

MarchHERITAGE SCREENER

CTS Reference Number:	CTS21_035
SAHRA Ref Number	
Client:	Savannah
Date:	June 2021
Title:	Proposed development of Swartbooisberg PV, Upington

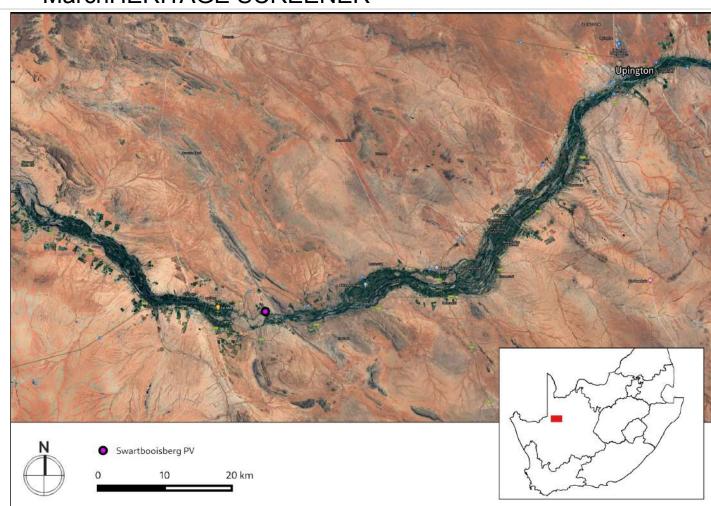


Figure 1a. Satellite map indicating the location of the proposed development in the Northern Cape Province

Recommendation:

RECOMMENDATION

Based on the available information, the proposed development is not likely to impact on significant cultural landscape, built environment, archaeological or palaeontological heritage resources and as such, it is recommended that no further studies in terms of section 38 of the NHRA are required.



1. Proposed Development Summary

The project involves the construction of a 990 kWp Solar (PV) Plant with a private grid connecting the PV Plant to the Eskom grid at a designated pole as indicated by Eskom.

2. Application References

Name of relevant heritage authority(s)	SAHRA
Name of decision making authority(s)	DEFF

3. Property Information

Latitude / Longitude	8°45'49.71"S 20°42'48.39"E		
Erf number / Farm number			
Local Municipality	Kai !Garib Municipality		
District Municipality	F Mgcawu		
Province	Northern Cape		
Current Use	Area is used for drying raisins and sultanas		
Current Zoning	Agricultural		

4. Nature of the Proposed Development

Total Surface Area 2.78ha	
Depth of excavation (m) No excavation - only cut and fill to level the ground	
Height of development (m) Lowest point - 600 mm highest point 4 meters from ground	



5. Category of Development

	Triggers: Section 38(8) of the National Heritage Resources Act
	Triggers: Section 38(1) of the National Heritage Resources Act
	1. Construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.
	2. Construction of a bridge or similar structure exceeding 50m in length.
	3. Any development or activity that will change the character of a site-
Х	a) exceeding 5 000m² in extent
	b) involving three or more existing erven or subdivisions thereof
	c) involving three or more erven or divisions thereof which have been consolidated within the past five years
	4. Rezoning of a site exceeding 10 000m ²
	5. Other (state):

6. Additional Infrastructure Required for this Development

Transformer yard and power line to the nearest Eskom connection point as identified by Eskom



7. Mapping (please see Appendix 3 and 4 for a full description of our methodology and map legends)

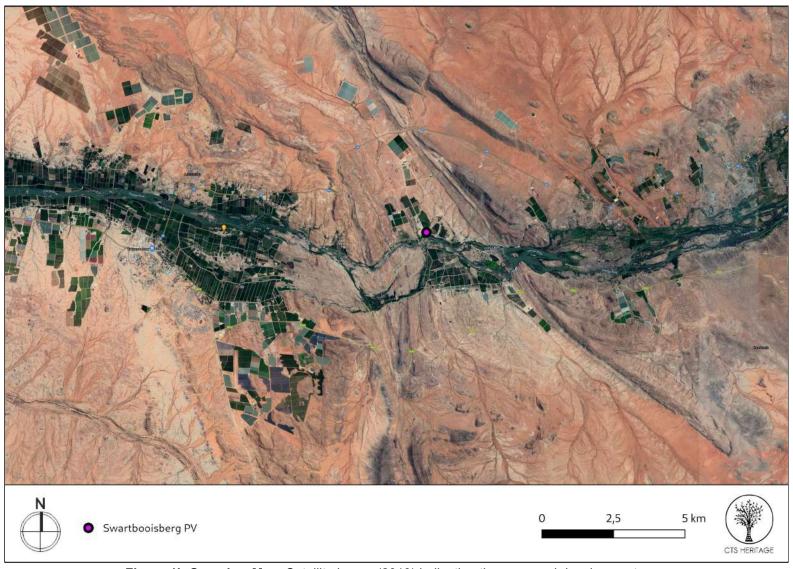


Figure 1b Overview Map. Satellite image (2019) indicating the proposed development area





Figure 1c. Overview Map. Satellite image (2019) indicating the proposed development area at closer range.



