



British Geological Survey



DFID Department For
International
Development

TECHNICAL REPORT WC/98/53
Overseas Geology Series

Groundwater development maps of Oju and Obi Local Government areas, eastern Nigeria

A M MacDonald and J Davies





**British
Geological
Survey**

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This document is an output from a project funded by the UK Department For International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of the DFID.

DFID classification :

Subsector : Water and Sanitation

Theme : W1 - Improve integrated water resources development and management, including systems for flood and drought control

Project title : Oju LGA Benue State Water Supply Project - Nigeria

Project reference : CNTR 960023A

Bibliographic reference :

MacDonald A M and Davies J 1998. Groundwater development maps of Oju and Obi Local Government Areas, Eastern Nigeria.

BGS Technical report WC/98/53

Keywords :

Groundwater, Nigeria, Maps, Benue Trough, Mudstone

Front cover illustration :

Collecting water from a dugout in a riverbed in Oju

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Executive Summary

Three groundwater maps have been created for the Oju/Obi area of Benue State, Eastern Nigeria. These maps are at 1:100 000 scale and have been developed using a Geographical Information System (GIS). Information on the maps is generally accurate to about 200 m, although the geological boundaries marked on the maps are taken from data sources which are much more approximate. The following information is given on the maps:

Groundwater Development Map: geological units, rivers, roads, aeromagnetic anomalies, location and identification number of villages, limits of information confidence, areas of similar groundwater chemistry, conductivity of groundwater samples, location of BGS exploration boreholes and an explanation of the groundwater potential of the various rock units.

Hydrogeology Map: geological units, rivers, roads, aeromagnetic anomalies, villages, lineations interpreted from satellite imagery, surface water catchment boundaries, location and identification number of BGS exploration boreholes, location of BERWASSA and pre-97 boreholes, raingauges, water-level monitoring points, graphs of monthly rainfall for 1997 and groundwater-level fluctuations for 1997.

Aerial photography interpretation: outline of geological units, aeromagnetic anomalies, roads, lineations interpreted from satellite imagery, lineations interpreted from aerial photographs, dambos interpreted from aerial photographs.

The maps are based on a variety of data sources including satellite imagery, aerial photographs, published geology, aeromagnetic and topographic maps. Boreholes and villages have been located using a hand-held GPS. Preliminary results from exploratory drilling and testing by BGS have been incorporated into the maps. As more data are collected, these maps and in particular the hydrogeological descriptions of the geological units will change. The maps are designed to help plan water supply projects within Oju and Obi and should be used in conjunction with field studies and geophysics to site wells or boreholes.

1. Introduction

Groundwater provides the most reliable and easily managed water supplies for the world's rural population. The health benefits of clean, reliable drinking water are obvious and well documented. For much of the world, a reliable water source is the first step to alleviating poverty. Groundwater is found throughout the world, usually in sufficient quantities to supply basic needs. The water generally requires no treatment; and a simple well or borehole is often sufficient to access the water. However, in certain environments, groundwater can be very difficult to find, or occur in such small quantities to be useless for a village supply.

Geology and climate control the availability of groundwater. Rainfall is required to recharge and replenish groundwater and a suitable rock type is needed to store the water. The best aquifers are usually sands and sandstones, which store water in the pore spaces in the rock; groundwater can also be stored in networks of fractures found in some rocks. Clays, mudstones and hard, unfractured rocks generally contain very little groundwater. A good understanding of both climate and geology is essential to help develop and manage groundwater resources. This is especially true in areas like Oju and Obi, where the geology is complicated and many of the rock types contain little or no groundwater.

The British Geological Survey (BGS) have been funded by the Department for International Development (DFID) to assess the potential for groundwater in Oju and Obi area of Benue State Eastern Nigeria. The information gathered from the study is being used by WaterAid to help the local communities develop sustainable water supplies. Nigerian hydrogeological organisations, such as BERWASSA, UNICEF and the universities can also benefit from the studies.

Three major maps have been produced: (1) "The groundwater development potential of the Oju and Obi Areas, Benue State Nigeria" (2) "The hydrogeology of the Oju and Obi areas, Benue State Nigeria" and (3) "interpretation of aerial photographs and satellite imagery for the Oju and Obi areas, Benue State Nigeria". The primary aim of the first map is to relate villages to the basic hydrogeology. The second map shows the hydrogeology of the area in more detail and indicates existing boreholes as well as monitoring boreholes and raingauges. The third map shows general fracture trends and geomorphological features interpreted from aerial photographs. The maps are designed to give an overview of the hydrogeology of the area and should not be used on their own to site boreholes or wells. This report explains the data sources and production of these maps.

2. Background to Oju and Obi

Oju is a remote part of southeastern Nigeria that experiences severe water shortage during the annual (November to April) dry season. During this period, unprotected ponds, seepages and hollows are the primary source of domestic water. Unfortunately, these sources become less reliable towards the end of the dry season and many become contaminated. As a consequence, much of the population of Oju (300 000 approx.) is badly affected by a variety of water related illnesses, of which guinea worm and malaria are endemic; outbreaks of cholera, typhoid and dysentery are common.

The geology is the primary factor limiting water supply in Oju and Obi. Low permeability rocks such as mudstones and siltstones underlay most of the area. These rocks generally do not allow water to flow through them, and do not store significant quantities of groundwater. Groundwater is found within sandstone layers and in fractures in harder rocks such as the Asu River Group and dolerite intrusions. Prolonged exposure of these various rock types to a tropical climate has altered the top few metres to a

thick complex soil known as a ferrosol. Generally, a ferrosol comprises a very permeable layer near to the surface underlain by thick plastic clay.

These soil and rock types combined with the distinct wet and dry seasons produce a characteristic hydrology. During the wet season, most of the rainfall flows to the rivers via surface runoff and through the upper soil zones. This produces dramatic flooding and ensures that all wells are full of water. As the rains stop, the upper soil zones quickly dry out. Rivers stop flowing and wells rapidly dry up. The mudstones and siltstones hold little groundwater, so even deep wells quickly run dry. People are forced to take water from river pools and small seepages. Because of the rock type, even the gravels in the bottom of the rivers hold little water. Sustainable water supplies are found only in sandstones layers or where wells and boreholes intersect fractures in harder rocks.

3. General Information about the maps

The groundwater maps have been produced digitally using ArcView® v 3.0. ArcView® is a Geographical Information System (GIS) and allows different layers of information to be laid on top of each other. The main benefit of using a GIS is that information can be added or taken away from the maps very easily; the GIS can also be used to analyse map data. Draft maps were produced in September 1997. Improvements suggested by Local Government and WaterAid staff have been included in these current versions.

Although the maps show degrees, minutes and seconds, data are actually stored in the same projection as the Nigerian topographic maps (see Table 1). Each map has been printed out at 1:100 000 scale. This is the most appropriate scale for the data. Boundaries and locations on the map are approximate and rely on the quality of the original maps. The process of combining the various data sources, and using a Global Position System (GPS) to locate boreholes and villages has introduced an uncertainty of 100-200 m to the maps. A greater error of about 400 m is evident for the information from the aerial photographs.

Table 1: Map Projection data

Projection:	Transverse Mercator
Ellipsoid:	Clarke 1880
Scale Factor:	0.99975
Central longitude:	8 degs 30" E
Central latitude:	4 degs 00" N
False origin east:	2 200 000 feet (670 560 m)
False origin north:	0

4. The Groundwater Development Potential map

The groundwater potential map combined various data to indicate the general hydrogeological conditions throughout Oju/Obi and to relate this to villages. The data sources for the map are listed below. Further details on the hydrogeology of the Oju/Obi area (and how to interpret and use the maps) are given in other project reports.

1. The geological data have been interpreted from two published Nigerian Geological Survey maps: Makurdi Area, Map No. 64 (Scale 1:250 000) and Ogoja Area, Map No. 73 (Scale 1:250 000). Both

of these maps were published in 1957. Linework from the maps was digitised as polygons and referenced to the GIS.

2. Aeromagnetic anomalies were interpreted from the 1:100 000 aeromagnetic maps developed in 1975 by Fareys in conjunction with the Nigeria Geological Survey. A simple reproduction was given on the map – lines enclosing areas with significant aeromagnetic anomalies were digitised and referenced to the GIS.
3. Rivers and roads were interpreted from the satellite image. The satellite image used was from the American Landsat TM (Thematic Mapper) system. The image gives a reasonable resolution at 1:100 000 and covers an area of approximately 185×170 km. Ground resolution of the image is 30 m. The particular image used was TM 188-055 acquired on 17 January 1986. Imagery was corrected to the GIS using features easily identified from the topographic maps. Roads and rivers were then digitised from the image and added to the GIS.
4. Villages were located by a ground survey using a hand-held GPS. Staff from WASU visited every known village and recorded both the name and the co-ordinates using the GPS. The locations are correct to about 100 m. The co-ordinates of the villages were then corrected to the map projection given in the GIS. A gazetteer referring the village identification number to the village name is given in Annex 1.
5. The descriptions of the hydrogeology of the various rock types are based on the investigations of BGS throughout the 1997 and 1998 dry seasons. Forty-two boreholes were drilled and tested. Core samples were analysed and sent for mineralogical and aquifer properties analysis. Rock exposures and existing water sources were also investigated. However, not all the area was studied. For logistical reasons no boreholes could be drilled on the Agbani Sandstone, therefore, the description of this unit is based on existing wells and rock exposures.
6. The groundwater quality map has been interpreted and simplified from about 150 groundwater samples taken from throughout Oju/Obi during 1997 and 1998. Various parameters were measured in the field (pH, conductivity, bicarbonate and temperature) and samples taken for full analysis in the hydrochemistry laboratory at BGS Wallingford. The four divisions of water quality are approximate and a simplification of a complex system. The spot measurements of conductivity were measured using a calibrated Toledo checkmate M90 conductivity meter; locations were given by GPS.
7. The uncertainty map is a subjective view of how well the hydrogeology of the area is understood. Even within geological units, lithology changes markedly. Therefore, away from the BGS test boreholes located through the middle of Oju/Obi, the confidence in the hydrogeological knowledge of the area diminishes. As more drilling is done throughout Oju/Obi confidence will increase and the uncertainty map change.

