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**FIRST PHASE ARCHAEOLOGICAL & HERITAGE ASSESSMENT
OF THE PROPOSED DIAMOND PROSPECTING AT GROGSPAN
142 NEAR PETRUSBURG, IN THE FAURESMITH DISTRICT**

EXECUTIVE SUMMARY

De Beers Exploration is planning diamond prospecting at the farm Kalkbult 1086 (I), Grogspan 142 (J) and Aurora 116 / Raadsel 82 (K) near Petrusburg in the Fauresmith district, Free State Province. The prospecting will be done on a total of 151ha of mostly undisturbed land. The sites are all located within a 5km radius from one another, with Kalkbult 1086 (I) 18km and Grogspan 142 (J) 20km from Petrusburg respectively. Aurora 116 / Raadsel 82 (K) site is about 17,5km west of Petrusburg along the N8 road to Kimberley.

Although the farms are located in a cultural and heritage rich area, no historical finds were discovered on the surface.

No graves or any other cultural remains were found during the investigation.

It is assumed that the prospecting will have no impact on the cultural heritage and historical environment at Kalkbult 1086, Grogspan 142 and Aurora 116 / Raadsel 82 near Petrusburg. Further planning of the proposed project may continue and no mitigation measures will be needed.

INTRODUCTION & DESCRIPTION

Scope and Limitations

De Beers Exploration is planning diamond prospecting at the farm Kalkbult 1086 (I), Grogspan 142 (J) and Aurora 116 / Raadsel 82 (K) near Petrusburg in the Fauresmith district. The prospecting will be done on an area of 151ha of mostly undisturbed land. De Beers Exploration commissioned the archaeological and heritage assessment.

The investigation provided the opportunity to examine the site. Except for the K Area at Aurora 116 / Raadsel 82, where a calcrete outcrop is visible, the soil surface consists of continuous grass cover on red sterile sandy soil. This did not have any significant effect during the survey and no limitations were experienced in the course of the site inspection.

Methodology

1. Standard archaeological survey and recording methods applied.
2. Survey of previous HIA reports.
3. Site inspection on foot and by vehicle.
4. Layout of the area and features plotted by GPS.
5. Surroundings and features recorded on camera.
6. Preparation of maps & literature.
7. Research on the history, archaeology & heritage remains.
8. Prepare map coordinates transferred to Google Earth.

INVESTIGATION

De Beers Exploration is planning diamond prospecting at the farm Kalkbult 1086 (I), Grogspan 142 (J) and Aurora 116 / Raadsel 82 (K) near Petrusburg in the Fauresmith district. The prospecting will be done on an area of 151ha of mostly undisturbed land.

The sites were examined on 4 & 24 September 2014. Officials from De Beers Exploration gave directions to the sites.

The study aims to locate and evaluate the significance of cultural heritage sites, archaeological material, manmade structures older than 60 years, and sites associated with oral histories and graves that might be affected by the proposed developments. In many cases, planted and self-sown trees and other types of vegetation represent a major part of the historical environment of human settlements in villages and towns, on farmyards or even deserted places in the open veld. These features are taken into consideration during any cultural investigation.

The land was examined for possible archaeological and historical material and to establish the potential impact on any cultural material that might be found. The Heritage Impact Assessment (HIA) is done in terms of the National Heritage Resources Act (NHRA), (25 of 1999) and under the National Environmental Management Act, 1998 (Act. 108 of 1998).

HISTORY OF THE PETRUSBURG DISTRICT

The town of Petrusburg was established in 1891 to serve the farms in the region between Bloemfontein and Kimberley. The built-up settlement started on a farm near the Emmaus railway station along the line from Bloemfontein to Kimberley. It is said that some of the original foundations of the first establishment (at Emmaus) are still to be seen there. The town ran out of water very soon and had to be moved to the present location on the farm Diepfontein where a strong natural spring was available. The place was named after Petrus Albertus Venter, the owner of the land.

During the Anglo-Boer War (1900-1902), when Lord Roberts occupied Bloemfontein in early May 1900, the British forces surprised the town defence by their approach from the south. In September 1900 Lord Roberts instructed Major Genl. Baden-Powell, to establish a Constabulary Force for the Transvaal, Free State and Swaziland, to be in place by June 1901. The Orange River Colony Constabulary Force consisted of one troop division. Soldiers were recruited in the Cape Colony and Natal and arrangements were made to enlist more members from England and Canada, with additional remounts in South Africa, Australia and North America. Due to the rapid escalation of hostilities in the Free State and Transvaal, the Constabulary formation had to be increased by December 1900, leading to the addition of a Reserve Division in 1901.

From the time of its establishment, the Constabulary units were employed as a military force engaged in field operations and to guard the blockhouse lines. By the end of the war a total of nine officers and 85 men of the Constabulary were killed in action or died from wounds, 213 were wounded, while 274 officers and men died from disease.

After the termination of the War, the various Constabulary Troops were ordered to extend their presence over the Free State Colony. Self-contained units of 100 men each, detached to several small outstations to occupy a specific district. This network of posts and patrols aimed to ensure that farms were visited regularly and to patrol the country boundaries. The contention of this ruling was to bring the drifting Black population under control and to enable the repatriation of Burghers and women and children from the concentration camps to continue without any delay or disruption.

Despite the good intentions of the British occupational force, the mere presence of the former Constabulary troops acting as policemen hampered the interaction between ordinary Burghers on their farms and the Constabulary, thus causing relations to take several years to normalise.

In August 1902, Resident Magistrates took up their duties while depending on the Force to uphold them and give effect to their instructions. After explaining the new administration to the various tribes, Native Commissioners were able to carry out the disarmament of the "Natives" throughout the country. In November

1902, peace was secured and it became viable to reduce the Constabulary force to its original establishment of 6000 men. Different sections were organised according to the Magisterial Districts, with a certain number of men allocated to each district, sub-districts and Police posts. A few troops were retained as a mobile reserve ready for any emergency service. By 1903 the South African Constabulary already included 952 Black troops as so-called "Native Police". This ruling continued until 1907, when the establishment of an official police force finally substituted the South African Constabulary.

The Orange River Colony Constabulary Force operated from Bloemfontein to Kimberley, via Petrusburg to protect the railway line. The troops were stationed at several camps along the way and remains of their activities in the form of fired rifle cartridge shells and rusted food and condensed milk cans, can still be found.

ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

MIDDLE STONE AGE

The region along the Vaal and Riet Rivers is exceptionally rich in terms of Stone Age material and rock art sites (Morris 1988, 1990). The Fauresmith stone tool industry, named after the town of Fauresmith, is characterized by small hand axes and cleavers and by numerous flaked tools, including triangular projectile points of the classic Levallois or prepared core stone-flaking technique (Clark 1959, Mitchell 2002). The type sites of the Fauresmith stone tool industry are at Brakfontien 321 and River View Estates (Sohnge, Visser & Van Riet Lowe 1937).

The Fauresmith stone tool industry is often defined as a transitional stage or intermediate phase between the Early Stone Age (Acheulian) and the Middle Stone Age (MSA). It can also be taken as the end of the Acheulian or the beginning of the Middle Stone Age (Mitchell 2002). The Fauresmith industry is found at a number of other archaeological sites such as Wonderwerk Cave near Postmasburg and at Kathu Pan where it is dated to at least 420,000 years ago. The Fauresmith industry consists of characteristics of the Middle Stone Age lithic technology such as exceptionally long blades, points and prepared core technology as well as retaining hand axes from the Acheulian. The Fauresmith industry dates from about 75,000 to 100,000 years ago and is largely contemporary with the Sangoan industry from sub-Saharan Africa. The two industries apparently correspond to different habitats, with Fauresmith having been used in open steppe areas and Sangoan in forested regions. These differences suggest that the two tool traditions may have been in use by two distinct cultural groups, a plains-dwelling people and forest-dwelling people. It is generally considered to have begun around 280,000 years ago and ended around 50 000-25 000 years ago. The beginnings of particular Middle Stone Age tools have their origins as far back as 550 000-500 000 years ago and as such some researchers consider this to be the beginnings of the Middle Stone Age, which is associated with anatomically modern human beings (*Homo sapiens*).

THE LATER IRON AGE

Certain Later Iron Age sites in the Free State have produced important archaeological information (Maggs 1976, Dreyer 1996). These Iron Age sites date between 1660 AD and 1810 AD.

The Later Iron Age archaeological phase brought people to the interior that cultivated crops, kept livestock, produced an abundance of clay pottery in a variety of shapes and sizes and knowledge of smelting copper and iron. Extensive stone walled enclosures characterise the permanent settlements. These living places are known from the prominent Sotho/Tswana settlements at Viervoet (Tihela) near Clocolan, Biddulphsberg (Kurutlele) near Senekal and Marabeng near Ficksburg. A number of Taaibos Korana and Griqua groups, remnants of the Later Stone Age peoples, managed to survive the assimilation by Sotho/Tswana tribes in the region.

Dramatic climate changes resulted in a rapid population growth along the east coast of South Africa. Increased pressure on natural resources and attempts to control trade during the early 19th century brought the emergence of powerful leaders in the area. The subsequent power struggles resulted in a period of instability in the central parts of Southern Africa. This period of strife or wars of devastation, known as the “difaqane” (Sotho/Tswana) or “Mfecane” (Nguni), affected many of the Black tribes in the interior. Attacks from east of the escarpment initiated by the AmaZulu impis of King Chaka in about 1822, were carried on by the AmaNdebele of Mzilikazi and the AmaNgwane of Matiwane into the Free State, thus uprooting among others, the Batlokwa of Sekonyela and Mantatise and various smaller Sotho/Tswana tribes. On their turn, the Batlokwa drove off the Bafokeng of Sebetoane from Kurutlele (Biddulphsberg) near Senekal, who, in their effort to escape the pursuit by the AmaNdebele forces, eventually landed up along the Kunene River in the Caprivi (Dreyer & Kilby 2003). This period of unrest directly affected the peoples of the Free State and Northern Cape, resulting in the displacement of scores of tribesmen, women and children. The stronger tribal groups, such as the AmaNdebele of Mzilikazi, assimilated many of these refugees.

Early European missionaries and travellers ventured into the interior of the country during the 19th century (Dreyer 2001) and the Rev James Archbell established the missionary at Thaba Nchu by 1834. Several of the marauding hordes affected the lives of the Batswana people living at Dithakong near the mission station of Robert and Mary Moffat near Kuruman.

The study of these stone-walls is based on the classification of settlement patterns, according to a standardised archaeological framework (Maggs 1976). This arrangement of structures and settlements is characterised by connecting walls (Type V), surrounding walls (Type N) and huts with bilobial courtyards

(Type Z) respectively. For the distribution of the different settlement patterns in the Free State, refer to the description by Maggs (1976: Maps 38&39 over Maps 304&305). This clustering of sites based on settlement layout is confirmed by associated pottery assemblages with different decoration styles (Maggs 1976:290). The different settlement patterns also produced huts of different materials in different styles.

RIET RIVER STONE WALL SETTLEMENTS (TYPE R)

In our present area the stone wall settlements along the lower parts of the Riet River (Type R) (Maggs 1971, Humphreys & Maggs 1970, Humphreys 1970, Humphreys 1972) are very distinct in geography and culture from the Later Iron Age settlements described and classified in the western, central and eastern parts of the Free State (Maggs 1976).

The layout of Type R living sites fits a specific pattern and are mainly limited to dolerite outcrops within 3km from the Riet River, the only constant water source (Map 7). (This is in contrast to the Later Iron Age sites in the central, northern and eastern Free State, where settlements are concentrated up to 3 or 4km from the main rivers). All the Type R settlements are either on top of or next to dolerite sills where sufficient natural building material is available close by. Settlement units are grouped in clusters of up to 7 settlements, with two larger units of 10 and 13 individual structures respectively. Names of farms where settlements are found occur in the list given by Maggs (1971) (Fig.14). Securely established units occur between Jacobsdal and Kalkfontein (Map 7), where individual clusters are positioned 5 to 10km apart. This spacing is clearly intended to release pressure on grazing pastures and the constant natural water supply. In the region of Afvallingskop and Pramberg (cf. Brink, Dreyer & Loubser 1992), small clusters are found on the opposite side of the river arranged about 1km apart. Type R units are normally placed at the base of hills, on about the same level as the river bank. (Iron Age sites elsewhere in the Free State are found on top of hill plateaus or ridges well above the valley floors below).