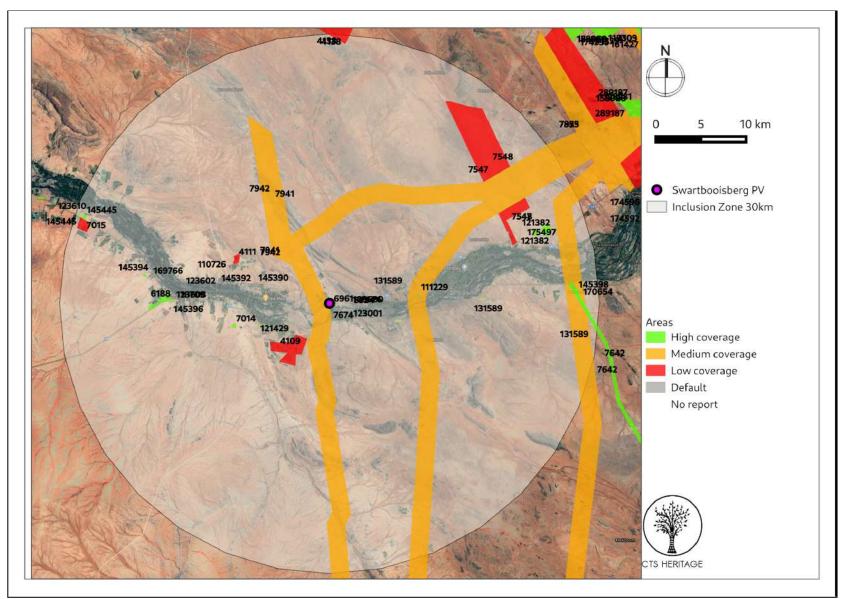


Figure 2. Previous HIAs Map. Previous Heritage Impact Assessments surrounding the proposed development area within 15km, with SAHRIS NIDS indicated. Please see Appendix 2 for a full reference list.



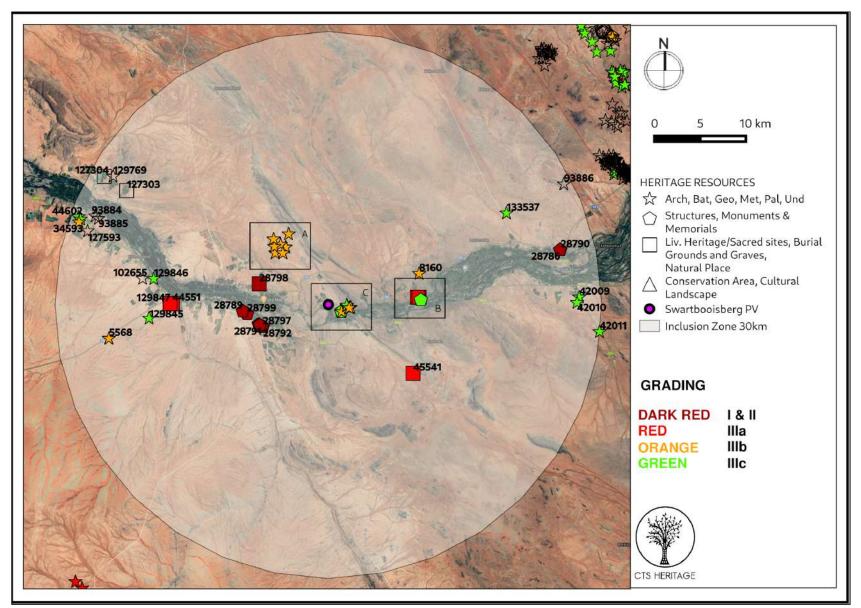


Figure 3. Heritage Resources Map. Heritage Resources previously identified in and near the study area, with SAHRIS Site IDs indicated. Please See Appendix 4 for full description of heritage resource types.