5. The Hydrogeology Map

The hydrogeology map is a companion to the groundwater potential map. Additional information, such as borehole locations and satellite lineations are given, at the expense of the village labels and descriptions of the hydrogeological units. This map should be used to supplement the groundwater potential map and should not be used on its own. Much of the base information is the same as for the hydrogeology map, e.g. the geology, aeromagnetic anomalies, rivers and roads. The sources of the additional data included on the map are given below.

1. The satellite lineations shown on the map are possible fracture zones interpreted from the satellite image. This is necessarily a subjective process and relies on the interpretative skills of the analyst. Definite lineations are portrayed on the map as thick lines; minor lineations are thinner lines. For a variety of reasons, the location of the features on the ground is not precise. It is possible that some are out by as much as 200 m. Therefore, field techniques such as geophysics should be used to confirm the existence of fractures prior to drilling or digging wells.
2. The surface water catchment shows the boundary between two major river catchments in the area. This was interpreted from topographic maps (1: 100 000) available for the area: Sheet 270 (Oturkpo), Sheet 289 (Ejekwe) and Sheet 290 (Ogoja). These maps were produced by the Federal Surveys of Nigeria and Department for Overseas Surveys, UK and based on air photography taken between 1959 and 1963.
3. Three different sets of boreholes are given on the map: BGS exploration boreholes, BERWASSA boreholes and boreholes drilled prior to 1997. BGS exploration boreholes were all drilled during the 1997-98 dry season; identification numbers are given on the map, which refer to data given in project reports. The exploration boreholes have been subdivided into those that have been screened and cased and those that were backfilled. Note that this is not necessarily an indication of success; some boreholes were completed and used for testing purposes that could never support a water supply. The BERWASSA boreholes were located using a GPS by the WaterAid Engineer, their inclusion on the map does not imply that they are all currently operating. Pre-1997 boreholes were located by a survey of water sources carried out in 1997. Many of these boreholes were not operating or were frequently breaking down. Some boreholes may exist which have not been included on the map.
4. In early 1997, groundwater-level monitoring and rain gauge stations were installed throughout Oju and Obi. The rain gauges are monitored on a daily basis, mainly by schoolteachers. Data are collated by WaterAid and are presented on the maps as monthly totals. Several key water points are monitored on a monthly basis by WaterAid/WASU, the majority of which are pumped. Generally, the well or borehole is left for about an hour to recover before taking a reading. Graphs are presented for some of the monitoring points for 1997; other monitoring points are available throughout Oju/Obi. M2, M7 and M9 are hand-dug wells, the other sources are boreholes. The only monitoring points that are not pumped are M5, M6 and M10.

6. Aerial photograph interpretation

The aerial photograph interpretation map is included for completeness. Two types of features have been interpreted from the aerial photographs across Oju and Obi –lineations and dambos. Some other basic information is included to help reference it to the other maps: rivers, location of villages, outline of the geology and aeromagnetic anomalies. The lineations interpreted from the satellite image are also given. The sources of the additional data included on the map are given below.

1. Lineations have been interpreted from the aerial photographs for the area. This was done by hand using a stereoscope. Lineations may be caused by fracture zones, or possibly changes in lithology. The location of the aerial photograph features is not precise. Features can be displaced by as much as 400 m. Therefore, the features should be only used to give general information about the dominant fracture trends, or intensity of fracturing and not used to locate features on the ground. The original aerial photographs must be referred to for specific site work.

2. Dambos have also been interpreted from the aerial photographs. These are large shallow valleys that tend not to have any stream channels within them. The same problem of precision is apparent in the dambos as for the lineations.

7. Conclusions

The groundwater potential and hydrogeology maps of Oju and Obi are based on a variety of different data sources. These include published maps such as geology, topographic and aeromagnetic maps and interpretation from satellite imagery and aerial photographs. Many features have also been located on the ground using a hand held GPS. Interpretation of the information is based on exploratory drilling by BGS. The hydrogeology of the area is highly complex, therefore, the interpretations given on the maps are simplifications and sometimes based on few data. As more boreholes are drilled and more hand-dug wells completed, the hydrogeological understanding of the area should improve. Consequently, the maps should be reviewed and revised after a few years.

GROUNDWATER DEVELOPMENT MAP OF OJU AND OBI AREAS, BENUE STATE, NIGERIA

British Geological Survey

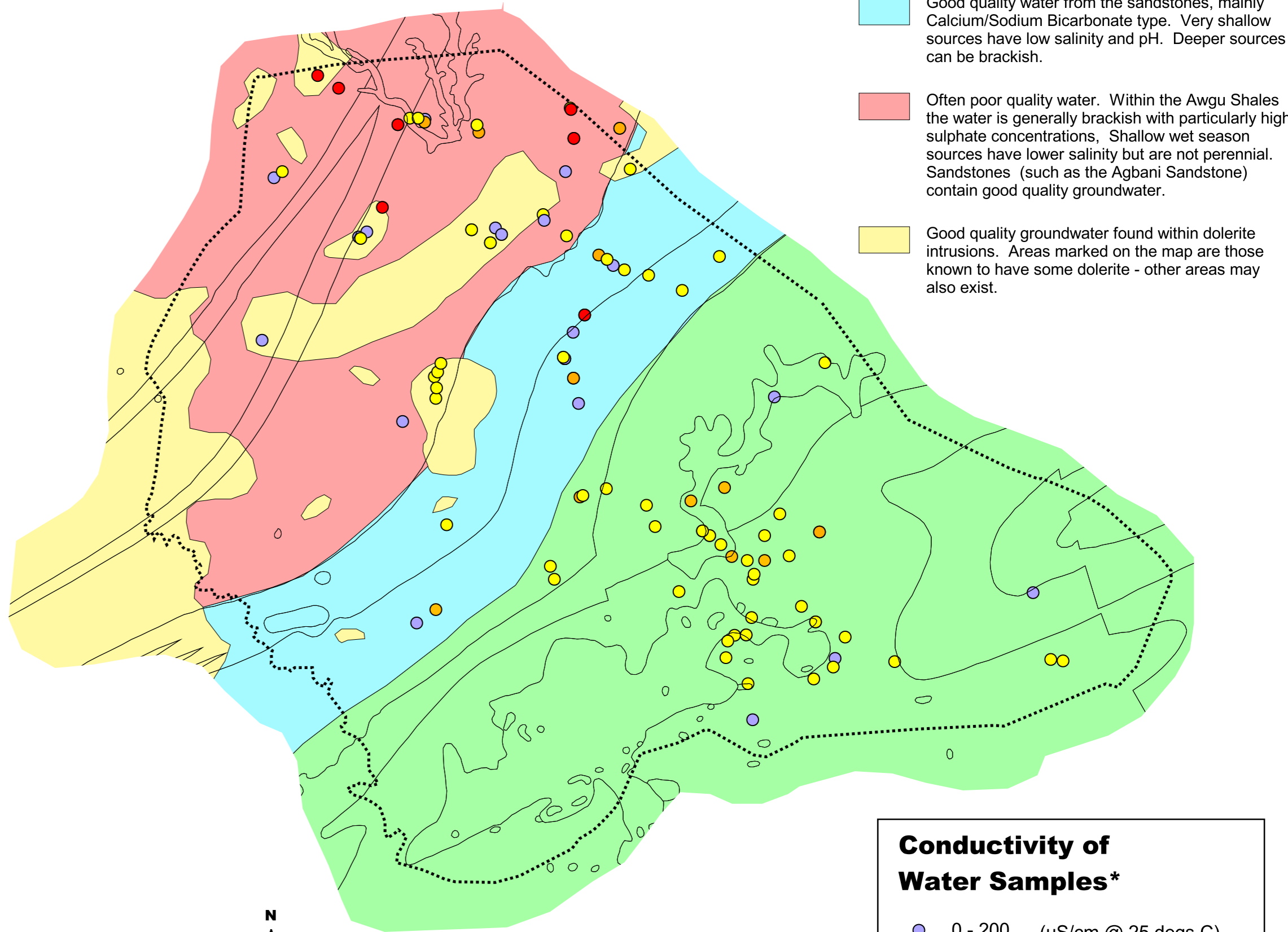
EXPLANATORY NOTES AND ACKNOWLEDGEMENTS

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GROUNDWATER QUALITY



Conductivity of Water Samples*

- 0 - 200 (µS/cm @ 25 degs C)
- 200 - 800
- 800 - 2000
- > 2000

*samples taken from boreholes, wells and seepages at the end of the dry season 1997 and 1998.

THE GROUNDWATER POTENTIAL OF DIFFERENT ROCK UNITS

Useable quantities of groundwater are difficult to find in many parts of Oju and Obi. This map is a first attempt to indicate the probable occurrence of the limited available groundwater resources. The following is a summary of the findings of the British Geological Survey investigations during 1997 and 1998. The explanations of the various rock types refer to the areas where BGS carried out test drilling (see uncertainty map). These results can be extrapolated to adjacent parts of Oju and Obi; the groundwater development potential of more remote areas is poorly understood. The map is best used for planning purposes; detailed site investigations are required before siting any wells or boreholes. As yet the long-term sustainability of these limited groundwater resources is unknown.

