	0.01	0.37	466	<0.2	2.84	1.05	0.87	0.62
OV	G-071040	8/6/2008	328	723	7.69	337	305	99.74	21.3	18.1	6.2	82.0	6.0	0.3	16.31	<0.05	0.39	456	<0.2	2.50	0.92	0.74	0.57
OV	G-071040	7/7/2009	328	684	7.42	358	304	104.59	23.4	20.4	7.4	81.0	5.0	0.3	18.96	<0.05	0.37	468	<0.2	2.49	0.88	0.79	0.61
OV	G-071040	7/18/2011	328	694	7.29	NA	314	94.23	21.8	19.2	7.3	82.0	5.0	NA	NA	0.24	0.37	458	<0.2	2.61	0.96	0.89	0.66
OV	G-097146	7/6/1998	150	688	7.4	360	280	94	25.0	4.5	6.7	120.0	8.6	0.5	NA	NA	NA	500	4.6	2.35	0.90	0.83	0.65
OV	G-097146	6/30/1999	150	823	7.61	440	298	124	31.4	16.8	8.7	103.0	10.0	0.3	26	<0.05	0.24	553	9	2.35	1.03	0.20	0.15
OV	G-097146	11/3/1999	150	846	7.32	468	302	132	32.9	17.8	8.7	110.0	8.0	0.3	27	<0.05	0.18	585	9.9	3.09	1.29	0.73	0.49
OV	G-097146	1/13/2000	150	857	7.85	463	307	130	33.0	17.5	8.0	112.0	8.0	NA	25	<0.05	0.18	590	11	3.29	1.35	0.77	0.51
OV	G-097146	4/26/2000	150	862	7.94	511	314	147	34.2	18.0	9.0	117.0	11.0	0.4	25	<0.05	0.19	587	12.7	3.24	1.36	0.76	0.50
OV	G-097146	4/26/2000	150	867	7.92	508	316	146	34.3	18.1	8.6	117.0	11.0	0.4	25	<0.05	0.19	585	13.9	3.67	1.41	0.78	0.49
OV	G-097146	7/13/2000	150	880	7.5	550	314	160	36.2	18.6	9.4	125.0	13.0	0.5	34	<0.05	0.19	685	15.4	3.64	1.41	0.79	0.50
OV	G-097146	10/3/2000	150	833	7.47	469	322	134	32.0	16.9	8.5	112.0	11.0	0.5	26	<0.05	0.18	588	12.6	3.99	1.49	0.81	0.49
OV	G-097146	1/22/2001	150	819	7.3	477	305	136	32.8	17.7	8.2	112.0	11.0	0.4	27	<0.05	0.17	598	13	3.34	1.32	0.74	0.48
OV	G-097146	4/9/2001	150	791	8.19	438	312	125	29.9	16.7	9.3	109.0	10.0	0.4	27	<0.05	0.12	590	11.6	3.39	1.35	0.77	0.50

Source	Site	Date	Depth, in feet	Specific conductance	pH, in	Hardness	Alkalinity as CaCO3	Calcium	Magnesium	Sodium	Potassium	Sulfate	Chloride	Fluoride	Silica	Iron	Manganese	Total dissolved solids	Nirate as N	Calcium, in millequivalents	Magnesium, in millequivalents	Sodium, in millequivalents	Sodium Adsorption Ratio
DV	G-097146	7/11/2001	150	852	7.27	442	312	126	30.2	18.4	8.2	113.0	10.0	0.3	26	<0.05	0.23	607	10.2	3.12	1.23	0.73	0.49
DV	G-097146	10/30/2001	150	736	7.32	447	234	125	32.3	18.0	8.5	101.0	9.0	0.2	27	<0.05	0.13	535	7.5	3.14	1.24	0.80	0.54
DV	G-097146	1/10/2002	150	801	7.39	435	276	123	30.8	17.6	9.3	101.0	9.0	0.4	27	<0.05	0.14	622	10.5	3.12	1.33	0.78	0.53
DV	G-097146	4/15/2002	150	859	7.82	478	269	138	31.4	18.1	8.6	103.0	9.0	0.2	29	<0.05	0.12	578	8.9	3.07	1.27	0.77	0.52
DV	G-097146	7/23/2002	150	796	7.1	378	289	110	24.9	15.6	8.0	93.8	8.3	0.3	54.8	<0.05	0.086	560	6.9	3.44	1.29	0.79	0.51
DV	G-097146	11/4/2002	150	753	6.9	390	298	114	25.6	16.7	8.0	86.4	7.5	0.3	55	<0.05	0.125	528	4.8	2.74	1.02	0.68	0.49
DV	G-097146	1/9/2003	150	762	7.3	393	289	115	25.7	15.4	8.0	88.9	7.0	0.3	55	<0.05	0.11	368	6	2.84	1.05	0.73	0.52
DV	G-097146	5/6/2003	150	846	7.2	383	292	111	25.7	16.2	7.0	94.4	8.5	0.3	58.8	<0.05	0.128	520	5.4	2.87	1.06	0.67	0.48
DV	G-097146	7/24/2003	150	796	7.31	424	302	122	28.7	16.9	8.4	91.0	8.0	0.3	24	<0.05	0.12	554	6.2	2.77	1.06	0.70	0.51
DV	G-097146	10/7/2003	150	750	7.16	405	297	116	27.4	16.6	8.9	87.0	7.0	0.3	23	<0.05	0.09	476	5.5	3.04	1.18	0.74	0.51
DV	G-097146	8/3/2004	150	792	7.3	397	292	114	27.4	17.0	8.0	99.3	8.8	0.4	58.6	<0.05	0.094	508	6.2	2.89	1.13	0.72	0.51
DV	G-097146	4/25/2005	150	812	7.2	383	288	111	25.7	15.6	7.0	107.0	8.1	0.3	50.4	<0.05	0.096	508	6.7	2.84	1.13	0.74	0.52
DV	G-097146	10/29/2005	150	780	7.43	422	302	122	28.6	17.1	8.0	91.0	8.0	0.7	29	<0.05	0.08	398	7	2.77	1.06	0.68	0.49
DV	G-097146	4/25/2006	150	805	7.38	446	303	128	30.8	17.7	8.8	105.0	10.0	0.3	24	<0.05	0.1	536	9.3	3.04	1.18	0.74	0.51
DV	G-097146	10/19/2006	150	743	7.92	410	297	118	28.1	16.8	8.5	92.0	8.0	0.3	26	<0.05	<0.01	528	6.8	3.19	1.27	0.77	0.52
DV	G-097146	5/1/2007	150	813	7.72	396	301	118	28.8	16.6	8.2	102.0	10.0	0.3	25.13	<0.05	0.01	532	10.2	2.94	1.16	0.73	0.51
DV	G-097146	7/27/2007	150	880	8.12	389	298	111.04	27.1	14.7	8.3	103.0	11.0	0.3	24.28	<0.05	0.06	580	11.4	2.94	1.19	0.72	0.50
DV	G-097146	5/14/2008	150	749	7.22	430	294	124.26	29.3	17.7	6.7	83.0	11.0	0.1	24.71	0.02	0.15	584	11.9	2.77	1.11	0.64	0.46
DV	G-097146	9/10/2008	150	862	7.38	402	297	114.53	27.9	18.0	8.5	103.0	12.0	0.3	21.43	<0.05	0.15	620	16	3.10	1.20	0.77	0.52
DV	G-097146	5/12/2009	150	878	7.22	442	311	129.69	28.4	17.1	7.7	115.0	16.0	0.3	23.3	<0.05	0.23	682	13.5	2.86	1.15	0.78	0.55
DV	G-097146	11/5/2009	150	970	7.39	444	308	128.31	30.2	17.1	8.1	107.0	17.0	0.3	23.71	<0.05	0.17	620	16.4	3.24	1.17	0.75	0.50
DV	G-097146	5/26/2010	150	934	7.21	464	309	134.79	30.8	17.1	8.6	105.0	18.0	0.3	22.17	<0.05	0.22	572	16.2	3.20	1.24	0.74	0.50
DV	G-097146	11/9/2010	150	876	7.25	452	316	132.17	29.5	16.8	7.8	104.0	18.0	0.3	23.89	<0.05	0.21	546	8.5	3.36	1.27	0.74	0.49
DV	G-097146	6/8/2011	150	876	7.2	450	308	130.17	30.5	17.3	8.3	97.0	18.0	0.3	25.48	0.02	0.25	596	14.8	3.30	1.21	0.73	0.49
DV	G-097146	11/1/2011	150	790	7.24	357	314	107.53	21.1	12.4	5.7	64.0	19.0	0.3	19.86	<0.05	<0.01	522	11.2	3.25	1.26	0.75	0.50
DV	G-097146	5/23/2012	150	962	7.26	458	318	131.6	31.4	16.6	8.4	95.5	21.4	0.3	24.78	<0.05	0.31	612	15.1	2.68	0.87	0.54	0.40
DV	G-097146	12/3/2012	150	923	7.24	481.4	322	139.3	32.4	17.2	8.6	102.0	20.7	0.3	26.64	<0.05	0.31	552	16.4	3.28	1.29	0.72	0.48
DV	G-097146	5/23/2013	150	962	7.26	467	319	136	30.9	16.9	8.5	100.0	21.8	0.4	24.58	<0.05	0.3	592	15.4	3.48	1.33	0.75	0.48
DV	G-097146	10/1/2013	150	894	7.24	459.8	316	132.7	31.2	16.7	8.3	99.0	21.4	0.3	23.28	<0.05	0.28	632	15.7	3.39	1.27	0.74	0.48
DV	G-097147	7/6/1998	112	684	7.3	380	310	100	22.0	3.8	4.1	62.0	10.0	0.44	NA	NA	NA	420	8.9	3.31	1.28	0.73	0.48
DV	G-097147	7/14/1999	112	762	7.53	424	326	128	24.8	12.3	5.4	36.0	11.0	0.2	18	<0.05	<0.01	523	9.4	2.50	0.91	0.17	0.13
DV	G-097147	11/3/1999	112	767	7.6	420	324	126	25.6	12.8	5.5	41.0	11.0	0.3	20	<0.05	<0.01	503	9.6	3.19	1.02	0.54	0.37
DV	G-097147	1/13/2000	112	774	7.82	422	328	125	26.2	13.0	5.6	40.0	11.0	NA	17	<0.05	<0.01	487	12.1	3.14	1.05	0.56	0.38
DV	G-097147	4/26/2000	112	764	7.95	457	324	139	26.2	13.0	5.5	39.0	14.0	0.3	17	<0.05	<0.01	482	13.3	3.12	1.08	0.57	0.39
DV	G-097147	4/26/2000	112	763	7.9	462	328	140	26.5	13.0	5.6	38.0	14.0	0.3	17	<0.05	<0.01	470	12.7	3.47	1.08	0.57	0.38
DV	G-097147	7/13/2000	112	769	7.51	470	329	143	26.6	12.9	5.9	64.0	14.0	0.4	22	<0.05	<0.01	532	6.7	3.49	1.09	0.57	0.37
DV	G-097147	10/3/2000	112	1040	7.19	620	413	186	36.9	15.5	6.1	106.0	23.0	0.7	18	<0.05	<0.01	730	20.1	3.57	1.09	0.56	0.37
DV	G-097147	1/22/2001	112	888	7.25	538	366	161	32.3	14.8	6.2	110.0	18.0	0.4	18	<0.05	<0.01	673	7.7	4.64	1.52	0.67	0.38
DV	G-097147	4/9/2001	112	926	8.16	517	375	156	30.7	14.3	6.9	103.0	19.0	0.4	18	<0.05	<0.01	647	14	4.02	1.33	0.64	0.39
DV	G-097147	7/11/2001	112	882	7.21	458	352	138	27.4	15.1	5.5	97.0	16.0	0.3	18	<0.05	<0.01	603	5.2	3.89	1.26	0.62	0.39
DV	G-097147	10/30/2001	112	939	7.29	589	360	174	37.1	17.4	6.7	110.0	20.0	0.3	18	<0.05	<0.01	602	10.7	3.44	1.13	0.66	0.43
DV	G-097147	1/10/2002	112	846	7.25	485	320	144	30.1	15.3	6.6	91.0	14.0	0.4	18	<0.05	<0.01	628	4.3	4.34	1.53	0.76	0.44
DV	G-097147	4/15/2002	112	925	7.71	538	319	164	30.7	15.3	6.2	96.0	15.0	0.3	19	NA	<0.01	542	4.1	3.59	1.24	0.67	0.43
DV	G-097147	7/23/2002	112	1040	7.1	511	340	157	28.8	14.8	7.0	102.0	18.5	0.3	36	<0.05	<0.01	700	13	4.09	1.26	0.67	0.41
DV	G-097147	11/4/2002	112	995	7	545	377	167	30.8	16.4	7.0	107.0	17.6	0.3	34.7	<0.05	<0.01	576	7.1	3.92	1.18	0.64	0.40
DV	G-097147	1/9/2003	112	919	7.2	493	362	151	28.0	14.9	7.0	97.0	15.4	0.3	34.3	<0.05	<0.01	520	7.3	4.17	1.27	0.71	0.43
DV	G-097147	5/6/2003	112	965	7.2	482	370	147	27.8	14.4	6.0	96.9	16.7	0.3	35.5	<0.05	<0.01	570	5.3	3.77	1.15	0.65	0.41
DV	G-097147	7/24/2003	112	934	7.26	524	375	158	30.9	15.5	6.9	97.0	15.0	0.5	15	<0.05	<0.01	588	4.4	3.67	1.14	0.63	0.40
DV	G-097147	10/7/2003	112	979	7.24	548	375	166	32.0	16.1	7.4	114.0	17.0	0.4	14	<0.05	<0.01	626	7.1	3.94	1.27	0.67	0.42
DV	G-097147	8/5/2004	112	860	7.2	464	348	139	28.4	15.7	7.0	100.0	13.1	0.3	37	<0.05	<0.01	552	4.5	4.14	1.32	0.70	0.42
DV	G-097147	4/25/2005	112	842	7.2	415	350	126	24.2	13.2	6.0	92.0	10.4	0.4	32.5	<0.05	<0.01	484	1	3.47	1.17	0.68	0.45
DV	G-097147	10/28/2005	112	861	7.29	489	363	149	28.5	14.7	7.2	95.0	11.0	0.7	18	<0.05	<0.01	454	1.9	3.14	1.00	0.57	0.40
DV	G-097147	4/26/2006	112	777	7.3	452	342	137	26.8	14.3	6.1	87.0	8.0	0.3	16	<0.05	<0.01	508	0.4	3.72	1.17	0.64	0.41
DV	G-097147	10/19/2006	112	787	8	455	352	137	27.3	14.0	7.5	89.0	10.0	0.3	16	<0.05	<0.01	524	0.6	3.42	1.10	0.62	0.41
DV	G-097147	5/1/2007	112	774	7.7	479	334	125.4	25.3	13.5	5.8	86.0	8.0	0.4	16.29	<0.05	<0.01	496	<0.2	3.42	1.12	0.61	0.40
DV	G-097147	7/27/2007	112	807	7.8	398	366	120.3	23.9	12.5	6.8	87.0	7.0	0.2	16.41	<0.05	<0.01	480	0.2	3.13	1.04	0.59	0.41
DV	G-097147	5/14/2008	112	688	7.25	400	331	121.22	23.8	13.8	5.9	77.0	6.0	0.2	15.79	<0.05	<0.01	480	0.3	3.00	0.98	0.54	0.39
DV	G-097147	12/10/2008	112	729	7.33	365	329	110.41	22.0	14.0	6.1	75.0	6.0	0.3	14.2	<0.05	<0.01	494	0.5	3.02	0.98	0.60	0.42
DV	G-097147	5/12/2009	112	724	7.18	376	333	116.36	20.9	13.2	5.2	80.0	6.0	0.3	15.46	<0.05	0.01	510	0.3	2.75	0.90	0.61	0.45
DV	G-097147	11/5/2009	112	806	7.22	378	341	113.92	22.6	16.1	14.4	83.0	7.0	0.3	15.25	<0.05	<0.01	492	<0.2	2.90	0.86	0.57	0.42
DV	G-097147	5/26/2010	112	762	7.22	399	335	122.12	22.8	13.0	6.1	75.0	7.0	0.3	14.55	<0.05	0.02	442	0.2	2.84	0.93	0.70	0.51
DV	G-097147	11/9/2010	112	743	7.2	413	342	127.38	23.2	12.9	5.8	83.0	7.0	0.4	16.56	<0.05	<0.01	428	<0.2	3.05	0.94	0.57	0.40
DV	G-097147	6/8/2011	112	756	7.12	386	339	116.84	22.7	13.2	5.7	77.0	6.0	0.3	16.57	<0.05	<0.01	476	0.6	3.18	0.96	0.56	0.39
DV	G-097147	11/1/2011	112	743	7.17	402	343	119.64	24.9	15.3	7.1	69.0	7.0	0.3	24.74	0.01	0.01	484	0.5	2.92	0.93	0.57	0.41
DV	G-097147	5/23/2012	112	781	7.17	373.1	336	113.1	22.0	12.7	5.5	60.5	6.4	0.3	16.35	<0.05	<0.01	494	4.4	2.99	1.02	0.66	0.47
DV	G-097147	12/3/2012	112	807	7.13	420.2	353	127.8	24.6	13.5	6.0	78.5	8.8	0.2	17.52	<0.05	<0.01	456	2.98	2.82	0.91	0.55	0.40
DV	G-097147	5/23/2013	112	800	7.18	404.5	337	123.9	23.1	13.7	5.9	69.6	7.3	0.3	16.6	<0.05	<0.01	496	3.69	3.19	1.01	0.59	0.41
DV	G-097147	10/1/2013	112	987	7.16	504.4	409	152.7	29.9	16.6	6.8	92.1	17.6	0.3	14.79	<0.05	<0.01	644	9.06	3.09	0.95	0.59	0.42
DV	G-097148	7/7/1998	180	1088	7.3	660	332	167	42.0	5.3	6.3	336.0	24.7	0.53	NA	NA	NA	913	8.3	3.81	1.23	0.72	0.46
DV	G-097148	7/14/1999	180	1260	7.47	723	348	213	45.4	21.8	8.7	188.0	22.0	0.6	18	<0.05	0.02	963	29.6	4.17	1.73	0.23	0.13
DV	G-097148	11/3/1999	180	1250	7.48	715	352	208	47.0	22.4	8.5	203.0	18.0	0.6	19	<0.05	<0.01	910	32.3	5.31	1.87	0.95	0.50
DV	G-097148	1/13/2000	180	1262	7.75	700	357	203	46.3	21.8	7.6	209.0	18.0	0.3	18	<0.05	0.01	898	32.5	5.19	1.93	0.97	0.52
DV	G-097148	4/27/2000	180	1229	7.68	723	366	213	45.6	21.6	7.9	198.0	24.0	0.8	20	<0.05	<0.01	945	35	5.06	1.90	0.95	0.51
DV	G-097148	4/27/2000	180	1233	7.61	718	360	211	45.6	21.7	7.6	192.0	24.0	0.7	20	<0.05	<0.01	953	37.7	5.31	1.88	0.94	0.50
DV	G-097148	7/13/2000	180	1243	7.46	792	365	236	48.4	22.6	8.9	211.0	25.0	1.1	19	<0.05	<0.01	945	36.6	5.26	1.88	0.94	0.50
DV	G-097148	10/3/2000	180	1201	7.29	712	359	209	45.2	21.7	8.4	194.0	23.0	0.9	19	<0.05	<0.01	880	36.8	5.89	1.99	0.98	0.50
DV	G-097148	1/22/2001	180	1158	7.18	710	350	208	45.4	22.2	8.2	205.0	24.0	0.6	19	<0.05	0.01	875	35.6	5.21	1.86	0.94	0.50

