

**PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT REPORT ON
PORTIONS OF THE FARM GREEN VALLEY NUTS NEAR PRIESKA,
KAROO DISTRICT MUNICIPALITY, NORTHERN CAPE PROVINCE.**

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EXECUTIVE SUMMARY

The purpose of this study was to determine if any archaeological or other heritage sites were present on 8 areas of natural veld on the farm Green Valley Nuts, which is situated ~20 km north - east of Prieska in the Karoo District Municipality of the Northern Cape Province. Those areas are predominantly surfaced by beige silts, somewhat sparsely covered by grass and occasional low bushes, that are extremely flat, except for two areas (Nos. 3 & 4), where low relief (up to ~3 m) was provided by vegetated red sand dunes. A foot survey over the full extent of all areas by a team of three on Tuesday 2 September 2008 produced a few small scatters of MSA or Fauresmith material, but nowhere did we see any archaeological sites, palaeontological bones, or early structures / graves. These findings lead me to conclude that the inspected areas have no significant heritage potential and that their proposed use for the centre – pivot cultivation of maize and potatoes will have no impact on the heritage resources of the Northern Cape.

BACKGROUND INFORMATION

My report is part of an EIA that is being compiled by Marquerite Geldenhuys of MEG Environmental Impact Studies on behalf of the management of the Industrial Development Corporation (IDC) – owned farm Green Valley Nuts (tel. 053 353 3308 / 9). This first commercial pistachio farm in South Africa currently has some 1000 ha of those hardy trees under drip irrigation, with mechanical harvested nuts being preserved within 24 hours in a state of the art plant on the farm. They have latterly called on Karsten Boerderye at Kanoneiland to advise on increasing farm efficiency and profitability, with one of the accepted recommendations being that they diversify somewhat to reduce their present reliance on a single market product. To that end they intend to utilize eight areas of natural veld falling within their current water reticulation system to produce centre – pivot irrigated maize and potatoes, for which local and regional demand continues to grow.

My terms of reference were to detail observations based on a field survey of those areas and to assess the significance of heritage impacts, should the planned development go ahead. Such a report is required by the National Heritage Resources Act (no. 25 of 1999), which states that no development may take place without heritage assessment and approval.

REGIONAL ARCHAEOLOGY

Almost no systematic research has as yet been undertaken in the Prieska region, in which the nearest known site to Green Valley Nuts is on a nearby meander of the Orange River, where consultant A. du Toit has reported seeing old river gravels with a surface scatter of small handaxes. There are also very low – density occurrences of ESA material on the crest of many Asbestos Hills Banded Ironstone Formation – capped hills to the north and west, with those most recently located being on the farm Glen Allen (Phase 1 EIA dated 18 January 2008). In the town area itself, on the southern slope of a hill with a reservoir on it, is a small shelter, where a test pit sunk by the author in the 1980's revealed a shallow unstratified deposit with fairly sparse undiagnostic LSA that is now housed at the McGregor Museum. And about 50 km to

the west of Green Valley Nuts is an early MSA or Fauresmith locality with associated fauna, located on the edge of a small pan on the farm Bundu, that was excavated during the past decade by Phil Kiberd (2002).

PROPERTY DESCRIPTION

The eight inspected areas, ~180 ha in total extent, lie on the farm Green Valley Nuts, which is made up of Portions 17, 19, 21, 22, and 23 of the original farm Muis Hoek 34, some 20 km to the north – east of Prieska in the Karoo District Municipality of the Northern Cape (Figs. 1 & 2). Most of these areas lie on a flat plain of beige silt, sparsely covered by bushes and grass, largely Bushman grass (*Stipagrostis sp.*) (Figs. 3 – 7) for which extents and co-ordinates, listed clockwise from the west are (Fig. 2):

Area 1, 25 ha at 29° 35' 28.0" S, 22° 57' 31.8" E
29° 35' 23.6" S, 22° 57' 46.9" E
29° 35' 27.8" S, 22° 57' 59.6" E
29° 35' 32.5" S, 22° 57' 46.6" E

Area 2, 30 ha at 29° 35' 15.5" S, 22° 57' 06.8" E
29° 35' 10.1" S, 22° 57' 16.5" E
29° 35' 18.7" S, 22° 57' 29.4" E
29° 35' 28.7" S, 22° 57' 16.1" E

