

Figure 3 Enlarged section of the 'Bethal' sheet of the Major Jackson Series. The approximate position of Site 16 C is shown in red dotted line.

7.1.3 First Editions of the 2629AA and 2629AB Topographical Sheets

Figure 4 depicts an enlarged section of the First Editions of the 2629AA and 2629AB Topographical Sheets. Both sheets were based on aerial photography undertaken in 1954. The former was surveyed in 1965 and printed in 1967 whereas the latter sheet (2629AB) was surveyed in 1962 and printed in 1963.

The following observations can be made from these maps:

- Feature 1

A 'ruin' is depicted on the north-western boundary of the study area.

This feature could not be identified on the Google Earth Image. It was also not found during the field survey.

- Feature 2

A 'hut' is depicted near the northern boundary of the study area. This was very likely the accommodation for a black farm worker and his family.

This feature is depicted on the Google Earth Image (see Section 4.2.2.1 above).

It was not found during the field survey.

- Feature 3

A building is depicted near the centre of the study area. It is not presently known whether this building was accommodation for a share-cropper and his family or alternatively a farm worker and his family.

This feature could not be identified on the Google Earth Image. It was not found during the field survey.

In general it can be said that at the time that these maps were produced (during the 1950s and 1960s) large sections of the study area were already disturbed by agricultural activities. This was especially true for the western half of the study area.

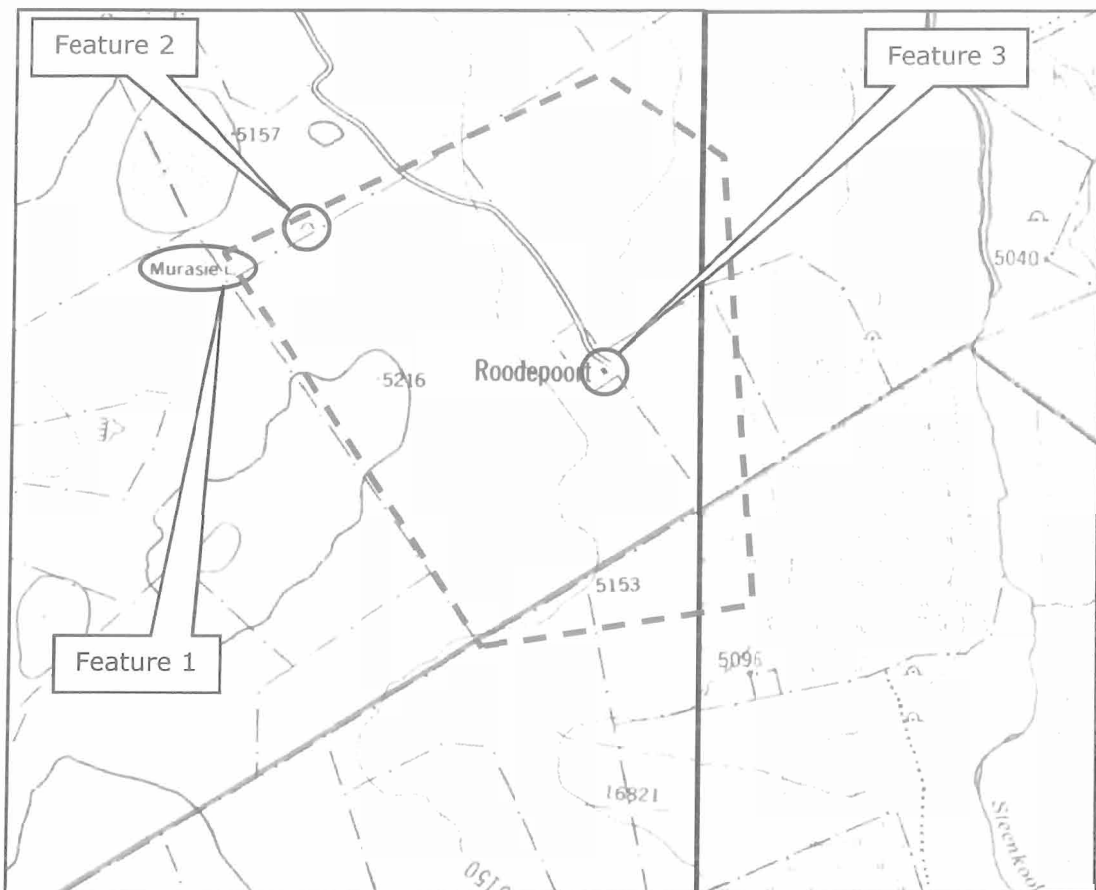


Figure 4 Enlarged sections of the First Edition of the 2629AA (left) and 2629AB (right) Topographical Sheets. The approximate position of the study area is shown in red dotted line.

