

ABORIGINAL SITE SURVEY



REPORT ON A PRELIMINARY ARCHAEOLOGICAL INVESTIGATION FOR ABORIGINAL SITES MIDWEST IRON AND STEEL PROJECT AREAS MULLEWA

Prepared for Kingstream Resources N.L.

By Gary Quartermaine

August 1996

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Abstract

A preliminary archaeological investigation of three project areas in the Mullewa district was commissioned by Kingstream Resources N.L.

Five archaeological sites have been registered in the vicinity of the Tallering Project Area, fourteen near Koolanooka Hills Project Area and one near Blue Hills Project Area.

Background information and recommendations for future archaeological work are contained in this report.

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1.0 INTRODUCTION

1.1 Background to Survey

A preliminary investigation for Aboriginal heritage significance of proposed development areas in the Mullewa region was commissioned by Kingstream Resources N.L. and executed in July/August, 1996. Gary Quartermaine conducted the archaeological investigation with Caroline Heine as research assistant while Rory O'Connor conducted the ethnographic investigation which is reported upon separately.

The objectives of the investigation were the assembly of data from previous work in the region, including information from the Culture and Heritage Division, Aboriginal Affairs Department (formerly the Department of Aboriginal Sites, W.A. Museum) Aboriginal site files, previous survey reports, maps and environmental information.

1.2 Location

The proposed development areas are in three separate parts (see Figure 1). They are as follows :-

- i. Midwest Iron and Steel Talling Project :
 - a. Rail link from Talling to Spring Park Siding, with service road - nominal width of 100 metres each side of the centreline (52 kilometres in length);
 - b. Road link to Mullewa - Carnarvon Road - 50 metres each side of centreline (13 kilometres in length);
 - c. Road link with southern end of railway to the north of Mullewa - 50 metres each side (5 kilometres in length);
 - d. Water pipe from the Casuarinas to the main Geraldton - Mullewa Road - 50 metres on west side of gravel track (33.5 kilometres in length). See Figure 2.
- ii. Koolanooka Hills - 14 x 8 kilometres (Figure 3).
- iii. Blue Hills - 17 x 18 kilometres (Figure 3).

2.0 ARCHAEOLOGY

2.1 Obligations under the Act

The Western Australian *Aboriginal Heritage Act*, 1972 and amendments 1980 and 1995, makes provision for the recording and preservation of places and objects customarily used by, or traditional to, the original settlers of Australia. The Act defines the obligations of the community relating to sites (Sections 15-18, Appendices 1 and 2).

Background research - this involved familiarisation with Aboriginal site files, survey reports, plus maps and environmental information for the area to be surveyed. Previously recorded Aboriginal sites, registered with the Culture and Heritage Division, Aboriginal Affairs Department, are listed in Table 1.

2.2 Site Definitions

Aboriginal material culture is based, to a large extent, on non-durable materials, such as wood, bark, fibre and skins, that have a limited life in the archaeological record. Stone tools, conversely, remain as often the only evidence of prehistoric activity. Bone, either as a tool, as refuse, or as a burial, falls somewhere between these extremes. Lofgren (1975:7) describes spears, spear-throwers and clubs for men, and digging sticks, wooden carrying dishes and grindstones for women, as the basic implements of Aboriginal life.

Therefore, stone artefact sites reflect only one aspect of Aboriginal material culture which utilised a wide range of materials from the natural environment.

For the purpose of this investigation, an archaeological site is defined as "any place containing traces of past human activity" (Fagan, 1980:7). This is manifested in a number of different site components which may occur singularly or with one or more of the others to form an archaeological site. The most common of these are surface artefact scatters, quarries, art sites, stone arrangements, rockshelters with evidence of occupation, grinding patches, shell middens, burials and marked trees.

An artefact scatter is presently recorded as a site if it contains a concentration of artefacts in contextual association, three or more in an area of one square metre or more. Areas of solitary artefacts, called Isolated Finds, are presently recorded but not registered as Aboriginal sites. This was not always the case in the past and some previously registered sites contain only a solitary artefact. The average artefact density of a site should be more than five times that of the background scatter for a particular environmental zone in any given area (Hiscock, 1989; Hiscock and Mitchell, 1991:20; Hughes and Quartermaine, 1992:40).

The above definition of archaeological sites is a scientific definition. However, registered Aboriginal sites may not meet the scientific criteria on all occasions. The assessment as to whether such sites are covered by the provisions of the W.A. *Aboriginal Heritage Act*, 1972, Section 5, is made for the Minister for Aboriginal Affairs by the Aboriginal Cultural Material Committee. Such assessment is undertaken as part of a Section 18 application for site disturbance.

2.3 Previous Archaeological Research

The earliest evidence for prehistoric occupation of the South-West of Australia is dated at 38,000 years ago, for a stratified site at Upper Swan, located 25km northwest of Perth (Pearce and Barbetti, 1981). Regional dated evidence comes from a coastal shell and stone artefact scatter at Middle Head, near Jurien, dated to 6,000 years ago (Morse, 1982), and from human occupation of Hastings Cave, dated from 6,000 to 8,000 years ago (Baynes, 1979).

Prehistoric stone tool industries in the South-West have been classified into earlier and later phases (Dortch, 1977). The early phase industries have only been documented from a few well-dated sites. They include small thick flake scrapers, bipolar cores, notched-denticulated pieces, flakes from discoidal cores, and single and multi-platform cores. These artefacts have been manufactured from a range of lithic materials, including quartz, dolerite, chert and silcrete.

Later phase stone industries, generally found in archaeological contexts dating from 4,000 years ago, include the addition of geometric microliths, backed blades, and a variety of adze flakes, which are part of the Australian "small tool tradition" (Dortch, 1977; Mulvaney, 1975).

Regional sites include several surface artefact scatters, a burial site, a ceremonial site, a quarry, and stone arrangements. The artefact scatters are mainly small, low density sites, dominated by quartz with some chert and silcrete.

Previously recorded sites in the wider region indicate that stone artefacts were made on a range of lithic materials. These were quartz, banded ironstone, various silicified sediments, and silcrete. Artefact types recorded include multi-platform cores, flakes, blades, scrapers, adzes and grinding stones.

Pickering (1982) observes that artefacts, for near-coastal inland sites, are generally of a small size, irregular morphology and low number, based on survey work on the Dampier-Perth gas pipeline route (see also O'Connor and Quartermaine, 1987; O'Connor, *et al*, 1989; and Quartermaine, 1989).

The surface artefact scatter sites previously recorded in parts of the wheatbelt are mostly low density scatters with few artefacts present. Quartz and dolerite flakes are the dominant type of artefact but also recorded are scrapers, cores, grinding stone fragments and chips and pieces (see Anderson, 1981; Lipple and Baxter, 1976; O'Connor and Quartermaine, 1987; O'Connor, Quartermaine and Bodney, 1988a,b,c, 1989; Pickering, 1982; Quartermaine, 1987, 1989, 1992, 1993).

Several of these sites contain less than five artefacts and have been recorded on topographic grounds (Anderson, 1981:5). They are often in disturbed contexts and Anderson (1981:5) also notes that easily identifiable artefacts have been collected by landowners and others over the years (e.g. S0793, S1385 and S1908 : see Appendix 3).

