

Macey's Wreck
an
unidentified wreck in the mangroves at Mardie Station

Wreck Inspection Report
Dept. of Maritime Archaeology
W.A. Maritime Museum
Cliff St. Fremantle
6160
20/6/1991

Compiler Mike McCarthy : Curator of Wreck Inspection

WA Maritime Museum
Dept. of Maritime Archaeology : Report No 51

Inspection Funded by : Hadson Energy, Ventnor Ave. W. Perth

Technical Data

Site Name : **Macey's Wreck**, the Mardie Station Unidentified site

Date lost : Circa 1880

Date of Inspection: 20/6/1991

Personnel: Mike McCarthy, (Curator, WA Museum)
 Dave Macey, (Project Manager, Hadson Energy)
 Phil Backman, (Owner/Manager, Mardie Station)
 Claude Bonelli, (Helicopter Pilot)

Approximate Location : In the Mangroves immediately west of Mardie Station

GPS. Not Available

Chart No: #1 AUS 743 Lat: 21° 13' S Long: 115° 50'E

#2 Hadson Pipeline Route (324mm Gas Line) Varanus Is. to SECWA
 C.S. no1, 1: 100,000

7 655 500
 380300

File No: 4/79

File Name: Dampier Area

Directions :

(Helicopter): Fly due west of Mardie Station to the tidal flats. The wreck lies in the first group of mangroves before the sea adjacent to a sand bar and is just south of the point where the 324 mm Hadson Energy gas pipeline comes ashore. Land on a sand bar c. 50m north west of the site. The sandbar is suitable for a helicopter when dry with sufficient clearance for the rotors.

(Vehicle) : When proceeding from the Station by vehicle, the projected Hadson Energy pipeline will be the best locating device and this should be followed to the coast. Very boggy ground is expected towards the coast.

(Boat) : Access by boat is possible from the camping area on the Fortescue River. Again the Hadson Energy pipeline would be the structure used to locate the site.

Site Photographs:

Black & White: Mardie Station unid.

Colour: Mardie Station unid.

Site Conditions on inspection

The wreck dries at all but high water springs and in this case was dry as expected. Though the conditions were favourable any excavation soon filled with water. The surface was the typical sticky mud of a mangrove setting.

Biological Data :

Colonising fauna : The roots of mangrove trees have served to lift much of the material above the seabed and to dislocate structures through which they have grown. In some cases quite thick mangrove trees have grown through wreck material. Digging near the trees and through the mud in general was difficult. Barnacles had grown on much of the visible material including on the underside of some rocks.

Site Condition and Integrity :

The site is now relatively stable after years of tidal influences, salvage, the effect of the occasional cyclone and the growth of mangrove vegetation.

Management considerations :

Increased human access as a result of the construction of a gas pipeline in the immediate area of the wreck is the major management issue to be addressed.

An illustration of part of the site (photo D. Macey)

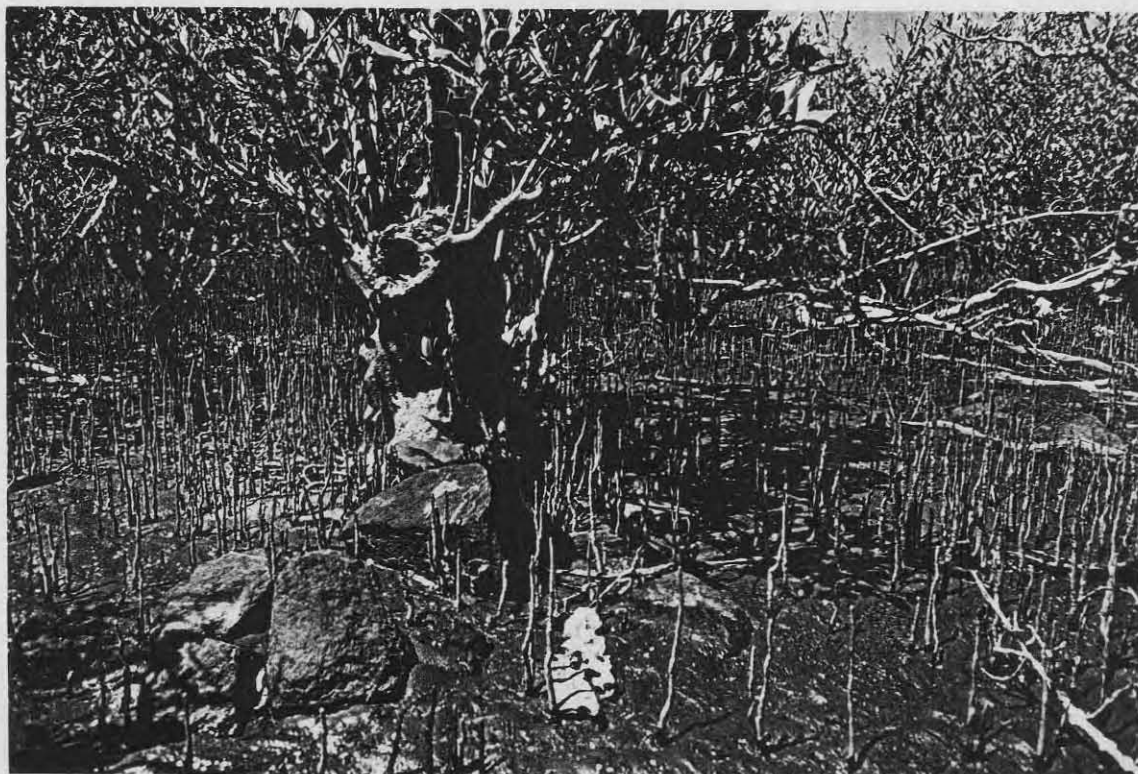
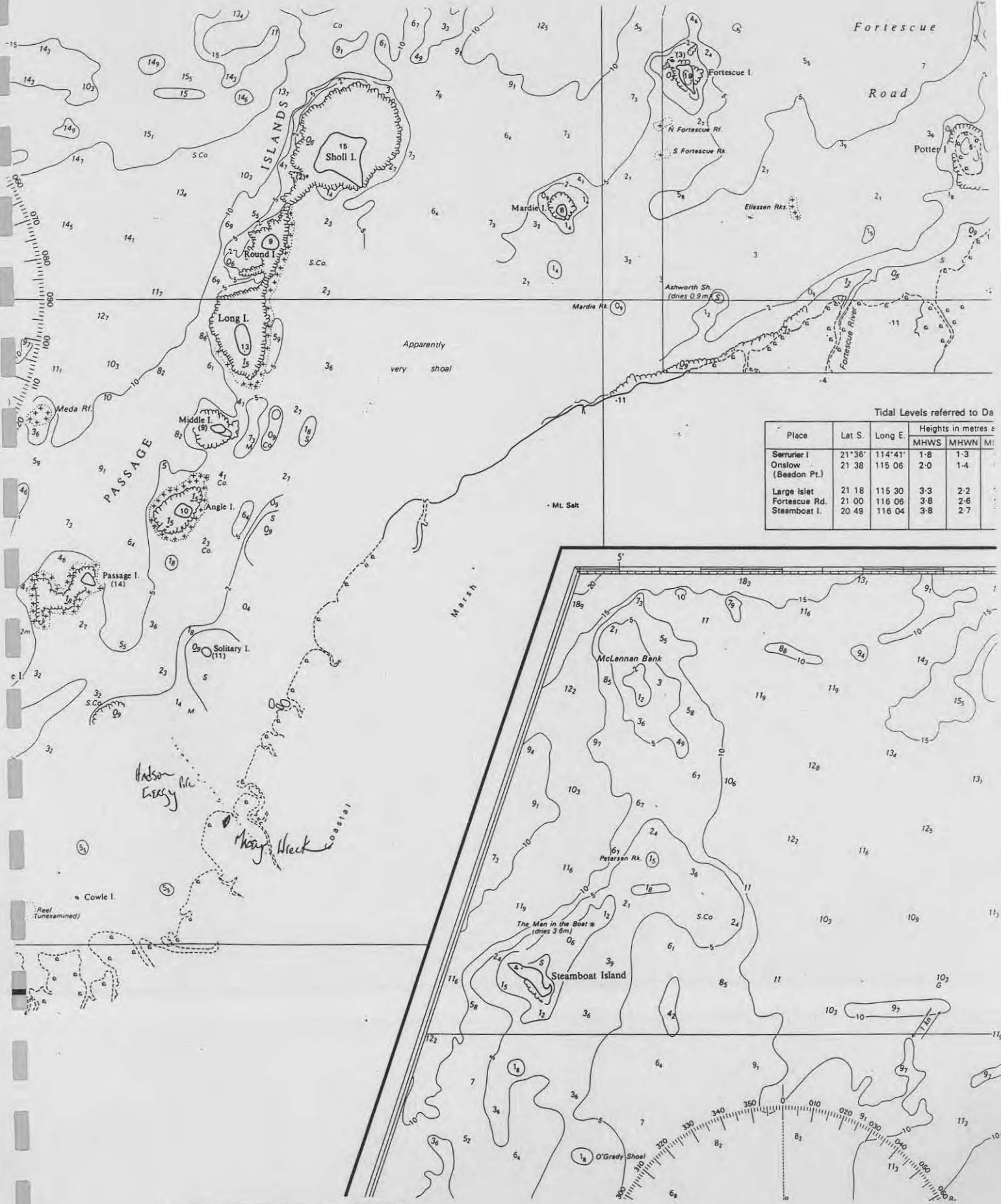