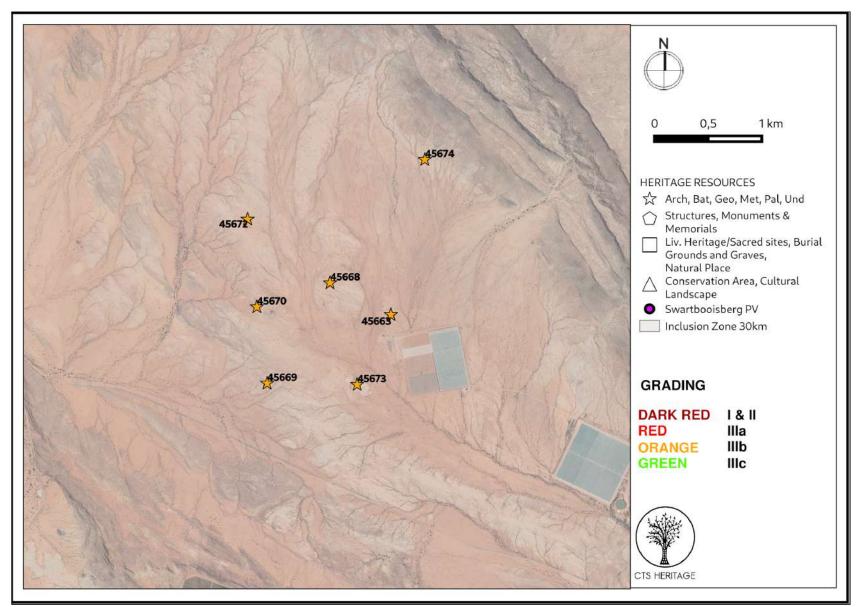


Figure 3a. Heritage Resources Map. Inset A



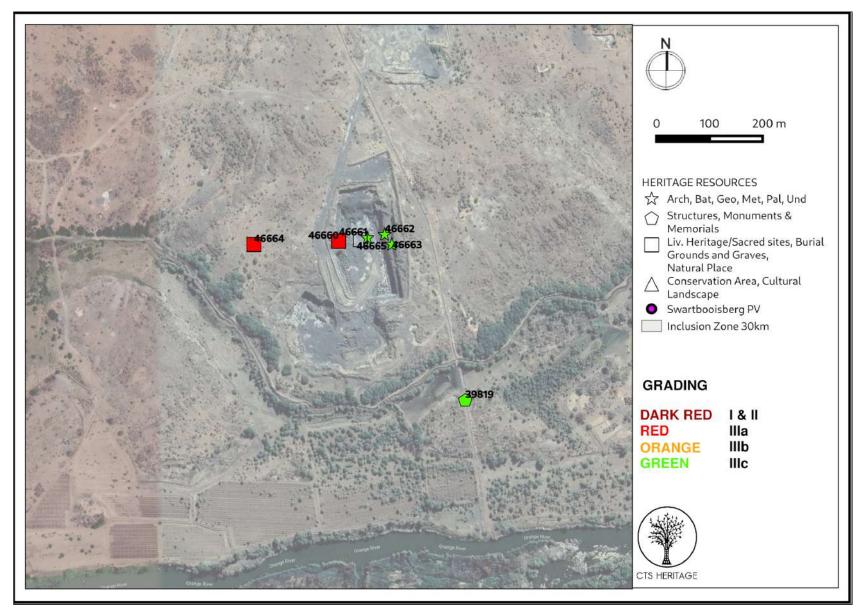


Figure 3b. Heritage Resources Map. Inset B



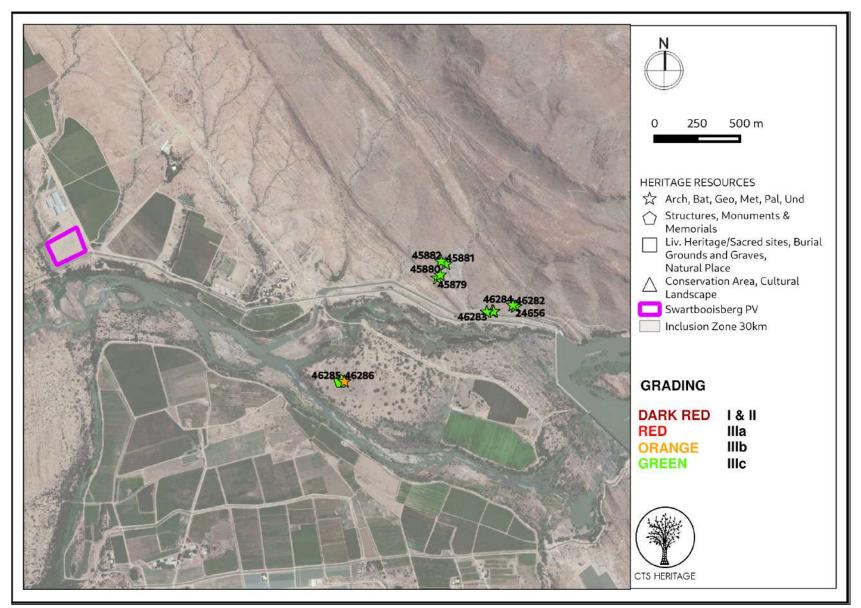


Figure 3c. Heritage Resources Map. Inset C



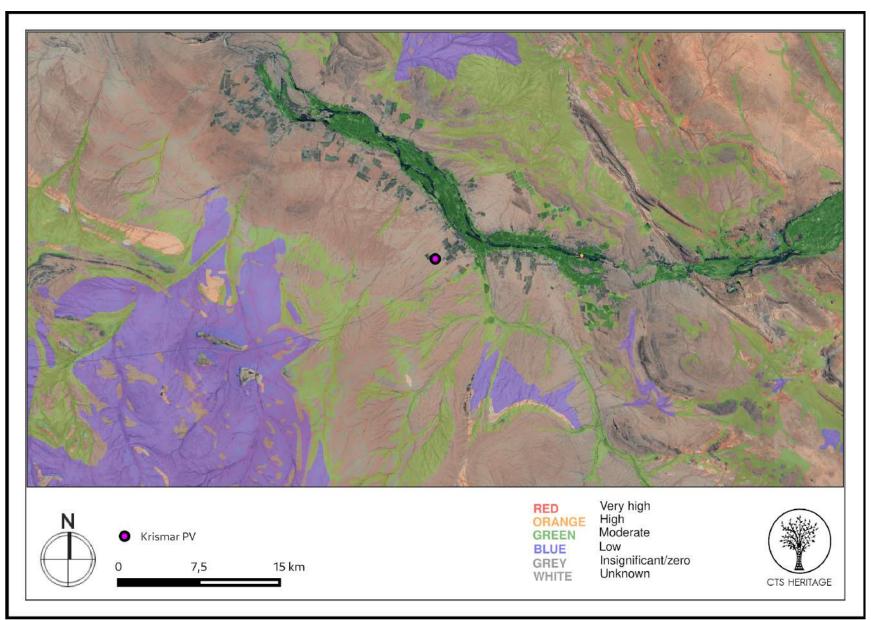


Figure 4. Palaeosensitivity Map. Indicating varied fossil sensitivity underlying the study area. Please See Appendix 3 for a full guide to the legend.