The margins of watercourses are the most likely locations of larger archaeological sites, as in other parts of the state, and only small sites are expected away from these areas. Rock outcrops may also contain archaeological evidence in the form of paintings, stone arrangements or artefact scatters. These are often associated with gnamma (water) holes.

From the available information, the following predictions are made for the Mullewa area. Sites would most likely be small, low density artefact scatters situated on eroding watercourse margins. Larger sites may be found near sources of permanent water, quarry sites at suitable lithic outcrops, and breakaways may contain rockshelters with archaeological material. Quartz appears to form the highest percentage of lithic material used, and flakes and chips the main artefact types.

Archival Research

Descriptions of most of the sites listed in the region are sparse. This is the result of miscellaneous recordings by farmers and other interested people, some time ago, before more precise recording methods became *de rigeur*. One explanation for the low number of sites recorded in the wider region, except for discrete and undisturbed areas, may be that intensive farming in the region over time and associated infrastructure may have destroyed evidence of sites.

i. Midwest Iron and Steel Tallinging Project

As a result of research at Heritage and Culture Division, five archaeological sites have been registered in the vicinity of the various alignments (see Table 1, Figure 2). Two other sites are of dubious location because of the lack of grid references.

These sites are made up of four artefact sites and one art site. S1386, the art site is an engraving/painting site in a cave with an associated gnamma hole. One artefact site, S1385, is an edge ground axe (collected and appears to be an isolated artefact) and another, S0793, is a muller (also collected). S1908 is an artefact scatter which includes a stone axe. The other artefact site, S2781, is an artefact scatter near Tallinging Peak, recorded during the earlier Tallinging Project survey (Quartermaine, 1992).

Two other sites have been registered on this map sheet but no grid reference is given. They may be near the project area. S1382 is an artefact scatter at Three Wells and S0503 is a cave near Mullewa (no further information available).

ii. Koolanooka Hills

As a result of previous surveys and independent research (Lipple and Baxter, 1976; and O'Connor, Quartermaine and Bodney, 1988c), 14 archaeological sites have been recorded and registered with the W.A. Museum proximate to the project area (see Table 1, Figure 3).

The archaeological sites, in the Koolanooka Hills area, are mainly artefact scatters with some lithic quarry sites. There is little information about these sites in the Museum Aboriginal site files, so it is difficult to determine their composition or size. However, artefacts seem to have been made from either quartz or a fine-grained black basaltic or ultramafic material.

Investigation of Geological Survey files and W.A. Museum artefact collections has clarified the nature and location of some of these sites (see Appendix 3). S0630, S0631, S0632, and S0643 are recorded as solitary artefacts. S0644 and S0645 have four and five artefacts, respectively. S0872 and S0912 are quarry sites. S0646, S0647, S0648, S0845 and S0913 are artefact scatters with a larger number of pieces. The artefacts are mostly made from the basaltic material, mentioned above, which outcrops along the western edge of the Koolanooka Hills, and quartz. Some of the artefacts are weathered, and rarely, may be lichen covered (Lipple and Baxter, 1976; Pickering, 1982; O'Connor and Quartermaine, 1987; O'Connor, et al, 1988a,b,c, 1989; and Quartermaine, 1989, 1992 and 1993).

iii. Blue Hills

Only one site has been registered in this area. This may be the consequence of a lack of survey work carried out in the project area and/or the legacy of disturbance in the area from agricultural clearing. The site is S0024, an artefact scatter and ochre quarry (Table 1, Figure 3).

 TABLE 1 : ARCHAEOLOGICAL SITES NEAR THE PROJECT AREA

1:250,000 Mapsheet

Site No.	Grid Ref.	Site type	Site Name
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i. Midwest Iron and Steel Talling Project

			SH50-1
S0793	O	318.796	Artefact
S1908	O	356.829	Artefact
			SH50-2
S2781	O	361.889	Artefacts
S1385	O	371.882	Artefact
S1386	O	389.895	Art
S0503	O	-.-	Cave
S1382	O	-.-	Artefacts

ii. Koolanooka Hills

			SH50-6
S0126	R	42-.76-	Structure *
S0644	O	422.763	Artefacts
S0643	O	422.766	Artefacts
S0912	O	423.763	Quarry
S0872	O	423.764	Quarry
S0645	O	423.766	Artefacts
S0648	O	424.762	Artefacts
S0647	O	426.762	Artefacts
S0646	O	426.764	Artefacts
S0845	O	426.771	Artefacts
S0913	O	427.761	Artefacts
S0630	O	428.760	Artefacts
S0631	O	428.761	Artefacts
S0632	O	428.763	Artefacts

iii. Blue Hills

			SH50-6
S0024	O	485.776	Artefacts

Key to abbreviation

O = Open access to site file; R = Restricted access.

* Also contains ethnographic component.

3.0 CONCLUSIONS

3.1 Discussion

The project involves investigation for Aboriginal heritage significance of proposed development areas in the Mullewa region and was commissioned by Kingstream Resources N.L.

The proposed development areas are in three separate parts. They are as follows :-

- i. Midwest Iron and Steel Talling Project :
 - a. Rail link from Talling to Spring Park Siding, with service road - nominal width of 100 metres each side of the centreline (52 kilometres in length);
 - b. Road link to Mullewa - Carnarvon Road - 50 metres each side of centreline (13 kilometres in length);
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 - d. Water pipe from the Casuarinas to the main Geraldton - Mullewa Road - 50 metres on west side of gravel track (33.5 kilometres in length).
- ii. Koolanooka Hills - 14 x 8 kilometres.
- iii. Blue Hills - 17 x 18 kilometres.

The preliminary investigation for Aboriginal heritage significance involved the assembly of data from previous work in the region, including information from the Heritage and Culture Division, Aboriginal Affairs Department, Aboriginal site files, previous survey reports, maps and environmental information.

As a result of research at Heritage and Culture Division, five archaeological sites have been registered in the vicinity of the various alignments for the Midwest Iron and Steel Talling Project. Two other sites are of dubious location because of the lack of grid references. These sites are made up of four artefact sites and one art site.

Fourteen archaeological sites have been recorded proximate to the Koolanooka Hills project area. Four of these are solitary artefacts, two are small artefact scatters, five are larger artefact scatters, and two are quarry sites.

Only one site has been registered in the Blue Hills project area. The site is S0024, an artefact scatter and ochre quarry.

From the available information, the following predictions are made for the Mullewa area. Sites would most likely be small, low density artefact scatters situated on eroding watercourse margins. Larger sites may be found near sources of permanent water, quarry sites at suitable lithic outcrops, and breakaways may contain rockshelters with archaeological material. Quartz and fine-grained basaltic material appear to form the highest percentage of lithic material used, and flakes and chips the main artefact types.

3.2 Recommendations

The recommendations which follow are based on investigations of previously recorded sites in the area.

1. Midwest Iron and Steel Talling Project - Once the alignments have been finalised, an archaeological survey of each route should be undertaken to ensure the proponents comply with the requirements of the legislation.

