



Appendix C: Significance and Impact Rating System

1.1 EIA Methodology

In order to clarify the purpose and limitations of the impact assessment methodology, it is necessary to address the issue of subjectivity in the assessment of the significance of environmental impacts. Even though Digby Wells, and the majority of environmental impact assessment practitioners, propose a numerical methodology for impact assessment, one has to accept that the process of environmental significance determination is inherently subjective. The weight assigned to the each factor of a potential impact, and also the design of the rating process itself, is based on the values and perception of risk of members of the assessment team, as well as that of the I&AP's and authorities who provide input into the process. Whereas the determination of the spatial scale and the duration of impacts are to some extent amenable to scientific enquiry, the severity value assigned to impacts is highly dependent on the perceptions and values of all involved.

It is for this reason that it is crucial that all EIA's make reference to the environmental and socio-economic context of the proposed activity in order to reach an acceptable rating of the significance of impacts. Similarly, the perception of the probability of an impact occurring is dependent on perceptions, aversion to risk and availability of information.

It has to be stressed that the purpose of the EIA process is not to provide an incontrovertible rating of the significance of various aspects, but rather to provide a structured, traceable and defensible methodology of rating the relative significance of impacts in a specific context. The methodology employed for environmental impact assessment is divided into two distinct phases, namely, impact identification and impact assessment.

1.1.1 Impact identification

Impact identification is performed by use of an Input-Output model which serves to guide the assessor in assessing all the potential instances of ecological and socio-economic change, pollution and resource consumption that may be associated with the activities required during the construction, operational, closure and post-closure phases of the project.

Outputs may generally be described as any changes to the biophysical and socio-economic environments, both positive and negative in nature, and also include the product and waste produced by the activity. Negative impacts could include gases, effluents, dust, noise, vibration, other pollution and changes to the bio-physical environment such as damage to habitats or reduction in surface water quantity. Positive impacts may include the removal of invasive vegetation, construction of infrastructure, skills transfer or benefits to the socio-economic environment. During the determination of outputs, the effect of outputs on the various components of the environment (e.g. topography, water quality, etc.) is considered.

During consultation with I&APs perceived impacts were identified. These perceived impacts will become part of the impact assessment and significance rating in order to differentiate between probable impacts and perceived impacts.

1.1.2 Impact rating

The impact rating process is designed to provide a numerical rating of the various environmental impacts identified by use of the Input-Output model. As discussed above, it has to be stressed that the purpose of the EIA process is not to provide an incontrovertible rating of the significance of various aspects, but rather to provide a structured, traceable and defensible methodology of rating the relative significance of impacts in a specific context. This gives the project proponent a greater understanding of the impacts of his project and the issues which need to be addressed by mitigation and also give the regulators information on which to base their decisions.

The equations and calculations were deviated using Aucamp (2009).

The standard EIA significance rating process follows the established impact/risk assessment formula. However, this matrix has been adapted to reflect heritage resources' Site significance:

$$\text{Significance} = (\text{Consequence} \times \text{Probability}) + \text{Site significance}$$

Where *Consequence = Severity + Spatial Scale + Duration*

And *Probability = Likelihood of an impact occurring*

The impact matrix describing impacts on the cultural and heritage environment thus calculates the rating out of 154 instead of the standard 147, whereby Severity, Spatial Scale, Duration, Probability and Site significance are rated out of seven. Calculation of Site significance is explained below. Impacts are rated prior to mitigation and again after consideration of the mitigation measure proposed in the EMP. The significance of an impact is then determined and categorised into one of four categories, as indicated in **Table 1-1**. In accordance with Regulation 51 of the MPRDA and Section 38 of the NHRA, management actions will be assigned for all identified impacts.

Table 1-1: Significance threshold limits

Significance		
High	>114	
Medium-High	77 - 114	
Medium-Low	38 - 76	
Low	<38	

Table 1-2: Impact assessment parameter ratings

Rating	Severity		Spatial scale	Duration	Probability
	Environmental	Social, cultural and heritage			
7	Very significant impact on the environment. Irreparable damage to highly valued species, habitat or eco system. Persistent severe damage.	Irreparable damage to highly valued items of great cultural significance or complete breakdown of social order.	<u>International</u> The effect will occur across international borders	<u>Permanent:</u> No <u>Mitigation</u> No mitigation measures of natural process will reduce the impact after implementation.	<u>Certain/ Definite.</u> The impact will occur regardless of the implementation of any preventative or corrective actions.
6	Significant impact on highly valued species, habitat or ecosystem.	Irreparable damage to highly valued items of cultural significance or breakdown of social order.	<u>National</u> Will affect the entire country	<u>Permanent:</u> <u>Mitigation</u> Mitigation measures of natural process will reduce the impact.	<u>Almost certain/Highly probable</u> It is most likely that the impact will occur.
5	Very serious, long-term environmental impairment of ecosystem function that may take several years to rehabilitate	Very serious widespread social impacts. Irreparable damage to highly valued items	<u>Province/ Region</u> Will affect the entire province or region	<u>Project Life</u> The impact will cease after the operational life span of the project.	<u>Likely</u> The impact may occur.
4	Serious medium term environmental effects. Environmental damage can be reversed in less than a	On-going serious social issues. Significant damage to structures / items of cultural	<u>Municipal Area</u> Will affect the whole municipal area	<u>Long term</u> 6-15 years	<u>Probable</u> Has occurred here or elsewhere and could therefore occur.

Rating	Severity		Spatial scale	Duration	Probability
	Environmental	Social, cultural and heritage significance			
3	<p>year</p> <p>Moderate, short-term effects but not affecting ecosystem functions. Rehabilitation requires intervention of external specialists and can be done in less than a month.</p>	<p>On-going social issues. Damage to items of cultural significance.</p>	<p><u>Local</u> Local extending only as far as the development site area</p>	<p><u>Medium term</u> 1-5 years</p>	<p><u>Unlikely</u> Has not happened yet but could happen once in the lifetime of the project, therefore there is a possibility that the impact will occur.</p>
2	<p>Minor effects on biological or physical environment. Environmental damage can be rehabilitated internally with/ without help of external consultants.</p>	<p>Minor medium-term social impacts on local population. Mostly repairable. Cultural functions and processes not affected.</p>	<p><u>Limited</u> Limited to the site and its immediate surroundings</p>	<p><u>Short term</u> Less than 1 year</p>	<p><u>Rare/ improbable</u> Conceivable, but only in extreme circumstances and/ or has not happened during lifetime of the project but has happened elsewhere. The possibility of the impact materialising is very low as a result of design, historic experience or implementation of adequate mitigation measures</p>
1	<p>Limited damage to minimal area of low significance, (e.g. ad hoc spills within plant area). Will have no impact on the environment.</p>	<p>Low-level repairable damage to commonplace structures.</p>	<p><u>Very limited</u> Limited to specific isolated parts of the site.</p>	<p><u>Immediate</u> Less than 1 month</p>	<p><u>Highly unlikely/None</u> Expected never to happen.</p>

1.2 AIA and HIA methodology

Unlike the natural environment, the cultural environment or landscape is often localised. The impact is therefore limited to identified sites or heritage resources. However, it must be noted that heritage resources are not independent of the natural environment, nor can they be viewed in isolation of other heritage resources that may occur in the immediate environment or in the general landscape. It is thus necessary to determine the context of any identified heritage resource in relation to:

- Known heritage resources; and
- The potential of the identified resource to provide additional or new information regarding past environments and history.

In this regard, SAHRA has published minimum standards that must be complied with when undertaking Heritage and Archaeological Impact Assessments. The specialist is also required to rate identified heritage resources according to these minimum standards, which are based on criteria described in the NHRA. Although the NHRA is specifically South African legislation, it is based on international standards such as the Burra Charter, UNESCO guidelines and various other international heritage and cultural organisations that define significance of cultural heritage resources. The site significance rating is thus determined using certain parameters described in international standards and South African legislation, as well as the professional minimum standards of ASAPA and SAHRA.

1.2.1 Site significance identification

Site significance identification is determined by rating a heritage resource mainly in terms of its potential to supply or add information to an existing body of research. The heritage specialist is thus guided in assessing attributes that may influence a heritage resource's significance. The attributes generally describe qualities that can be attached to a heritage resource based on prior knowledge (obtained through baseline studies and literature reviews) of potential heritage resources that may occur in any given area. There are no impacts associated with determining site significance. In contrast to the EIA model, these attributes are unaffected by any environmental impact.