The type site of the Type R settlement pattern (OFD1) is located on the farm Oudefontein, 12km north-west of the town of Koffiefontein on the north bank of the Riet River (Fig.15). The Oudefontein site (OFD1) contained a cluster of thirteen settlement units, with another group of ten units on Wintershoek farm, across the river. The stone walls are made of weathered dolerite and are mostly in a collapsed state at present. Walls were probably only 60-80cm high. Some walls have an irregular appearance, giving the impression of a careless or inexperienced building technique. Enclosure entrances are difficult to recognise, but on smaller structures the openings tend to face the large central enclosure. The settlement pattern of the units consists of larger central circular or oval shaped enclosures surrounded by smaller enclosures. Smaller enclosures tend to be in the region of 14m diameter, up to 21m in the case of the larger

structures, with 41m for the largest central enclosure at OFD1. At Afvallingskop the central enclosure measures 70m. Due to the size and placing within the context of this settlement layout, it is accepted that they were used as stock kraals. Enclosures in the size range between 6m to 12m diameter are accepted as byres for small stock. For the calculation of stock byre capacity for cattle and small stock, refer to Dreyer (1992:371) and Humphreys (1972:102-). According to this method of calculation, it could have been possible to kraal up to 1923 head of small stock or 385 head of cattle in the larger enclosures at a given time.

As an addition to the site layout of the Type R settlements, semicircular structures occur. It is likely that these features could have been erected as a screen for some domestic activity around the living place (Maggs 1971:44). Several small enclosures are found some distance away from the settlement units against the steeper slopes. In several cases the semicircular and smaller structures have household material on the surface around them. With one exception, the surrounding walls at OFD1 are poorly developed, but could have been placed there merely to define the living area of the settlement unit. In some cases these features are only placed on the uphill side of the settlement. Connecting walls between structures are rare and is not considered as a characteristic feature of Type R settlements. In some cases short walls form secondary enclosures, attached either to the inside or outside of the main byres.

Small stone mounds appear inside the larger enclosures. These features may have been graves, as other burials from the area, had been described from the same position (Humphreys & Maggs 1970, Humphreys 1970).

Rock engravings had been recorded by Wilman and Battiss from as far back as the 1930s and 1940's. At Oudefontein (OFD1), two sites were discovered, where highly patinated specimens of quagga, human figures and -footprints, hippo, springbok, ostrich, blesbuck, jackal, eland, fat-tailed sheep, rhino and not least, several elephant occur depicted in various techniques. The presence of rock gongs is also mentioned (Maggs 1971:44-45).

Excavations at OFD1 produced well fired, but highly fragmented pottery specimens of bowls, vessels and pots, probably from Later Stone Age origin. There is variation in the range of round bases and size, necks with rounded, slightly rolled over or flattened rims. Most sherds have fine mudstone grit, sand or grass tempering. An insignificant number of sherds show a herringbone decoration motif in shallow grooves on a rim with comb-stamping impressions.

Excavated stone artefacts include Middle Stone Age stone borers, a small sample of various scrapers, some with secondary trimming, double end-scrapers, a grooved stone made from serpentine stone and a single bored stone made from greenish lava. Grinding stones with prominent pecking marks were made from dolerite. Manu-ports with peck and scratch marks were probably carried in to the site.

Metal objects consist of a fairly large cylindrical copper bead, a small bangle and a curved band that could be the remains of a 2,5cm diameter ring. It is argued by Maggs (1971:55), that these copper objects could have been carried to the site by Later Iron Age people. A small number of ostrich egg-shell beads and one bone splinter with polished tip were recovered. Other bones show deep chop marks possibly made by an iron tool.

The limited distribution of Type R settlements confirms its occurrence as a local cultural development for over 130km along the Riet River. The prominent stone walling suggests a more settled way of living, with the main form of survival concentrated on stock farming, supported by hunting and gathering of veld food. The lack of information on their hut type indicates a fragile construction of perishable material. It is possible that the huts could have had a reed mat cover supported by a light wooden pole frame work.

A short review on the possible occupants of the sites during the late 18th and early 19th century, records various pastoral and hunting groups along the Orange and Vaal River confluence as far back as the 18th century. The Griqua, for one, had extended contact with the colonists and have learnt to speak Dutch. From the early 19th century the names of the Griqua and Korana had been applied randomly to all Khoikhoi groups of the Orange River flood basin. The Kora is mentioned in the area at the confluence of the Riet and Vaal Rivers. It is stated that by 1822, the Bushmen between the Orange and Riet Rivers, were keeping many sheep and goats up to a time when they fell prey to some marauding group of "Nguni speakers". Another group of Bushmen who were keeping countable numbers of cattle are mentioned along the Riet and Vaal Rivers. At about the same time, Burchell met Bushmen at the Riet-Vaal confluence, which appeared to be of mixed descent, showing physical features of Bushmen, Kora and Batswana people. They kept sheep, goats and cattle, which they declared they have raided from several unidentified Bantu-speaking tribes (Maggs 1971:57).

By 1835, Dr Andrew Smith found the area around the Riet-Vaal River junction under Griqua (Waterboer and Kok) and Tswana control. Smith mentions various Kora, San and mixed groups in the area with other Griqua-parties regularly travelling by. At the time European farmers and several Sotho and Tswana tribesmen, which became displaced by the unrest caused by the Difaqane (1822-±1830) moved into the area. This could explain the presence of the Tswana villages along the lower Riet River. These settlements have not been observed by Burchell in 1811 and must have been established afterwards. There is record of a complaint by Adam Kok about the Kora, who raided cattle from the Bushmen along the Riet River in 1829. With time, the Kora seem to have gradually moved away to mission stations further inland. After 1845 there is no longer mention of them being in the Riet-Vaal River region (Maggs 1971:58). According to Stow (1905) some of the semi-pastoral groups remaining with their chief Kousob

(Skeel Koos) who, by 1850 claimed rights over the area along the Riet, Modder and Vaal Rivers.

It is accepted that the Sotho/Tswana cattle herders did not enter the area along the Riet River before 1829. Historical records have no evidence of any of the Sotho/Tswana peoples present in the Riet River area, before the Difaqane. Sotho/Tswana tribes, such as the Tlhaping, Rolong and Southern Sotho groups are mentioned living some 150-200km distant from the Type R settlements. It appears that the Later Iron Age tribes were not moving further southwards, probably halted by the limits enforced by ranging environmental and climate conditions. It is alleged that the people along the Riet and Vaal Rivers were engaged in trade relations with the Sotho/Tswana tribesmen to the east, but there is no resemblance between the material culture of the Type R units and other Later Iron Age sites in the Free State (Maggs 1971:59).

Several decades later (1854 to 1868), during the outbreak of the border wars between the Basotho Nation of Moshoeshe and the Burgers of the Free State Republic along the Caledon River in the east, the Taaibosch-Korana of Skeel Koos and other wandering Batswana tribesmen under Mankurwane, exploited the interior disorder to perform stock raids along the Orange River in the western Free State (Van Heerden 1908).