Area 3, 30 ha at 29° 35' 46.9" S, 22° 56' 55.2" E
29° 34' 43.8" S, 22° 57' 03.2" E
29° 34' 27.8" S, 22° 56' 16.8" E
29° 34' 53.8" S, 22° 56' 04.1" E

Area 4, 12 ha at 29° 35' 29.8" S, 22° 57' 17.2" E
29° 35' 36.3" S, 22° 57' 25.3" E
29° 35' 41.5" S, 22° 57' 28.4" E
29° 35' 44.6" S, 22° 57' 22.6" E

Area 5, 12 ha at 29° 35' 29.5" S, 22° 57' 46.7" E

29° 35' 23.5" S, 22° 57' 53.6" E

29° 35' 27.8" S, 22° 57' 59.9" E

29° 35' 35.7" S, 22° 57' 52.6" E

Area 6, 12 ha at 29° 35' 42.0" S, 22° 56' 16.4" E

29° 35' 37.2" S, 22° 56' 23.5" E

29° 35' 42.4" S, 22° 56' 30.7" E

29° 35' 48.4" S, 22° 56' 22.0" E

Area 7, 30 ha at 29° 35' 14.7" S, 22° 56' 13.4" E

29° 35' 05.1" S, 22° 56' 23.5" E

29° 35' 11.5" S, 22° 56' 29.8" E

29° 35' 20.2" S, 22° 56' 23.2" E

Area 8, 30 ha at 29° 35' 29.4" S, 22° 55' 58.4" E

29° 35' 20.9" S, 22° 56' 06.3" E

29° 35' 30.3" S, 22° 56' 14.0" E

29° 35' 36.3" S, 22° 56' 08.4" E

Tuesday 2 September 2008 was spent walking over the full extent of these areas in the company of Marquerite Geldenhuys and botanist Noel van Rooyen, who reported all artefacts they spotted, which was not difficult, given that lithic turned out to be largely based on banded ironstone.

SUPERFICIAL SEDIMENTS

Sections provided by trenches suggest that the entire farm is underlain by 2 m and more of unstratified beige fluvial silts of which the lower reaches show minor post-depositional calcification. In Areas 7 and 8 there were also small and seemingly thin patches of very fine subangular – rounded clasts that are taken to be river shingle occurrences. I heard that a trench to extract these, situated near the processing plant, was the source of the surfacing material seen on the dirt roads throughout the

farm. These clues, in all, suggest that the entire farm lies on an old river terrace (at +10 m) of silt and minor intercalated gravel lenses that likely formed during a major interglacial. Overlying these deposits in Areas 3 and 4 are dunes of red Kalahari sand that were probably introduced in Last Glacial times and reworked during Holocene dry interludes (Fig. 8). Nowhere were there any springs or seeps in the inspected areas, which all lie close to the Orange River to the west and the salt – laden Brak River to the south (Fig. 9).

HERITAGE FINDINGS

Area 1: We began in this area, but our zig – zag search over its surface, including sand piles next to aardvark and porcupine burrows, revealed no stones of any sort.

Area 2: Noel van Rooyen and Marquerte Geldenhuys spotted scattered artefacts, some 17 in all, extending sporadically for some 25 m south of 29° 35' 24.3" S, 22° 57' 26.0" E (Figs. 10 & 11). Lithics were mainly broken fragments based on banded ironstone, but included a few on quartzite and hornfels, with a clear faceted platform on one flake indicating that these items were not recent.

Area 3: In this area I located a single small scatter of ~10 similar pieces to the south of a low dune, at 29° 34' 46.2" S, 22° 57' 17.7" E.

Area 4: Our search there revealed nothing except for two undiagnostic banded ironstone specimens lying on the edge of the steep slope leading down to the Brak River.

Area 5: A small area with ~6 undiagnostic banded ironstone artefacts on its mud – cracked surface was located by me at 29° 35' 24.6" S, 22° 56' 57.6" E. Further south, Noel van Rooyen found a bare patch with 8 artefacts, including the find of our visit, a fine convergent point on banded ironstone, at 29° 35' 26.2" S, 22° 56' 57.5" E (Fig. 12).

Area 6: Our search there revealed that all surfaces were bereft of any stones.

Areas 7 & 8: I located two small patches with a few fresh – lightly smoothed artefacts, largely on banded ironstone, of which one of note was a blade broken at both ends. Both areas were associated with fine gravel exposures and located at 29° 35' 30.4" S, 22° 56' 07.9" E and 29° 35' 26.4" S, 22° 56' 05.2" E respectively (Fig. 13).