Source	Site	Date	Depth, in feet	Specific conductance	pH, in	Hardness	Alkalinity as CaCO3	Calcium	Magnesium	Sodium	Potassium	Sulfate	Chloride	Fluoride	Silica	Iron	Manganese	Total dissolved solids	Nirate as N	Calcium, in millequivalents	Magnesium, in millequivalents	Sodium, in millequivalents	Sodium Adsorption Ratio
DV	G-097148	4/9/2001	180	1248	8.59	655	352	193	41.4	21.3	8.8	201.0	23.0	0.5	19	<0.05	<0.01	905	34.8	5.19	1.87	0.97	0.51
DV	G-097148	7/11/2001	180	1281	7.11	659	353	193	42.2	23.1	7.5	210.0	23.0	0.3	18	<0.05	0.01	980	36	4.82	1.70	0.93	0.51
DV	G-097148	10/30/2001	180	1216	7.18	773	295	223	51.6	24.1	8.5	256.0	26.0	0.7	20	<0.05	0.01	903	32.9	4.82	1.74	1.00	0.56
DV	G-097148	1/10/2002	180	1275	7.2	724	384	209	47.9	24.9	8.7	225.0	24.0	0.9	19	<0.05	<0.01	988	33.9	5.56	2.12	1.05	0.53
DV	G-097148	4/15/2002	180	1406	7.64	786	318	234	48.0	23.5	8.3	227.0	25.0	0.9	20	<0.05	0.02	935	39.9	5.21	1.97	1.08	0.57
DV	G-097148	7/23/2002	180	1300	7	623	344	187	37.7	19.5	7.0	214.0	22.9	0.3	39.5	<0.05	<0.01	864	15.2	5.84	1.97	1.02	0.52
DV	G-097148	11/4/2002	180	1270	7	691	341	208	41.7	22.0	8.0	212.0	23.3	0.3	38.7	<0.05	<0.01	840	26.4	4.67	1.55	0.85	0.48
DV	G-097148	1/9/2003	180	1280	7.1	693	344	208	42.1	21.0	8.0	213.0	23.7	0.3	38.3	<0.05	0.015	784	34.2	5.19	1.72	0.96	0.52
DV	G-097148	5/6/2003	180	1400	7.1	689	341	207	41.7	22.3	8.0	223.0	24.1	0.4	40.6	<0.05	0.012	860	29	5.19	1.73	0.91	0.49
DV	G-097148	7/24/2003	180	1315	7.15	739	352	218	46.3	22.2	8.8	221.0	22.0	0.9	17	<0.05	<0.01	876	32.5	5.16	1.72	0.97	0.52
DV	G-097148	10/7/2003	180	1260	6.97	698	340	206	43.6	22.0	8.4	212.0	22.0	0.6	16	<0.05	<0.01	868	30.9	5.44	1.90	0.97	0.50
DV	G-097148	8/5/2004	180	1290	7	683	342	201	43.7	21.7	8.0	225.0	24.8	0.4	42.3	<0.05	0.015	820	30	5.14	1.79	0.96	0.51
DV	G-097148	4/25/2005	180	1260	7.1	614	336	183	37.6	20.9	6.0	164.0	23.0	0.4	35	<0.05	0.01	804	29.2	5.01	1.80	0.94	0.51
DV	G-097148	10/29/2005	180	1210	7.49	684	348	203	42.9	21.7	7.7	189.0	21.0	0.9	20	<0.05	<0.01	738	29.4	4.57	1.55	0.91	0.52
DV	G-097148	1/18/2006	180	1245	7.48	721	370	214	45.4	21.2	8.9	210.0	23.0	1.3	19	<0.05	<0.01	800	31.4	5.06	1.76	0.94	0.51
DV	G-097148	4/26/2006	180	1150	7.29	668	340	197	42.7	22.0	7.6	193.0	21.0	0.4	17	<0.05	<0.01	824	27	5.34	1.87	0.92	0.49
DV	G-097148	10/19/2006	180	723	7.92	402	320	118	26.1	23.0	5.2	68.0	13.0	0.4	15	<0.05	<0.01	484	9.5	4.92	1.76	0.96	0.52
DV	G-097148	5/1/2007	180	608	7.77	1640	277	84.71	19.5	24.4	3.2	33.0	9.0	0.4	13.72	<0.05	<0.01	370	1.9	2.94	1.07	1.00	0.71
DV	G-097148	7/26/2007	180	1024	8.01	453	319	132.56	29.3	17.6	5.7	115.0	25.0	0.3	15.48	<0.05	0.03	648	19.9	2.11	0.80	1.06	0.88
DV	G-097148	3/7/2008	180	613	8.06	285	274	83.08	18.8	24.2	3.2	32.0	9.0	0.4	13.98	<0.05	<0.01	350	2.4	3.31	1.21	0.77	0.51
DV	G-097148	5/14/2008	180	800	7.2	429	312	125.96	27.7	18.9	4.7	69.0	24.0	0.3	16.19	<0.05	<0.01	588	16.8	2.07	0.77	1.05	0.88
DV	G-097148	9/10/2008	180	551	7.43	247	268	71.28	17.0	25.4	3.6	27.0	8.0	0.4	12.37	<0.05	<0.01	360	2.8	3.14	1.14	0.82	0.56
DV	G-097148	5/12/2009	180	556	7.32	258	275	76.05	16.5	24.9	3.3	26.0	9.0	0.4	13.42	<0.05	<0.01	354	2.1	1.78	0.70	1.11	0.99
DV	G-097148	11/5/2009	180	613	7.38	263	264	76.16	17.8	24.5	3.4	25.0	9.0	0.4	14.37	<0.05	<0.01	324	2.5	1.90	0.68	1.08	0.95
DV	G-097148	5/26/2010	180	726	7.57	361	326	110	20.9	14.2	5.3	67.0	7.0	0.4	14.08	<0.05	0.01	428	2	1.90	0.73	1.07	0.93
DV	G-097148	11/9/2010	180	563	7.41	264	275	77.78	16.9	21.9	3.1	23.0	9.0	0.4	14.38	<0.05	0.01	274	1.9	2.74	0.86	0.62	0.46
DV	G-097148	6/8/2011	180	579	7.36	255	270	74.41	17.0	23.0	3.2	23.0	9.0	0.4	14.71	<0.05	0.01	344	1.9	1.94	0.70	0.95	0.83
DV	G-097148	11/1/2011	180	566	7.36	404	273	123.4	23.5	13.6	6.2	22.0	9.0	0.5	17.3	<0.05	<0.01	346	2	1.86	0.70	1.00	0.89
DV	G-097148	5/23/2012	180	597	7.33	258.3	276	75.01	17.3	21.8	3.1	22.5	8.3	0.5	14.18	<0.05	0.02	346	1.5	3.08	0.97	0.59	0.42
DV	G-097148	12/3/2012	180	579	7.27	272.9	274	79.62	18.0	23.1	3.4	23.1	8.2	0.4	15.7	<0.05	<0.01	298	1.62	1.87	0.71	0.95	0.83
DV	G-097148	5/23/2013	180	617	7.3	269.7	277	79.12	17.5	22.8	3.2	24.6	8.6	0.4	14.33	<0.05	<0.01	360	2.62	1.99	0.74	1.00	0.86
DV	G-097148	10/1/2013	180	569	7.32	271.4	276	78.78	18.1	23.4	3.3	22.4	8.5	0.4	14.01	<0.05	<0.01	356	1.74	1.97	0.72	0.99	0.85
DV	G-115762	7/2/2002	386	807	7.2	459	352	133	30.8	25.3	7.0	19.9	6.2	0.3	40.9	<0.05	0.408	564	0.9	1.97	0.75	1.02	0.87
DV	G-115762	7/8/2003	386	840	7.32	467	338	130	34.0	25.3	7.6	107.0	6.0	0.4	21	<0.05	0.19	568	2.1	3.32	1.27	1.10	0.73
DV	G-115762	7/19/2004	386	893	6.8	417	340	114	31.7	24.8	8.0	106.0	6.3	0.4	47.3	<0.05	0.248	516	1.7	3.24	1.40	1.10	0.72
DV	G-115762	7/11/2005	386	825	7.48	438	284	122	32.3	24.4	7.7	102.0	6.0	0.4	26	<0.05	0.25	472	1.8	2.84	1.30	1.08	0.75
DV	G-115762	7/5/2006	386	817	7.41	455	344	128	32.9	24.4	8.2	87.0	6.0	0.2	22	<0.05	0.28	618	1.8	3.04	1.33	1.06	0.72
DV	G-115762	7/17/2007	386	861	7.76	417	366	112	33.4	36.3	4.5	136.0	4.0	0.4	15.26	<0.05	0.04	592	8.2	3.19	1.35	1.06	0.70
DV	G-115762	7/28/2008	386	792	7.41	390	333	110.73	27.7	24.5	6.9	104.0	6.0	0.3	19.28	<0.05	0.08	518	2.1	2.79	1.37	1.58	1.09
DV	G-115762	7/7/2009	386	779	7.26	390	329	107.23	29.8	26.2	6.6	107.0	6.0	0.4	19.44	<0.05	<0.01	568	2.6	2.76	1.14	1.07	0.76
DV	G-115762	7/18/2011	386	776	7.13	NA	327	98.75	28.1	25.6	7.7	105.0	6.0	NA	NA	<0.05	0.04	546	2.1	2.68	1.23	1.14	0.81
DV	G-127257	8/11/2004	236	1040	7.4	474	363	125	39.4	34.1	14.0	181.0	3.2	0.3	48.1	0.293	0.454	704	0.2	2.46	1.16	1.11	0.83
DV	G-127257	8/19/2005	236	972	7.51	505	374	135	40.8	34.9	13.5	173.0	2.0	0.4	23	<0.05	0.46	606	<0.2	3.12	1.62	1.48	0.96
DV	G-127358	7/28/2004	NA	907	6.8	431	320	129	26.3	16.5	6.0	66.7	12.1	0.4	44.4	<0.05	0.005	512	5.5	3.37	1.68	1.52	0.96
DV	G-127358	4/12/2005	NA	795	7.1	420	302	128	24.4	15.4	6.0	65.0	9.5	0.4	44.7	<0.05	<0.01	500	6.2	3.23	1.08	0.72	0.49
DV	G-127358	11/1/2005	NA	775	7.08	418	322	126	25.1	15.7	6.2	52.0	7.0	0.6	21	<0.05	<0.01	438	5.3	3.19	1.00	0.67	0.46
DV	G-127358	4/25/2006	NA	753	7.29	427	327	129	25.4	15.6	6.5	64.0	9.0	0.4	19	<0.05	<0.01	504	5.5	3.14	1.03	0.68	0.47
DV	G-127358	10/16/2006	NA	738	7.86	428	328	130	25.2	15.5	6.3	65.0	9.0	0.3	20	<0.05	<0.01	540	5.8	3.22	1.04	0.68	0.46
DV	G-127358	4/27/2007	NA	756	7.64	350	328	121.9	24.7	16.9	5.9	61.0	9.0	0.3	20.6	0.01	<0.01	466	6	3.24	1.04	0.67	0.46
DV	G-127358	9/4/2007	NA	779	7.98	386	321	115.92	23.4	13.7	6.4	60.0	9.0	0.5	18.68	<0.05	<0.01	476	5.9	3.04	1.02	0.73	0.51
DV	G-127358	5/14/2008	NA	681	7.12	374	313	113	22.3	14.2	4.3	55.0	9.0	0.3	18.66	<0.05	<0.01	478	6.5	2.89	0.96	0.60	0.43
DV	G-127358	12/10/2008	NA	716	7.34	356	314	106.88	21.6	15.0	6.2	50.0	11.0	0.3	17.23	<0.05	<0.01	476	7.2	2.82	0.92	0.62	0.45
DV	G-127358	5/12/2009	NA	710	7.2	365	320	111.56	20.8	14.2	5.5	52.0	11.0	0.4	18.04	<0.05	<0.01	492	7.4	2.67	0.89	0.65	0.49
DV	G-127358	11/5/2009	NA	779	7.22	371	317	111.5	22.3	13.9	5.7	53.0	10.0	0.3	18.98	<0.05	<0.01	480	5.2	2.78	0.86	0.62	0.46
DV	G-127358	5/26/2010	NA	734	7.15	371	313	113.29	21.6	13.3	5.7	51.0	11.0	0.4	18.1	<0.05	<0.01	476	5.4	2.78	0.92	0.61	0.45
DV	G-127358	11/9/2010	NA	714	7.23	383	321	117.45	21.8	12.9	5.6	51.0	10.0	0.4	19.75	<0.05	<0.01	392	4.6	2.83	0.89	0.58	0.42
DV	G-127358	6/8/2011	NA	713	7.16	341	317	103.19	20.4	12.2	5.4	48.0	10.0	0.4	18.92	<0.05	<0.01	446	5.2	2.93	0.90	0.56	0.41
DV	G-127358	11/1/2011	NA	698	7.21	301	314	92.6	17.3	12.7	6.5	49.0	10.0	0.4	25.91	<0.05	0.01	430	6	2.57	0.84	0.53	0.41
DV	G-127358	5/23/2012	NA	745	7.24	353.9	312	106.7	21.3	12.3	5.5	49.0	9.7	0.4	19.17	<0.05	<0.01	456	5	2.31	0.71	0.55	0.45
DV	G-127358	12/3/2012	NA	733	7.21	391.8	320	118.9	23.1	13.7	6.0	50.7	9.7	0.3	21.7	<0.05	<0.01	418	5.89	2.66	0.87	0.53	0.40
DV	G-127358	5/23/2013	NA	746	7.22	377.7	316	115.1	21.9	13.2	5.7	49.8	9.6	0.4	19.74	<0.05	<0.01	432	4.99	2.97	0.95	0.60	0.43
DV	G-127358	10/1/2013	NA	719	7.22	374.8	322	113.9	22.0	13.5	5.8	51.6	9.5	0.3	18.7	<0.05	<0.01	486	4.62	2.87	0.90	0.57	0.42
DV	G-137713	11/22/2005	237	627	7.77	306	282	92	18.5	18.9	7.4	50.0	6.0	0.2	19	<0.05	0.6	360	<0.2	2.84	0.90	0.59	0.43
DV	G-137713	1/18/2006	237	614	7.6	324	282	98	19.3	19.3	7.8	51.0	5.0	0.6	20	<0.05	0.47	372	0.3	2.30	0.76	0.82	0.67
DV	G-137713	4/19/2006	237	598	7.22	312	274	94	18.7	19.4	7.3	50.0	5.0	0.2	20	<0.05	0.53	424	<0.2	2.45	0.79	0.84	0.66
DV	G-137713	7/12/2006	237	623	7.84	333	294	101	19.6	21.1	6.8	47.0	5.0	0.2	18	<0.05	0.57	342	<0.2	2.35	0.77	0.84	0.68
DV	G-137713	10/5/2006	237	607	7.82	315	274	95	19.0	19.4	7.3	51.0	6.0	0.3	19	<0.05	0.53	364	<0.2	2.52	0.81	0.92	0.71
DV	G-137713	2/1/2007	237	617	7.69	268	290	80.55	16.0	15.6	6.6	49.0	6.0	0.5	17.32	<0.05	0.44	374	<0.2	2.37	0.78	0.84	0.67
DV	G-137713	4/18/2007	237	606	7.61	289	276	87.23	17.4	17.3	6.5	49.0	6.0	0.3	17.18	<0.05	0.45	404	<0.2	2.01	0.66	0.68	0.59
DV	G-137713	7/3/2007	237	605	7.96	278	269	83.8	16.6	15.8	5.9	47.0	5.0	0.4	19.28	<0.05	0.44	362	<0.2	2.18	0.72	0.75	0.63
DV	G-137713	6/26/2008	237	607	7.81	268	265	81.24	15.9	17.7	6.2	48.0	5.0	0.2	18.17	<0.05	0.48	364	<0.2	2.09	0.68	0.69	0.59
DV	G-137713	5/20/2009	237	580	7.42	285	273	86.83	16.5	18.8	6.5	49.0	5.0	0.3	17.85	0.01	0.46	402	0.6	2.03	0.65	0.77	0.66
DV	G-137713	9/21/2011	237	587	7.68	292	278	89.36	16.9	18.0	7.1	49.0	6.0	0.3	19.92	<0.05	0.42	382	<0.2	2.17	0.68	0.82	0.68
DV	G-137714	11/22/2005	220	673	7.83	277	281	83	16.9	50.3	6.8	68.0	6.0	0.2	19	<0.05	0.55	396	<0.2	2.23	0.69	0.78	0.65
DV	G-137714	1/18/2006	220	673	7.72	292	307	88	17.5	49.2	7.3	67.0	5.0	0.6	20	<0.05	0.59	396	<0.2	2.07	0.70	2.19	1.86
DV	G-137714	4/19/2006	220	663	7.46	276	295	83	16.7	54.2	7.3	69.0	5.0	0.2	21	<0.05	0.53	438	<0.2	2.20	0.72	2.14	1.77
DV	G-137714	7/12/2006	220	698	7.72	294	309	89	17.4	58.2	6.6	62.0	4.0	0.2	19	<0.05	0.62	400	<0.2	2.07	0.69	2.36	2.01