7.2 Site 10

7.2.1 Google Earth

The following observations can be made from the Google Earth Image (see **Figure 5**):

- Large sections of the study area can be described as disturbed. This is largely as a result of earlier coal mining activities in this area as well as agricultural cultivation and ploughing.
- Further disturbance in the form of an ash dam facility located on the northern end of the study area is evident.
- A number of plantations are found along the southern boundary.
- One possible heritage feature was observed on the image. The feature (S26.273486 E29.205317) comprises what appears to be a number of stone enclosures. During the field survey these were investigated and found to be stone concentrations due to natural causes.

7.2.2 Major Jackson Series Map

Figure 6 depicts an enlarged section of the Bethal Sheet of the Major Jackson Series (National Archives, Maps, 3/559). This series was produced during the South African War (1899-1902) by the Mapping Section of the Field Intelligence Department under the supervision of Major R.M. Jackson. The sheet is a revised edition dated to April 1901.

The following observations can be made from the map:

- No heritage sites are depicted within or in close proximity to Site 10.
- A number of features are depicted within the farms Driefontein and Onverwacht but outside of the Site 10 study area. These appear to be farmsteads and associated farm buildings.
- At the time the farm known as Kriel Power Station has not been established yet.

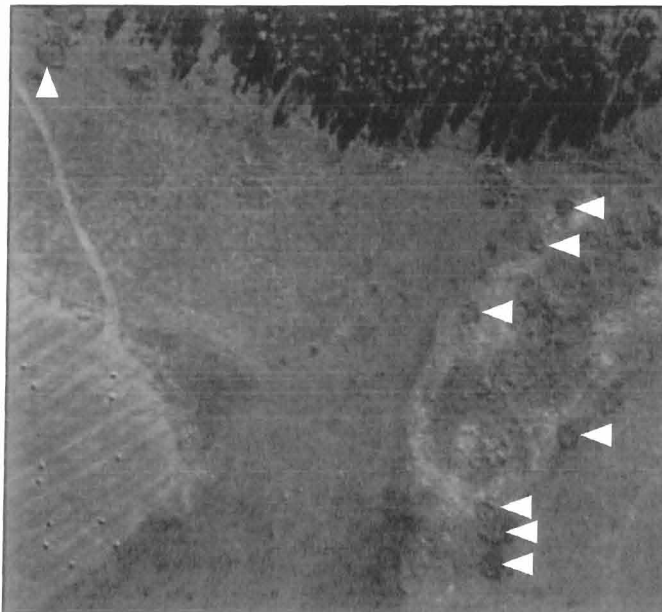


Figure 5

Google Earth Image depicting Site 10. The area demarcated with white dotted line is enlarged on the left. A number of features which have the appearance of stone circles are shown within this area (some of these are marked with yellow arrows).

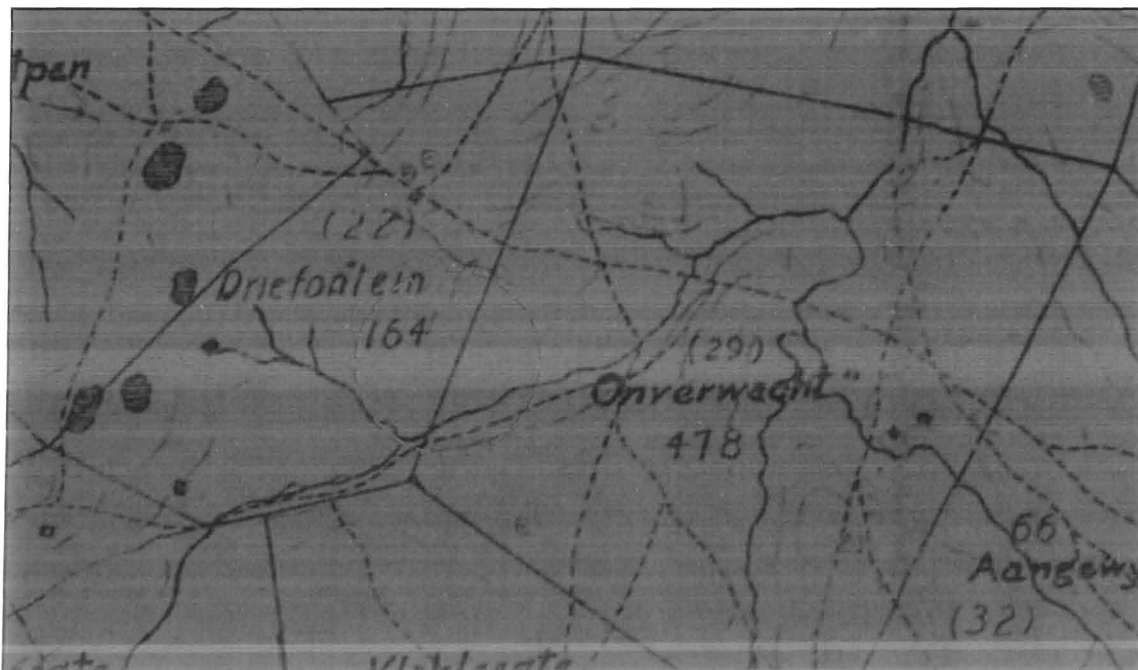


Figure 6 Enlarged section of the 'Bethal' sheet of the Major Jackson Series. The approximate position of Site 10 is shown in red dotted line.