2. Koolanooka Hills - The registered sites in the area should not be disturbed without permission, as outlined below. An archaeological survey of areas of proposed disturbance should precede that disturbance to ensure no archaeological sites are inadvertently disturbed.

3. Blue Hills - An archaeological survey of areas of proposed disturbance should precede that disturbance to ensure no archaeological sites are inadvertently disturbed.

4. Permission to disturb an Aboriginal site is obtained by written application to the Registrar of Aboriginal Sites, Heritage and Culture Division, Aboriginal Affairs Department, for permission to use the land under Section 18 of the Act.

5. It is pointed out that human interference to Aboriginal sites is an offence, unless authorised under the Act, as outlined in Section 17 of the W.A. *Aboriginal Heritage Act, 1972* and amendments 1980 and 1995. Therefore, it is recommended that the Proponents take adequate measures to inform any project personnel of this requirement. Any Aboriginal cultural material discovered in the project area should be reported to the W.A. Museum.

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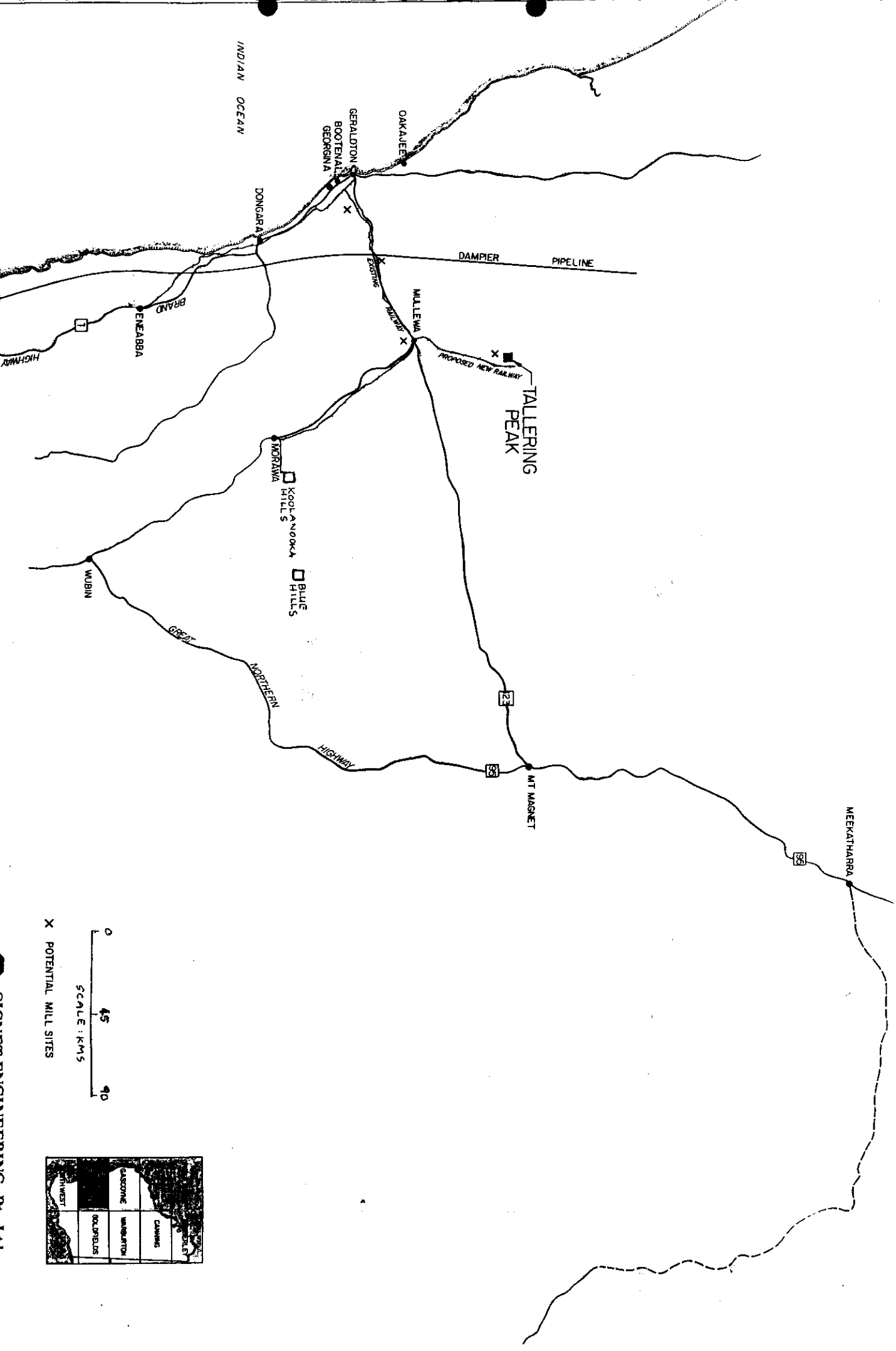
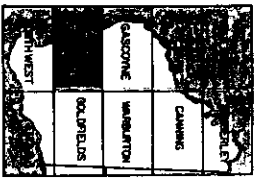
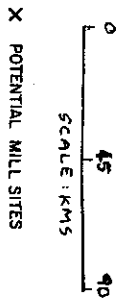