Source	Site	Date	Depth, in feet	Specific conductance	pH, in	Hardness	Alkalinity as CaCO3	Calcium	Magnesium	Sodium	Potassium	Sulfate	Chloride	Fluoride	Silica	Iron	Manganese	Total dissolved solids	Nirate as N	Calcium, in millequivalents	Magnesium, in millequivalents	Sodium, in millequivalents	Sodium Adsorption Ratio
DV	G-137714	10/5/2006	220	663	7.93	280	294	84	17.0	48.2	6.5	61.0	5.0	0.3	19	<0.05	0.63	412	<0.2	2.22	0.72	2.53	2.09
DV	G-137714	1/29/2007	220	672	7.8	249	307	75.43	15.1	42.7	6.2	55.0	5.0	0.3	18.81	<0.05	0.55	386	<0.2	2.10	0.70	2.10	1.77
DV	G-137714	4/20/2007	220	657	7.52	279	295	83.55	16.8	41.2	6.4	54.0	5.0	0.2	18.77	<0.05	0.58	414	<0.2	1.88	0.62	1.86	1.66
DV	G-137714	6/25/2007	220	652	7.79	249	317	73.64	15.5	39.4	6.1	41.0	4.0	0.2	18.29	<0.05	0.59	396	<0.2	2.08	0.69	1.79	1.52
DV	G-137714	6/26/2008	220	662	7.94	270	301	81.63	16.2	35.0	6.4	44.0	5.0	0.2	20.1	<0.05	0.65	404	<0.2	1.84	0.64	1.71	1.54
DV	G-137714	9/9/2009	220	685	7.42	307	337	91.94	18.7	34.2	7.1	35.0	3.0	0.3	19.95	0.01	0.69	412	<0.2	2.04	0.67	1.52	1.31
DV	G-137714	9/21/2011	220	648	7.76	318	339	96.08	19.1	22.1	8.4	37.0	3.0	0.3	22.08	<0.05	0.6	430	<0.2	2.29	0.77	1.49	1.20
DV	G-137715	11/22/2005	287	775	7.71	404	328	119	26.0	21.9	6.9	93.0	6.0	0.2	19	<0.05	0.66	444	<0.2	2.40	0.79	0.96	0.76
DV	G-137715	1/18/2006	287	752	7.69	409	339	121	25.9	21.4	8.8	87.0	5.0	0.8	17	<0.05	0.47	446	<0.2	2.97	1.07	0.95	0.67
DV	G-137715	4/19/2006	287	728	7.21	399	317	119	24.7	20.4	7.7	88.0	5.0	0.4	20	<0.05	0.42	498	<0.2	3.02	1.07	0.93	0.65
DV	G-137715	10/5/2006	287	738	8.01	415	321	124	25.7	21.3	8.0	89.0	7.0	0.3	18	<0.05	0.49	462	<0.2	2.97	1.02	0.89	0.63
DV	G-137715	2/1/2007	287	748	8	340	322	101.41	21.4	17.6	6.5	88.0	6.0	0.4	16.59	<0.05	0.39	464	<0.2	3.09	1.06	0.93	0.64
DV	G-137715	4/18/2007	287	740	7.6	367	313	108.91	23.0	18.8	7.0	86.0	6.0	0.2	16.22	<0.05	0.4	474	<0.2	2.53	0.88	0.76	0.58
DV	G-137715	10/9/2008	287	688	7.64	330	311	100	19.5	17.6	6.2	83.0	5.0	0.2	16	0.01	0.2	436	<0.2	2.72	0.94	0.82	0.60
DV	G-137715	6/30/2011	287	712	7.3	335	319	100.27	20.6	18.1	6.4	81.0	6.0	0.4	17.47	0.01	0.73	468	<0.2	2.50	0.80	0.77	0.60
DV	G-155600	7/9/2010	360	719	7.36	290	314	82.32	20.8	46.6	5.8	80.0	4.0	0.4	18.91	0.01	0.62	388	<0.2	2.50	0.85	0.79	0.61
DV	G-155600	6/14/2011	360	883	7.21	269	436	75.64	19.3	95.7	3.7	15.0	5.0	0.6	20.55	0.16	1.12	548	<0.2	2.05	0.85	2.03	1.68
DV	G-155600	6/30/2011	360	843	7.28	260	443	71.69	19.6	91.1	3.9	8.0	5.0	0.5	20.61	0.03	1.09	524	17.8	1.89	0.79	4.16	3.59
DV	NR-9990Benes	8/10/2001	NA	1070	7.31	605	318	170	43.1	21.5	7.8	163.0	12.0	0.4	20	<0.05	<0.01	942	18.2	1.79	0.80	3.96	3.48
DV	NR-9990Benes	6/28/2002	NA	1120	7	555	352	165	34.6	22.1	8.0	32.2	10.4	0.4	39.4	<0.05	0.015	748	14.1	4.24	1.77	0.94	0.54
DV	NR-9990Benes	7/23/2002	NA	1040	7.2	500	332	148	31.6	19.1	8.0	141.0	10.2	0.4	42.2	<0.05	<0.01	668	12	4.12	1.42	0.96	0.58
DV	NR-999LBenes	8/26/1994	NA	683	7	310	272	91	20.0	13.0	5.3	41.0	2.9	0.4	47	<0.05	0.001	432	11	3.69	1.30	0.83	0.53
DV	NR-999LBenes	7/25/1995	NA	700	7	310	271	92	20.0	13.0	5.2	40.0	3.0	0.4	45	<0.05	<0.01	439	13	2.27	0.82	0.57	0.45
DV	NR-999LBenes	8/6/1996	NA	620	7.1	308	270	100	19.0	10.0	4.2	76.0	2.4	0.43	48	<0.05	<0.01	430	11	2.30	0.82	0.57	0.45
DV	NR-999LBenes	7/29/1997	NA	633	6.9	300	280	0.7	23.0	6.0	5.4	45.0	2.6	0.5	0.65	0.1	<0.01	410	36	2.50	0.78	0.44	0.34
DV	NR-999LBenes	8/12/1998	NA	656	7.2	324	266	130	35.0	65.0	8.0	35.0	2.4	0.25	NA	NA	NA	460	9.7	0.02	0.95	0.26	0.38
DV	NR-999LBenes	7/26/1999	NA	672	7.4	369	272	107	24.5	14.0	4.9	41.0	4.0	0.2	23	<0.05	<0.01	463	13.1	3.24	1.44	2.83	1.85
DV	NR-999LBenes	8/3/2000	NA	681	7.16	365	280	107	23.3	13.8	5.1	44.0	3.0	0.4	22	<0.05	<0.01	418	16.7	2.67	1.01	0.61	0.45
DV	NR-999LBenes	7/24/2001	NA	698	7.02	365	241	108	22.8	15.0	5.3	42.0	5.0	0.4	22	<0.05	<0.01	440	14.8	2.67	0.96	0.60	0.45
DV	NR-999LBenes	7/23/2002	NA	688	7	328	254	98.9	19.6	12.5	3.0	39.1	3.5	0.4	47.3	<0.05	<0.01	488	9.6	2.69	0.94	0.65	0.48
DV	NR-999LBenes	8/5/2003	NA	691	6.88	382	280	113	23.4	14.2	5.5	39.0	4.0	0.3	22	<0.05	<0.01	420	15.1	2.47	0.81	0.54	0.42
DV	NR-999LBenes	8/5/2003	NA	700	6.89	366	284	109	22.6	13.9	5.1	39.0	6.0	0.4	22	<0.05	<0.01	424	<0.2	2.82	0.96	0.62	0.45
DV	NR-999LBenes	8/3/2004	NA	720	7.1	356	277	105	22.9	14.6	5.0	41.6	3.6	0.4	48.6	<0.05	<0.01	460	12	2.72	0.93	0.60	0.45
DV	NR-	9/6/1994	NA	776	7.3	340	375	90	27.0	32.0	13.0	39.0	4.1	0.3	50	0.15	0.45	481	<0.2	2.62	0.94	0.64	0.48
DV	NR-	7/24/1995	NA	777	7.4	320	332	86	26.0	32.0	22.0	37.0	3.8	0.3	50	0.23	0.45	457	0.05	2.25	1.11	1.39	1.07
DV	NR-	8/20/1996	NA	660	7.8	317	390	92	25.0	30.0	9.2	39.0	3.3	0.4	49	0.3	0.39	480	<0.2	2.15	1.07	1.39	1.10
DV	NR-	7/21/1998	NA	664	7.4	336	376	83	23.0	7.0	9.5	33.0	2.9	0.6	NA	NA	NA	508	2.4	2.30	1.03	1.31	1.01
DV	NR-	8/4/1999	NA	773	7.53	370	379	97	31.3	39.9	12.5	46.0	4.0	0.4	23	<0.05	0.45	523	<0.2	2.07	0.95	0.30	0.25
DV	NR-	10/3/2000	NA	750	7.54	366	389	98	29.2	37.6	12.4	41.0	4.0	0.4	23	<0.05	0.44	477	<0.2	2.42	1.29	1.74	1.27
DV	NR-	8/23/2001	NA	795	7.58	377	339	101	30.1	40.4	13.1	44.0	3.0	0.3	24	0.04	0.47	477	<0.2	2.45	1.20	1.64	1.21
DV	NR-	9/18/2002	NA	798	7.4	336	391	92.3	25.6	38.6	13.0	44.7	4.0	0.3	52.7	0.172	0.455	532	<0.2	2.52	1.24	1.76	1.28
DV	NR-	8/8/2003	NA	775	7.59	376	380	101	29.9	42.0	11.7	44.0	3.0	0.3	22	<0.05	0.41	550	<0.3	2.30	1.05	1.68	1.30
DV	NR-	9/13/2004	NA	798	7.4	333	379	89.7	26.3	36.9	12.0	41.7	4.3	0.4	51.3	0.166	0.423	468	<0.2	2.52	1.23	1.83	1.33
DV	NR-	9/28/2007	NA	771	8.24	330	369	87.69	26.8	34.0	10.7	39.0	4.0	0.4	21.9	0.02	0.44	468	<0.2	2.24	1.08	1.61	1.25
DV	NR-	7/9/2009	NA	711	7.52	336	364	90.36	26.8	37.6	13.0	41.0	4.0	0.4	22.42	0.01	0.4	460	<0.2	2.19	1.10	1.48	1.15
DV	NR-	6/14/2011	NA	774	7.35	341	371	93.97	25.8	34.1	11.9	39.0	3.0	0.3	23.13	0.01	0.44	472	<0.2	2.25	1.10	1.64	1.26
DV	12N 5E 2ABBC1	8/14/1995	91	754	7.5	361	NA	110	21.0	14.0	8.8	60.0	7.6	0.3	35	5	570	446	NA	2.34	1.06	1.48	1.14
DV	12N 5E34BD 1	6/5/1970	55	755	7.3	310	391	86	23.0	39.0	9.2	70.0	13.0	0.4	48	9700	1350	492	NA	2.74	0.86	0.61	0.45
DV	12N 5E35DA 1	6/5/1970	120	809	7.3	370	383	114	21.0	37.0	6.1	31.0	18.0	0.3	38	20	330	558	23	2.15	0.95	1.70	1.36
DV	12N 6E 9BD 1	12/9/1960	NA	627	7.8	280	343	80	18.0	18.0	NA	21.0	7.5	0.5	28	190	NA	NA	NA	2.84	0.86	1.61	1.18
DV	13N 3E13DA 1	8/18/1977	422	690	7.7	310	390	87	23.0	21.0	7.1	37.0	5.6	0.4	51	70	240	427	NA	2.00	0.74	0.78	0.67
DV	13N 4E 6CDBC1	8/23/1994	312	830	7.3	394	NA	110	29.0	20.0	8.1	100.0	5.9	0.4	49	6	67	530	NA	2.17	0.95	0.91	0.73
DV	13N 4E 6CDBC1	7/27/1995	313	825	7.1	394	NA	110	29.0	20.0	7.5	97.0	5.5	0.4	47	< 3.0	240	480	NA	2.74	1.19	0.87	0.62
DV	13N 4E20DBDA	9/6/1994	NA	776	7.3	336	NA	90	27.0	32.0	13.0	39.0	4.1	0.3	50	150	450	481	NA	2.74	1.19	0.87	0.62
DV	13N 4E20DBDA	7/24/1995	NA	777	7.4	322	NA	86	26.0	32.0	22.0	37.0	3.8	0.3	50	230	450	457	NA	2.25	1.11	1.39	1.07
DV	13N 5E15BBAB	8/26/1994	76	683	7	310	NA	91	20.0	13.0	5.3	41.0	2.9	0.4	47	< 3.0	1	432	NA	2.15	1.07	1.39	1.10
DV	13N 5E15BBAB	7/25/1995	76	700	7	312	NA	92	20.0	13.0	5.2	40.0	3.0	0.4	45	< 3.0	< 1.00	439	NA	2.35	0.86	0.70	0.55
DV	13N 5E15BBB 1	7/25/1995	83	510	7.3	321	NA	94	21.0	16.0	7.0	44.0	3.5	0.3	35	68	850	411	NA	2.27	0.82	0.57	0.45
DV	13N 5E15DBDC	7/24/1995	191	781	7.2	353	NA	100	25.0	15.0	9.0	69.0	6.5	0.3	35	170	380	432	NA	2.30	0.82	0.57	0.45
DV	13N 5E22AACA	8/16/1994	NA	750	7.2	430	341	130	26.0	13.0	7.0	83.0	13.0	0.4	47	<3.0	26	565	6.8	2.50	1.03	0.65	0.49
DV	13N 5E27AAB 1	7/25/1995	120	870	7.2	411	NA	120	27.0	23.0	7.7	96.0	6.5	0.3	38	300	720	541	NA	3.24	1.07	0.57	0.39
DV	13N 6E14CCBA	8/18/1994	123	626	7.6	292	NA	89	17.0	18.0	5.3	46.0	2.6	0.3	45	6	< 1.00	397	NA	2.99	1.11	1.00	0.70
DV	13N 6E14CCBA	7/27/1995	123	NA	NA	288	NA	89	16.0	18.0	4.6	39.0	2.3	0.3	44	10	< 1.00	373	NA	2.22	0.70	0.78	0.65
DV	13N 6E20ABDC	8/29/1994	235	399	7	151	NA	45	9.4	20.0	4.4	7.2	2.4	0.3	50	20	1	262	NA	2.22	0.66	0.78	0.65
DV	13N 6E20ABDC	8/15/1995	235	632	7.1	294	NA	88	18.0	19.0	5.4	66.0	2.5	0.2	46	< 3.0	21	412	NA	1.12	0.39	0.87	1.00
DV	13N 6E28AABB	8/26/1994	NA	441	6.9	170	174	46	13.0	21.0	3.7	18.0	2.0	0.3	49	8	2	290	7.4	2.20	0.74	0.83	0.68
DV	14N 4E17CB 1	8/19/1977	324	905	7.5	460	420	130	33.0	20.0	4.3	170.0	2.8	0.3	47	80	460	621	NA	1.15	0.53	0.91	1.00
DV	14N 5E12AC 1	6/29/1948	NA	483	8	210	234	47	23.0	20.0	5.6	68.0	6.0	0.2	45	NA	NA	330	NA	3.24	1.36	0.87	0.57
DV	14N 5E32DCCD	8/29/1994	80	778	7.3	365	NA	110	22.0	18.0	5.9	58.0	8.2	0.3	43	160	33	479	NA	1.17	0.95	0.87	0.85
DV	14N 5E32DCCD	8/15/1995	80	737	7.4	365	NA	110	22.0	18.0	4.8	46.0	6.9	0.3	39	11	20	445	NA	2.74	0.91	0.78	0.58
DV	15N 3E20CBC 1	8/19/1977	404	675	7.6	330	380	96	22.0	24.0	7.6	65.0	3.2	0.3	39	40	400	445	NA	2.74	0.91	0.78	0.58
DV	15N 4E10CAC 1	8/19/1977	138	563	7.2	250	200	76	15.0	14.0	8.0	75.0	17.0	0.2	51	250	20	381	NA	2.40	0.91	1.04	0.81
RA	G-028518	12-Aug-04	NA	1040	7.2	476	330	132	35.3	20.6	5.0	162.0	3.2	0.3	54.2	<0.05	0.482	560	1.9	1.90	0.62	0.61	0.54
RA	G-028518	19-Aug-05	NA	893	7.3	502	336	140	36.9	20.6	4.8	162.0	2.0	0.3	24	<0.05	0.47	560	1.5	3.29	1.45	0.90	0.58
RA	G-028518	21-Aug-06	NA	892	7.58	509	351	143	36.9	19.8	4.2	155.0	1.0	0.2	24	<0.05	0.35	590	1.6	3.49	1.52	0.90	0.57
RA	G-028518	20-Jun-07	NA	850	7.87	436	332	122.65	31.4	17.1	3.7	162.0	3.0	0.5	23.88	<0.05	0.42	596	1.5	3.57	1.52	0.86	0.54
RA	G-028518	10-Jun-08	NA	898	7.77	443	338	124.28	32.4	18.0	3.7	149.0	2.0	0.2	20.57	<0.05	0.59	600	1.7	3.06	1.29	0.75	0.51

Source	Site	Date	Depth, in feet	Specific conductance	pH, in	Hardness	Alkalinity as CaCO3	Calcium	Magnesium	Sodium	Potassium	Sulfate	Chloride	Fluoride	Silica	Iron	Manganese	Total dissolved solids	Nirate as N	Calcium, in millequivalents	Magnesium, in millequivalents	Sodium, in millequivalents	Sodium Adsorption Ratio
RA	G-028518	09-Jun-09	NA	916	7.14	447	323	127.16	31.5	20.0	4.3	164.0	2.0	0.3	20.34	<0.05	0.44	602	1.2	3.10	1.33	0.78	0.53
RA	G-028518	18-May-10	NA	861	7.12	439	325	127.4	29.5	19.6	4.3	156.0	2.0	0.3	19.72	<0.05	0.43	588	1	3.17	1.30	0.87	0.58
RA	G-028518	06-Jun-12	NA	866	7.1	462.2	332	129.4	33.8	18.7	4.0	162.0	2.3	0.3	23.43	<0.05	0.48	614	1.4	3.18	1.21	0.85	0.58
RA	G-028518	21-Aug-03	NA	893	7.14	535	336	152	37.1	19.9	5.2	164.0	3.0	0.4	21	<0.05	0.22	616	1.6	3.23	1.39	0.81	0.53
RA	G-028519	12-Aug-04	NA	1050	7.2	476	336	132	35.3	19.8	4.0	155.0	3.0	0.3	53.6	0.096	0.699	568	1.8	3.79	1.53	0.87	0.53
RA	G-028519	17-Aug-05	NA	891	7.12	502	344	140	37.0	20.3	4.7	143.0	2.0	0.3	22	<0.05	0.65	574	1.5	3.29	1.45	0.86	0.56
RA	G-028519	21-Aug-06	NA	892	7.67	517	350	145	37.7	19.6	3.8	146.0	1.0	NA	24	<0.05	0.66	580	1.7	3.49	1.52	0.88	0.56
RA	G-028519	20-Jun-07	NA	851	7.75	420	341	113.98	32.8	17.1	3.7	152.0	3.0	0.3	24.98	<0.05	0.3	592	1.8	3.62	1.55	0.85	0.53
RA	G-028519	10-Jun-08	NA	816	7.77	322	307	93.69	21.2	42.6	5.9	76.0	22.0	0.3	13.87	<0.05	0.03	486	3.9	2.84	1.35	0.74	0.51
RA	G-028519	09-Jun-09	NA	920	7.12	426	343	121.01	30.0	17.6	4.1	154.0	2.0	0.2	19.8	0.01	0.54	656	1.3	2.34	0.87	1.85	1.46
RA	G-028519	18-May-10	NA	878	7.1	458	334	131.84	31.1	18.4	4.4	160.0	2.0	0.3	20.67	<0.05	0.56	604	1.5	3.02	1.24	0.76	0.52
RA	G-028519	06-Jun-12	NA	893	7.1	481.5	343	133.4	36.0	18.2	4.2	168.0	2.2	0.2	23.44	<0.05	0.67	636	1.4	3.29	1.28	0.80	0.53
RA	G-028519	21-Aug-03	NA	NA	7.05	540	346	153	37.7	19.4	4.7	151.0	2.0	0.3	22	<0.05	0.59	614	1.7	3.33	1.48	0.79	0.51
RA	G-028520	12-Aug-04	NA	1090	7.2	501	342	137	38.4	21.6	5.0	170.0	3.8	0.3	53.6	0.142	0.204	612	2.2	3.82	1.55	0.84	0.52
RA	G-028520	19-Aug-05	NA	935	7.35	534	341	146	41.1	22.7	4.4	171.0	3.0	0.3	24	<0.05	0.21	608	2.4	3.42	1.58	0.94	0.59
RA	G-028520	09-Jun-09	NA	1005	7.11	480	330	129.82	37.7	22.1	5.6	200.0	2.0	0.3	22.81	<0.05	0.65	624	2.6	3.64	1.69	0.99	0.60
RA	G-028520	21-Aug-03	NA	930	7.05	561	349	157	40.3	22.0	4.7	166.0	4.0	0.4	21	<0.05	0.17	636	2.8	3.24	1.55	0.96	0.62
RA	G-032956	06-Jul-05	98	719	7.48	349	332	106	20.4	24.3	7.6	55.0	7.0	0.3	20	<0.05	0.87	378	<0.2	3.92	1.66	0.96	0.57
RA	G-032956	26-Jun-06	98	688	7.59	366	326	111	21.5	24.6	8.4	52.0	7.0	0.3	19	<0.05	0.85	434	<0.2	2.64	0.84	1.06	0.80
RA	G-032956	02-Jul-07	98	695	8.09	309	320	93.04	18.7	21.4	6.5	54.0	6.0	0.3	19.66	<0.05	0.7	432	<0.2	2.77	0.88	1.07	0.79
RA	G-032956	28-Jul-09	98	761	7.36	331	325	99.75	19.8	25.8	7.6	57.0	8.0	0.3	19.23	<0.05	0.72	450	<0.2	2.32	0.77	0.93	0.75
RA	G-034779	20-Jul-04	123	641	6.8	299	275	90.6	17.5	19.9	5.0	43.6	3.1	0.3	45.5	<0.05	<0.01	388	1.2	2.49	0.82	1.12	0.87
RA	G-034779	26-Jun-06	123	585	7.63	310	283	96	17.1	18.3	5.1	41.0	3.0	0.2	20	<0.05	<0.01	344	0.9	2.26	0.72	0.87	0.71
RA	G-034779	02-Jul-07	123	588	8.05	254	265	78	14.3	16.5	4.1	41.0	3.0	0.4	20	<0.05	<0.01	378	1	2.40	0.70	0.80	0.64
RA	G-034779	30-Jul-08	123	593	7.48	286	277	89.66	15.1	22.0	4.6	49.0	4.0	0.3	19.68	<0.05	<0.01	364	1.6	1.95	0.59	0.72	0.64
RA	G-034779	27-Jul-95	123	626	7.6	290	261	89	16.0	18.0	4.6	39.0	2.3	0.3	44	0.01	<0.01	373	0.84	2.24	0.62	0.96	0.80
RA	G-034779	18-Aug-94	123	NA	NA	290	284	89	17.0	18.0	5.3	46.0	2.6	0.3	45	0.006	<0.01	397	0.73	2.22	0.66	0.78	0.65
RA	G-034779	27-Jul-00	123	560	7.35	310	279	95	17.6	19.0	4.2	40.0	2.0	0.1	22	<0.05	<0.01	368	1.1	2.22	0.70	0.78	0.65
RA	G-034779	31-Jul-01	123	600	7.22	325	238	99	18.6	22.2	5.2	44.0	4.0	0.3	22	<0.05	<0.01	380	1.2	2.37	0.72	0.83	0.66
RA	G-034779	28-Jun-02	123	634	7.1	301	273	94.7	15.7	18.9	5.0	45.0	3.4	0.2	40.7	<0.05	<0.01	404	0.6	2.47	0.77	0.97	0.76
RA	G-034779	04-Aug-03	123	612	7.13	331	286	101	18.6	20.4	4.9	51.0	3.0	NA	22	0.03	<0.01	404	1	2.36	0.65	0.82	0.67
RA	G-034779	18-Jul-97	123	551	7.4	250	280	160	17.0	8.5	5.2	38.0	2.0	0.3	0.5	0.3	<0.01	400	0.6	2.52	0.77	0.89	0.69
RA	G-041721	19-Jul-04	115	664	6.8	304	277	93.2	17.2	20.4	5.0	51.7	3.1	0.3	45	<0.05	<0.01	384	0.5	3.99	0.70	0.37	0.24
RA	G-041721	06-Jul-05	115	591	7.49	295	240	91	16.4	22.9	3.9	41.0	3.0	0.2	22	<0.05	<0.01	318	2.1	2.33	0.71	0.89	0.72
RA	G-041721	22-Jun-06	115	606	7.84	316	271	98	17.2	20.0	4.3	48.0	3.0	0.2	22	<0.05	<0.01	442	0.7	2.27	0.67	1.00	0.82
RA	G-041721	05-Jul-07	115	587	8.1	259	250	79.51	14.4	19.6	3.6	45.0	3.0	0.3	19.75	0.02	<0.01	358	3.2	2.45	0.71	0.87	0.69
RA	G-041721	07-Jul-09	115	562	7.37	262	253	81.11	14.5	20.9	4.2	45.0	3.0	0.2	19.32	<0.05	<0.01	378	2.9	1.98	0.59	0.85	0.75
RA	G-041721	01-Aug-00	115	577	7.45	301	269	92	17.0	22.4	4.0	43.0	3.0	0.2	21	<0.05	<0.01	332	2.3	2.02	0.60	0.91	0.79
RA	G-041721	31-Jul-01	115	584	7.3	319	238	97	18.2	26.5	4.4	43.0	6.0	0.3	22	<0.05	<0.01	387	2.2	2.30	0.70	0.97	0.80
RA	G-041721	28-Jun-02	115	642	7.2	301	257	95.1	15.3	23.4	4.0	45.8	3.8	0.2	40.5	<0.05	<0.01	428	2.1	2.42	0.75	1.15	0.92
RA	G-041721	08-Jul-03	115	585	7.22	320	260	99	17.2	23.4	4.6	43.0	4.0	NA	21	<0.05	<0.01	338	2.5	2.37	0.63	1.02	0.83
RA	G-041721	18-Jul-97	115	555	7.3	250	260	440	17.0	10.0	5.3	48.0	2.6	0.3	1.7	0.9	0.02	410	1.7	2.47	0.71	1.02	0.81
RA	G-041721	21-Jul-98	115	520	7.1	270	254	80	16.0	5.0	3.4	34.0	2.4	0.4	23	<0.05	<0.01	446	2	10.98	0.70	0.44	0.18
RA	G-041721	02-Sep-99	115	603	7.69	320	272	97	18.7	20.8	4.8	50.0	3.0	0.2	NA	<0.05	<0.01	413	0.9	2.00	0.66	0.22	0.19
RA	G-043300	13-Aug-84	240	NA	7.2	368	308	108	NA	26.0	NA	25.0	18.0	0.33	NA	3.6	0.4	452	11.4	2.42	0.77	0.90	0.72
RA	G-055408	19-Jul-04	104	795	6.8	351	312	105	21.6	29.9	8.0	77.7	8.7	0.3	39.4	0.553	0.418	444	<0.2	2.69	#VALUE!	1.13	#VALUE!
RA	G-055408	26-Jun-06	104	672	7.53	338	314	104	19.0	31.7	8.1	57.0	8.0	0.3	17	<0.05	0.17	446	<0.2	2.62	0.89	1.30	0.98
RA	G-065265	19-Jul-04	80	779	6.7	363	318	108	22.8	21.2	5.0	49.2	6.6	0.4	41.8	<0.05	0.019	428	3.2	2.59	0.78	1.38	1.06
RA	G-065265	22-Jul-05	80	732	7.48	398	328	121	23.3	20.3	5.1	49.0	7.0	0.3	20	<0.05	0.02	402	3.8	2.69	0.94	0.92	0.68
RA	G-065265	19-Jul-06	80	749	8.39	380	325	114	23.2	20.6	5.4	50.0	7.0	0.3	20	<0.05	0.02	550	5	3.02	0.96	0.88	0.63
RA	G-065265	26-Jul-07	80	764	8.02	342	348	102.64	20.6	17.9	5.3	59.0	8.0	0.4	17.89	<0.05	0.02	442	4.6	2.84	0.95	0.90	0.65
RA	G-065265	13-Aug-08	80	722	7.31	363	317	112.05	20.3	20.8	4.9	48.0	8.0	0.2	17.44	<0.05	0.02	474	6.8	2.56	0.85	0.78	0.60
RA	G-065265	15-Jul-09	80	670	7.32	331	312	100.15	19.8	22.1	4.8	48.0	6.0	0.3	17.17	<0.05	0.02	432	4.7	2.80	0.84	0.90	0.67
RA	G-065265	15-Aug-95	80	737	7.4	370	295	110	22.0	18.0	4.8	46.0	6.9	0.3	39	0.011	0.02	445	4.8	2.50	0.82	0.96	0.75
RA	G-065265	29-Aug-94	80	778	7.3	370	347	110	22.0	18.0	5.9	58.0	8.2	0.3	43	0.16	0.033	479	1.2	2.74	0.91	0.78	0.58
RA	G-065265	01-Aug-00	80	696	7.47	389	328	116	23.6	21.9	4.5	47.0	8.0	0.3	19	<0.05	0.02	435	4.5	2.74	0.91	0.78	0.58
RA	G-065265	24-Jul-01	80	734	7.62	374	294	110	23.7	24.0	5.1	46.0	9.0	0.3	19	0.03	0.08	477	4.8	2.89	0.97	0.95	0.69
RA	G-065265	28-Jun-02	80	788	7	375	336	115	21.2	20.3	5.0	45.3	8.1	0.3	37.9	<0.05	0.018	472	3.1	2.74	0.98	1.04	0.77
RA	G-065265	11-Jul-03	80	725	7.12	409	331	122	24.6	21.6	5.2	45.0	8.0	0.2	20	<0.05	0.02	478	3.6	2.87	0.87	0.88	0.65
RA	G-065265	30-Aug-99	80	717	7.85	367	321	108	23.3	20.6	4.9	49.0	7.0	0.1	19	<0.05	0.02	408	4.1	3.04	1.01	0.94	0.66
RA	G-074837	21-Jul-04	255	554	6.5	242	198	72.3	14.8	19.9	5.0	30.3	4.6	0.3	52.1	<0.05	<0.01	364	8.4	2.69	0.96	0.90	0.66
RA	G-074837	06-Jul-05	255	538	7.35	257	203	78	15.0	20.5	4.3	31.0	5.0	0.3	25	<0.05	<0.01	308	8.9	1.80	0.61	0.87	0.79
RA	G-074837	12-Jul-06	255	546	7.88	271	210	83	15.6	20.5	4.7	31.0	4.0	0.1	23	<0.05	<0.01	310	10.6	1.95	0.62	0.89	0.79
RA	G-074837	02-Jul-07	255	533	7.9	220	201	67.1	12.9	16.8	4.9	31.0	4.0	0.3	23.5	<0.05	<0.01	332	10.9	2.07	0.64	0.89	0.77
RA	G-074837	30-Jul-08	255	525	7.16	238	204	73.46	13.2	20.4	4.6	33.0	5.0	0.3	22.65	0.01	<0.01	346	9.3	1.67	0.53	0.73	0.70
RA	G-074837	07-Jul-09	255	509	7.12	229	206	68.92	13.7	20.6	5.0	32.0	4.0	0.3	22.8	<0.05	<0.01	370	9.1	1.81	0.54	0.89	0.81
RA	G-084063	13-Sep-04	NA	644	6.8	265	260	78.1	17.0	30.0	5.0	27.6	10.2	0.4	47.9	<0.05	<0.01	372	4.5	1.72	0.56	0.89	0.84
RA	G-084063	17-Aug-05	NA	629	6.9	292	326	86	18.7	31.5	5.1	32.0	10.0	0.2	20	<0.05	<0.01	370	4.8	1.95	0.70	1.31	1.13
RA	G-084063	11-Jul-08	NA	598	7.23	267	252	80.93	15.7	25.8	4.1	29.0	13.0	0.3	20.48	<0.05	<0.01	394	5.3	2.15	0.77	1.37	1.13
RA	G-084063	11-Jun-09	NA	645	6.91	254	268	76.93	15.1	29.3	4.7	30.0	9.0	0.3	19.24	<0.05	<0.01	386	4.1	2.02	0.64	1.12	0.97
RA	G-084063	08-Aug-12	NA	572	7.82	238.8	254	71.64	14.6	26.3	4.5	26.2	8.0	0.3	20.78	<0.05	<0.01	352	4.1	1.92	0.62	1.28	1.13
RA	G-084063	04-Jun-13	NA	659	7.18	291.7	278	87.65	17.7	33.3	5.4	32.2	11.4	0.3	20.69	<0.05	<0.01	404	4.1	1.79	0.60	1.14	1.05
RA	G-084063	27-Aug-03	NA	NA	NA	NA	282	89	18.4	32.9	5.0	31.0	9.0	0.3	19	<0.05	<0.01	NA	5	2.19	0.73	1.45	1.20
RA	G-084064	13-Sep-04	NA	703	6.8	287	278	86.6	17.1	32.9	5.0	34.8	13.0	0.3	46.4	<0.05	<0.01	380	5.5	2.22	0.76	1.43	1.17
RA	G-084064	17-Aug-05	NA	721	7.13	330	305	99	20.1	37.1	5.4	43.0	15.0	0.2	20	<0.05	<0.01	420	6	2.16	0.70	1.43	1.20
RA	G-084064	23-Aug-06	NA	673	7.39	310	295	93	19.0	34.2	4.1	33.0	12.0	0.1	22	<0.05	<0.01	408	4.4	2.47	0.83	1.61	1.26
RA	G-084064	11-Jul-08	NA	671	7.34	301	288	91.9	17.2	34.4	4.6	37.0	13.0	0.3	20.01	<0.05	<0.01	412	6.4	2.32	0.78	1.49	1.19