Additional: I also noted that road surfacing material from the deep trench near the processing plant included a low density of artefacts, also on banded ironstone, that included one convergent point.

Interpretation: Recurrent evidence for facetting in the Area 2 – 8 samples and the single convergent point from Area 5 is taken to indicate that this largely broken material refers to the MSA and / or Fauresmith (Beaumont & Vogel 2006). Concerning the patchy (non – random) distribution of the occurrences, this probably relates to the observation that these all came from small (~3 – 8 m across) depressions ~5 – 15 cm below surrounding surfaces. These were, typically largely bereft of plant cover and sometimes had mud – cracked floors, indicating a more clayey substrate that would sustain pools for a while after rains (Figs. 14 – 16). It may therefore be that the associated lithics reflect discards incidental to their sporadic use as a water source by early humans, in preference to nearby rivers, where greater danger lurked in the forests flanking them. Those pools would, of course, also have been utilized by local animals, with trampling by them the most likely cause of the finding that two of the artefacts were embedded edge upright. Nowhere within Areas 1 – 8 did I see any archaeological sites, palaeontological bones or structures / graves of any age.

CONCLUSIONS

My conclusion is thus that the eight inspected area contains no significant heritage material and that their proposed use for the growing of maize and potatoes will have no impact on the heritage resources of the Northern Cape Province.

REFERENCES

Beaumont, P.B. and Vogel, J.C. 2006. On a timescale for the past million years of human history in central South Africa. *S. Afr. J. Sci.* **102**, 217 – 228.

Kiberd, P. 2002. Bundu Farm Pan, Northern Cape. *The Digging Stick* **19** (3), 5 – 8.