Chart Excerpt¹



Tidal Levels referred to D_{ad}

Place	Lat S.	Long E.	Heights in metres a	
			MHWS	MHWN M.
Serurier I.	21° 36'	114° 41'	1.8	1.3
Onslow (Beadon Pt.)	21 38	115 06	2.0	1.4
Large Islet	21 18	115 30	3.3	2.2
Fortescue Rd.	21 00	116 06	3.8	2.6
Steamboat I.	20 49	116 04	3.8	2.7

¹AUS 743. Australia north-West coast, Western Australia. Barrow Island to Onslow.

Description of Site

The site appears as a line of granitic ballast stones on the seabed amongst the roots of the mangrove plants. The line of stones lies on an axis parallel to the shore line and measures approximately 21m X 5m. Interspersed through the ballast 'mound' are some indications of the wreck itself. These appear as fragments of an iron water tank, pickle bottle sherds, cement based conglomerates, wire rigging fragments, and a much eroded 'pair' of NW Australian pearl shell. Other than these few indications the wreck was essentially 'sterile' - missing were any indications of fastenings, rudder fittings, anchors, chain, windlasses, winches &c.

An attempt was made to ascertain the extent and depth of the mound and to locate and identify the hull timbers which were expected to lie beneath the mound in the usual fashion. No timbers were located under any of the stones or in any of the test trenches and probes made throughout the site. The mound rarely exceeded two stones (30 cm.) in depth and was not the definable 'unit' it appeared at first glance. Care must be exercised in this judgement however as less than an estimated 5% of the surface was disturbed on this inspection. In other areas only metal probes were used. It needs to be noted then that material could lie buried in the soft mud. It can be deduced with some certainty however that the 'mound' appears more a 'spill' from a capsized or broken hull that has gradually moved in the direction of the long axis of the present remains in the course of a storm or cyclone slowly depositing its contents as it is forced further ashore. Thus the original intact wreck is expected to have been substantially less than the 21 metres in length initially indicated by the mound.

The few dateable artefacts, notably the pickle jar and the wire rigging, indicate a wreck of at the earliest 1880. On the other hand the location of the base of a 'black' bottle with a re-fired pontil of a type consistent with the 1860's-1870's 100m at a bearing of 020°M from the wreck is significant and could point to an earlier date. The bottle shows evidence of having been 'worked' by Aborigines for the purposes of making tools and spear heads. In this context Mr Macey indicated that Anthropologists who examined the area of the proposed pipeline identified a number of Aboriginal artefacts in the region to the south east of the site.

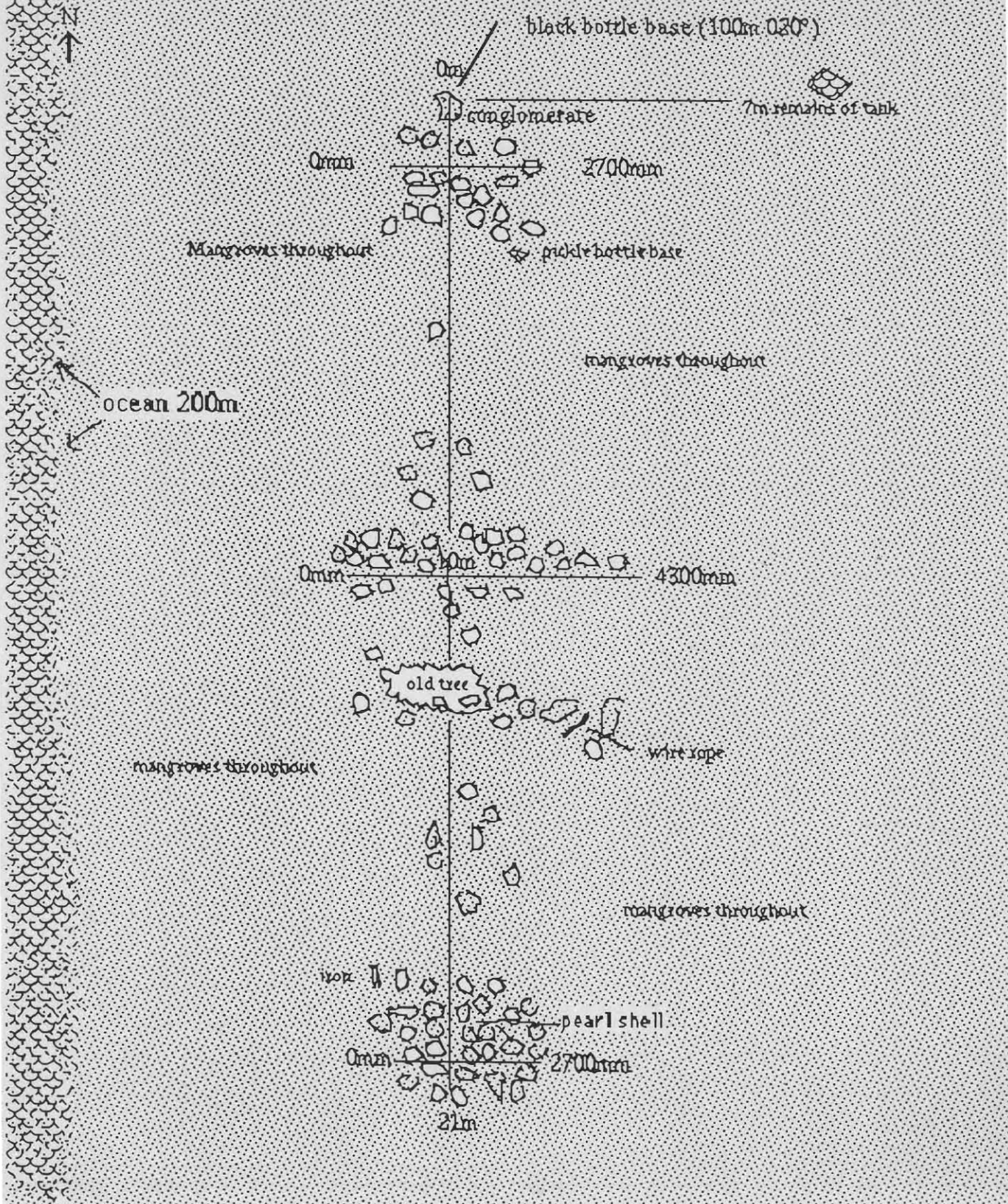
It is known that Aboriginal people once lived on the land occupied by Mardie Station and were employed in both the pastoral and pearling industries in the region from the late 19th century through to recent times. The black bottle base could then be contamination and point to the use of the wreck as a source of artefacts and tool materials for the local Aborigines.