7.2.3 First Edition of the 2629AC Topographical Sheet

Figure 7 depicts an enlarged section of the First Edition of the 2629AC Topographical Sheet. The sheet was based on aerial photography undertaken in 1954. The map was surveyed in 1961 and drawn in 1963. The following observations can be made:

- Feature 1

A 'hut' is depicted near the northern boundary of the study area. This was very likely the accommodation for a black farm worker and his family. This feature was not found during the field survey.

- Feature 2

A cluster of buildings and features are depicted along the south-western boundary of the study area. These include a shed, two unidentified buildings, a 'hut' as well as old mine workings. These features were not found during the field survey.

In general it can be said that at the time that the map was produced (during the 1950s and 1960s) large sections of the study area were already disturbed by cultivated lands.

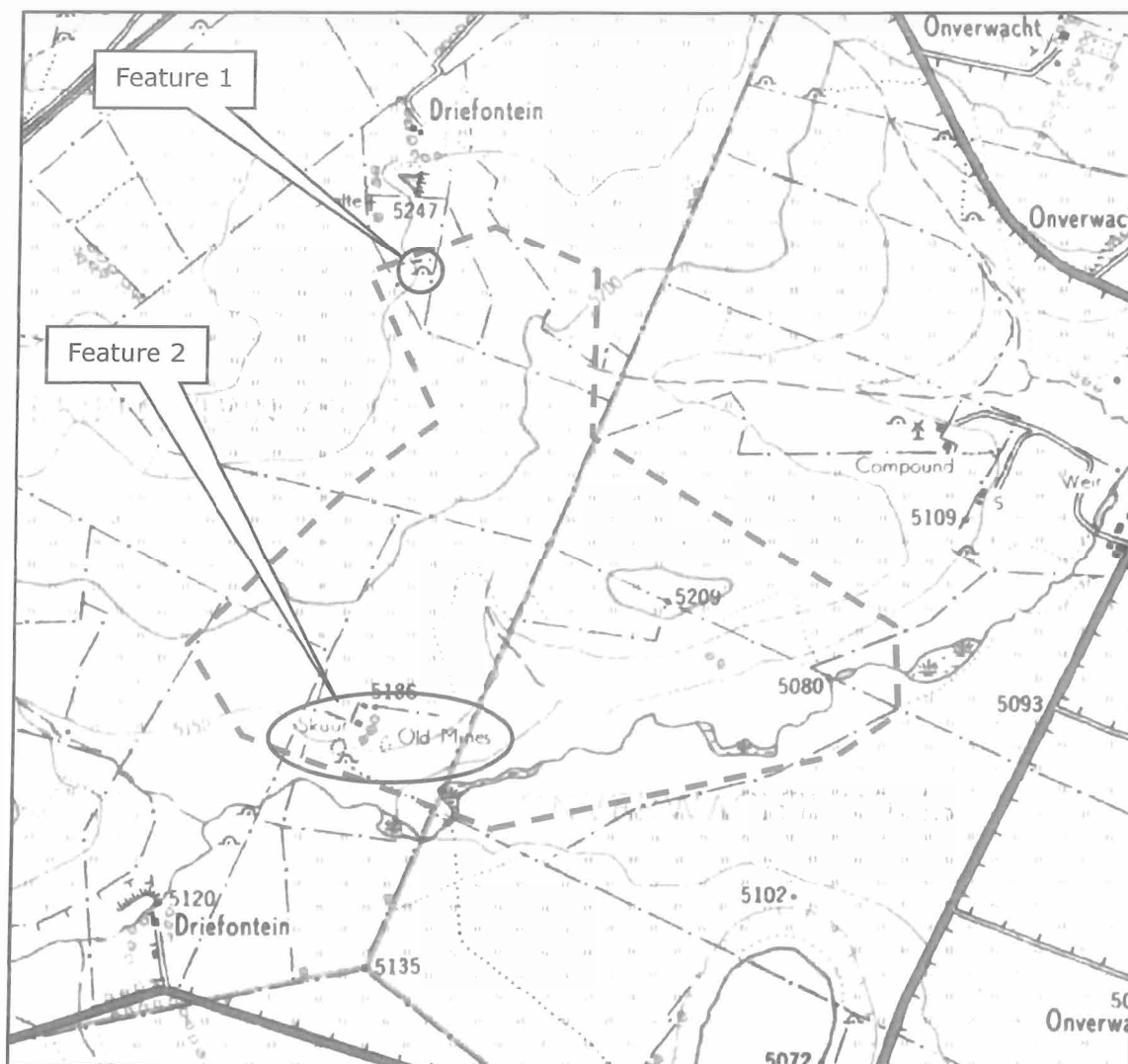


Figure 7 Enlarged section of the First Edition of the 2629AC Topographical Sheet. The approximate position of the study area is shown in red dotted line.