Source	Site	Date	Depth, in feet	Specific conductance	pH, in	Hardness	Alkalinity as CaCO3	Calcium	Magnesium	Sodium	Potassium	Sulfate	Chloride	Fluoride	Silica	Iron	Manganese	Total dissolved solids	Nirate as N	Calcium, in millequivalents	Magnesium, in millequivalents	Sodium, in millequivalents	Sodium Adsorption Ratio
RA	G-084064	11-Jun-09	NA	716	6.83	290	284	88.19	17.1	34.9	5.3	40.0	14.0	0.2	20.01	<0.05	<0.01	444	4.9	2.29	0.71	1.50	1.22
RA	G-084064	08-Aug-12	NA	648	7.06	285.5	271	85.71	17.4	30.9	5.3	36.8	13.9	0.2	22.17	<0.05	<0.01	382	4.3	2.20	0.70	1.52	1.26
RA	G-084064	04-Jun-13	NA	660	7.04	287.3	278	86.12	17.6	33.1	5.4	32.5	11.2	0.3	20.63	<0.05	<0.01	406	4.55	2.14	0.71	1.35	1.13
RA	G-084064	27-Aug-03	NA	NA	NA	NA	290	98	18.2	33.2	5.1	38.0	13.0	0.2	19	<0.05	<0.01	NA	5.9	2.15	0.72	1.44	1.20
RA	G-094905	02-Aug-07	215	570	7.83	233	266	70.28	14.3	25.9	5.6	22.0	5.0	0.3	18.49	0.01	0.23	366	<0.2	2.45	0.75	1.44	1.14
RA	G-094905	30-Jun-08	215	556	7.7	223	270	67.59	12.9	24.3	5.2	23.0	5.0	0.2	16.51	<0.05	0.21	402	<0.2	1.75	0.59	1.13	1.04
RA	G-094905	01-Jul-09	215	492	7.36	244	269	73.88	14.4	31.3	6.7	23.0	5.0	0.4	17.99	<0.05	0.22	324	<0.2	1.69	0.53	1.06	1.00
RA	G-107747	27-Jul-04	160	860	7.1	399	383	116	26.6	17.6	6.0	27.1	3.8	0.3	53.9	0.117	0.011	488	<0.2	1.84	0.59	1.36	1.24
RA	G-107747	19-Aug-05	160	850	7.52	474	452	138	31.4	18.3	6.9	28.0	3.0	0.2	24	<0.05	0.01	466	<0.2	2.89	1.09	0.77	0.54
RA	G-107747	21-Aug-06	160	834	7.45	475	440	138	31.6	18.0	7.4	25.0	2.0	NA	24	<0.05	0.01	516	<0.2	3.44	1.29	0.80	0.52
RA	G-107747	20-Jun-07	160	775	7.99	400	427	116.59	26.2	15.5	5.7	25.0	4.0	0.3	25.07	<0.05	0.01	464	<0.2	3.44	1.30	0.78	0.51
RA	G-107747	10-Jun-08	160	744	7.88	356	380	103	23.9	16.6	6.1	25.0	8.0	0.3	22	<0.05	0.04	452	<0.2	2.91	1.08	0.68	0.48
RA	G-107747	15-Sep-09	160	830	7.21	402	416	117.37	26.5	17.0	6.8	22.0	4.0	0.2	22.02	<0.05	0.03	462	<0.2	2.57	0.98	0.72	0.54
RA	G-107747	10-May-11	160	823	7.23	433	462	127.14	28.2	17.1	6.8	20.0	4.0	0.5	22.02	0.02	0.03	516	<0.2	2.93	1.09	0.74	0.52
RA	G-107747	05-Nov-01	160	764	6.47	468	350	135	31.2	20.6	6.7	32.0	6.0	0.2	24	<0.05	0.03	535	0.3	3.17	1.16	0.74	0.50
RA	G-107747	11-Jul-01	160	792	7.25	397	390	114	26.6	34.0	5.9	38.0	8.0	0.2	23	<0.05	0.04	495	0.3	3.37	1.28	0.90	0.59
RA	G-107747	10-Jan-02	160	773	7.29	443	439	126	30.4	21.1	7.5	33.0	5.0	0.3	24	<0.05	0.03	567	0.3	2.84	1.09	1.48	1.05
RA	G-107747	10-Apr-02	160	701	7.62	432	331	125	28.7	18.9	6.6	38.0	3.0	0.2	30	<0.05	0.02	513	0.3	3.14	1.25	0.92	0.62
RA	G-107747	23-Jul-02	160	814	7.2	403	106	120	24.9	16.5	6.0	31.1	4.5	0.2	51.7	0.797	0.013	520	<0.2	3.12	1.18	0.82	0.56
RA	G-107747	22-Oct-02	160	844	7	347	394	102	22.3	14.9	6.0	31.8	4.3	0.2	46.4	0.037	<0.01	492	<0.2	2.99	1.02	0.72	0.51
RA	G-107747	08-Jan-03	160	786	7.2	424	396	127	25.8	15.9	6.0	31.3	4.0	0.2	50.7	0.159	<0.01	396	<0.2	2.54	0.92	0.65	0.49
RA	G-107747	01-May-03	160	850	7.2	418	410	123	26.8	17.1	7.0	30.2	4.6	0.3	53.8	0.77	0.02	476	<0.2	3.17	1.06	0.69	0.48
RA	G-107747	30-Jul-03	160	725	7.24	388	374	112	25.6	17.0	6.6	32.0	4.0	0.2	25	<0.05	<0.01	416	0.3	3.07	1.10	0.74	0.52
RA	G-107747	09-Oct-03	160	764	7.17	417	380	122	26.9	17.4	6.8	32.0	4.0	0.2	22	<0.05	<0.01	482	0.5	2.79	1.05	0.74	0.53
RA	G-110389	05-Aug-04	NA	655	7.3	316	299	97.2	17.8	22.3	5.0	45.8	3.3	0.2	42.3	<0.05	<0.01	396	2.1	3.04	1.11	0.76	0.53
RA	G-110389	19-Jul-05	NA	651	7.64	335	316	104	18.2	22.4	4.6	42.0	3.0	0.2	18	<0.05	<0.01	364	<0.2	2.43	0.73	0.97	0.77
RA	G-111121	13-Sep-04	NA	674	7	279	290	86.5	15.2	31.5	5.0	26.9	8.7	0.4	43.2	<0.05	<0.01	376	3.3	2.59	0.75	0.97	0.75
RA	G-111121	17-Aug-05	NA	644	7.24	305	292	95	16.4	32.9	5.4	28.0	8.0	0.2	19	<0.05	<0.01	406	3.7	2.16	0.63	1.37	1.16
RA	G-111121	23-Aug-06	NA	665	7.43	310	304	97	16.5	31.3	4.9	30.0	10.0	0.1	21	<0.05	<0.01	398	4.3	2.37	0.67	1.43	1.16
RA	G-111121	11-Jul-08	NA	644	7.38	299	289	95.08	15.1	30.3	4.6	31.0	12.0	0.3	19.33	<0.05	<0.01	424	3.5	2.42	0.68	1.36	1.09
RA	G-111121	11-Jun-09	NA	685	6.97	292	288	91.52	15.1	32.7	5.2	31.0	9.0	0.3	19.31	<0.05	0.02	392	4	2.37	0.62	1.32	1.08
RA	G-111121	08-Aug-12	NA	667	7.18	296.8	290	92.61	15.9	31.5	5.1	32.5	11.6	0.3	20.95	<0.05	<0.01	384	4.1	2.28	0.62	1.42	1.18
RA	G-111121	04-Jun-13	NA	682	7.11	304.9	298	94.79	16.6	32.2	5.5	33.1	11.8	0.2	19.92	<0.05	<0.01	416	3.45	2.31	0.66	1.37	1.12
RA	G-111121	27-Aug-03	NA	884	NA	NA	296	94	16.0	32.4	4.0	24.0	7.0	0.3	17	<0.05	<0.01	NA	3.9	2.37	0.68	1.40	1.14
RA	G-150519	18-May-10	NA	973	7.08	500	329	138.11	37.7	21.3	5.9	213.0	2.0	0.3	21.15	<0.05	0.7	668	2.8	2.35	0.66	1.41	1.15
RA	G-150519	06-Jun-12	NA	958	7.13	523.6	338	138.8	43.0	22.1	6.7	204.0	2.3	0.3	26.42	<0.05	0.78	690	2.6	3.45	1.55	0.93	0.59
RA	G-155601	01-Oct-07	177	771	8.09	358	285	102.78	24.6	27.1	4.1	117.0	NA	0.4	15.28	0.01	0.09	466	<0.2	3.46	1.77	0.96	0.59
RA	G-155601	07-Mar-08	177	753	8.02	374	288	108.57	24.8	24.6	4.3	121.0	3.0	0.2	15.79	0.01	0.36	504	<0.2	2.56	1.01	1.18	0.88
RA	G-155601	26-Jun-08	177	731	7.78	336	280	97.99	22.1	25.2	4.3	107.0	3.0	0.3	15.64	<0.05	0.03	458	<0.2	2.71	1.02	1.07	0.78
RA	G-155601	15-Sep-09	177	794	7.38	356	295	104.68	23.1	26.5	4.7	124.0	4.0	0.3	14.73	<0.05	0.08	468	<0.2	2.44	0.91	1.10	0.85
RA	G-155630	30-Jun-11	361	841	7.04	413	314	121.43	26.9	22.1	6.1	165.0	5.0	0.2	23.86	0.01	0.13	606	<0.2	2.61	0.95	1.15	0.86
DK	G-049390	7/27/1984	280	NA	7.7	364	332	80	NA	16.0	NA	29.0	12.0	0.4	NA	0.1	0.2	512	1.1	3.03	1.11	0.96	0.67
DK	12N 6E35ADA :	3/19/1974	53	1180	7.1	450	344	130	30.0	54.0	9.5	49.0	44.0	0.5	58	1400	< 10	772	NA	3.24	1.23	2.35	1.57
DK	12N 7E17CBBB	8/15/1995	195	525	6.9	181	NA	51	13.0	43.0	3.5	21.0	3.4	0.3	38	5	< 1.00	346	NA	1.27	0.53	1.87	1.97
DK	12N 7E22DA 1	3/21/1969	160	2570	7.7	880	296	208	89.0	330.0	16.0	1240.0	37.0	3.5	6.9	7200	250	2090	0.023	5.19	3.66	14.36	6.82
DK	13N SE 2BB 1	6/6/1969	295	528	7.8	260	279	59	28.0	15.0	8.6	66.0	1.7	0.4	22	60	NA	341	0.136	1.47	1.15	0.65	0.57
SW	No. Oak Cr Nr V	9/8/1971	NA	648	7.8	290	351	74	25.0	35.0	9.3	51.0	14.0	0.5	NA	20	260	383	NA	1.85	1.03	1.52	1.27
SW	No. Oak Cr Nr V	11/12/1971	NA	759	7.9	380	430	110	25.0	20.0	8.7	53.0	8.2	0.4	NA	10	230	440	NA	2.74	1.03	0.87	0.63
SW	No. Oak Cr Nr V	3/23/1972	NA	606	7.9	290	347	82	20.0	18.0	7.3	52.0	9.7	0.4	NA	20	860	362	NA	2.05	0.82	0.78	0.65
SW	No. Oak Cr Nr V	5/3/1972	NA	550	7.3	250	284	74	17.0	15.0	15.0	51.0	7.0	0.4	NA	10	600	326	NA	1.85	0.70	0.65	0.58
SW	Oak Cr Nr Agne	11/17/1967	NA	726	7.6	370	397	101	28.0	22.0	6.8	75.0	4.4	0.3	21	50	610	457	NA	2.52	1.15	0.96	0.71
SW	Oak Cr Nr Agne	7/18/1968	NA	648	7.8	300	362	80	26.0	23.0	10.0	56.0	6.1	0.5	16	70	510	396	0.045	2.00	1.07	1.00	0.81
SW	Oak Cr Nr Raym	5/5/1964	NA	790	8.3	400	434	115	27.0	24.0	8.6	71.0	8.4	0.4	21	80	250	499	0.181	2.87	1.11	1.04	0.74
SW	Oak Cr Nr Raym	5/24/1964	NA	238	7.4	120	138	35	6.7	3.8	5.9	8.0	1.5	0.5	9.4	70	0	140	0.361	0.87	0.28	0.17	0.22
SW	Oak Cr Nr Raym	6/8/1964	NA	743	8.1	370	425	107	25.0	22.0	8.8	62.0	8.0	0.4	15	170	60	458	0.045	2.67	1.03	0.96	0.70
SW	Oak Cr Nr Raym	6/13/1964	NA	241	7	120	138	36	6.1	3.1	6.0	5.8	1.0	0.4	9.7	730	120	138	0.361	0.90	0.25	0.13	0.18
SW	Oak Cr Nr Raym	6/15/1964	NA	196	7.2	91	112	30	3.9	2.9	5.2	6.0	1.0	0.5	7.9	310	0	114	0.248	0.75	0.16	0.13	0.19
SW	Branched Oak F	11/17/1967	NA	456	7.4	210	249	61	15.0	11.0	12.0	33.0	4.1	0.4	5.6	80	110	267	0.023	1.52	0.62	0.48	0.46
SW	Branched Oak F	7/18/1968	NA	503	7.9	210	271	44	24.0	21.0	12.0	43.0	6.0	0.4	0	110	0	284	0.045	1.10	0.99	0.91	0.89
SW	Middle Oak Cr I	11/17/1967	NA	722	7.6	360	395	103	26.0	21.0	6.3	72.0	4.0	0.3	24	50	450	454	NA	2.57	1.07	0.91	0.68
SW	Middle Oak Cr I	7/18/1968	NA	700	7.8	350	407	100	24.0	21.0	9.3	54.0	3.4	0.5	35	60	720	450	0.181	2.50	0.99	0.91	0.69
SW	Rock Cr Abv Cer	3/14/1974	NA	616	8	260	331	77	17.0	35.0	6.0	52.0	17.0	0.6	30	NA	NA	404	NA	1.92	0.70	1.52	1.33
SW	Rock Cr Abv Cer	4/8/1974	NA	570	7.9	240	300	70	16.0	31.0	5.7	40.0	9.9	NA	NA	NA	NA	326	NA	1.75	0.66	1.35	1.23
SW	Rock Cr Abv Cer	4/29/1974	NA	602	8.1	250	327	74	17.0	31.0	5.7	40.0	11.0	NA	NA	NA	NA	341	NA	1.85	0.70	1.35	1.20
SW	Rock Cr Abv Cer	5/30/1974	NA	380	7.6	160	200	45	12.0	20.0	8.9	29.0	7.3	NA	NA	NA	NA	240	NA	1.12	0.49	0.87	0.97
SW	Rock Cr Abv Cer	6/14/1974	NA	616	8.1	250	307	73	16.0	34.0	5.7	42.0	25.0	NA	NA	NA	NA	352	NA	1.82	0.66	1.48	1.33

Table A2-2: Summary table of water quality parameters evaluated in project area wells- Maha aquifer wells only.