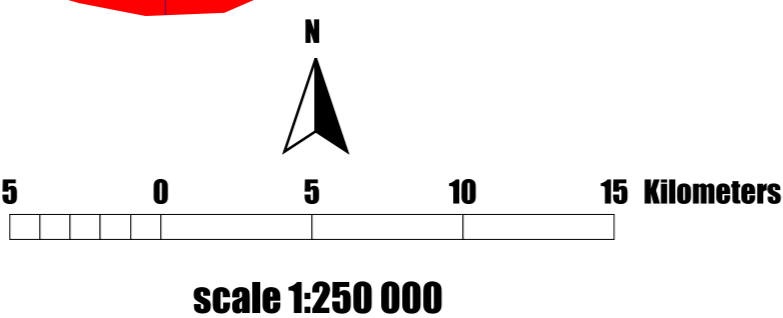
SYMBOL

EXPLANATION

- The main ALLUVIUM deposits occur in the north of Obi near Ameka. They are up to 5 m thick and comprise very fine-grained sands and swelling clay. The fine sand contains groundwater and is recharged every year by river flooding. Boreholes are not appropriate since the fine-grained sand easily passes through slotted screens to backfill boreholes. Hand dug wells must be constructed very carefully through the swelling clay layers to avoid formation collapse. The alluvium can be identified using EM34. Groundwater quality is generally fresh.
- Although not shown on the map RIVER GRAVEL is present in many of the riverbeds. This is generally less than 1 m thick and does not form a reliable water source throughout the dry season. At the end of the rainy season shallow dugouts are used to exploit the water until the gravel dries out a few months later. Groundwater is fresh, but very vulnerable to contamination.
- Only thick LATERITE is shown on the map, but thinner laterite occurs over much of the area. The laterite is mainly made up of 1-2 m of iron-oxides above 1-5 m of clay. The laterite is permeable, containing groundwater during the rainy season; this groundwater resource dries out towards the middle of the dry season. Boreholes are not appropriate; wells must be lined through the laterite to avoid collapse. Groundwater is fresh, but vulnerable to contamination especially within villages.
- The AWGU SHALES have very little potential for groundwater during the dry season. They comprise soft mudstone with bands of gypsum. Where laterite has developed, some groundwater is available during the rainy season. The only potential for groundwater development in the dry season is in occasional sandstone layers or dolerite intrusions. Groundwater within the Awgu Shales is generally saline.
- The AGBANI SANDSTONE is probably made up of soft medium grained sandstone. However much uncertainty surrounds its location and as yet BGS have not drilled any test boreholes within it. The location marked on the map is very uncertain; boreholes drilled in the area marked Agbani Sandstone have penetrated siltstones and shales. Some sandstone has been found within the area marked Awgu Shale. EM34 equipment can be used to distinguish shale from sandstone. Hand dug wells are thought most appropriate and should be dug to about 15 m. Groundwater quality is generally very good.
- The UPPER EZE-AKU is made up of mudstones, sandstones and limestones. The mudstones contain little water, but, where fractured, the sandstones have good groundwater development potential. Thin, hard limestones, are fairly common, and where fractured can contain significant groundwater. Sandstones can be found using EM34 and resistivity; the limestone layers are too thin to be identified using geophysical surveys. Hand dug wells dug to about 15 m are most appropriate in the sandstones; drilling boreholes gives a better chance of intersecting limestone layers. Groundwater, where available is generally fairly fresh.
- The MAKURDI SANDSTONE has some potential for groundwater although yields have been found to be low. The formation is made up of hard, well-cemented sandstones and shales, with occasional limestones. Groundwater is found in fractured hard sandstone, with some groundwater seeping from pore spaces in the rock. Hand dug wells are appropriate, but should be dug down through the hard layers to 15 - 20 m. Boreholes are best located on fracture zones. EM34 and resistivity methods can be used to locate fracture zones and distinguish between sandstones and shale units. Groundwater quality is very good, although can become saline at depth.
- The LOWER EZE-AKU Formation is made up of interbedded mudstones, siltstones and limestones. Good yields of groundwater have been found in fracture zones; very little groundwater has been found in rocks that are not fractured. Boreholes drilled to a depth of more than 30 m are most appropriate, although hand dug wells could be used if sufficiently deep. Fracture zones are best located using EM34. Groundwater quality is generally good.
- The ASU-RIVER GROUP is generally made up of hard, slightly metamorphosed shales, sandstones and limestones. Fractures are common and sufficient groundwater may be found for a handpump. Fractures likely to contain groundwater can be located using EM34, resistivity and magnetic survey methods. Boreholes should be drilled to depths greater than 30 m; hand dug wells could be difficult to construct to sufficient depths, but, if successful, need not be lined as the hard rock formation will not collapse. Groundwater quality is good, but can contain high iron and sulphate.
- METAMORPHOSED ASU-RIVER GROUP is composed of hard, splintery shales, sandstones and limestones, with some pyroclastic rocks. When fractured these rocks have good groundwater development potential. Fractures likely to contain groundwater can be found using EM34, resistivity and survey methods. These rocks are generally too hard for hand dug well excavation. Boreholes need to be drilled to depths greater than 30 metres to obtain sufficient groundwater yield for handpump installation. Groundwater quality is good but can contain high sulphate.
- IGNEOUS INTRUSIONS marked on the map are generally associated with the Asu River Group pyroclastics.
- DOLERITE intrusions are mainly found within the "aeromagnetic anomaly" areas shown on the map. They have a high groundwater development potential, and are especially important when found within the Awgu Shales formation. Dolerite dykes and sills are best located by using EM34 and magnetic profiling methods. Groundwater is generally fresh.

GROUNDWATER DEVELOPMENT UNCERTAINTY

- areas where good quality data exist
- areas where few data exist, but groundwater potential can be inferred
- areas where few data exist and little known about the groundwater potential
- location of BGS test boreholes



Scale 1:100 000

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HYDROGEOLOGY MAP OF OJU AND OBI AREAS, BENUE STATE, NIGERIA

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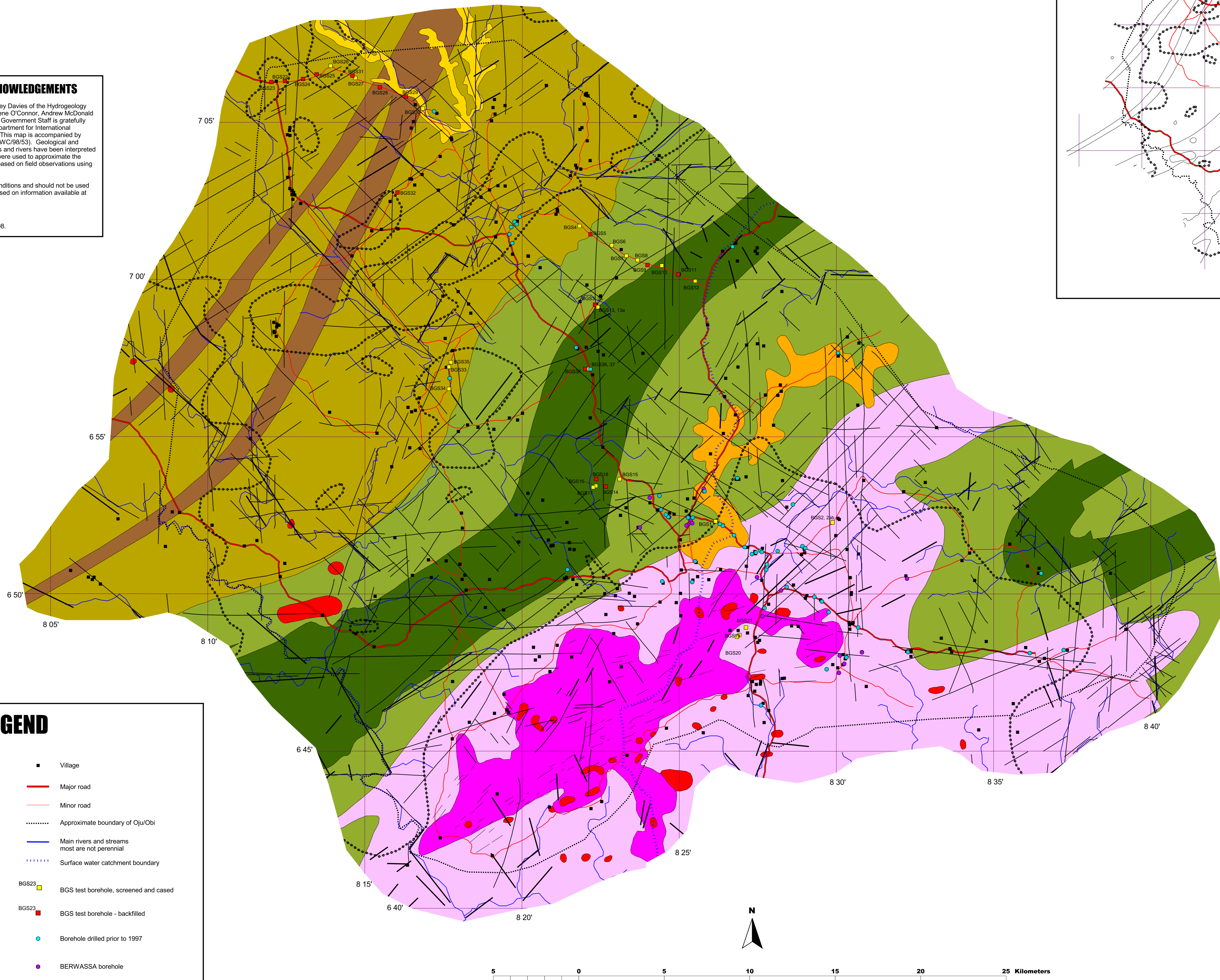