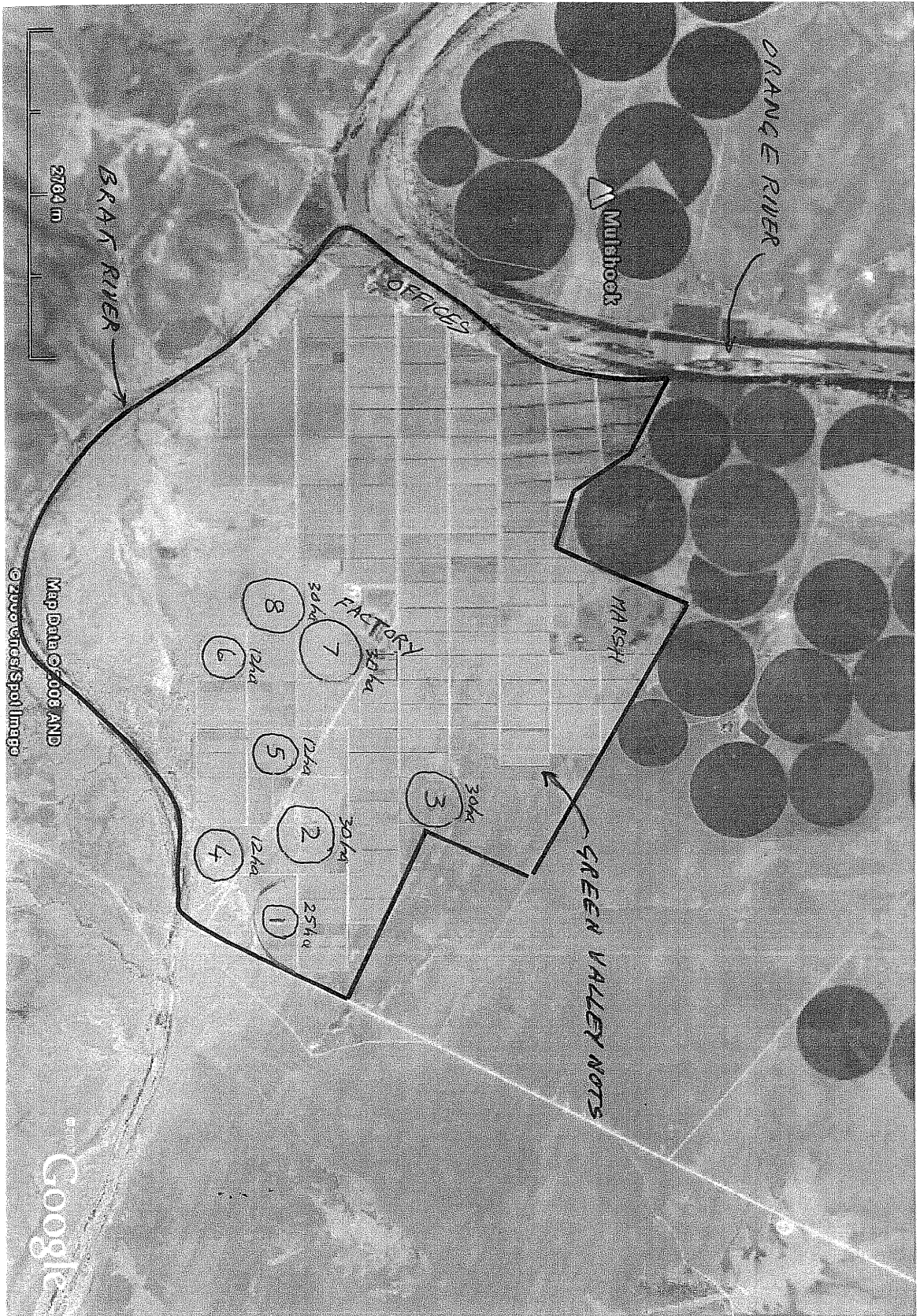


FIG. 2.

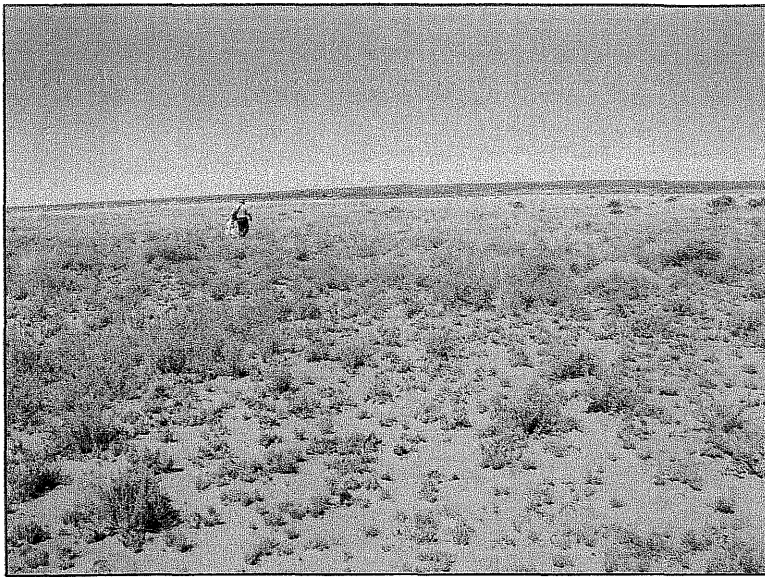


FIG. 3. VIEW IN AREA 1.



FIG. 4. PLANT COVER IN AREA 1.

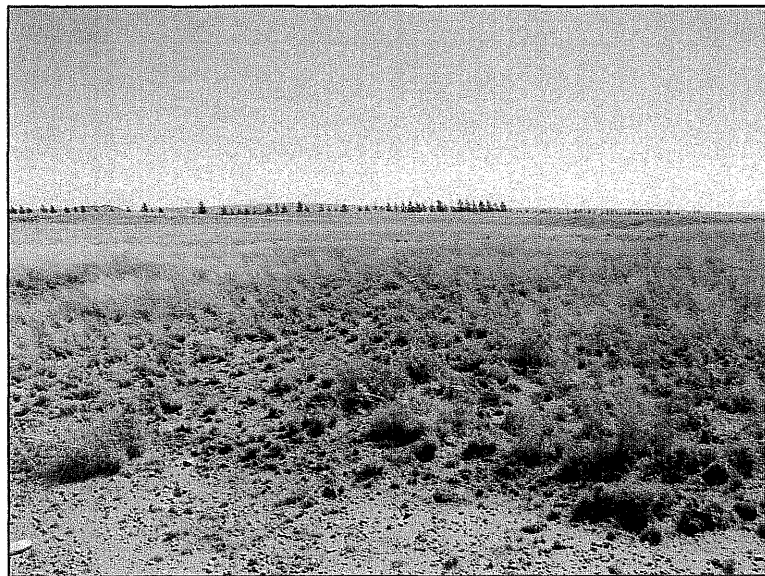


FIG. 5. VIEW IN AREA 2.