Results of water-quality samples from sites in or near the project area, Lower Platte South NRD [Depth in feet; specific conductance , in microSiemens per centimeter at 25°C; pH in standard units; other units in milligrams per liter unless specified; NA, no sample or not available

Source	Site	Date	Depth, in feet	Specific conductance	pH, in	Hardness	Alkalinity as CaCO3	Calcium	Magnesium	Sodium	Potassium	Sulfate	Chloride	Fluoride	Silica	Iron	Manganese	Total dissolved solids	Nitrate as N	Calcium, in milliequivalents	Magnesium, in milliequivalents	Sodium, in milliequivalents	Sodium Adsorption Ratio
OK	G-049390	7/27/1984	280	NA	7.7	364	332	80	NA	16.0	NA	29.0	12.0	0.4	NA	0.1	0.2	512	1.1	3.03	1.11	0.96	0.67
OK	12N 4E35ADA 1	3/19/1974	53	1180	7.1	450	344	130	30.0	64.0	9.5	49.0	44.0	0.5	58	1400	< 10	772	NA	3.24	1.23	2.35	1.57
OK	12N 7E17CBBB1	8/15/1995	195	525	6.9	181	NA	51	13.0	43.0	3.5	21.0	3.4	0.3	38	5	< 1.00	346	NA	1.27	0.53	1.87	1.97
OK	12N 7E22DA 1	3/21/1969	160	2570	7.7	880	296	208	89.0	330.0	16.0	1240.0	37.0	3.5	6.9	7200	250	2090	0.023	5.19	3.66	14.36	6.82
OK	13N 5E 28B 1	6/6/1969	295	528	7.8	260	279	59	28.0	15.0	8.6	66.0	1.7	0.4	22	60	NA	341	0.136	1.47	1.15	0.65	0.57

Appendix 3
Metadata

Data Delivery File Structure

The acquired and processed data are provided digitally with this report. The file structure on the included disk follows the flow chart in Figure A3.1 below.

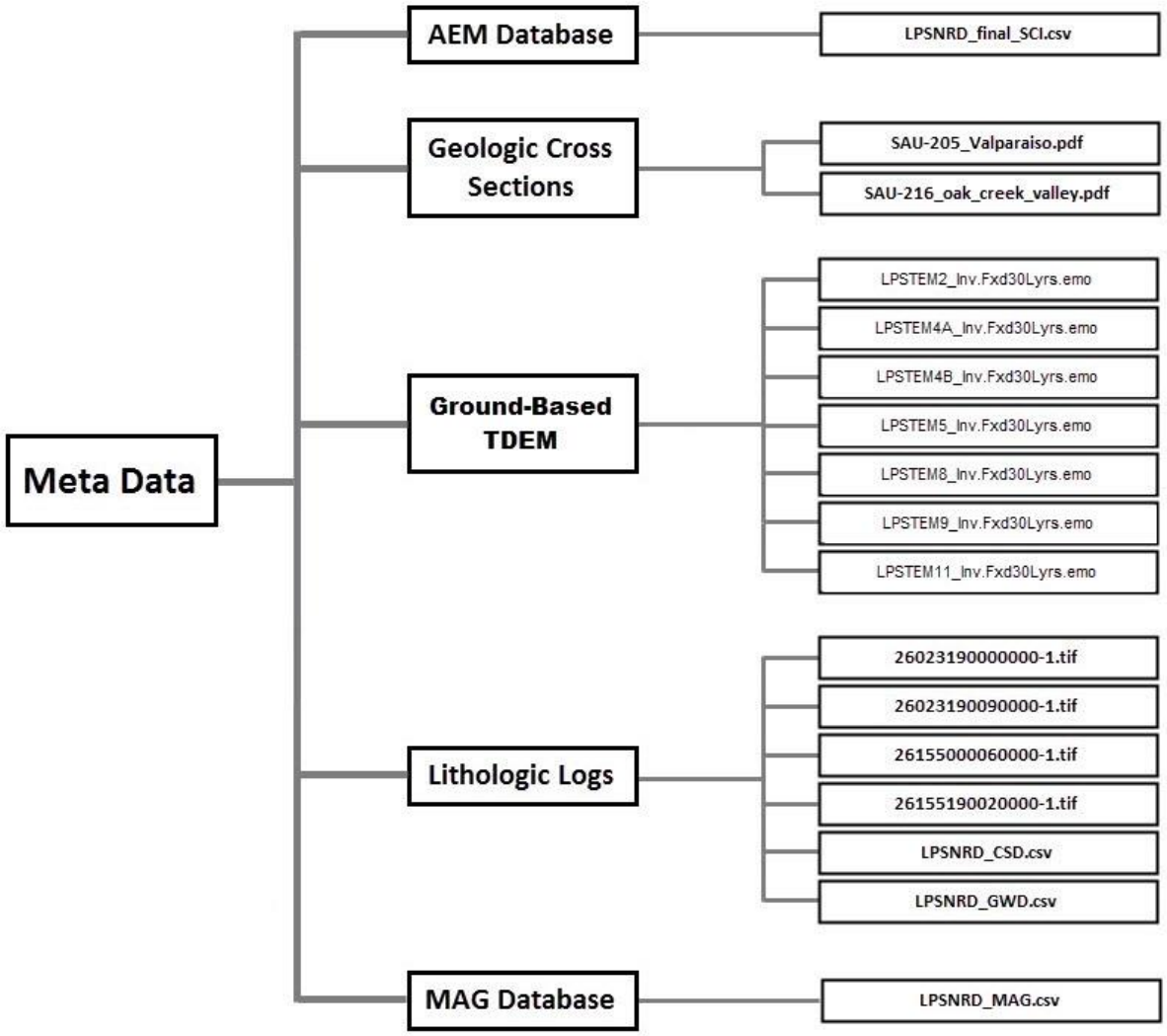


Figure A3-1 - Flow Chart of file structure for delivery of metadata.

AEM Database

The final processed AEM data (spatially constrained inversion results) for the project area is provided in a comma separated file (LPSNRD_fial_sci.csv). Parameters for the processed data file are listed in Table A3-1.

Table A3-1: Parameters for processed AEM data file. Null value = -9999.99 (Occurs where data were removed).

Parameter	Description	Unit
Line	Flight Line Number	N/A
ChordLength	Distance between points	Feet [ft]
X_ft	Easting NAD83 UTM Zone 14 North	Feet [ft]
X_m	Easting NAD83 UTM Zone 14 North	Meters [m]
Y_ft	Northing NAD83 UTM Zone 14 North	Feet [ft]
Y_m	Northing NAD83 UTM Zone 14 North	Meters [m]
DEM_ft	Digital Elevation Model, NAVD88	Feet [ft]
TOPO_m	Helicopter recorded topography, NAVD88	Meter [m]
ALT	Recorded altitude	Meter [m]
INVALT	Inverted altitude	Meter [m]
INVALTSTD	Standard deviation of inverted altitude	Meter [m]
DELTAALT	Difference between recorded and inverted altitude	Meter [m]
DOI_LOWER	A numerical lower estimate of the depth of investigation	Feet [ft]
DOI_UPPER	A numerical upper estimate of the depth of investigation	Feet [ft]
NUMDATA	Number of time gates utilized in inversion	N/A
RECORD	Unique field identification number assigned to each inverted AEM sounding	N/A
SEGMENTS	Identifies if low moment, high moment, or both were used in the inversion	N/A
RESDATA	Residual of individual sounding	N/A
RESTOTAL	Residual of SCI section	N/A
TOP_ft[xx*]	Inverted layer top (bgl)	Feet [ft]
BOT_ft[xx*]	Inverted layer bottom (bgl)	Feet [ft]
RES_[xx*]	Inverted layer resistivity value	ohm-meter [ϱ-m]
RES_STD_[xx*]	Standard deviation of resistivity for inverted layer	Ohm-meter [ϱ-m]
SIGMA_I[xx*]	Inverted layer conductivity value	Siemens/meter [S/m]
Bedrock	Interpreted bedrock surface (asl)	Feet [ft]
WT	Interpreted subsurface water level (asl)	Feet [ft]

*** A TOTAL OF 30 INVERTED LAYERS.**

MAG Database

The final processed magnetic data for the project area is provided in a comma separated file (LPSNRD_MAG.csv). Parameters for the processed data file are listed in table A3-2.

All recorded data are time stamped in order to correlate independent data sets. The time stamps are in Coordinated Universal Time/Greenwich Mean Time (UTC/GMT) which is a +6 hour difference from Central Standard Time. Time stamps are one of the two following formats.

- Date and time defined as: yyyy/mm/dd hh:mm:ss.sss
- Date and time values defined as the number of days since 1900/01/01 and seconds of the day: ddddd.sssssssss (decimal days).

Table A3-2: Parameters for processed MAG data file.

Parameter	Description	Unit
Line	Flight Line Number	N/A
Alt	DGPS Altitude	Meters above sea level
AngleX	Angle (in flight direction)	Degrees
AngleY	Angle (perpendicular to flight direction)	Degrees
Bmag_Diur	Diurnal Variation - magnetic base station data	nanotesla [nT]
Bmag_raw	Total Magnetic Intensity ï raw magnetic data ï magnetic base station data	nanotesla [nT]
Curr_1	Current, High Moment	Amps
Curr_2	Current, Low Moment	Amps
Date	Date	yyyymmdd
DateTime	DateTime Format	Decimal days
DEM	Digital Elevation Model	Meters above sea level
E_NAD83	UTM Zone 14N (NAD83)	Meter [m]
Fid	Unique Fiducial Number	Seconds
Flight	Name of Flight	yyyymmdd.ff
GdSpeed	Ground Speed	Kilometers/hour [km/h]
Height	Filtered Height Measurement	Meters [m]
HM_X_G15[xx*]	Normalized High Moment X-RxCoil value	pV/(m^4*A)
HM_Z_G15[xx*]	Normalized High Moment Z-RxCoil value	pV/(m^4*A)
IGRF_TMI	Calculated IGRF-10	nanotesla [nT]
Lat	Latitude, WGS84	Decimal Degrees
Lon	Longitude, WGS84	Decimal Degrees
LM_X_G10[xx*]	Normalized Low Moment X-RxCoil value	pV/(m^4*A)
LM_Z_G06[xx*]	Normalized Low Moment Z-RxCoil value	pV/(m^4*A)
Mag_cor	Residual Magnetic Field ï corrected for diurnal, lag, heading and IGRF	nanotesla [nT]
Mag_fil	Filtered Magnetic Data	nanotesla [nT]
Mag_raw	Raw Magnetic Data ï total magnetic intensity - despiked	nanotesla [nT]
N_NAD83	UTM Zone 14N (NAD83)	Meter
PLNI_60Hz	Power Line Noise Intensity. Amplitude spectral density of the power line noise	N/A

Parameter	Description	Unit
R_BmagInterp	Interpolated base mag data	nanotesla [nT]
R_BmagInterp_nl	Interpolated base mag data with a nonlinear filter applied	nanotesla [nT]
R_Dec	Declination	Degrees
R_Inc	Inclination	Degrees
R_Magraw_int_nl	Raw magnetic data, interpolated with a nonlinear filter applied	nanotesla [nT]
R_Magraw_Interp	Raw magnetic data, interpolated	nanotesla [nT]
R_TotalField	Regional magnetic field	nanotesla [nT]
RMF	Residual Magnetic Field ï IGRF removed ï final corrected and leveled magnetic data	nanotesla [nT]
Time	Time	hhmmss.sss
TMI	Total Magnetic Intensity ï final corrected and leveled magnetic data; IGRF recalculated	nanotesla [nT]

***High and low moment measurement channels correspond with the time gate numbers listed in Table A3-3.**

Time gates

There are a total of 38 time gates, table A3-3 presents the gate number, the gate center, gate width and a comment concerning time gate usage.

Table A3-3: Time gate information.

Gate No.	Gate Center (µs)	Gate Width (µs)	Comment	Gate No.	Gate Center (µs)	Gate Width (µs)	Comment
0	-0.385	1.57	Not Used	19	172.115	38.57	Low and High Moment
1	1.615	1.57	Not Used	20	216.115	48.57	Low and High Moment
2	3.615	1.57	Not Used	21	271.615	61.57	Low and High Moment
3	5.615	1.57	Not Used	22	342.115	78.57	Low and High Moment
4	7.615	1.57	Not Used	23	431.615	99.57	Low and High Moment
5	9.615	1.57	Low Moment Only	24	544.615	125.57	Low and High Moment
6	11.615	1.57	Low Moment Only	25	687.115	158.57	Low and High Moment
7	13.615	1.57	Low Moment Only	26	867.115	200.57	Low and High Moment
8	16.115	2.57	Low Moment Only	27	1094.615	253.57	Low and High Moment
9	19.615	3.57	Low Moment Only	28	1382.115	320.57	Low and High Moment
10	24.115	4.57	Low Moment Only	29	1745.115	404.57	High Moment Only
11	29.615	5.57	Low Moment Only	30	2203.115	510.57	High Moment Only
12	36.615	5.57	Low Moment Only	31	2781.615	645.57	High Moment Only
13	45.615	9.57	Low Moment Only	32	3512.615	815.57	High Moment Only
14	56.615	11.57	Low and High Moment	33	4436.115	1030.57	High Moment Only
15	70.115	14.57	Low and High Moment	34	5602.615	1301.57	High Moment Only
16	87.115	18.57	Low and High Moment	35	7075.615	1643.57	High Moment Only
17	109.115	24.57	Low and High Moment	36	8936.115	2076.57	High Moment Only
18	137.115	30.57	Low and High Moment	37	11286.115	2622.57	High Moment Only

Ground-Based TDEM

The final processed ground-based TDEM data for the project are provided in series of .emo files that may be read with any text editor. The .emo file is the inversion output file, it contains model parameters, model parameter analyses, forward responses, inversion settings, etc. Parameters for the .emo inversion files are listed in table A3-4.

Table A3.4. Parameters for processed TDEM inversion file.

Line Number(s)	Description						
1-42	Inversion setup information, contains information about which data and model files have been used.						
43+	The lines following line 43 contain information on the inversion result with respect to models and data.						
Norm's (0..NIte)	The norm (residual) progress through the iteration steps.						
	Ite_#	Data	Vcon	Hcon	Depth	Apri	Total
	Iteration number	Residuals for data	Vertical con-straints	Horizontal con-straints	Depth con-straints	Model prior	Total residual
Parameters (0..NIte)	Model Parameters (layer resistivity and thickness) through the iteration steps. The parameters listed for the last iteration are the final inversion result.						
Analysis:	Parameter analysis on prior values.						
Apriori parameters	Prior model parameters (starting model)						
Constraints:	Constraints (with respect to the starting model)						
Data type ID	Forward Data						
	Time	Inp_Data	STD	WaveID	FltID	DSet#	Ite#...
	Micro-second	Input data	Data standard deviation	Wave form ID	Filter ID	Data set	Forward data for each iteration step

Water Table

The last column of data in the AEM database (LPSNRD_fial_sci.csv) is an interpreted water table surface. This data is obtained from the United States Geological Survey National Water Information System Web Interface: http://waterdata.usgs.gov/nwis/gw.

Lithological Logs

A total of two hundred thirty-six (236) lithological logs were obtained from three different sources for this project. The majority of lithological logs, two hundred twenty-five (225), were obtained from the Nebraska Department of Natural Resources Registered Groundwater Wells Data Retrieval website. Seven (7) lithological logs were obtained from the Nebraska Statewide Test-hole Database. The remaining four (4) lithological logs were from deeper wells, obtained from the Nebraska Oil and Gas Conservation Commission.

The lithologies listed in the various databases reports were assigned a pre-defined lithologic category for representation in various data processing and visualization software used for this project. All lithological logs are reported in English depth units, and the locations for all logs have been converted from their original format to Eastings and Northings (ft.) in UTM zone 14N. The two hundred twenty-five (225) lithological logs obtained from the Nebraska Department of Natural Resources Registered Groundwater Wells Data Retrieval website can be located through the following link: http://data.dnr.nebraska.gov/wells/Menu.aspx

An individual well log can be located by following the steps outlined in Figure A3-3. Table A3-4 lists all Nebraska Department of Natural Resources well registration numbers used for this project along with their positional information in Easting and Northings (UTM) and elevation (NAVD 88) in ft. Table A3-4 is also provided with the Meta data as a comma separated file with the following na me: LPSNRD_GWD.csv.

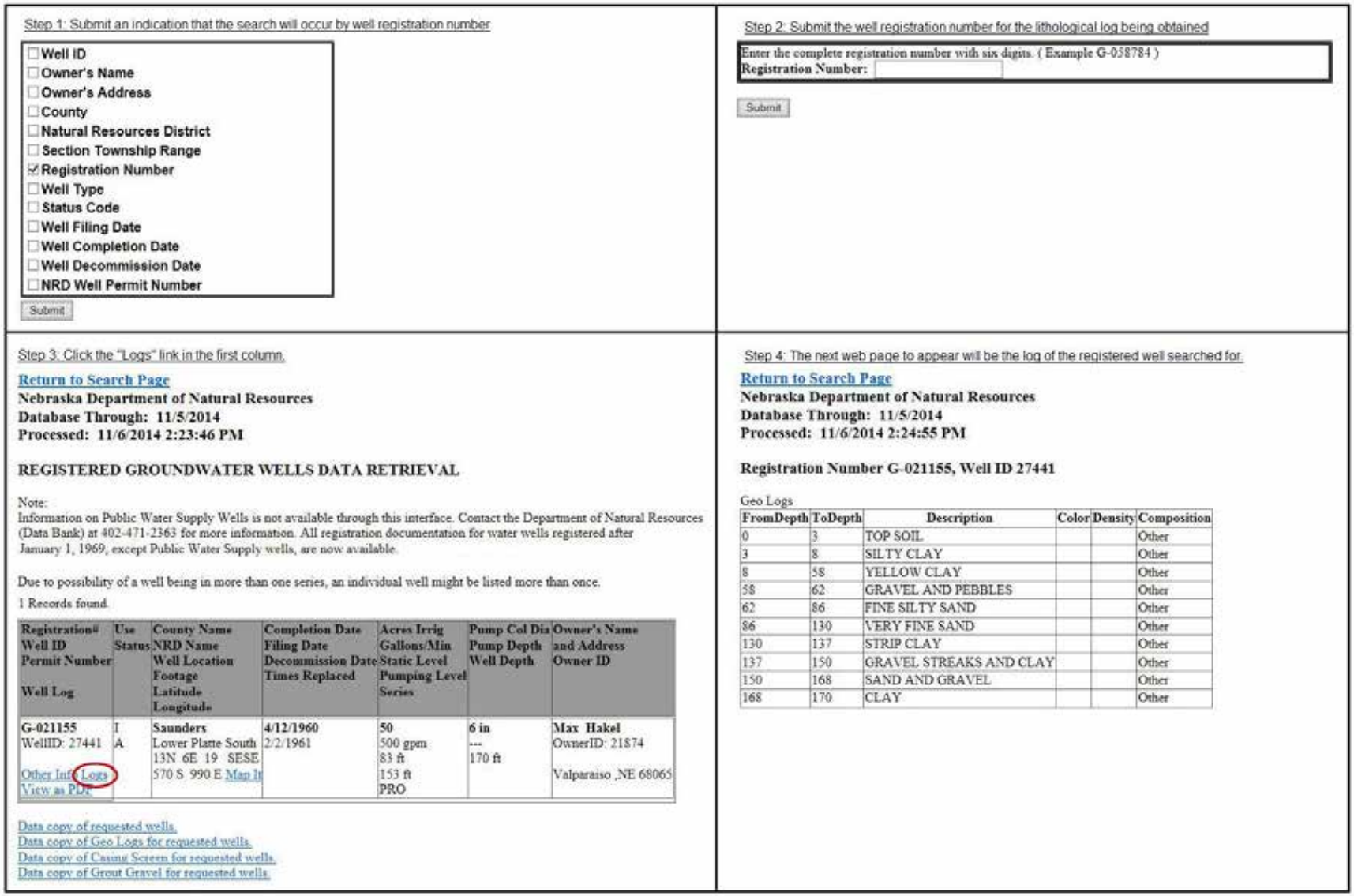


Figure A3-3: Instructions for obtaining lithological logs from the Nebraska Department of Natural Resources registered groundwater wells used for this project.