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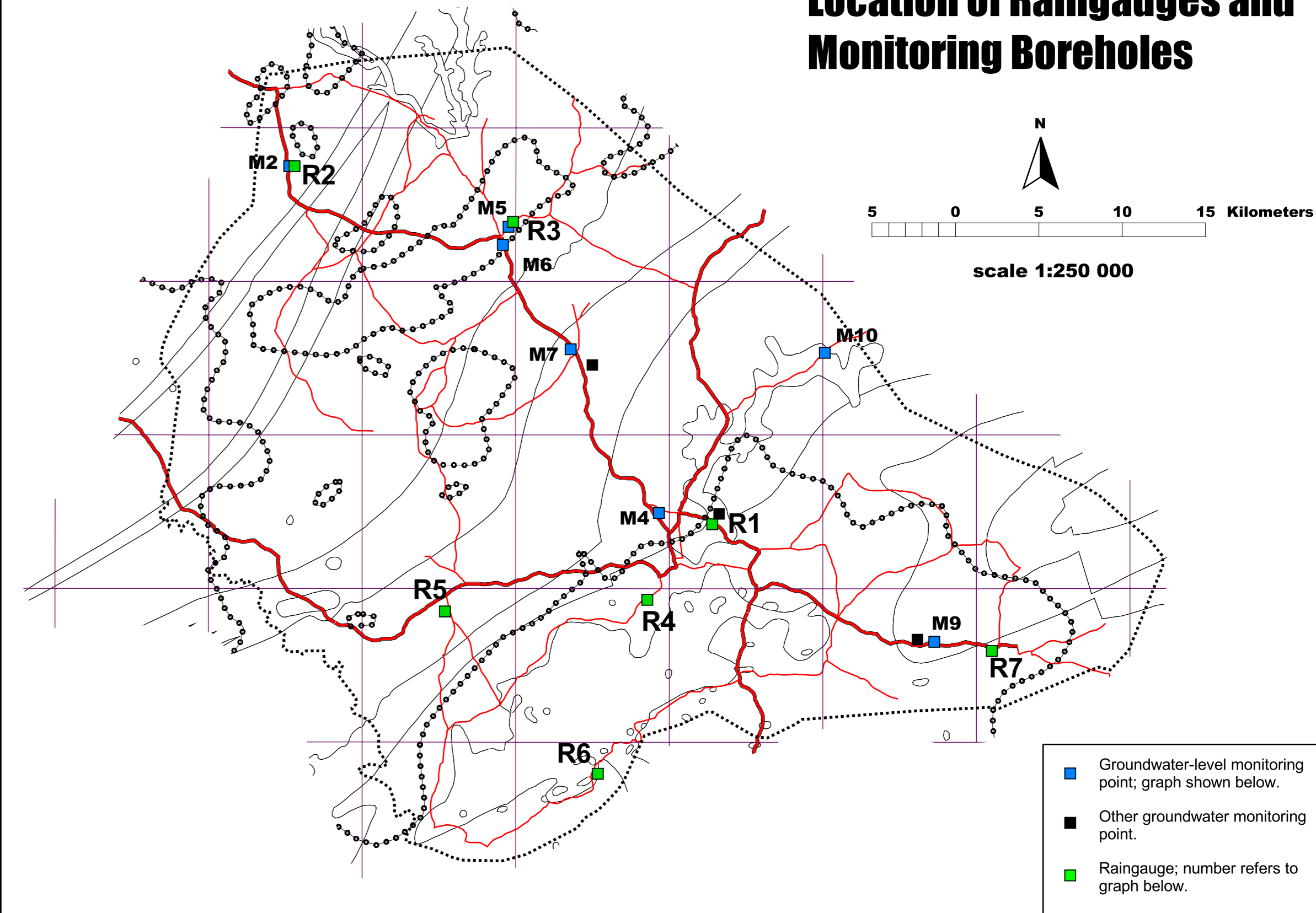
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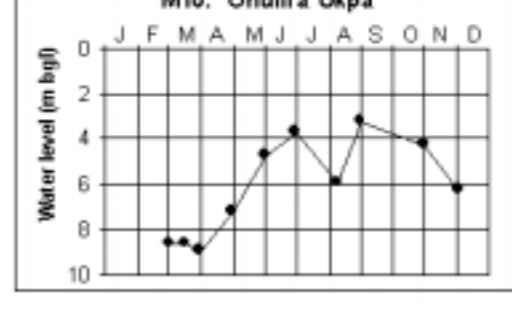
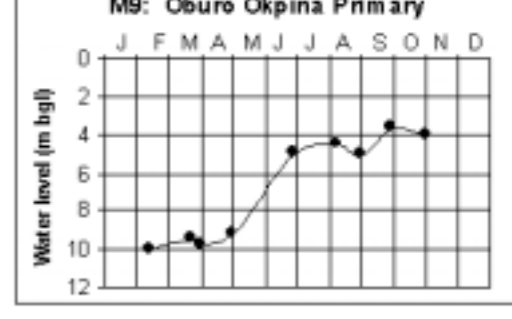
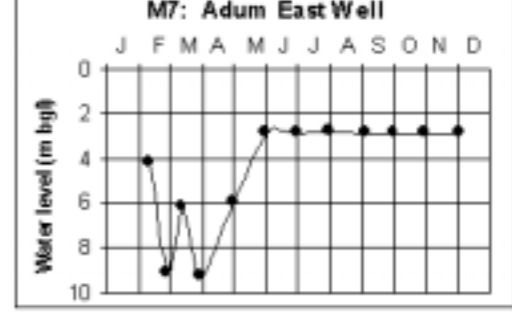
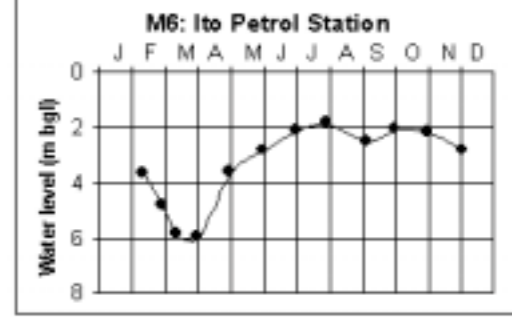
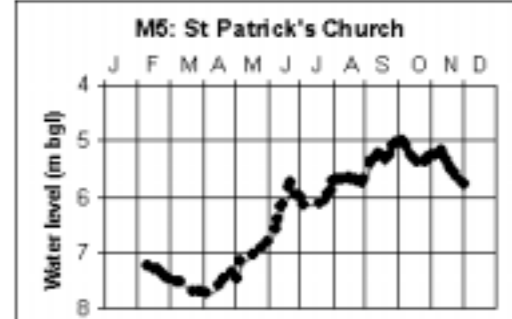
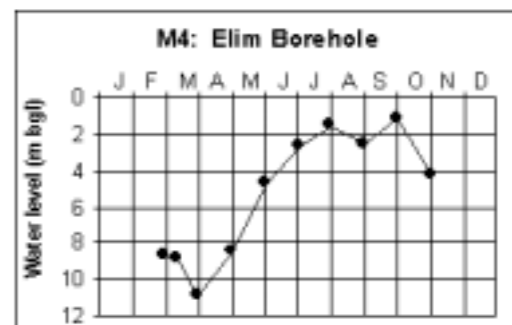
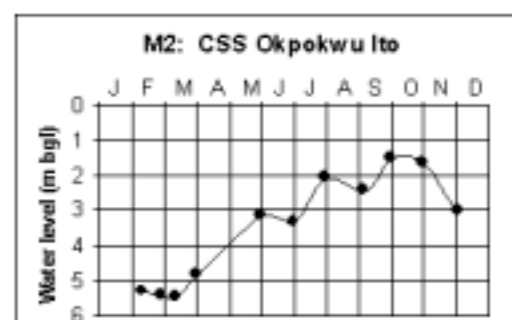
LEGEND

- Alluvium
- Thick Laterite
- Agbani Sandstone
- Awgu Shale
- Makundi Sandstone
- Eze-Aku Shale
- Asu River Group
- Metamorphosed Asu River Group
- Igneous Intrusions
- aeromagnetic anomalies (possible dolerite intrusions)
- major lineations from satellite image
- lineations from satellite image
- Village
- Major road
- Minor road
- Approximate boundary of Oju/Obi
- Main rivers and streams most are not perennial
- Surface water catchment boundary
- BGS test borehole, screened and cased
- BGS test borehole - backfilled
- Borehole drilled prior to 1997
- BERWASSA borehole

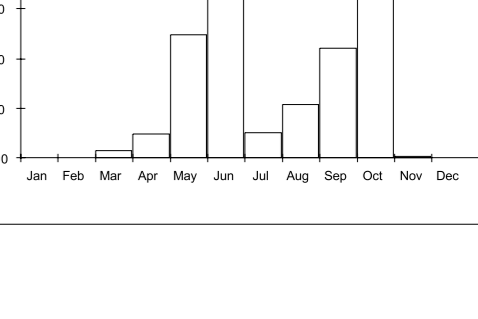
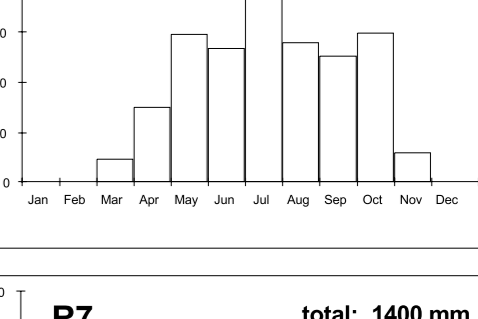
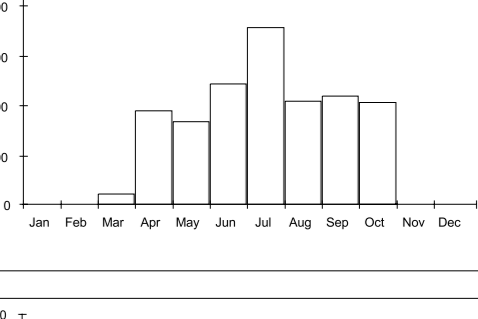
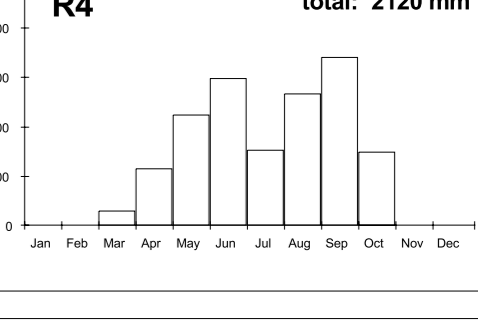
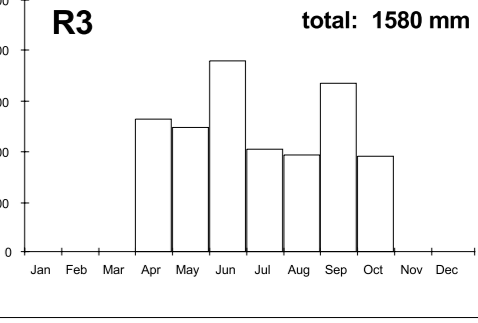
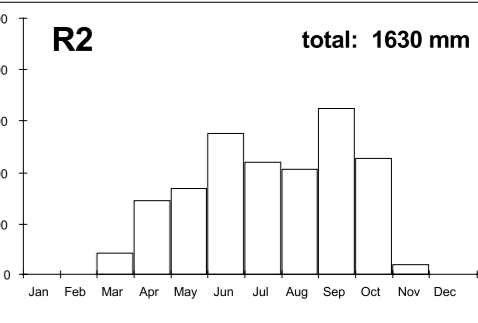
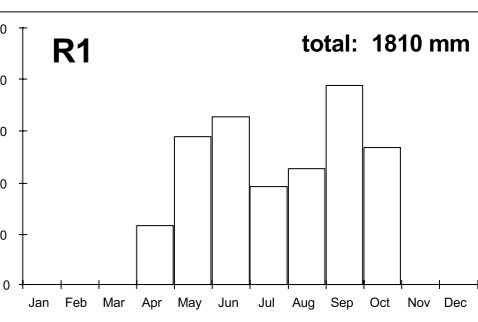
Location of Raingauges and Monitoring Boreholes