LOCALITY

De Beers Exploration is planning to do diamond prospecting at the farm Kalkbult 1086 (I), Grogspan 142 (J) and Aurora 116 / Raadsel 82 near Petrusburg in the Fauresmith district, Free State Province. The prospecting will be done on a total of 151ha of mostly undisturbed land. The sites are all located within a 5km radius from one another, with Kalkbult 1086 (I) 18km, Grogspan 142 (J) 20km and Aurora 116 / Raadsel 82 about 17,5km from the town of Petrusburg along the N8 road to Kimberley.

The farms Kalkbult 1086 (I) and Grogspan 142 (J) are reached via the gravel road running from Petrusburg to Emmaus siding along the railway line (Map 2), while Aurora 116 / Raadsel 82 (K) is situated along the N8 main road to Kimberley (Map 3).

During a visit to the railway yard at Emmaus, several old pine trees and foundation curbs and concrete slabs were visible. The exact location of the original foundations of the first establishment is uncertain. Although there is a signboard prohibiting entrance to the railway property, the buildings at the siding are looted and the whole settlement is deserted. Emmaus siding is situated 1,75km from the prospecting Area I at Kalkbult 1086 and 2,34km from Area J on Grogspan 142, respectively, the proposed diamond prospecting will have no impact on the ruins.

The following GPS co-ordinates were taken (Cape Scale) (Surveyor-General 1973): (Maps 4-6).

I1a	29°03'09"S	025°14'37"E.	Alt 1237m (Fig.1).
I4a	29°05'18"S	025°14'38"E	Alt 1234m (Fig.2&3).
J	29°02'44"S	025°13'01"E.	Alt 1213m (Fig.4).
Ja	29°02'17"S	025°13'35"E.	Alt 1229m (Fig.5&6).
K1a	29°03'56"S	025°13'15"E.	Alt 1190m (Fig.7).
K2a	29°04'17"S	025°13'48"E.	Alt 1204m (Fig.8).
K3a	29°04'48"S	025°14'06"E.	Alt 1210m (Fig.9).
K4a	29°04'29"S	025°13'15"E.	Alt 1201m (Figs.10&11).
EMMAUS	29°02'09"S	025°14'47"E.	Alt 1228m (Figs.12&13).

FINDS

Several heritage impact assessments on residential developments at Petrusburg, borrow pit mining along the N8 main road to Kimberley and diamond prospecting sites, recorded a variety of Middle Stone Age lithic material (Dreyer 2003, 2005, 2006, 2010, 2012, 2013, 2014). These finds include individual Acheulean hand axes (± 10 cm in length), from the later phase of the Early Stone Age and collections of Middle Stone Age flakes and cores. The majority of the finds represent heavily patinated stone flakes and scrapers, together with a single well-used upper grinding stone.

Although the farms Kalkbult 1086 (I), Grogspan 142 (J) and Aurora 116 / Raadsel 82 are located in this potentially heritage rich area, no historical or cultural finds were discovered during the present survey.

IMPACT ASSESSMENT

It is assumed that the prospecting will have no impact on the cultural heritage and historical environment at Kalkbult 1086, Grogspan 142 and Aurora 116 / Raadsel 82 near Petrusburg.

There will be no major impact caused by the prospecting developments on any heritage resources.

RECOMMENDATIONS

The impact resulting from the new prospecting developments on the archaeological and heritage resources is considered to be of minor significance.

There are no obvious reasons to delay further planning of the developments at the specific site.

I recommend that the planning of the proposed prospecting developments may proceed.

MITIGATION

No mitigation measures will be required in case of the present prospecting developments.

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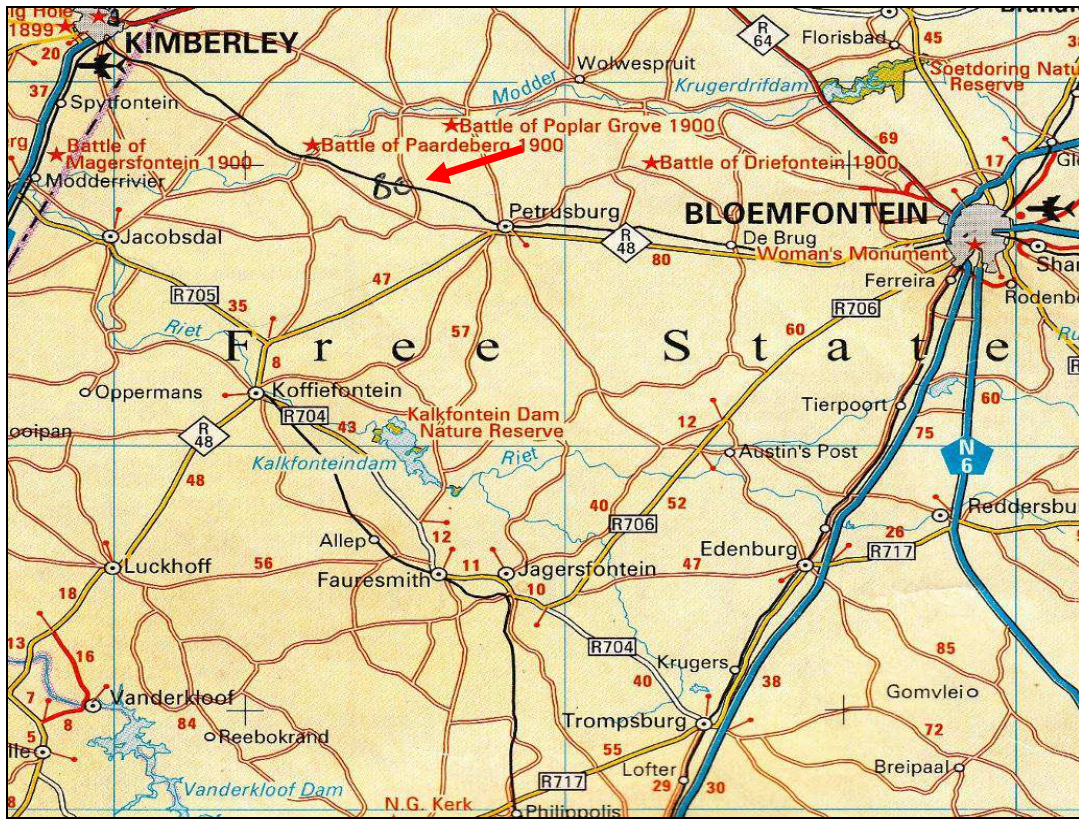
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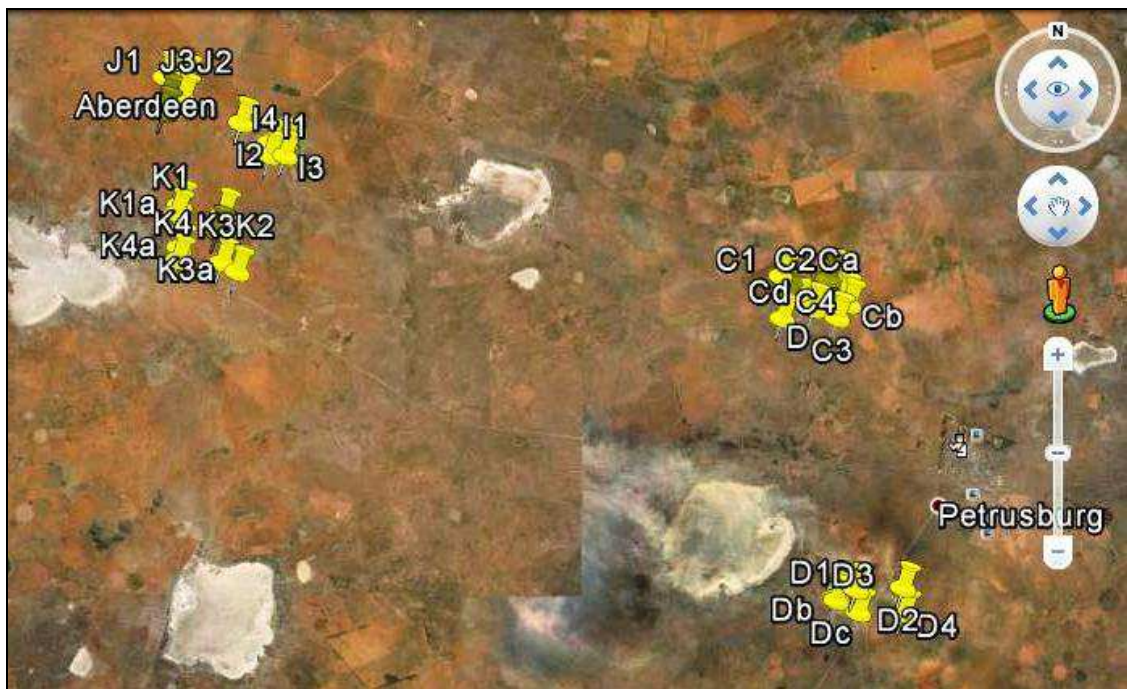
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VAN HEERDEN, P.S. 1908. Herinneringen uit den tijd der Vrijstaatsche Voortrekkers. Pro Ecclesia Drukkery: Stellenbosch