Table A3-4: List of Nebraska Department of Natural Resources registered groundwater wells used for lithological logs for this project with positional information.

Well Registration	Easting	Northing	Elev.	Well Registration	Easting	Northing	Elev.	Well Registration	Easting	Northing	Elev.
G-007355	2237301	14926307	1302	G-069699	2236009	14924951	1293	G-104867	2238800	14928016	1317
G-021155	2252794	14926626	1341	G-069885	2222772	14923355	1509	G-105160	2232060	14916570	1404
G-021357	2235464	14919360	1307	G-069886	2218897	14924579	1545	G-105218	2264997	14925957	1259
G-028454	2235824	14920322	1298	G-070473	2193742	14935158	1601	G-105567	2225851	14977816	1513
G-032248	2219988	14918666	1464	G-070766	2216939	14919846	1475	G-106044	2250682	14925856	1417
G-033528	2236968	14925090	1300	G-071040	2220705	14926665	1533	G-106052	2186089	14972295	1665
G-033782	2190102	14938155	1652	G-072482	2241391	14936290	1462	G-108684	2226244	14916820	1400
G-035358	2204814	14929818	1423	G-074837	2252033	14943227	1387	G-109481	2231639	14929117	1323
G-035661	2235643	14918503	1316	G-082143	2216412	14935656	1431	G-110061	2195890	14973509	1591
G-042048	2236946	14921908	1289	G-083240	2240520	14928664	1396	G-110785	2254980	14932726	1410
G-042049	2235795	14921127	1274	G-084486	2239162	14931636	1393	G-112493	2195387	14931414	1511
G-047069	2255655	14930741	1362	G-085138	2200617	14967224	1599	G-112649	2232573	14920596	1380
G-047651	2185339	14941022	1613	G-085821	2199879	14962263	1471	G-112668	2192121	14931339	1538
G-047854	2188682	14940469	1613	G-087149	2190960	14929837	1505	G-112919	2212233	14935436	1496
G-047915	2233083	14935471	1331	G-088469	2190327	14938144	1654	G-112920	2196479	14927115	1468
G-047916	2233117	14934151	1302	G-089859	2215699	14935428	1455	G-112933	2211698	14934372	1444
G-048413	2220855	14923956	1451	G-090757	2242788	14931445	1414	G-113393	2190031	14967087	1679
G-048577	2263744	14925598	1269	G-095325	2189049	14938197	1636	G-115762	2190021	14940544	1637
G-049390	2205511	14928245	1475	G-095615	2203493	14963889	1571	G-116505	2232423	14916210	1400
G-049648	2239840	14929009	1349	G-096538	2265694	14921331	1327	G-116653	2196598	14913605	1576
G-050570	2252126	14940614	1405	G-097146	2236950	14930320	1355	G-117213	2250183	14946288	1370
G-051627	2241419	14917160	1285	G-097147	2236672	14930717	1343	G-117599	2202830	14936610	1517
G-051628	2242767	14915873	1287	G-097148	2236736	14931721	1408	G-117711	2198803	14922735	1501
G-052451	2211156	14916503	1481	G-098344	2203795	14962249	1523	G-118090	2204959	14964203	1596
G-052489	2188691	14939147	1641	G-099151	2190431	14966258	1672	G-119544	2204499	14962299	1563
G-054173	2259674	14932181	1356	G-099694	2227138	14927926	1430	G-120167	2204331	14967488	1530
G-054174	2259761	14926861	1289	G-100177	2264331	14921200	1326	G-120320	2227013	14932164	1430
G-054588	2241363	14919800	1321	G-100522	2190240	14966350	1681	G-121737	2240252	14928927	1392
G-054589	2239441	14920296	1292	G-100534	2249677	14920871	1473	G-122734	2237475	14930043	1394
G-054591	2268084	14934787	1257	G-100989	2258895	14931520	1397	G-123074	2220066	14966644	1486

Well Registration	Easting	Northing	Elev.	Well Registration	Easting	Northing	Elev.	Well Registration	Easting	Northing	Elev.
G-054967	2223482	14921387	1494	G-102475	2224010	14915343	1442	G-123369	2194842	14931076	1561
G-055048	2257652	14930125	1354	G-103369	2186340	14940589	1624	G-123538	2220702	14970281	1480
G-055125	2249568	14937903	1437	G-103802	2258490	14923541	1347	G-123935	2197570	14930349	1549
G-055487	2210278	14923719	1448	G-104587	2240583	14925526	1341	G-124639	2223134	14915244	1466
G-055678	2256751	14938760	1354	G-155273	2204989	14963575	1602	G-125450	2191748	14966000	1599
G-056921	2257304	14946054	1322	G-155290	2264559	14933607	1308	G-125504	2189138	14961748	1667
G-060001	2214147	14930537	1480	G-155302	2229322	14978316	1417	G-126351	2258825	14928801	1341
G-061980	2213130	14915885	1411	G-155600	2205110	14975312	1627	G-126382	2216056	14935543	1427
G-065496	2234113	14918974	1366	G-156071	2217130	14929558	1494	G-127247	2257787	14924168	1326
G-127387	2213422	14920143	1429	G-156828	2234846	14917908	1382	G-141415	2232153	14970580	1516
G-127997	2193103	14940369	1620	G-157122	2190897	14912968	1533	G-055773	2217557	14978845	1513
G-128237	2237553	14932359	1427	G-157559	2208564	14909097	1356	G-074246	2211584	14979343	1527
G-129041	2204854	14962833	1570	G-159138	2206456	14925186	1445	G-064385	2208964	14979204	1585
G-129886	2195218	14945581	1567	G-159454	2254496	14941984	1345	G-153579	2206314	14979105	1592
G-130072	2219467	14976890	1581	G-159534	2195882	14976270	1652	G-167713	2203891	14979343	1553
G-131905	2209625	14935188	1483	G-161117	2190248	14942691	1636	G-063719	2195803	14979025	1602
G-133411	2216998	14925037	1542	G-163962	2185527	14910270	1519	G-091285	2204540	14954087	1436
G-135140	2232100	14915615	1372	G-165496	2266901	14922865	1303	G-150959	2204819	14955882	1458
G-137469	2239013	14923014	1313	G-165842	2216213	14962570	1488	G-146759	2206510	14950170	1536
G-137703	2200971	14929989	1528	G-166091	2216352	14969435	1540	G-129835	2207299	14944776	1631
G-137713	2206242	14923091	1466	G-166099	2192374	14967444	1644	G-080726	2232744	14939547	1394
G-137714	2227582	14919219	1434	G-166125	2213200	14919528	1441	G-054996	2229865	14937515	1344
G-137715	2205460	14935464	1543	G-166326	2252334	14937909	1387	G-163720	2184775	14934965	1603
G-139814	2222474	14963903	1455	G-166327	2263025	14927533	1333	G-118089	2231707	14978978	1420
G-141209	2204956	14963372	1594	G-166999	2220708	14970158	1480	G-054459	2232987	14963931	1531
G-142635	2189489	14913592	1564	G-167390	2222059	14970271	1500	G-139348	2243428	14929362	1433
G-143103	2210309	14970161	1579	G-167391	2219659	14970856	1504	G-155630	2247151	14928443	1504
G-144382	2239167	14932211	1406	G-167593	2221100	14966614	1486	G-116997	2247301	14920701	1427
G-145154	2189506	14913521	1563	G-167617	2266962	14930227	1285	G-094537	2254154	14919584	1420
G-146308	2188675	14910971	1548	G-167675	2215964	14921186	1513	G-094905	2255888	14920312	1340
G-146685	2204895	14964313	1591	G-167966	2224939	14969107	1563	G-086117	2269287	14948369	1409
G-148041	2219447	14919050	1469	G-168833	2200261	14972444	1628	G-129039	2248332	14921143	1440
G-149729	2264001	14923285	1314	G-169366	2198595	14971778	1566	G-032969	2237163	14910016	1297

Well Registration	Easting	Northing	Elev.	Well Registration	Easting	Northing	Elev.	Well Registration	Easting	Northing	Elev.
G-151199	2222288	14925904	1509	G-169418	2262001	14936922	1287	G-101688	2236172	14914540	1372
G-151760	2216751	14925446	1543	G-169681	2242978	14931387	1417	G-129845	2224776	14914472	1389
G-151816	2201147	14972129	1652	G-170027	2254147	14934371	1360	G-053578	2221182	14913992	1455
G-152858	2198425	14962986	1490	G-170067	2258677	14931551	1394	G-096640	2191072	14923959	1579
G-153462	2190031	14967155	1678	G-170073	2213200	14919533	1441	G-150519	2189131	14961739	1667
G-155144	2224555	14931906	1413	G-170560	2218517	14977596	1536	G-058478	2184826	14932003	1609
G-155269	2223788	14928745	1418	G-171541	2186234	14940475	1623	G-127358	2237486	14929891	1386
G-065497	2260136	14935539	1344	G-132205	2192487	14960745	1672	G-154245	2201705	14947117	1581
G-066283	2205273	14936165	1555	G-126705	2202276	14960556	1460	G-063179	2195803	14979025	1602
G-067257	2212492	14915211	1409	G-118208	2206351	14960996	1582	G-057853	2199032	14978935	1630
G-067893	2235789	14932882	1362	G-146949	2220336	14958482	1425	G-172586	2205418	14912448	1398
G-068240	2263634	14932218	1345	G-119472	2231772	14967686	1513	G-146579	2206510	14950170	1536

The seven (7) lithological logs that were obtained from the Nebraska Statewide Test-hole Database can be located through the following link:
http://snr.unl.edu/data/geologysoils/NebraskaTestHole/NebraskaTestHoleIntro.asp

Table A3-5 lists all Nebraska Statewide Test-hole Database wells used for this project along with their positional information in Easting and Northings (UTM) and elevation (NAVD 88) in ft. The detailed lithology logs are also provided with the Meta data as a comma separated file with the following name: LPSNRD_CSD.csv.

Table A3-5: List of Nebraska Statewide test-hole database wells used for lithological logs for this project with positional information.

CSD Test Hole	Easting	Northing	Elev.
3-B-76	2205103	14914560	1433
4-B-76	2206210	14935231	1136
5-B-76	2205075	14945835	1610
6-B-48	2237342	14914883	1148
6-B-77	2205549	14977885	1561
7-B-48	2237798	14931852	1166
7-B-77	2205310	14962168	1535

The remaining four (4) lithological logs were from deeper wells, obtained from the Nebraska Oil and Gas Conservation Commission which can be obtained through the following link:
http://www.nogcc.ne.gov/olNOGCCOnlineGIS/

Table A3-6 lists all Nebraska Oil and Gas Conservation Commission wells used for this project along with their positional information in Easting and Northings (UTM) and elevation (NAVD 88) in ft. Image files of the lithological logs for all of the Nebraska Oil and Gas Conservation Commission wells used for this project are provided with the Meta data as .tif files are named according to Well ID.

Table A3-6: List of Nebraska Oil and Gas Conservation Commission wells used for lithological logs for this project with positional information.

Well ID	Easting	Northing	Elev.
26023190000000-1	2203408	14958450	1429
26023190090000-1	2188129	14962836	1651
26155000060000-1	2234282	14947041	1486
26155190020000-1	2245137	14971040	1378

Geologic Cross Sections

Two historic geologic cross sections were obtained from the LPSNRD and used in the interpretation of the AEM data. The cross sections were geo-located using the positions of the wells listed in Table A3-10 with Easting and Northings in feet (UTM). The images of the two cross sections are provided with the Meta data as .pdf files with the following file names:

SAU-205_Valparaiso.pdf
SAU-216_oak_creek_valley.pdf

Table A3-10: List of positional information for historic geologic cross sections.

Cross Section	Well ID	Easting	Northing
SAU-205_Valparaiso	4-A-48	2237924.361	14946818.87
SAU-205_Valparaiso	7-B-49	2237775.413	14931700.02
SAU-205_Valparaiso	6-B-48	2237319.283	14914731.59
SAU-205_Valparaiso	3-A-48	2237955.791	14898918.17
SAU-216_oak_creek_valley	9-SE-NW	2229701.036	14938586.75
SAU-216_oak_creek_valley	15-NW-NW	2232761.563	14935241.61
SAU-216_oak_creek_valley	15-NW-SW	2233503.024	14933279.7
SAU-216_oak_creek_valley	15-SE-NW	2236222.807	14932607.13
SAU-216_oak_creek_valley	84-1	2236924.242	14930209.1
SAU-216_oak_creek_valley	81-1	2236544.326	14927938.55
SAU-216_oak_creek_valley	81-5	2237604.024	14926140.67
SAU-216_oak_creek_valley	27-SE-NE	2237863.01	14923130.8
SAU-216_oak_creek_valley	35-NE-NW	2239421.587	14920172.9

Appendix 4
Ancillary Geophysical Data

Instrumentation

Instrumentation of the SkyTEM includes a time domain electromagnetic (TDEM) system (one transmitter [Tx] and two receivers [Rx] positioned orthogonally in line with the x and z axes) and a magnetometer as well as data acquisition systems for both of these instruments. The SkyTEM also includes two each of laser altimeters, inclinometers/tilt meters and DGPS receivers. Positional data from the frame mounted DGPS receivers are recorded by the TDEM data acquisition system. The magnetometer includes a third DGPS receiver, this positional data is recorded by the magnetometer data acquisition system. Figure A4-1 gives a simple illustration of the SkyTEM frame and instrument locations, the image is viewed along the +z axis looking at the horizontal x-y plane. The axes for the image are labelled with distance in meters. The square symbols denote the locations of the altimeters, the triangles denote the DGPS positions and the circles denote the inclinometers. The magnetometer is located on a boom off the front of the frame (right side of image, arrow indicates +x direction as well as direction of flight). The TDEM Tx coil is located around the octagonal frame and the Rx Coils (x and z) are located at the back of the frame, left side of image).

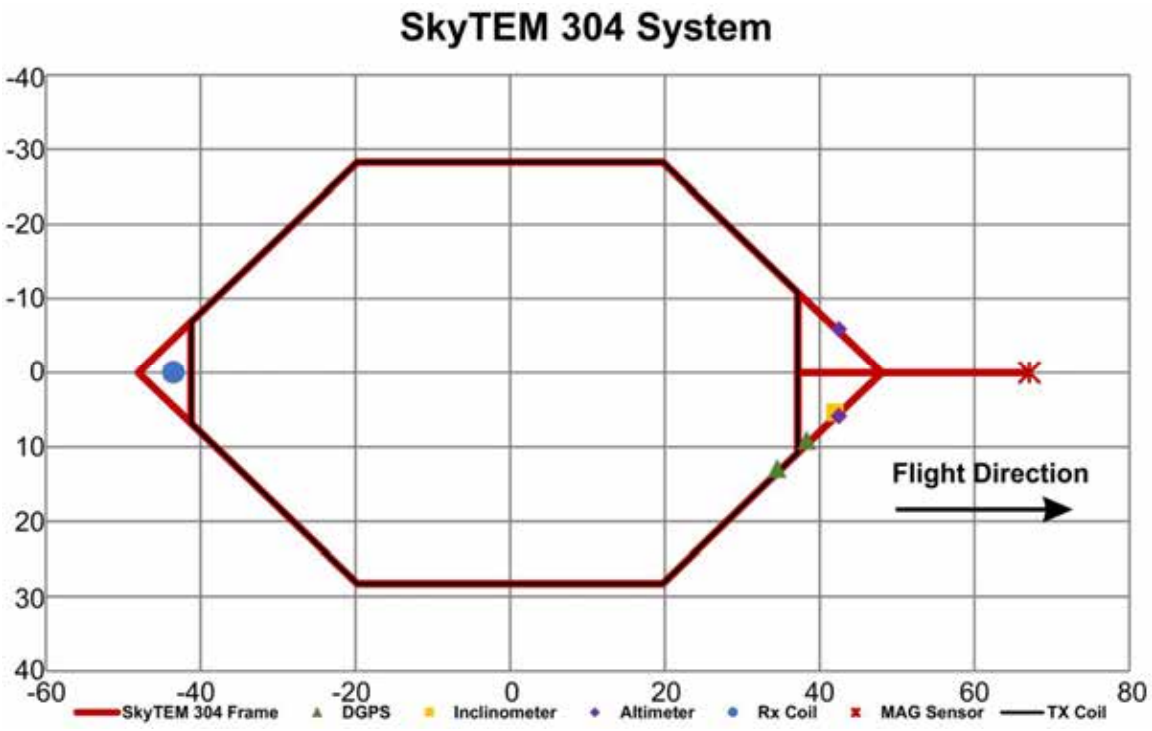


Figure A4-1: Simple illustration of SkyTEM frame showing instrumentation location.

The coordinate system used defines the +x direction as the direction of flight, the +y direction is defined 90° to the right and the +z direction is downward. The center of the transmitter loop, mounted to the octagonal SkyTEM frame is used as the origin when considering instrumentation positions. Table A4.1 lists the positions of the instruments (in meters) and Table A4.2 lists the corners of the transmitter loop (labeled in red numbers in Figure A4-1).

Table A4-1: Instrumentation position on the SkyTEM frame.

Instrument	DGPS 1	DGPS 2	Inclinometer 1	Inclinometer 2	Altimeter HE1	Altimeter HE2	X Rx Coil	Z Rx Coil
X	9.90	9.90	-11.65	-11.65	5.13	5.13	-13.60	-12.50
Y	2.69	3.66	0.50	0.50	7.85	-7.79	0.00	0.00
Z	-0.28	-0.28	-0.37	-0.37	-0.13	-0.13	-0.02	-2.21

Table A4-2: Corner positions of TX loop on the SkyTEM frame.

TX Corners	1	2	3	4	5	6	7	8
X	5.68	11.87	11.87	5.68	-5.68	-11.87	-11.87	-5.68
Y	8.22	2.03	-2.03	-8.22	-8.22	-2.03	2.03	8.22

Magnetometer base station locations are listed in Table A4-3. Table A4-3 gives the type of base station and positional information in Easting and Northings (UTM) and elevation (NAVD 88) in ft.

Table A4-3: Locations of magnetometer base stations.

Instrument	X, Easting	Y, Northing	Elevation
Primary Magnetometer Base Station	2214602	14910977	1378
Secondary Magnetometer Base Station	2214579	14911065	1381

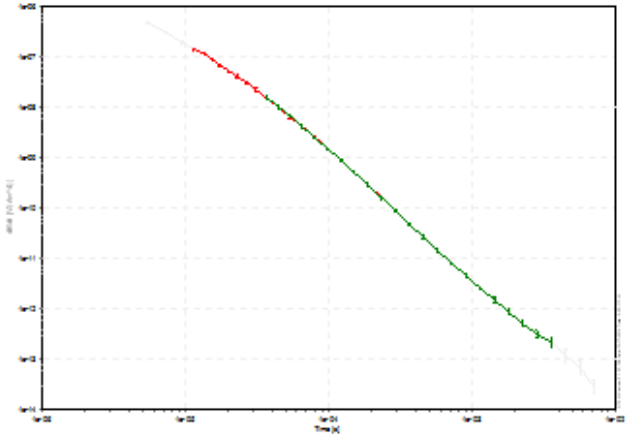
Ground-Based TDEM Inversions

The results of the final inversion of the ground-based TDEM data area presented on pages 173-179. Each page contains a plot of the change in the magnetic field with respect to time (dB/dt Plot, upper left), a plot of the apparent resistivity with respect to time (App. Res. Plot, lower left) and a plot of the final inverted earth resistivity model (Model, right).

