

Archaetnos Culture & Cultural Resource Consultants BK 98 09854/23

A DESKTOP HERITAGE ASSESSMENT STUDY FOR A PROSPECTING RIGHTS APPLICATION ON PORTION 3 & 5 OF THE FARM KROMDRAAI 209 JR, NEAR RUST DE WINTER GAUTENG

For:

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REPORT: AE01204P

by:

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SUMMARY

Archaetnos cc was requested by MSA Geoservices (Pty) Ltd trading as The MSA Group to conduct a scoping level desktop heritage assessment for a Prospecting Right Application (PRA) near Rust de Winter in Gauteng. The area where potential mining will be undertaken is located on Portion 3 & 5 of the farm Kromdraai 209 JR. The work was commissioned on behalf of the Vergenoeg Exploration Company. The aims of the study were to determine if there are any possible archaeological and historical sites, and features in the area that need be taken into consideration when prospecting work commences and that could be potentially impacted upon by future mining operations.

Various sources were consulted for the desktop study. From this it is clear that there are a number of known heritage resources in the larger geographical area, and possibly some sites within the boundaries of the prospecting area. It is envisaged that a number of previously unknown sites might also exist here.

A number of recommendations are put forward at the end of this report. If these are implemented, from a Cultural Heritage point of view, there would be no objection to the proposed mining exploration.

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1. INTRODUCTION

Archaetnos cc was requested by MSA Geoservices (Pty) Ltd trading as The MSA Group to conduct a scoping level desktop heritage assessment for a Prospecting Right Application (PRA) near Rust de Winter in Gauteng. The area where potential mining will be undertaken is located on Portion 3 & 5 of the farm Kromdraai 209 JR. The work was commissioned on behalf of the Vergenoeg Exploration Company. The aims of the study were to determine if there are any possible archaeological and historical sites, and features in the area that need be taken into consideration when prospecting work commences and that could be potentially impacted upon by future mining operations.

Various sources were consulted for the desktop study. From this it is clear that there are a number of known heritage resources in the larger geographical area, and possibly some sites within the boundaries of the prospecting area. It is envisaged that a number of previously unknown sites might also exist here.

The client indicated the boundaries of the proposed prospecting area for which the PRA is applicable, and the desktop assessment focused on this area, although the larger geographical area was also considered.

2. TERMS OF REFERENCE

The Terms of Reference for the study were to:

1. to conduct a scoping level desktop heritage assessment in order to determine the possible existence of the archaeological and historical (cultural heritage) sites and features in the area where mining prospecting is proposed to take place, and which could be impacted on by future mining operations

3. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

3.1 The National Heritage Resources Act

According to the above-mentioned act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils

i. Objects, structures and sites or scientific or technological value.

The national estate (**see Appendix D**) includes the following:

- 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 features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Sites of Archaeological and palaeontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, palaeontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources. An HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m² or involve three or more existing erven or subdivisions thereof
- d. Re-zoning of a site exceeding 10 000 m²
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

Section 34 (1) of the mentioned act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A 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.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

Archaeology, palaeontology and meteorites

Section 35(4) of this act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial):

- 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 that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

Human remains

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders
- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position of 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 or 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, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations** (**Ordinance no. 12 of 1980**) (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act** (**Act 65 of 1983 as amended**).

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

3.2 The National Environmental Management Act

This act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

4. METHODOLOGY

4.1 Survey of literature

A survey of literature was undertaken in order to obtain background archaeological and historical information regarding the area. This included unpublished reports. Topographic maps of the area, as well as maps from the Chief Surveyor General database (csg.dla.gov.za), were also utilized. Sources consulted in this regard are indicated in the bibliography.

4.2 Field survey

No field survey was conducted in this instance.

5. DESCRIPTION OF THE AREA

MSA, as independent consultants, was appointed by the Vergenoeg Exploration Company to undertake the authorization processes for proposed prospecting activities in the Rust de Winter area. Portions 3 & 5 of the farm Kromdraai 209 JR are affected. The area is located in Gauteng, on the border wit the Limpopo Province.