A total of thirteen attributes are used, divided into nine 'aspects' and four 'parameters'. The nine aspects provide a rating for the 'Context' parameter. The four parameters – Context, Integrity, Extent and Uniqueness – provide a site significance rating out of seven. All ratings follow a seven tier system in an attempt to remain consistent with the EIA methodology and ratings used where one is 1 lowest and 7 highest. Descriptions of these aspects and parameters are provided in Table 1-1.

Appropriate mitigation recommendations are made based on the Site significance rating and the potential impacts identified in the EIA impact rating. However, it must be noted that mitigation measures are based primarily on the significance of resources and not necessarily the potential environmental impacts on those resources. For instance, where environmental impacts rated high on heritage resources rated low, may need no mitigation. Conversely, low environmental impacts on a high rated significant may have major mitigation implications or no-go options.

1.2.2 Site significance rating

These criteria have been adapted and incorporated into a Site significance matrix where significance is determined based on nine aspects and four parameters. The aim is that any identified heritage resource can be objectively measured against the aspects and parameters included in the matrix. A site's significance should ideally reflect an unbiased, objective and quantified rating, based on sound research and knowledge of heritage resources in any given area. The rating is the sum of four parameters:

$$\text{Site significance} = (\text{sum of Context} + \text{Integrity} + \text{Extent} + \text{Uniqueness}) \div 4$$

Where $\text{Context} = (\text{sum of aspects } a \text{ to } i) \div 9$

Each aspect and parameter is calculated out of seven to remain consistent with the standard EIA matrix used. The sum of the aspects making up Context is 63. The total is reduced to seven ($63 \div 9 = 7$) and added to Integrity, Extent and Uniqueness.

The Site significance matrix calculates the rating out of 28 and is reduced to a rating out of seven ($28 \div 4 = 7$). This rating is then added to the EIA matrix to reflect a site's significance in terms of heritage value. Therefore, high environmental impacts on a low significant site may be considered low; conversely, low environmental impacts on a high significant site may be high.

Table 1-1: Description of attributes determining significance of heritage resources.

ASPECTS DETERMINING CONTEXT									
Value	a. Importance to community or pattern in country's history	b. Possession of uncommon, rare or endangered natural or cultural heritage aspects	c. Information potential	d. Importance in demonstrating principle characteristics	e. Importance in aesthetic characteristics	f. Degree of technical / creative skill at a particular period	g. Association to community or cultural group for social, cultural or spiritual reasons	h. Association with life or work of a person, group or organisation of importance in the history of the country	i. Site of significance relating to history of slavery
7	Extremely important to the country's community or to the country's history on a national level.	Endemic / exclusive to very specific localities / other occurrences unknown	Extremely high information potential: national and international	Exceptional example, complete, unique	Exceptional example, complete, unique	Uncommon / unique skill for period	Exceptional high socio-cultural significance in terms of identity, custom, religion, ancestry, etc.	Exceptional high association	Exceptionally important site, great significance on national and international slavery
6	Extremely important to the country's community or to the country's history on a provincial level.	Endemic / exclusive to specific localities / other occurrence infrequent	Extremely high information potential: national	Exceptional example, mostly complete, rare	Exceptional example, mostly complete, rare	Exception degree of skill for period	Very high socio-cultural significance in terms of identity, custom, religion, ancestry, etc.	Very high association	Very important site, high significance on national and international slavery
5	Extremely important to the community or to the history on a regional level.	Localised to only few specific localities	High information potential: national	Exceptional example, incomplete, rare	Exceptional example, incomplete, rare	High degree of skill for period	High socio-cultural significance in terms of identity, custom, religion, ancestry, etc.	High association	Important site, high significance on national slavery
4	Very important to the community or to the history on a district level.	Rarely occurs at this locality	High information potential	Exceptional example, common	Exceptional example, common	Above average degree of skill for period	Above average socio-cultural significance in terms of identity, custom, religion, ancestry, etc.	Above average association	Important site, areas may have significance on national slavery
3	Important to the community or to the history on a municipal level.	Occurs at this locality, but occurrence unusual	Average information potential	Good example, incomplete, common	Good example, incomplete, common	Average degree of skill for period	Average socio-cultural significance in terms of identity, custom, religion, ancestry, etc.	Average association	Site has a high likelihood of being associated with slavery
2	Important to the community or to the history on a local level.	Occurs at this locality, but not widespread	Low information potential	Common example, incomplete	Common example, incomplete	Limited degree of skill for period	Low socio-cultural significance in terms of identity, custom, religion, ancestry, etc.	Lesser association	Possible slavery site, but unlikely
1	Little importance to the community or to the history on any level.	Occurs widespread	No information potential	Damaged, destroyed, altered to extent where example is useless	Damaged, destroyed, altered to extent where example is useless	Common skill for period	No socio-cultural significance in terms of identity, custom, religion, ancestry, etc.	No association	No significance

Value	A. CONTEXT	B. INTEGRITY	C. EXTENT	D. UNIQUENESS	SIGNIFICANCE RATING	DESCRIPTION	SAHRA RATING (RSA only)	RECOMMENDED MITIGATION
7	Exceptional context and information potential.	Resource more than 80% intact, primary spatial context	Extensive resource; high site complexity, deep and various deposits, 5 or more features present, large surface area >1 ha	Unique in present environment / landscape; no other examples known.	7	High	Grade 1	Conservation: National Site Nomination
6	High context and information potential	Resource more than 60% intact, primary spatial context	Extensive resource; potential high site complexity, deep and various deposits, 3-5 features present, large surface area >0.5 ha	Unique in present environment / landscape; few examples known elsewhere.	6	High	Grade 2	Conservation: Provincial Site Nomination
5	Medium context and information potential.	Resource more than 50% intact, primary spatial context.	Extensive resource; potential complex site, shallow deposit present, at least 1 or more features present, large surface area >0.5 ha	Good example of uncommon resource in present environment / landscape; limited distribution / occurrence in other places.	5	High	Grade 3A	Conservation: Regional Site Nomination
4	Good context and information potential.	Resource ±50% intact, primary spatial context	Good resource: site complexity exists, shallow deposit, possible features present, large surface area <0.5 ha	Good example of resource in present environment / landscape; occurs fairly commonly in other places.	4	Medium	Grade 3B	Mitigation and partly conserved
3	Average context and information potential	Resource less than 50% intact, primary spatial context.	Average resource: average site complexity, deposit present, possible features present, large surface area >50 m ²	Good examples of common resource in present environment / landscape; also occurs commonly in other places.	3	Average	Grade 4A	Mitigation before destruction
2	Low but significant context and information potential.	Resource partly intact, mostly secondary spatial context	Little to no site complexity, little to no deposit present, no features present, surface area <50 m ²	Fair example of common resource in present environment / landscape; also occurs commonly in other places.	2	Average	Grade 4B	Record before destruction
1	No significant context or information potential.	Resource completely altered, damaged or destroyed OR in tertiary spatial context.	Single, isolated find; find spot	Very common or poor example of resource occurring throughout different environments; many similar and better examples exist elsewhere.	1	Low	Grade C	Destruction / none



Appendix D: Extract from Pistorius (2006)

5.1.1 The Choma village complex

The Choma village was composed of a main village located in the project area and smaller outlier sites spread out outside the project area. This cultural historical landscape was mainly concentrated to the east of a large hill in the central part of Everest North project area. These remains are scattered across a vast area and primarily consist of homesteads, enclosures for domestic stock, graveyards and features such as stone walls and stone piles which extend to the south, outside the project. One of the graveyards in the project area was established in an enclosure and at least two other possible graves of women occur within the confines of two homesteads (*malapa*) in the project area. At least two of the (four) graveyards outside the project area have affinities with the royal lineage of the Choma people (GY08 and GY11) (Figures 3 & 4; Tables 1-5).

The remains of the Choma village occurring inside and outside the Everest North project area comprise a single cultural historical landscape.

The Choma village's spatial composition consisting of scattered homesteads, enclosures for domestic stock, stone walls and stone piles are without any clear lay-out plan. The spatial and social composition of this settlement (*motse*), however, will become apparent when the various structures and features have been mapped during a Phase II survey.

It is clear that the village was composed of a number of homesteads which consisted of rectangular stone walled structures (*malapa*) in which square houses and circular mud dwellings (huts) were built. Most of these dwellings have disintegrated and their remains are limited to low rising heaps of clay.

The homesteads are associated with long free standing walls and stone piles. Enclosures, some with circular ground plans and others with irregular circumferences also occur. It seems as if these structures date from the 1850's as circular motives are making way for square ground plans. This architectural change occurred after contact with the first colonials occurred in the middle of the 19th century.