At this stage it must be considered, with some reservations, a part of the wreck.

Pearl Shell on the Wreck, (Photo D. Macey)



Rough Site Plan, (Macey's Wreck)



Site Identification Comments

The wreck appears to be that of a small unidentified late nineteenth-early twentieth century wooden sailing vessel of (at the most) 20 metres in length that was engaged in the NW coastal or pearling trade

The location of such small vessels high and dry or even many metres inland should come as no surprise when it is considered that the cyclones which frequent the North West are known to dramatically add to tides such that in low lying areas vast acreages of normally dry land can be inundated to a considerable depth. There are numerous instances of vessels being driven up to a kilometre inland and one instance of a vessel being deposited nearly ten kilometres inland from the usual shoreline in 1872.²

Appendix 1 is a brief history of the pearling industry in the region. A perusal of this document will help place this particular wreck into its suspected context and into the context of European settlement of the region which occurred only a few years before the pearling industry began.

Wreck- site History

(i) Contemporary Salvage

The wreck, would have been heavily salvaged by the local Europeans engaged in the pearling and pastoral industries and by Aborigines acting independently or in their employ by virtue of its location in the mangroves at a relatively short distance from a sheep station (Mardie). This station was founded by ex Denison Plains Company men Simpson and MacIntosh in 1867. (see Appendix 2)

Chain, fastenings, timber, anchors and the like would all have been of value to the station owners especially as they quickly became involved in the lucrative pearling industry which began in the region in 1866 and was at its height in the mid 1870's. Containers, ceramics, glass wood and fastenings would have been of use to the local Aborigines.

Though Nickol Bay with its administrative centre at Roebourne and port at Cossack are the acknowledged centres of the pearling industry at this time, there were many lesser bases both to the east and west. Cape Preston and the mouth of the Fortescue River not far from Macey's wreck site were possible pearling bases. Smaller shelters such as the mouth of 'Mardie Creek' even closer still appear to have been similarly used. Though little has been written of these smaller bases it is known, for example, that in August 1874 survivors from a wreck further south met up with the well known Capt. Charles Tuckey at Cape Preston and he took them in his cutter to Mardie Creek where they were transhipped into the cutter *Fortescue* for the voyage to Cossack.³ This contemporary reference in the Perth news to Mardie Creek attests to its significance at the time. Like all ports wrecks and casualties are to be expected as is the heavy salvage of all accessible wrecks for re-use in an industry that was growing rapidly and crying out for shipbuilding material. Vessels were being built

²The Square and Compass is reputed to have been driven ten Kilometres inland in a cyclone of March 1872 that devastated much of the North-West around Roebourne. Henderson, G & K. *Unfinished Voyages 1851-1880*, (UWA Press, 1988) p. 108.

³ Henderson, op. cit., p.149.

at Cossack at the time and the local pastoralist Charles Harper and his partner Samuel Viveash even built a pearling vessel at their sheep station and transported it a considerable distance to the sea for launching.⁴

(ii) When found in modern times and by whom :

Finder : Mr D. Macey, Project Manager, Hadson Energy, Ph. 4818555

(iii) Modern Salvage : Virtually nil. Mr Macey is one of only a handful of people who have visited the site and he has been most careful to avoid unnecessary interference. A Mr Herb Seddon a frequent visitor to the area recovered two anchors from a wreck in the vicinity some years ago. These were given to the station owner Mr Phil Backman and appear on his front lawn. Though consistent in size with Macey's wreck they appear to be galvanised and possibly too modern.

(iv) Modern diver use, if any : The only visitors are expected to be employees of Hadson Energy or similar.

Assessment of Site Significance

(i) Archaeological : Despite its apparently sterile nature, the site is significant as one of the few accessible remains of one of the pearling or coastal vessels from the early days of pearling in the North-West. Material may lie buried within the wreck or nearby. See Appendix 1

(ii) Technological : The site has few visible artefacts of technological significance.

(iii) Scientific : as above

(iv) Educational : The wreck is a useful educational resource but is too isolated to be of current use. That situation may change in the future however.

(v) Recreational : as above

(vi) Cultural : Despite its sterile nature, the wreck has cultural significance as one of the few tangible remains of the late nineteenth century pearling industry in the North-West.

⁴ McCarthy, M, op. cit. p. 178

Management Proposals

Mr Macey, on behalf of Hadson Energy, has offered to facilitate the erection of a suitable plaque marking the site and advising visitors of its presence and significance. This is a most welcome step and will be the most significant and effective means of preserving the site.

The wreck cannot be accurately dated though it is felt that it may pre-date 1900 and could therefore be protected under the terms of the Maritime Archaeology Act 1973 (State) which automatically protects any wreck lost before 1900 lying in state Waters or on land.

This and the actions of Hadson Energy would provide the best legislative and practical means of preserving the site.

Recommendations

#1 The site should be protected in the manner suggested by Mr Macey and that a liason be established between him and the WA museum with a view to facilitating that process.

#2 The question whether it be legislatively protected as one of the few tangible remains of the pearling industry in the North -West should be put to the Maritime Archaeology Advisory Committee.

They are advised that though it has not been possible to positively identify the wreck as that of a pearler or to positively date it a pre 1900 as required by the relevant legislation it is considered that the wreck is most likely that of a pre 1900 wooden pearling vessel.

#3 A copy of this report be lodged with the State Library, Mardie Station, Hadson Energy, the Karratha College as well as in the usual WA Museum files and archives.

Other Comments:

Mr Macey and Hadson Energy should be commended for their consideration in this matter and be formally thanked for providing assistance in the inspection by providing transport, accomodation and meals as required at no cost to the museum. In effect they sponsored the entire inspection.