FIGURE 1 : Locality Plan



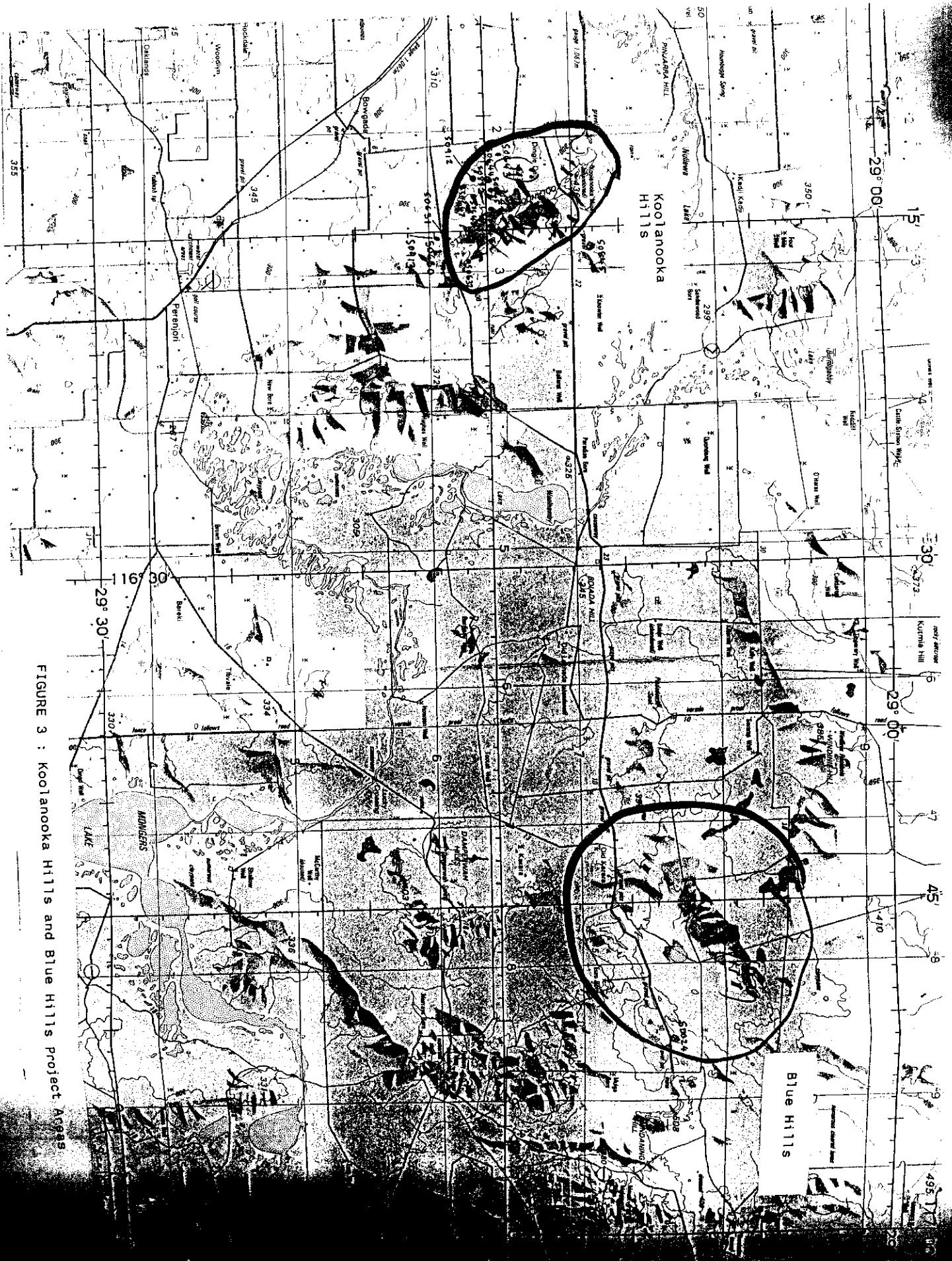


FIGURE 3 : Koolanooka Hills and Blue Hills Project Areas

APPENDICES

APPENDIX 1

OBLIGATIONS RELATING TO SITES UNDER THE ABORIGINAL HERITAGE ACT 1972-1980

*Report of Findings

15. Any person who has knowledge of the existence of anything in the nature of Aboriginal burial grounds, symbols or objects of sacred, ritual or ceremonial significance, cave or rock paintings or engravings, stone structures or arranged stones, carved trees, or of any place or thing to which this Act applied or to which this Act might reasonably be suspected to apply shall report its existence to the Trustees, or to a police officer, unless he has reasonable cause to believe the existence of the thing or place in question to be already known to the Trustees.

Excavation of Aboriginal Sites

16. (1) Subject to Section 18, the right to excavate or to remove any thing from an Aboriginal site is reserved to the Trustees.

(2) The Trustees may authorise the entry upon and excavating of an Aboriginal site and the examination or removal of any thing on or under the site in such manner and subject to such conditions as they may direct.

Offences Relating to Aboriginal Sites

17. A person who-

- (a) excavates, destroys, damages, conceals or in any way alters any Aboriginal site; or
- (b) in any way alters, damages, removes, destroys, conceals, or who deals with in a manner not sanctioned by relevant custom, or assumes the possession, custody or control of, any object on or under an Aboriginal site, commits an offence unless he is acting with the authorisation of the Trustees under Section 16 or the consent of the Minister under Section 18.

Consent To Certain Uses

18. (1) For the purposes of this section, the expression "the owner of any land" includes a lessee from the Crown, and the holder of any mining tenement or mining privilege, or of any right or privilege under the Petroleum Act 1967, in relation to the land.

(2) Where the owner of any land gives to the Trustees notice in writing that he requires to use the land for a purpose which, unless the Minister gives his consent under this section, would be likely to result in a breach of Section 17 in respect of any Aboriginal site that might be on the land, the Trustees shall, as soon as they are reasonably able, form an opinion as to whether there is any Aboriginal site on the land, evaluate the importance and significance of any such site, and submit the notice to the Minister together with their recommendation in writing as to whether or not the Minister should consent to the use of the land for that purpose, and, where applicable, the extent to which and the conditions upon which his consent should be given.

(3) Where the Trustees submit a notice to the Minister under subsection (2) of this section he shall consider their recommendation and having regard to the general interest of the community shall either-

(a) Consent to the use of the land the subject of the notice, or a specified part of the land, for the purpose required, subject to such conditions, if any, as he may specify; or

(b) wholly decline to consent to the use of the land the subject of the notice for the purpose required, and shall forthwith inform the owner in writing of his decision.

(4) Where the owner of any land has given to the Trustees notice pursuant to subsection (2) of this section and the Trustees have not submitted it with their recommendation to the Minister in accordance with that subsection the Minister may require the Trustees to do so within a specified time, or may require the Trustees to take such other action as the Minister considers necessary in order to expedite the matter, and the Trustees shall comply with any such requirement.

(5) Where the owner of any land is aggrieved by a decision of the Minister made under subsection (3) of this section he may, within the time and in the manner prescribed by rules of court, appeal from the decision of the Minister to the Supreme Court which may hear and determine the appeal.

(6) In determining an appeal under subsection (5) of this section the Judge hearing the appeal may confirm or vary the decision of the Minister against which the appeal is made or quash the decision and substitute his own decision which shall have effect as if it were the decision of the Minister, and may make such an order as to the costs of the appeal as he sees fit.

(7) Where the owner of the land gives notice to the Trustees under subsection (2) of this section, the Trustees may, if they are satisfied that it is practicable to do so, direct the removal of any object to which this Act applies from the land to a place of safe custody.

(8) Where consent has been given under this section to a person to use any land for a particular purpose nothing done by or on behalf of that person pursuant to, and in accordance with any conditions attached to, the consent constitutes an offence against this Act."

APPENDIX 2

Notes on the Recognition of Aboriginal Sites

There are various types of Aboriginal Sites, and these notes have been prepared as a guide to the recognition of those sites that may be located in the survey area.

An Aboriginal Site is defined in the Aboriginal Heritage Act 1972-80 in Section 5 as:

(a) Any place of importance and significance where persons of Aboriginal descent have, or appear to have, left any object, natural or artificial, used for, or made for or adapted for use for, any purpose connected with the traditional cultural life of the Aboriginal people, past or present;

(b) Any sacred, ritual or ceremonial site, which is of importance and special significance to persons of Aboriginal descent;

(c) Any place which, in the opinion of the Trustees is or was associated with the Aboriginal people and which is of historical, anthropological, archaeological or ethnographical interest and should be preserved because of its importance and significance to the cultural heritage of the state;

(d) Any place where objects to this Act applies are traditionally stored, or to which, under the provisions of this Act, such objects have been taken or removed.

Habitation Sites

These are commonly found throughout Western Australia and usually contain evidence of tool-making, seed grinding and other food processing, cooking, painting, engraving or numerous other activities. The archaeological evidence for some of these activities is discussed in detail under the appropriate heading.

