
HERITAGE IMPACT ASSESSMENT

**CHROME PROSPECTING AND MINING
AT LEMOENFONTEIN 443, MOLEMOLE DISTRICT,
LIMPOPO PROVINCE, SOUTH AFRICA**

DATE: 2010-02-04

archaeo  MAPS
archaeological consultancy



REPORT TO:

MAXIE FOORD (Custom Alloys Pty Ltd)
Tel: 076 734 5077; Fax: 011 314 3788;
Postal Address: Postnet Suite 158, Private Bag X1007, Lyttleton, 0140;
E-mail: maxie@nikmin.co.za

PHILLIP HINE (South African Heritage Resources Agency – SAHRA, APM Unit)
Tel: 021 462 4505; Fax: 021 462 4509;
Postal Address: P.O. Box 4637, Cape Town, 8000;
E-mail: phine@sahra.org.za

PREPARED BY:

KAREN VAN RYNEVELD & Dr. LLOYD ROSSOUW (ArchaeoMaps & National Museum, Bloemfontein)
Tel: 084 871 1064; Fax: N/A;
Postal Address: Postnet Suite 239, Private Bag X3, Beacon Bay, 5205;
E-mail: kvanryneveld@gmail.com / lloyd.rossouw@gmail.com

LIST OF FIGURES

Figure 1: Lemoenfontein 443 located in the Limpopo Province, South Africa	3
Figure 2: General locality of Lemoenfontein 443 in the Limpopo Province	4
Figure 3: Lemoenfontein 443 prospecting and mining development area, Limpopo Province	5
Figure 4: Map of the Southern Marginal Zone. The position of Lemoenfontein 443 is shown by a red star	7
Figure 5: Location of the Karoo-aged Tshipise Basin. Locality of Lemoenfontein 443 is shown by a red star	8
Figure 6: The Lemoenfontein 443 development area (red line: 1-2-3-4-5-1) and the Phase 1 AIA assessed portion thereof (green line: 1-2-3-4-6-7-8-1).....	11
Figure 7: Phase 1 AIA assessment findings: Lemoenfontein 443	14
Figure 8: The north-south access road through Lemoenfontein 443	15
Figure 9: Existing access roads across the development area	15
Figure 10: General view of the old spill point developments.....	15
Figure 11: General view of the natural veld - 1	16
Figure 12: General view of the natural veld - 2	16
Figure 13: The Site CR2 Nelson residence.....	17
Figure 14: The Site CR3 Quinn residence	18
Figure 15: Contemporary low impact farming infrastructure at Site HR1	18
Figure 16: Locality of Site HR1 at S23°18'11.9"; E29°33'07.8"	19
Figure 17: The Site HR1 Historic Period Residence	20
Figure 18: The dam located in close proximity to the residence and forming part of Site HR1	20
Figure 19: Locality of Site HR2 (with reference to Site G1) at S23°18'52.2"; E29°32'42.2"	21
Figure 20: Front view of the HR2 Historic Period Residence	22
Figure 21: Side view of the HR2 Historic period Residence	22
Figure 22: Locality of Site HR3 (with a general reading for the site being S23°18'54.3"; E29°32'45.9")	23
Figure 23: Remains of the inferred original Du Toit farmhouse.....	24
Figure 24: Remains of related farming infrastructure at Site HR3	25
Figure 25: Remains of the 2 nd identified residential area at Site HR3	25
Figure 26: Locality of Site HR4 (Site reading taken at the standing 'milkroom' at S23°19'00.1"; E29°32'46.1")	26
Figure 27: The Site HR4 'milkroom'	27
Figure 28: Remains of the Site HR4 Du Toit farmhouse visible as a cement like feature and mudbrick to the left with the bulk of the residence remains represented by the mound in front of the 'milkroom'	28
Figure 29: Decayed remains at Site HR4	28
Figure 30: One of the circular like features interpreted to have been a 'rondawel' type outbuilding / guestroom to the Du Toit residence	28
Figure 31: Entrance remains of the Site HR4 farmstead.....	29
Figure 32: Locality of Site HM1 situated at S23°18'21.8"; E29°32'42.9"	30
Figure 33: Shallow mine trenches at Site HM1 - 1	32
Figure 34: Shallow mine trenches at Site HM1 - 2	32
Figure 35: Historic period large scale quarrying at the south-western portion of Site HM1.....	32
Figure 36: The large Historic Period mine dump located in the south western part of Site HM1	33
Figure 37: Recorded circular 'rondawel' remains	33
Figure 38: A metal site marker at the HM1 Historic Period mine.....	33
Figure 39: Locality of the G1 Historical period cemetery located at S23°18'53.4"; E29°32'46.9"	34
Figure 40: General view of the Site G1 Historic Period cemetery.....	35
Figure 41: General view of the graves contained in the Site G1 cemetery	35
Figure 42: Later graves, dating to the 1940's are relatively well conserved	36
Figure 43: The majority of the graves at Site G1 are relatively well conserved but without inscribed headstones or with headstones of which the inscriptions are no longer readable	36
Figure 44: Early graves at Site G1, seldom with decipherable headstone inscriptions.....	36
Figure 45: Locality of Site HS1 at S23°19'55.8"; E29°32'25.5"	37
Figure 46: Two water towers at Site HS1.....	38
Figure 47: Inferred feed storage containers for livestock at Site HS1	38
Figure 48: A water trough and small dam.....	38
Figure 49: The large dam comprising part of Site HS1.....	39

LIST OF TABLES

Table 1: SAHRA archaeological and cultural heritage site significance assessment summary	10
--	----

1) TERMS OF REFERENCE

The proponent, Custom Alloys SA (Pty) Ltd [Custom Alloys SA], has applied to the Department of Minerals and Energy (DME) for a prospecting right [DME ref: LP30/5/1/1/3/2/2462EM] with the intention to mine a chromite bearing body on the farm Lemoenfontein 443 in the Molemole District of the Limpopo Province, South Africa.

ArchaeoMaps Archaeological Consultancy has been appointed directly by Custom Alloys SA to prepare the Heritage Impact Assessment (HIA), in accordance with the requirements of the *National Heritage Resources Act*, No 25 of 1999 (NHRA 1999) as specialist sub-section to the Environmental Impact Assessment (EIA), in accordance with the requirements of the *National Environmental Management Act*, No 107 of 1998 (NEMA 1998) and associated Regulations (2006), as referenced in the *Minerals and Petroleum Resources Development Act*, No 28 of 2002 (MPRDA 2002), for the proposed Lemoenfontein 443 development.

1.1) Development Location, Details & Impact

Development Location: The proposed chromite (chrome) prospecting and mining development will be located on the property Lemoenfontein 443, an approximate 1,125ha development area, situated in the Molemole District of the Limpopo Province [1:50,000 map ref: 2329DD].



Figure 1: Lemoenfontein 443 located in the Limpopo Province, South Africa

Lemoenfontein 443 is positioned relatively centrally between the towns of Polokwane (the former Pietersburg), Makhado (the former Louis Trichardt) and Vivo: with the property located approximately 70km north of Polokwane, 50km south-west of Makhado and 45km south-east of Vivo. Geographically the relatively flat development area is nestled between the Soutpansberg Mountains north of the R522 from Vivo to Makhado. South-east of the N1 from Polokwane to Makhado the Modjadji Valley can be found and to the west of the R521 from Polokwane to Vivo lies the Blouberg and Makgabeng plateau. The Sand River runs more or less 4km to the east of the study site and the Hout River 8km to the west.

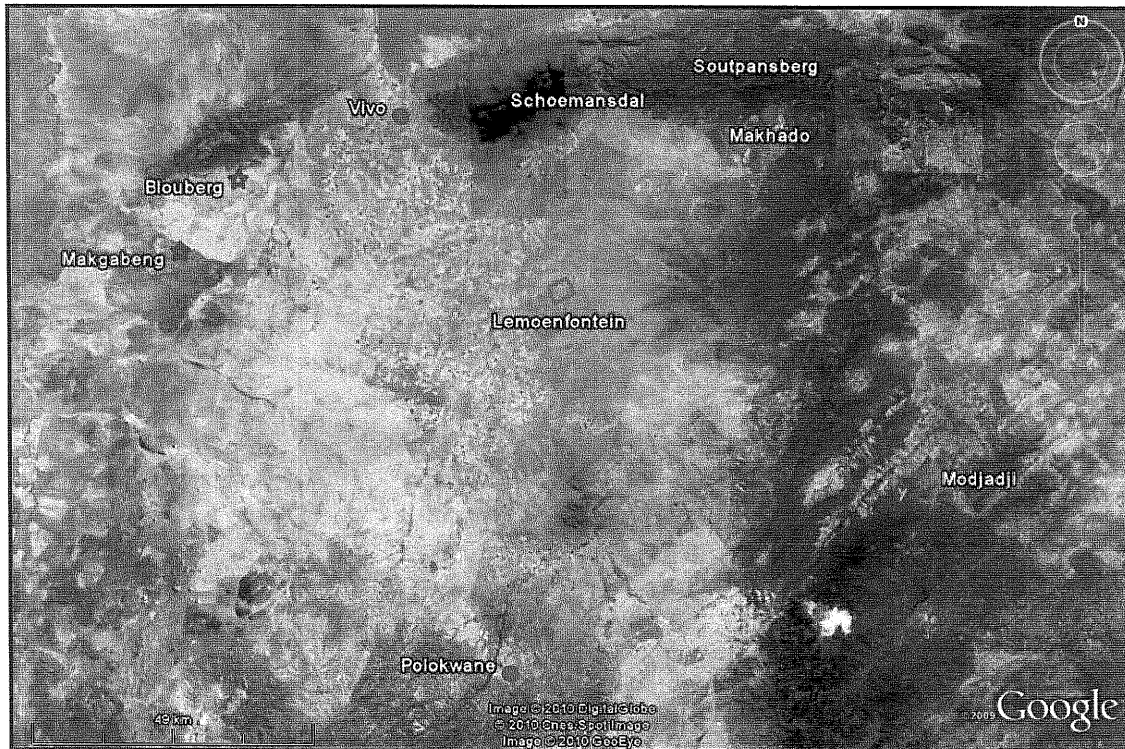


Figure 2: General locality of Lemoenfontein 443 in the Limpopo Province

Development Details & Impact: Custom Alloys SA's application to DME for a prospecting right with, pending results of the application, future mining, is at present based primarily on archival research supported by recent aerial surveys. Chromite ore have been mined and processed on the property throughout the 1930's and 1940's. Development comprised of low level open cast mining and the processing of the mined material on the property. With a radical drop in the price of chrome mining was ceased. During the 1990's a brief exploration program was again initiated at the property. With the steadily rising demand for chrome and better market prices Custom Alloys SA is intending to, in part, address the market demand by means of the proposed 2 year prospecting program, through which they aim to establish the extent of the chromite bearing body and determine the quality thereof. Based on the outcome of the prospecting program, Custom Alloys SA will initiate a suitable mining program.

Archival resources describing the chromite body at Lemoenfontein 443 can be summarized as: '*North of Pietersburg, on the farm Lemoenfontein 443 L.S. a small circular (300m in diameter) alpine-type chromite-bearing body is situated in partially serpentinised dunite (Willemse 1948). This body has a steeply plunging, boudin-like structure which, according to Smit (1986), is complementary to the regional structure pattern. The chromite ore is described as massive, high grade, nodular (podiform) and pod-like in*

places. Tectonically layered and disseminated ore is also present.' (Pers comm.: Maxie Foord, Custom Alloys SA).

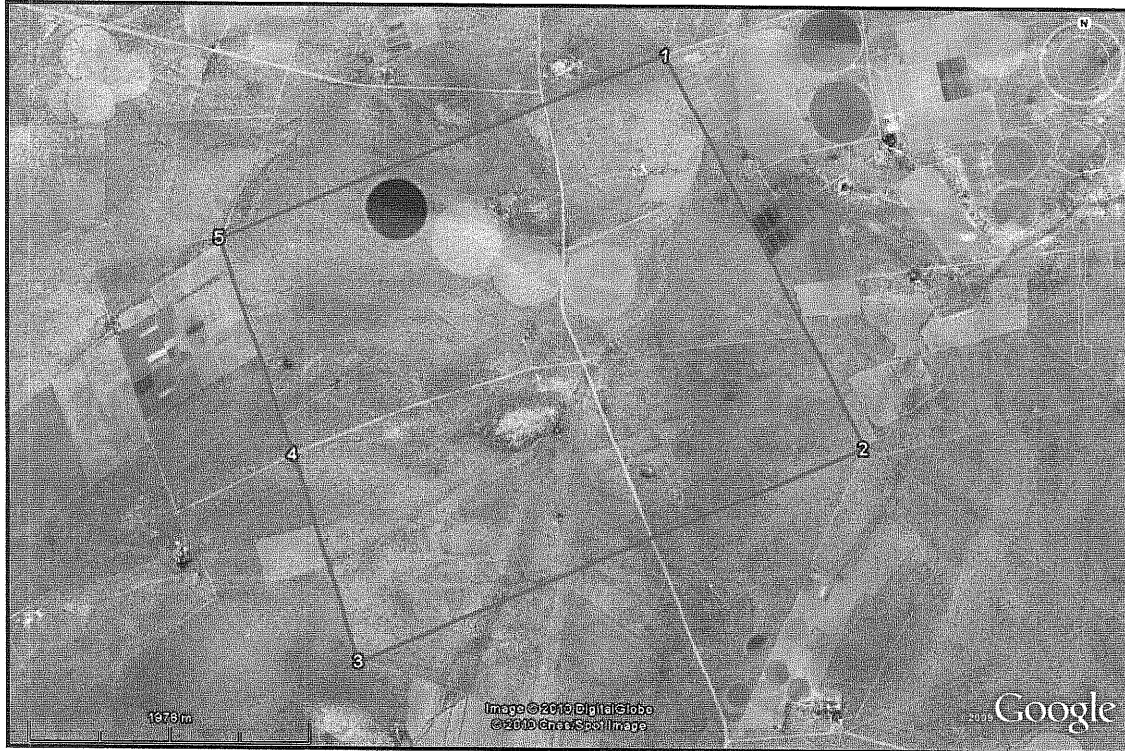


Figure 3: Lemoenfontein 443 prospecting and mining development area, Limpopo Province

The proposed 2 year prospecting program is centered on a core sample survey. Approximately 40 cores are currently planned, focusing on the area of the Historic Mine in the north-central part of the development area, west of the north-south running access road and north of the spill point agricultural developments. It is expected that from this focal exploration point the quantity of core samples will thin out across the study site in order to follow and determine the extent of the chromite bearing body. The number of proposed drill holes may thus well decrease / increase based on analysis of core samples. Coring will directly impact on an approximate 40x40cm and indirectly on an approximate 5x5m surface area at each core point. Existing gravel access roads and smaller farm roads will form the primary access network throughout the prospecting period. Impact of the proposed prospecting program can thus be described as localized and of low environmental / heritage surface impact.

Particulars of the mining program will be based on the outcome of the prospecting program: Should analysis of the core samples prove financially viable for mining it is expected that the chromite bearing body will be mined by means of open cast mining. The impact of open cast mining is total across the surface of the mining area and by implication of high impact on environmental / heritage surface resources.