Groundwater-levels 1997



Rainfall 1997



Scale 1:100 000

INTERPRETATION OF AERIAL PHOTOGRAPHS AND SATELLITE IMAGERY FOR OJU AND OBI AREAS, BENUE STATE, NIGERIA



British Geological Survey

LEGEND

■

Village

River

Major road

Approximate boundary of Oju/Obi

shallow valleys (dambos)

aeromagnetic anomalies
(possible dolerite intrusions)

boundary between different
geological units

lineations interpreted from
aerial photographs

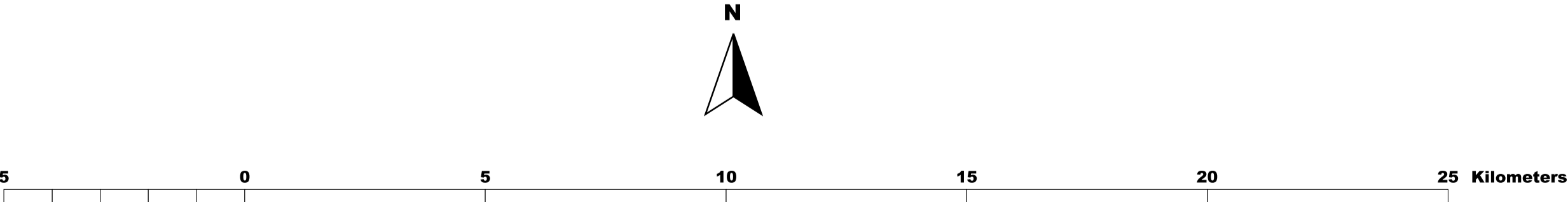
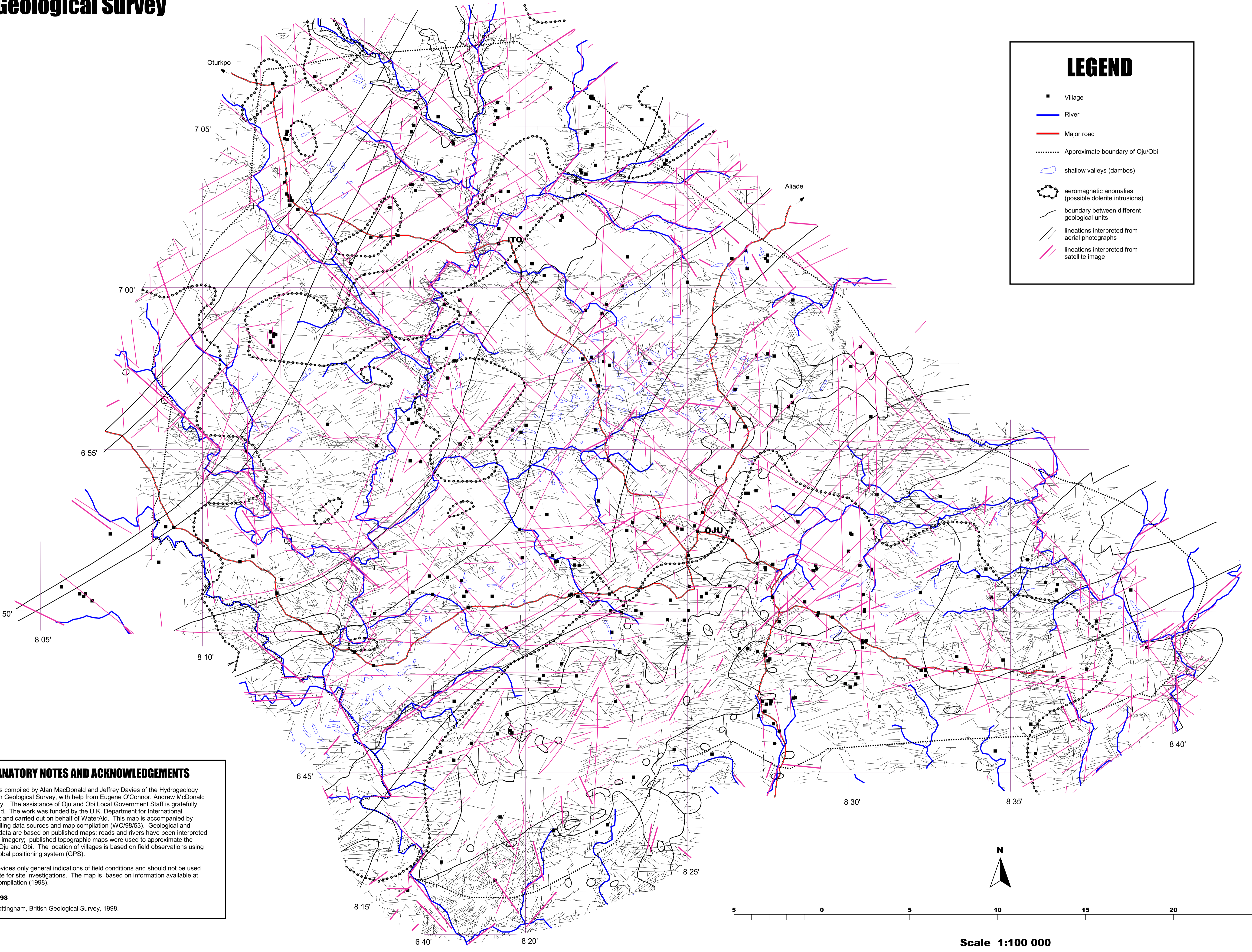
lineations interpreted from
satellite image

EXPLANATORY NOTES AND ACKNOWLEDGEMENTS

This map was compiled by Alan MacDonald and Jeffrey Davies of the Hydrogeology Group, British Geological Survey, with help from Eugene O'Connor, Andrew McDonald and Tim Duffy. The assistance of Oju and Obi Local Government Staff is gratefully acknowledged. The work was funded by the U.K. Department for International Development and carried out on behalf of WaterAid. This map is accompanied by a report detailing data sources and map compilation (WC/98/53). Geological and geophysical data are based on published maps; roads and rivers have been interpreted from satellite imagery; published topographic maps were used to approximate the boundary of Oju and Obi. The location of villages is based on field observations using a portable global positioning system (GPS).

This map provides only general indications of field conditions and should not be used as a substitute for site investigations. The map is based on information available at the time of compilation (1998).

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Keyworth, Nottingham, British Geological Survey, 1998.



Scale 1:100 000

Annex1: Village Gazetteer

Community ID	Splinter ID	splinter group name	Northing (decimal degrees)	Easting (decimal degrees)	Population (RUSAFIYA)
1	1	Umapia Adum East	6 57.794	8 21.762	3000
2	1	Iwagogo Adum East	6 57.718	8 22.412	
3	1	Ewu Adam East	6 55.299	8 18.59	200
4	1	Otokwe Adum East	6 55.6	8 22.164	700
5	1	Ijege Adum East	6 55.236	8 19.099	600
6	1	Ikirihe Adum East	6 54.644	8 16.421	700
7	1	Ohuye/Itakpi Adum East	6 55.107	8 15.378	1200
8	1	Ojwo Adum East	6 54.616	8 16.748	900
9	1	Anyode Oyinyi	6 55.372	8 18.26	1600
10	1	Uwobe Oyinyi	6 55.163	8 17.964	250
11	1	Adona Adum East	6 57.603	8 22.587	900
11	2	Itafor Adum East	6 57.6	8 22.58	
12	1	Udebor Adum East	6 54.044	8 15.846	900
13	1	Uwobe Ohuma	6 55.742	8 20.007	1200
14	1	Eddi Anyode Adum East	6 56.967	8 22.239	400
15	1	Adugodu Adum East	6 57.215	8 26.86	600
16	1	Eddi Anyoga Adum East	6 57.147	8 21.995	800
17	1	Abode Ohuma	6 55.528	8 19.849	800
18	1	Abode Adum East	6 57.847	8 22.035	800
19	1	Adugodu Ohuma	6 55.594	8 19.588	800
20	1	Okpe Adum West	6 57.739	8 17.782	3500
21	1	Opirikwu Adum West	6 55.774	8 13.868	3000
22	1	Edii Adum West	6 57.203	8 17.581	2500
23	1	Adigabu Adum West	6 58.122	8 17.546	1500
24	1	Aboru Echori	6 58.632	8 12.092	
25	1	Itogo Echori	6 58.348	8 12.095	
26	1	Abilega Echori	6 58.575	8 12.2	
27	1	Adigabu Echori	6 58.189	8 12.172	350
28	1	Adodo Echori	6 58.308	8 12.106	
29	1	Adigbe Echori	6 58.541	8 12.26	
30	1	Uwobe Echori	6 58.487	8 12.186	
31	1	Abilega Ikwokwu ito	6 58.927	8 18.359	200
32	1	Ete Igwe			
33	1	Omachi Igwe			
34	1	Adigbe Ikwokwu	6 59.219	8 18.29	1600
35	1	Ochingini Adiko	7 0.951	8 23.145	1800
36	1	Okpaga Odiapa	7 5.017	8 16.53	
37	1	Okwugba Adiko	6 58.808	8 22.018	400
37	1	Epwhite Adiko	6 2.177	8 21.145	500
37	1	Eddi Ipinu Adiko	6 59.299	8 21.835	800
37	1	Opiem Adiko	6 57.988	8 22.035	1600
38	1	Okpaga Irabi	7 4.814	8 16.464	
39	1	Odaleko Adiko	6 59.477	8 22.49	500
40	1	Iyahwe Adiko	6 59.203	8 22.355	1000
41	1	Ochoro Ainu Ete	7 0.825	8 27.474	
42	1	Eddi Ojenja Adiko	6 59.573	8 21.707	800
42	1	Ete Ojenja Adiko	6 59.827	8 22.057	1200
42	1	Okono Adiko	6 59.751	8 22.17	
43	1	Ogede Adiko	7 0.057	8 22.994	600
44	1	Imadi Adiko	7 0.17	8 24.994	700

