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KENHARDT PV4-6: COMPLIANCE WITH PRE-CONSTRUCTION CONDITION, HERITAGE SURVEY

Dear Sonia

This letter serves to describe the pre-construction heritage survey of the water courses within the Kenhardt PV4, PV5 and PV6 solar energy facilities on the Remainder of the farm Onder Rugzeer 168. The letter provides proof that the authorisation condition to commission this survey has been complied with. It also makes recommendations as required. This letter will need to be presented to the South African Heritage Resources Agency (SAHRA) as proof that the required survey has been completed. The SAHRA Case Numbers for these projects are: PV4: 14914, PV5: 14909 and PV6: 14912.

Previous work

Previous reports describing heritage surveys on the property are listed below. They were consulted so as to have an understanding of the types of heritage resources that might be expected.

- Orton, J. 2015a. Scoping and Environmental Impact Assessment for the proposed development of a 75 Mw Solar Photovoltaic Facility (Kenhardt PV 1) on the Remaining Extent of Onder Rugzeer Farm 168, North-East of Kenhardt, Northern Cape Province: EIA Report - Heritage Impact Assessment. Unpublished report prepared for CSIR. Muizenberg: ASHA Consulting (Pty) Ltd.
- Orton, J. 2015b. Scoping and Environmental Impact Assessment for the proposed development of a 75 Mw Solar Photovoltaic Facility (Kenhardt PV 2) on the Remaining Extent of Onder Rugzeer Farm 168, North-East of Kenhardt, Northern Cape Province: EIA Report - Heritage Impact Assessment. Unpublished report prepared for CSIR. Muizenberg: ASHA Consulting (Pty) Ltd.
- Orton, J. 2015c. Scoping and Environmental Impact Assessment for the proposed development of a 75 Mw Solar Photovoltaic Facility (Kenhardt PV 3) on the Remaining Extent of Onder Rugzeer Farm 168, North-East of Kenhardt, Northern Cape Province: EIA Report - Heritage Impact Assessment. Unpublished report prepared for CSIR. Muizenberg: ASHA Consulting (Pty) Ltd.
- Orton, J. 2019a. Heritage Impact Assessment: Basic Assessments for the proposed construction of the Kenhardt PV4 Solar Photovoltaic Facility and associated electrical infrastructure, near Kenhardt, Northern Cape. Unpublished report prepared for CSIR Environmental Management Services. Lakeside: ASHA Consulting (Pty) Ltd.
- Orton, J. 2019b. Heritage Impact Assessment: Basic Assessments for the proposed construction of the Kenhardt PV5 Solar Photovoltaic Facility and associated electrical infrastructure, near Kenhardt, Northern Cape. Unpublished report prepared for CSIR Environmental Management Services. Lakeside: ASHA Consulting (Pty) Ltd.
- Orton, J. 2019c. Heritage Impact Assessment: Basic Assessments for the proposed construction of the Kenhardt PV6 Solar Photovoltaic Facility and associated electrical infrastructure, near Kenhardt, Northern Cape. Unpublished report prepared for CSIR Environmental Management Services. Lakeside: ASHA Consulting (Pty) Ltd.

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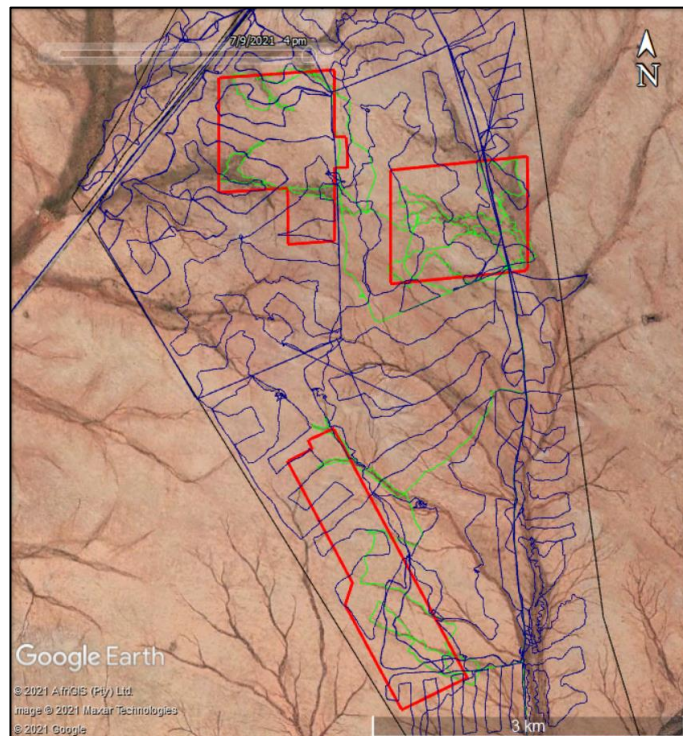
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Survey methodology

The site was examined on aerial photography to determine where the various watercourses lay. The water courses were then traced on the aerial photography and uploaded to a handheld GPS receiver set to the WGS84 datum. The GPS was then used to guide the survey on the ground since water courses are not always obvious once on site. The survey was carried out on 9 July 2021. The image at right shows the accumulated survey tracks from all previous surveys by the author in blue with the tracks from the present pre-construction survey indicated in green. It must be noted that in some parts of the site, especially along the water courses, the grass was quite dense and visibility was restricted.