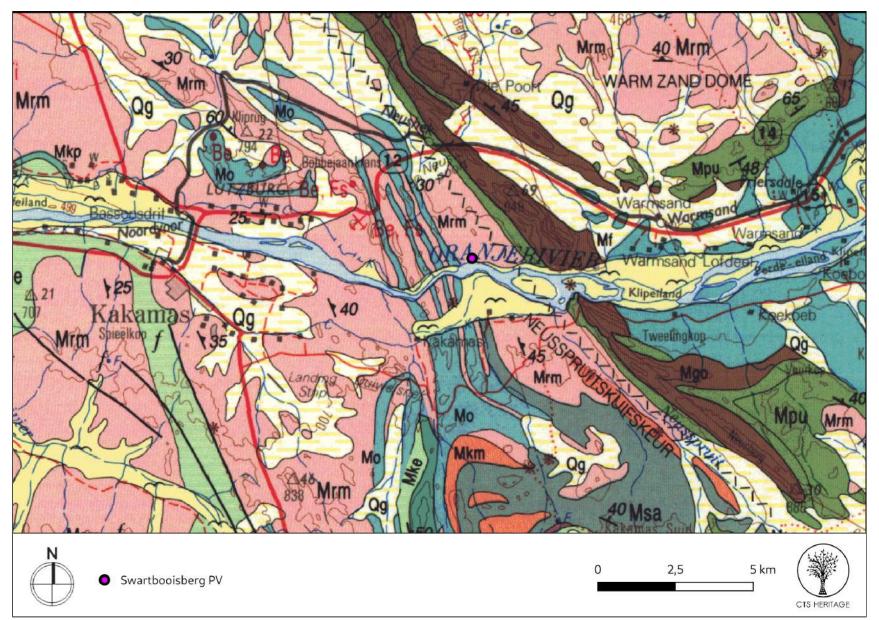


Figure 5. Geology Map. Extract from the Council for GeoScience Upington Map 2820 indicating that the area proposed for development is underlain by Mrm - Riemvasmaak Gneiss



8. Heritage statement and character of the area

Cultural Landscape

According to Van Schalkwyk (2014 SAHRIS NID 170520), "The cultural landscape qualities of the region essentially consist of two components. The first is a rural area in which the human occupation is made up of a pre-colonial (stone age) component and a later colonial (farmer) component. This rural landscape has always been sparsely populated. The second component is an urban one, consisting of a number of smaller towns, most of which developed during the last 150 years or less." According to Von Vollenhoven (2012 SAHRIS NID 117902), "the environment of the area is mostly undisturbed although it is being used for sheep farming..." According to Fourie's assessment of the impacts of similar infrastructure in this area (2014), due to the landscape's topography the solar park infrastructure will be prominent in the landscape and alter the rural appearance. Due to the remoteness of the area the impact on the experience of the cultural landscape is not foreseen to be significant.

Archaeology and the Built Environment

Many farm portions in the immediate vicinity of the area proposed for development have been assessed in terms of impacts to heritage resources (Figure 2). It has been found that the area surrounding Upington has a rich historical and archaeological past (Fourie, 2014 SAHRIS NID 174335, Figure 3)). Based on the outcomes of these assessments, it is noted that most of the heritage resources identified in proximity to the proposed development area are stone age artefact scatters of varying significance (Figure 3). Morris (2010, SAHRIS ID 6961) conducted an HIA on the adjacent Neus Island. Morris (2010) found that "varying densities of stone artefacts were noted along the north bank of the river, upslope from the canal as well as on the higher ground north east of the weir along the northern alternative distribution line route. A number of distinctive 'hotspots' with higher densities of stone tools (5 or more per m2) were separated by areas where densities drop off to much less than 1/10x10 m area. The artefacts are made on jaspilite (banded ironstone) which occurs in the gravels along the river. Typologically they appear to be Middle Stone Age." It is therefore possible that similar artifacts are located within the proposed development footprint however it is important to note that the area proposed for development has been extensively previously disturbed through cultivation and other agricultural activities. Based on the available information, it is unlikely that the proposed development will impact on significant archaeological resources such as Stone Age artefact scatters, burial grounds and graves, historical artefacts, historical structures and rock art engravings through destruction during the development phase and disturbance during the operational phase. (see impact tables below).

Palaeontology

According to the SAHRIS Palaeosensitivity Map, the area proposed for development is underlain by sediments of zero palaeontological sensitivity (Figure 4). These sediments are described as Riemvasmaak Gneiss in the Council for GeoScience tile for Upington. This geology forms part of the Namaqua-Natal Province. The Namaqua sector of the Namaqua-Natal Province is the geological setting of the region around Upington. These are igneous and metamorphic rocks that were formed or metamorphosed during the Namaqua Orogeny approximately 1200 – 1000 million years ago. The Namaqua-Natal Province has been divided into a number of tectonostratigraphic terranes based on common rock types and bounded by shear zones. There have also been some mafic or ultramafic intrusions into the terranes. Upington falls in the Areachap terrane and is bounded to the northeast by the Brakbosch-Trooilaspan Shear Zone and to the southwest by the Boven Rugzeer Shear Zone (Cornell et al., 2006).

There are scattered outcrops of the intrusive Louisvale Granites, Bethesda Formation gneisses and Toeslaan Formation Gneisses. Apart from the age of these rocks pre-dating body fossils, these are all volcanic rocks and have been metamorphosed, so they do not preserve any fossils. As such, it is highly unlikely that the proposed development will negatively impact on significant palaeontological heritage.