Community ID	Splinter ID	splinter group name	Northing (decimal degrees)	Easting (decimal degrees)	Population (RUSAFIYA)
46	1	Edugba Itogo Ipinu	7 3.207	8 21.433	650
46	2	Anyagwu Itogo Ipinu	7 3.298	8 21.527	400
46	3	Adede Itogo Ipinu	7 3.201	8 21.508	300
47	1	Ogwima Ebong Itogo	7 3.938	8 24.353	600
48	1	Idogu Ebong Itogo	7 3.824	8 24.283	600
49	1	Adede Iyaho Itogo	7 5.876	8 22.003	1200
50	1	Edugba Iyaho Itogo	7 5.917	8 22.039	1000
51	1	Anyikpilewu Itogo Ekingo	7 3.636	8 21.697	600
52	1	Anyikpilew Igbegi Itogo	7 5.584	8 21.968	700
53	1	Anyagwu Ekingo Itogo	7 3.509	8 21.858	500
54	1	Anyagwu Igbegi Itogo	7 4.413	8 22.063	700
55	1	Adede Ekingo Itogo	7 3.781	8 22.155	500
56	1	Edugba Igbegi Itogu	7 4.772	8 21.836	700
57	1	Ukpute Itogo	7 5.195	8 23.585	1200
58	1	Adede Igbegi Itogo	7 4.828	8 21.893	1200
59	1	Anyagwu Iyaho Itogo	7 5.86	8 22.036	800
60	1	Anyikpilewu Iyaho Itogo	7 5.841	8 22.088	900
61	1	Edugba Ekingo Itogo	7 3.545	8 21.73	400
62	1	Anyigbogo Ochinebe	7 4.523	8 17.72	200
62	2	Anyohe Ochimebe Odiapa	7 4.5	8 17.736	800
63	1	Anyigbayogo Odiapa Ipinu	7 2.847	8 18.956	2000
64	1	Adum/Anchika Uje Odiapa	7 3.912	8 17.382	800
65	1	Anchika Odiapa Ipinu	7 2.973	8 19.452	1200
66	1	Oluyo Odiapa	7 5.048	8 19.018	800
67	1	Ubele Odiapa Ipinu	7 2.612	8 18.686	800
68	1	Anyohe Odiapa Ipinu	7 2.98	8 19.224	1200
69	1	Eddi Ikponyire	6 55.929	8 16.366	500
70	1	Abikpom Ikponyire	6 55.833	8 16.602	400
71	1	Abofotu Ikponyire	6 55.791	8 16.481	1200
72	1	Abikpom Ogore	6 52.515	8 19.801	700
73	1	Okpodom Ogore	7 0.377	8 20.566	1200
74	1	Ojegbe Ogore	7 0.802	8 19.69	1200
75	1	Ohuehe Ogore	7 0.749	8 20.18	1000
76	1	Okpudu Ogore	7 0.738	8 20.192	800
77	1	Old Ihiokwu Market	7 2.234	8 21.108	3000
78	1	Efite Okwutungbe	7 2.167	8 21.123	650
79	1	Ijanke Okwutungbe	7 1.852	8 19.838	800
80	1	Ohuehe Okwutungbe	7 3.298	8 21.527	800
81	1	Ojuo Okwutungbe	7 2.078	8 21.072	300
82	1	Okwutungbe Itakpa	7 3.245	8 12.533	
82	2	Odiapa Itakpa	7 2.552	8 12.92	
83	1	Obine Itakpa	7 2.411	8 12.944	600
84	1	Ohuehe Itakpa	7 2.545	8 12.696	800
85	1	Uwobe Itakpa	7 2.833	8 12.674	350
85	2	Adiko Itakpa	7 3.135	8 12.504	100
86	1	Ikwoku Itakpa	7 2.685	8 12.758	700
87	1	Edii Itakpa	7 2.889	8 12.6	900
87	2	Umapia Itakpa	7 2.921	8 12.554	
88	2	Ikom Otakini	6 50.457	8 18.086	300
89	1	Adiko Opirikwu	7 4.602	8 12.522	300
90	1	Anyichika Opirikwu	7 4.576	8 12.605	600
91	1	Abilega/Udegi Ikwoku	7 1.592	8 15.514	400
92	1	Anyoye Opirikwu	7 4.739	8 12.59	1200
93	1	Ubeke Itogo	7 2.697	8 12.671	3600

Community ID	Splinter ID	splinter group name	Northing (decimal degrees)	Easting (decimal degrees)	Population (RUSAFIYA)
94	1	Abilega Ugbodum	7 1.547	8 15.202	1200
95	1	Abonu/Udegi Ikwuku	7 1.611	8 16.039	400
96	1	Anyibayogo Okpirikwu	7 4.829	8 12.605	3000
97	1	Adiko Okpokwu	7 3.527	8 12.595	1050
98	1	Abonu Ugbodum	7 0.746	8 14.579	800
99	1	Agbaja Ebenta	6 47.677	8 23.156	
100	5	Ipinu Igwoke	6 47.994	8 21.571	1500
101	1	Udogwu Ikori	6 41.676	8 19.052	900
102	1	Upper Ukpa Ikori	6 43.117	8 21.133	500
102	2	Lower Ukpa Ikori	6 43.219	8 20.866	300
102	3	Oye Iseke Ikori	6 42.927	8 21.034	800
103	1	Igbekum Ikwokwu	6 48.028	8 20.635	1200
103	2	Ijege Ikwokwu	6 47.894	8 20.418	3000
103	4	Oye Akpana Ikwokwu	6 47.609	8 20.152	250
103	5	Anyikpomu Ikwokwu	6 47.996	8 20.822	1200
103	6	Igbaca Ikwokwu	6 48.052	8 20.432	600
103	9	Obene Ikwokwu	6 47.12	8 20.856	350
104	1	Ete Adum			2000
105	1	Ukpala Inuywa	6 46.808	8 19.422	650
106	1	Orikpi Ogori			3000
106	2	Anyoba Ogori Ehurekpe			1500
106	3	Anyode Ogori Ehurekpe	6 45.386	8 17.777	2000
107	1	Itafor Ogori	6 45.914	8 18.32	1000
107	2	Epwa Iligbe Ogori Itafor			
107	3	Ipinu Itafor			
107	4	Okom Ogori Itafor			800
108	1	Adum Ohuma	6 42.24	8 17.398	2000
109	1	Ogaka Ohuma Uwokwu	6 41.369	8 16.354	1000
110	1	Ohuma Uwokwu	6 43.634	8 19.206	
111	2	Ochoro Ojaba			1600
112	1	Epwaoji Ojokwe	6 46.201	8 19.119	800
112	2	Ojokwe Ogbodo	6 46.135	8 19.237	700
112	3	Oye Enugu Ojokwe	6 45.863	8 19.135	300
112	4	Epwito Ojokwe	6 46.381	8 19.304	1200
112	5	Upinka Ojokwe	6 46.295	8 19.016	1200
113	1	Ojoma Ojokwe	6 47.211	8 17.783	1200
114	1	Oganari Okpoma Ainu	6 52.98	8 20.652	700
115	1	Adarukwu Ikom	6 51.071	8 21.31	800
115	5	Anyatuchi/Ochapele Ikom			800
115	6	Anyadekpe Ikom	6 50.457	8 18.96	800
116	1	Oworu Obotu	6 43.393	8 22.529	2000
117	1	Ikejeyinu Ebenta	6 48.807	8 23.888	500
117	2	Anyode Ebenta	6 48.94	8 23.594	1000
117	3	Anyeje Ebenta	6 49.012	8 23.614	1200
117	4	Anyogo Ebenta	6 48.908	8 23.651	1500
117	5	Anyeba Ebenta	6 49.044	8 23.668	800
118	1	Anchimka Agbong Ainu	6 51.687	8 15.997	600
118	2	Adokwu Agbong Ainu	6 51.784	8 15.95	700
118	3	Anyona/Anyogobo Agbong	6 51.71	8 15.961	1000
119	1	Anyona/Anchimka Ekpong			1200
119	2	Aidokwu/Anyigodo Ekpong	6 52.567	8 18.07	1200
120	1	Akiraba Ainu	6 52.27	8 21.42	1000
121	1	Anyagbudu Anyadu Ainu	6 51.423	8 21.513	700
121	2	Anyoga Anyadu Ainu	6 51.348	8 21.656	600

Community ID	Splinter ID	splinter group name	Northing (decimal degrees)	Easting (decimal degrees)	Population (RUSAFIYA)
122	1	Umuezekoha Ezza	6 50.306	8 6.582	600
123	1	Umuezika Ezza	6 50.525	8 6.201	450
124	1	Eka Ezza	6 50.446	8 6.325	500
125	1	Amana Ezza	6 50.522	8 6.379	400
126	1	Ibiladum Ainu	6 48.314	8 15.288	800
127	1	Egbila Idelle	6 49.324	8 13.648	1500
128	1	Ubelle Idelle			2000
129	1	Ogege Idelle	6 52.178	8 10.135	1600
130	1	Anyaba Oye Idelle	6 52.582	8 9.097	700
130	2	Oye Idelle			
130	3	Ikelede/Adagwujo Idele	6 52.735	8 9.088	800
131	1	Ichekpem Izzi	6 51.503	8 8.647	800
132	1	Onyagede Idelle			300
133	1	Ohuye Idelle			400
134	1	Olikw Anwu Idelle	6 52.601	8 8.863	350
134	2	Ohaji Anwu Idelle	6 52.646	8 8.919	350
134	3	Ijaga Anwua Idelle	6 52.465	8 8.864	250
135	1	Ndiwankwo Idelle	6 51.519	8 11.157	400
136	1	Iyator Idelle	6 51.694	8 11.558	300
137	1	Ikumaye Idelle			300
138	1	Ichakobe Ogege Idelle			500
139	1	Ifega Idelle	6 50.544	8 12.304	1000
140	1	Ibalakpu Ezza Idele	6 50.738	8 5.635	500
141	1	Ubeke Idele	6 48.731	8 14.707	300
142	1	Orizor Idelle	6 52.377	8 7.141	300
143	1	Wanisin/Idubaega Iyokolo			450
144	1	Anyeje/Anyona Itikpala			1800
144	2	Anyagbo Ayinakwu Itikpala	6 50.849	8 21.253	800
144	3	Anyona/Anyoga Itikpala	6 49.929	8 17.691	800
144	4	Okpate Itikpala Ainu	6 49.925	8 17.357	1000
144	5	Obotu/Itikpala Ainu	6 50.117	8 18.217	900
144	6	Eddi Itikpala Ainu	6 50.044	8 17.683	800
145	1	Igbo Ainu	6 51.08	8 17.014	1000
146	1	Onitsha/Otikpo Igwe	6 48.92	8 22.759	1000
146	2	Akpa Anyijwo Igwe	6 48.534	8 22.988	600
146	3	Ihiobilla/Epwuje Igwe	6 48.738	8 22.911	900
146	4	Ikpiri Igwe Ebong	6 48.571	8 22.756	300
146	5	Makurdi Igwe	6 49.015	8 22.837	800
147	1	Iyokolo Izzi			1500
148	1	Indigwerun Izzi			1300
149	1	Ndinwokwu Izzi			250
150	1	Obode Obijegwu Ainu	6 49.487	8 19.408	800
151	1	Eddi Obijegwu Ainu	6 49.564	8 18.827	800
151	2	Akwuru Obijegwu Ainu	6 49.581	8 18.893	600
151	3	Adori Obijegwu Ainu	6 49.435	8 18.877	600
152	1	Agbaja Obi Oror Ainu	6 50.184	8 21.564	700
152	2	Adori Obi Ororu Ainu	6 50.527	8 22.594	1200
153	1	Agwala Obi Orou Ainu	6 50.008	8 22.625	1200
154	1	Ugburu Ainu	6 49.921	8 15.319	400
155	1	Obiwana Ainu	6 50.586	8 16.507	600
156	1	Iwagogo Obotu Ainu			700
156	2	Anyaluwa/Abokwa Obotu	6 50.523	8 21.404	300
156	3	Iwagogo Anyaluwa Obotu	6 51.012	8 22.005	300
157	1	Aidokwu/Anchinka Obughehe	6 51.997	8 18.144	1000