7.2.4 Second Edition of the 2629AC Topographical Sheet

Figure 8 depicts an enlarged section of the Second Edition of the 2629AC Topographical Sheet. The sheet was printed in 1986.

While no heritage sites are depicted on the map, it has relevance in that it depicts the extent of disturbance associated with coal mining activities within the study area. This said, it must be noted that the extent of the 'Opencast Mine' depicted within the study area does not seem to correlate with the present-day Google Earth Image. However, this disparity can very likely be found in the fact that the opencast mine was rehabilitated.

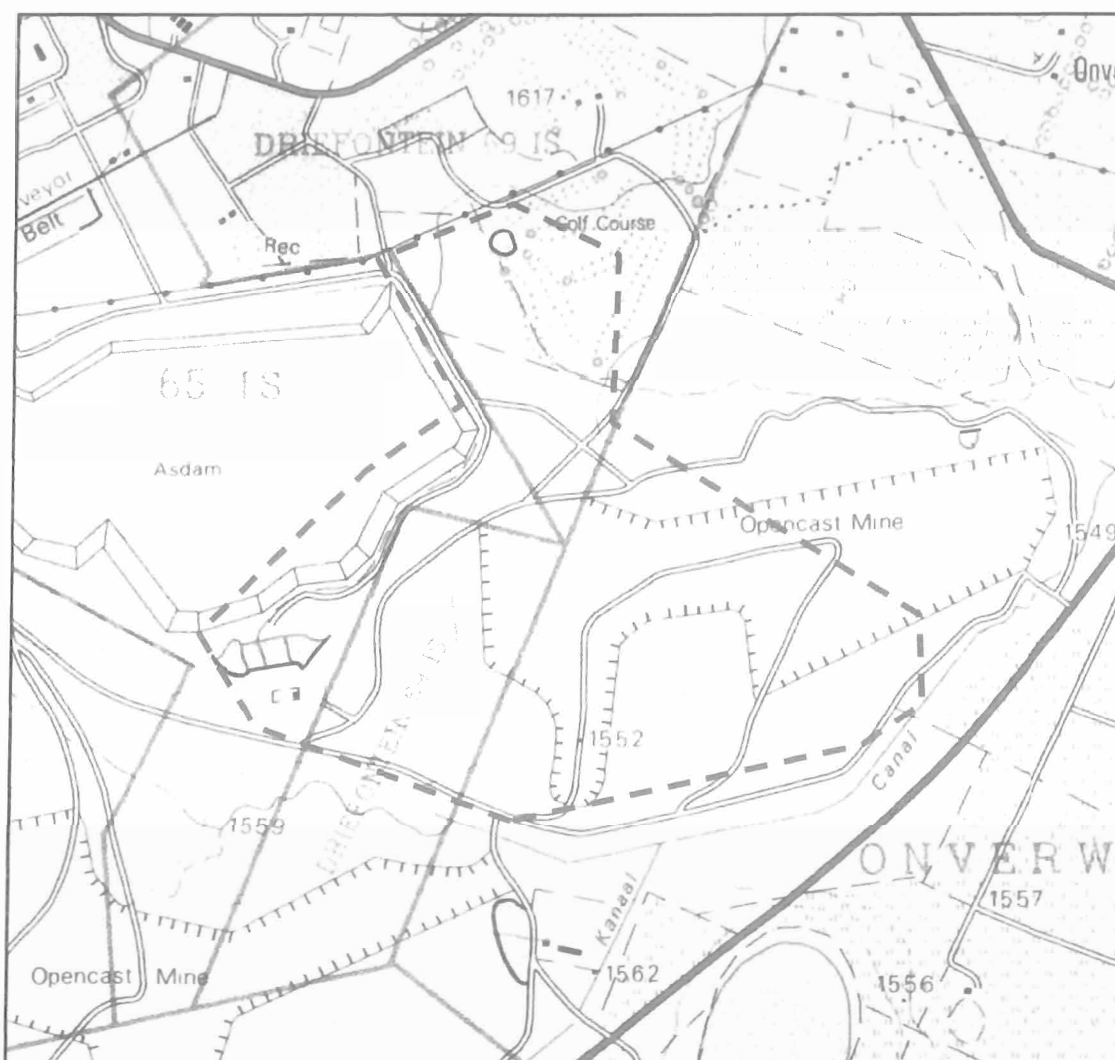


Figure 8 Enlarged section of the Second Edition of the 2629AC Topographical Sheet. The approximate position of the study area is shown in red dotted line.