RECOMMENDATION

Based on the available information, the proposed development is not likely to impact on significant cultural landscape, built environment, archaeological or palaeontological heritage resources and as such, it is recommended that no further studies in terms of section 38 of the NHRA are required.



9. Scoping Assessment Impact Table

Impact

- Impact to archaeological and built environment resources
- Impact to palaeontological resources
- Impact to Cultural Landscape
- Cumulative Impact

Desktop Sensitivity Analysis of the Site

- Impact to significant archaeological resources such as Stone Age artefact scatters, burial grounds and graves, historical artefacts, historical structures and rock art engravings through destruction during the development phase and disturbance during the operational phase is unlikely.
- Impacts to palaeontological resources are unlikely.
- There is the potential for the cumulative impact of proposed solar energy facilities to negatively impact the cultural landscape due to a change in the landscape character from natural wilderness to semi-industrial, however, due to the remoteness of the area the impact on the experience of the cultural landscape is not foreseen to be significant.

Issue	Nature of Impact	Extent of Impact	No-Go Areas
Impact to significant heritage resources through destruction during the development phase and disturbance during the operational phase.	Destruction of significant heritage resources	Local scale with broader impacts to scientific knowledge	None required

Gaps in knowledge & recommendations for further study

The heritage resources in the area proposed for development are sufficiently recorded.

Based on the available information, including the scale and nature of the proposed development, it is not likely that significant heritage resources will be impacted by the proposed development and as such it is recommended that no further heritage studies are required in terms of section 38 of the NHRA.



APPENDIX 1: List of heritage resources within 30km of the development area

Site ID	Site no	Full Site Name	Site Type	Grading
45663	SONNE001	Sonnenberg 001	Artefacts	
45664	SONNE002	Sonnenberg 002	Artefacts	
45665	SONNE005	Sonnenberg 005	Artefacts	
45667	SONNE001	Sonnenberg 001	Artefacts	Grade IIIb
45668	SONNE002	Sonnenberg 002	Artefacts	Grade IIIb
45669	SONNE003	Sonnenberg 003	Artefacts	Grade IIIb
45670	SONNE004	Sonnenberg 004	Artefacts	Grade IIIb
45672	SONNE005	Sonnenberg 005	Artefacts	Grade IIIb
45673	SONNE007	Sonnenberg 007	Artefacts	Grade IIIb
45674	SONNE006	Sonnenberg 006	Artefacts	Grade IIIb
28797	9/2/032/0005	North Furrow, Kakamas, Gordonia District	Building	Grade II
28798	9/2/032/0006	Battlefield, Kakamas, Gordonia District	Place	Grade II
28799	9/2/032/0008	Water wheel, near DR Church Parsonage, South Furrow, Kakamas	Building	Grade II
28793	9/2/032/0009/001	Water wheel No. 2, Plot 103, South Furrow, Kakamas	Building	Grade II
28794	9/2/032/0009/004	Water Wheel No. 1, Plot 103, South Furrow, Kakamas	Building	Grade II



28792	9/2/032/0009/005	Water wheel, Plot 1057, North Furrow, Kakamas	Building	Grade II
28791	9/2/032/0009/006	Water wheel, Plot 68, North Furrow, Kakamas	Building	Grade II
28788	9/2/032/0009/009	Water Wheel, Plot 1467, South Furrow, Kakamas	Building	Grade II
28789	9/2/032/0010	Kakamas Museum, Voortrekker Street, Kakamas	Building	Grade II
28790	9/2/032/0011	Old Dutch Reformed Mission Church, Main Street, Keimoes	Building	Grade II
28786	9/2/032/0012	Water Wheel, Main Street, Keimoes	Building	Grade II
45541	UPING10	Upington 10	Burial Grounds & Graves	Grade IIIa
46660	FRIA01	Friarsdale 01	Burial Grounds & Graves	Grade IIIa
46661	FRIA02	Friarsdale 02	Artefacts	Grade IIIc
46662	FRIA03	Friarsdale 03	Artefacts	Grade IIIc
46663	FRIA04	Friarsdale 04	Artefacts	Grade IIIc
46664	FRIA05	Friarsdale 05	Burial Grounds & Graves	Grade IIIa
46665	FRIA06	Friarsdale 06	Natural	
46281	KAKA9	KAKAMAS 9	Artefacts	Grade IIIc
46282	KAKA10	KAKAMAS 10	Artefacts	Grade IIIc
46283	KAKA11	KAKAMAS 11	Artefacts	Grade IIIc
		!		



46284	KAKA12	KAKAMAS 12	Artefacts	Grade IIIc
46285	KAKA14	KAKAMAS 14	Structures	Grade IIIc
46286	KAKA15	KAKAMAS 15	Deposit	Grade IIIb
45879	KAKA5	KAKAMAS 5	Artefacts	Grade IIIc
45880	KAKA6	KAKAMAS 6	Artefacts	Grade IIIc
45881	KAKA7	KAKAMAS 7	Artefacts	Grade IIIc
45882	KAKA8	KAKAMAS 8	Artefacts	Grade IIIc
93884	Renosterkop 2	Renosterkop 2	Archaeological	
93885	Renosterkop 1	Renosterkop 1	Archaeological	
93886	Zoovoorbij	Zoovoorbij	Archaeological	
5568	2830CD 028		Artefacts	Grade IIIb
42009	KEI-KEN01	Keimoes-Kenhardt 01	Artefacts	Grade IIIc
42010	KEI-KEN02	Keimoes-Kenhardt 02	Artefacts	Grade IIIc
42011	KEI-KEN03	Keimoes-Kenhardt 03	Artefacts	Grade IIIc
39819	SOA007	Solar-Aries 007	Building	Grade IIIc
127303	CapeSpan	Kakamas North Settlement no 343	Natural	
127304	CapeSpan	Kakamas North Settlement no 341	Natural	
44550	KAKA01	Kakamas Suid 01	Burial Grounds & Graves	Grade IIIa
44551	KAKA02	Kakamas Suid 02	Burial Grounds & Graves	Grade IIIa