Habitation sites are usually found near an existing or former water source such as gnamma hole, rock pool, spring or soak. They are generally in the open, but they sometimes occur in shallow rock shelters or caves. It is particularly important that none of these sites be disturbed as the stratified deposits which may be found at such sites can yield valuable information about the inhabitants when excavated by archaeologists.

Seed Grinding

Polished or smoothed areas are sometimes observed on/near horizontal rock surfaces. The smooth areas are usually 25cm wide and 40 or 50cm long. They are the result of seed grinding by the Aboriginal women and indicate aspects of a past economy.

Habitation Structures

Aboriginal people sheltered in simple ephemeral structures, generally made of branches and sometimes grass. These sites are rarely preserved for more than one occupation period. Occasionally rocks were pushed aside or were used to stabilise other building materials. When these rock patterns are located they provide evidence of former habitation sites.

Middens

When a localised source of shellfish and other foods have been exploited from a favoured camping place, the accumulated ashes, hearth stones, shells, bones and other refuse can form mounds at times several metres high and many metres in diameter. Occasionally these refuse mounds or middens contain stone, shell or bone tools. These are most common near the coast but examples on inland lakes and river banks are not unknown.

Stone Artefact Factory Sites

Pieces of rock from which artefacts could be made were often carried to camp sites or other places for final production. Such sites are usually easily recognisable because the manufacturing process produces quantities of flakes and waste material which are clearly out of context when compared with the surrounding rocks. All rocks found on the sandy coastal plain, for example, must have been transported by human agencies. These sites are widely distributed throughout the state.

Quarries

When outcrops of rock suitable for the manufacture of stone tools were quarried by the Aborigines, evidence of the flaking and chipping of the source material can usually be seen in situ and nearby. Ochre and other mineral pigments used in painting rock surfaces, artefacts and body decoration are mined from naturally occurring seams, bands and other deposits. This activity can sometimes be recognised by the presence of wooden digging sticks or the marks made by these implements.

Marked Trees

Occasionally trees are located that have designs in the bark which have been incised by Aborigines. Toeholds, to assist the climber, were sometimes cut into the bark and sapwood of trees in the hollow limbs of which possums and other arboreal animals sheltered. Some tree trunks bear scars where sections of bark or wood have been removed to make dishes, shields, spearthrowers and other wooden artefacts. In some parts of the state wooden platforms were built in trees to accommodate a corpse during complex rituals following death.

Burials

In the north of the state it was formerly the custom to place the bones of the dead on a ledge in a cave after certain rituals were completed. The bones were wrapped in sheets of bark and the skull placed beside this. In other parts of Western Australia the dead were buried, the burial position varying according to the customs of the particular area and time. Natural erosion, or mechanical earthmoving equipment occasionally exposes these burial sites.

Stone Structures

If one or more stones are found partially buried or wedged into a position which is not likely to be the result of natural forces, then it is probable that the place is an Aboriginal site and that possibly there are other important sites nearby. There are several different types of stone arrangements ranging from simple cairns or piles of stones to more elaborate designs. Low weirs which

trap fish when tides fall are found in coastal areas. Some rivers contain similar structures that trap fish against the current. It seems likely that low stone slab structures in the south-west jarrah forests were built to provide suitable environments in which to trap some small animals. Low walls or pits were sometimes made to provide a hide or shelter for hunting.

Elongated rock fragments are occasionally erected as a sign or warning that a special area is being approached. Heaps or alignments of stones may be naturalistic or symbolic representations of animals, people or mythological figures.

Paintings

These usually occur in rockshelters, caves or other sheltered situations which offer a certain degree of protection from the weather. The best known examples in Western Australia occur in the Kimberley region but paintings are also found throughout most of the State. Several coloured pigments may have been used at a site. Stencilling was a common painting technique used throughout the state. The negative image of an object was created by spraying pigment over the object which was held against a wall.

Engravings

This term describes designs which have been carved, pecked or pounded into a rock surface. They form the predominant art form of the Pilbara region but are known to occur in the Kimberleys in the north to Toodjay in the south. Most engravings occur in the open but some are situated in rock shelters.

Caches

It was the custom to hide ceremonial objects in niches and other secluded places. The removal of objects from these places, the taking of photographs of the places or objects or any other interference with these places is not permitted.

Ceremonial Grounds

At some sites the ground has been modified in some way by the removal of surface pebbles, or the modeling of the soil, or the digging of pits and trenches. In other places there is no noticeable alteration of the ground surface and Aborigines familiar with the site must be consulted concerning its location.

Mythological Sites

Most sites already described have a place in Aboriginal mythology. In addition there are many Aboriginal sites with no man-made features which enable them to be recognised. They are often natural features in the landscape linked to the Aboriginal account of the formation of the world during the creative "Dreaming" period in the distant past. Many such sites are located at focal points in the creative journeys of mythological spirit beings of the Dreaming. Such sites can only be identified by the Aboriginal people who are familiar with the associated traditions.

APPENDIX THREE
SITE DATA SHEETS

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0793 SITE NAME GAS PIPELINE 79
MAP SHEET - 1:250,000 SH50-1 1:100,000 _____
GRID REF. AMG 318.796
OTHER REFERENCE imp: 308.412
RECORDER BROWN & PECK
DATE FEB. 1979
REPORT Brown: FNB 19:4-5, Dampier - Perth Gas Pipeline

AUTHOR — CLIENT - —

SITE TYPE ARTEFACT

DIMENSIONS —

LANDFORM/ENVIRONMENT white sandy soils with large amount of laterite boulders and lumps. Paddock soak area. Short scrub.

NO. OF ARTEFACTS 1

ARTEFACT ASSEMBLAGE millar

LITHIC TYPES —

COMPONENTS millar found in this area. Now in possession of farm owner. red/brown. Pecked central area forming a depression ~ 1/2 cm deep on one side & scattered peck marks on other.

OTHER COMMENTS Soak now a shallow depression with short green scrub.

SKETCH MAP —

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S1908 SITE NAME ARDINGLY STONE AXE
MAP SHEET - 1:250,000 SH 50-2 1:100,000 _____
GRID REF. AMG 356.829
OTHER REFERENCE 349E 448N
RECORDER A. J. KEEFFE reported; 'DONGORIE', MULLEWA 099 614 507
DATE MARCH 1979 (Jan. 81)
REPORT —

AUTHOR — CLIENT - —

SITE TYPE ARTEFACTS

DIMENSIONS —

LANDFORM/ENVIRONMENT gully, creek

NO. OF ARTEFACTS abundance

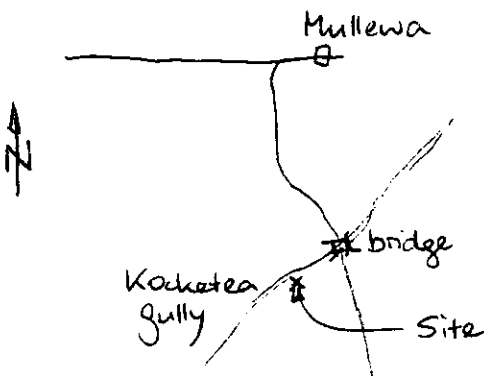
ARTEFACT ASSEMBLAGE axe

LITHIC TYPES —

COMPONENTS Stone axe on left bank of creek. Abundance of artefacts.

