

**Research data for Geo-electric assessment for groundwater potential at permanent site of  
Waziri Umaru Federal Polytechnic, Birnin Kebbi, Kebbi State North Western, Nigeria**

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**Table 1a** Apparent Resistivity Values in ohm-meter

Half Current electrode spacing	Half Potential electrode spacing	Geometric Factor	Apparent Resistivity ( $\Omega m$ )					
AB/2	MN/2	K	VES 1	VES 2	VES 3	VES 4	VES 5	VES 6
1	0.5	2.4	1214	1968	670	1176	1202	838
1.5		6.0	1554	1448	865	2712	1308	1034
2		12.0	1967	3156	1098	2146	1729	1495
		27.0	2435	3785	1474	2465	2114	1739
5		78	2985	4749	2490	2745	2451	1766
5	1	38						
7		75	3173	5288	3473	2340	1700	1500
10		156	2910	5265	4001	2275	2743	1510
10	3	48						
15		113	2026	3944	3966	2124	2165	1213
20		205	1552	4449	3344	2005	1445	904
25		323	1182	4147	2581	1266	1021	707
30		467	849	2139	2128	822	773	593
30	10	126						
35		177	775	44	1756	784	621	515
40		236	611	49	1270	590	461	399
50		377	30	321	739	371	313	258
60		550	24	64	425	1082	242	193
70		754	30	332	247	128	193	174
80		990	121	81	173	153	220	135
90		1257	19	893	106	226	107	114
100		1555	6	342	82	144	110	62

**Table 1b** Locations of the VES Points

VES Points	Coordinates	VES Points	Coordinate
VES 1	12°27.904'N 004°14.392'E Elevation: 744	VES 4	12°28.058'N 004°14.351'E Elevation: 726
VES 2	12°27.952'N 004°14.365'E Elevation: 734	VES 5	12°28.112'N 004°14.335'E Elevation: 704
VES 3	12°28.005'N 004°14.351'E Elevation: 734	VES 6	12°28.167'N 004°14.337'E Elevation: 716

**Table 2a** Apparent Resistivity Values in ohm-meter

Half Current electrode spacing	Half Potential electrode spacing	Geometric Factor	Apparent Resistivity ( $\Omega m$ )					
AB/2	MN/2	K	VES 7	VES 8	VES 9	VES 10	VES 11	VES 12
1	0.5	2.4	763	1493	310	737	890	1490
1.5		6.0	936	1716	630	956	1027	1478
2		12.0	1266	2345	968	1211	1286	1747
3		27.0	1577	2743	1288	1407	1585	1910
5		78	2076	2705	1735	1678	2059	1739
5	1	38						
7		75	1935	2145	2580	2010	2235	1553
10		156	1714	1923	1863	1502	2149	1366
10	3	48						
15		113	1439	1406	1767	1513	1585	1142
20		205	1218	1355	2071	1324	1220	947
25		323	1089	1040	1654	1202	917	751
30		467	941	834	1287	840	704	727
30	10	126						
35		177	795	696	1151	816	605	490
40		236	689	543	866	611	436	497
50		377	491	525	542	449	304	285
60		550	404	230	327	260	282	223
70		754	290	491	195	195	214	216
80		990	194	147	135	154	171	167
90		1257	133	98	83	100	133	137
100		1555	93	72	62	68	104	90

**Table 2b** Locations of the VES Points

VES Points	Coordinates	VES Points	Coordinates
VES 7	12°27.920'N 004°14.445'E Elevation: 726	VES 10	12°28.075'N 004°14.396'E Elevation: 727
VES 8	12°27.971'N 004°14.428'E Elevation: 731	VES 11	12°28.132'N 004°14.392'E Elevation: 720
VES 9	12°28.024'N 004°14.409'E Elevation: 730	VES 12	12°28.186'N 004°14.389'E Elevation: 670

**Table 3a** Apparent Resistivity Values in ohm-meter

Half Current electrode spacing	Half Potential electrode spacing	Geometric Factor	Apparent Resistivity ( $\Omega m$ )					
AB/2	MN/2	K	VES 13	VES 14	VES 15	VES 16	VES 17	VES 18
1	0.5	2.4	2143	1046	842	1824	715	1049
1.5		6.0	1920	1172	1027	2454	856	939
2		12.0	1998	1188	1387	2988	1033	1284
3		27.0	2082	1445	1744	4152	1291	1636
5		78	1711	1688	2006	5097	1522	2034
5	1	38	1222	1284	2238	2634	1183	1502
7		75						
10		156						
10	3	48	766	569	853	740	544	693
15		113						
20		205						
25		323						
30		467						
30	10	126	483	641	766	595	483	628
35		177						
40		236						
50		377						
60		550						
70		754						
80		990						
90		1257						
100		1555						

**Table 3b** Locations of the VES Points

VES Points	Coordinates	VES Points	Coordinates
VES 13	12°28.188'N 004°14.446'E Elevation: 718	VES 16	12°28.033'N 004°14.468'E Elevation: 723
VES 14	12°28.135'N 004°14.457'E Elevation: 719	VES 17	12°27.979'N 004°14.474'E Elevation: 722
VES 15	12°28.086'N 004°14.457'E Elevation: 719	VES 18	12°27.926'N 004°14.492'E Elevation: 738