7.3 Conveyor Belt and Pipeline

7.3.1 First Edition of the 2629AA Topographical Sheet

Figure 9 depicts an enlarged section of the First Editions of the 2629AA Topographical Sheet. The sheet was based on aerial photography undertaken in 1954 and was surveyed in 1965 and printed in 1967.

- Feature 1

A grave is depicted within the footprint of the proposed pipeline and conveyor belt. This section represents one of two areas which could not be surveyed as mentioned under Section 4 Methodology. As a result it is not known whether this grave is still located here, though it seems highly unlikely to have been relocated.

- Feature 2

A cluster of 'huts' are depicted here. At least two of these structures are depicted within the footprint areas of the conveyor belt and pipeline. This section represents one of two areas which could not be surveyed as mentioned under Section 4 Methodology.

7.3.2 First Edition of the 2629AC Topographical Sheet

Figure 10 depicts an enlarged section of the First Editions of the 2629AC Topographical Sheet. The sheet was based on aerial photography undertaken in 1954 and was surveyed in 1961 and printed in 1963.

- Feature 1

A 'hut' is depicted within the footprint of the proposed conveyor belt. This feature was not identified during the fieldwork.

- Feature 2

A cluster of 'huts' are depicted here. At least one of these structures is depicted within the footprint area of the conveyor belt. These features were not identified during the fieldwork.