OTHER COMMENTS —

SKETCH MAP 15km S of Mullewa on the Mingenew Rd. to Kookatea gully. Then 1,5km W along the creek. Axe on left bank.



DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S 1385 SITE NAME PINDARING ROCK

MAP SHEET - 1:250,000 SH 50-2 1:100,000 _____

GRID REF. AMG 371.882

OTHER REFERENCE imp: 366.505

RECORDER catalogued by: L. Bloor | reported by AJ Koeffe; 'Dragonie'

DATE Nov. 1981 | Mullewa, 099 614507 (Jan. 81)

REPORT _____

AUTHOR _____ CLIENT - _____

SITE TYPE ARTEFACT

DIMENSIONS _____

LANDFORM/ENVIRONMENT track

NO. OF ARTEFACTS 1

ARTEFACT ASSEMBLAGE edge ground axe

LITHIC TYPES _____

COMPONENTS edge ground axe, held by A.J. Koeffe, found in vehicle track.

OTHER COMMENTS accessioned, photographed and returned for safekeeping with AJ (Beit) Koeffe. C1625

SKETCH MAP Approx. 100m off main Mullewa - Gasgoyne Junction Rd., on Tallering Station track just S of Greenough River. Track runs E from main road. Axe found right on vehicle rut.

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S 2781 SITE NAME WESTERN MINING BORE

MAP SHEET - 1:250,000 SH 50-2 1:100,000 _____

GRID REF. AMG 361.889

OTHER REFERENCE _____

RECORDER G. QUARTERMAINE

DATE April 1992

REPORT on a survey for arch. sites, Midwest iron and steel project, Talling Peak, near Mullewa.

AUTHOR G. Quartemaine CLIENT - Signet Engineering Pty Ltd.

SITE TYPE ARTEFACTS

DIMENSIONS 300 x 20 m

LANDFORM/ENVIRONMENT sparse mulga scrub, small ephemeral creek, sandy laterite surface.

NO. OF ARTEFACTS 1000+ (samples 1:95, 2:83)

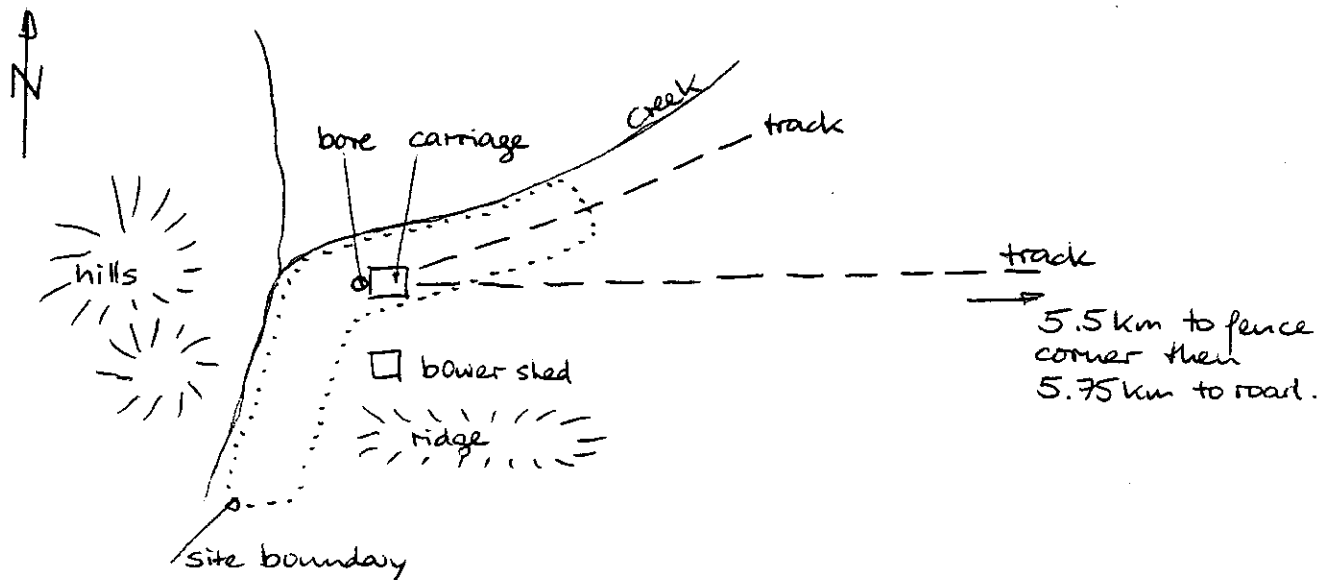
ARTEFACT ASSEMBLAGE flakes

LITHIC TYPES quartz, chalcedony, silcrete, banded ironstone, silicified sediment

COMPONENTS extensive but diffuse surface artefact scatter near small creek at Western Mining Bore.

OTHER COMMENTS 2 10x10m sample squares

SKETCH MAP



DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0024 SITE NAME KARARA STATION
MAP SHEET - 1:250,000 SH 50-6 1:100,000 _____
GRID REF. AMG 485.776
OTHER REFERENCE imp: 490.388
RECORDER I. KIRKBY
DATE APRIL 1981
REPORT —

AUTHOR — CLIENT - —
SITE TYPE QUARRY, ARTEFACTS
DIMENSIONS 2 x 4m (hole in ground) widening into 15 x 10m
LANDFORM/ENVIRONMENT exposed lateritic ridge

NO. OF ARTEFACTS —
ARTEFACT ASSEMBLAGE —

LITHIC TYPES —

COMPONENTS Ochre quarry, seen as hole in the flat rock. Floor of relatively level deposits of ochreous material, probably quarry debris. Artefacts found in deposits. Altered by European quarrying. Floor 7m below surface.

OTHER COMMENTS 5 test-holes around margin of ochre quarry

SKETCH MAP 3 1/2 miles NE of Ewo Well, then 1 mile NW. Clearly defined track. About 10 miles from homestead.

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0630 SITE NAME PERENJORI ARTEFACT 09

MAP SHEET - 1:250,000 SH50-6 1:100,000 _____

GRID REF. AMG 428.760

OTHER REFERENCE LAT. 29°16'44" LONG 116°15'00"

RECORDER S. LIPPLE, Geol. Survey

DATE JULY 1976

REPORT FNB, regional mapping of the Perenjori 250'000 map sheet

AUTHOR S. Lippel & J.L. Baxter CLIENT - Dept. of Mines

SITE TYPE ARTEFACTS

DIMENSIONS —

LANDFORM/ENVIRONMENT —

NO. OF ARTEFACTS 1

ARTEFACT ASSEMBLAGE specimen

LITHIC TYPES mostly fine grained, black basaltic or ultramafic rock.
Quartz

COMPONENTS Artefacts collected from soil surface

OTHER COMMENTS SLL Field Observation Point: 6077

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0631 SITE NAME PERENJORI ARTEFACT 10

MAP SHEET - 1:250,000 SH50-6 1:100,000 _____

GRID REF. AMG 428.761

OTHER REFERENCE LAT: 29°16'36" LONG 116°15'6"

RECORDER S. LIPPLE, Geol. Survey

DATE JULY 1976

REPORT FNB, regional mapping of the Perenjori 250'000 map sheet

AUTHOR S. Lippie & J.L. Baxter CLIENT - Dept. of Mines

SITE TYPE ARTEFACTS

DIMENSIONS —

LANDFORM/ENVIRONMENT —

NO. OF ARTEFACTS 1

ARTEFACT ASSEMBLAGE specimen

LITHIC TYPES mostly fine grained, black basaltic or ultramafic rock.
Quartz

COMPONENTS Artefacts collected from soil surface.