Appendix 1

A Brief History of Pearling in the Region

from

a thesis on Charles Edward Broadhurst

by Mike McCarthy

The story of the pearling industry in the NW of Western Australia unfolds in contemporary accounts in the local press and in various diaries and reminiscences such as those of R.J. and T.C. Sholl, A.R. Richardson, L.C. Burges, Charles Harper, the McCrae brothers, and others.⁵ E.W. Streeter's account of 'Pearls and Pearling Life' which was published in 1886 gives a first hand and most useful coverage of many aspects of the industry.⁶ The subject has also been covered in recent times by de La Rue,⁷ Albertus Bain,⁸ Wilson⁹ and in numerous unpublished accounts.¹⁰

The trade in pearl shell gathered off the Northern Coast of Australia began with the Aborigine and 'patterns of distribution' have been traced throughout the whole of Australia.¹¹ Overseas trade began with the visits of the Makassan trepangers in the late seventeenth or early eighteenth century and resulted in the exchange of women, trepang, turtles and pearl shell for tobacco, rice and axes.¹² Pearl shell was found at Shark Bay in Western Australia by European explorers such as the Englishmen Dampier in 1699 and by the Frenchman Hamelin in 1801.¹³ The presence of shell in other parts of the coast was also confirmed by the explorers, such as Stokes and Grey in the 1840s.

⁵ All housed at the Batty Library, (BL), Perth and referred to following.

⁶ Streeter, E.W., *Pearls and Pearling life*, (Bell and Sons, London, 1886).

⁷ de La Rue, K., *Pearl Shell and Pastures*, (Cossack Project Committee, Roebourne, 1979).

⁸ Bain, M.A., *Full Fathom Five*. (Artlook Books, Perth, 1982).

⁹ Wilson, H.H., *Where the Winds Feet Shine*, (Dymocks, Sydney, ND). A very useful historical fiction, partly based on the industry at Shark Bay.

¹⁰ e.g. (i) Willmott, J., *The Pearling Industry in Western Australia, 1850-1916: A Study in Isolation*, Unpublished Honours Thesis, (U.W.A., 1975).

(ii) Anderson, L.P., *The Role of Aboriginal and Asian Labour in the Origin and Development of the Pearling Industry, Broome Western Australia. 1860-1940*. Unpublished Honours thesis, (UWA., 1978).

(iii) Sheperd, B.W., *A History of the Pearling Industry off the North-West Coast of Australia from its Origins until 1916*, Unpublished M.A. Thesis, (UWA, 1975).

(iv) Carmody, R.W. *Shark Bay- It's Story 1616-1969*, Unpublished thesis, (Education Dept of W.A., 1970).

(v) McCarthy, M., *Charles Edward Broadhurst (1826-1905) a remarkable nineteenth century failure*, (Unpublished M. Phil. Thesis, Murdoch Uni., 1990).

¹¹ Bain, op. cit., p.14.

¹² Macknight, op. cit., p. 84.

¹³ Sheperd, op. cit., p. 9.

There is other evidence of an awareness of the extent of the pearl beds on the Western Australian coast. The wreck of the American whaling barque *Cervantes* lost 120 nautical miles north of Fremantle in 1844, for example, was found to contain a small quantity of what appears to be North-West shell.¹⁴ This is an indication of the possibility of trade with the Aborigines or of a visit to North-West region in the period before the vessel was lost.¹⁵ In 1850 an inferior type of shell was noted at Shark Bay, this time by Daniel Scott of Fremantle.¹⁶ In 1861, good quality shell was recorded by the explorer F.T. Gregory, in apparent abundance, at Nickol Bay in the North West of Australia. The crew of Gregory's vessel the *Dolphin* recovered £500-600 of shell and a pearl to the value of £25 while he was exploring inland, on what was to prove the catalyst for European settlement in the North of Western Australia.¹⁷ On the other side of Australia in 1870, a Captain Banner, whilst searching for trepang in the Torres Strait, engaged in trade with Torres Strait islanders and noted 'gleaming crescent shaped shields', and breast-plates with Mother of Pearl inlay. Thus it was in the Torres Strait that 'Mother of Pearl' was first discovered in the Eastern Colonies of Australia.¹⁸ It was in Western Australia in Nickol Bay and in areas to the east and west such as the Port Hedland, Fortescue and Ashburton regions on a large scale began however.

Though mindful of their prime purpose in landing at Nickol Bay, the European settlers who landed in the area in the early 1860s, would have been aware of the explorer Gregory's comments on the possibilities of the 'immediate commercial importance' of the pearling beds. The apparent ease in which the crew of Gregory's vessel *Dolphin* gleaned £500-£600 of shell and a pearl worth £25 in their leisure time, was also not lost on the settlers who used Gregory's journal as a 'bible' during the formative years.

There would have been some scepticism however and the pastoral industry clearly took first precedence. The reason was most probably the failure of J. W. Bateman who, within a month of Gregory's return in 1861, sent his vessel *Flying Foam* from Fremantle to Nickol Bay. They found to their disappointment that the beds were too scattered to be commercially viable and returned disappointed. The export of shell for the year 1862 was valued at only £250, poor returns for sending a vessel and crew the vast distances from Fremantle to the North-West. As a result 'interest in pearls temporarily collapsed'.¹⁹ The development of the industry was to await the inevitable pursuit of shell once the settlers were able to turn their attention from the land. The process was relatively slow however. As an indication of the nature and extent of the industry at this time, only £6 worth of 'pearls' were

¹⁴ Henderson G. J., *North Coast Whaling Expedition*, 1988, (WA. Museum Report, in prep).

¹⁵ American Whalers were frequent visitors to Nickol Bay after the Europeans arrived and are believed to have preceded all but the first explorers there. See Discussion on the reasons for the success of the Europeans at Nickol Bay in the chapter on the Denison Plains Pastoral Company.

¹⁶ Carmody, op. cit., p.23.

¹⁷ Gregory, A.C. & F. T., *Journals of Australian Explorations*, 1884, (Facsimile Edition, No. 14, Adelaide Libraries Board of S. A., 1969), p.73.

¹⁸ Bain, op. cit., p. 39.

¹⁹ Kimberley, op. cit., p. 214.

exported in the period.²⁰ These early efforts were recorded by the diarist Richardson at whose sheep station the principle exponents, Messrs Darling and Andrews, were based. He expressed the belief that, 'there are plenty of pearl oysters to be got there if the proper bed was found'.²¹ Apparently not convinced of the merits of the industry however, Andrews left the district in the following August, unsure of his future plans. Darling anxiously awaited the arrival of Padbury's vessel *Bridgetown*, having been promised a berth as first mate.²² As an indication of the unpromising nature of the industry at this time, he obviously thought that a sea-borne life had more to offer than pearling. He was to be disappointed, as the vessel did not arrive at Nickol Bay as expected. In the following November, he again tried his hand at pearling and took an old boat with two other men to Depuch Island, in the Forestier Island group, in search of good beds. The search appears to have been unsuccessful. The boat was also in very poor shape and they were forced in the rough seas to use ropes to keep the boat together and were fortunate to survive. The incident not only highlights the risks being taken at this time but also the willingness to travel considerable distances in search of shell. Darling continued on undaunted and in March of the following year, his boat was seen moored in Butcher Inlet in preparation for pearl fishing. A fortnight later Darling's men and the boat were noticed at the head of Nickol Bay, where they had a 'a good heap of pearls on the beach'.²³ Most of the activity appears centred on the area east of Nickol Bay and in the Bay itself and there appears to have been few forays to the west to the Fortescue River and beyond at this time.