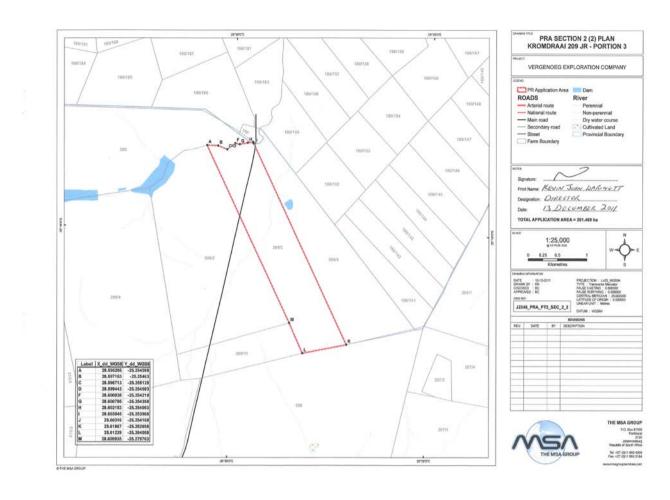


Figure 1: Location of area. Portion 3 is bordered with red line, with Portion 5 of Kromdraai on the right (Map courtesy of client).



Figure 2: Topographic map with area location (Map Source 2010).

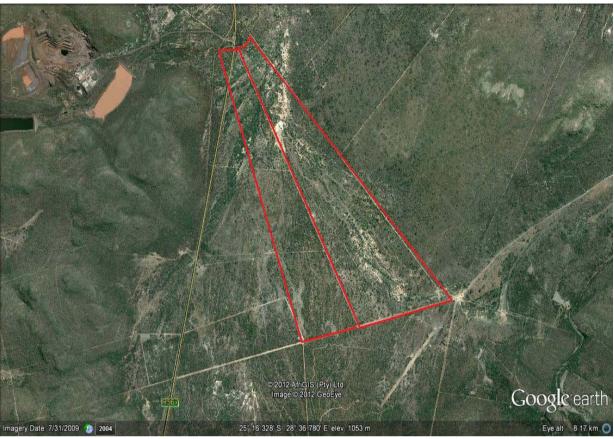


Figure 3: Google Earth view of the area.

The Vergenoeg Fluorspar Mine is visible in the top left section of the image.

6. DISCUSSION

The first step in this desktop study was to look at existing maps (1:50 000 topographic maps and aerial images (Google Earth) of the study area in order to see if any possible heritage resources could be identified from these sources.

From the 1:50 000 topographic maps (2528BA Rust de Winter and 2528BC Moloto – both dating to 2001) very little agricultural activities could be discerned. However, some mining activities (Vergenoeg Fluorspar Mine) including slimes dams, opencast mining and related structures were indicated, as well as some ruins. Vergenoeg Mine started operating in the late 1950's (www.sephakuholdings.co.za) and many of these structures could date to this time period as well. These features are not however located on the portions of Kromdraai where proposed prospecting will take place. A tributary of the Elandsriver flows through the prospecting area, causing some erosion. It is envisaged that Stone Age material could be located along this watercourse in the area, while other cultural material (Iron Age) might also be present. Aerial images of the area (Google Earth) also indicated these features seen on the topographic maps.

Old maps of the farm and the applicable portions were consulted in the Chief Surveyor General database (www.dla.gov.za). From these maps (dating to around 1909) it is clear that the whole of the original farm was granted to Andries Petrus van der Walt on 21 September 1859. The farm (originally numbered 459) was surveyed in September 1887 by W.H.Gilfillan (csg document 10FQ7U01). Portion 3 was transferred to the estate of the later J.L.G.Erasmus

in 1909 (10FQ7Y01), while Portion 5 was transferred to D.J.E.Erasmus in 1910 (10FQ8001). It is therefore possible that some cultural remains dating to between the mid 19th and early 20th century (including ruins of farmsteads, graves, cultural material) could be present on the portions where the prospecting and future mining activities will take place.

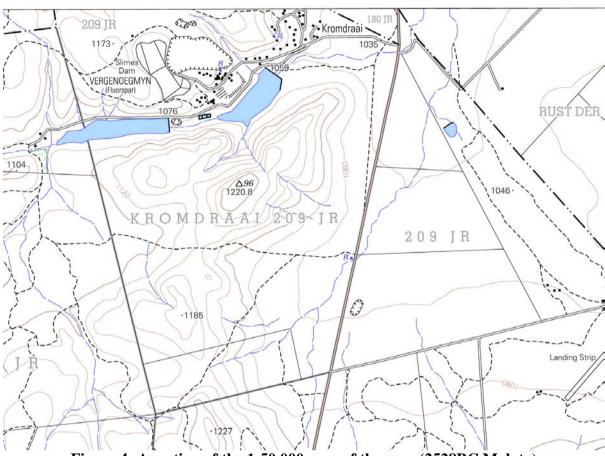


Figure 4: A section of the 1:50 000 map of the area (2528BC Moloto) indicating Kromdraai 209JR. Note Vergenoeg Mine.