Description of the site

The site is generally fairly flat but there are enough very gentle undulations to result in many small water courses being present. The main ones have been avoided by the PV developments but a number of smaller ones do still occur within the footprints. The photographs below show the nature of these water courses.



Looking to the northwest along a water course in the southern part of PV4.



Looking to the southeast along a water course in the northern part of PV5.



Looking to the southeast along an ephemeral water course in the northern part of PV6.



Looking to the northwest along a very ephemeral water course (marked by the bushes) in the southern part of PV4.

Findings

The survey recorded a number of finds, but none of these are of any cultural significance. They are listed and described in the table below. They include stone artefacts from the Early Stone Age (ESA), Middle Stone Age (MSA) and Late Stone Age (LSA) as well as some historical materials. Two isolated fragments of ostrich eggshell were seen but not recorded. Also not recorded was a single large cortical flake made from silcrete. This material is not known from the area so the artefact may have travelled some distance before being discarded here. An isolated small tin bucket was also photographed but not recorded spatially. Some of the finds are illustrated below.

Waypoint	Co-ordinates	PV	Description	Significance & Grade
1959	S29 13 26.7 E21 18 21.0	PV4	An ephemeral scatter of adiaagnostic quartz flaked artefacts occurs on both sides of the water course. The artefacts are fairly fresh-looking so are likely Later tone Age (LSA).	Low GPC
1960	S29 13 18.7 E21 18 20.6	PV4	A widespread ephemeral scatter of adiaagnostic quartz flaked artefacts.	Low GPC
1961	S29 12 59.6 E21 18 28.7	PV4	An ephemeral scatter of quartz artefacts displaying variable weathering and therefore mixed age. There are a few very fresh-looking ones that are assumed to be LSA, while the rest are probably from the Middle Stone Age (MSA). A quartzite flake was also noted a short distance away from this scatter.	Low GPC
1962	S29 13 07.9 E21 18 21.0	PV4	A quartz outcrop with evidence of flakes having been removed from it.	Low GPC
1963	S29 13 06.9 E21 18 33.2	PV4	A cluster of quartz cobbles placed in an oval shape. This is not a grave as there is no evidence of the ground having been disturbed beneath the cobbles.	Low GPC
1964	S29 12 28.3 E21 17 33.5	PV5	A widespread and very ephemeral scatter of glass and tin fragments. There were three green glass fragments, two of which were under a tree, and one blue glass fragment.	Low GPC
1965	S29 12 31.9 E21 17 40.0	PV5	A large tree with a scatter of flat rock slabs around its north-western side. The rocks are spread quite widely over an area of at least 6 m by 6 m so they do not represent a grave. There are also three fragments of glass and some metal items in the area. The glass is all green but represents two bottles. The metal includes a large (c. 0.6 m) flat piece with some holes, a one gallon fuel can, a smaller can (volume c. 3 litres) and the lid of what might have been a shoe polish tin..	Low GPC
1966	S29 14 20.6 E21 18 03.8	PV6	A light scatter of medium-sized quartz flaked artefacts. Although the artefacts are adiaagnostic, they are quite fresh which suggests LSA.	Low GPC

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1967	S29 14 20.3 E21 18 00.5	PV6	An ephemeral scatter of adiaagnostic quartz artefacts located on a hard red substrate.	Low GPC
1968	S29 15 15.6 E21 18 22.8	PV6	An isolated handaxe measuring about 150 x 95 x 50 mm. It is complete and made on a metamorphic rock of sorts. Weathering over time has resulted in several cracks through the artefact.	Low GPC



Oval-shaped cluster of quartz cobbles (waypoint 1963, PV4).



An isolated tin bucket from the PV5 area.



Tree with rock slabs around it (waypoint 1965, PV5).



One gallon fuel can (waypoint 1965, PV5).



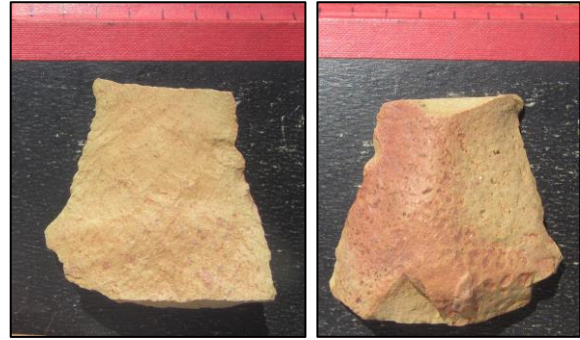
Tin lid and glass fragments representing two different bottles (waypoint 1965, PV5). Scale in cm.



Tin and fuel can. The latter has PRODUCT OF USE, PEGASUS and 4 IMPERIAL GALLONS embossed on it (PV6).



Quartz flaked artefacts (waypoint 1926, PV6). Scale in cm.



Ventral and dorsal surfaces of a silcrete cortical flake (PV5). Scale in cm.




Both sides and both edges of the handaxe (waypoint 1968, PV6). Measurements as per the table above.

Conclusion and recommendation

This survey recorded several further observations on Onder Rugzeer 168/rem but none of them is of any cultural significance.

It is recommended that SAHRA endorse this letter as proof of compliance with the pre-construction survey. No further heritage work is required for any of these three PV projects and they may proceed to the construction phase.

Yours sincerely



Jayson Orton

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