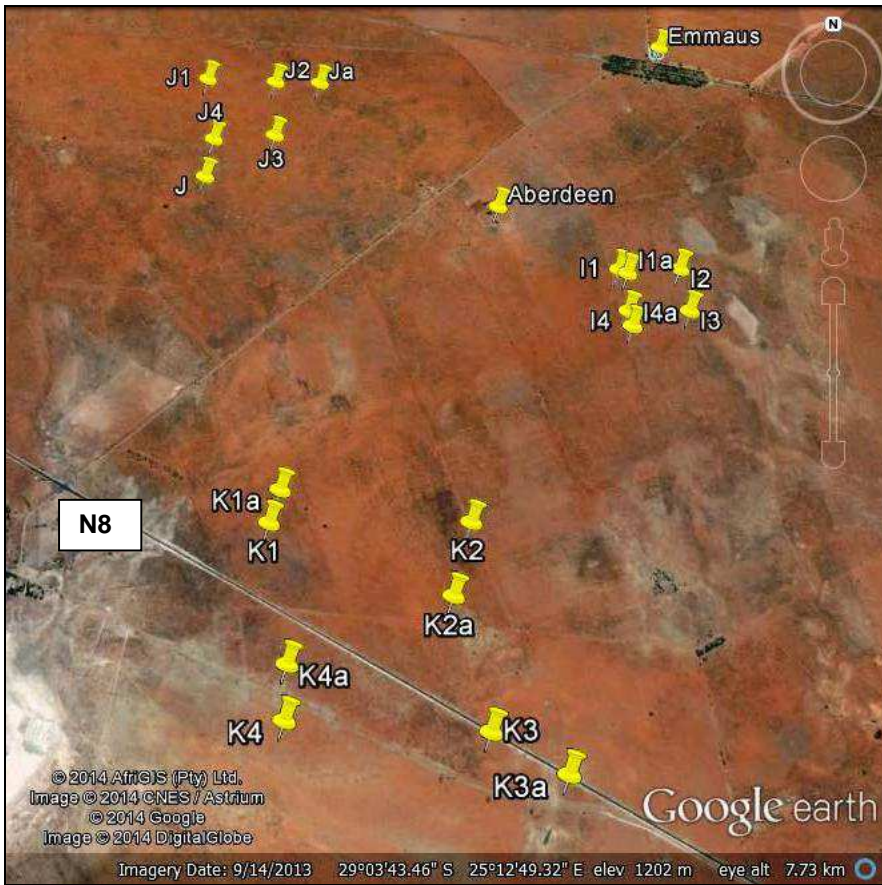
LIST OF ILLUSTRATIONS



Map 1 Locality of the sites at Petrusburg in relation to Fauresmith & Bloemfontein.



Map 2 Pretoriusdam 550 (C), Eden 893 (D) Grogspan 142 (I,J,K) in relation to Petrusburg.



Map 3 Areas I (Kalkbult), J (Grospan), & K (Aurora) in relation to the N8 & Emmaus siding.