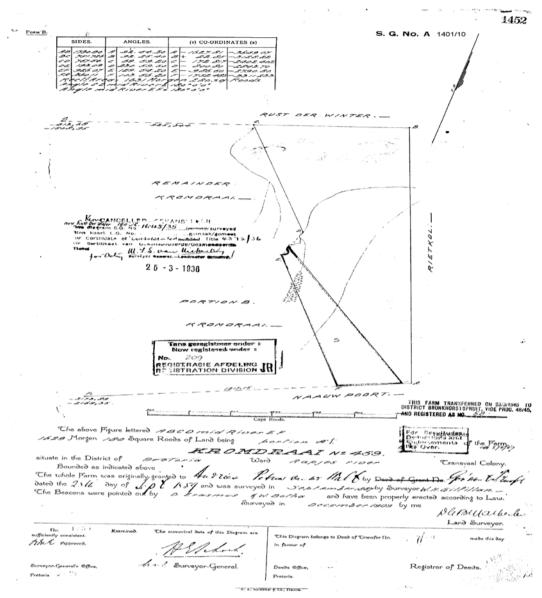


Figure 5: Old map of the farm (Portion 5) from CSG database.

A short, general, background to archaeology is given in the following section, after which the archaeology and history of the area for which the prospecting rights application has been made (and its broader geographical context) will be discussed. It must be mentioned that archaeologically speaking the specific study area is not that well known or researched, and that a physical survey in the area will have to be undertaken in order to determine if any sites of significance does exist here that might be impacted on potentially by any proposed activities.