At this early stage all that was required was a labour force of friendly or compliant Aboriginals who were required to walk into the shallows at low tide and to recover the visible 'pair' of shell.

Accounts of these early attempts vary, but the evidence shows that what was known as 'dry' pearling (or harvesting by beach-combing or wading in the shallows) was the fashion at Nickol Bay.²⁴ By this means, the shallow beds adjacent to the shore were exploited at low tide.²⁵ A boat, such as that used by Darling, provided transport for personnel and shell to and from remote beds, or across deeper water to 'drying' reefs, rather than be used as a diving platform as became the norm a few years later.

²⁰ *ibid.*

²¹ *Richardson Diary*, 13/7/1865. Battye Library.

²² He generally spent his time shepherding and working at the Pyramid station, while he was not pearling.

²³ *Diary of TC Sholl*, 12/3/1866-25/3/1866, BL.

²⁴ The transition appears to have been made to actual diving in the beginning of 1868. *Perth Gazette*, 31/1/1868 & *Herald*, 6/6/1868.

²⁵ Estimates vary on the extent of the shore uncovered at low tide and would obviously be greatest in spring tides. Estimates vary though the maximum range at Port Walcott was recorded as 5.8 metres in the Australian National Tide Tables 1989, (Aust. Govt. Publishing Service, Canberra, 1988), p. 192.

Figure
A large 'pair' of North-West shell similar to that found on Macey's site



Those with some free time to devote to pearling soon found that without easy access to boats, they were very much shore based and at the mercy of the tides in comparison to Darling with his boat. In the following September, for example, the Resident Magistrate's son went on horseback with the pastoralist Samuel Viveash in order to recover shells by beach-combing, but was unsuccessful due to the tide.²⁶

After Darling and Andrews left the pearling industry, the acknowledged leader in the field became W.F. Tays a former member of the failed Denison Plains Pastoral Company which landed at Nickol Bay in 1865. He and his partner Augustus Seubert, soon obtained a boat by entering a partnership with the pastoralist L.C. Burges who had obtained the vessel in exchange for fresh meat from an American whale-ship.²⁷ Tays and Seubert had also located productive beds in shallow water close to shore, apparently with the aid of Aborigines. The two elements, a boat and compliant Aborigines, were to prove a crucial factor in their success.²⁸ Walter Padbury, whose men pioneered the De Grey station, also realized the need for a boat at this time and he is recorded in November 1866 sending a 'large boat' via his coastal schooner, the *Emma*, for use in 'prosecuting more vigorously' the pearl fishery.²⁹

²⁶TCS, 28/9/1866, BL.

²⁷There were a number of American whalers in over the years. These visits, such as that of the New Bedford Whaler 'Cox's Troop' ? on 12/7/1870, are recorded in Sholl's diaries and Occurrence books. RJS, BL.

²⁸ Burges states that Tays and Hicks were erecting a shearing shed at his station, 'Andover', when Aboriginal men wearing pearl shell ornaments arrived. Tays and Hicks persuaded them to show the whereabouts of the beds in return for a trifling remuneration. They recovered 2 tons of shell by beachcombing. Burges then supplied a boat he had exchanged with a visiting American Whaleship for fresh beef, and within 3 months they obtained a further 9 tons of shell.

²⁹ *Local and General News*, 9/1/1867, RN 64, BL. There is also a possibility that Padbury was trying diving apparatus out of the *Emma* at this time

The record is very incomplete and a great deal of the activity at Nickol Bay and its surrounds (east and west) at this time, would not have been recorded, as all the officials, diarists and commentators, such as the Sholls and Richardson, were stationed some kilometres inland. It also needs to be noted that many pearlery would have been secretive, desirous of anonymity or keen to establish a commercial advantage at this time.

Tays, in comparison, was always in the public eye at this stage and called in to Roebourne in November 1866 to inform the authorities, of shell hidden on the coast between Port Hedland and 80 kilometres to the east of the De Grey River. The shell was worth in his estimate £100 per ton and represented a substantial return for the efforts of two men in a small boat. Tays and Seubert apparently had a distinct advantage not just with the boat and in the use of Aboriginal experience, but also with a prior knowledge of the pearling industry.³⁰ At the time a mid level government servant earned between £150-200 per annum and the returns were obviously very attractive.

Though based at Nickol Bay, Tays and company ranged from there to Mt Blaze (Cape Keraudren), a distance of nearly 150 Nautical miles (240 kilometres). The extent of their activities to the west towards the Fortescue River, if any, is not known. What is significant here is the willingness and ability of these earliest of pearlery to travel vast distances from the centre of European settlement at Roebourne and its port Butcher Inlet (Cossack), in search of shell.

Those with access to boats such as Darling, Tays and the well known pastoralist John Withnell, to name only those known, were clearly a step ahead of their contemporaries in regards to pearling. Though shell could be obtained by anyone 'beach-combing' from the shore and utilizing the huge rise and fall of the tide in the region, boats were clearly the answer for the transport of men and the shell between tides and to the off-shore reefs. They enabled the harvesters to move around the vast areas of shallows exposed by the receding tide either towing the laden boat or rowing with their catch on board. Boats also obviated the need to walk or wade the often long distances between the beds and the high water mark carrying a bag of shell, to deposit it in a retrievable heap and to then return for another load. Those with access to a boat were at a clear advantage in this regard and in the ability to exploit the 'drying' reefs off-shore.

In March of 1867, while trying to expand his operation by forming a company and purchasing a 'large' boat (as opposed to an open boat) to remove the vulnerable shell stacked in heaps along the coast, Tays took passage on board the *Emma* for the Eastern States and disappeared with over a quarter of the entire European population without trace.

Others beside Tays had seen the benefits of using 'large' vessels in the pearling industry and quickly sent them into the area. In April 1867 only a month after the departure of Tays, the first of these, the *Morning Star*, began

³⁰ Bain, op. cit., p.15, claims that Tays must have had a prior knowledge of the industry as practised in other regions such as Ceylon. He is recorded in a report penned by T.C. Sholl and signed by Broadhurst as acting RM (CSR, 582/242, published in the *Inquirer* of 23/1/1867), estimating that his catch was worth £100 per ton. This apparently 'inside' knowledge supports Bain's analysis.

preparations to sail out of Butcher Inlet for the purposes of harvesting shell.³¹ Success was not immediate as the necessary experience was lacking however. In May Sholl noted that, since the departure of the *Emma* 'the fisheries have not been so successful'. He also noted that that the *Morning Star* which arrived back from a 'pearling cruise' to areas including the De Grey, had also been unsuccessful.³²