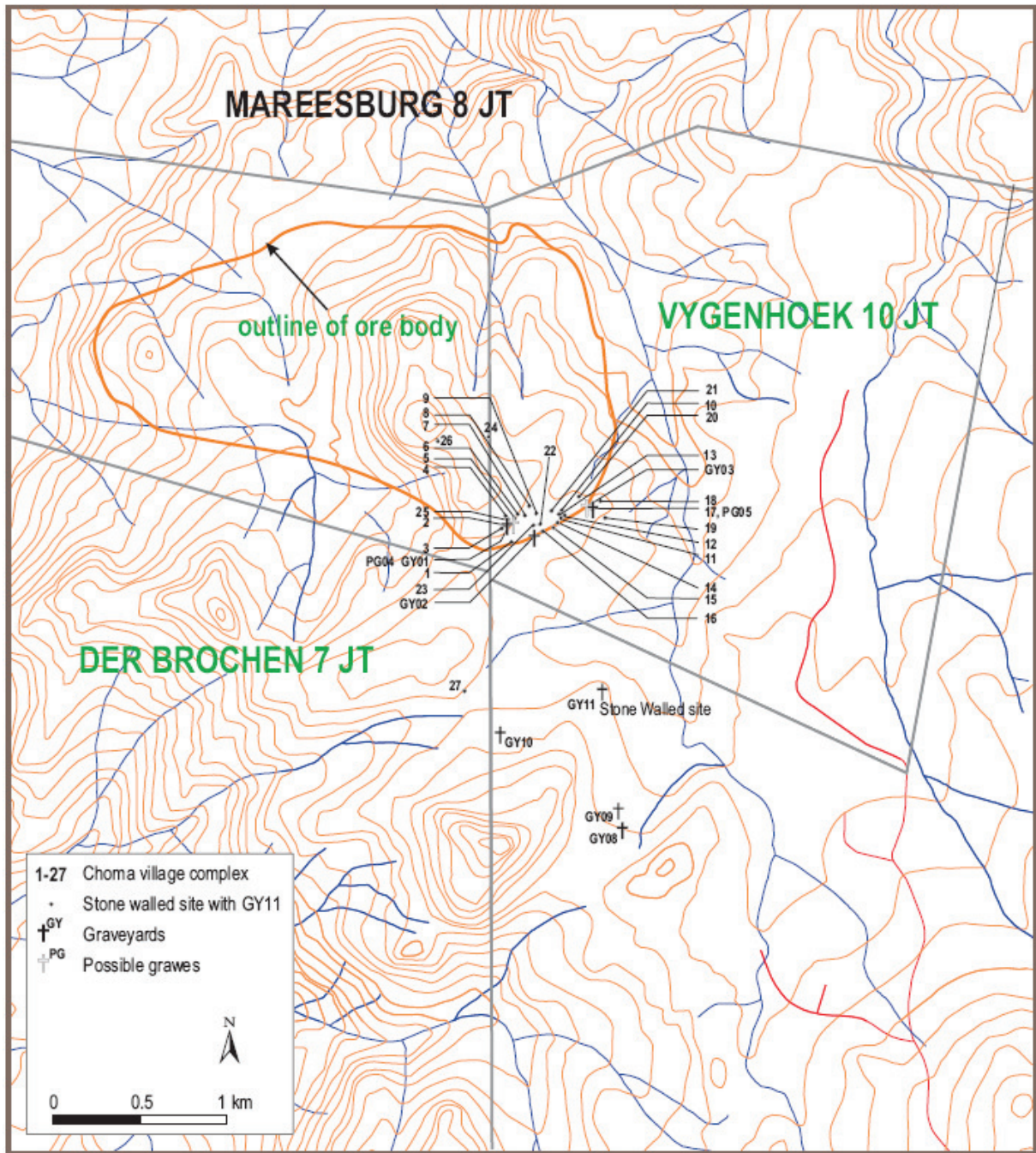


Figure 4 – The remains associated with the Choma village complex along the lower eastern foot slope of a hill in the Everest North project area. These remains constitute part of a cultural historical landscape that extends outside the project area.



Figures 5 & 6- A stone walled enclosure used to keep domestic stock (above) and a homestead which housed a family (below) inside the Choma village complex.





Figures 7 & 8- A stone wall (above) and homestead (below) in the Choma village complex.



NO ON MAP	PHENOMENA IN CHOMA VILLAGE	COORDINATES	REMARKS
01	Enclosure with opening, diameter 11m	25° 02.988'S 30° 08.988'E	Possible cattle kraal?
02	Terraces against the southern foot of mountain with square enclosure (diameter 4x4m) linked with circular enclosure (diameter 3m)	25° 02.938'S 30° 08.970'E	Residential site against the southern slope of the kopje
03	Circular incomplete enclosure, 5m diameter with smaller enclosure, 1m diameter inside	25° 02.944'S 30° 08.960'E	
04	Square enclosure with entrance located on terrace above GY01	25° 02.910'S 30° 08.971'E	A homestead on a terrace. The deceased may have lived in this homestead
05	Prominent square enclosure with high (1,1m) walls. Relative pristine. Linked with two small circular enclosures with openings, diameters respectively, 3,5m and 3,0m	25° 02.918'S 30° 08.998'E	Possible cattle kraal?
06	Centre of large square enclosure. Not all the sides are linked	25° 02.904'S 30° 09.008'E	
07	Corner post of large square enclosure (06). Heap of stones. Note upright dolerite boulder	25° 02.906'S 30° 09.030'E	
08	Circular to irregular enclosure, 20mx15m	25° 02.878'S 30° 09.042'E	Possible cattle kraal?
09	Large upright dolerite boulder with heap of stones	25° 02.901'S 30° 09.065'E	
10	Long stone walls with bends but no clear ground plan. Run up a ridge and along ridge. Associated with 11, 12 and 13	25° 02.895'S 30° 09.141'E	
11	Heap of stones	25° 02.912'S 30° 09.142'E	Close to long walls
12	Enclosure with irregular ground plan	25° 02.910'S 30° 09.150'E	Close to long walls
13	Circular enclosure linked to long wall	25° 02.905'S 30° 09.135'E	
14	Piece of wall along ridge	25° 02.920'S 30° 09.130'E	
15	Heap of stones in wall (14)	25° 02.940'S 30° 09.115'E	
16	Heap of stones (near GY02)	25° 02.957'S 30° 09.084'E	
17	Terrace with prominent wall. Possible G02 located on terrace	25° 02.885'S 30° 09.237'E	Homestead on terrace, grave and prominent wall close to GY03
18	Pristine square enclosure with large lower grinding stone	25° 02.862'S 30° 09.260'E	Associated with 17
19	L shaped wall and vaguely recognizable terrace	25° 02.916'S 30° 09.274'E	Homestead
20	Large homestead with extensive soil walled dwellings that have disintegrated	25° 02.850'S 30° 09.195'E	Homesteads of several families, cattle kraal and long wall (21)
21	Long wall associated with No 20	25° 02.892'S 30° 09.110'E	
22	Circular enclosure, diameter 5m	25° 02.934'S 30° 09.076'E	
23	Square enclosure, 2x4m	25° 02.938'S 30° 09.059'E	
24	Vaguely recognizable terrace walls and possible hut circles against the slope of a kopje	25° 02.669'S 30° 09.920'E	Small site against kopje
25	Vaguely recognizable terrace walls and possible hut circles against the slope of a kopje	25° 02.920'S 30° 08.980'E	Small site against kopje
26	Rudimentary (one line) enclosures (2.5m diam) against steep slope of dome shaped kopje	25° 02.678S 30° 08.762E	Small site against slope of dome
27	Rudimentary elliptical shaped enclosure with small (terrace) platform	25° 02.864S 30° 08.8645E	

Table 1- Coordinates for homesteads, enclosures, stone walls and other features that are associated with the Choma village complex inside the Everest North project area (above).

5.1.2 Graves and graveyards in the project area

The following graves and graveyards occur in the Everest North project area, namely:

- Three graveyards occur within the confines of the Choma village complex.
- Two square stone platforms occur inside homesteads in the Choma village and may cover the graves of women.
- A single formal grave and an unmarked grave occur a considerable distance to the east of the Choma village complex.

These graves and graveyards are now briefly discussed:

5.1.2.1 Graveyards in the Choma village

5.1.2.1.1 Graveyard 01 (GY01)

This graveyard incorporates three graves which are located higher up the lower slope of the mountain. The three graves are located between large boulders and are edged with stones. Single upright stones serve as head stones for the graves.

5.1.2.1.2 Graveyard 02 (GY02)

This graveyard consists of seven graves within the confines of an enclosure. A lower grinding stone (*lwala*) and square stone platform where sacrifices are conducted are located next to the enclosure's wall.