6.1 Stone Age

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

```
Early Stone Age (ESA) 2 million – 150 000 years ago Middle Stone Age (MSA) 150 000 – 30 000 years ago Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.
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No Stone Age sites are known to exist in the prospecting area, with the closest sites located to the north near Settlers and south of the area near Cullinan (Berg 1999: 4). These sites date to between the Middle and Later Stone Age. It is possible that Stone Age sites and objects could be located in the area, especially near streams and river beds (tributaries of the Elandsriver) running through the area. A single MSA flake tool was recorded by Archaetnos during land claims field assessments in the Rust de Winter area during 2009.

6.2 Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

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Early Iron Age (EIA) 200 – 1000 A.D.
Late Iron Age (LIA) 1000 – 1850 A.D.
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Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

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Early Iron Age (EIA) 250 – 900 A.D.
Middle Iron Age (MIA) 900 – 1300 A.D.
Late Iron Age (LIA) 1300 – 1840 A.D.
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Although there are no known EIA or LIA sites in the area (Bergh 1999:7), some stone walled sites and material were identified during recent land claims work in the Rust de Winter area by Archaetnos cc (Pelser et.al 2007; 2009). Some of these sites are related to the Litho Ndzundza, and will be discussed in the next section.

Tom Huffman's research work does show that LIA sites, features or material could be found in the area. This will include the Uitkomst facies of the Urewe Tradition dating to between AD1650 and AD1820 (Huffman 2007: 171); the Rooiberg facies of the same tradition dating to between AD1650 and AD1750 (P.175) and also possibly the Buispoort facies of the Urewe Tradition dating to between AD1700 and AD1840 (p.203).

6.3 Historical Age

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people who were able to read and write. The earliest Europeans to move through or close to the area were the groups of Hume in 1825, followed by David Livingstone in 1847 (Berg 1999: 12 - 13). It has already been mentioned that the farm Kromdraai was granted to one Andries Petrus van der Walt in 1859.

Some historical sites might occur (including farmsteads, graves) in the area, but only a physical survey of the area will be able to confirm this.

Between 2007 and 2009 Archaetnos cc was contracted to conduct Land Claims research for the so-called Litho-Ndzundza Land Claim in the Rust de Winter area. One of the farms under concern was Kromdraai 209 JR. During the research, which included field assessments, a fairly large number of sites were identified in the larger geographical area. These included graves, kraals, ruins of homesteads and grazing areas. Oral testimonies, as well ethnographic evidence showed that the Litho did settle in the area, and it is indicated that when they moved from Cullinan (near Premier Mine) to the area (prior to 1917 when they were dispossessed) they first settled at the site of the present Vergenoeg Mine on Kromdraai. However, due to access problems, the existence of the settlement sites at Vergenoeg could not be confirmed with a field visit at the time. Some of the stone walled settlements in the area, claimed by the Litho as ruins of their various wards or settlement units, could also have an earlier origin (dating to the LIA and possibly related to other Tshwana groups), although this could not be confirmed.

Based on the above it is therefore very possible that similar sites might be located in the area where the prospecting rights are applied for. This can however only be confirmed through physical field assessments.



Figure 6: Aerial view of area. The sites are those related to the Litho Ndzundza Land Claim referred to in the report. The area in white is Ptn 5 of Kromdraai, while Vergenoeg Mine is circled in red (Google Earth 2011).

7. CONCLUSIONS AND RECOMMENDATIONS

Based on the desktop heritage assessment undertaken for this development (a Prospecting Rights Application), it is clear that the area has not been studied archaeologically and historically in much detail, although more is known about the cultural heritage of the wider geographical area and the cultural heritage of the development area has to be interpreted within this context. Land Claims research conducted by Archaetnos cc between 2007 & 2009 in the Rust de Winter area recorded many sites associated with the Litho Ndzundza, including a settlement site at Vergenoeg Mine close to the area assessed for this study. Without a physical site assessment the presence or absence of Stone Age, Iron Age and Historical sites, features or objects can not be determined, but it is possible that these might be present.

In the light of the above the following recommendations are made:

- 1. that all possible graves and other cultural heritage resources should be avoided at all costs during the prospecting and any other studies, and that a buffer zone of at least 100m should be placed around these should these be encountered. If any sites are identified then these should be reported to a heritage specialist (archaeologist) for investigation
- 2. that a full Phase 1 Heritage Impact Assessment for the area be undertaken before full-scale mining activities commence in the area

Finally, it should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts are always a distinct possibility. Care should therefore be taken during any development activities that if any of these are accidentally discovered, a qualified archaeologist be called in to investigate.

8. REFERENCES

Locality maps provided by The MSA Group

Topographic Map of area location: Map Source 2010

Aerial view of location and sites: Google Earth 2011

1:50 000 Topographic Map series: 2528BA Rust De Winter and 2528BC Moloto (2001)

Bergh, J.S. (red.). 1999. **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.

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Knudson, S.J. 1978. **Culture in retrospect.** Chicago: Rand McNally College Publishing Company.

Korsman, S.A. & Meyer, A. 1999. Die Steentydperk en rotskuns. Bergh, J.S. (red.). **Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies.** Pretoria: J.L. van Schaik.

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www.csg.dla.gov.za

www.sephakuholdings.co.za

APPENDIX A

DEFINITION OF TERMS:

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B

DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE:

Historic value: Important in the community or pattern of history or has an association

with the life or work of a person, group or organization of importance in

history.

Aestetic value: Important in exhibiting particular aesthetic characteristics valued by a

community or cultural group.

Scientific value: Potential to yield information that will contribute to an understanding of

natural or cultural history or is important in demonstrating a high degree

of creative or technical achievement of a particular period

Social value: Have a strong or special association with a particular community or

cultural group for social, cultural or spiritual reasons.

Rarity: Does it possess uncommon, rare or endangered aspects of natural or

cultural heritage.

Representivity: Important in demonstrating the principal characteristics of a particular

class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

APPENDIX C

SIGNIFICANCE AND FIELD RATING:

Cultural significance:

- Low A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.

- Medium Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.

- High Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

Heritage significance:

- Grade I Heritage resources with exceptional qualities to the extent that they are of national significance

- Grade II Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate

- Grade III Other heritage resources of local importance and therefore worthy of conservation

Field ratings:

i. National Grade I significance should be managed as part of the national estate ii. Provincial Grade II significance should be managed as part of the provincial estate iii. Local Grade IIIA should be included in the heritage register and not be mitigated (high significance) should be included in the heritage register and may be iv. Local Grade IIIB mitigated (high/ medium significance) site should be mitigated before destruction (high/ v. General protection A (IV A) medium significance) vi. General protection B (IV B) site should be recorded before destruction (medium significance) vii. General protection C (IV C) phase 1 is seen as sufficient recording and it may be demolished (low significance)

APPENDIX D

PROTECTION OF HERITAGE RESOURCES:

Formal protection:

National heritage sites and Provincial heritage sites – grade I and II

Protected areas - an area surrounding a heritage site

Provisional protection – for a maximum period of two years

Heritage registers – listing grades II and III

Heritage areas – areas with more than one heritage site included

Heritage objects – e.g. archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

General protection:

Objects protected by the laws of foreign states Structures – older than 60 years Archaeology, palaeontology and meteorites Burial grounds and graves Public monuments and memorials

APPENDIX E

HERITAGE IMPACT ASSESSMENT PHASES

- 1. Pre-assessment or Scoping Phase establishment of the scope of the project and terms of reference.
- 2. Baseline Assessment establishment of a broad framework of the potential heritage of an area.
- 3. Phase I Impact Assessment identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
- 4. Letter of Recommendation for Exemption if there is no likelihood that any sites will be impacted.
- 5. Phase II Mitigation or Rescue planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
- 6. Phase III Management Plan for rare cases where sites are so important that development cannot be allowed.