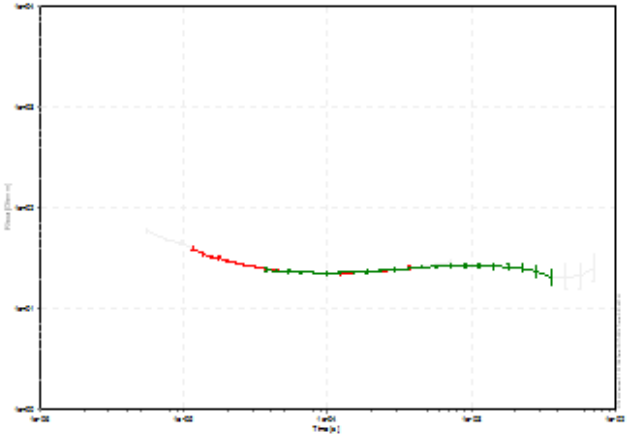
Ground TDEM Model Results

LPS-TEM2

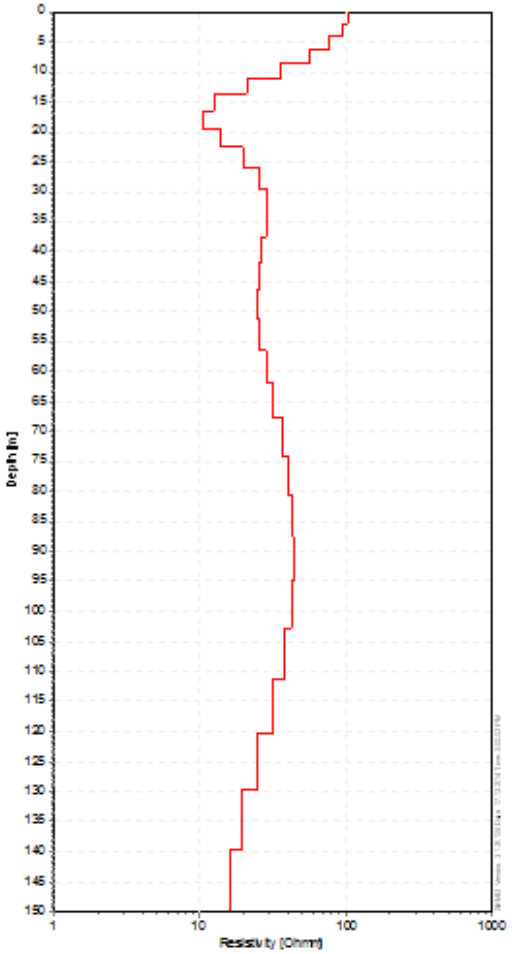
dB/dt Plot



App. Res. Plot

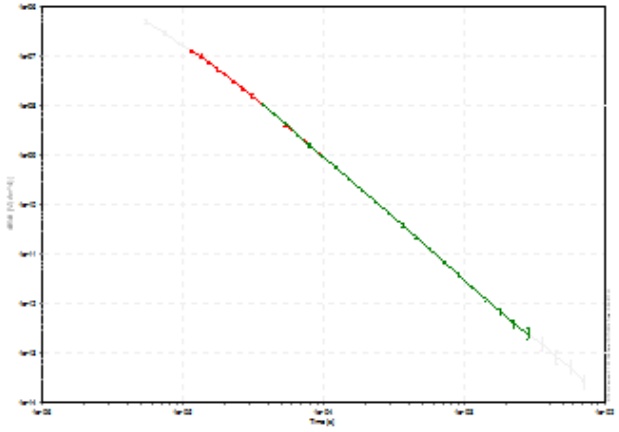


Model

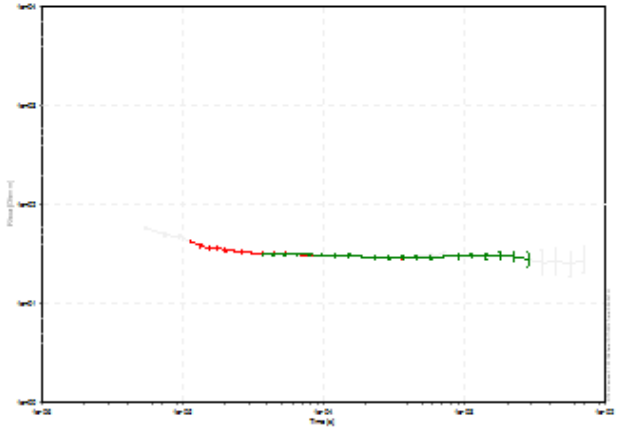


LPS-TEM4A

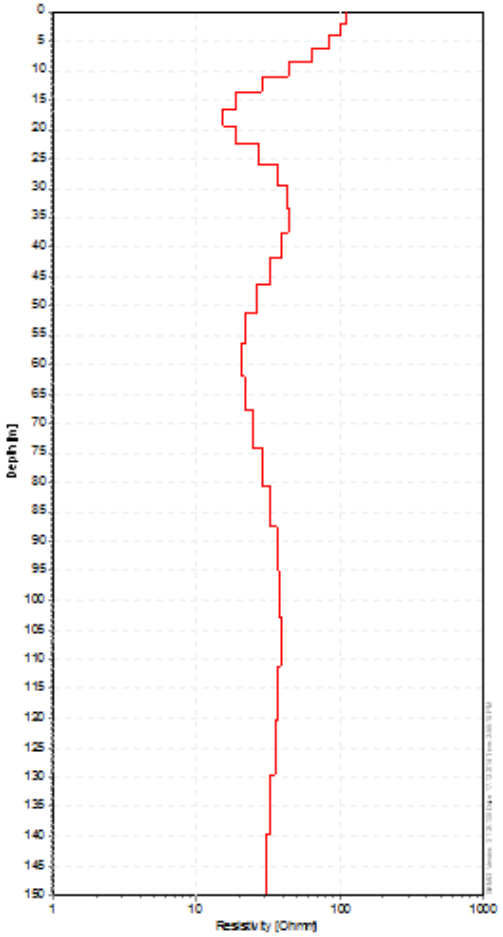
dB/dt Plot



App. Res. Plot

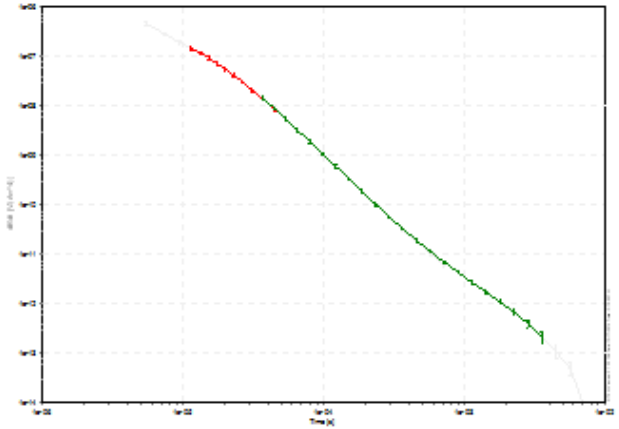


Model

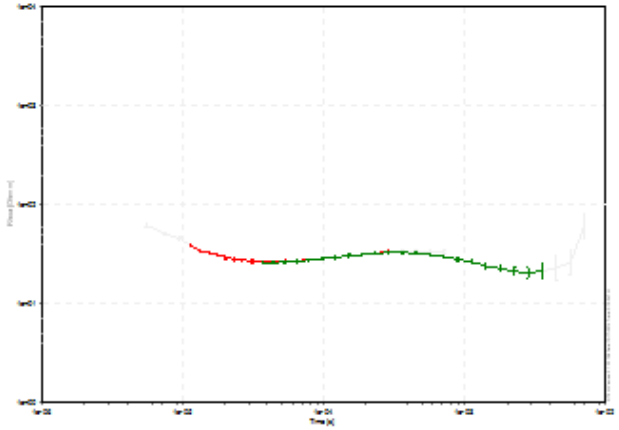


LPS-TEM4B

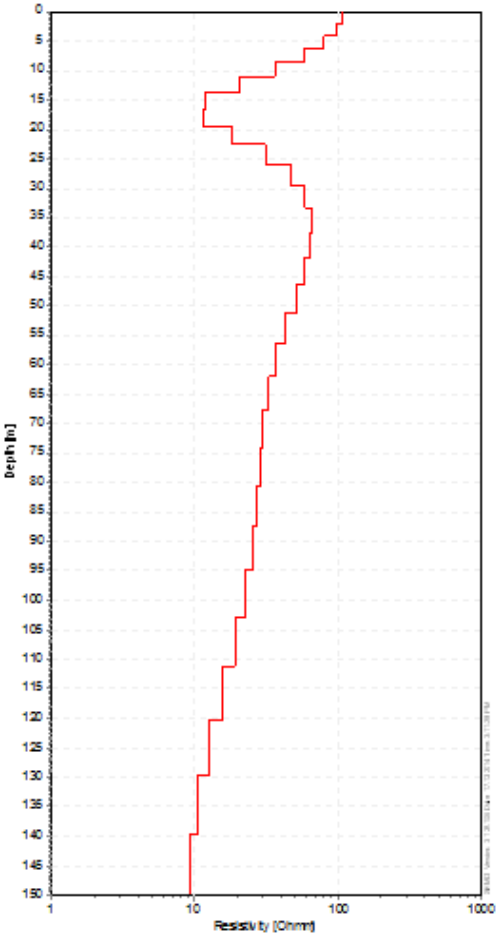
dB/dt Plot



App. Res. Plot

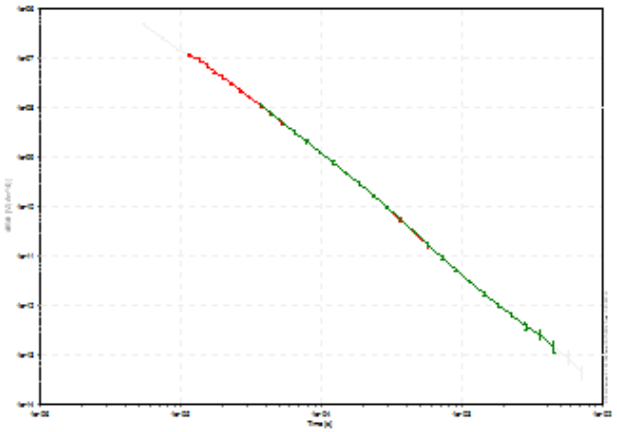


Model

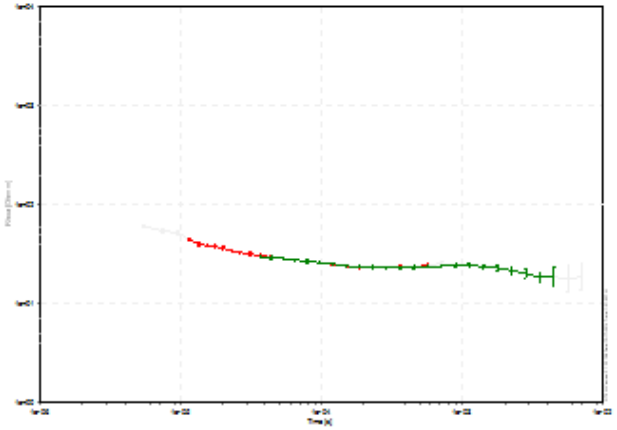


LPS-TEM5

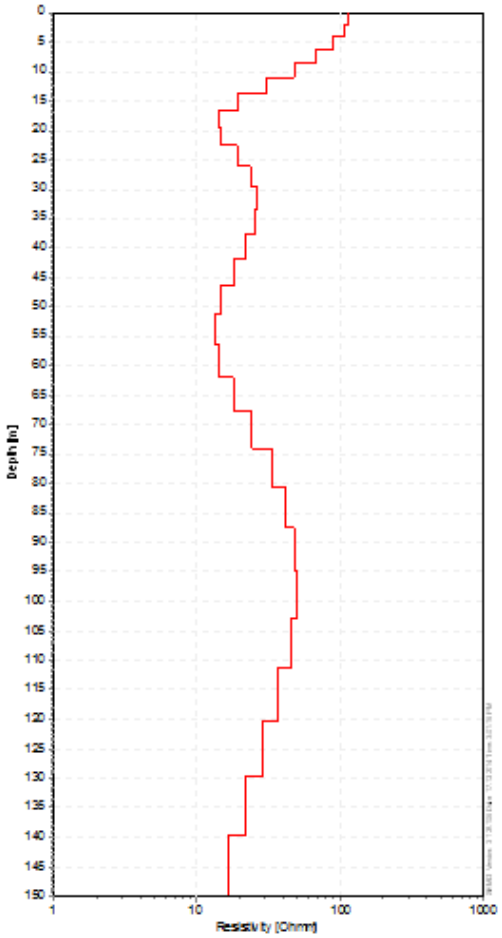
dB/dt Plot



App. Res. Plot

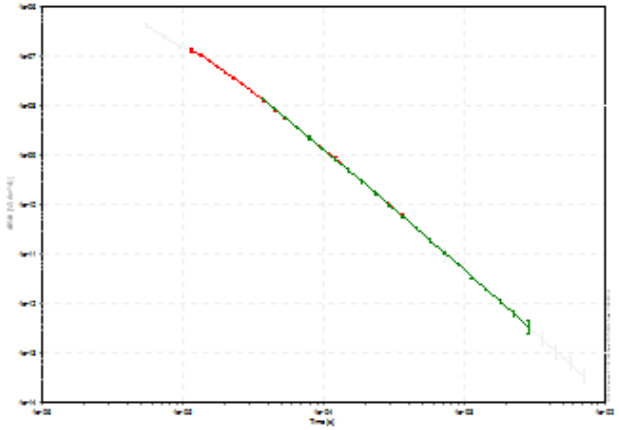


Model

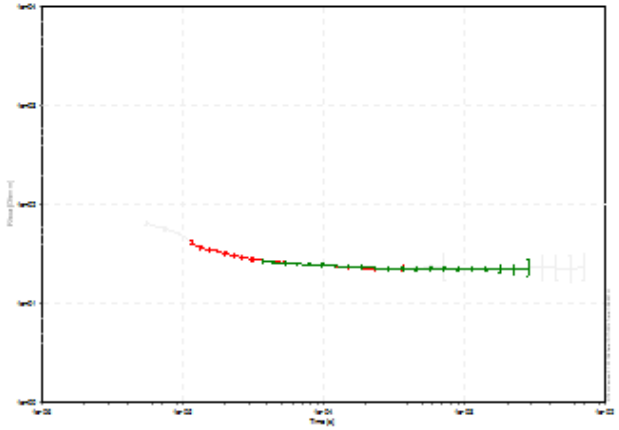


LPS-TEM8

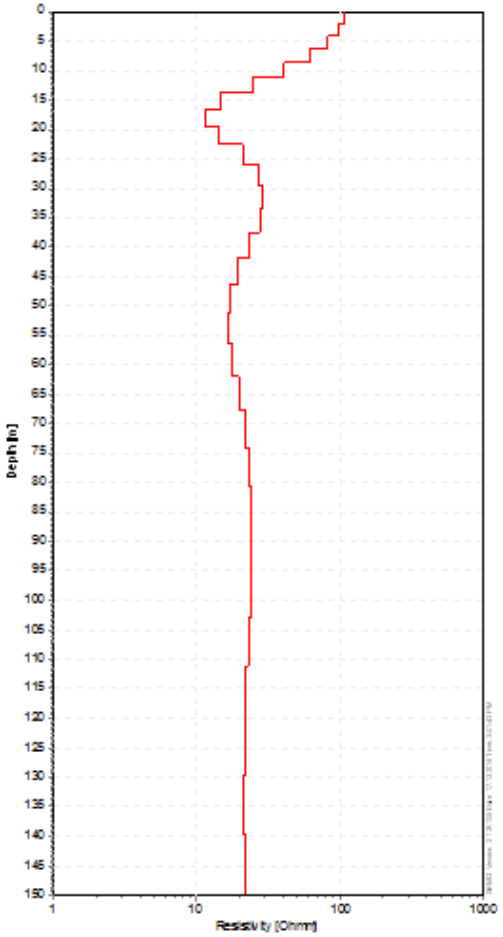
dB/dt Plot



App. Res. Plot

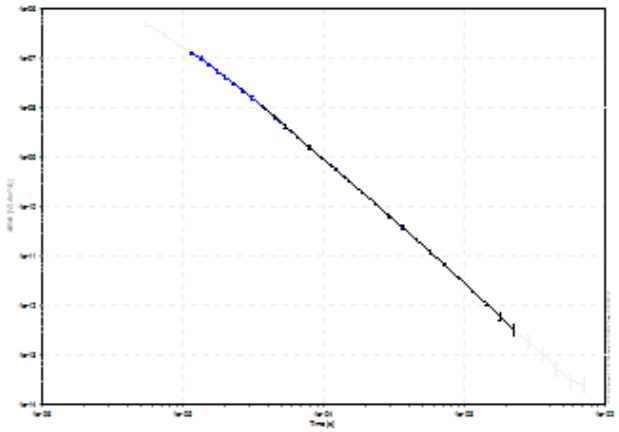


Model

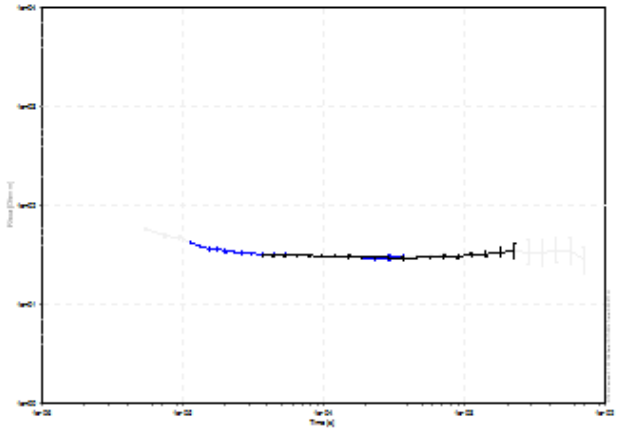


LPS-TEM9

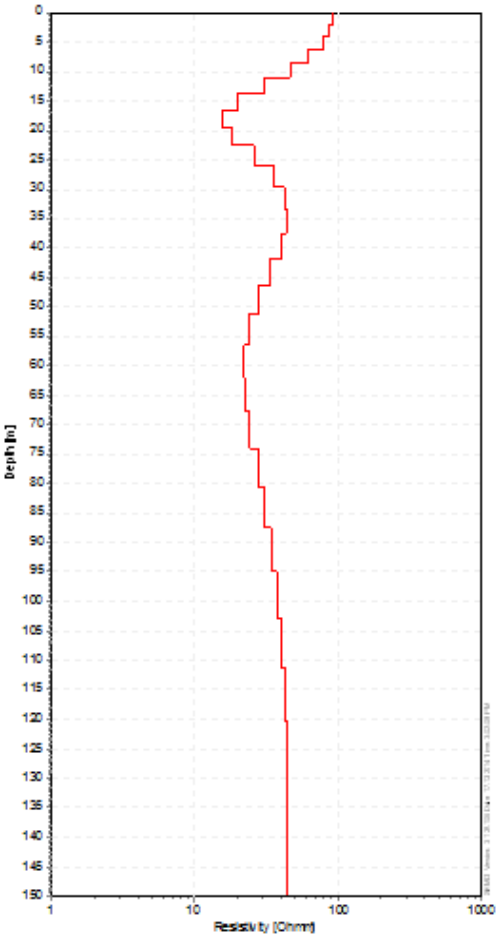
dB/dt Plot



App. Res. Plot

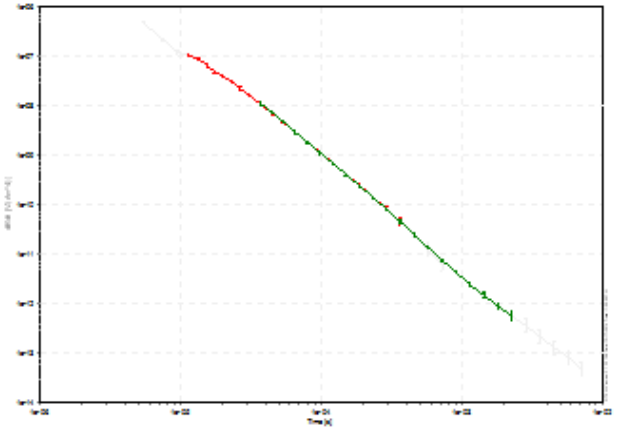


Model

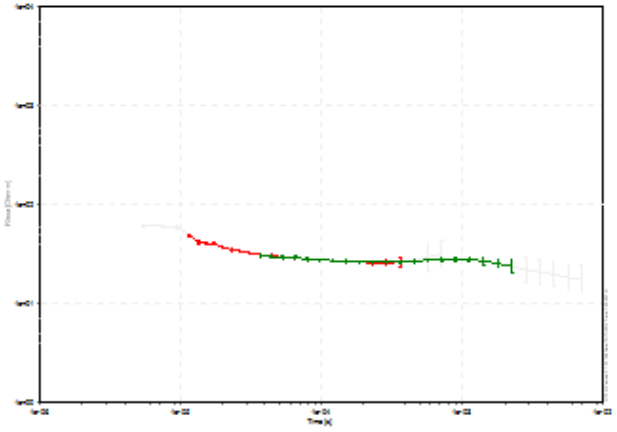


LPS-TEM11

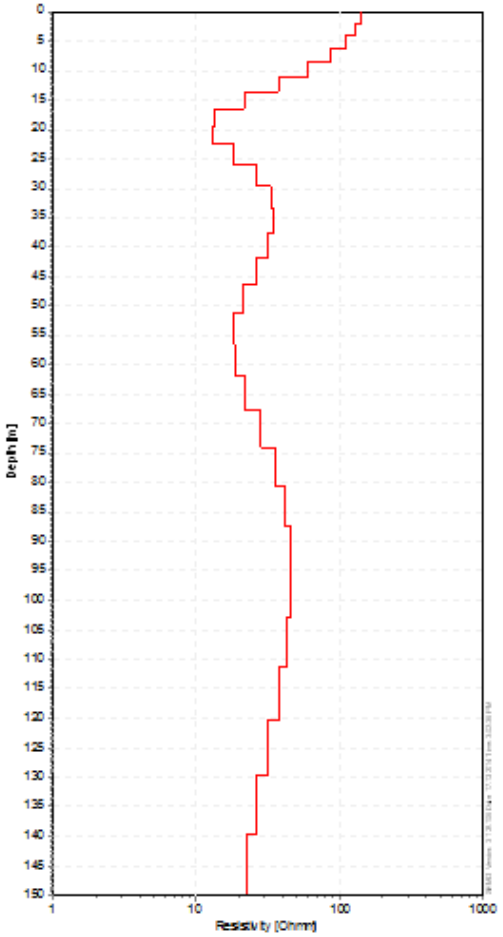
dB/dt Plot



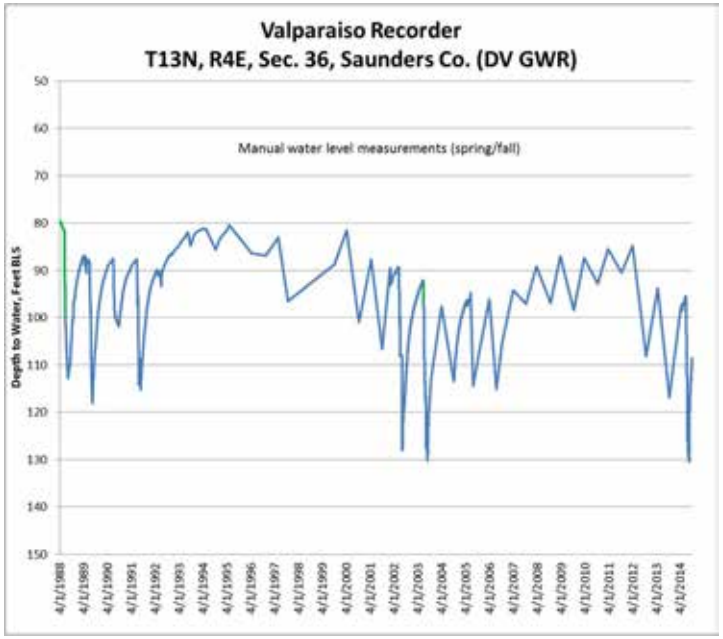
App. Res. Plot

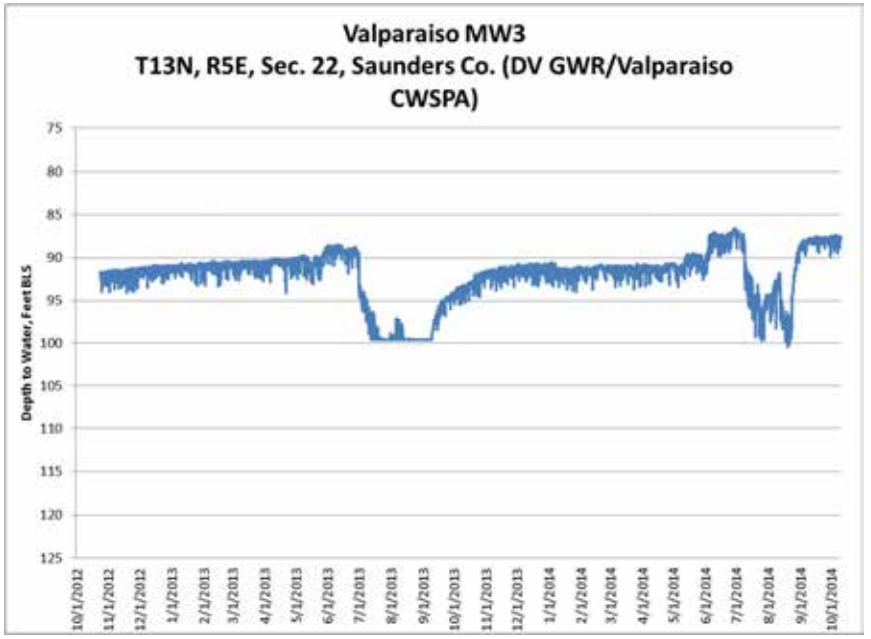


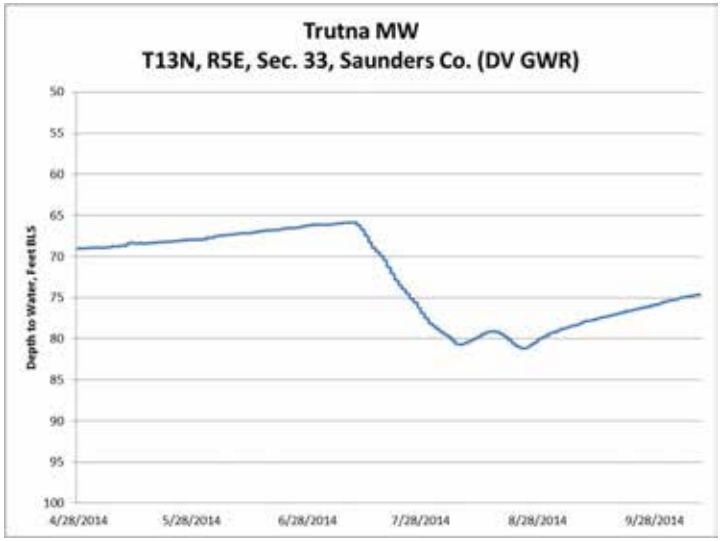
Model

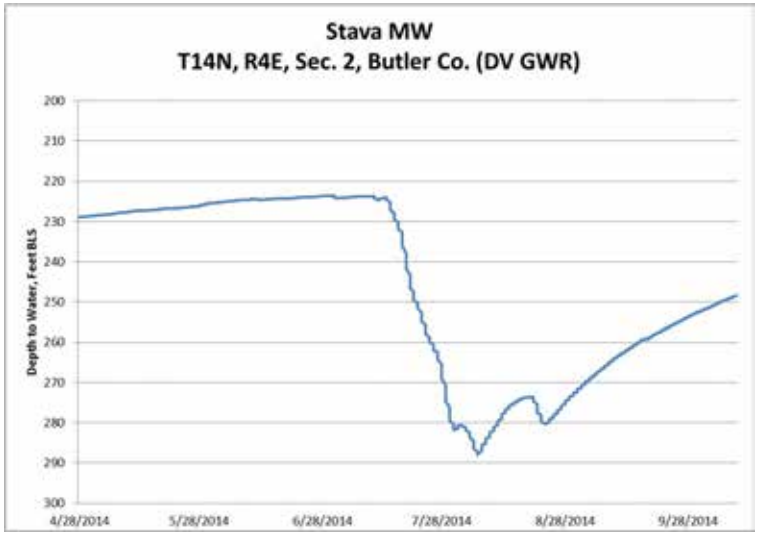


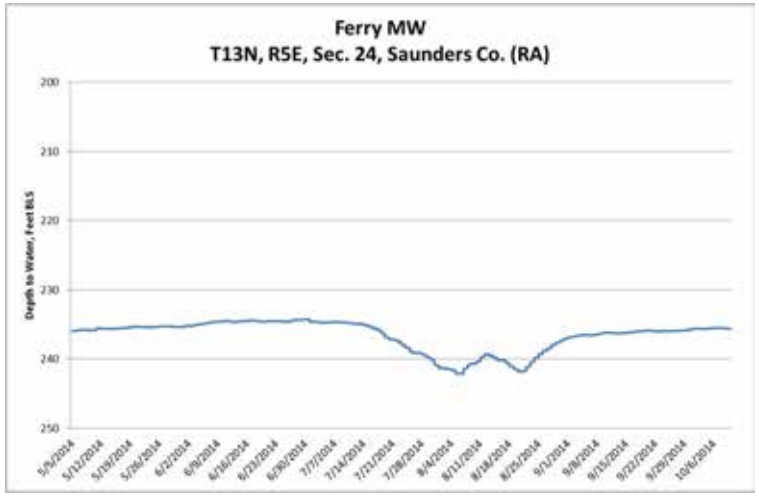
Appendix 5
LPSNRD Recorder Well Data