The graves are those of children, four perhaps younger than six years and three perhaps teenagers. The graves are edged with cement and fitted with cement headstones. The following inscriptions occur on six of the head stones:

- Malebogo Tšie
- Moršwabi Sam Tšai, Orobetša kadi 10-5-1935
- Malethunya Bebo TiLetšia
- Elia Tšsia, Orobetše kadi 26-9-1958
- Kgagudi Sarah Tšia, Orobetša kadi 20-2-1942
- Lukas Tšie, Otlogikeka 7-9-1978



Figures 9 & 10- An enclosure with seven graves (above). Three graves (foreground) next to a homestead on the lower foot of a hill in the Choma village complex (below).



5.1.2.1.3 Graveyard 03 (GY03)

This graveyard contains at least thirteen graves next to a small outcrop in the Choma village. The majority of graves are edged with stones. Two of the graves are fitted with cement head stones with the following inscriptions:

- 'Mrs Makgaleh, CHO Mapelego, 2L-9-1874, Died 18-9-1947'
- 'Silas Choma, Orele Gwe Kadi, 26-7-32, Otigile kadi, 3-?-61'

5.1.2.2 Possible graves in homesteads in the Choma village

Two square stone platforms approximately 1,0m high inside the confines of two homesteads may be the graves of women, namely:



Figure 11- A possible grave in one of the homesteads in the Choma village complex. This platform may cover the remains of a woman who was buried within the confines of her home (above).

5.1.2.2.1 Possible Grave 04 (PG04)

This possible grave is located on a terrace on the lower foot slope of the mountain which borders the Choma village in the west. The possible grave is marked by a square platform which measures roughly 1, 0mX1, 0m and is approximately 1,1m high.

5.1.2.2.2 Possible Grave 05 (PG05)

This possible grave also comprises of a square stone platform with more or less the same dimensions as the possible grave referred to above (PG04). This platform may also cover the remains of a woman buried within the confines of her homestead.



Figure 12- A second possible grave consisting of a square stone platform erected in a homestead (above).

These remains are clearly part of the Choma village complex which represents a single cultural historical landscape that is scattered over a large part of the farm Vygenhoek 10JT.

The Choma village complex dates from the latter stages of the Late Iron Age (early Historical Period) and was occupied, probably uninterrupted, from the late 19th century into the 20th century.



Figure 14- An outlier Choma village consisting of stone walls. This site also holds the graves of two members of the Choma clan (above).

5.2.2 Graves and graveyards outside the project area

The following graves and graveyards were observed outside the proposed new Everest North project area, namely:

5.1.2.3.2 Grave 07 (G07)

This grave is located near a historical house which however has been modernised. It is also located near G06. This grave is not visible on the surface while the fence which once demarcated the grave was removed. GR06 is only associated with a single stone on its surface.

According to spokesperson Josiah Mangesefano the grave is that of a child.

5.2 Heritage resources outside the project area

Heritage resources outside the Everest North project area consist of the remaining part of the Choma village complex as well as two graves that were not part of this village complex.

Although these remains need not to be affected by the proposed new Everest North development the majority of these remains have been geo-referenced and mapped (Figures 3-4; Tables 1-5).

These remains are now briefly discussed and illuminated with photographs.

5.2.1 Outlier Choma villages

At least two stone walled complex which may have been an outlier settlements of the Choma village complex occur outside the project area. A few isolated scattered stone walls that were probably part of the village were also observed. These remains were not geo-referenced.

The stone walled sites are not associated with extensive archaeological remains such as pottery or with elaborate deposits such as middens. One of the stone walled sites also contains two graves within the confines of a homestead.



Appendix E: Letter of Recommendation for Exemption

Phillip Hine
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Cape Town

LETTER OF RECOMMENDATION FOR EXEMPTION: PALAEOLOGICAL IMPACT ASSESSMENT FOR THE BOKONI KLIPFONTEIN PROJECT

Dear Mr Hine,

On behalf of our client, Bokoni Platinum Mine (Pty) Limited, please find herewith a Letter of Recommendation for Exemption from a Palaeontological Impact Assessment. The exemption requested is in regard to a Heritage Impact Assessment (HIA) that is required as part of the Environmental Impact Assessment (EIA) required in terms Section 24 of the National Environmental Management Act, 1998 (107 of 1998) and Section 38(8) of the National Heritage Resources Act, 1999(25 of 1999).

Please refer to the attached HIA details regarding project description, findings and results and recommendations. The HIA will be integrated into the Draft EIA Report that will be submitted for public review as required by the NEMA process. In brief, we request the Letter of Recommendation for Exemption based on the following:

- The proposed Everest North Mining Project area is situated on the Dwars River Sub-suite of the Rustenburg Layered Suite;
- These formations include platinum group metals and do not have palaeontological potential;
- In general, the geological formations found in the project area are of low overall palaeontological sensitivity as no records of fossil discoveries in the geological formations of the project area have been recorded.

We look forward to receiving your timeous comments as required under Section 38 of the NHRA.

Regards,



Shahzaadee Karodia

Archaeology and Palaeontology Consultant: CRM Unit

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*Non-Executive



Appendix F: Legislative Requirements

1 SECTION 38 OF THE NHRA

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 divisions thereof which have been consolidated within the past five years; or
 - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning 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 (2)(a): Provided that the following must be included:

- (a) The identification and mapping of all heritage resources in the area affected;
- (b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7;
- (c) an assessment of the impact of the development on such heritage resources;
- (d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
- (e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;

(f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and

(g) plans for mitigation of any adverse effects during and after the completion of the proposed development.

(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.

(5) A provincial heritage resources authority shall not make any decision under subsection (4) with respect to any development which impacts on a heritage resource protected at national level unless it has consulted SAHRA.

(6) The applicant may appeal against the decision of the provincial heritage resources authority to the MEC, who-

(a) must consider the views of both parties; and

(b) may at his or her discretion-

(i) appoint a committee to undertake an independent review of the impact assessment report and the decision of the responsible heritage authority; and

(ii) consult SAHRA; and

(c) must uphold, amend or overturn such decision.

(7) The provisions of this section do not apply to a development described in subsection (1) affecting any heritage resource formally protected by SAHRA unless the authority concerned decides otherwise.

(8) The provisions of this section do not apply to a development as described in subsection (1) if an evaluation of the impact of such development on heritage resources is required in terms of the Environment Conservation Act, 1989 (Act No. 73 of 1989), or the integrated environmental management guidelines issued by the Department of Environment Affairs and Tourism, or the Minerals Act, 1991 (Act No. 50 of 1991), or any other legislation: Provided that the consenting authority must ensure that the evaluation fulfils the requirements of the relevant heritage resources authority in terms of subsection (3), and any comments and recommendations of the relevant heritage resources authority with regard to such development have been taken into account prior to the granting of the consent.

(9) The provincial heritage resources authority, with the approval of the MEC, may, by notice in the Provincial Gazette, exempt from the requirements of this section any place specified in the notice.

(10) Any person who has complied with the decision of a provincial heritage resources authority in subsection (4) or of the MEC in terms of subsection (6) or other requirements

referred to in subsection (8), must be exempted from compliance with all other protections in terms of this Part, but any existing heritage agreements made in terms of section 42 must continue to apply.

Table 1-1: Listed Activities triggering a HIA

Phase		Activity
Construction	1	Site Clearing: Removal of topsoil and vegetation
	2	Construction of any surface infrastructure e.g. haul roads, pipes, storm water diversion berms (including transportation of materials & stockpiling)
	3	Drilling, blasting and development of initial boxcut for mining (incl. stockpiling from initial cuts).
	4	Temporary storage of hazardous product (fuel, explosives) and waste or sewage.

2 SECTION 34 OF THE NHRA

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.

(2) Within three months of the refusal of the provincial heritage resources authority to issue a permit, consideration must be given to the protection of the place concerned in terms of one of the formal designations provided for in Part I of this Chapter.

(3) The provincial heritage resources authority may at its discretion, by notice in the Provincial Gazette, make an exemption from the requirements of subsection (1) within a defined geographical area, or for certain defined categories of site within a defined geographical area, provided that it is satisfied that heritage resources falling into the defined area or category have been identified and are adequately provided

(4) Should the provincial heritage resources authority believe it to be necessary it may, following a three-month notice period published in the Provincial Gazette, withdraw or amend a notice under subsection (3). for in terms of the provisions of Part 1 of this Chapter.

3 SECTION 35 OF THE NHRA

35. (1) Subject to the provisions of section 8, the protection of archaeological and palaeontological sites and material and meteorites is the responsibility of a provincial heritage resources authority: Provided that the protection of any wreck in the territorial waters and the maritime cultural zone shall be the responsibility of SAHRA.