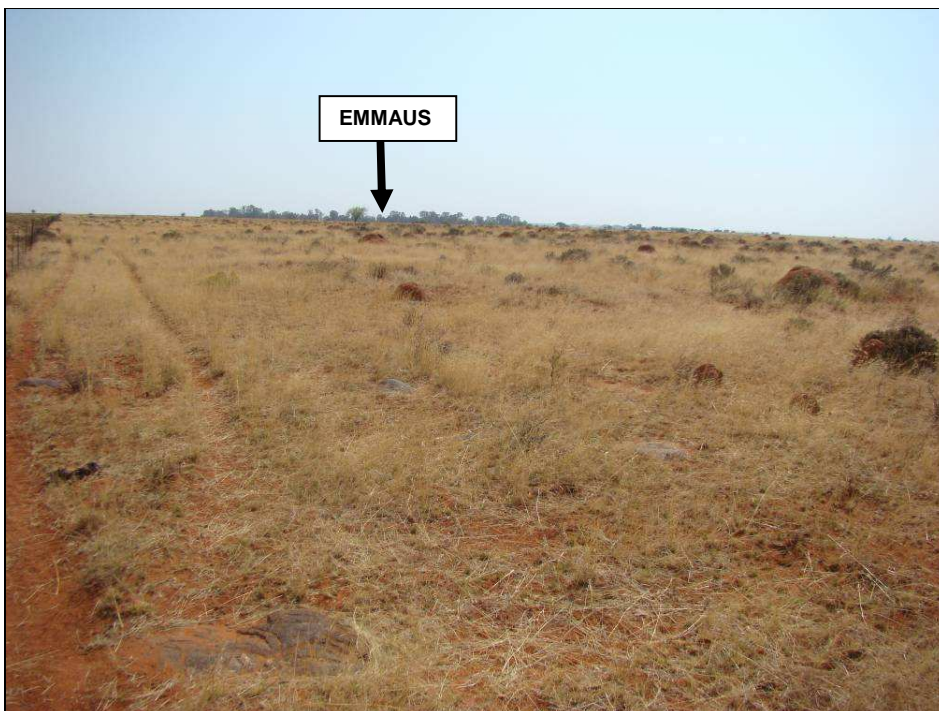
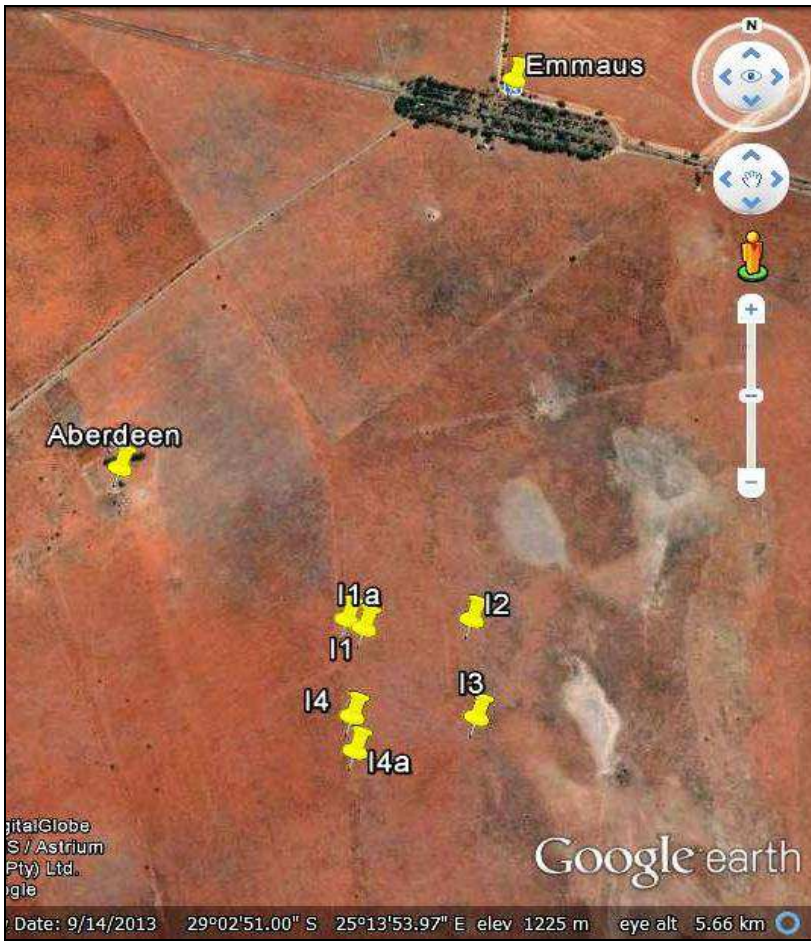


Fig.1 Point I1a at Kalkbult 1086 near Petrusburg. Trees at Emmaus on the horizon.



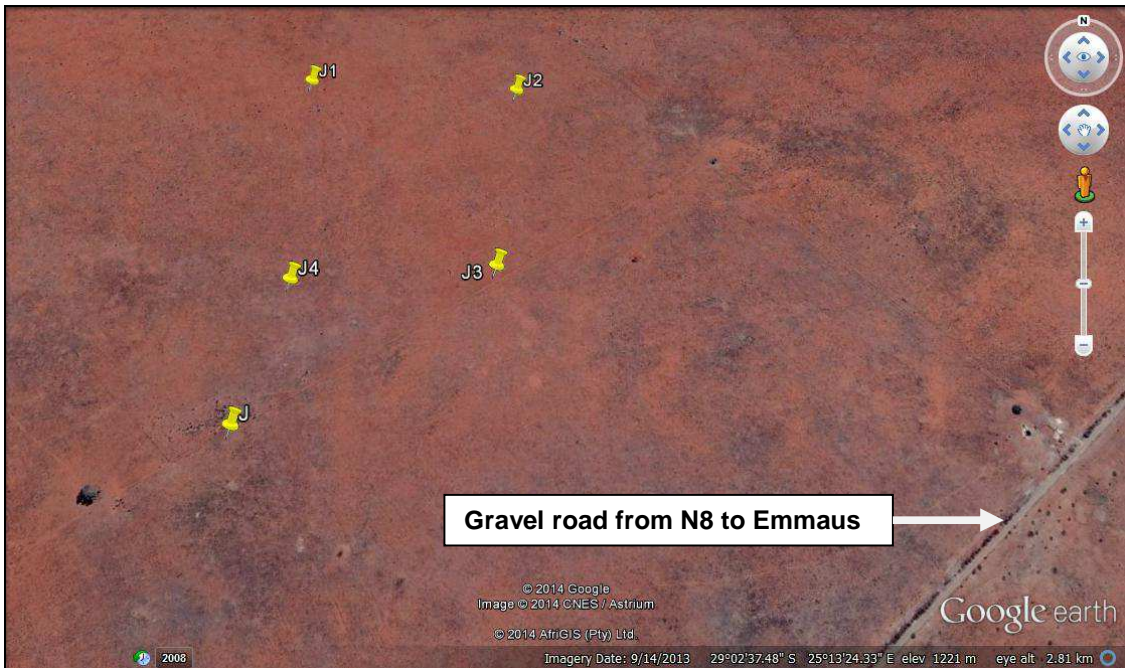
Map 4 Area I at Kalkbult 1086 near Emmaus siding. Coordinate points are indicated



Fig.2 Point I4a at Kalkbult 1086 near Petrusburg.



Fig.3 Point I4a at Kalkbult 1086 near Petrusburg.