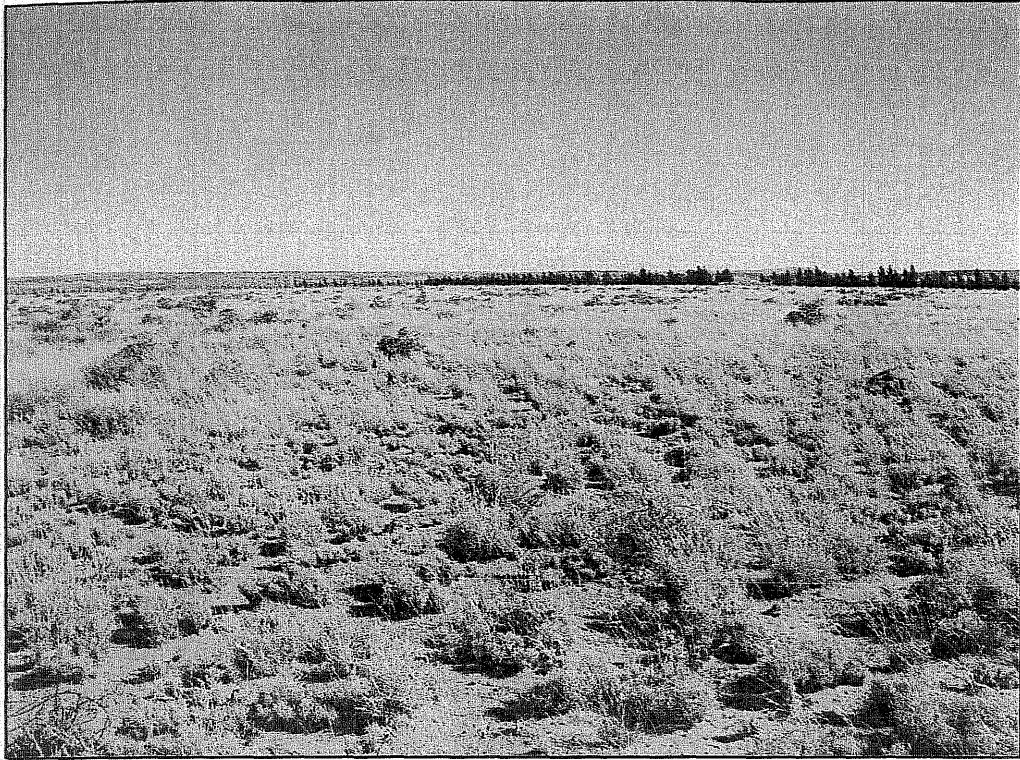


FIG. 6. VIEW IN AREA 5

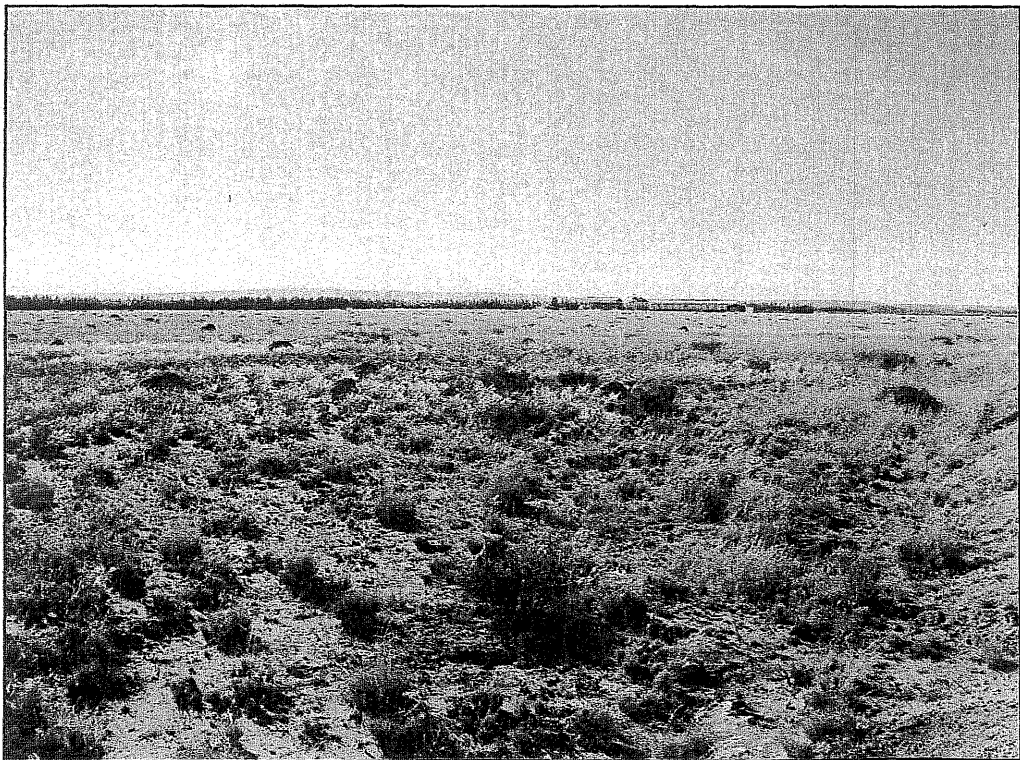


FIG. 7. VIEW IN AREA 7.