44602	KAKA03	Kakamas Suid 03	Artefacts	Grade IIIc
44603	KAKA04	Kakamas Suid 04	Artefacts	Grade IIIc
34593	KAK001	Kakamas 001	Artefacts	Grade IIIb
8160	2830DB 022		Artefacts	Grade IIIb
24655	ZBBA 1	Zwart Boois Berg Annex 1	Archaeological	Grade IIIb
24656	ZBBA 2	Zwart Boois Berg Annex 2	Artefacts	Grade IIIb
24657	ZBBA 3	Zwart Boois Berg Annex 3	Artefacts	Grade IIIb
127593	Kakamas South Settlement no 2185 and 2193	Kakamas South Settlement no 2185 and 2193	Archaeological	
102655	ADA16	Augrabies sites historical graffiti	Archaeological	
129769	Remainder of Kakamas North Settlement No. 355		Archaeological, Palaeontological	
129845	Commercial/Portion of Erf 1731/Kakamas/Site 1	Stone artefacts	Artefacts	Grade IIIc
129846	2820DA/Housing developments/Kakamas Suid 28/Site 1	Stone artefacts	Artefacts	Grade IIIc
129847	2820DC/Housing developments/FARM KAKAMAS SUID 28/Site 1	Community cemetery	Burial Grounds & Graves	Grade IIIa
133537	OPP001	OfriZX Photovoltaic Plant	Artefacts	Grade IIIc
	developments/FARM KAKAMAS SUID 28/Site 1			



APPENDIX 2: Reference List

	Heritage Impact Assessments			
Nid	Report Type	Author/s	Date	Title
4109	AIA Phase 1	Peter Beaumont	23/10/2007	Phase 1 Heritage Impact Assessment Report on Adjacent Kakamas South Farms 1740, 1830, 2125 and 2149 in the Siyanda District Municipality of the Northern Cape Province
4111	AIA Phase 1	Peter Beaumont	24/10/2007	Phase 1 Heritage Impact Assessment Report on a 50 Ha Portion of Steynmond Boerdery on the Kakamas North Farm 339 in the Siyanda District Municipality of the Northern Cape Province
4138	AIA Phase 1	Karen Van Ryneveld	19/03/2007	Phase 1 Archaeological Impact Assessment - Portion of the Farm Cnydas East 439, Upington District, Northern Cape, South Africa
6188	AIA Phase 1	Peter Beaumont	10/06/2008	Phase 1 Archaeological Impact Assessment Report on Portions of the Farm Alheit near Kakamas, Siyanda District Municipality, Northern Cape Province
6961	AIA Phase 1	David Morris	17/11/2010	Heritage Impact Assessment of the proposed hydropower station on the Orange River at Neus Island on the Farm Zwartbooisberg, east of Kakamas, Northern Cape
7014	AIA Phase 1	Jonathan Kaplan	24/03/2012	ARCHAEOLOGICAL IMPACT ASSESSMENT HE PROPOSED KEREN ENERGY KAKAMAS SOLAR FARM ON ERF 1654 KAKAMAS NORTHERN CAPE PROVINCE
7015	AIA Phase 1	Peter Beaumont	27/09/2008	Phase 1 Archaeological Impact Assessment Report on Kakamas South Farm 2092 near Augrabies, Siyanda District Municipality, Northern Cape Province
7547	AIA Phase 1	Jaco van der Walt	30/10/2011	AIA for the proposed OfriZX Photovoltaic Plant, Keimoes, Northern Cape
7548	AIA Desktop	Jaco van der Walt	31/07/2011	Heritage Scoping Report for the proposed Ofir ZX Photovoltaic Plant near Keimoes, Northern Cape
7642	AIA Phase 1	Jonathan Kaplan	01/09/2008	Phase 1 Archaeological Impact Assessment: Proposed Construction of a Water Treatment Plant and Supply Pipeline from Keimoes to Kenhardt, Northern Cape Province
7674	AIA Phase 1	David Morris	03/11/2011	HIA of the proposed new power-line route south of the river to Kakamas, Notrthern Caoe