Map 5 Area J at Grogspan 142 near Petrusburg. Coordinate points indicated.



Fig.4 Point J at Grogspan 142 near Petrusburg.



Fig.5 Point Ja at Grogspan 142 near Petrusburg.



Fig.6 Point Ja at Grospan 142 near Petrusburg.



Fig.7 Point K1a at Aurora along the N8 near Petrusburg.



Map 6 Area K at Aurora farm along the N8 road to Kimberley. Coordinate points indicated.



Fig.8 Point K2a at Aurora farm along the N8 road from Petrusburg to Kimberley.

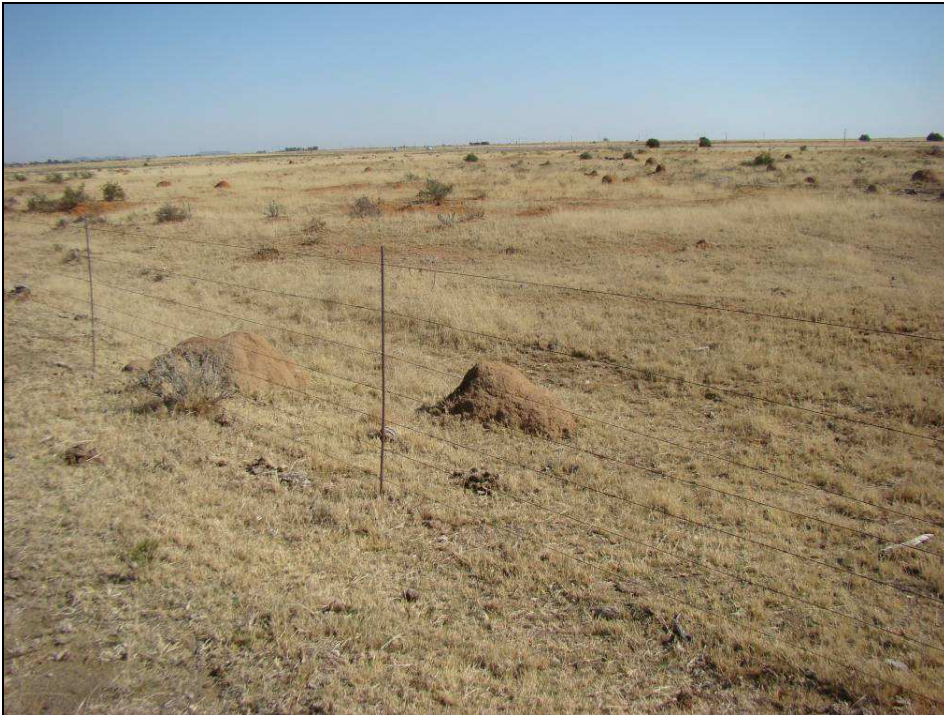


Fig.9 Point K3a at Aurora farm along the N8 road from Petrusburg.



Fig.10 Point K4a at Aurora farm along the N8 road from Petrusburg.



Fig.11 Point K4a at Aurora farm along the N8 road from Petrusburg.

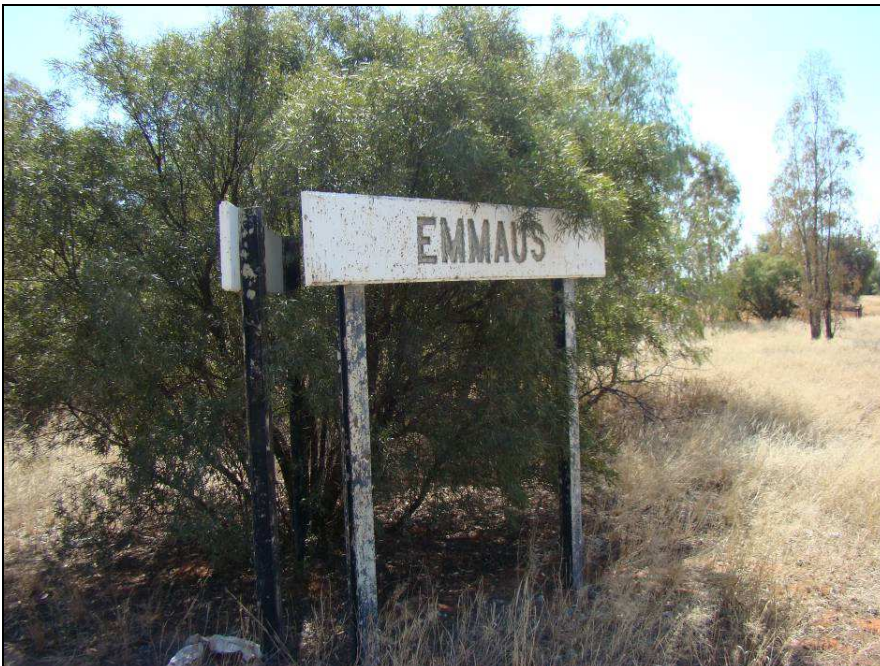


Fig.12 Emmaus siding along the railway line from Petrusburg to Kimberley.



Fig.13 Emmaus siding along the railway line from Petrusburg to Kimberley.