FIG. 8. A SMALL DUNE IN AREA 3.

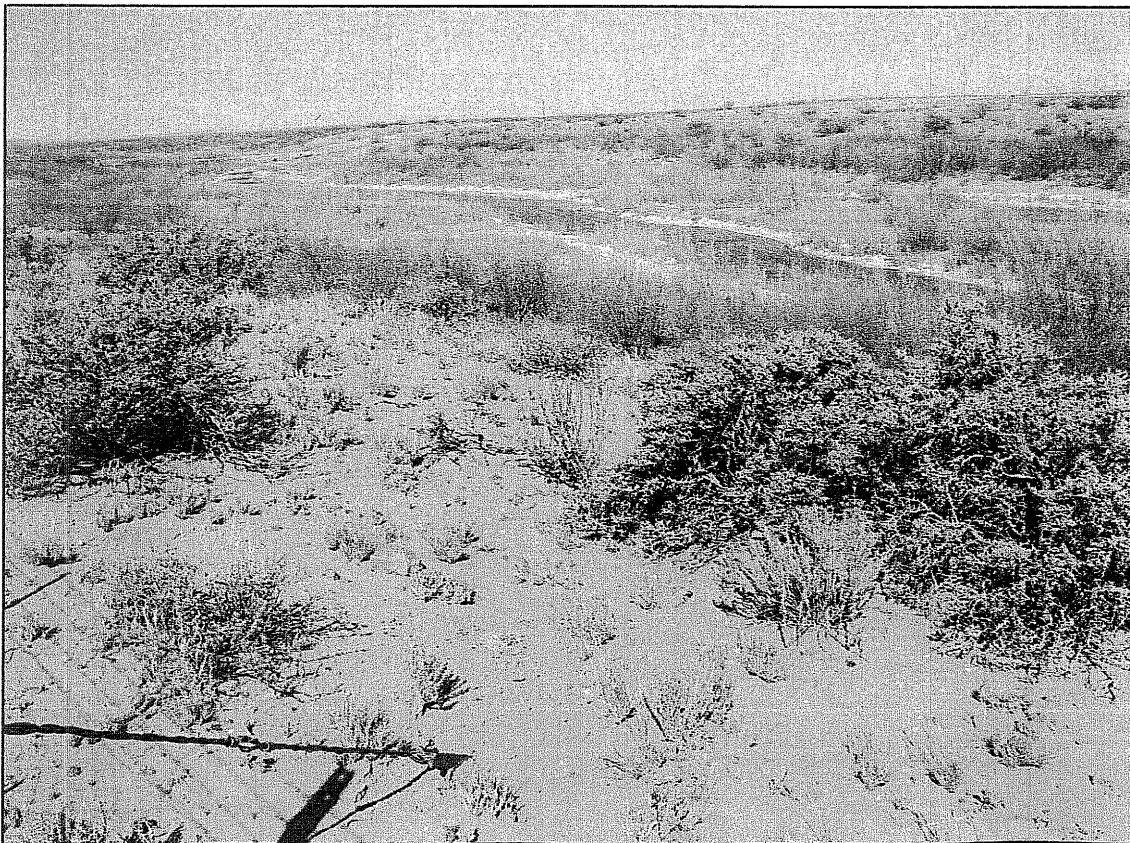


FIG. 9. THE BRAC RIVER, BORDERING AREA 4.