7941	AIA Desktop	Jaco van der Walt	31/07/2011	Heritage Scoping Report for the Proposed Sonnenberg Photovoltaic Plant near Keimoes, Northern Cape
7942	AIA Phase 1	Jaco van der Walt	01/11/2011	AIA for the proposed Sonnenberg Photovoltaic Plant. Keimoes, Northern Cape
8934	PIA Phase 1	John E Almond	14/06/2011	Palaeontological assessment: recommended exemption from further palaeontological studies. Proposed hydropower station on the Orange River near Kakamas, Northern Cape Province (DEA Ref. No. 12/12/20/2012)
109690	AIA Phase 2	Jayson Orton	12/01/2013	ARCHAEOLOGICAL MITIGATION OF ARTEFACT SCATTERS ON ZWART BOOIS BERG ANNEX 475, KAKAMAS, NORTHERN CAPE
110709	AIA Phase 1	Cobus Dreyer	26/02/2013	Assessment for the proposed extension and operation of a cemetery on portion 1409, Alheit Kakamas
110726	AIA Phase 1	Cobus Dreyer	26/02/2013	Proposed establishment of new cemetery at Cillie Twonship
111229	Heritage Impact Assessment Specialist Reports	Wouter Fourie	15/09/2011	PGS Heritage Site Assessment for a portion of farm 468 Friersdale Keimoes
121382	Heritage Impact Assessment Specialist Reports	Jonathan Kaplan	01/03/2013	HERITAGE IMPACT ASSESSMENT SPECIALIST ARCHAEOLOGICAL STUDY PROPOSED LOW COST HOUSING PROJECT ERF 666 (SITE B), KEIMOES, NORTHERN CAPE
121382	Heritage Impact Assessment Specialist Reports	Jonathan Kaplan	01/03/2013	HERITAGE IMPACT ASSESSMENT SPECIALIST ARCHAEOLOGICAL STUDY PROPOSED LOW COST HOUSING PROJECT ERF 666 (SITE B), KEIMOES, NORTHERN CAPE
121429	Archaeological Specialist Reports	Jonathan Kaplan	28/02/2013	Archaeological Impact Assessment Proposed Low Cost Housing Project in Kakamas, Northern Cape
123001	Heritage Statement	Jayson Orton	25/06/2013	NEUS HYDRO: NEW SPOIL AREA
123526	AIA Phase 1	Jayson Orton	01/07/2013	ARCHAEOLOGICAL INSPECTION OF A SPOIL HEAP LOCATION FOR THE KAKAMAS HYDRO ELECTRIC FACILITY, NORTHERN CAPE



123602	AIA Phase 1	Cobus Dreyer	27/06/2013	First phase archaeological & heritage assessment of the proposed new extensions to the cemetery at Cillie near Kakamas, Northern Cape.
123608	AIA Phase 1	Cobus Dreyer	27/06/2013	First phase archaeological and heritage assessment of the proposed new extensions to the cemetery at Alheit near Kakamas, Northern Cape.
123610	AIA Phase 1	Cobus Dreyer	25/06/2013	First phase archaeological & heritage assessment of the proposed new cemetery at Augrabies, Kakamas district, Northern Cape Province.
131589	Heritage Impact Assessment Specialist Reports	Stephan Gaigher	22/02/2013	Proposed Establishment of Several Electricity Distribution Lines within the Northern Cape Province
145390	HIA Phase 1	Johnny Van Schalkwyk	16/09/2013	CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED TOWNSHIP DEVELOPMENT ON A SECTION OF THE FARM KAKAMAS NORTH 481, LUTZBURG
145392	HIA Phase 1	Johnny Van Schalkwyk	18/09/2013	Cultural Heritage impact assessment for the proposed township development on a section of the farm kakamas noord 481, cillie
145394	HIA Phase 1	Johnny Van Schalkwyk	18/09/2013	Cultural heritage impact assessment for the proposed township development on a section of the farm kakamas suid 28, marchand
145396	HIA Phase 1	Johnny Van Schalkwyk	18/09/2013	Cultural heritage impact assessment for the proposed township development on a section of the farm Kakamas suid 28, ALHEIT
145398	HIA Phase 1	Johnny Van Schalkwyk	18/09/2013	Cultural heritage impact assessment for the proposed township development, LENNERTSVILLE
145445	HIA Phase 1	Johnny Van Schalkwyk	17/09/2013	Cultural heritage impact assessment for the proposed township development on a section of the farm Kakamas Suid 28, AUGRABIES
145445	HIA Phase 1	Johnny Van Schalkwyk	17/09/2013	Cultural heritage impact assessment for the proposed township development on a section of the farm Kakamas Suid 28, AUGRABIES
169766	HIA Phase 1	Johnny Van Schalkwyk	15/07/2014	CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED HOTEL DEVELOPMENT ONA SECTION OF THE FARM KAKAMAS SUID, MARCHAND, KAI !GARIB MUNICIPALITY NORTHERN CAPE



				PROVINCE
170654	AIA Phase 1	Lloyd Rossouw	25/07/2014	Phase 1 Archaeological Impact Assessment of a proposed new cemetery on Portion 213 (a portion of Portion 173) of the farm Neilersdrift 34, Lennertsville, NC Province
175497	AIA Phase 1	Cobus Dreyer	04/09/2012	FIRST PHASE ARCHAEOLOGICAL AND HERITAGE ASSESSMENT OF THE SOLID WASTE DISPOSAL SITE AT KEIMOES NEAR UPINGTON, NORTHERN CAPE



APPENDIX 3 - Keys/Guides

Key/Guide to Acronyms

Archaeological Impact Assessment				
Department of Agriculture and Rural Development (KwaZulu-Natal)				
Department of Environment, Forest and Fisheries (National)				
Department of Environmental Affairs and Development Planning (Western Cape)				
Department of Economic Development, Environmental Affairs and Tourism (Eastern Cape)				
Department of Economic Development, Environment, Conservation and Tourism (North West)				
Department of Economic Development and Tourism (Mpumalanga)				
Department of economic Development, Tourism and Environmental Affairs (Free State)				
Department of Environment and Nature Conservation (Northern Cape)				
Department of Mineral Resources (National)				
Gauteng Department of Agriculture and Rural Development (Gauteng)				
Heritage Impact Assessment				
Department of Economic Development, Environment and Tourism (Limpopo)				
Mineral and Petroleum Resources Development Act, no 28 of 2002				
National Environmental Management Act, no 107 of 1998				
National Heritage Resources Act, no 25 of 1999				
Palaeontological Impact Assessment				
South African Heritage Resources Agency				
South African Heritage Resources Information System				
Visual Impact Assessment				