Community ID	Splinter ID	splinter group name	Northing (decimal degrees)	Easting (decimal degrees)	Population (RUSAFIYA)
157	2	Anyigodo Obugbehe	6 52.09	8 18.095	700
157	3	Anyona Obugbehe	6 52.579	8 18.372	800
158	1	Obotu/Obi Ucho	6 50.49	8 21.347	700
159	2	Ijegwu Oye	6 51.06	8 33.989	1000
160	1	Ede Okatokwe	6 45.64	8 17.372	1300
161	1	Abukwa Obotu Ororu	6 50.191	8 21.997	2000
161	2	Anyeje Obi Ororu	6 50.295	8 21.731	2000
162	1	Ohuehe Obigwe Ainu	6 53.198	8 20.181	900
163	1	Ucho Ainu	6 50.461	8 21.613	2000
164	1	Oju Ipinu Epwa ilodehe	6 50.017	8 25.035	2000
165	1	Oju Ojenja Epwa Lodele	6 49.721	8 24.902	900
166	1	Oju Ojenja Ipinu	6 49.301	8 25.042	1200
167	1	Ipinu Adum Owo	6 45.906	8 27.695	2500
168	1	Ihiobila Adum Owo	6 46.291	8 27.841	2000
169	1	Ohoho Owo	6 46.518	8 27.662	2000
170	1	Anyalegwuma Ohirigwe	6 48.97	8 28.78	1900
171	1	Anyawoka Ohirigwe	6 48.98	8 28.57	1700
172	1	Akpogede Oju	6 49.943	8 22.964	700
173	1	Ikaba Obohu Oju	6 49.919	8 23.573	1000
174	1	Utabiji Oju	6 49.346	8 22.66	700
175	1	Achikobi Obohu Oju	6 50.022	8 23.407	800
176	1	Agwala Obohu Oju	6 50.168	8 23.023	1200
177	1	Okiledu Obohu Oju	6 50.997	8 25.532	1200
178	1	Epwa Lodehe Umoda Oju	6 52.635	8 25.219	400
179	1	Anyikpilewu Okpenehi	6 53.62	8 30.925	1300
179	2	Anyikpohe Okpenehi	6 53.658	8 30.823	1200
179	3	Anyidogo Okpenehi	6 53.61	8 30.864	1000
179	4	Anchimeba Okpenehi	6 53.594	8 30.673	1500
180	1	Upwo Oye	6 51.299	8 34.232	500
181	1	Anyimaga Adum Oye	6 51.569	8 35.436	450
181	2	Anyabarama Adum Oye	6 57.54	8 35.389	500
181	3	Anyagbo Adum Oye	6 51.584	8 35.509	450
182	1	Achawu Oye	6 50.816	8 36.445	1200
183	1	Okete Oye	6 50.883	8 36.076	400
184	1	Ohimenyi Oye	6 50.653	8 36.418	700
185	1	Odamagbudu Oye	6 50.43	8 34.395	600
186	1	Ibini/Ogwunkpa	6 49.692	8 37.656	960
187	1	Orifa Igede	6 50.654	8 38.715	700
188	1	Oye Ohiya Opiem	6 47.16	8 28.26	600
188	2	Epwa Ekpeji Opiem	6 47.31	8 28.27	500
189	1	Epwa Uhye Ochiche Opiem	6 47.46	8 28.24	600
189	2	Epwa Uhye Otuka Opiem	6 47.32	8 28.34	1000
190	1	Ojeno Oho	6 47.948	8 36.614	800
191	1	Okatikpo Iyakom	6 48.2	8 36.012	400
191	2	Anyoga Iyakom	6 48.181	8 35.866	400
191	3	Anyikekire Iyakom	6 48.293	8 36.014	800
191	4	Anchimona Iyakom	6 48.15	8 35.866	800
192	1	Itega Oboru	6 48.487	8 34.761	850
193	1	Ogodo Oboru	6 48.871	8 39.199	800
194	1	Obegede Oborou	6 48.208	8 37.338	960
195	1	Uloko Oho	6 47.849	8 36.453	900
196	1	Eddi Oho			600
197	1	Idajo Edumoga	6 54.665	8 22.562	300
198	1	Epwa Lodehe Ochimode			1000

Community ID	Splinter ID	splinter group name	Northing (decimal degrees)	Easting (decimal degrees)	Population (RUSAFIYA)
199	1	Ipinu Ochimode			1000
200	1	Ihigile Ochodu	6 55.695	8 26.781	800
201	1	Anyogbe Ochodu	6 55.363	8 27.993	500
202	1	Etu/Mission Ochodu	6 56.275	8 26.439	800
203	1	Onyohu Ochodu	6 56.857	8 26.47	700
204	1	Anyode Odubwo	6 52.16	8 29.673	1200
204	2	Aloga Odubwo			1100
204	3	Anyighibilla Odubwo	6 52.407	8 30.043	500
205	1	Anyikaha Odubwo	6 52.369	8 30.084	500
206	1	Epwa Ipinu Ogengeng	6 53.05	8 25.465	1200
207	1	Epwa Lodehe Ewuh Ogen	6 54.453	8 25.991	800
208	1	Ibilla Alukpo	6 50.772	8 26.309	900
209	1	Andilbilla			450
210	1	Eja Ibilla	6 50.451	8 25.936	800
211	1	Anyuwogbu Epwa Ibilla	6 45.58	8 25.76	700
211	2	Anyabogwuda Epwa Ibilla	6 46.54	8 25.52	1200
212	1	Anyuogbu Epwa Lodehe			700
213	1	Anyuwogbu Ipinu	6 50.44	8 25.43	2000
214	1	Anyabogwuda Okwukwu Ibilla	6 45.825	8 24.51	400
214	2	Idajwo Okwukwu Ibilla	6 45.727	8 24.586	500
214	3	Anyoyiji Okwukwu Ibilla	6 45.7	8 24.45	600
215	1	Anyaboguda Ibilla Ilache	6 50.432	8 27.62	1000
216	1	Imoho Ibilla	6 50.341	8 24.483	300
217	1	Okpo Okiyiri			400
218	1	Upwo Ikachi	6 53.604	8 28.277	300
219	1	Anyigbodo Ikachi	6 51.28	8 27.42	1100
219	2	Etiloko Ikachi	6 51.457	8 27.486	500
220	1	Anchimode Ikachi	6 51.35	8 27.4	780
221	1	Anyodo Ikachi	6 51.48	8 27.17	500
222	1	Obobu Ikachi	6 52.757	8 28.415	100
223	1	Akpila Anena	6 52.19	8 26.39	900
224	1	Anyibanuga Ikachi	6 51.45	8 27.64	1500
225	1	Upwo Ikachi			700
226	1	Egwa Ije/Epwa Lodehe Igbegi	6 44.866	8 23.335	400
227	1	Anyoga Ikachi	6 50.88	8 27.13	700
228	1	Anyodoma Ojegbe Iyeche	6 50.245	8 28.418	300
228	2	Anchimeba Ojegbe Iyeche	6 50.284	8 28.629	300
228	3	Anyidogo Ojegbe Iyeche	6 50.378	8 28.594	400
229	1	Ogilewu Iyeche	6 53.543	8 32.819	1200
230	1	Anyode Imakodi Iyeche	6 55.289	8 33.182	1200
230	2	Anyadagbado/Anchim Imakodi	6 55.264	8 33.163	700
231	1	Igama Ogbodo	6 49.673	8 27.837	1000
232	1	Ibianko Iyeche	6 51.414	8 30.332	800
233	1	Aduma Iyeche	6 51.854	8 29.974	800
234	1	Ikpakilewu Iyeche	6 51.272	8 30.697	1000
235	1	Agbadichuo Ainu Ete	6 57.653	8 23.836	300
236	1	Obotu Aunu Ete	7 1.005	8 27.472	1500
237	1	Ukpute Ainu Ete	7 1.155	8 26.794	4000
238	1	Obi/Itikpala Ima	7 0.903	8 27.414	1200
239	1	Adoga/Ochoro Ima	6 59.618	8 28.26	1500
240	1	Ikom Obibagwu	6 57.955	8 27.477	500
240	2	Adokwu Obibagwu	6 57.827	8 27.421	900
241	1	Oyiwo Ainu Ete	7 0.588	8 26.844	2000
242	1	Obotu/Itikpala Oibagwu	6 57.916	8 27.136	700