2) THE HERITAGE IMPACT ASSESSMENT (HIA)

2.1) *Heritage Legislative Compliance*

The HIA was requested by DME in compliance with heritage related legislative requirements as per the NHRA 1999, as a specialist sub-section to the EIA, as referenced in the MPRDA 2002. The South African Heritage Resources Agency (SAHRA), mandatory responsible for the implementation of and compliance to the NHRA 1999's comment (*SAHRA: Archaeology Review Comment*) on the HIA report is compulsory as specialist government approval of the HIA for purposes of a Record of Decision (RoD) on the proposed development by DME. Primary legislation pertaining to the HIA for purposes of development can thus be summarized as:

1. *The National Environmental Management Act, No 107 of 1998 (NEMA 1998) and associated Regulations (2006);*
2. *The National Heritage Resources Act, No 25 of 1999 (NHRA 1999); and*
3. *The Mineral and Petroleum Resources Development Act, No 28 of 2002 (MPRDA 2002).*

The HIA aimed to locate, identify and assess the significance of heritage resources, inclusive of palaeontological deposits / sites, archaeological deposits / sites, built structures older than 60 years, sites of cultural significance associated with oral histories, burial grounds and graves, graves of victims of conflict and cultural landscapes or viewsapes as defined and protected by the NHRA 1999, that may be affected by the proposed development.

In accordance the HIA comprises of:

1. A Palaeontological Impact Assessment (PIA) by means of a palaeontological desktop study (Dr. Lloyd Rossouw – National Museum, Bloemfontein);
2. A Phase 1 Archaeological Impact Assessment (AIA) (Karen van Ryneveld – ArchaeoMaps); and
3. Brief socio-cultural consultation to address the Social Impact Assessment / Socio-cultural Impact Assessment (SIA) component of the HIA (Karen van Ryneveld – ArchaeoMaps).

3) THE PALAEOONTOLOGICAL DESKTOP STUDY

The palaeontological desktop study was done as component part of the HIA in compliance with requirements of SAHRA and the NHRA 1999 for purposes of the proposed Lemoenfontein 443 prospecting and mining development.

3.1) Introduction

A desktop palaeontological impact assessment was conducted for the farm Lemoenfontein 443 in the Molemole District, Limpopo Province. The assessment was carried out in accordance with the *National Heritage Resources Act, No 25 of 1999 (NHRA 1999)* with the aim to assess impact on potential palaeontological heritage sites / resources.

3.2) Palaeontological Desktop Results

The farm Lemoenfontein 443 is underlain by metamorphic gneisses of the Limpopo Belt. Located between the Zimbabwe and Kaapvaal Craton, the Limpopo Belt extends from eastern Botswana through southern Zimbabwe and northern Zimbabwe. The farm is situated in the Southern Marginal Zone, which is one of three structural and metamorphic zones demarcated by prominent shear zones.

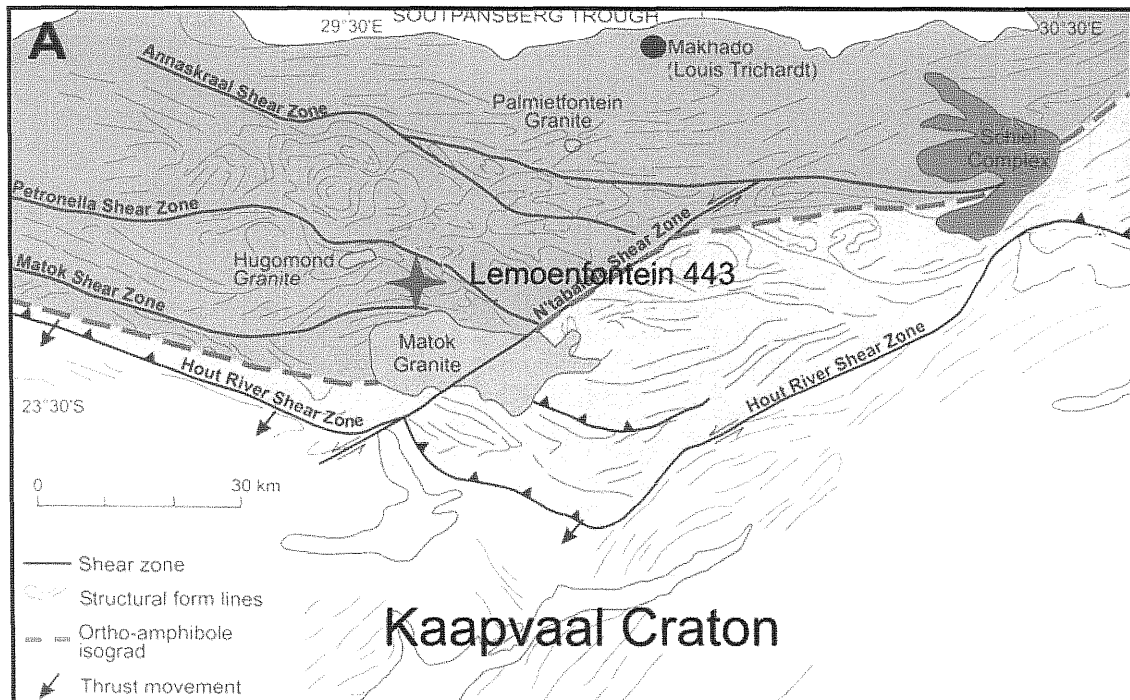


Figure 4: Map of the Southern Marginal Zone. The position of Lemoenfontein 443 is shown by a red star.

Geochronological studies indicate that crustal metamorphism in the Southern Marginal Zone occurred between 2,500-3,200Mya. In this zone, gneisses and migmatites of Goudplaats-Hout River Gneiss Suite (Randian Erathem) are tectonically intermingled with the potassium-deficient gneisses Goudplaats Gneiss

(Swazian Erathem). Included into the gneisses are a number of granitoid intrusions such as the Matok Granite intrusion, situated about 8km south of Lemoenfontein. Northwards towards the Soutpansberg range, parts of the Limpopo Belt is overlain by younger Karoo sedimentary basins. Here, plant fossils have been reported from the Fripp Formation in the Tshipise Basin. The rock types at Lemoenfontein 443 are interpreted to be the metamorphic equivalents of the adjacent granitoid-greenstone assemblage of the northern Kaapvaal Craton.

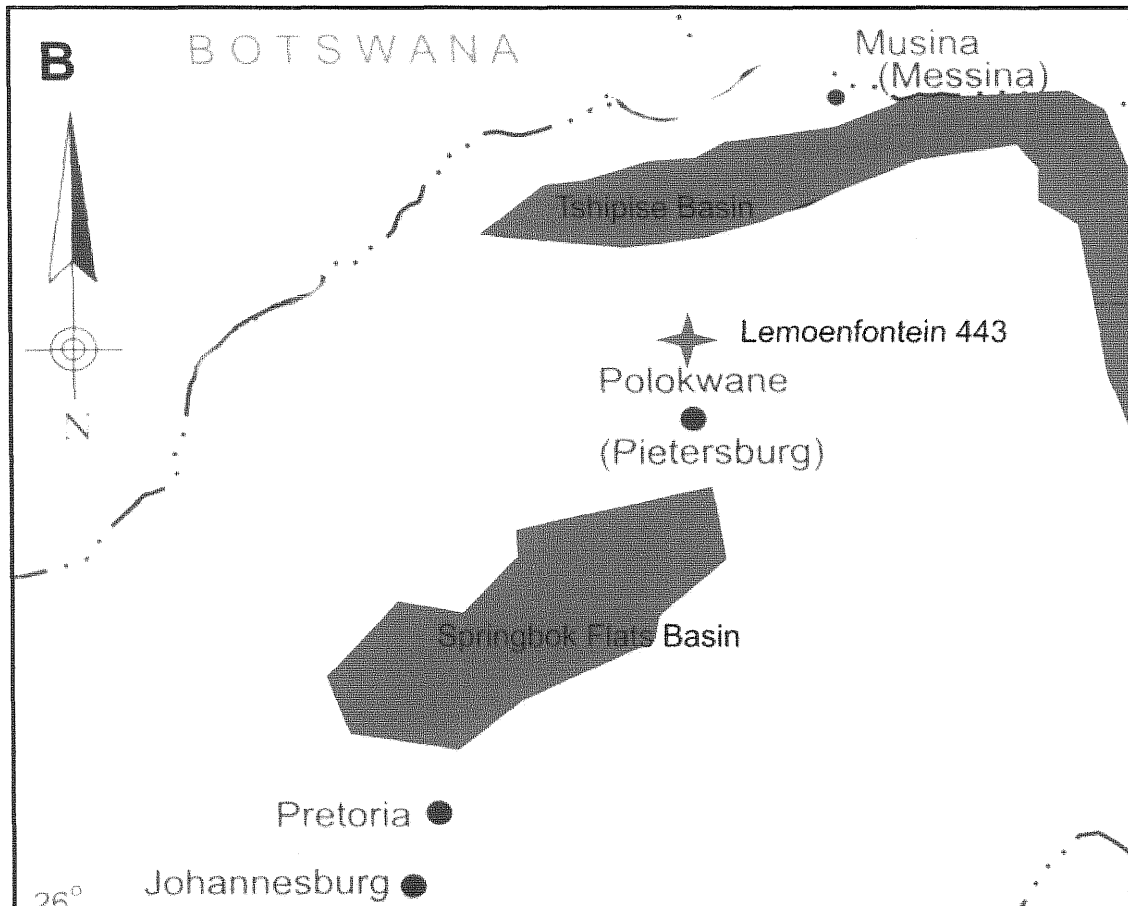


Figure 5: Location of the Karoo-aged Tshipise Basin. Locality of Lemoenfontein 443 is shown by a red star.

In conclusion, underlying geological formations at Lemoenfontein 443 are not palaeontologically significant and the proposed Lemoenfontein 443 development is not inferred to pose any threat to potential palaeontological resources as defined and protected by the NHRA 1999.

3.3) References

Johnson, M.R., van Vuuren C.J., Visser, J.N.J. *et al.* 2006. *Sedimentary rocks of the Karoo Supergroup* In M.R. Johnson, C.R. Anhaeusser and R.J. Thomas (eds.) *The Geology of South Africa*.

Kramers, J.D., McCourt, S. And van Reenen, D.D. 2006. *The Limpopo Belt* In M.R. Johnson, C.R. Anhaeusser and R.J. Thomas (eds.) *The Geology of South Africa*.

McCourt, S. 1973. The Limpopo Belt – Southern Africa. *Philosophical Transactions of the Royal Society, London A273*: 463 - 485.

McCourt, S. And Brandl, G. 1980. A lithostratigraphic subdivision of the Karoo Sequence in the northeastern Transvaal. *Annals of the Geological Survey of South Africa 14*: 51 - 56.

4) THE PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT

The Phase 1 Archaeological Impact Assessment (AIA) was done as component part of the HIA in compliance with requirements of SAHRA and the NHRA 1999 for purposes of the proposed Lemoenfontein 443 prospecting and mining development.

4.1) Methodology

The Phase 1 AIA was conducted over a 7 day period (2010-01-18 to 2010-01-24) by one archaeologist. The assessment was done by vehicle (LVD), off-road vehicle (quad) and foot and limited to a Phase 1 surface survey; no excavation or sub-surface testing was done. GPS co-ordinates were taken with a Garmin GPSmap 60CSx GPS (Datum: WGS84). Photographic documentation was done with a Pentax K20D camera. A combination of Garmap and Google Earth software was used in the display of spatial information.

Archaeological and cultural heritage site significance assessment and associated mitigation recommendations were done according to the system prescribed by SAHRA (2007).

SAHRA ARCHAEOLOGICAL AND CULTURAL HERITAGE SITE SIGNIFICANCE ASSESSMENT			
SITE SIGNIFICANCE	FIELD RATING	GRADE	RECOMMENDED MITIGATION
High Significance	National Significance	Grade 1	Site conservation / Site development
High Significance	Provincial Significance	Grade 2	Site conservation / Site development
High Significance	Local Significance	Grade 3A / 3B	Site conservation or extensive mitigation prior to development / destruction
High / Medium Significance	Generally Protected A	-	Site conservation or mitigation prior to development / destruction
Medium Significance	Generally Protected B	-	Site conservation or mitigation / test excavation / systematic sampling / monitoring prior to or during development / destruction
Low Significance	Generally Protected C	-	On-site sampling, monitoring or no archaeological mitigation required prior to or during development / destruction

Table 1: SAHRA archaeological and cultural heritage site significance assessment summary

4.2) Coverage and Gap Analysis

The proposed Lemoenfontein 443 development area comprises a 1,125ha area (1-2-3-4-5-1) of which 975ha (1-2-3-4-6-7-8-1) was assessed during the Phase 1 AIA, including the portions owned by Mr. Nelson and Mr. Quinn. The 150ha north-western portion (6-5-8-7-6) owned by Mr. Willis was excluded due to access constraints at the time of the scheduled fieldwork.

The Phase 1 AIA covered the total of the 975ha assessed area including the main north-south running gravel road that will form the primary access route to the development area during the course of the proposed prospecting and mining development as well as smaller access and farm roads.

Visibility, directly related to surface vegetation, varied quite radically across the assessed area and ranged from very good to good in old agricultural fields to good, fair and poor at virgin land.

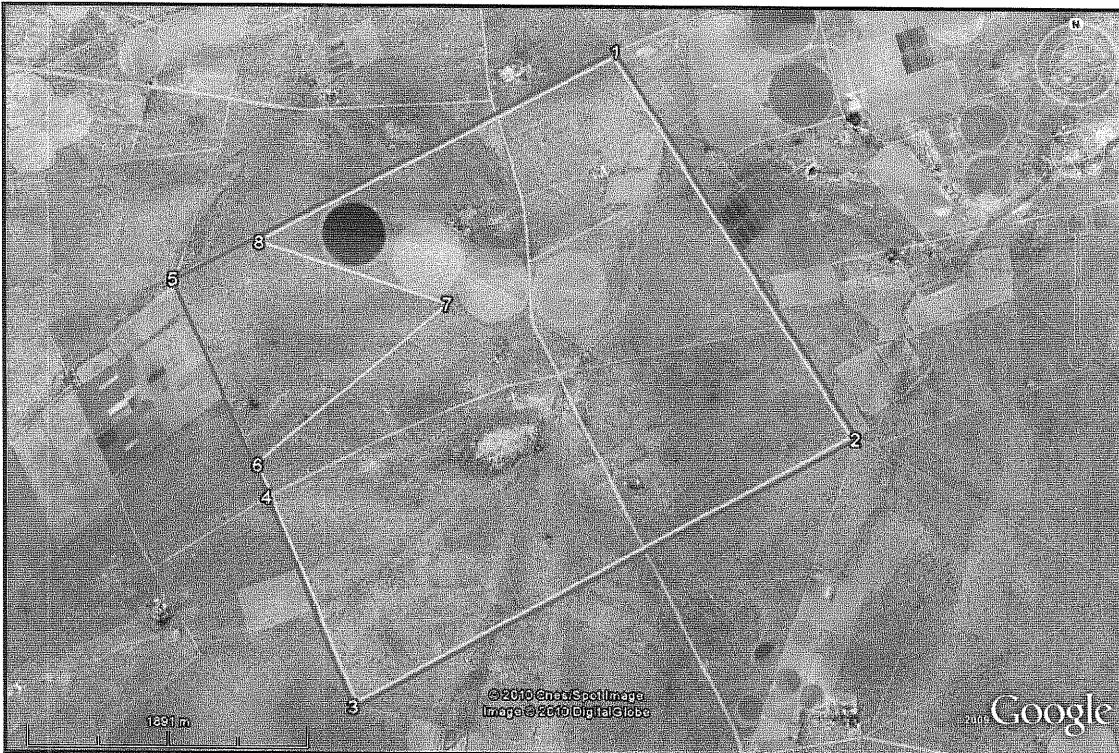


Figure 6: The Lemoenfontein 443 development area (red line: 1-2-3-4-5-1) and the Phase 1 AIA assessed portion thereof (green line: 1-2-3-4-6-7-8-1)

4.3) *Archaeological and Cultural Background to the General Project Area*

Hanisch (2002) provides a basic outline for the archaeology of the Soutpansberg Mountain region which, due to proximity to the proposed Lemoenfontein 443 development area, is applicable as basic background. According to Hanisch the archaeology of the region spans the time period from circa 1Mya (Millions of years ago) to the beginning of the Historical / Colonial Period at around 1,840AD (*Anno Domini* – the year 0). Traces of cultural traditions present in the area can briefly be summarized as:

1) *The Stone Age:*

- The Earlier Stone Age (ESA): 1Mya-200kya (thousands of years ago)
- The Middle Stone Age (MSA): 200kya-20kya
- The Later Stone Age (LSA): 20kya-1kya

Hanisch (2002) pertinently mentions that very little of the Soutpansberg Mountain has been subjected to systematic archaeological surface survey and that only approximately 5-10% of the terrain has been covered. According to his synthesis ESA sites remain particularly rare, with the presence of sites increasing slightly towards the MSA and the majority of the known sites being Rock Art sites, by implication associated with the later LSA cultures and pointing towards an increase in the recorded presence of LSA sites in general. Stone Age cultures are described by him as non-endemic to the area with similar type sites occurring widely north and south of the mountain range.