Full guide to Palaeosensitivity Map legend

RE	ED:	VERY HIGH - field assessment and protocol for finds is required
OR	RANGE/YELLOW:	HIGH - desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GR	REEN:	MODERATE - desktop study is required
BL	LUE/PURPLE:	LOW - no palaeontological studies are required however a protocol for chance finds is required
GR	REY:	INSIGNIFICANT/ZERO - no palaeontological studies are required
WH	HITE/CLEAR:	UNKNOWN - these areas will require a minimum of a desktop study.



APPENDIX 4 - Methodology

The Heritage Screener summarises the heritage impact assessments and studies previously undertaken within the area of the proposed development and its surroundings. Heritage resources identified in these reports are assessed by our team during the screening process.

The heritage resources will be described both in terms of **type**:

- Group 1: Archaeological, Underwater, Palaeontological and Geological sites, Meteorites, and Battlefields
- Group 2: Structures, Monuments and Memorials
- Group 3: Burial Grounds and Graves, Living Heritage, Sacred and Natural sites
- Group 4: Cultural Landscapes, Conservation Areas and Scenic routes

and **significance** (Grade I, II, IIIa, b or c, ungraded), as determined by the author of the original heritage impact assessment report or by formal grading and/or protection by the heritage authorities.

Sites identified and mapped during research projects will also be considered.

DETERMINATION OF THE EXTENT OF THE INCLUSION ZONE TO BE TAKEN INTO CONSIDERATION

The extent of the inclusion zone to be considered for the Heritage Screener will be determined by CTS based on:

- the size of the development,
- the number and outcome of previous surveys existing in the area
- the potential cumulative impact of the application.

The inclusion zone will be considered as the region within a maximum distance of 50 km from the boundary of the proposed development.

DETERMINATION OF THE PALAEONTOLOGICAL SENSITIVITY

The possible impact of the proposed development on palaeontological resources is gauged by:

- reviewing the fossil sensitivity maps available on the South African Heritage Resources Information System (SAHRIS)
- considering the nature of the proposed development
- when available, taking information provided by the applicant related to the geological background of the area into account

DETERMINATION OF THE COVERAGE RATING ASCRIBED TO A REPORT POLYGON

Each report assessed for the compilation of the Heritage Screener is colour-coded according to the level of coverage accomplished. The extent of the surveyed coverage is labeled in three categories, namely low, medium and high. In most instances the extent of the map corresponds to the extent of the development for which the specific report was undertaken.

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Low coverage will be used for:

- desktop studies where no field assessment of the area was undertaken;
- reports where the sites are listed and described but no GPS coordinates were provided.
- older reports with GPS coordinates with low accuracy ratings;
- reports where the entire property was mapped, but only a small/limited area was surveyed.
- uploads on the National Inventory which are not properly mapped.

Medium coverage will be used for

- reports for which a field survey was undertaken but the area was not extensively covered. This may apply to instances where some impediments did not allow for full coverage such as thick vegetation, etc.
- reports for which the entire property was mapped, but only a specific area was surveyed thoroughly. This is differentiated from low ratings listed above when these surveys cover up to around 50% of the property.

High coverage will be used for

• reports where the area highlighted in the map was extensively surveyed as shown by the GPS track coordinates. This category will also apply to permit reports.

RECOMMENDATION GUIDE

The Heritage Screener includes a set of recommendations to the applicant based on whether an impact on heritage resources is anticipated. One of three possible recommendations is formulated:

(1) The heritage resources in the area proposed for development are sufficiently recorded - The surveys undertaken in the area adequately captured the heritage resources. There are no known sites which require mitigation or management plans. No further heritage work is recommended for the proposed development.

This recommendation is made when:

- enough work has been undertaken in the area
- it is the professional opinion of CTS that the area has already been assessed adequately from a heritage perspective for the type of development proposed

(2) The heritage resources and the area proposed for development are only partially recorded - The surveys undertaken in the area have not adequately captured the heritage resources and/or there are sites which require mitigation or management plans. Further specific heritage work is recommended for the proposed development.

This recommendation is made in instances in which there are already some studies undertaken in the area and/or in the adjacent area for the proposed development. Further studies in

- a limited HIA may include:

 improvement on some components of the heritage assessments already undertaken, for instance with a renewed field survey and/or with a specific specialist for the type of heritage resources expected in the area
 - compilation of a report for a component of a heritage impact assessment not already undertaken in the area



- undertaking mitigation measures requested in previous assessments/records of decision.
- (3) The heritage resources within the area proposed for the development have not been adequately surveyed yet Few or no surveys have been undertaken in the area proposed for development. A full Heritage Impact Assessment with a detailed field component is recommended for the proposed development.

Note:

The responsibility for generating a response detailing the requirements for the development lies with the heritage authority. However, since the methodology utilised for the compilation of the Heritage Screeners is thorough and consistent, contradictory outcomes to the recommendations made by CTS should rarely occur. Should a discrepancy arise, CTS will immediately take up the matter with the heritage authority to clarify the dispute.