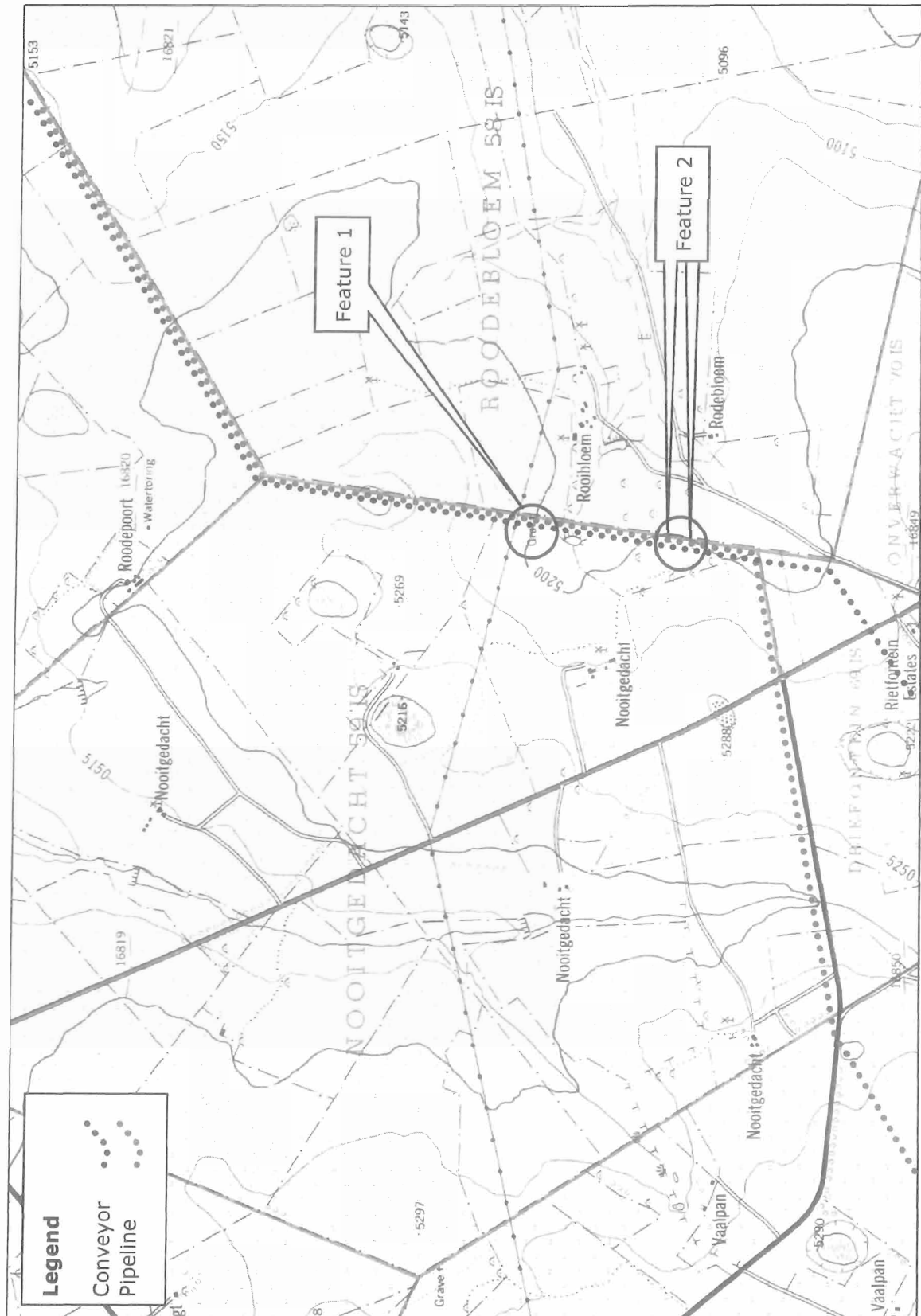


Figure 9 Enlarged section of the First edition of the 2629AA Topographical Sheet.

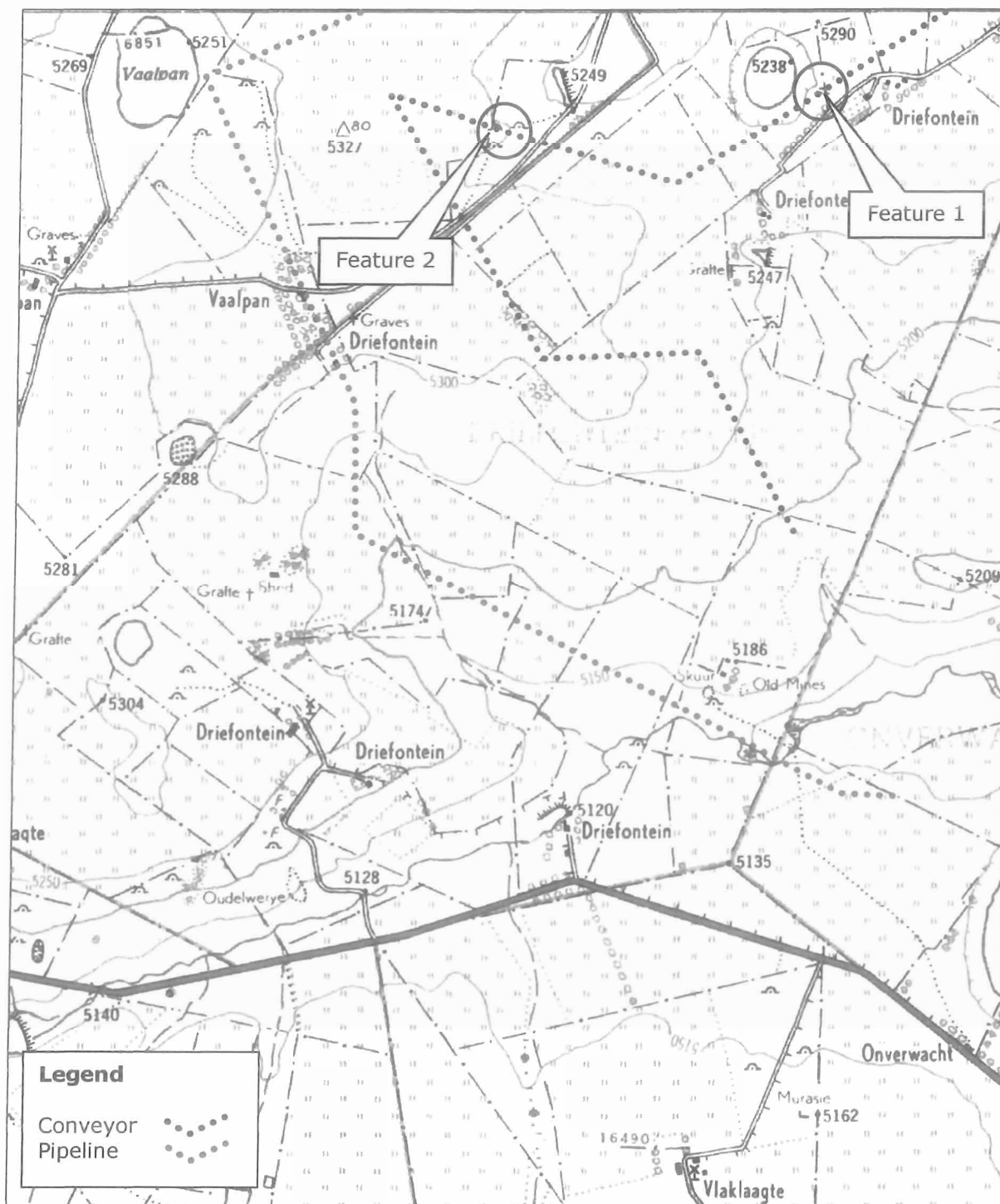


Figure 10 Enlarged section of the 2629AC Topographical Sheet.