To the west of the development area concentrations of Rock Art sites have been recorded on the Makgabeng plateau and research interests in the area are pursued by RARI (Rock Art Research Institute, WITS University), the National Museum, Bloemfontein, and associated international collaborations. In addition the Laduma Resort located at the foot of the Soutpansberg Mountain, approximately 40km north of Lemoenfontein 443, is actively encouraging archaeological and Rock Art research projects on the property and in the immediate vicinity under in-house archaeologist Stefan Gaigher. Rock Art sites have also been recorded on the banks of the Sand River east of Lemoenfontein (Pers comm...: Shiona Moodley and Jens Kriek, National Museum, Bloemfontein).

2) *The Iron Age:*

- The Early Iron Age: 300-700AD

Including *Happy Rest*, *Silver Leaves* and *Eiland* facies Early Iron Age sites.

- The Middle Iron Age: 900-1,300AD

Including *K2/Mutamba* and *Mapungubwe* type sites.

- The Later Iron Age: 1,300-1,830AD

Including *Moloko* (early Sotho), *Zimbabwe*, *Khami*, *Early Venda*, *Early Tsonga* and an unidentified facies locally known as *VhaNgona*.

At the time of the Hanisch (2002) publication only 7 Early Iron Age sites were known from the Soutpansberg, not necessarily reflecting only low site distribution but interpreted by him as a probable result of the sites being present sub-surface and well overgrown; thus not easily located through surface survey. Approximately 30 Middle Iron Age sites were recorded at the time. All Middle Iron Age sites were interpreted by Hanisch as representative of Industry diffusion, relating directly to cultural traditions originating to the north of the mountain and expanding south. Varying cultural traditions of the Later Iron Age occur in different amounts throughout the study area: *Moloko* occurs along the southern and western foothills of the mountain range, while only 3 *Zimbabwe* sites were known from the north-eastern part of the mountain. *Khami* and *Early Venda* sites are often interlinked, also forming the majority (50+) of the recorded sites. *Early Tsonga* sites are found towards the south-east of the Soutpansberg Mountain. Hanisch's basic summarized interpretation of particularly the Later Iron Age of the Soutpansberg Mountain is supported by Huffman's (2007) extended ceramic interpretation and linguistic research by Loubser (1991).

The Ivory tourist route attests principally to Later Iron Age and Colonial economic use of the landscape from the Soutpansberg Mountain to the Blouberg and further afield while the Modjadji Kingdom located south-east of the development area reflects one of the oldest continuing traditions well rooted in the Later Iron Age.

3) *The Historical / Colonial Period:*

Two *Voortrekker* groups reached the Soutpansberg Mountains in 1836; one under the leadership of Louis Trichardt and the other under Hans van Rensburg. Van Rensburg decided to lead his group to Lorenzo Marques (now Maputo) in Mozambique, but his entire party was killed *on route*. Trichardt and his group stayed behind in the area that eventually became known as the town of Louis Trichardt (founded in 1899), where they planted crops and explored the area northwards in an attempt to locate the Van Rensburg *trekkers*. After a year Trichardt decided to follow Van Rensburg's example and left for Lorenzo Marques; a

journey that took the party 7 months to complete, during which more than half of the group, including Trichardt, perished (www.wikipedia.org).

In the late 1830's *trekkers* under the leadership of Andries Potgieter established the town of *Zoutpansberg*, now known as the historical town of Schoemansdal. After the death of Potgieter in 1852 the town came under control of Stephanus Schoeman; who vainly named it after himself. By 1855 the population of Schoemansdal numbered 200 and the town had established itself at the centre of the lucrative ivory trade. Important tradesmen closely associated with Schoemansdal include the legendary Joao Albasini, who in 1858 was appointed Portuguese vice-consul to the *Zuid Afrikaansche Republiek* (ZAR). In order to obtain ivory, many a white hunter supplied the Venda with much desired arms and ammunition; but there was little control over the number of weapons in circulation. Various factors, including the introduction of taxes strained the initial cordial relations between the *Voortrekkers* and the Venda, leading to the hasty abandonment of the town in 1867 and with what remained of the village destroyed by the Venda and left to the elements (www.southafrica.org.za).

The *Schoemansdal Open-Air Museum*, destroyed by fire in 2008, endeavored to portray the way of life of the early settlers (www.bygonessandbyways.blogspot.com). A comprehensive archaeological research project, lead by Joanna Behrens of the UNISA archaeology department is however ongoing, aiming to not only investigate the particulars of the historical town of Schoemansdal but also establish its importance in the wider population-demographic and socio-economic context of the time (www.unisa.ac.za).

After the abandonment of Schoemansdal the *Voortrekkers* founded a new town, Pietersburg, in 1886, named after their leader Petrus (Piet) Jacobus Joubert (www.wikipedia.org).

For a short period in 1900, during the South African War (1879-1915), Pietersburg was the capital of the Boer Republics of the Transvaal and Orange Free State, but the town was occupied by British troops in 1901. The British built a concentration camp which housed almost 4,000 Afrikaner women and children (www.wikipedia.org).

Christianity, comprising an important cultural facet of colonial history, was first introduced to the Soutpansberg area by African believers rather than by white missionaries. The African missionaries are believed to have been converted to Christianity while working as laborers in Natal and the Cape Colony during the 1860's, who to varying degrees blended Christianity with African beliefs (www.soutpansberg.com).

In 1994 the name Pietersburg was changed to the Northern Sotho name Polokwane meaning 'Place of Safety' (www.wikipedia.org).

In conclusion, despite the fact that formal archaeological surface surveys in the area have been extremely limited research yielded an array of sites ranging from the Pre-historic to the Historic Periods. Similar type sites could thus be expected to be present on Lemoenfontein 443, reflecting known past temporally varying cultural activity.

4.4) Phase 1 AIA Assessment findings

Seven archaeological and cultural heritage resources as defined and protected by the NHRA 1999 were identified during the 975/1,125ha Phase 1 AIA of Lemoenfontein 443 located in the Molemole district of the Limpopo Province. In addition 3 contemporary cultural resources, comprising of combinations of modern farmsteads, workers' residences and related farming infrastructure, not formally protected under the NHRA 1999 were recorded.

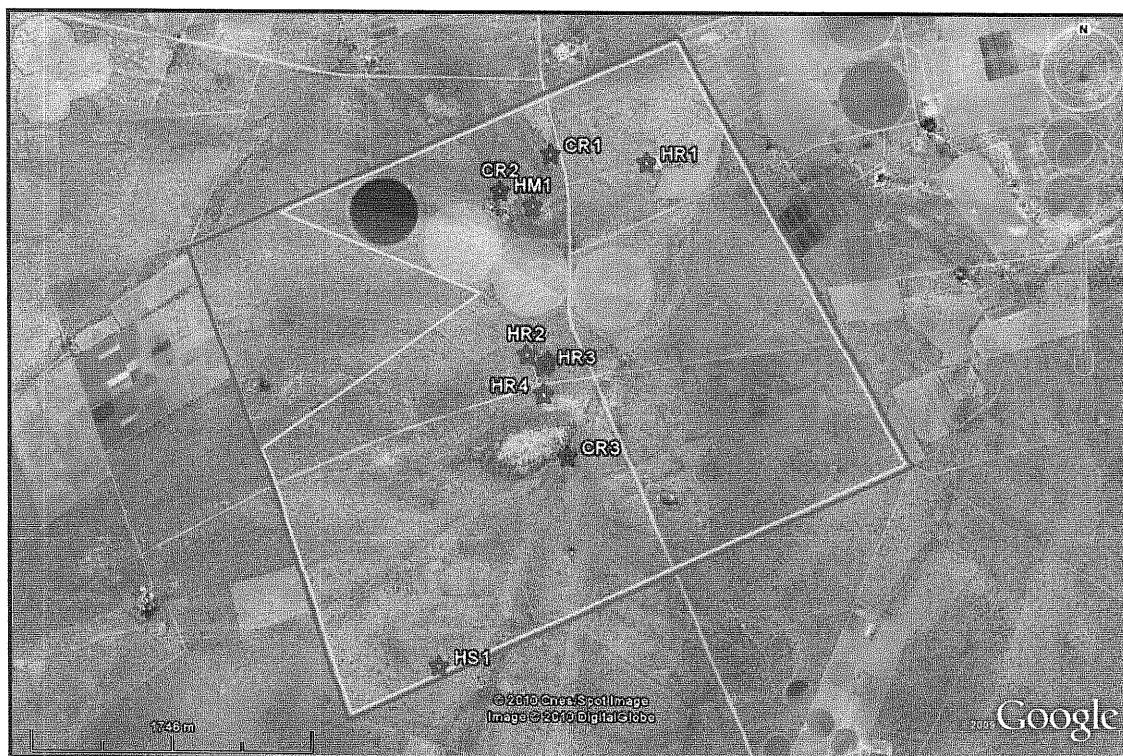


Figure 7: Phase 1 AIA assessment findings: Lemoenfontein 443

Findings of the Phase 1 AIA include:

- **Visibility and General Land Surface:**

Visibility across the proposed Lemoenfontein 443 assessed area varied significantly ranging from very good to good in the northern-central part of the property and directly associated with contemporary and recent agricultural spill point developments. Towards the south-eastern and central part of the property natural areas of less dense vegetation in virgin land provided for equally good visibility and by implication ground surface survey accessibility. Visibility across the remainder of the assessed area, and associated accessibility, can be described as of fair to poor: Thick vegetation made access impossible in some areas, intersected with patches of less dense vegetation, often allowing for access by means of smaller natural open areas, tracks and farm roads.

Lemoenfontein 443 can be described as relatively flat, displaying very little relief aside from a small rocky outcrops located in the southern portion of the property, east of the north-south access road.



Figure 8: The north-south access road through Lemoenfontein 443



Figure 9: Existing access roads across the development area



Figure 10: General view of the old spill point developments

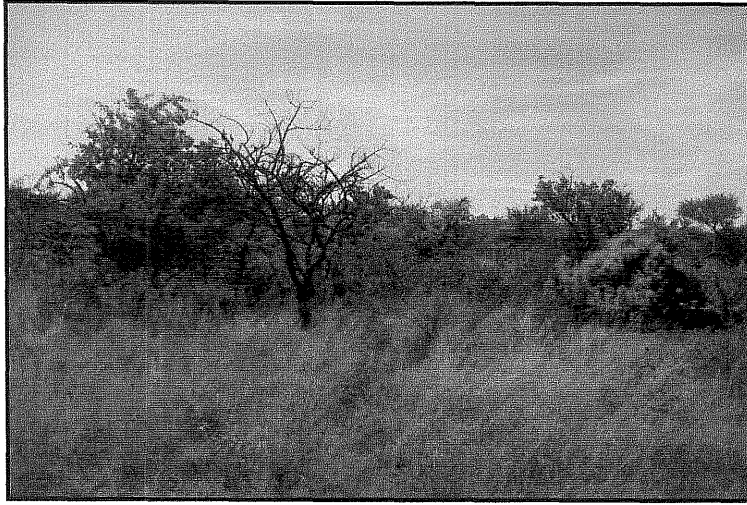


Figure 11: General view of the natural veld - 1



Figure 12: General view of the natural veld - 2

- ***Sub-surface Observations and Inferences:***

Very little eroded or exposed sections were present across the assessed portion of Lemoenfontein 443. Sub-surface interpretation is based primarily on exposures at Site HM1, the Historical Mine area, comprising mostly of relatively shallow miners trenches of no more than 1m in dept. Depth at the main mining area reached depths of approximately 2m. Shallow trenching was also present on the Quinn portion of the property at approximately S23°19'09.7"; E29°32'31.6". In addition to Historic Period trenching the cleaning of fields for spill point agricultural developments resulted in small dumps constituting selected sub-surface material. No exposed sub-surface section displayed a Pre-Historic anthropic member and no cultural material was discovered amongst the agricultural dump material. Relative anthropic sub-surface sterility can thus be inferred.

- **Contemporary Cultural Resources and Related Farming Infrastructure:**

Three contemporary residences (clusters of residences) were identified during the Phase 1 AIA, including:

- 1) **CR1:** A cluster of farm workers residences situated at S23°18'10.9"; E29°32'46.3" dating to the 1960's, thus post-dating 60 years of age and by implication not formally protected by the NHRA 1999.
- 2) **CR2:** The contemporary residence of Mr. Nelson located at approximately S23°18'18.9"; E29°32'35.5". The residence dates to the 1980's; post-dating 60 years of age and not formally protected under the NHRA 1999. The Nelson residence is situated in close proximity to some workers residences and contemporary low impact farming infrastructure, comprising part of the Nelson farmstead cluster. The cluster is cited in direct proximity to Site HM1, the Historical Mine, which will form the focal point of the proposed prospecting development.
- 3) **CR3:** The contemporary Quinn residence, located at S23°19'12.6"; E29°32'51.8", dates to the late 1980's / early 1990's; post dating 60 years of age and not formally protected under the NHRA 1999. The residence is again associated with farms workers residences situated on the yard of the Quinn residence together with low impact farming infrastructure, comprising an integrated part of the Quinn farmstead.

In addition to the above further clusters of contemporary farming infrastructure, associated with cattle farming activities is located at:

- 1) In direct proximity to Site HR1, the Historical Residence 1 locality, at approximately S23°18'09.8"; E29°33'11.4"; and
- 2) At approximately S23°19'32.6"; E29°32'53.4", towards the south of the property and west of the north-south access road.

All contemporary residences including recorded localities CR1, CR2 and CR3 as well as the additional clusters of farming infrastructure post-dates 60 years of age and are by implication not formally protected under the NHRA 1999. Assignment of a SAHRA Site Significance Rating is not of relevance. Impact on, alteration to, or destruction of these structures is not subject to application / approval by SAHRA. The sites are not expected to be impacted on by the proposed prospecting program. Subsequent mining may however impact thereon.