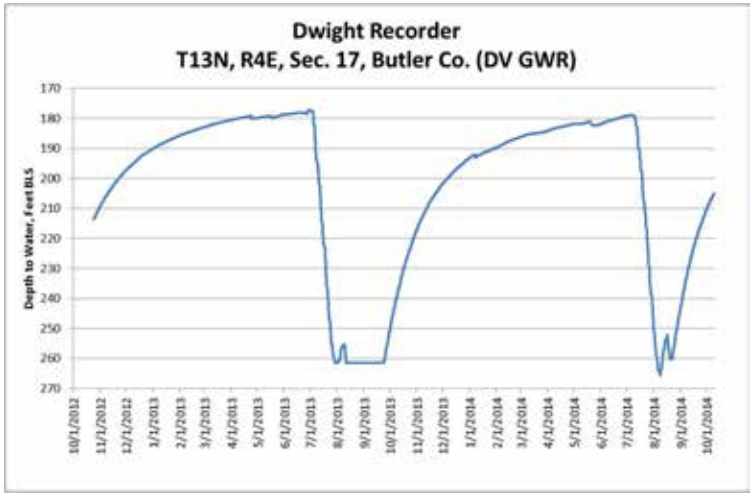

Valparaiso Recorder
T13N, R4E, Sec. 36, Saunders Co. (DV GWR)
Manual water level measurements (spring/fall)
Depth to Water, Feet BLS


Valparaiso MW3
T13N, R5E, Sec. 22, Saunders Co. (DV GWR/Valparaiso CWSPA)
Depth to Water, Feet BLS


Trutna MW
T13N, R5E, Sec. 33, Saunders Co. (DV GWR)
Depth to Water, Feet BLS


Stava MW
T14N, R4E, Sec. 2, Butler Co. (DV GWR)
Depth to Water, Feet BLS


Ferry MW
T13N, R5E, Sec. 24, Saunders Co. (RA)
Depth to Water, Feet BLS
200
210
220
230
240
250
5/5/2014
5/12/2014
5/19/2014
5/26/2014
6/2/2014
6/9/2014
6/16/2014
6/23/2014
6/30/2014
7/7/2014
7/14/2014
7/21/2014
7/28/2014
8/4/2014
8/11/2014
8/18/2014
8/25/2014
9/1/2014
9/8/2014
9/15/2014
9/22/2014
9/29/2014
10/6/2014


Dwight Recorder
T13N, R4E, Sec. 17, Butler Co. (DV GWR)
Depth to Water, Feet BLS
170
180
190
200
210
220
230
240
250
260
270
10/1/2012
11/1/2012
12/1/2012
1/1/2013
2/1/2013
3/1/2013
4/1/2013
5/1/2013
6/1/2013
7/1/2013
8/1/2013
9/1/2013
10/1/2013
11/1/2013
12/1/2013
1/1/2014
2/1/2014
3/1/2014
4/1/2014
5/1/2014
6/1/2014
7/1/2014
8/1/2014
9/1/2014
10/1/2014

Appendix 6
Historic Cross Sections

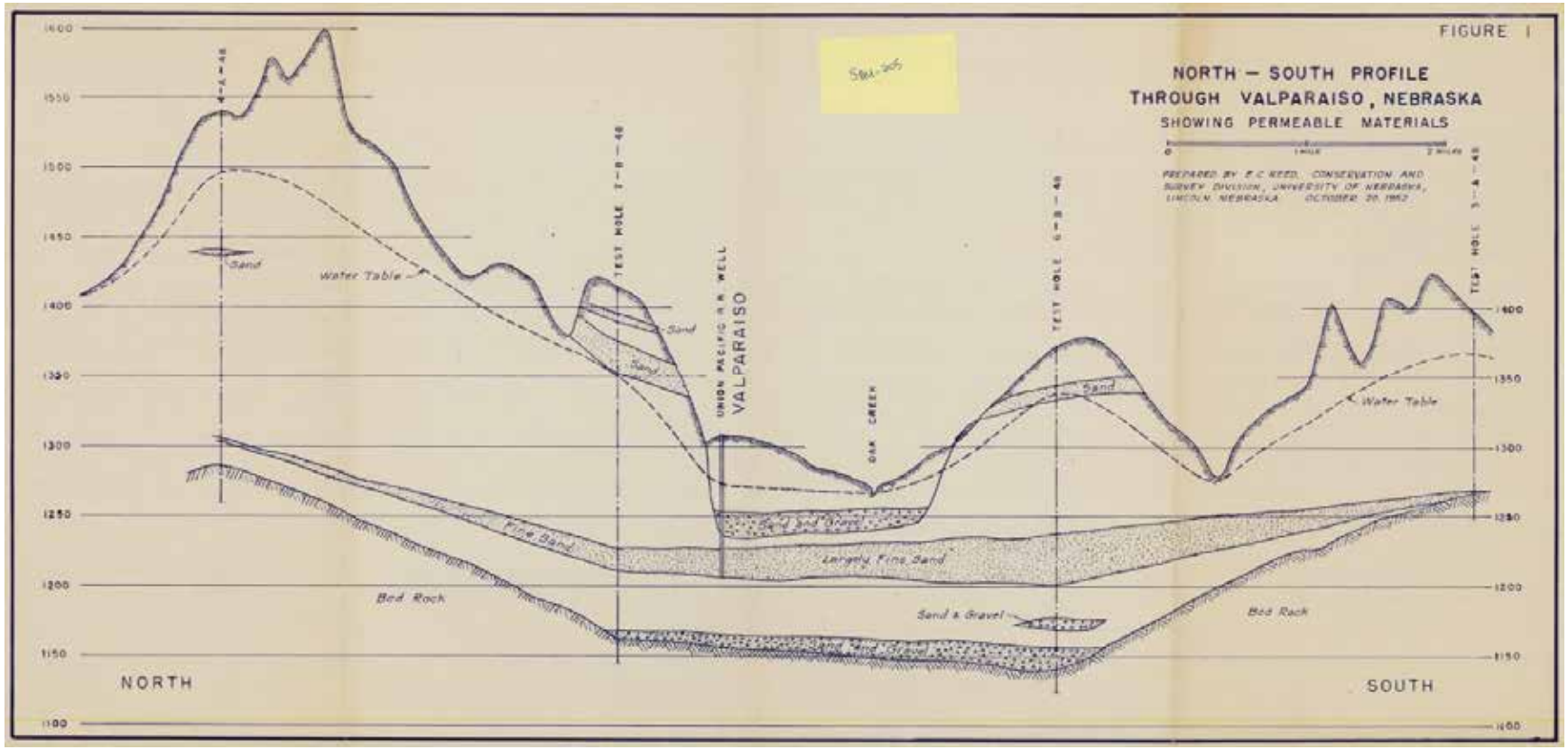


Figure A6-1: Cross section SAU-5 represented in Figure 4-15.

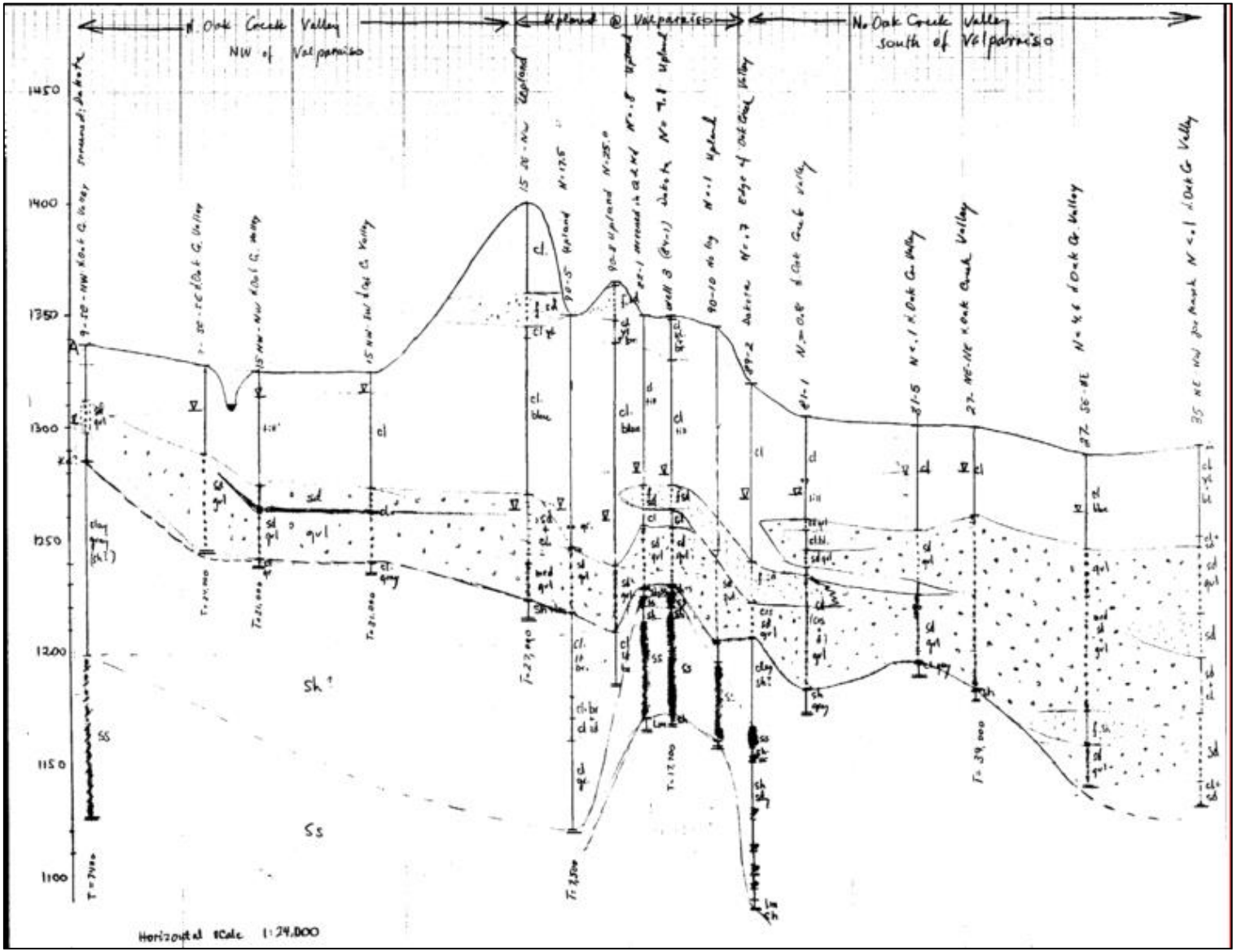


Figure A6-2: Cross section SAU-6 represented in Figure 4-15.

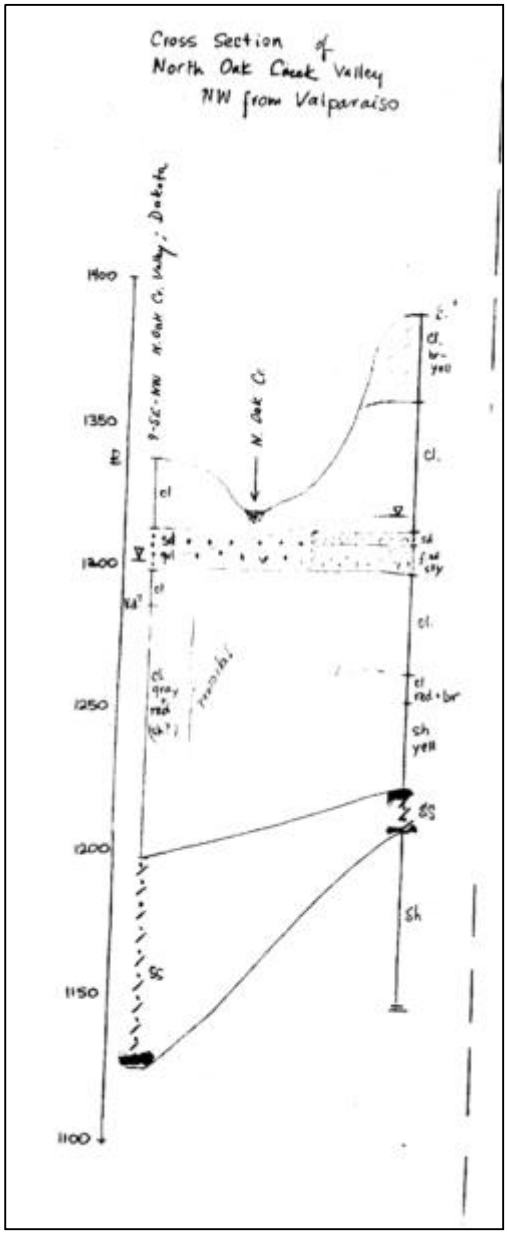


Figure A6-3: Cross section at north Oak Creek from SAU-6.