8. HISTORIC OVERVIEW OF THE STUDY AREA AND SURROUNDINGS

DATE	DESCRIPTION
2.5 million to 250,000 years ago	The Earlier Stone Age is the first and oldest phase identified in South Africa's archaeological history and comprises two technological phases. The earliest of these technological phases is known as Oldowan which is associated with crude flakes and hammer stones and dates to approximately 2 million years ago. The second technological phase in the Earlier Stone Age of Southern Africa is known as the Acheulian and comprises more refined and better made stone artefacts such as the cleaver and bifacial handaxe. The Acheulian phase dates back to approximately 1.5 million years ago. No information with regard to Early Stone Age sites from the surrounding area could be found. However, it seems likely for such sites to exist here.
250,000 to 40,000 years ago	The Middle Stone Age is the second oldest phase identified in South Africa's archaeological history. It is associated with flakes, points and blades manufactured by means of the so-called prepared core technique. A large number of Middle Stone Age materials are found with the general vicinity of the study area. Unfortunately, these are mostly in the form of surface material which has been eroded out of dongas and riverbeds. As a result the primary context of these Middle Stone Age sites and associated material is often in doubt (Van Schalkwyk, 2001).
40,000 years ago to the historic past	The Later Stone Age is the third phase identified in South Africa's Stone Age history. This phase in human history is associated with an abundance of very small stone artefacts or microliths. A large number of Later Stone Age materials are found with the general vicinity of the study area. Unfortunately, these are mostly in the form of surface material which has been eroded out of dongas and riverbeds. As a result the primary context of these Later Stone Age sites and associated material is often in doubt (Van Schalkwyk, 2001). One rock painting site (which is also associated with the Later Stone Age) is mentioned by Bergh (1999) to be located on the eastern bank of the confluence of the Steenkoolspruit and the Olifants River. This site is situated approximately 13.3 km north of Site 16 N.
1450 – 1650	This period is associated with a Late Iron group referred to as the Ntsuanatsatsi facies of the Urewe Tradition and was associated with the Fokeng. Its name is derived from the Ntsuanatsatsi Hill located between Vrede and Frankfort in the Free State where the earliest examples of this facies were located. The Fokeng also associates this hill as their place of origin. The Ntsuanatsatsi later moved north across the Vaal River into the Balfour, Suikerboschrand, Klipriviersberg and Vredefort areas. This movement was likely as a result of severe climatic conditions in the Free State at the time. The pottery is characterised by the predominance of comb stamping and finger pinching as decoration techniques. The necks of these pottery vessels bear broad bands of stamping and stamped arcades are also characteristic. The settlement layout has been classified as Type N or Group I and comprises a few central cattle enclosures with an

	<p>enclosing wall in which a number of smaller enclosures may be located. The settlement layout may also comprise an enclosing wall with a small enclosure in the centre giving it the appearance of a 'fried egg' (Huffman, 2007).</p>
1700 – 1820	<p>During the early Historic Period the Ntsuanatsatsi south of the Vaal River developed into the Makgwareng facies. Though still associated with the Fokeng, this pottery is characterised by the predominance of comb-stamped triangles, finger pinching and rim notching. The settlement pattern of this group is known as Type V which is named after Vegkop near Heilbron. Type V settlements comprise cattle enclosures surrounded by beehive houses and grain bins without the presence of an enclosing wall. This type is also associated with the first appearance of corbelled huts (Huffman, 2007).</p> <p>An example of a Type V site from the wider landscape is the site Wildebeestfontein (5 km east of Kinross and 17km south-west of Kriel) that was excavated by M.O.V. Taylor. The site was located on a domed hill surrounded by flat plateaus. The work undertaken here has revealed a stone-walled site associated with the post-<i>difaqane</i> Iron Age. It comprised circular shallow depressions around which a line of small stones interposed by big stones were packed. The site contained archaeological deposits and ceramics (Taylor, 1979).</p>
1821-1823	<p>After leaving present-day KwaZulu-Natal the Khumalo Ndebele (more commonly known as the Matabele) of Mzilikazi migrated through the general vicinity of the study areas under discussion before reaching the central reaches of the Vaal River in the vicinity of Heidelberg in 1823 (www.mk.org.za).</p> <p>Two different settlement types have been associated with the Khumalo Ndebele. The first of these is known as Type B walling and was found at Nqabeni in the Babanango area of KwaZulu-Natal. These walls stood in the open without any military or defensive considerations and comprised an inner circle of linked cattle enclosures (Huffman, 2007). The second settlement type associated with the Khumalo Ndebele is known as Doornspruit, and comprises a layout which from the air has the appearance of a 'beaded necklace'. This layout comprises long scalloped walls (which mark the back of the residential area) which closely surround a complex core which in turn comprises a number of stone circles. The structures from the centre of the settlement can be interpreted as kitchen areas and enclosures for keeping small stock.</p> <p>It is important to note that the Doornspruit settlement type is associated with the later settlements of the Khumalo Ndebele in areas such as the Magaliesberg Mountains and Marico and represent a settlement under the influence of the Sotho with whom the Khumalo Ndebele intermarried. The Type B settlement is associated with the early Khumalo Ndebele settlements and conforms more to the typical Zulu form of settlement. As the Khumalo Ndebele passed through the general vicinity of the study areas shortly after leaving Kwazulu-Natal, one can assume that their settlements here would have conformed more to the Type B than the Doornspruit type of settlement. It must be stressed however that no published</p>