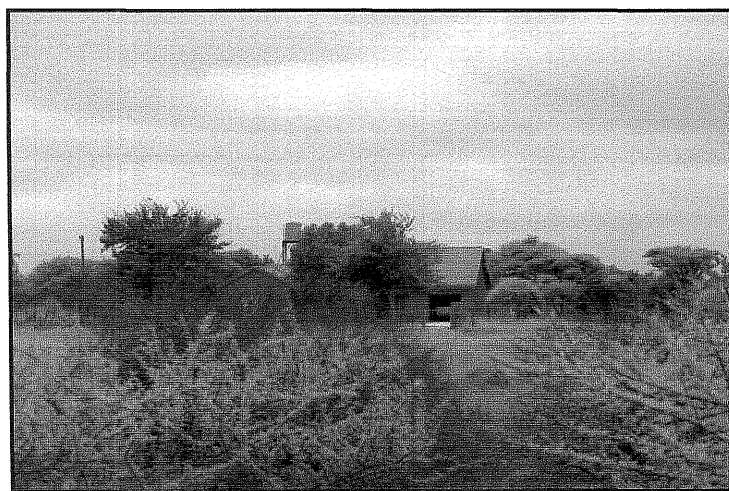


Figure 13: The Site CR2 Nelson residence

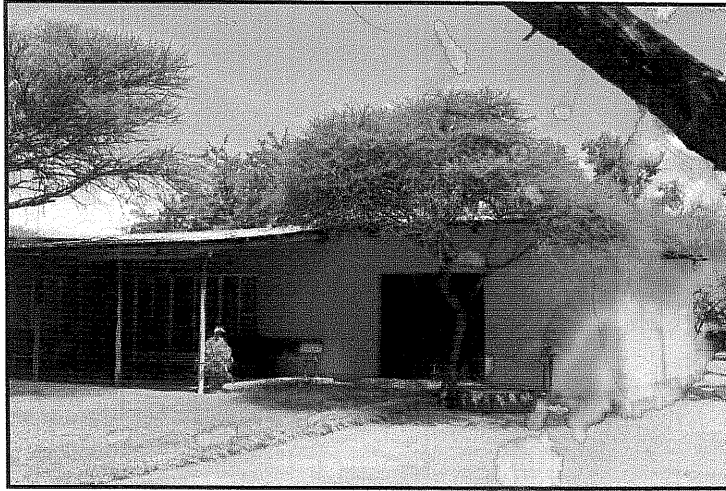


Figure 14: The Site CR3 Quinn residence

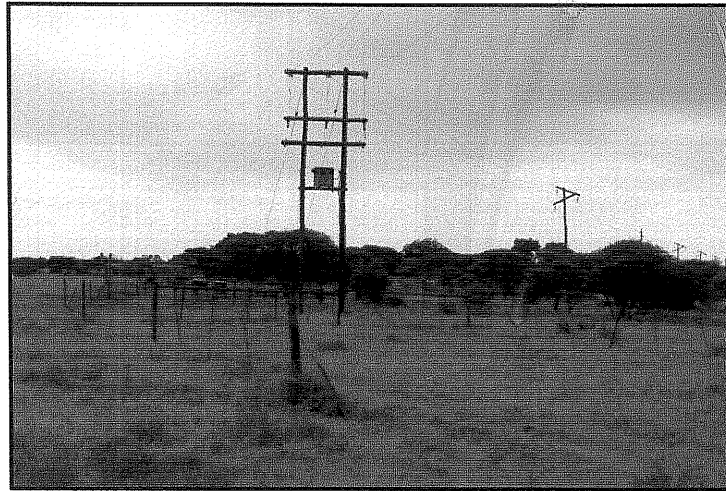


Figure 15: Contemporary low impact farming infrastructure at Site HR1

• ***Recorded Sites Formally Protected by the NHRA 1999:***

A total of 7 sites as defined and protected by the NHRA 1999 were identified during the course of the Phase 1 AIA. All located sites are classified as Colonial / Historical Period Sites. Identified sites can be divided into 4 different site type classes reflecting 4 different types of Historical Period cultural activities, namely:

- 1) Historical residences: Sites HR1, HR2, HR3 and HR4;
- 2) A Historical Period Mine labeled Site HM1;
- 3) A cluster of Historical Period farming infrastructure, Site HS1; and
- 4) A Historical Period Cemetery or Site G1.

Descriptions of the Sites, associated *SAHRA Site Significance Ratings* and relevant recommendations for purposes of development are given below.

 4.4.1) *SITE HR1 - Historical Period Residence - S23°18'11.9"; E29°33'07.8"*

Site HR1 comprises a Historical Period Residence dating to the 1940's and temporally associated with Site HR2. The residence has been deserted for a while prior to the assessment and the impact thereof on the structure and entrance are evident: windows, doors and coverings have been removed but the basic structure remains in-tact. No middens or Historical Period graves are associated with the site. Contemporary cattle farming infrastructure is located in direct proximity to the site, but not impacting thereon. A dam, temporally associated with the 1940's residence is located amidst the contemporary camps, forming part of the Historical Period Site. The Site is at present fenced; providing an additional conservation measure to the structure.



Figure 16: Locality of Site HR1 at S23°18'11.9"; E29°33'07.8"

- **SAHRA Site Significance Rating and Recommendations:**

The Site HR1 Historical Period Residence and associated dam pre-dates 60 years of age and is formally protected by the NHRA 1999. The Site is ascribed a *SAHRA Medium Significance and Generally Protected B Field Rating*.

It is recommended that Site HR1 be conserved *in situ*, implying conservation as is and ensuring that neither prospecting nor subsequent mining will impact on the site. Alternatively any impact thereon, alteration thereto or destruction thereof is subject to:

- 1) SAHRA APM Unit approval (as per the '*SAHRA Archaeological Review Comment*'); and
- 2) A '*SAHRA Site Alteration / Destruction Permit*'. Application for the permit should be made directly to the SAHRA Limpopo Province office by the developer.

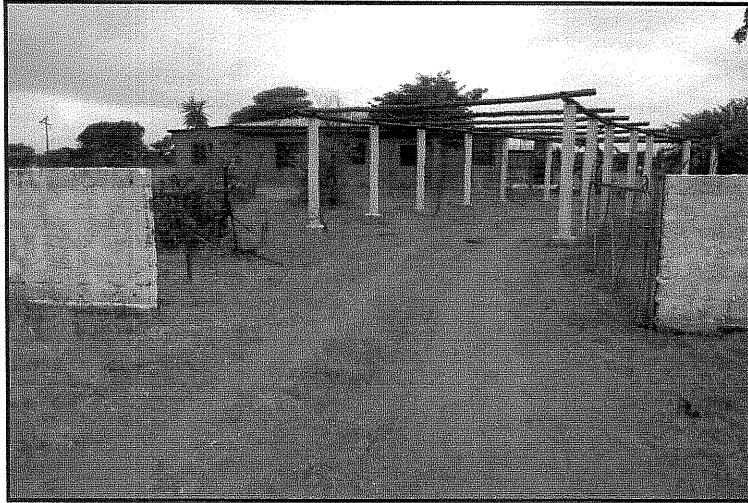


Figure 17: The Site HR1 Historic Period Residence



Figure 18: The dam located in close proximity to the residence and forming part of Site HR1

 4.4.2) *SITE HR2 - Historical Period Residence - S23°18'52.2"; E29°32'42.2"*

Site HR2 comprises a Historical Period Residence and the 2nd residence dating to the 1940's located on Lemoenfontein 443. The site is temporally related to Site HR1. The HR2 residence has been deserted for some time but is in a fair state of preservation, very similar to the storage facilities located immediately south-south-east thereof and directly associated with the structure. No middens were found associated with the site. A Historical Period Cemetery (Site G1) located approximately 0.13km to the east of the site is directly associated therewith. The site is at present fenced affording the necessary conservation measures to the site.

(A single contemporary farm workers residence is located slightly north-east of the HR2 Historical Period Residence.)



Figure 19: Locality of Site HR2 (with reference to Site G1) at S23°18'52.2"; E29°32'42.2"

- **SAHRA Site Significance Rating and Recommendations:**

The Site HR2 Historical Period Residence and associated outbuilding (storage facility) pre-dates 60 years of age and is formally protected by the NHRA 1999. The Site is ascribed a *SAHRA Medium Significance and Generally Protected B Field Rating*.

It is recommended that Site HR2 be conserved *in situ*, implying conservation as is and ensuring that prospecting and subsequent mining will not impact on the site. Alternatively any impact thereon, alteration thereto or destruction thereof is subject to:

- 1) SAHRA APM Unit approval (as per the 'SAHRA Archaeological Review Comment'); and

- 2) A 'SAHRA Site Alteration / Destruction Permit'. Application for the permit should be made directly to the SAHRA Limpopo Province office by the developer.



Figure 20: Front view of the HR2 Historic Period Residence

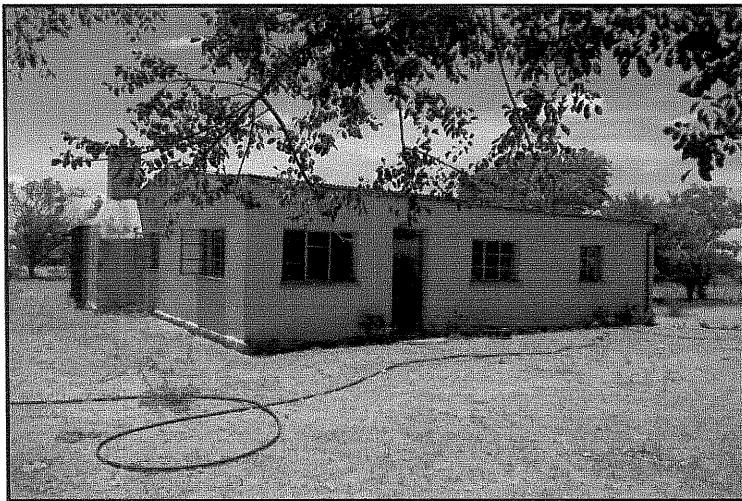


Figure 21: Side view of the HR2 Historic period Residence

4.4.3) *SITE HR3 - Historical Period Residential Area - S23°18'54.3"; E29°32'45.9"*

The Site HR3 Historical Period Residential Area comprises at least 2 clearly identifiable areas of residential remains:

- 1) The 1st, inferred to have been the original Du Toit farmhouse (original owners of Lemoenfontein 443) is situated at S23°18'54.1"; E29°32'45.1" and characterized by a mound only: All walls and structural remains have eroded in the interim. Mound remains indicate a rectangular structure of approximately 5x8+m. Traces of a cement 'stoep' and mudbricks were found at the locality.
- 2) The 2nd area of residential remains, directly associated with the 1st, is located approximately 40-50m south-east of the rectangular structure mound. The 2nd residential area is typified by a square, approximate 3x3m area and is inferred to represent the remains of an outbuilding. A portion of a cement-like paved floor can still be distinguished and a few mudbricks are indicative of the original walls.

Vegetation is inferred to have obscured many of the associated material remains, but slight mounds in the general area may be indicative of middens or eroded associated farming infrastructure. The HR3 Historic Period Residential Area may well pre-date the 1900's and is directly associated with some of the older graves at the nearby Site G1 Historic Period Cemetery.

The site is at present not fenced; no conservation measure is in place to ensure continued preservation of the Historical Period Site.

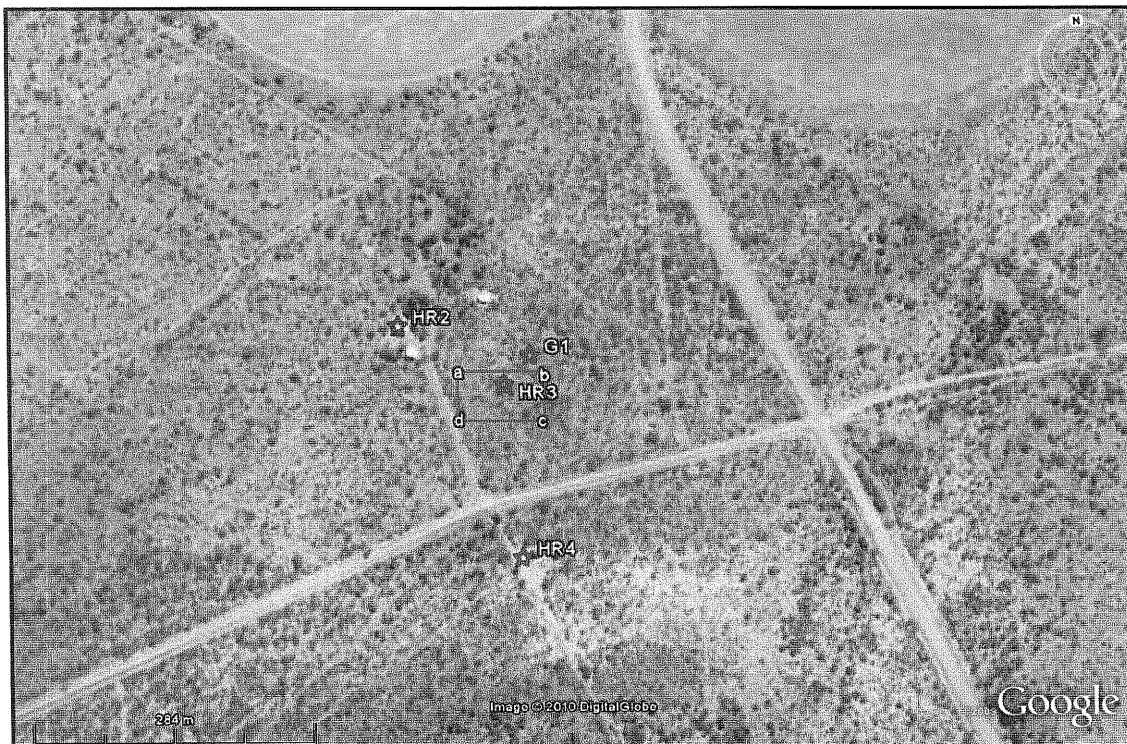


Figure 22: Locality of Site HR3 (with a general reading for the site being S23°18'54.3"; E29°32'45.9")

• **SAHRA Site Significance Rating and Recommendations:**

The Site HR3 Historical Period Residential Area pre-dates 60 years of age and is formally protected by the NHRA 1999. The Site is ascribed a *SAHRA Medium Significance* and *Generally Protected B Field Rating*.

It is recommended that Site HR3 be conserved *in situ*, implying conservation as is and ensuring that prospecting and subsequent mining will not impact on the site. The area is at present not fenced; no formal conservation measure is in place. It is recommended that the developer ensures SAHRA approved conservation measures are in place prior to commencement of the proposed development by erecting a fence around the general area with at least one access gate to the site. Recommended conservation points are described as:

- a) S23°18'53.8"; E29°32'44.3";
- b) S23°18'54.1"; E29°32'47.4";
- c) S23°18'55.6"; E29°32'47.2"; and
- d) S23°18'55.4"; E29°32'44.2",

allowing for an approximate 0.4ha conservation area.

Alternatively the developer may opt for site mitigation as approved SAHRA Heritage Site Management option. Phase 2 archaeological mitigation would entail rescue excavations at both residential areas as well as test pits at inferred middens. All Phase 2 mitigation should be done under a SAHRA APM Unit *Excavation Permit* issued to an ASAPA accredited CRM archaeologist listed by SAHRA. The developer should ensure that mitigation is completed prior to commencement of development.

Custom Alloys SA may also choose a combination of the above SAHRA approved Heritage Site Management options such as site conservation throughout the initial prospecting period. Should the general area around Site HR3 prove to yield significant chromite deposits and the need to prospect on site be identified, the developer can convert to site mitigation prior to prospecting or mining impact within the boundaries of the conservation area.