FIG. 10. ARTEFACTS, INCLUDING ONE ON QUARTZITE, FROM AREA 2.



FIG. 11. ARTEFACTS, INCLUDING ONE ON HORNFELS, FROM AREA 2.



FIG. 12. ARTEFACTS, INCLUDING A POINT, FROM AREA 5.

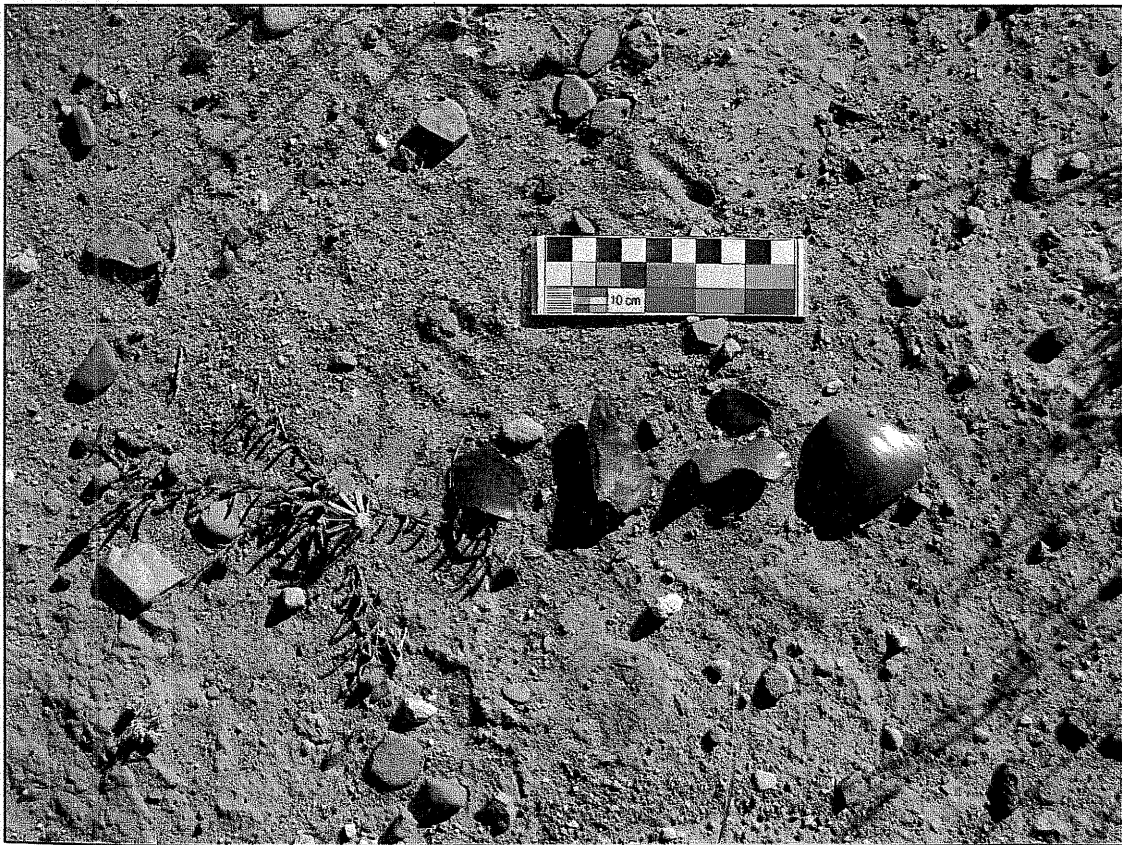


FIG. 13. ARTEFACTS AND FINE GRAVEL, FROM AREA 7.