Despite the early failures, large boats such as the *Morning Star*, were to prove the next step in the developing industry. Not only could they act as a mother vessel to their smaller counterparts and as a transport and storage medium for the shell, but they also could accommodate the shell gatherers themselves. They were the next step up from a small land based open boat and were obviously needed in the efficient pursuit of the shell. By June 1867, the two masted schooner, *Mary Ann*, was in operation on the pearling beds at the De Grey.³³ It was 13 metres in length and 5.5 metres broad and proved successful with a 'catch' of 4 tons of shell. In the following month, the pastoralists Withnell, Hall and McCourt joined a Mr Tuckey, who was an experienced seaman, in a partnership in the *Morning Star*.³⁴ They were to prove successful and in the following September, the vessel arrived back from the pearling banks with five tons of shell which was then loaded onto another vessel for Fremantle.³⁵ Another four tons were on board the *Mary Ann* and a further 15 tons were deposited along the coast to be collected and despatched when the occasion allowed.³⁶

As an indication of the sudden growth of the industry, the catch for the twelve months up to 30 October 1867 was 32 tons, which at an estimated £80 per ton realized £2560. As a result, boat-building proceeded apace, both in the North, where a Mr Cooper built a 10 ton boat for the fishery, and in Fremantle where pearlery were gearing up for the onset of warm weather in the following year. The pearlery also had ideas of examining the 'ground' elsewhere, even in these early times. The *Morning Star* for example, cleared for Camden Harbour in November 1867 but stayed at the De Grey grounds.³⁷

The Resident Magistrate's report of the successes in the industry was published in the Perth press in January 1868. He noted that 'at present the profits are great and the expenses small'.³⁸ It was noted elsewhere that the 'news from Nickol Bay was causing quite a commotion' and that in January between 8 and 10 craft had left Fremantle for the fishery, and another two or three were in the process of being fitted out.³⁹ Advertisements, such as that

³¹ Diary of RJ Sholl, 28/4/1867, BL. Details of the vessel have not been found. The term 'large' is used in comparison to the open rowing boats then used. These vessels ranged from around 5 ton upwards.

³² *GRO Report of 28 May 1867*, CSR, 603/53,73. BL.

³³ RJS 23/6/1867, BL. This is not the *Mary Ann* in which Broadhurst returned in August. It is possibly the 33 ton vessel built in Geraldton, owned by George Shenton in 1864 and referred to as Chapman's *Mary Ann* by Sholl (ON 36551 No. 3 of 1864 at Fremantle. Register of British Ships) & RJS, 28/7/1867, BL.

³⁴ RJS, 29/7/1867, BL & CSR, 603/111, BL.

³⁵ *Inquirer*, 28/8/1867 & CSR, 603/140. BL.

³⁶ *Perth Gazette*, 20/9/1867.

³⁷ CSR, 603/167, BL.

³⁸ *Inquirer*, 22/1/1868.

³⁹ *Inquirer*, 22/4/1868.

for the 17 ton cutter *Gazelle* which was claimed to be 'well adapted for the pearl fishery' also appeared in the press.⁴⁰ Such vessels were capable of carrying five or six open boats, accommodating their crew and storing the shell. These advantages were becoming obvious to all, though the returns for the small investor were still very good. In the following month for example, it was claimed that 2 or 3 men in a single open boat could, over the space of one tide, gather 'over one ton' of shell and that it was fetching £80-100 per ton at Perth and £120-160 landed at London.⁴¹

Given such news, there is little surprise at this flurry of activity, and as expected, 'large' boats then began to appear on the scene in great number. In December of 1867 and in January 1868, Sholl noted the arrival of the vessels *Nautilus*, *Lone Star*, *Little Eastern*, *Pearl*, *Sophia Jane* and the *Saucy Lass* at Butcher Inlet and the departure of the *Mary Ann* and *Morning Star* for Kings Sound.⁴²

On 25 January 1868 the pearling vessel *Ariel* was lost near the Ashburton River with all hands and around a ton of shell.⁴³ Here is one of the first references to the forays of the pearlers to the west to the region of the Fortescue River and beyond and it is from this time that 'Macey's Wreck' or the 'Mardie Unidentified Wreck' must date. The wreck is expected to be in the range of the vessels mentioned above i.e. at the most 15 metres in length and around 5-10 tons capacity. They were mostly cutters or two masted schooners and all were built of wood. There is unfortunately little to identify this site except to confirm that it is in the expected size and temporal range for the North-West pearling industry.

Other boats arrived in this busy period, including the *Medora*, *Albert*, *Fairy* and *Charon*.⁴⁴ In apparent reference to the small open boats operated from these larger vessels, and to the number of small investors involved, there were, according to one commentator, 'swarms of small boats on the coast' at this time. Returns (apparently in London) were remaining high at around £180 per ton, and one pearler/pastoralist, A.R. McKay, received '£800 for shells collected in a small boat that did not cost him £50'.⁴⁵ Thus even those who could not afford the larger vessels and who were still forced to operate individually were doing well, despite the disadvantages.

With regard to the sort of material expected to have been carried on board at the time it must be noted that the use of Aborigines as collectors/divers was a feature of the industry at this time. The boats then were equipped with the barest essentials including arms. As the fleet expanded, the requests for assistance from the once compliant Aborigines turned, in many cases, to

⁴⁰ *Inquirer*, 29/1/1868 & 1/1/1868.

⁴¹ *Inquirer*, /2/1868. A later report in the same paper of 6/5/1868 notes that the Nickol bay trade was opening up just as that based in Ceylon was in the decline and gave a range of prices from £140-180 per ton for the best and largest class down to £35-45 per ton for the smallest class of shell, with an intermediately priced variety worth £45-50 per ton.

⁴² RJS, December 1867 and January 1868, also CSR, 623/108, BL.

⁴³ RJS, 25/1/1868, BL.

⁴⁴ RJS, 19/2/1868 & CSO, 623/107, BL.

⁴⁵ A. McRae to his sister, 24/2/1868, BL.

demands and coercion for example.⁴⁶ There were, as there always are exceptions. Blurton of the *Medora*, for example, recovered a 'magnificent pearl'⁴⁷ and was apparently the most successful of all in this period, due to the good relationships he established with a tribe of island Aboriginals. These people had been defended by his crew from a marauding mainland tribe and in return,

they became 'pickers up' and as one black fellow is worth 20 white men in this occupation, they did well.⁴⁸

With the advantage of a willing labour force, the crew of the *Medora* were able to best utilize the short time and few days allowed by the tides.

The best shells are those not exposed...great secret is to gather those in the water... [to do this it was] necessary to wade up to the armpits.

As the shell were most often covered by a layer of sand or mud the aboriginals were also able to apply their knowledge of the 'fishes habits' to the task.⁴⁹

The Press in Perth also noted the better success of Blurton who, in using 'conciliation instead of Colt's revolver or short rations has enlisted their [the Aboriginals] services and done better'.⁵⁰

Local knowledge, sympathetically applied, was clearly one of the keys to success. Charles Harper and his partner, Samuel Viveash, had with the aid of Aboriginal guides for example, examined the coast from the Ashburton to the De Grey Rivers and found good beds. Harper and Viveash's reliance on local knowledge and their subsequent successes did not stop there. They realized that a suitable boat was required to exploit the area and built the 11 metre, *Amateur* from local timbers at their station. The hull was of 'Mahogany' and the knees and timbers of Cadjeput (Paperbark) and the vessel was considered 'a favourable specimen of local industry and ingenuity'.⁵¹ Thus it could be expected that had timbers existed on 'Macey's wreck' that they could have been timbers from virtually any part of Australia including the local area as boat building and repair using local timbers was an element of the NW pearling industry.