OTHER COMMENTS SL Field Observation Point: 6078

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. SO 632 SITE NAME PERENJORI ARTEFACT //

MAP SHEET - 1:250,000 SH 50-6 1:100,000 _____

GRID REF. AMG 428.763

OTHER REFERENCE LAT 29°15'30" LONG 116°15'40"

RECORDER S. LIPPLE, Geol. Survey

DATE JULY 1976

REPORT FNB, regional mapping of the Perenjori 250,000 map sheet

AUTHOR S. Lipple & J.L. Baxter CLIENT - Dept. of Mines

SITE TYPE ARTEFACTS

DIMENSIONS —

LANDFORM/ENVIRONMENT —

NO. OF ARTEFACTS 1

ARTEFACT ASSEMBLAGE artefact

LITHIC TYPES mostly fine grained, black basaltic or ultramafic rock.
Quartz

COMPONENTS Artefacts collected from soil surface.

OTHER COMMENTS artefact collected.

SLL Field Observation Point: 6082

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0643 SITE NAME PERENJORI ARTEFACT 20

MAP SHEET - 1:250,000 SH50-6 1:100,000 _____

GRID REF. AMG 422.766

OTHER REFERENCE LAT 29° 14' 05" LONG 116° 11' 39"

RECORDER S. LIPPLE, Geol. Survey

DATE JULY 1976

REPORT FNB, regional mapping of the Perenjori 250'000 map sheet

AUTHOR S. Lipple & J.L. Baxter CLIENT - Dept. of Mines

SITE TYPE ARTEFACTS

DIMENSIONS _____

LANDFORM/ENVIRONMENT _____

NO. OF ARTEFACTS 1

ARTEFACT ASSEMBLAGE specimen

LITHIC TYPES mostly fine grained, black basaltic or ultramafic rock.
Quartz

COMPONENTS Artefacts collected from soil surface.

OTHER COMMENTS SLL Field Observation Point: 6278

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. 50644 SITE NAME PERENJORI ARTEFACT 21

MAP SHEET - 1:250,000 SH50-6 1:100,000 _____

GRID REF. AMG 422,763

OTHER REFERENCE LAT 29° 15' 22" LONGE 116° 11' 54"

RECORDER S. LIPPLE, Geol. Survey

DATE JULY 1976

REPORT FNB, regional mapping of the Perenjori 250'000 map sheet

AUTHOR S. Lipple & J.L. Baxter CLIENT - Dept. of Mines

SITE TYPE ARTEFACTS

DIMENSIONS ---

LANDFORM/ENVIRONMENT ---

NO. OF ARTEFACTS 4

ARTEFACT ASSEMBLAGE specimen

LITHIC TYPES mostly fine grained, black basaltic or ultramafic rock.
Quartz

COMPONENTS Artefacts collected from soil surface.

OTHER COMMENTS SLL Field Observation Point = 6279

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0645 SITE NAME PERENJORI ARTEFACT 22

MAP SHEET - 1:250,000 SH50-6 1:100,000 _____

GRID REF. AMG 423.766

OTHER REFERENCE LAT. 29° 14' 05" LONG 116° 12' 19"

RECORDER S. LIPPLE, Geol. Survey

DATE JULY 1976

REPORT FNB, regional mapping of the Perenjori 250'000 map sheet

AUTHOR S. Lippie & J.L. Baxter CLIENT - Dept. of Mines

SITE TYPE ARTEFACTS

DIMENSIONS —

LANDFORM/ENVIRONMENT —

NO. OF ARTEFACTS 5

ARTEFACT ASSEMBLAGE specimen

LITHIC TYPES mostly fine grained, black basaltic or ultramafic rock.
Quartz

COMPONENTS Artefacts collected from soil surface

OTHER COMMENTS SLL Field Observation Point: 6283

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0646 SITE NAME GRANITE ARTIFACT WORKSHOP
MAP SHEET - 1:250,000 SH50-6 1:100,000 _____
GRID REF. AMG 426.764
OTHER REFERENCE LAT 29° 14' 54" LONG 116° 13' 50"
RECORDER S. LIPPLE, Geol. Survey
DATE JULY 1976
REPORT FNB, regional mapping of the Perenjori 250'000 map sheet

AUTHOR S. Lipple & J.L. Baxter CLIENT - Dept. of Mines
SITE TYPE ARTEFACTS
DIMENSIONS _____
LANDFORM/ENVIRONMENT _____

NO. OF ARTEFACTS 1
ARTEFACT ASSEMBLAGE specimen

LITHIC TYPES mostly fine grained, black basaltic or ultramafic rock.
Quartz

COMPONENTS Artefacts collected from soil surface. 1 specimen
Manufacture site on granite. Source material 100m E

OTHER COMMENTS SLP Field Observation Point: 6284

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0647 SITE NAME PERENJORI ARTEFACT 23

MAP SHEET - 1:250,000 SH50-6 1:100,000 _____

GRID REF. AMG 426.762

OTHER REFERENCE LAT 29° 15' 55" LONG 116° 13' 50"

RECORDER S. LIPPLE, Geol. Survey

DATE JULY 1976

REPORT FNB, regional mapping of the Perenjori 250,000 map sheet

AUTHOR S. Lipple & J.L. Baxter CLIENT - Dept. of Mines

SITE TYPE ARTEFACTS

DIMENSIONS —

LANDFORM/ENVIRONMENT —

NO. OF ARTEFACTS abundant

ARTEFACT ASSEMBLAGE —

LITHIC TYPES mostly fine grained, black basaltic or ultramafic rock.
Quartz

COMPONENTS Artefacts collected from soil surface. Abundant
artefacts, 2 collected.

OTHER COMMENTS SLL Field Observation Point: 6292

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0648 SITE NAME PERENJORI ARTIFACT 24

MAP SHEET - 1:250,000 SH50-6 1:100,000 _____

GRID REF. AMG 424.762

OTHER REFERENCE LAT 29°15'55" LONG 116°13'12"

RECORDER S. LIPPLE, Geol. Survey

DATE JULY 1976

REPORT FNB, regional mapping of the Perenjori 250'000 map sheet

AUTHOR S. Lipple & J.L. Baxter CLIENT - Dept. of Mines

SITE TYPE ARTEFACTS

DIMENSIONS —

LANDFORM/ENVIRONMENT —

NO. OF ARTEFACTS abundant

ARTEFACT ASSEMBLAGE —

LITHIC TYPES mostly fine grained, black basaltic or ultramafic rock.
Quartz

COMPONENTS Artefacts collected from soil surface. Abundant
artefacts, 1 collected

OTHER COMMENTS SLL Field Observation Point: 6293

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0845 SITE NAME KOOLANDOKA SPRING

MAP SHEET - 1:250,000 SH 50-6 1:100,000 _____

GRID REF. AMG 428 771

OTHER REFERENCE _____

RECORDER I. KIRKBY

DATE JUNE 1979

REPORT —

AUTHOR — CLIENT - —

SITE TYPE ARTEFACTS

DIMENSIONS _____

LANDFORM/ENVIRONMENT _____

NO. OF ARTEFACTS _____

ARTEFACT ASSEMBLAGE _____

LITHIC TYPES _____

COMPONENTS surface scatter

OTHER COMMENTS no information in site file.