Community ID	Splinter ID	splinter group name	Northing (decimal degrees)	Easting (decimal degrees)	Population (RUSAFIYA)
243	1	Ochoro Obibagwu	6 57.886	8 27.682	489
244	1	Ujwime Edumoga	6 53.675	8 23.199	100
244	2	Edumoga Ipinu	6 53.407	8 22.24	1300
245	1	Adodo Ikwokwu	6 59.612	8 17.959	700
246	1	Abonu Ikwokwu	6 59.472	8 17.472	1000
247	1	Eddi Irabi	7 1.356	8 19.149	600
248	1	Ibilla Irabi	7 3.193	8 16.474	800
249	1	Anyoku Irabi	7 3.34	8 16.807	600
250	1	Imoho Irabi	7 1.824	8 19.164	300
251	1	Anyogbu Obigjago Irabi	7 3.194	8 16.423	1200
252	1	Anyatuma Irabi	7 3.003	8 16.575	700
253	1	Ogege Irabi	7 2.84	8 17.33	400
254	1	Adega Irabi	7 2.478	8 15.792	1200
255	1	Ijokwe Ugbodom			450
256	1	Ijegwu uhye Ito	7 6.304	8 12.164	600
257	1	Ijegwu eji ito	7 6.521	8 13.466	
258	1	Orikpe Ameka	7 5.56	8 16.592	400
259	1	Ameka Ipinu	7 5.283	8 17.278	1200
260	1	Ochinebe Ameka	7 4.441	8 17.75	600
261	1	Anyaboguda Okileme	6 52.666	8 24.297	450
262	1	Anyabgo Okileme	6 52.571	8 24.687	300
263	1	Anyodo Okilome	6 52.895	8 24.063	1200
263	2	Anyogbu Olileme	6 52.882	8 24.207	1200
264	1	Ega Okpodom	6 52.533	8 24.829	400
265	1	Ega Ichakobe	6 51.72	8 25.028	1000
266	1	Epwa Ipinu Obachita	6 53.645	8 26.805	1000
267	1	Anyikpilew Ochiri	6 50.039	8 30.472	500
268	1	Anyidodo Ochiri	6 49.985	8 30.466	400
269	1	Anyamoha Ochiri	6 50.516	8 30.437	950
270	1	Anyadaloye Ameka	6 47.219	8 27.583	1200
271	1	Anyuwogbu Ameka	6 47.132	8 27.576	560
272	1	Uwandori Ameka	6 47.207	8 27.325	400
273	1	Uwango Ameka	6 46.766	8 27.189	400
274	1	Anyabanjo/Anyichakwuma	6 47.122	8 27.445	700
275	1	Uwobe Adum East			
276	1	Ihiejwo Market settlement	6 52.472	8 25.31	1800
277	1	Abu Ohuhu	6 47.055	8 30.947	700
278	1	Akiraba Ohuhu	6 47.651	8 30.033	650
279	1	Ikwata Ohuhu	6 45.675	8 34.519	650
280	1	Omua Ohuhu	6 46.507	8 35.62	650
281	1	Ohoho Ohuhu	6 47.935	8 30.273	800
282	1	Oyogo Ohuhu	6 47.744	8 30.205	500
283	1	Epwa Ipinu Ohuhu	6 48.067	8 30.211	600
284	1	Adoka Ohuhu	6 45.599	8 35.758	500
285	1	Ugbun Ohuhu	6 47.752	8 29.878	800
286	1	Anchimode Ebonda Ukpa	6 56.314	8 28.131	1000
287	1	Anyogoluwa Ebonda Ukpa	6 56.444	8 28.24	700
288	1	Anyigbodun Ebonda Ukpa	6 56.323	8 27.737	700
289	1	Etunwu Igwe	7 5.533	8 19.448	
290	1	Anyinaji Ohuma Ukpa	6 56.005	8 30.676	1000
291	1	Ono Ohuma Ukpa	6 57.565	8 30.055	500
292	1	Anchimode Ohuma Ikpa	6 58.174	8 30.344	800
293	1	Anyodo Ohuma Ukpa	6 57.977	8 30.713	800
294	1	Eyida Igwe	7 5.262	8 19.128	800

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295	1	Eviri Igwe	7 5.723	8 19.109	1200
296	1	Ojije/Ete Ogile Anyojedo	7 5.469	8 19.065	1500
297	1	Oba Igwe lto	7 6.169	8 20.761	500
298	1	Ehirekpe Obachita	6 55.104	8 26.397	800
299	1	Akpala Obachita	6 53.645	8 26.888	900
300	1	Ekwooh Obachita	6 53.723	8 27.119	900
301	1	Anyaboga camp Ogengeng	6 53.022	8 25.256	1500
302	1	Idumogbo Otunche	6 49.055	8 30.509	800
303	1	Etenwu Otunche Anchim	6 48.875	8 30.422	450
304	1	Anchimona Otunche Anchim	6 49.092	8 30.398	300
305	1	Anyigboba Otunche Anchim	6 49.021	8 30.406	400
306	1	Anyoko Otunche Anchim	6 49.087	8 30.529	500
307	1	Amumu Anchim	6 50.57	8 32.206	500
308	1	Ojegbe lyeche			1500
309	1	Anyogwaje Ukpila	6 48.012	8 32.366	800
310	1	Anyaluwa Ukpila	6 48.157	8 32.366	1200
311	1	Oyigbe Ukpila	6 48.171	8 32.227	1000
312	1	Ichakobe Ukpila	6 48.195	8 32.366	1000
313	1	Anyadeba Uje	6 49.863	8 29.009	1000
314	1	Anyanigwuma Uje	6 49.811	8 29.494	300
315	1	Anyona Uje	6 49.951	8 29.056	1200
316	1	Anyogba Anyikaha	6 53.147	8 32.057	400
316	2	Anyode Anyikaha	6 53.25	8 32.135	1200
316	3	Anyoyiji Anyikaha	6 53.197	8 32.099	800
317	1	Ikumaye Ikpute	7 0.902	8 26.375	800
318	1	Ipinu Odaleko	6 48.619	8 27.415	500
319	1	Oyete Odaleko	6 48.46	8 27.495	1200
320	1	Okwurum Odaleko	6 48.757	8 27.165	400
321	1	Anyoga/Anyagbodo Okpinya	6 48.242	8 33.611	800
322	1	Iwema Okpinya	6 48.254	8 33.601	1200
323	1	Ogidi Okpinya	6 48.593	8 33.33	350
324	1	Anyode Okpinya	6 48.148	8 33.662	300
326	1	Enyumegi Oyinyi	6 48.72	8 26.611	700
326	1	Owulacho Oyinyi	6 48.626	8 26.955	1000
326	1	Ohuhye Oyinyi	6 48.484	8 26.88	300
326	1	Ewpa Ipinu Oyinyi	6 48.841	8 26.869	
326	1	Epwa Uhye Oyinyi	6 48.929	8 26.727	
326	1	Epwa Ete Oyinyi	6 49.099	8 26.85	
326	1	Ihiobila Road Oyinyi			
326	1	Eddi Oyinyi	6 48.929	8 26.727	
328		Etiloko Ikachi	6 51.5	8 27.45	800
330	1	Ipinu Achimogbo	6 51.42	8 28.969	1200
331	1	Ajikpa Anchimogbo	6 51.306	8 28.986	700
332	1	Akwiwa Amchimogbo	6 51.253	8 28.885	350
333	1	Epwa Lodehe/Oyiegbe Odaleko	6 48.522	8 27.547	700
334	1	Anyiwogbu Epwa Ibilla			800
335	1	Anyogbu/A.G.C. Ibilla-Ilache	6 50.55	8 25.582	850
336	1	Omu Okiyiri			800
337	1	Okpo Okiyiri			700
338	1	Iyokolo Idelle	6 50.968	8 12.447	250
339	1	Igede Barracks Layout	6 50.76	8 25.06	1500
340	3	Itogo Itakpa	7 2.767	8 12.719	
341	3	Epwakpala Igwoke	6 48.008	8 21.261	600
342	1	Obene/Ihigile Igwoke	6 48.366	8 21.112	600

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342	2	Oye Iseke	6 47.878	8 21.577	1000
342	4	Oye Obene Igwoke	6 48.49	8 20.896	450
343	1	Ukpiri Eddi Ikwokwu	6 47.802	8 20.756	400
343	2	Ukpiri Ikwokwu	6 47.527	8 20.883	2500
344	1	Ugbogwu Ikwokwu	6 48.301	8 20.357	800
345	1	Anyodo Ipinu Ikwokwu	6 48.004	8 20.548	800
346	1	Onihio Inyuma	6 46.304	8 19.517	500
347	1	Inyuma Ipinu	6 46.23	8 19.575	2500
348	3	Epwa Lodehe Ojaba Ainu	6 52.495	8 23.126	800
349	4	Adoga Ojaba Ainu	6 52.742	8 23.304	1200
350	1	Obi Ojaba	6 52.114	8 23.686	1500
351	7	Adoga Otakini	6 50.942	8 18.019	800
352	4	Ochoro Otakini Ainu	6 50.594	8 18.173	1000
353	3	Anyado Otakini	6 51.047	8 17.583	800
354	2	Akpogede Owori Obotu	6 43.167	8 22.192	450
355	1	Otengele Okonche Idele	6 54.94	8 11.352	400
355	1	Ogede Okonche	6 54.03	8 11.195	2000
356	2	Agidegbe Ainu Ete	6 58.558	8 25.897	300
357	1	Anyinaji Ebonda Ikpa	6 56.647	8 28.209	800
358	1	Ihigile Oju	6 49.74	8 24.385	
359	1	Akwunda Ito	6 59.824	8 15.272	
360	1	Utuboji Ito	7 1.734	8 17.8	
361	1	Ikom Achiangba	6 50.517	8 17.11	
362	1	Ochekpo Igwe			
363	1	Okoo Ameka	6 46.906	8 27.396	
364	1	Inyuma Adum West	6 56.231	8 16.724	
365	1	Arigede Ebenta	6 47.202	8 22.783	
366	1	Ugbogiri Okpoma	6 51.63	8 21.498	
367	1	Iyiwo Okpoma	6 51.649	8 19.889	
368	1	Anyona Okpoma	6 51.535	8 20.982	600
369	1	Anchimka Opoma	6 51.709	8 20.831	400
370	1	Anyigodo Okpoma	6 51.406	8 21.65	300
371	1	Aidokwu Okpoma	6 51.52	8 20.913	500