The successful use of large boats to transport people and shell in the first months of 1868 raised the question of the possibility of effectively using 'diving apparatus' at Nickol Bay. The application of such technology to under water work was by then well established elsewhere in the world and it was an expected and most logical development in Western Australia given the

⁴⁶ The vessels are *Morning Star* (Hall), *Industry* (Tuckey), *Pearl* (Charles), *Fairy* (Saw), *Little Eastern* (Herbert), *Charon* (Watson), *Lone Star*, *Saucy Lass* (Cooper), *Mary* (Anthony), *Medora* (Symons) and *Herald* 6/6/1868

⁴⁷ *Perth Gazette*, 4/12/1868 & CSR, 623/133, BL

⁴⁸ *Herald*, 6/6/1868

⁴⁹ *ibid.*

⁵⁰ *Inquirer*, 2/12/1868.

⁵¹ Mercer, F. R., *The Life of Charles Harper*, (Westralian Farmers Co-op Printing, Perth, 1958), pp. 34-36 & CSR, 624/4, BL.

most successful use of the equipment elsewhere. The presence of diving gear would also have been expected and would have been a useful clue in the identification and dating of the wreck.

The use of diving apparatus was not unknown in Western Australia when the pearling industry started. It had been applied to harbour works and to the salvage of the Barque *Eglinton* which was wrecked near Perth in 1852.⁵² In 1861, the explorer Gregory had suggested that diving apparatus be used in Nickol Bay and in January 1868 the *Perth Gazette* wrote to the effect that

At present it can scarcely be called a fishery as at best all that is done is to prowl along the coast and gather as many as can be seen at low water... It is evident that a vessel fitted with proper diving apparatus would make a good thing of this fishery as it is said very large shells are to be seen lying in deep water. A vessel so fitted was expected at Nicol bay.⁵³

It appears that others may have been quietly experimenting with the 'apparatus' around this time. In 1988 for example, the author inspected a wreck believed to be Padbury's ill-fated *Emma* which was lost early in 1867. Somewhat surprisingly a diving helmet was found on board, and from the position in which the wreck lay appears to have been on-board at the time of wrecking.⁵⁴ Such secrecy is to be expected in an industry where gaining access to hitherto unharvested beds would prove a distinct financial advantage and it is expected that much of the activity in the industry has gone un-recorded. As further indications of this, two large Sydney boats, possibly the *Melanie* and *Kate Kearney*, were also noted as fitting out with apparatus in April 1868 for use in the North-West fishery.⁵⁵

It is Charles Edward Broadhurst, in partnership with James Dempster and the firm of Barker and Gull of Guildford who are the accepted pioneers of the use of diving apparatus in the Australian pearl diving industry however. Barker was to provide the vessel and the others were to contribute £200 each to the costs.

The reports on the attempt to use the 'apparatus' there vary considerably. One claimed that the 'strong currents created danger for divers' and that as the apparatus was designed for 'still water', it was unsuited for use in the North especially at the Flying Foam Passage where it was first attempted, and could not be adapted to handle the conditions. The diver was, in the opinion of the correspondent, in constant danger of 'being thrown off his legs' in the strong currents. Despite adding further weights to reduce his buoyancy the diver still could not maintain an upright posture on the sea bed or in the

⁵² Halls. C., Wreck of the Barque *Eglinton*, in *Port of Fremantle Quarterly* (Spring, 1978), p 12-15.

⁵³ *Perth Gazette*, 31/1/1868. My emphasis indicating that at this time 'dry shelling' was still the vogue..

⁵⁴ McCarthy, M., *Wreck Inspection Report, Coral Bay Unidentified, believed to be the Emma, 1867*. W.A. Museum, Department of Maritime Archaeology, file no., 60/88. The remains of a diving helmet were found on this wreck which is believed to be Padbury's *Emma* lost in March 1867. From the position of the object, it does not appear to have been associated with a later salvage attempt.

⁵⁵ *Perth Gazette*, 24/4/1868.

water and the chances of an accident were subsequently very great.⁵⁶ These dangers must have caused quite some consternation on-board and it was apparently due to the 'insubordination' of the crew the Captain had 'no chance of finding any bank'.⁵⁷ Following these abortive attempts, it was noted that the diver, somewhat understandably, 'did not appear up to his work', and he was subsequently replaced.⁵⁸

The need for experience in locating the submerged shell banks and the dangers in attempting to use diving gear from such a large vessel in strong currents or when the tide was running were effectively brought home to Broadhurst and his associates. In the light of the dangers and with apparently considerable opposition from on board, the attempt was soon abandoned.

Broadhurst and his partners had failed where others were to prove successful using Aboriginal 'divers'.

In August 1868 for example, the vessels *Pearl*, *Fairy*, *Industry*, *Nautilus*, *Albert* and Chapman's *Mary Ann* arrived back at Butcher Inlet. All apparently used 'naked diving' or 'wading' techniques with successful results. They were joined by the *Liberty* and *Pilots* and by the Sydney vessels *Kate Kearney* and *Coquette* which had arrived at the fishery via Torres Strait and had been collecting trepang en-route.⁵⁹ Another clue of importance in this instance is the Resident Magistrate's comment that Broadhurst's *Mary Ann* was too large for the industry at 25.6 metres in length. This is a significant comment and helps fix the top of the expected size range of 'Macey's wreck' by other than the physical evidence.

Broadhurst's efforts with the *Mary Ann* and the diving apparatus were made doubly unnecessary as fresh beds could still be found if one was prepared to travel and in these circumstances the relatively very efficient 'dry shelling' methods could be applied. McCourt in the *Argo* sailed as far north as Camden harbour with Aborigines from the Robe River area for example. As an indication of the extent of the practice it is significant that these Aborigines were from the area just west of Mardie Station and were being used as far afield as the Kimberley region at this time. Though reporting good beds there, McCourt was unable to exploit the find due to nine of the Aborigines 'absconding' at Camden Harbour in the apparently mistaken belief that they were able to make their way home.⁶⁰

Despite the failure of this, the first known attempt to use diving apparatus on the Australian pearl fishery, Broadhurst realized that the gear had possibilities. He left the partnership with Dempster, Barker and Gull and was soon on his way back north, having 'bought down a boat and two hands' i.e a small boat to undertake pearling with the diving apparatus he had on board the *Mary Ann*. The gear was apparently a 'Heincke' system,⁶¹ a common

⁵⁶ If the diver falls over or is held in a similar position by the tide, the air in the helmet can run through the suit to the legs causing the diver to invert and totally lose control.

⁵⁷ *Perth Gazette*, 25/9/1868, & 11/11/1868.

⁵⁸ *Inquirer*, 24/2/1869 & 3/3/1869.

⁵⁹ CSR 624/4., BL. Trepang, the sea slug or Béche-de-Mer was a much sought after delicacy.

⁶⁰ CSR, 646/173, BL.

⁶¹ *Inquirer*, 14/9/1870.

form of 'standard dress' or 'hard hat', which was similar in principle and operation to the English, French and other forms then being produced.

His decision to attempt to continue with the diving apparatus, despite the failure at the Flying Foam Passage was justifiable even in the context of the success that others were having with the local Aborigines.