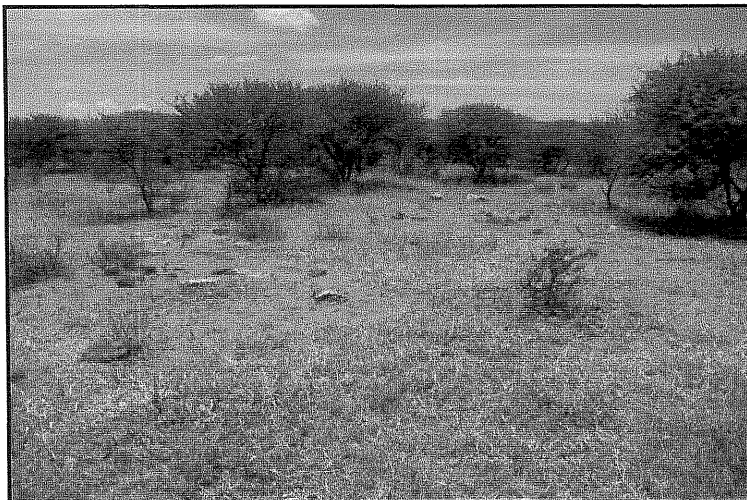


Figure 23: Remains of the inferred original Du Toit farmhouse



Figure 24: Remains of related farming infrastructure at Site HR3



Figure 25: Remains of the 2nd identified residential area at Site HR3

 4.4.4) *SITE HR4 - Historical Period Residential Area - S23°19'00.1"; E29°32'46.1"*

Site HR4, the 2nd Historical Period Residential Area located on Lemoenfontein 443, is situated in the vicinity of the still standing but decayed 'milkroom' dating perhaps to the early 1900's to 1920's. Immediately south-east of the structure a mound of approximately 5x8m is indicative of the associated farm house. Mudbrick and related building rubble are still present on site but pushed into a large dump during past cleaning activities, diminishing the archaeological significance of the structure remains. Approximately 40m east of the 'milkroom', at approximately S23°19'00.1"; E29°32'48.0", 3 circular features of approximately 2.5m in diameter were found. The features comprise only of slight mounds with cement and stone foundations, some remaining steps and limited mudbrick rubble still in place and are interpreted as 'rondawel' like outbuildings of the main residence. The original structures may well have been used as guest rooms by the Du Toit's, the original owners of the property, a practice well recorded amongst early Afrikaner farmers. Towards the north-east of the 'rondawel' features and the still standing 'milkroom' remains of the original farm entrance were discovered, still relatively in-tact and well conserved.

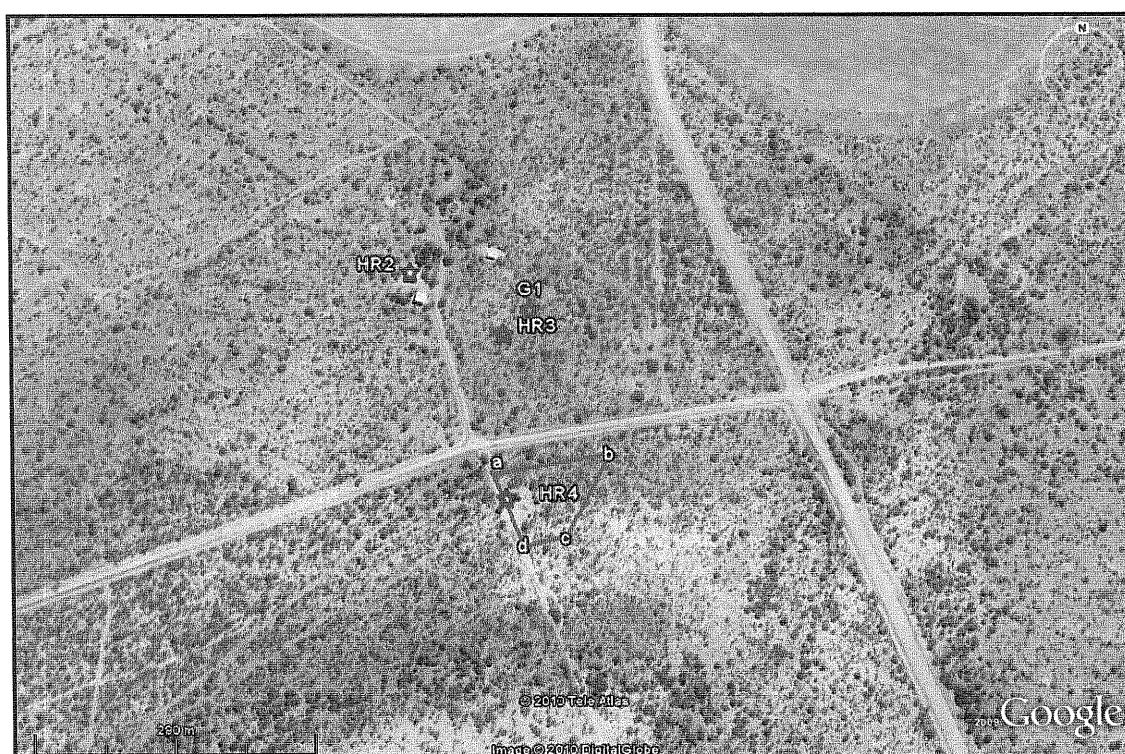


Figure 26: Locality of Site HR4 (Site reading taken at the standing 'milkroom' at S23°19'00.1"; E29°32'46.1")

- **SAHRA Site Significance Rating and Recommendations:**

Site HR4, the 2nd located Historical Period Residential Area, pre-dates 60 years of age and is formally protected by the NHRA 1999. The Site is ascribed a *SAHRA Medium Significance and Generally Protected B Field Rating*.

It is recommended that Site HR4 be conserved *in situ*, implying conservation as is and ensuring that the proposed prospecting and mining development will not impact on the site. The area is at present not fenced; no formal conservation measure is in place. It is recommended that the developer ensures SAHRA approved conservation requirements are met prior to commencement of the proposed development by erecting a fence around the general area with at least one access gate to the site. Recommended conservation points are described as:

- a) S23°18'59.3"; E29°32'45.6";
- b) S23°18'58.5"; E29°32'50.0";
- c) S23°19'01.4"; E29°32'48.4"; and
- d) S23°19'01.7"; E29°32'46.8",

allowing for an approximate 0.7ha conservation area.

Alternatively the developer may opt for site mitigation as approved SAHRA Heritage Site Management option. Phase 2 archaeological mitigation would entail rescue excavations at the residential and 'rondawel' areas together with test pitting and monitoring for purposes of spatial layout across the site area. All Phase 2 mitigation should be done under a SAHRA APM Unit *Excavation Permit* issued to an ASAPA accredited CRM archaeologist listed by SAHRA. The developer should ensure that mitigation is completed prior any development impact.

Again the developer may decide on a combination of the above SAHRA approved Heritage Site Management options such as site conservation throughout the initial prospecting period. Should the general area around Site HR4 prove to yield significant chromite deposits and the need to prospect on site be identified, the developer can convert to site mitigation prior to prospecting or mining impact within the boundaries of the conservation area.

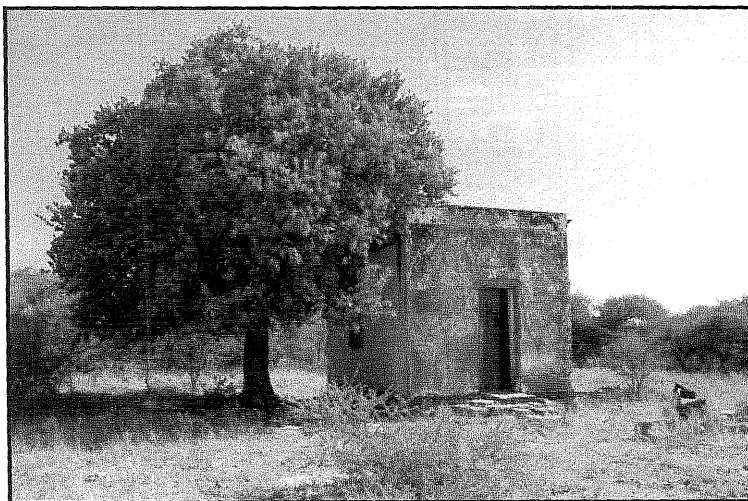


Figure 27: The Site HR4 'milkroom'

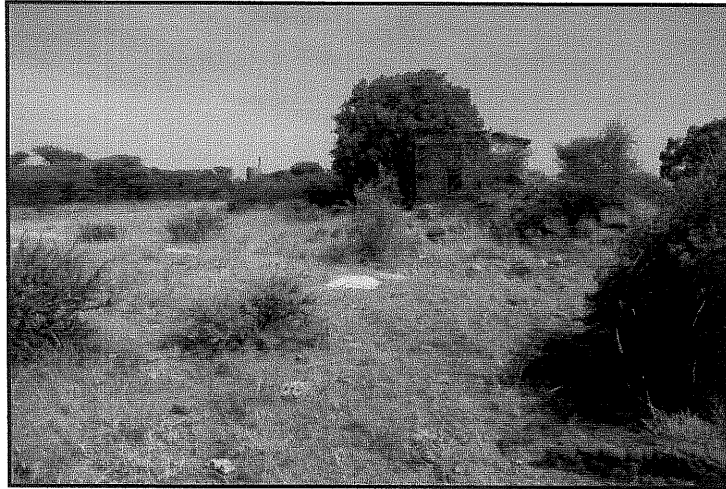


Figure 28: Remains of the Site HR4 Du Toit farmhouse visible as a cement like feature and mudbrick to the left with the bulk of the residence remains represented by the mound in front of the 'milkroom'



Figure 29: Decayed remains at Site HR4

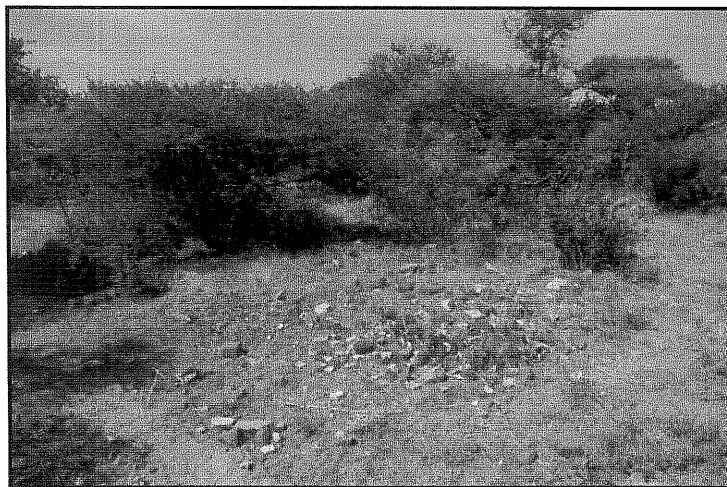


Figure 30: One of the circular like features interpreted to have been a 'rondawel' type outbuilding / guestroom to the Du Toit residence

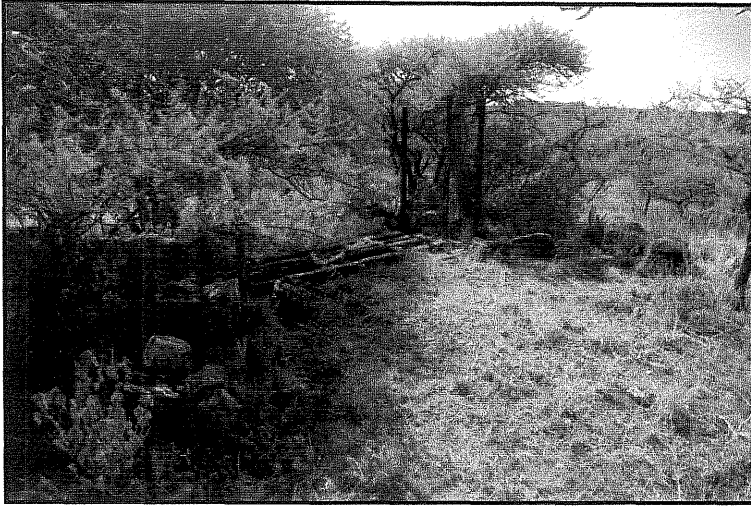


Figure 31: Entrance remains of the Site HR4 farmstead

 4.4.5) SITE HM1 - Historical Period Mine - S23°18'21.8"; E29°32'42.9"

Site HM1 comprises an approximate 7ha area located between S23°18'16.5": E29°32'40.5" in the north, S23°18'22.2"; E29°32'48.3" in the east, S23°18'26.6"; E29°32'40.8" in the south and S23°18'23.3"; E23°32'35.4" in the west, situated immediately adjacent to the contemporary residence CR2, with a rough site co-ordinate being S23°18'21.8"; E29°32'42.9". The site is characterized by relatively shallow quarry trenches in the central, northern and eastern part, on average not exceeding 1m in depth and accompanied by related small mine dumps. Stone foundation remains of a circular structure, of approximately 3m in diameter is situated at S23°18'21.4"; E29°32'44.3. The remains are interpreted as tangible evidence of an early residential / chromite processing facility and directly associated with the Historic Period mine remains. Remains of the structure pre-dates 60 years of age and is formally protected by the NHRA 1999. Further mining related remains include metal site markers. The quarry proper and main mine dump is situated in the south-western corner of the site. Here large exposed sections of up to 2m in depth revealed significant sub-surface sections. A remarkably large dump, particularly in comparison with the quarry impact, is located directly adjacent to the large quarry site and indicative that ore from low level chromite quarrying in the general vicinity were brought to Lemoenfontein 443 for processing. The site thus not only represents a Historic Period mine but also a regional processing facility. A quite substantial, though remarkably smaller dump, is located to the north of the site demarcation. Recorded mining on the property occurred during the 1930's and 1940's.



Figure 32: Locality of Site HM1 situated at S23°18'21.8"; E29°32'42.9"

- **SAHRA Site Significance Rating and Recommendations:**

Site HM1 constitutes a Historical Period archaeological site, as defined and protected by the NHRA 1999. The site is ascribed a *SAHRA Medium Significance* and a *Generally Protected B Field Rating*.

The site however forms the focal point of the proposed Lemoenfontein 443 development. The current development application at the exact site locality is representative of continuous / reoccurring cultural activity, namely mining or the extraction of mineral resources for economic purposes, a cultural activity with its origin in South Africa dating primarily to the Iron Age, but with cases thereof such as the sourcing of specularite recorded during Stone Age Periods. At Lemoenfontein 443 the earliest evidence of mining occurred during the Historical Period (1930's-1940's) when western farmers extracted chromite ore for the production of copper. The proposed development application is thus in principle extremely sensitive with regards to impact on cultural heritage resources, with particular reference to Site HM1.

The total of Site HM1 is however not of scientific research value and within the terms of 'Environmental Management', with its particular focus on *responsible development* it is suggested that part of the site be destroyed *in lieu* of the proposed development. Old trenches and mine dumps will be of little archaeological scientific research value with the focal point of the Historic Period site in terms of both conservation value and research being the recorded 'rondawel' foundations and immediate vicinity. It is proposed that the 'rondawel' and immediate surrounds be formally conserved while the remainder of the site be impacted on / destroyed under a SAHRA APM Unit *Site Destruction Permit*.