(2) Subject to the provisions of subsection (8)(a), all archaeological objects, palaeontological material and meteorites are the property of the State. The responsible heritage authority must, on behalf of the State, at its discretion ensure that such objects are lodged with a museum or other public institution that has a collection policy acceptable to the heritage resources authority and may in so doing establish such terms and conditions as it sees fit for the conservation of such objects.

(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 assist 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 a 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.

(7) (a) Within a period of two years from the commencement of this Act, any person in possession of any archaeological or palaeontological material or object or any meteorite which was acquired other than in terms of a permit issued in terms of this Act, equivalent provincial legislation or the National Monuments Act, 1969 (Act No. 28 of 1969), must lodge with the responsible heritage resources authority lists of such objects and other information prescribed by that authority. Any such object which is not listed within the prescribed period shall be deemed to have been recovered after the date on which this Act came into effect.

(b) Paragraph (a) does not apply to any public museum or university.

(c) The responsible authority may at its discretion, by notice in the Gazette or the Provincial Gazette, as the case may be, exempt any institution from the requirements of paragraph (a) subject to such conditions as may be specified in the notice, and may by similar notice withdraw or amend such exemption.

(8) An object or collection listed under subsection (7)-

(a) remains in the ownership of the possessor for the duration of his or her lifetime, and SAHRA must be notified who the successor is; and

(b) must be regularly monitored in accordance with regulations by the responsible heritage authority.

4 SECTION 36 OF THE NHRA

36. (1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

(2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.

(3) (a) 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 or damage of any burial ground or grave referred to in subsection (3)(a) 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 (3)(b) 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.

(7) (a) SAHRA must, over a period of five years from the commencement of this Act, submit to the Minister for his or her approval lists of graves and burial grounds of persons connected with the liberation struggle and who died in exile or as a result of the action of State security forces or agents provocateur and which, after a process of public consultation, it believes should be included among those protected under this section.

(b) The Minister must publish such lists as he or she approves in the Gazette.

(8) Subject to section 56(2), SAHRA has the power, with respect to the graves of victims of conflict outside the Republic, to perform any function of a provincial heritage resources authority in terms of this section.

(9) SAHRA must assist other State Departments in identifying graves in a foreign country of victims of conflict connected with the liberation struggle and, following negotiations with the next of kin, or relevant authorities, it may re-inter the remains of that person in a prominent place in the capital of the Republic.

5 NEMA

The National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) stipulates under section 2(4)(a) that sustainable development requires the consideration of all relevant factors including (iii) the disturbance of landscapes and sites that constitute the nation's cultural heritage must be avoided, or where it cannot be altogether avoided, is minimised and remedied.

In addition to the NEMA, the National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) (NEMPA) may also be applicable. This act applies to world heritage sites, declared as such in terms of the World Heritage Convention Act 1999 (Act No. 49 of 1999).

6 MPRDA

The Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) (MPRDA) stipulates under section 5(4) that no person may prospect for or remove, mine, conduct technical co-operation operations, reconnaissance operations, explore for and produce any mineral or petroleum or commence with any work incidental thereto on any area without (a) an approved environmental management programme or approved environmental management plan, as the case may be.



Appendix G: Site Table

SITE ID	SYMB	SOURCE	LOCATION	TYPE	CULTURAL AFFINITIES	DESCRIPTION
I015	Iron Age	Pistorius (2006)/001	S25.049800	Kraal	Iron Age	Enclosure with opening, diameter 11m
H016	Historical	Pistorius (2006)/002	S25.048967	Homestead	Historical	Terraces against the southern foot of mountain with square enclosure (diameter 4x4m) linked with circular enclosure (diameter 3m)
I016	Iron Age	Pistorius (2006)/003	S25.049067	Stone wall	Iron Age	Circular incomplete enclosure, 5m diameter with smaller enclosure, 1m diameter inside
H017	Historical	Pistorius (2006)/004	S25.048500	Stone wall	Historical	Square enclosure with entrance located on terrace above GY01
H018	Historical	Pistorius (2006)/005	S25.048633	Stone wall	Historical	Prominent square enclosure with high (1.1m) walls. Relative pristine. Linked with two small circular enclosures with openings, diameters respectively, 3.5m and 3.0m
H019	Historical	Pistorius (2006)/006	S25.048400	Stone wall	Historical	Centre of large square enclosure. Not all the sides are linked
H020	Historical	Pistorius (2006)/007	S25.048433	Monolith	Historical	Corner post of large square enclosure (06). Heap of stones. Note upright dolerite boulder
H021	Historical	Pistorius (2006)/008	S25.047967	Stone wall	Historical	Circular to irregular enclosure, 20mx15m
I017	Iron Age	Pistorius (2006)/009	S25.048350	Cairn	Iron Age	Large upright dolerite boulder with heap of stones
I018	Iron Age	Pistorius (2006)/010	S25.048250	Stone wall	Iron Age	Long stone walls with bends but no clear ground plan. Run up a ridge and along ridge. Associated with 11, 12 and 13
F001	Feature	Pistorius (2006)/011	S25.048533	Cairn	Unknown	Heap of stones
I019	Iron Age	Pistorius (2006)/012	S25.048500	Stone wall	Iron Age	Enclosure with irregular ground plan
I020	Iron Age	Pistorius (2006)/013	S25.048416	Stone wall	Iron Age	Circular enclosure linked to long wall
I021	Iron Age	Pistorius (2006)/014	S25.048666	Stone wall	Iron Age	Piece of wall along ridge
F002	Feature	Pistorius (2006)/015	S25.049000	Cairn	Unknown	Heap of stones in wall (14)
F003	Feature	Pistorius (2006)/016	S25.049283	Cairn	Unknown	Heap of stones (near GY02)

I022	Iron Age	Pistorius (2006)/017	S25-048083	E30.153950	Terrace	Iron Age	Terrace with prominent wall. Possible G02 located on terrace
I023	Iron Age	Pistorius (2006)/018	S25-047700	E30.154333	Stone wall	Iron Age	Pristine square enclosure with large lower grinding stone
I024	Iron Age	Pistorius (2006)/019	S25-048600	E30.154566	Terrace	Iron Age	L shaped wall and vaguely recognizable terrace
I025	Iron Age	Pistorius (2006)/020	S25-047500	E30.153250	Homestead	Iron Age	Large homestead with extensive soil walled dwellings that have disintegrated
I026	Iron Age	Pistorius (2006)/021	S25-048200	E30.151833	Stone wall	Iron Age	Long wall associated with No 20
I027	Iron Age	Pistorius (2006)/022	S25-048900	E30.151266	Kraal	Iron Age	Circular enclosure, diameter 5m
H022	Historical	Pistorius (2006)/023	S25-048966	E30.150983	Stone wall	Historical	Square enclosure, 2x4m
I028	Iron Age	Pistorius (2006)/024	S25-044483	E30.165333	Terrace	Iron Age	Vaguely recognizable terrace walls and possible hut circles against the slope of a kopje
I029	Iron Age	Pistorius (2006)/025	S25-048667	E30.149667	Terrace	Iron Age	Vaguely recognizable terrace walls and possible hut circles against the slope of a kopje
I030	Iron Age	Pistorius (2006)/026	S25-044633	E30.146033	Kraal	Iron Age	Rudimentary (one line) enclosures (2.5m diameter) against steep slope of dome shaped kopje
I031	Iron Age	Pistorius (2006)/027	S25-047733	E30.147733	Terrace	Iron Age	Rudimentary elliptical shaped enclosure with small (terrace) platform
C003	Burial Site	Pistorius (2006)/GY01	S25-048400	E30.166167	Grave	Historical	Choma Village Graves
C004	Burial Site	Pistorius (2006)/GY02	S25-049600	E30.150950	Grave	Historical	Choma Village Graves
C005	Burial Site	Pistorius (2006)/GY03	S25-048116	E30.153633	Grave	Historical	Choma Village Graves
C006	Burial Site	Pistorius (2006)/PG04	S25-048900	E30.149683	Grave	Historical	Possible Choma Village Graves
C007	Burial Site	Pistorius (2006)/PG05	S25-048083	E30.153950	Grave	Historical	Possible Choma Village Graves
C008	Burial Site	Pistorius (2006)/GY06	S25-065316	E30.165816	Grave	Historical	Graves