As the cyclone season which fell between November and March, also fell within the pearling season itself it presented a grave danger and there was another good reason to prove the practicability of the 'diving apparatus' with their protective suits. If the apparatus with the protective suits had been proved practical, diving could have continued throughout the winter months and the hot cyclone season could have been avoided as is the case today. The dangerous months could then have been used for the lay-up when boats and gear were repaired and the men rested.

Despite the advantages and the possibilities of extending the season and avoiding the cyclones, Broadhurst again proved unsuccessful in the application of the diving gear to the industry.⁶² Given the concerns about cyclones that today see the months from November to March avoided by the pearlers, their failure comes as some surprise. On reflection it appears that cyclones were not the problem in this period that they were to become after the Aborigines left the industry around the turn of the century. In this early period the boats were working close to land and with local Aborigines on board who were noted for their skill in predicting the weather, would have had a prior warning of any cyclone.⁶³ This was sufficient to enable them to make for the nearest haven, and by this means diving in the cyclone season did not present too much of a hazard in the 1860s and 1870s. Because Broadhurst and his associates were unsuccessful in introducing the diving gear with its protective clothing, diving generally ceased over the cooler months and no one was disadvantaged by the 'lay-up'.

The remains of diving apparatus have not been found on Macey's wreck and in the light of the above it is possible that it was never used on board. It was not until the mid 1880's that the use of diving apparatus came to the fore in the pearling industry and then it was much further north out of Broome. Even if the apparatus were once on the 'Macey site', it is evident that the position of the wreck adjacent to Mardie Station and the harbours and havens at Mardie Creek and Fortescue Road would have ensured that the wreck would have been effectively 'cleaned out' as soon as the storms abated.

In the context of the proximity of Macey's site to sheltered waters, it must be noted that though anchored or 'laid up' in a haven like Mardie Creek or in a river or harbour such as Fortescue road, boats were still at risk in cyclonic conditions with the associated very high tides very rough seas and strong winds which served to make these havens untenable. After the storm much effort would have been put into the recovery of salvable craft and in the recovery of useful material from those that were destroyed. It should also be

⁶² RJS, 18/1/1869 & 2/2/1869.

⁶³ The Aborigines demonstrated their forecasting skills on a number of occasions in the North-West. Withnell-Taylor op. cit., Cha.xxi.

noted that harbours are a natural focus for wrecks and that those that lay in their vicinity were almost always heavily salvaged.

The demand for material with which to build boats for pearling can be seen in the following excerpt from a contemporary letter by the pearler F. McRae to his sister.

Almost everyone has gone out pearling... satisfactory wool prices but the cost of getting it out eats up the profit...The pearl shell fishery looks much better now than it ever did before as pearlers have got the natives to dive in deeper water for the shells ⁶⁴

As an indication of the extent of the industry in 1873 and the need for raw or recycled materials, on a visit to the beds at the Flying foam Passage, the Resident Magistrate, R.J. Sholl counted 24 'large boats', 47 smaller boats, 291 Aboriginals and 134 'Malays' at work. When he went ashore to inspect the land encampments, he found about 50 'followers' which gave a total population of around 550 at work in the Flying Foam Passage when they arrived. A Mr Nicolai was ashore attempting to cure the flesh of the oyster for the Batavia market, which at an anticipated price of £40 per ton, Sholl did not think would prove a viable return. Also ashore was a Mr. Clifford awaiting the return of his boat that had been stolen by 'Malays' in a bid to return home.

The returns were good for some, with *Pilots* returning 134 'pairs' of shell in 4 hours. Robert, the elder of Sholl's two sons was commanding a dinghy which normally operated with six Aboriginals, but was reduced to diving with five as one had a 'headache.' Despite being shorthanded, they still recovered 173 'pairs'. Horace Sholl was also successful with a return of 129 'pairs' which at an average of 2 and a half pounds (about one kilo) weight per 'pair' made a total for one morning of 755 pounds (340 kilos) weight. In The elder Sholl's estimate, this was worth £37.15s, and at that price was 'not a bad mornings work'.⁶⁵ The total being removed daily was estimated by Sholl to be around 3 tons.

As an indication of the methods used by those operating small boats like 'Macey's wreck' Sholl noted in his official report, that there were usually six divers in each dinghy alternating above and below water with an occasional rest period. They worked for about four hours and most of the divers entered the water feet first, though 'two or three plunge head first'. As they rose from the bottom, the dinghy was rowed across to them and they were taken on board, 'not at all distressed'.

Once diving finished, the smaller boats returned to the larger vessels where those 'lads' too young to dive cleaned the outside of the shell with a tomahawk. The contents were then inspected and the shell was packed on deck to dry. Once ashore the 'coloured' men carted the shell to the 'whites'

⁶⁴ F. McRae to his Sisters 2/10/1870 & 2/8/1870, BL Acc. 289a.

⁶⁵RJS, 6/2/1873-9/2/1873.

who prepared the shell by trimming the edges and packed them in alternate layers of 'flat' and 'convex' shells in 'hogsheads' which took an average of 5 hundredweight (254 kilos) and sometimes more when well packed.

As further indication of the rapid movements from one area to another that characterised the industry at this time, Sholl's visit to Flying Foam Passage occurred in the first week of February when 'the yield was good'. By the time of the writing of his official report at the end of March 1873 the supply had 'diminished' indicating the rapidity with which beds were abandoned. Several boats had moved elsewhere, some to the west of Nickol Bay or further still to the Exmouth Gulf, and others east to Condon or to Peedamurra near Port Hedland and a few went much further. Some would have been at places in between such as the Fortescue River area.

Though sterile, it is in this context that we must view Macey's site.

A photo of the wreck showing the pearl shell in situ. Photo D Macey.



Appendix 2

Mardie Station

Founders : Malcolm MacIntosh and David Simpson:

These two men were with Charles Broadhurst at the Denison Plains Pastoral Company base on the Maitland River in January 1866. There, following the collapse of the Company they successfully tendered to sheperd the Company sheep at £2-0-0 per week.⁶⁶ MacIntosh was a part of an exploration team to the Fortescue in October 1865. They subsequently teamed up to establish *Mardie Station* on the lower reaches of the Fortescue.⁶⁷ They were there in September 1867, when Sholl records that Simpson shot an Aboriginal man for stealing flour.⁶⁸

Macintosh was to have discussions with Sholl concerning the defunct Denison Plains Company along with Hicks and Frazer as late as June 1869. These discussions occurred as Broadhurst lay gravely ill and was not expected to live and cast some doubts as to whether the trio believed that the Company property or land that Broadhurst then held as the successful tenderer for the defunct company was actually his. The content of the discussions will never be known for Broadhurst was soon to recover.

MacIntosh died at *Mardie* on 19 December 1875 and his grave was apparently once visible there near the shearing shed.⁶⁹ Simpson, a Mr Morton, and a Captain Tapper took shares in the 48 ton pearling schooner *Nautilus* on 18/6/1879.

Simpson then moved to the Ashburton founding *Towera Station* in 1883 and then leased *Kooline Station* where he died on 26/8/1886. His grave is still visible.⁷⁰

⁶⁶ CSR, 581/100, BL.

⁶⁷ PR 9251, p. 7, BL.

⁶⁸ RJS, 9/9/1867, BL.

⁶⁹ PR 9251, p. 7, BL.

⁷⁰ Sharp, E. I., *Some Ghosts Some Not*, (E.I. Sharp, Perth, 1979), pp. 101-118.