Conservation: It is recommended that Custom Alloys SA establish a formal conservation area around the Site HM1 recorded Historic Period 'rondawel' foundations and immediate surrounds, including the small trench and dump adjacent thereto prior to any development impact at the site. Suggested conservation co-ordinates can be summarized as:

- a) S23°18'20.9"; E29°32'43.5";
- b) S23°18'20.9"; E29°32'45.0";
- c) S23°18'22.2"; E29°32'45.0"; and
- d) S23°18'22.1"; E29°32'43.5",

allowing for an approximate 0.2ha conservation area. Minimum conservation measures would require the recommended area to be fenced with at least one access gate.

Phase 2 archaeological mitigation: Should conservation of the recommended portion of Site HM1 (as described above) not prove a feasible Heritage Site Management option for Custom Alloys SA it suggested that development be preceded by Phase 2 archaeological mitigation. Phase 2 archaeological mitigation would constitute rescue excavations at the 'rondawel' structure remains and recording at the trench and dump. All Phase 2 mitigation should be done under a SAHRA APM Unit *Excavation Permit* issued to an ASAPA accredited CRM archaeologist listed by SAHRA. The developer should ensure that mitigation is completed prior to commencement of development.

Site destruction: In addition to the described conservation / Phase 2 archaeological mitigation measures it is recommended that the developer applies to the SAHRA APM Unit for a SAHRA *Site Destruction Permit* in order to legally impact on / destroy the remainder of Site HM1 (comprising primarily of old mine trenched and dumps).

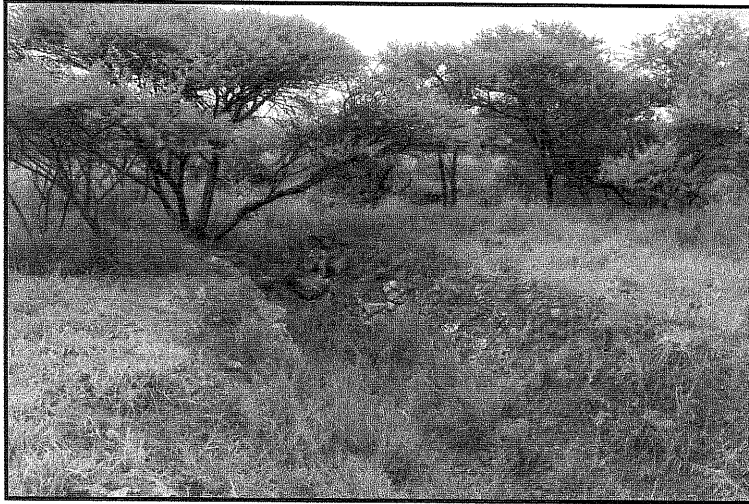


Figure 33: Shallow mine trenches at Site HM1 - 1



Figure 34: Shallow mine trenches at Site HM1 - 2



Figure 35: Historic period large scale quarrying at the south-western portion of Site HM1

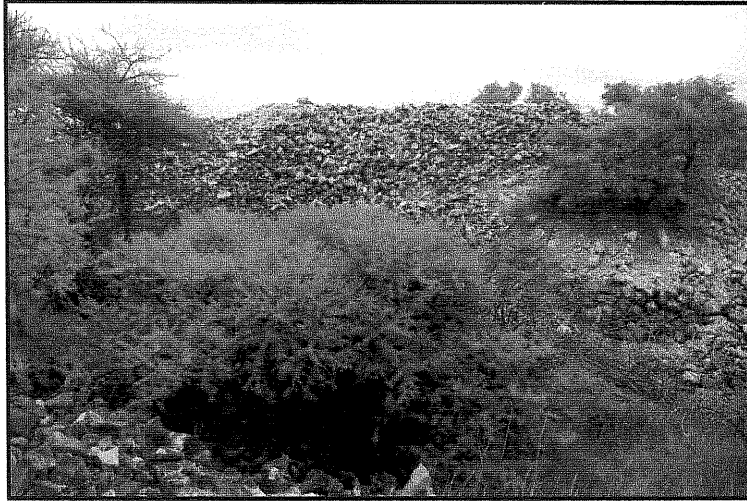


Figure 36: The large Historic Period mine dump located in the south western part of Site HM1



Figure 37: Recorded circular 'rondawel' remains



Figure 38: A metal site marker at the HM1 Historic Period mine

 4.4.6) *SITE G1 - Historical Period Cemetery - S23°18'53.4"; E29°32'46.9"*

Site G1 constitutes a Historical Period cemetery. The site, measuring approximately 8x13m in extent is at present fenced with an access gate, though not regularly maintained and at the time of the assessment quite overgrown with natural vegetation. The cemetery contains 22+ graves, varying from simple stone piles (which may represent graves of farm workers or family graves of which the headstones have been removed). The bulk of the graves do have headstones but without decipherable inscriptions; inscriptions is inferred to have weathered away. Later graves do have well readable inscriptions with the last dating to the 1940's, clearly stating Du Toit as family name. The cemetery represents the Du Toit family cemetery and is inferred to have been used during the various phases of their residency from the mid / late 1800's to the 1940's, as exemplified by the number of Historic Period residential sites on the property.

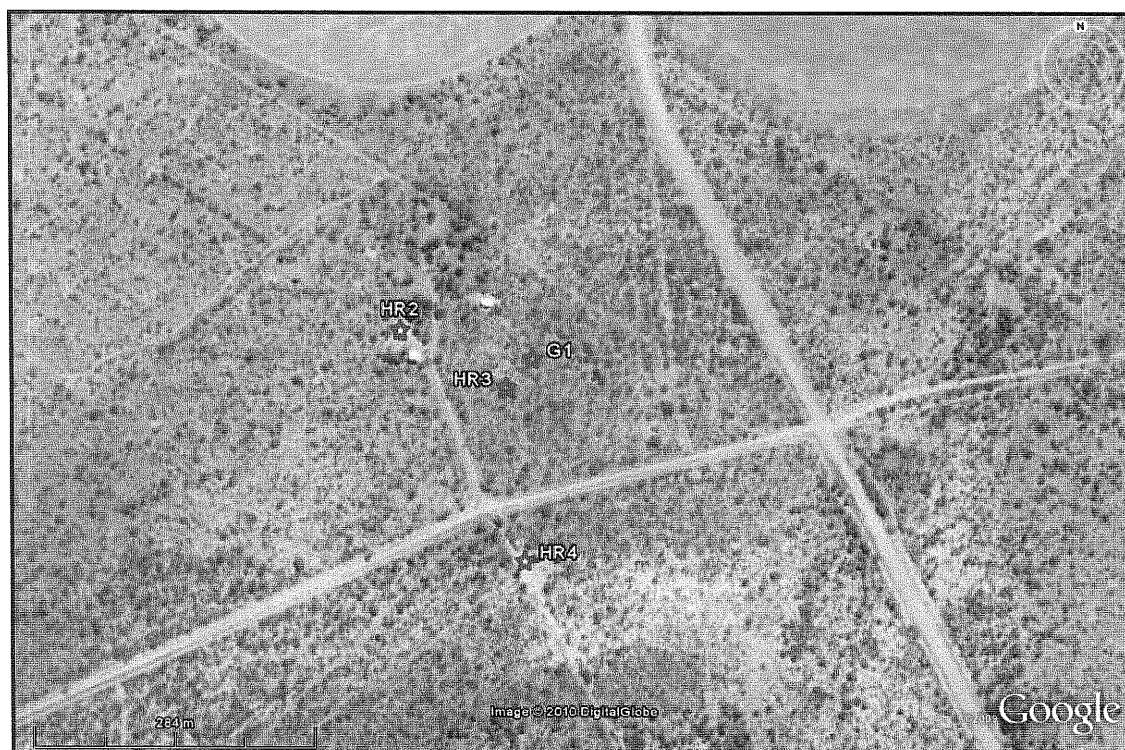


Figure 39: Locality of the G1 Historical period cemetery located at S23°18'53.4"; E29°32'46.9"

- **SAHRA Site Significance Rating and Recommendations:**

The Site G1 Historical Period cemetery, containing graves pre-dating 60 years of age, with the youngest grave dating to the 1940's constitutes a heritage site as described and protected by the NHRA 1999. The Site is ascribed a SAHRA *Medium Significance* and *Generally Protected B Field Rating*.

It is recommended that Site G1 be conserved *in situ*, implying conservation as is and ensuring that neither prospecting nor subsequent mining will impact on the site. The site is at present fenced with an access gate and no additional conservation measures are necessary. Alternatively, should development require impact on the site it is recommended that Phase 2 Archaeological Mitigation precede any impact. Alteration or impact on the site is subject to:

- 1) SAHRA APM Unit approval (as per the 'SAHRA Archaeological Review Comment');
- 2) SAHRA BGG Unit approval (as per the 'SAHRA Archaeology review Comment');
- 3) A 'SAHRA Site Excavation Permit'. Excavations should be done by a SAHRA listed ASAPA accredited CRM archaeologist; and
- 4) Compliance to the SAHRA prescribed graves relocation process including public participation and minimum standards for the exhumation and re-internment of human remains.



Figure 40: General view of the Site G1 Historic Period cemetery

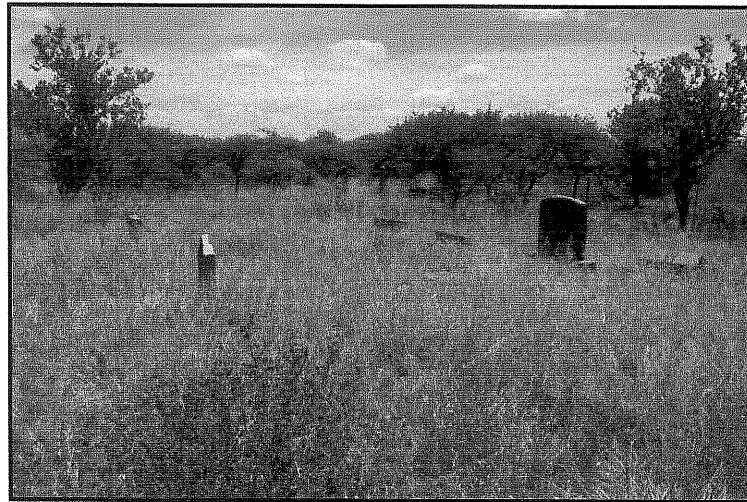


Figure 41: General view of the graves contained in the Site G1 cemetery



Figure 42: Later graves, dating to the 1940's are relatively well conserved



Figure 43: The majority of the graves at Site G1 are relatively well conserved but without inscribed headstones or with headstones of which the inscriptions are no longer readable



Figure 44: Early graves at Site G1, seldom with decipherable headstone inscriptions

4.4.7) *SITE HS1 - Historical Period Site (Farming Infrastructure)*
 - S23°19'55.8"; E29°32'24.8"

Site HS1 comprises of a number of low density scattered Historic Period farming infrastructure including 2 water towers (located at the S23°19'55.8; E29°32'24.8" site reading), an old dam, a number of water troughs and small dams and what seems to have been feed storage containers for livestock. The features, made of plastered mudbrick, are in various stages of decay. The general approximate 0.3ha site area stretches from S23°19'51.7"; E29°32'25.3" in the north to S23°19'55.7"; E29°32'28.5" in the east. The southern demarcation lies on the property border at S23°19'57.6"; E29°32'25.5" and the western demarcation at S23°19'55.4"; E29°32'23.8". The site is at present not fence; no formal conservation measures are in place.

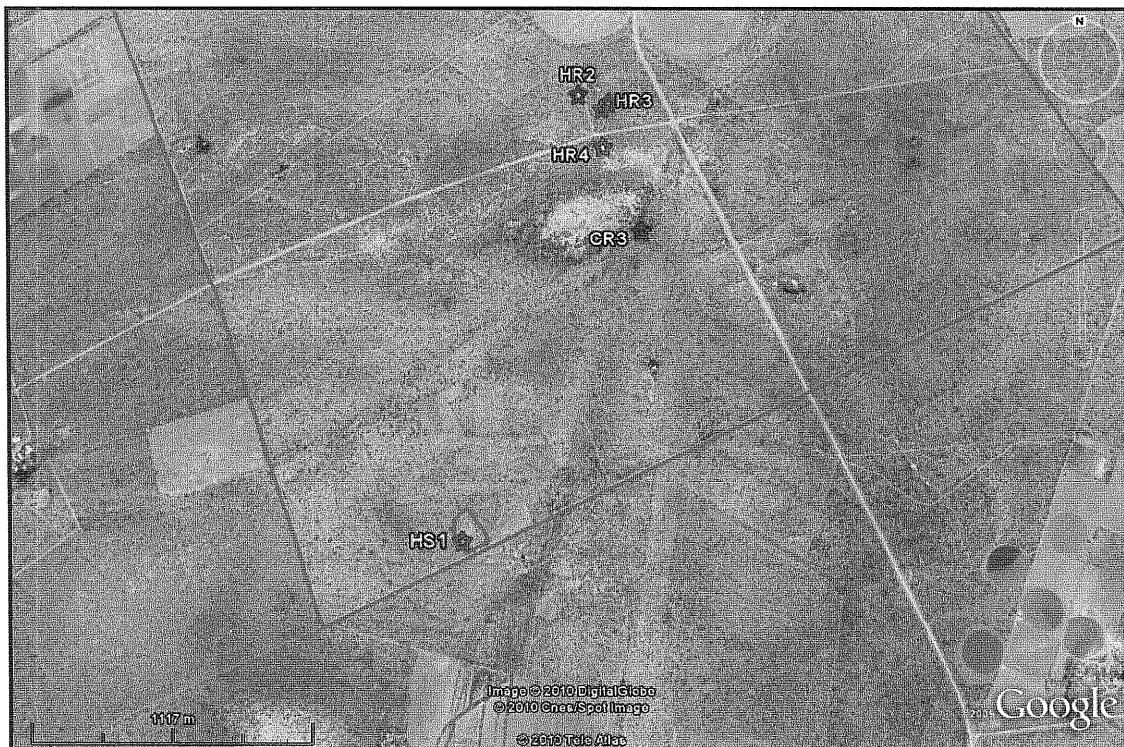


Figure 45: Locality of Site HS1 at S23°19'55.8"; E29°32'25.5"

• **SAHRA Site Significance Rating and Recommendations:**

The Site HS1 Historic Period farming infrastructure terrain comprises an archaeological site as defined and protected by the NHRA 1999. The Site is ascribed a *SAHRA Low Significance and Generally Protected C Field Rating*.

It is recommended that Site HS1 be conserved *in situ*. No conservation measures are at present in place, but based on the *Low Significance* rating, none are recommended. Alternatively it is recommended that the site be destroyed *in lieu* of the development. It is recommended that destruction proceeds without the developer having to apply for a *SAHRA Site Destruction Permit*. However, opinions raised by Interested and Affected Parties (I&AP's) as identified through the prescribed *EIA Public Participation*

Process, particularly by MR. Quinn, as landowner of the portion where the site is situated, should be addressed prior to destruction or impact.