C009	Burial Site	Pistorius (2006)/GY07	S25.065733	E30.165983	Grave	Historical	Graves
C010	Burial Site	Pistorius (2006)/GY08	S25.064516	E30.155450	Grave	Historical	Graves
C011	Burial Site	Pistorius (2006)/GY09	S25.063767	E30.155267	Grave	Historical	Graves
C012	Burial Site	Pistorius (2006)/GY10	S25.059667	E30.149216	Grave	Historical	Graves
C013	Burial Site	Pistorius (2006)/GY11 (In stone walled site)	S25.057667	E30.154667	Grave	Historical	Graves in Stone Wall Sites
I032	Iron Age	Huffman (2002)/001	S25.012778	E30.149389	Stone wall	Iron Age	Low Lapa Walls, Pedi Pottery
I033	Iron Age	Huffman (2002)/002	S25.006639	E30.147194	Surface scatter	Iron Age	Iron Age Pottery and Iron Slag
C014	Burial Site	Huffman (2002)/003	S25.017222	E30.150111	Cemetery	Modern	Contemporary Graveyard +- 1978
H023	Historical	Huffman (2002)/004	S25.016722	E30.146722	Homestead	Historical	Historic Homesteads
C015	Burial Site	Huffman (2002)/005	S25.022167	E30.112222	Cemetery	Historical	Graveyard, 5 graves
H024	Historical	Huffman (2002)/006	S25.020972	E30.112361	Homestead	Historical	Historic Homesteads Pedi
H025	Historical	Huffman (2002)/007	S20.020472	E30.111278	Homestead	Historical	Historic homestead
I034	Iron Age	Huffman (2002)/008	S25.019638	E30.111916	Kraal	Iron Age	Kraal
H026	Historical	Huffman (2002)/009	S25.017778	E30.112611	Homestead	Historical	Historic Homesteads Pedi
H027	Historical	Huffman (2002)/010	S25.016583	E30.113056	Homestead	Historical	Historic Homesteads Pedi
H028	Historical	Huffman (2002)/011	S25.111972	E30.014944	Homestead	Historical	Historic Homesteads Pedi
H029	Historical	Huffman (2002)/012	S25.112638	E30.012083	Homestead	Historical	Historic Homesteads Pedi

I035	Iron Age	Huffman (2002)/013	S25.016111	E30.113083	Surface scatter	Iron Age	Burnt Daga
H030	Historical	Huffman (2002)/014	S25.007167	E30.107500	Homestead	Historical	Homestead
H031	Historical	Huffman (2002)/015	S25.007222	E30.108750	Homestead	Historical	Homestead
I036	Iron Age	Huffman (2002)/016	S25.002861	E30.112778	Surface scatter	Iron Age	Eiland Iron Age
I037	Iron Age	Huffman (2002)/017	S25.001667	E30.113889	Surface scatter	Iron Age	Daga
H032	Historical	Huffman (2002)/018	S25.037000	E30.115000	Homestead	Historical	Historical Homestead
H033	Historical	Huffman (2002)/019	S25.041486	E30.116583	Homestead	Historical	Historical Homestead
H034	Historical	Huffman (2002)/019A	S25.042500	E30.115778	Grave and Homestead	Historical	Childs Grave and House
H035	Historical	Huffman (2002)/021	S25.080750	E30.118722	Homestead	Historical	Historic Homestead
H036	Historical	Huffman (2002)/022	S25.093972	E30.121694	Homestead	Historical	Historic Homestead
H037	Historical	Huffman (2002)/022A	S25.092194	E30.122222	Rock engravings	Historical	Rock engravings
I038	Iron Age	Huffman (2002)/024	S25.116472	E30.123944	Iron Age settlement	Iron Age	Middle Iron Age Eiland Village
I039	Iron Age	Huffman (2002)/025	S25.120250	E30.121833	Iron Age settlement	Iron Age	Middle Iron Age Eiland Village
I040	Iron Age	V.D Walt & Fourie (2006)/MHC001	S25.028186	E30.126958	Iron Age	Iron Age	Iron Age Site
I041	Iron Age	V.D Walt & Fourie (2006)/MHC002	S25.028894	E30.125521	Iron Age	Iron Age	Iron Age Site
I042	Iron Age	V.D Walt & Fourie (2006)/MHC003	S25.028835	E30.124093	Iron Age	Iron Age	Iron Age Site
I043	Iron Age	V.D Walt & Fourie (2006)/MHC004	S25.029447	E30.123756	Iron Age	Iron Age	Iron Age Site

	Burial Site	Roodt (2008)/Site 1	S24-987583	E30.088278	Cemetery	Historical	6 Graves - 2 with headstones, Mohlato Family
C016	Burial Site	Roodt (2008)/Site 1	S24-987583	E30.088278	Cemetery	Historical	6 Graves - 2 with headstones, Mohlato Family
C017	Burial Site	Roodt (2008)/Site 2	S24-989388	E30.087917	Grave	Historical	Grave - Thupa Family
C018	Burial Site	Roodt (2008)/Site 3	S24-995139	E30.072528	Cemetery	Historical	5 Graves, Marked with Stone Cairns
C019	Burial Site	Roodt (2008)/Site 4	S24-995722	E30.075333	Cemetery	Historical	4 Graves, marked with stone cairns
C020	Burial Site	Roodt (2008)/Site 5	S24-997111	E30.071944	Cemetery	Historical	Graves - Not visible in vegetation, near stone walling
C021	Burial Site	Roodt (2008)/Site 6	S24-984750	E30.079278	Grave	Historical	Located in a previous cattle kraal
C022	Burial Site	Roodt (2008)/Site 7	S24-973889	E30.076889	Cemetery	Historical	8 Graves, marked with stone cairns
C023	Burial Site	Roodt (2008)/Site 8	S24-977722	E30.079083	Grave	Historical	Unmarked grave
C024	Burial Site	Roodt (2008)/Site 9	S24-986917	E30.090500	Grave	Historical	Unmarked grave
C025	Burial Site	Roodt (2008)/Site 10	S25.000944	E30.078111	Cemetery	Historical	3 Graves - Magatle Family
C026	Burial Site	Roodt (2008)/Site 11	S25.002833	E30.077944	Grave	Historical	Grave of Chief Mankge
I044	Iron Age	Roodt (2008)/Site 12	S24-972028	E30.088500	Surface scatter	Eiland / Icon facies	Eiland / Icon Ceramic Transition Period - Iron Age Ceramics
S001	Stone Age	Roodt (2008)/Site 13	S24-973028	E30.088611	Surface scatter	Middle Stone Age	High concentration of tools
C027	Burial Site	Roodt (2008)/Site 14	S24-986833	E30.098194	Grave	Historical / Iron Age	Stone Cairn amongst pottery scatter, grinding stone & stone foundation
C028	Burial Site	Roodt (2008)/Site 15	S24-987917	E30.096556	Graves	Historical / Iron Age	2 Stone Cairns amongst pottery scatter, grinding stone & stone foundation
I045	Iron Age	Roodt (2008)/Site 16	S24-991611	E30.082667	Stone wall	Iron Age	Pottery, lower grindstone & stonewall foundations
I046	Iron Age	Roodt (2008)/Site 17	S24-992639	E30.081472	Slag	Iron Age	Slag deposit

1047	Iron Age	Roodt (2008)/Site 18	S24.990333	E30.087444	Late Iron Age	Marateng facies	Ashy deposit and ceramic concentration
1048	Iron Age	Roodt (2008)/Site 19	S24.995778	E30.076444	Surface scatter	Iron Age	Ash & dung deposit
1049	Iron Age	Roodt (2008)/Site 20	S24.978528	E30.077833	Kraal	Iron Age	Stonewalling
1050	Iron Age	Roodt (2008)/Site 21	S24.978528	E30.078306	Stone wall	Iron Age	Stonewalling
1051	Iron Age	Roodt (2008)/Site 22	S24.976472	E30.078722	Stone wall	Iron Age	Stonewalling
1052	Iron Age	Roodt (2008)/Site 23	S24.978638	E30.081139	Stone wall	Iron Age	Communal grinding stone - 22 separate grinders
1053	Iron Age	Roodt (2008)/Site 26	S24.989139	E30.090861	Stone wall	Iron Age / Historical	Grave within stonewalling - Matsedi Choma
1054	Iron Age	Roodt (2008)/Site 27	S24.987472	E30.081139	Kraal	Iron Age	Ash & dung deposit
H038	Historical	Roodt (2008)/Site 29	S24.978889	E30.081500	Stone wall	Historical	Stone walling associated with farmhouse.
H039	Historical	Roodt (2008)/Site 30	S25.008611	E30.075278	Sacred Place	Historical - Intangible	Sacred tree - according to local tradition a sacred place where rituals were done.
1055	Iron Age	NCHM (2005)\8	S25.004750	E30.072139	Stone wall	Iron Age	
1056	Iron Age	NCHM (2005)\9	S25.003861	E30.072306	Stone wall	Iron Age	
1057	Iron Age	NCHM (2005)\10	S25.003472	E30.072833	Stone wall	Iron Age	
1058	Iron Age	NCHM (2005)\11	S25.0010556	E30.073583	Stone wall	Iron Age	
1059	Iron Age	NCHM (2005)\12	S25.001139	E30.081611	Early Iron Age Deposit	Iron Age	
1060	Iron Age	NCHM (2005)\13	S24.997667	E30.078472	Early Iron Age Deposit	Iron Age	
1061	Iron Age	NCHM (2005)\14	S24.992639	E30.081611	Early Iron Age Deposit	Iron Age	