	<p>information could be found which indicates the presence of Type B sites in the general vicinity of the study area.</p>
Early 1860s	<p>While the exact date for the permanent settlement of the first white farmers in the areas surrounding the study areas are not known, adjacent districts such as Standerton and Ermelo were both permanently settled by white farmers during the early 1860s.</p> <p>The permanent settlement of white farmers in the general vicinity of the study area would have resulted in the proclamation of individual farms and the establishment of permanent farmsteads. Features that can typically be associated with early farming history of the area include farm dwellings, sheds, rectangular stone kraals, canals, farm labourer accommodation and cemeteries.</p> <p>While very few heritage sites associated with the very first establishment of white farmers in the study area would likely still be found, a number of farmsteads dating from the 1890s are still in existence in the general vicinity of the study area. One such an example is the original farmstead on the farm Nooitgedacht 94 IS which was used as a headquarters by the No. 3 Flying Column during the South African War. This farmstead is located approximately 8.2 km south-west of Site 10. These early farmsteads were often constructed of stone and usually had a corrugated iron roof, although the earliest farmsteads would certainly have had thatch roofs.</p> <p>The other sites often associated with these early farms are graves and cemeteries for both white farmers and black farm labourers. A large number of such cemeteries are located in the general vicinity of the study area.</p>
1899 – 1902	<p>Although no evidence for battles or skirmishes within the study areas during the South African War could be found, it is known that a significant battle took place in the general vicinity. Known as the Battle of Bakenlaagte, it was one of the last significant battles of the war.</p> <p>On 30 October 1901 the combined forces of Generals Grobler, Brits, Viljoen and Louis Botha attacked the rear guard of Colonel G.E. Benson's No. 3 Flying Column. Although the British soldiers were outnumbered almost four to one, they established themselves on a hill known as Gun Hill and fought heroically until they were almost annihilated. Of the original 210 troops, 73 were killed and 134 wounded. Colonel Benson, who was also wounded during the battle, succumbed to his wounds a few days later. The Boer losses amounted to approximately 14 killed (including General Opperman) and 48 wounded.</p> <p>The brave rearguard action of Colonel Benson's troops ensured that the main column under Lieutenant-Colonel Wools-Sampson had enough time to establish a defensive perimeter which deterred any further Boer attacks (www.wikipedia.org).</p> <p>While the events of the battle stretched over the farms Nooitgedacht 94 IS, Bakenlaagte 84 IS, Kruisementfontein 95 IS and Onverwacht</p>

	97 IS, the final action took place on the farm Nooitgedacht. This point is located approximately 8.2 km south-west of Site 10 (www.angloboerwar.com).
Early 1970s	The town of Kriel was established on the farms Roodebloem and Onverwacht and was named after the first resident magistrate of Bethal, D.J. Kriel (www.mpumalanga.com).
March 1975	The first coal was mined at the Kriel mine during this time. At the time it operated as an underground mine aimed at supplying the Kriel Power Station with coal. To maximise production the mine was subsequently turned into an opencast colliery (Lang, 1995).
1979	The Kriel Power Station was completed in this year. At the time of its completion it was the largest coal-fired power station in the southern hemisphere (www.eskom.co.za).

9. PUBLIC PARTICIPATION FINDINGS

No heritage related issues were raised during the public participation process undertaken by Aurecon.

Mr. Dawid de Wet, the owner of the land where Site 16 N is located, indicated the approximate area where a cemetery is located. He stated that associated families have visited the grave(s) on a reasonably frequent basis over the years, but pointed out that he has never seen the graves himself. See Rood 1 below.

10. SURVEY FINDINGS

10.1 Rood 1

10.1.1 Coordinates

WGS84 Map Datum:	S 26.18704	S 26.18786	S 26.18727	S 26.18643
	E 29.23396	E 29.23445	E 29.23559	E 29.23504

10.1.2 General Site Description

The owner of the farm, Mr. Dawid de Wet, indicated that a grave or graves are situated at the western end of a Blue Gum plantation. He did not know the number of graves present or the exact location of these graves. Mr. De Wet indicated that some family members did visit these graves in the past. The indicated area was overgrown and the