Figure 46: Two water towers at Site HS1

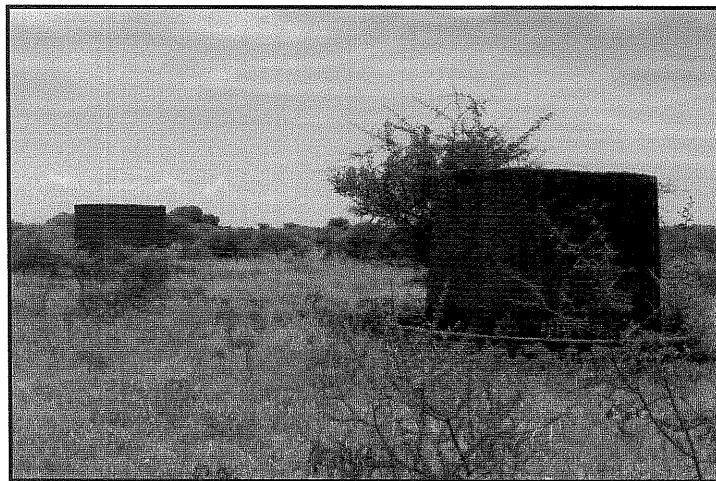


Figure 47: Inferred feed storage containers for livestock at Site HS1

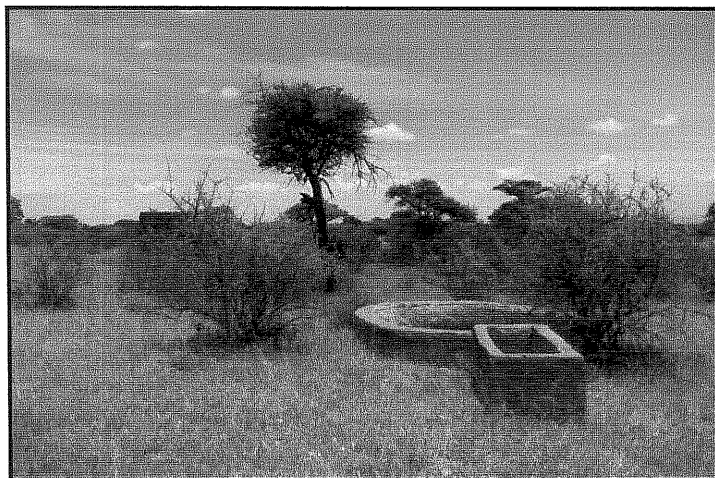


Figure 48: A water trough and small dam

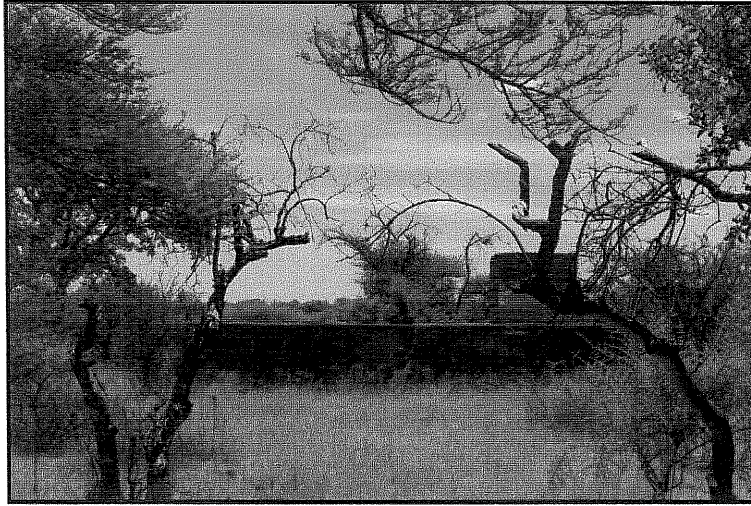


Figure 49: The large dam comprising part of Site HS1

4.5) *Summary and Recommendations*

The Phase 1 AIA covered 975ha of the proposed 1,125ha Lemoenfontein 443 development area. Visibility across the assessment area varied quite radically, ranging from very good to poor; a direct result of vegetation cover and past and present land use. Geographically the area can be described as very flat with only a single small outcrops situated in the south-eastern portion of the property. The closest water sources to the property comprise of the Sand River running more or less 4km to the east of the site and the Hout River, approximately 8km to the west. The Soutpansberg Mountains, roughly 50km to the north of the study site and the Blouberg and Makgabeng plateau, situated more or less 70km to the west, are important landscape features having played a prominent part in Pre-Historic and Historic cultural use of the landscape. Despite the limited number of systematic archaeological surveys having been done in the general area a wide variety of temporally varying and Industrial type sites are known; ranging from the Stone Age and including LSA Rock Art sites, Iron Age sites and Colonial / Historical Period sites with the Schoemansdal site being testimony to the importance of the area in furthering our understanding of period archaeology.

Seven archaeological and cultural heritage resources, as defined and protected by the NHRA 1999, were encountered during the Phase 1 AIA of Lemoenfontein 443. In addition 3 contemporary cultural resources were recorded. **In conclusion, despite the known cultural / archaeological use of the general area throughout the Pre-Historic Period, the only tangible anthropic evidence at Lemoenfontein 443 dates to the Historic Period when the property was occupied by early Afrikaner farmers who primarily farmed, and later on, during the 1930's and 1940's, practiced low impact mining on the property.**

Encountered cultural heritage resources can briefly be described as:

- ***Contemporary Cultural Heritage Resources:***

Sites CR1 (S23°18'10.9"; E29°32'46.3"), CR2 (S23°18'18.9"; E29°32'35.5") and CR3 (S23°19'12.6"; E29°32'51.8") all represent contemporary residential sites. (The sites are associated with contemporary low impact farming infrastructure located in direct or indirect proximity to the aforementioned sites). These sites post-dates 60 years of age and are by implication not formally protected under the NHRA 1999. Development impact thereon or destruction thereof is not subject to SAHRA application or approval. However, the proposed prospecting development is not expected to impact on any of the sites. Subsequent mining on the other hand may.

- ***Cultural Heritage Resources as Defined and Protected by the NHRA 1999:***

- 1) *Site HR1 (Historic Period Residence; S23°18'11.9"; E29°33'07.8")*

Site HR1 pre-dates 60 years of age and is formally protected under the NHRA 1999. The site is ascribed a *SAHRA Medium Significance* and a *Generally Protected B Field Rating*.

It is recommended that the site be either:

- a) **Conserved *in situ*.** (The site is at present fenced with an access gate, no additional conservation measures are necessary), **OR**
- b) **Development impact thereon or destruction thereof under a *SAHRA Site Destruction Permit*.**

2) *Site HR2 (Historic Period Residence; S23°18'52.2"; E29°32'42.2")*

Site HR2 pre-dates 60 years of age and is formally protected under the NHRA 1999. The site is ascribed a SAHRA Medium Significance and a Generally Protected B Field Rating.

It is recommended that the site be either:

- a) **Conserved *in situ*.** (The site is at present fenced with an access gate, no additional conservation measures are necessary), **OR**
- b) **Development impact thereon or destruction thereof under a SAHRA Site Destruction Permit.**

3) *Site HR3 (Historic Period Residence; S23°18'54.3"; E29°32'45.9")*

Site HR3 pre-dates 60 years of age and is formally protected under the NHRA 1999. The site is ascribed a SAHRA Medium Significance and Generally Protected B Field Rating.

It is recommended that the site be either:

- a) **Conserved *in situ*.** (No conservation measures are at present in place. The developer should ensure formal conservation of a recommended approximate 0.4ha area with suggested co-ordinates S23°18'53.8", E29°32'44.3"; S23°18'54.1", E29°32'47.4"; S23°18'55.6", E29°32'47.2"; and S23°18'55.4", E29°32'44.2" by means of a fenced area with at least one access gate prior to commencement of development), **OR**
- b) **Phase 2 Archaeological Mitigation prior to any development impact.** (Phase 2 mitigation should be done under a SAHRA APM Unit *Excavation Permit* issued to an ASAPA accredited CRM archaeologist listed by SAHRA. The developer should ensure that mitigation is completed prior to commencement of development.)

4) *Site HR4 (Historic Period Residence; S23°19'00.1"; E29°32'46.1")*

Site HR4 pre-dates 60 years of age and is formally protected by the NHRA 1999. The site is ascribed a SAHRA Medium Significance and Generally Protected B Field Rating.

It is recommended that the site be either:

- a) **Conserved *in situ*.** (No conservation measures are at present in place. The developer should ensure formal conservation of a recommended approximate 0.7ha area with suggested co-ordinates S23°18'59.3", E29°32'45.6"; S23°18'58.5", E29°32'50.0"; S23°19'01.4", E29°32'48.4"; and S23°19'01.7", E29°32'46.8" by means of a fenced area with at least one access gate prior to commencement of development), **OR**
- b) **Phase 2 Archaeological Mitigation prior to any development impact.** (Phase 2 mitigation should be done under a SAHRA APM Unit *Excavation Permit* issued to an ASAPA accredited CRM archaeologist listed by SAHRA. The developer should ensure that mitigation is completed prior to commencement of development.)

5) *Site HM1 (Historic Period Mine; S23°18'21.8"; E29°32'42.9")*

Site HM1 constitutes a Historic Period archaeological site as defined and protected by the NHRA 1999. The site is ascribed a SAHRA Medium Significance and Generally Protected B Field Rating. The exact locality of the archaeological site forms the focal point of the proposed Lemoenfontein 443 prospecting and mining development application by Custom Alloys SA.

It is recommended that:

- a) **A core portion of the site be conserved *in situ*** (No conservation measures are in place. The developer should ensure formal conservation of the recommended approximate 0.2ha core site portion between suggested co-ordinates S23°18'20.9", E29°32'43.5"; S23°18'20.9", E29°32'45.0";

S23°18'22.2", E29°32'45.0"; and S23°18'22.1", E29°32'43.5" by means of a fenced area with at least one access gate prior to commencement of development) **OR**,

- b) Phase 2 Archaeological Mitigation prior to any development impact within the suggested core portion of Site HM1.** (Phase 2 mitigation should be done under a SAHRA APM Unit *Excavation Permit* issued to an ASAPA accredited CRM archaeologist listed by SAHRA. The developer should ensure that mitigation is completed prior to commencement of development.) **AND**,
- c) Destruction of the remainder of Site HM1 under a SAHRA Site Destruction Permit.** (The developer should apply to the SAHRA APM Unit for a *SAHRA Site Destruction Permit* in order to legally impact on / destroy the remainder of Site HM1, in other words prior to Custom Alloys SA proceeding with any prospecting or mining development across the demarcated surface of Site HM1.)

6) Site G1 (Historic Period Cemetery; S23°18'53.4"; E29°32'46.9")

Site G1 constitutes a Historic Period archaeological site and a grave site containing human remains pre-dating 60 years of age, as defined and protected by the NHRA 1999. The site is ascribed a *SAHRA Medium Significance* and *Generally Protected B Field Rating*.

It is recommended that the site be either:

- a) Conserved *in situ*.** (The site is at present fenced with an access gate, no additional conservation measures are necessary), **OR**
- b) That the site be relocated according to the SAHRA prescribed procedure (Phase 2 Archaeological Mitigation).** (All Phase 2 archaeological mitigation grave relocation projects are subject to both a SAHRA APM Unit and a SAHRA BGG Unit approval, as per the '*SAHRA Archaeological Review Comment*'; a '*SAHRA Site Excavation Permit*', excavations should be done by a SAHRA listed ASAPA accredited CRM archaeologist; and compliance to the SAHRA prescribed graves relocation process including public participation and minimum standards for the exhumation and re-internment of human remains).

7) Site HS1 (Historic Period Farming Infrastructure; S23°19'55.8"; E29°32'24.8")

Site HS1 comprise a Historic Period archaeological site as defined and protected by the NHRA 1999. The site is ascribed a *SAHRA Low Significance* and *Generally Protected C Field Rating*.

It is recommended that the site be either:

- c) Conserved *in situ*.** (No conservation measures are at present in place; none are recommended, based on the *Low Significance rating*), **OR**
- d) Site destruction** (without the developer having to apply to the SAHRA APM Unit for a *SAHRA Site Destruction Permit*. Opinions raised by Interested and Affected Parties [I&AP's] as identified through the prescribed *EIA Public Participation Process*, particularly by MR. Quinn, as landowner of the portion where the site is situated, should be addressed prior to destruction or impact.)

4.6) References

1. Hanisch, E.O.M. 2002. Archaeology of the Soutpansberg. *Unpublished notes for the Soutpansberg workshop*.
2. Huffman, T.N. 2007. *Handbook to the Iron Age: The archaeology of pre-colonial farming societies in southern Africa*. Scottsville: University of KwaZulu-Natal Press

3. Loubser, J.N. 1991. The ethnoarchaeology of Venda speakers in southern Africa. *Navorsing van die Nasionale Museum, Bloemfontein* 7(8): 145-164.
4. South African Government. (No. 28) of 2002. *Mineral and Petroleum Resources Development Act*.
5. South African Government. (No. 107) of 1998. *National Environmental Management Act*.
6. South African Government. (No. 25) of 1999. *National Heritage Resources Act*.
7. South African Heritage Resources Agency. 2007. *Minimum standards for the archaeological and heritage components of impact assessments*. Unpublished guidelines.
8. www.bygonessandbyways.blogspot.com
9. www.southafrica.org
10. www.soutpansberg.com
11. www.unisa.ac.za
12. www.wikipedia.org

5) SOCIO-CULTURAL CONSULTATION

Socio-cultural consultation was done as component part of the HIA in compliance with requirements of SAHRA and the NHR 1999 for purposes of the proposed Lemoenfontein 443 prospecting and mining development.

5.1) Introduction

Brief socio-cultural consultation was limited to interviews with landowners of the Phase 1 AIA assessed portions of Lemoenfontein 443, Mr. Nelson and Mr. Quinn, as well as Mr. Nera who is currently renting parts of the Nelson portion of Lemoenfontein for farming purposes. Interviews were done at the time of the Phase 1 AIA fieldwork.

5.2) Summary and Conclusion

Both the Nelson and Quinn portions of Lemoenfontein are relatively recent acquisitions with landowners having bought the properties during the 1980's and thereafter. Neither the Nelson nor Quinn farming ventures is particularly labor intensive and only a limited number of farm workers reside on the properties. Those residing on Lemoenfontein have relocated there for economic reasons, implying direct employment without any ancestral ties to the specific geographic area. In addition Mr. Nera, currently renting land from Mr. Nelson and owner of the neighboring farm Swarkopjes, makes use of seasonal / contract labor on an ad hoc basis. Laborers are usually day laborers from the Makhado area, implying that they have no particular ancestral ties to Lemoenfontein (or Swartkopjes) in particular.

Neither of the interviewed landowners have to date received any request from indigenous groups / individuals for access to the land, be it for the purpose of a particular cultural activity or access to a particular landscape feature.

In conclusion, the proposed Custom Alloys SA's Lemoenfontein 443 development will not impact on any identified indigenous intangible heritage sites, including sites of cultural significance associated with oral histories or cultural landscapes or viewscapes.

6) CONCLUSION AND RECOMMENDATIONS

Based on the findings of the HIA for the proposed chrome prospecting and mining development at Lemoenfontein 443 (1,125ha), Molemole District, Limpopo Province, it is recommended that, with reference to heritage compliance as per the requirements of the NHRA 1999, the development proceeds as applied for, provided the developer complies with the following requirements:

- **Palaeontology:**
The proposed Lemoenfontein 443 development poses no threat to potential palaeontological resources as defined and protected by the NHRA 1999.
- **Archaeology:**
Seven archaeological and cultural heritage sites, as defined and protected by the NHRA 1999, are located on the 925ha Phase 1 AIA assessed portion of Lemoenfontein. Suggested Heritage Site Management for purposes of development is summarized as:
 - 1) **Site HR1 – Historic Period Residence (S23°18'11.9"; E29°33'07.8")**
 - a) *Site conservation* (necessary conservation measures are already in place), **OR**
 - b) *Site alteration / destruction* (under a SAHRA *Site Destruction Permit*).
 - 2) **Site HR2 – Historic Period Residence (S23°18'52.2"; E29°32'42.2")**
 - a) *Site conservation* (necessary conservation measures are already in place), **OR**
 - b) *Site alteration / destruction* (under a SAHRA *Site Destruction Permit*).
 - 3) **Site HR3 – Historic Period Residence (S23°18'54.3"; E29°32'45.9")**
 - a) *Site conservation* (declaration of a 0.4ha conservation area around the site. The area should be fenced with one access gate prior to development impact on the property), **OR**
 - b) *Phase 2 Archaeological Mitigation* (archaeological excavation of a portion of the site under a SAHRA APM Unit *Excavation Permit* prior to development impact on the property).
 - 4) **Site HR4 – Historic Period Residence (S23°19'00.1"; E29°32'46.1")**
 - a) *Site conservation* (declaration of a 0.7ha conservation area around the site. The area should be fenced with one access gate prior to development impact on the property), **OR**
 - b) *Phase 2 Archaeological Mitigation* (archaeological excavation of a portion of the site under a SAHRA APM Unit *Excavation Permit* prior to development impact on the property).