I062	Iron Age	NCHM (2005)\15	S24.992583	E30.081917	Early Iron Age Deposit	Iron Age
I063	Iron Age	NCHM (2005)\16	S24.990972	E30.086194	Early Iron Age Deposit	Iron Age
I064	Iron Age	NCHM (2005)\17	S24.990222	E30.087444	Early Iron Age Deposit	Iron Age
I065	Iron Age	NCHM (2005)\18	S24.991500	E30.075000	Stone wall	Iron Age
I066	Iron Age	NCHM (2005)\19	S24.996806	E30.070750	Stone wall	Iron Age
I067	Iron Age	Roodt(2003c)\1	S24.989611	E30.090611	Iron Age settlement	Moloko / Eiland Sotho stonewalled settlement pattern, with modern grave
H040	Historical	Roodt(2003c)\2	S24.986917	E30.090500	Surface scatter & stone foundations	Historical Grave between site 2 & 3
H041	Historical	Roodt(2003c)\3	S24.986194	E30.090333	Stone foundation	Historical
H042	Historical	Roodt(2003c)\4	S24.985167	E30.090889	Surface scatter & stone foundations	Historical
H043	Historical	Roodt(2003c)\5	S24.984583	E30.091139	Surface scatter	Historical
H044	Historical	Roodt(2003c)\6	S24.984917	E30.092083	Surface scatter & stone foundations	Historical
H045	Historical	Roodt(2003c)\7	S24.985750	E30.092528	Surface scatter & stone foundations	Historical
H046	Historical	Roodt(2003c)\8	S24.986833	E30.098194	Surface scatter, grinding stone & stone foundations	Historical
H047	Historical	Roodt(2003c)\9	S24.986417	E30.094278	Surface scatter	Historical
H048	Historical	Roodt(2003c)\10	S24.987361	E30.094889	Clay structure, surface scatter & grinding stones	Historical
H049	Historical	Roodt(2003c)\11	S24.987917	E30.096556	Surface scatter, grinding stone & stone foundations	Historical 2 stone Cairns as possible graves.
I068	Iron Age	V.D. Walt(2009)\1	S25.098750	E30.116694	Rock shelter	Iron Age Shelter with pottery scatter

H050	Historical	V.D. Walt(2009)\2	S25.099667	E30.115139	Mining Shaft	Historical
H051	Historical	V.D. Walt(2009)\3	S25.097083	E30.110444	Dwellings	Historical
I069	Iron Age	V.D. Walt(2009)\4	S25.097083	E30.113667	Surface scatter	Iron Age
H052	Historical	V.D. Walt(2009)\5	S25.098500	E30.115111	Mining Shaft	Historical
H053	Historical	V.D. Walt(2009)\6	S25.098333	E30.115278	Dwellings	Historical
I069	Iron Age	V.D. Walt(2009)\7	S25.094722	E30.110444	Stone wall	Iron Age
I070	Iron Age	V.D. Walt(2009)\8	S25.096278	E30.108833	Rock shelter	Iron Age / Historical
I071	Iron Age	V.D. Walt(2009)\9	S25.096667	E30.108417	Stone wall	Iron Age
H054	Historical	V.D. Walt(2009)\10	S25.095917	E30.110667	Dwellings	Historical
H055	Historical	V.D. Walt(2009)\11	S25.088167	E30.112889	Dwellings	Historical
I072	Iron Age	V.D. Walt(2009)\12	S25.085500	E30.110528	Surface scatter	Iron Age
I073	Iron Age	V.D. Walt(2009)\13	S25.085583	E30.109139	Iron Age / Historic	Iron Age / Historical
I074	Iron Age	V.D. Walt(2009)\14	S25.086250	E30.108806	Shelter	Iron Age
H056	Historical	V.D. Walt(2009)\15	S25.086472	E30.108250	Dwellings	Historical
I075	Iron Age	V.D. Walt(2009)\16	S25.088361	E30.106361	Surface scatter	Iron Age
I076	Iron Age	V.D. Walt(2009)\17	S25.087222	E30.107444	Surface scatter	Iron Age
I077	Iron Age	V.D. Walt(2009)\18	S25.088694	E30.105833	Stone wall	Iron Age

1078	Iron Age	V.D. Walt(2009)\19	S25.089306	E30.104722	Stone wall	Iron Age - Moloko	Extensive stone walled settlement.
H057	Historical	V.D. Walt(2009)\20	S25.083472	E30.104722	Historic	Historical	
1079	Iron Age	V.D. Walt(2009)\21	S25.092139	E30.106528	Iron Age / Historic	Iron Age / Historical	
1080	Iron Age	V.D. Walt(2009)\22	S25.092028	E30.112472	Stone wall	Iron Age	Badly preserved stone foundations
H058	Historical	V.D. Walt(2009)\23	S25.092083	E30.114500	Dwellings	Historical	
H059	Historical	V.D. Walt(2009)\25	S25.090556	E30.114667	Dwellings	Historical	
H060	Historical	V.D. Walt(2009)\26	S25.093444	E30.114389	Historic	Historical	
H061	Historical	V.D. Walt(2009)\27	S25.093528	E30.114861	Dwellings	Historical	
H062	Historical	V.D. Walt(2009)\28	S25.092306	E30.114694	Dwellings	Historical	
H063	Historical	V.D. Walt(2009)\29	S25.089944	E30.115694	Dwellings	Historical	
H064	Historical	V.D. Walt(2009)\30	S25.086139	E30.113806	Dwellings	Historical	
C029	Burial Site	V.D. Walt(2009)\31	S25.088167	E30.115028	Cemetery	Historical	5 Graves - Cement headstones
H066	Historical	Roodt(2003a)\1	S25.034444	E30.0961389	Homestead	Historical	Homestead with grave of Sexoptso Saxahunadi Mampond Mohlahlo
1081	Iron Age	Roodt(2003a)\2	S25.034722	E30.0956944	Smelting site	Iron Age - Eiland facies	Metal slag and tuyere fragments
H067	Historical	Roodt(2003a)\3	S25.032806	E30.0956944	Stone wall	Historical	
H068	Historical	Roodt(2003a)\4	S25.032167	E30.0953056	Stone wall	Historical	
H069	Historical	Roodt(2003a)\5	S25.031000	S30.0964722	Stone wall	Historical	

H070	Historical	Roodt(2003a)\6	S25.030111	E30.0960833	Stone wall	Historical
H071	Historical	Roodt(2003a)\7	S25.031750	E30.0946389	Stone wall	Historical
H072	Historical	Roodt(2003a)\9	S25.034722	E30.0940833	Stone wall	Historical
H073	Historical	Roodt(2003a)\10	S25.035333	E30.0949722	Stone wall	Historical
I082	Iron Age	Roodt(2003a)\11	S25.035778	E30.0953611	Surface scatter	Iron Age - Pedi
F004	Feature	Roodt(2003a)\12	S25.037361	E30.0949444	Grinding area	Iron Age / Historical
F005	Feature	Roodt(2003a)\13	S25.037500	E30.0945556	Grinding area	Iron Age / Historical
I083	Iron Age	Roodt(2003a)\14	S25.038111	E30.0949167	Terrace	Iron Age
I084	Iron Age	Roodt(2003a)\15	S25.039444	E30.0955278	Surface scatter	Iron Age
F006	Feature	Roodt(2003a)\16	S25.038917	E30.0943611	Grinding area	Iron Age / Historical
F007	Feature	Roodt(2003a)\17	S25.039222	E30.0928611	Grinding area	In association with stone walling Iron Age / Historical
H074	Historical	Roodt(2003a)\18	S25.036944	E30.0921667	Homestead	Ruin Historical
H075	Historical	Roodt(2003a)\19	S25.039472	E30.0898333	Stone wall	Historical
I085	Iron Age	Roodt(2003a)\20	S25.039861	E30.0887778	Surface scatter	Iron Age - Eiland facies
I086	Iron Age	Roodt(2003a)\21	S25.039583	E30.0884722	Surface scatter	Pottery concentration & bored stone Iron Age
H076	Historical	Roodt(2003a)\22	S25.039194	E30.0875000	Homestead	Ruin with 2 graves Historical
I087	Iron Age	Roodt(2003a)\23	S25.034278	E30.0887778	Surface scatter	Iron Age - Eiland facies