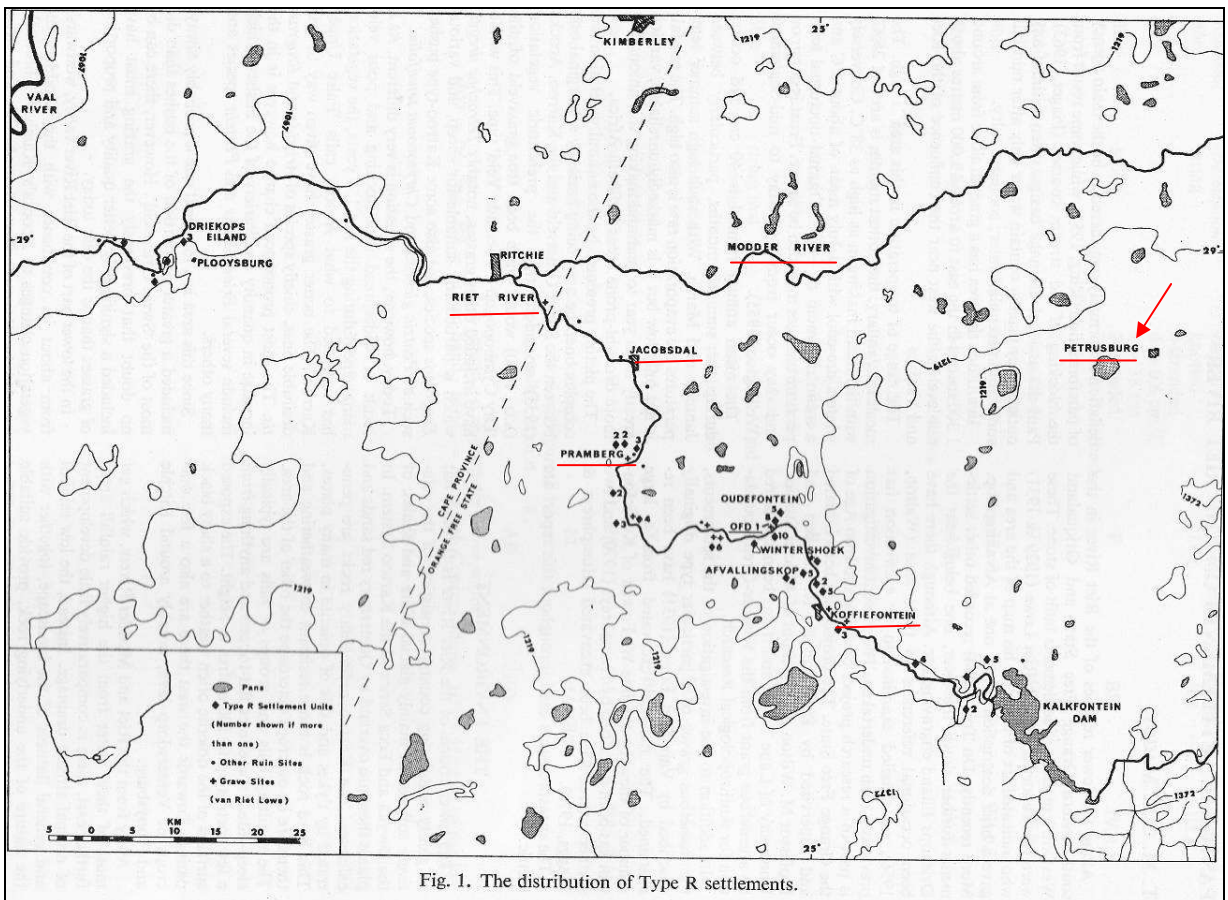


Fig. 1. The distribution of Type R settlements.

Map 7 Distribution of Type R settlements along the Riet River (After Maggs 1971).

Location of Type R Settlement Units

<i>Farm Name from I: 50 000 series maps</i>	<i>No. of units on farm</i>	<i>No. of units in cluster</i>	<i>Hollow between hills</i>	<i>Flat ground beside hill</i>	<i>Gentle rocky hill slope</i>	<i>Natural terrace on hillside</i>	<i>Flat hilltop</i>
Kalkfontein	5	5	1	1	3		
Bergfontein	1	1		1			
Telegraalfontein	2	2	1	1			
Poortjie	4	4				4	
Koffiefontein	3	3		3			
Rooidraai	7	7	4	3			
Leeuwarden	1	1	1				
Afvallingskop	9	5	3				2
Afvallingskop		4	2	1	1		
OFD 1 (Oudefontein)	13	13	10	1	2		
Wintershoek	11	10	9	1			
Wintershoek		1	1				
De Kiel	6	6	6				
De Aar	4	4	4				
Waterval	3	3	2	1			
Khartoum	2	2	2				
Pramberg	7	3	3				
Pramberg		2	2				
Pramberg		2		2			
Driekops Eiland	3	3	3				
Mierkraal	1	1	1				
Weltevrede	1	1					1
Christian Drift	1	1					1
Totals	84	84	55	15	6	4	4

Fig.14 Type R settlements on farms along the Riet River (After Maggs 1971).

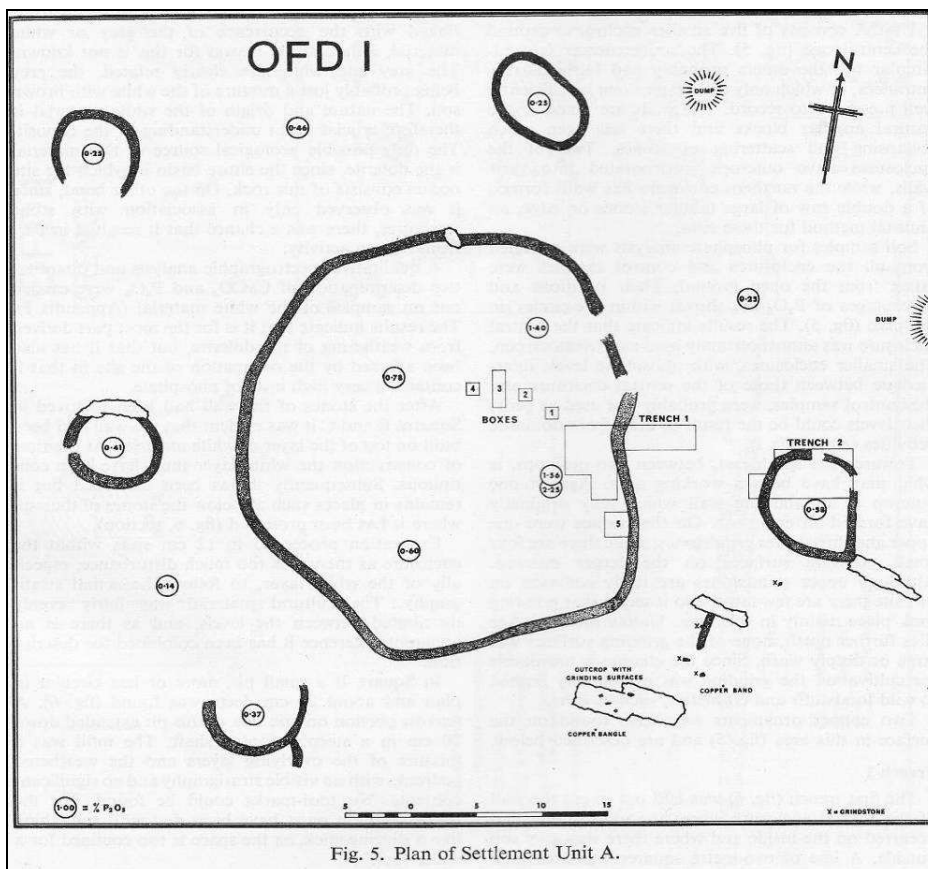


Fig. 5. Plan of Settlement Unit A.

Fig.15 Layout of Type R settlement OFD1, Oudefontein on the Riet River (After Maggs 1971).