- 5) **Site HM1 – Historical Period Mine (S23°18'21.8"; E29°32'42.9")**
- Site conservation* (declaration of a 0.2ha conservation area around the core portion of the site. The area should be fenced with one access gate prior to development impact on the property), **OR**
 - Phase 2 Archaeological Mitigation* (archaeological excavation at the core portion of the site under a SAHRA APM Unit *Excavation Permit* prior to development impact on the property), **AND**
 - Destruction of the remainder of the Historical Period Mine site* (under a SAHRA APM Unit *Site Destruction Permit*, to be issued prior to any development impact).
- 6) **Site G1 – Historic Period Cemetery (S23°18'53.4"; E29°32'46.9")**
- Site conservation* (necessary conservation measures are already in place), **OR**
 - Phase 2 Archaeological Mitigation / Grave Relocation* (relocation of Historic Period graves under a SAHRA APM Unit *Excavation Permit*, approved by the SAHRA BGG Unit, prior to development impact at the site).
- 7) **Site HS1 – Historic Period Site (farming infrastructure) (S23°19'55.8"; E29°32'24.8")**
- Site conservation* (no conservation measures are in place, none are recommended), **OR**
 - Site destruction* (without the developer having to apply to SAHRA for a *Site Destruction* permit. Comments of I&AP's, in particular Mr. Quinn, as per the EIA public participation process should be addressed prior to impact on the site).

The Phase 1 AIA covered 925/1,125ha of Lemoenfontein 443. The approximate 150ha Willis owned portion was not assessed. It is recommended that low impact prospecting across the application area proceed. However, the 150ha Willis portion of Lemoenfontein 443 should be subjected to a Phase 1 AIA prior to any mining impact.

- **Socio-cultural:**
The proposed Lemoenfontein 443 development poses no threat to identified intangible heritage sites, cultural landscapes or views as defined and protected by the NHRA 1999.
- **General:**
 - 1) Should any heritage resources, as defined and protected by the NHRA 1999 and not reported on in this report, be discovered during the course of development the developer should immediately cease operation in the immediate vicinity of the find and report the site to the SAHRA APM Unit.
 - 2) The developer should ensure that heritage related information and requirements are communicated to all contractors and sub-contractors.

• **Development and Phase 1 AIA co-ordinates for Lemoenfontein 443:**

1 – S23°17'45.8"; E29°33'14.3"	2 – S23°19'12.8"; E29°34'07.8"
3 – S23°20'07.0"; E29°32'04.9"	4 – S23°19'20.6"; E29°31'46.2"
5 – S23°18'32.4"; E29°31'25.9"	6 – S23°19'13.6"; E29°31'44.4"
7 – S23°18'40.2"; E29°32'31.4"	7 – S23°18'24.9"; E29°31'46.8"

• **Relevant Contact Details:**

SAHRA APM Unit (Archaeology, Palaeontology and Meteorites)

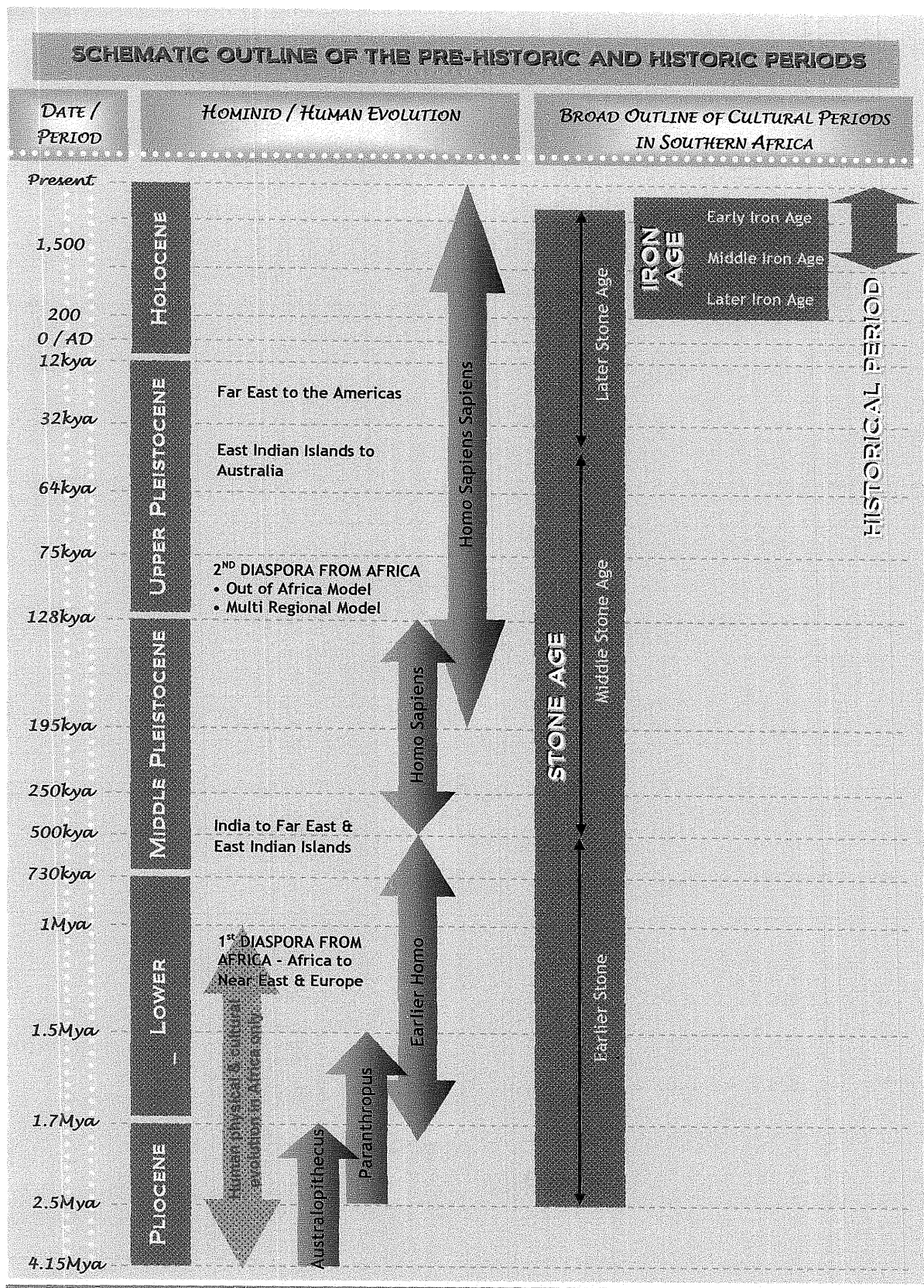
Tel: 021 462 4502 / Fax: 021 462 4509

SAHRA BGG Unit (Burial Grounds and Graves)

Tel: 011 482 8365 / Fax: 011 482 8196

SAHRA Limpopo Office

Tel: 015 291 1804 / Fax: 015 291 1819



EXTRACTS FROM THE
NATIONAL HERITAGE RESOURCES ACT (NO 25 OF 1999)

DEFINITIONS*Section 2*

In this Act, unless the context requires otherwise:

- ii. *"Archaeological"* means –
 - a) material remains resulting from human activity which are in a state of disuse and are in or on land and which are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;
 - b) rock art, being any form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and which is older than 100 years, including any area within 10 m of such representation;
 - c) wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land, in the internal waters, the territorial waters or in the maritime culture zone of the Republic,... and any cargo, debris, or artefacts found or associated therewith, which is older than 60 years or which SAHRA considers to be worthy of conservation.
- viii. *"Development"* means any physical intervention, excavation or action, other than those caused by natural forces, which may in the opinion of a heritage authority in any way result in a change to the nature, appearance or physical nature of a place, or influence its stability and future well-being, including –
 - a) construction, alteration, demolition, removal or change of use of a place or structure at a place;
 - b) carrying out any works on or over or under a place;
 - c) subdivision or consolidation of land comprising, a place, including the structures or airspace of a place;
 - d) constructing or putting up for display signs or hoardings;
 - e) any change to the natural or existing condition or topography of land; and
 - f) any removal or destruction of trees, or removal of vegetation or topsoil;
- xiii. *"Grave"* means a place of interment and includes the contents, headstone or other marker of such a place, and any other structure on or associated with such place;
- xxi. *"Living heritage"* means the intangible aspects of inherited culture, and may include –
 - a) cultural tradition;
 - b) oral history;
 - c) performance;
 - d) ritual;
 - e) popular memory;
 - f) skills and techniques;
 - g) indigenous knowledge systems; and
 - h) the holistic approach to nature, society and social relationships.
- xxxi. *"Palaeontological"* means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trances;
- xlii. *"Site"* means any area of land, including land covered by water, and including any structures or objects thereon;
- xliv. *"Structure"* means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith;

NATIONAL ESTATE*Section 3*

- 1) For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.
- 2) Without limiting the generality of subsection 1), the national estate may include –
 - a) places, buildings, structures and equipment of cultural significance;
 - b) places to which oral traditions are attached or which are associated with living heritage;
 - c) historical settlements and townscapes;
 - d) landscapes and natural features of cultural significance;
 - e) geological sites of scientific or cultural importance;
 - f) archaeological and palaeontological sites;
 - g) graves and burial grounds, including –
 - i. ancestral graves;
 - ii. royal graves and graves of traditional leaders;
 - iii. graves of victims of conflict;
 - iv. graves of individuals designated by the Minister by notice in the Gazette;
 - v. historical graves and cemeteries; and
 - vi. other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No 65 of 1983)
 - h) sites of significance relating to the history of slavery in South Africa;
 - i) movable objects, including –
 - i. objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - ii. objects to which oral traditions are attached or which are associated with living heritage;
 - iii. ethnographic art and objects;
 - iv. military objects;
 - v. objects of decorative or fine art;
 - vi. objects of scientific or technological interest; and
 - vii. books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1 xiv) of the National Archives of South Africa Act, 1996 (Act No 43 of 1996).

STRUCTURES

Section 34

- 1) No person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

ARCHAEOLOGY, PALAEOLOGY AND METEORITES

Section 35

- 3) Any person who discovers archaeological or palaeontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources authority.
- 4) No person may, without a permit issued by the responsible heritage resources authority –
 - a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
 - b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
 - c) trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
 - d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- 5) When the responsible heritage resources authority has reasonable cause to believe that any activity or development which will destroy, damage or alter any archaeological or palaeontological site is under way, and where no application for a permit has been submitted and no heritage resources management procedure in terms of section 38 has been followed, it may –
 - a) serve on the owner or occupier of the site or on the person undertaking such development an order for the development to cease immediately for such period as is specified in the order;
 - b) carry out an investigation for the purpose of obtaining information on whether or not an archaeological or palaeontological site exists and whether mitigation is necessary;
 - c) if mitigation is deemed by the heritage resources authority to be necessary, assist the person on whom the order has been served under paragraph a) to apply for a permit as required in subsection 4); and
 - d) recover the costs of such investigation from the owner or occupier of the land on which it is believed an archaeological or palaeontological site is located or from the person proposing to undertake the development if no application for a permit is received within two weeks of the order being served.
- 6) The responsible heritage resources authority may, after consultation with the owner of the land on which an archaeological or palaeontological site or meteorite is situated, serve a notice on the owner or any other controlling authority, to prevent activities within a specified distance from such site or meteorite.

BURIAL GROUNDS AND GRAVES

Section 36

- 3) No person may, without a permit issued by SAHRA or a provincial heritage resources authority –
 - a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
 - b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
 - c) bring onto or use at a burial ground or grave referred to in paragraph a) or b) any excavation equipment, or any equipment which assists in the detection or recovery of metals.
- 4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction of any burial ground or grave referred to in subsection 3a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.
- 5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection 3b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority –
 - a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and
 - b) reached agreements with such communities and individuals regarding the future of such grave or burial ground.
- 6) Subject to the provision of any other law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority –
 - a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and
 - b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

HERITAGE RESOURCES MANAGEMENT

Section 38

- 1) Subject to the provisions of subsections 7), 8) and 9), any person who intends to undertake a development categorised as –
 - a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
 - b) the construction of a bridge or similar structure exceeding 50 m in length;
 - c) any development or other activity which will change the character of a site –
 - i. exceeding 5 000 m² in extent; or
 - ii. involving three or more existing erven or subdivisions thereof; or
 - iii. involving three or more erven or subdivisions thereof which have been consolidated within the past five years; or
 - iv. the costs which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
 - d) the rezoning of a site exceeding 10 000 m² in extent; or
 - e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,
 must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.
- 2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection 1) –
 - a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or
 - b) notify the person concerned that this section does not apply.
- 3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection 2a) ...
- 4) The report must be considered timeously by the responsible heritage resources authority which must, after consultation with the person proposing the development decide –
 - a) whether or not the development may proceed;
 - b) any limitations or conditions to be applied to the development;
 - c) what general protections in terms of this Act apply, and what formal protections may be applied, to such heritage resources;
 - d) whether compensatory action is required in respect of any heritage resources damaged or destroyed as a result of the development; and
 - e) whether the appointment of specialists is required as a condition of approval of the proposal.

APPOINTMENT AND POWERS OF HERITAGE INSPECTORS

Section 50

- 7) Subject to the provision of any other law, a heritage inspector or any other person authorised by a heritage resources authority in writing, may at all reasonable times enter upon any land or premises for the purpose of inspecting any heritage resource protected in terms of the provisions of this Act, or any other property in respect of which the heritage resources authority is exercising its functions and powers in terms of this Act, and may take photographs, make measurements and sketches and use any other means of recording information necessary for the purposes of this Act.
- 8) A heritage inspector may at any time inspect work being done under a permit issued in terms of this Act and may for that purpose at all reasonable times enter any place protected in terms of this Act.
- 9) Where a heritage inspector has reasonable grounds to suspect that an offence in terms of this Act has been, is being, or is about to be committed, the heritage inspector may with such assistance as he or she thinks necessary –
 - a) enter and search any place, premises, vehicle, vessel or craft, and for that purpose stop and detain any vehicle, vessel or craft, in or on which the heritage inspector believes, on reasonable grounds, there is evidence related to that offence;
 - b) confiscate and detain any heritage resource or evidence concerned with the commission of the offence pending any further order from the responsible heritage resources authority; and
 - c) take such action as is reasonably necessary to prevent the commission of an offence in terms of this Act.
- 10) A heritage inspector may, if there is reason to believe that any work is being done or any action is being taken in contravention of this Act or the conditions of a permit issued in terms of this Act, order the immediate cessation of such work or action pending any further order from the responsible heritage resources authority.