F008	Feature	Roodt(2003a)\24	S25.039278	E30.0895000	Grinding area	Iron Age / Historical
I089	Iron Age	Roodt(2003a)\25	S25.034278	E30.0864167	Terrace	Iron Age
I090	Iron Age	Roodt(2003a)\26	S25.049861	E30.0875833	Surface scatter	Iron Age
I091	Iron Age	Roodt(2003a)\27	S25.036667	E30.0872778	Surface scatter	Iron Age
I092	Iron Age	Roodt(2003a)\28	S25.035528	E30.0863889	Terrace	Iron Age
F009	Feature	Roodt(2003a)\29	S25.017111	E30.0742778	Communal Grinding Area	Iron Age / Historical
I093	Iron Age	Roodt(2003a)\30	S25.017083	E30.0742778	Terrace	Iron Age
I094	Iron Age	Roodt(2003a)\31	S25.016722	E30.0763889	Kraal	Iron Age
I095	Iron Age	Roodt(2003a)\32	S25.016472	E30.0777222	Terrace	Iron Age
I096	Iron Age	Roodt(2003a)\33	S25.015917	E30.0795000	Surface scatter	Iron Age
I097	Iron Age	Roodt(2003a)\34	S25.016167	E30.0809722	Surface scatter	Iron Age
I098	Iron Age	Roodt(2003a)\35	S25.017611	E30.0844444	Terrace	Iron Age
I099	Iron Age	Roodt(2003a)\36	S25.016139	E30.0866944	Terrace	Iron Age
I100	Iron Age	Roodt(2003a)\37	S25.015667	E30.0781111	Terrace	Iron Age
I101	Iron Age	Roodt(2003a)\38	S25.014639	E30.0931944	Terrace	Iron Age
I102	Iron Age	Roodt(2003a)\39	S25.015528	E30.0925278	Surface scatter	Iron Age

Hut rubble, metal working & pottery scatter

Pottery concentration & tuyere fragments

Pottery concentration

Hut rubble, metal working & pottery scatter

At least 250 individual grinding hollows. Some Pedi pottery identified.

Dung deposit

Pottery concentration & grinding stone

Pottery concentration & grinding stone

Pottery concentration & hut rubble

Digby Wells Survey Data March 2012

I103	Iron Age	DW001	S25.057954	E30.164024	Stone Walling	Iron Age - Marateng facies	Stone walls with terrace, pottery scatters and communal grinding area
F009	Feature	DW002	S25.056234	E30.163958	Stone Feature	Historical	Stone feature, possible grave?
I104	Iron Age	DW003	S25.055906	E30.163738	Stone Walling	Iron Age	Stone wall on rise, pottery scatter
F010	Feature	DW004	S25.055225	E30.164651	Communal Grinding Area	Iron Age / Historical	Terraced wall south of area
I105	Iron Age	DW005	S25.055054	E30.164266	Terraced Wall	Iron Age	North of DW004
F011	Feature	DW006	S25.053150	E30.165661	Stone Feature	Historical	
H077	Historical	DW007	S25.052487	E30.166990	Stone Walling	Historical	Used natural boulders, pottery scatter
I106	Iron Age	DW008	S25.052193	E30.165346	Stone Walling	Iron Age	With rise, has terraced walling
F012	Feature	DW009	S25.051430	E30.165081	Communal Grinding Area	Iron Age	Associated with DW008
H078	Historical	DW010	S25.050056	E30.167163	Stone Walling	Historical	Upper Grinding Stone found.
H079	Historical	DW011	S25.048595	E30.165325	Stone Walling	Historical	Not substantial, some terraced walling
C030	Burial Site	DW012	S25.048521	E30.164567	Grave	Historical	Maraka Phillimon Lekgeu
H080	Historical	DW013	S25.048023	E30.165876	Stone Walling	Historical	
H081	Historical	DW014	S25.046040	E30.165699	Stone Walling	Historical	Large walling, enclosure with entrance, 1.5m diameter, pottery scatter found.
H082	Historical	DW015	S25.042680	E30.166371	Stone Walling	Historical	Grinding area associated, undecorated pottery found
S004	Stone Age	DW016	S25.041617	E30.165876	Surface scatter	MSA / Iron Age	MSA tool and potsherd found on exposed rock surface

F013	Feature	DW017	S25.041541	E30.166058	Communal Grinding Area	Iron Age	MSA faceted quartz flake found
F014	Feature	DW018	S25.042140	E30.166973	Stone Feature	Historical	Natural boulders packed with stone
H083	Historical	DW019	S25.040141	E30.166055	Stone Walling	Historical	Large walling, enclosure with entrance, 15m diameter
H084	Historical	DW020	S25.039673	E30.167313	Stone Walling	Historical	Double wall, not extensive
H085	Historical	DW021	S25.039384	E30.170636	Stone Walling	Historical	Small, not well preserved
H086	Historical	DW022	S25.037975	E30.168057	Stone Walling	Historical	Double wall, 10m long
C031	Burial Site	DW023	S25.037696	E30.167733	Cemetery	Historical	5 graves, stone surface dressing, direct next to DW022
H087	Historical	DW024	S25.037968	E30.165903	Stone Walling	Historical	
C032	Burial Site	DW025	S25.037831	E30.165837	Cemetery	Historical	8 graves, some with formal headstones
H088	Historical	DW026	S25.037972	E30.166388	Stone Walling	Historical	Collapsed, no discernable shape
H089	Historical	DW027	S25.038111	E30.166986	Stone Walling	Historical	Large, next to communal grinding area
F015	Feature	DW028	S25.038549	E30.167338	Stone Wall Entrance	Historical	Entrance to DW027 enclosure
H090	Historical	DW029	S25.033053	E30.162264	Homestead	Historical	Fence, clearing, tomatoes growing
H091	Historical	DW030	S25.058287	E30.155789	Stone foundation	Historical	
F016	Feature	DW031	S25.057317	E30.156233	Communal Grinding Area	Iron Age / Historical	
H092	Historical	DW032	S25.054522	E30.155610	Stone Walling	Historical	For erosion gully
S005	Stone Age	DW033	S25.053214	E30.153780	Surface scatter	MSA / LSA / Iron Age	MSA & LSA tools, Potsherd with notch out of erosion gully

H093	Historical	DW034	S25.052452	E30.153147	Stone Walling	Historical	Enclosure, south of Choma Village
H094	Historical	DW035	S25.051990	E30.152708	Stone Walling	Historical	Associated with DW034
H095	Historical	DW036	S25.050468	E30.152679	Stone Walling	Historical	Square shaped walling. Grinding area adjacent to walls
H096	Historical	DW037	S25.049819	E30.152018	Stone Walling	Historical	Scatter walls in front of Choma village. Lower Grind Stone & pottery scatter
H098	Historical	DW038	S25.049223	E30.150404	Stone Walling	Historical	Porcelain found
H099	Historical	DW039	S25.049115	E30.149830	Stone Walling	Historical	Large walling
H100	Historical	DW040	S25.050016	E30.157619	Stone Walling	Historical	Enclosure 3m diameter, bottom of known Choma Village
F017	Feature	DW041	S25.039962	E30.165339	Communal Grinding Area	Iron Age / Historical	Well defined grinding grooves
C033	Burial Site	DW042	S25.038591	E30.164363	Cemetery	Historical	Fenced off, overgrown, 5 graves where 2 have formal dressing
H101	Historical	DW043	S25.038433	E30.163836	Stone Wall	Historical	Associated with DW044
C034	Burial Site	DW044	S25.038350	E30.163710	Cemetery	Historical	12 graves, 7 with formal dressing, tended
F018	Feature	DW045	S25.038680	E30.164514	Lower Grinding Stone	Iron Age / Historical	
H102	Historical	DW046	S25.052530	E30.164840	Stone Walling	Historical	Lower Grinding Stone found
F019	Feature	DW047	S25.051657	E30.165536	Monolith	Iron Age / Historical	
C035	Burial Site	DW048	S25.041986	E30.165573	Grave	Historical	Possible grave.
H103	Historical	DW049	S25.037139	E30.167576	Stone Walling	Historical	L Shaped wall
F020	Feature	DW050	S25.039427	E30.149122	Beacon VH10	Historical	Trig Beacon VH10