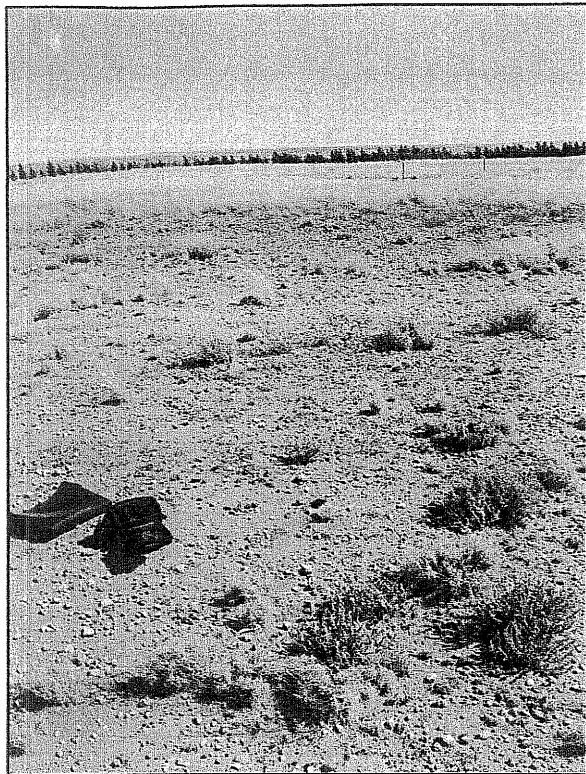


FIG 14. FIND VICINITY, AREA 2

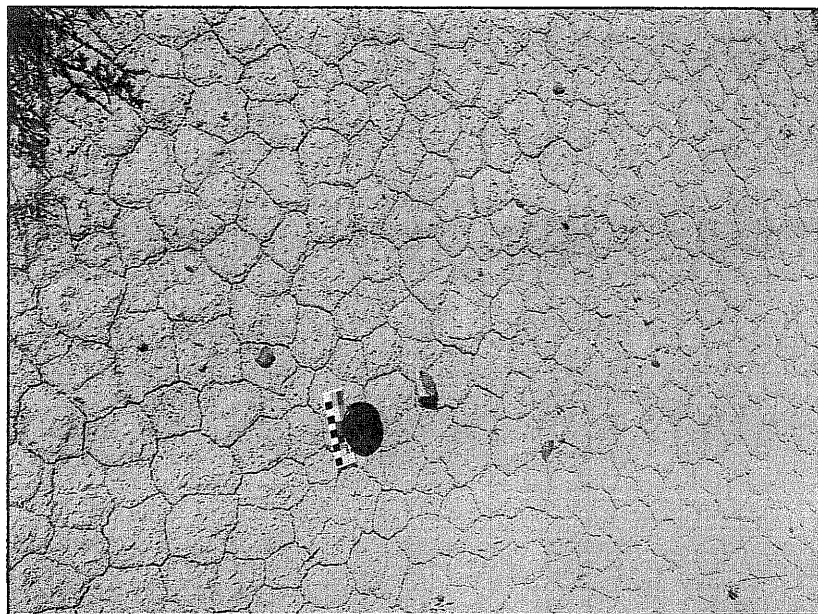


FIG. 15. FIND SURFACE, AREA 5.

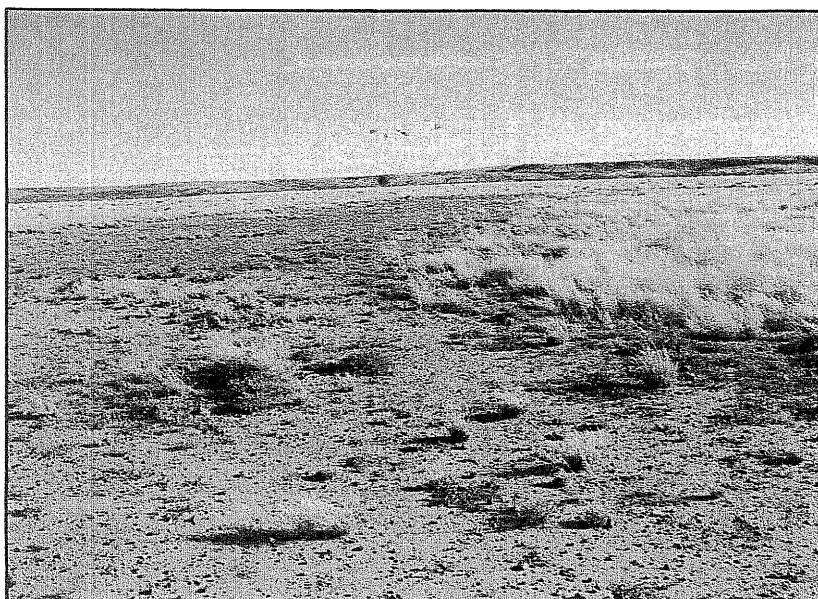


FIG 16. FIND VICINITY, AREA 7.