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0872 SITE NAME KOOLANDOOKA QUARRY
MAP SHEET - 1:250,000 SH 50-6 1:100,000 _____
GRID REF. AMG 423.764
OTHER REFERENCE imp: 422.376
RECORDER J. KIRKBY
DATE JUNE 1979
REPORT _____

AUTHOR _____ CLIENT - _____
SITE TYPE QUARRY
DIMENSIONS _____
LANDFORM/ENVIRONMENT _____

NO. OF ARTEFACTS _____
ARTEFACT ASSEMBLAGE _____

LITHIC TYPES _____

COMPONENTS quartz quarry

OTHER COMMENTS no information in site file.

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0912 SITE NAME KOOLANDOOKA QUARRY
MAP SHEET - 1:250,000 SH 50-6 1:100,000 _____
GRID REF. AMG 423.763
OTHER REFERENCE imp: 422.375
RECORDER J. KIRKBY
DATE JUNE 1979
REPORT —

AUTHOR — CLIENT - —
SITE TYPE QUARRY
DIMENSIONS _____
LANDFORM/ENVIRONMENT _____

NO. OF ARTEFACTS _____
ARTEFACT ASSEMBLAGE _____

LITHIC TYPES _____

COMPONENTS quarry

OTHER COMMENTS no information in site file.

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

ARCHAEOLOGICAL SITE INFORMATION SHEET

W.A. MUSEUM SITE NO. S0913 SITE NAME CUNNINGHAM OUTCROP
MAP SHEET - 1:250,000 SH 50-6 1:100,000 _____
GRID REF. AMG 427.761
OTHER REFERENCE imp: 426.373
RECORDER I. KIRKBY
DATE JUNE 1979
REPORT —

AUTHOR — CLIENT - —
SITE TYPE ARTEFACTS
DIMENSIONS _____
LANDFORM/ENVIRONMENT _____

NO. OF ARTEFACTS _____
ARTEFACT ASSEMBLAGE _____

LITHIC TYPES _____

COMPONENTS surface scatter

OTHER COMMENTS no information in site file

SKETCH MAP

DATE 25-6-96 RESEARCHER CH

SLL FIELD OBSERVATION POINT	1972 CAF AERIAL PHOTO	BOOK 14 page no.	LATITUDE (S)	LONGITUDE (E)	REMARKS
6010	4/0049	6	29°24'	116°23'	Small rockhole 50 cm deep, 20 cm diameter. 2 small basalt flakes collected but (?)lost.
6018	4/0047	9	29°25'	116°20'	1 specimen
6049	3/0279	17	29°20'36"	116°17'48"	2 specimens collected (4 mentioned in notebook)
6051	"	19	29°20'	116°18'	3 artifacts collected. One is dacite
6057	3/0277	20	29°20'	116°22'	1 specimen but no reference in notebook
6059	"	20	29°19'	116°33'30"	3 specimens. Smoke blacken- ed recesses in breakaway
6061	"	20	29°19'20"	116°22'10"	Smoke blackened recesses in breakaway
6073	3/0279	24	29°19'00"	116°16'20"	1 specimen
6075	3/0279	24	29°20'30"	116°15'16"	1 specimen
6077	"	24	29°16'44"	116°15'00"	1 specimen
6078	"	24	29°16'36"	116°15'06"	1 specimen
6082	"	25	29°15'30"	116°15'40"	1 artifact collected
6108	3/0277	33	29°00'21"	116°21'44"	Site of manufacture. 18 artifacts collected
6150	3/0275	41	29°20'35"	116°29'00"	3 dolerite and 3 quartz artifacts (?some mixed up with 6164) collected. Only 1 here now
6164	3/0275	43	29°21'40"	116°28'20"	9 specimens, 4 are quartz
6188	3/0279	47	29°23'	116°15'30"	4 specimens
6191	3/0279	47	29°20'27"	116°19'33"	4 specimens
6211	4/0045	52	29°27'44"	116°13'12"	Subrounded polished vein quartz - ?a grinding stone. Other fragments here are markedly angular
6241	30/0285	58	29°20'33"	116°02'64"	Aboriginal well. Abundant artifacts. Two specimens (apparently lost)
6245	"	59	29°17'16"	116°08'02"	Abundant artifacts. 3 collec- ted, 1 lichen covered
6253	4/0041	60	29°28'44"	116°00'16"	Abundant artifacts. 2 col- lected
6268	3/0283	63	29°15'42"	116°09'08"	1 specimen
6278	3/0281	65	29°14'05"	116°11'39"	1 specimen
6279	"	65	29°15'22"	116°11'54"	4 specimens
6283	3/0281	66	29°14'05"	116°12'19"	5 specimens
6284	"	67	29°14'54"	116°13'50"	Manufacture site on granite. Source material 100 m east. 1 specimen
6292	"	69	29°15'55"	116°13'50"	Abundant artifacts. 2 col- lected
6293	"	69	29°15'55"	116°13'12"	Abundant artifacts. 1 col- lected
6411	6/0152	84	29°44'15"	116°20'10"	Stone arrangements(?) on lake bed

SLL FIELD OBSERVATION POINT	1972 CAF AERIAL PHOTO	BOOK 14 page no.	LATITUDE (S)	LONGITUDE (E)	REMARKS
6415	6/0152	85	29°39'11"	116°15'56"	1 artifact collected but (?)lost
6439	6/0148	89	29°42'17"	116°29'43"	Smoked blackened recesses in granite breakaway
6486	7/0105	15 p.4	29°46'52"	116°10'20"	Flaked dolerite specimen (but lost?)
400 m ESE Perangery Hmstd	-	-	-	-	1 specimen
JLB 222	-	60/37	29°11'36"	116°14'48"	Koolanooka Spring - cere- monial ground?
JLB 405	-	61/46	29°07'12"	116°04'48"	1 specimen Kurkunyel Spring
JLB 968	1/0159	63/49	29°00'00"	116°00'00"	1 specimen (foliated rock)

3 unlocated specimens

The artifacts are mostly fine-grained, black, flaked fragments of a basaltic or ultramafic rock which crops out along the western edge of the Koolanooka Hills (cf 6284). Some are weathered, and rarely, may be lichen covered. All were collected from the soil surface or rock outcrops. Many fragments were obviously anomalous features on geological grounds, occurring for example on granite outcrops. A few of the fragments consist of quartz. The specimens were collected, between 26th May and 28th July, 1976 during regional geological mapping of the Perenjori 1:250 000 Sheet. The sample numbers correspond to observation points described in the field notebooks of S L Lipple and J L Baxter.

