

Australia Pacific LNG Project

Volume 5: Attachments

Attachment 37: Indigenous Heritage Technical Report – Pipeline

Australia Pacific LNG Main Transmission Pipeline

Indigenous heritage

A report to Australia Pacific LNG

by

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November 2009

Table of contents

1.	Introduction.....	2
1.1	Setting	2
1.2	Purpose.....	2
1.3	Scope of Works.....	3
1.4	Legislative framework	4
1.4.1	Commonwealth Legislation	4
1.4.2	State legislation	5
1.4.3	Local Government Legislation.....	6
1.5	Cultural heritage significance assessment.....	6
2.	Methodology	8
2.1	Site information	8
2.2	Site mapping	9
2.3	Constraints analysis	10
2.4	Limitations	12
3.	Existing environment	14
3.1	Historical context.....	14
3.1.1	Southern region.....	14
3.1.2	Port Curtis region	15
3.2	Archaeological context.....	16
3.3	Results of register searches	18
4.	Potential Impacts.....	24
4.1	Cumulative impacts.....	24
4.2	Matters of National Environmental Significance	24
5.	Mitigation and management.....	26
6.	Cultural Heritage Management Plans	27
6.1	Consultation/ Negotiation.....	27
7.	Conclusions	30
8.	References	31
	Appendix 1 – Figures.....	34

1. Introduction

Australia Pacific LNG Pty Limited proposes to develop a project to enable the creation of a world scale, long-term industry, utilising Australia Pacific LNG's substantial coal seam gas resources in Queensland. Australia Pacific LNG holds significant interests in less developed areas across the Walloons Fairway in the Surat Basin, which together with the Talinga coal seam gas fields constitutes the Walloons gas fields development area.

The main gas transmission pipeline will connect the Walloons and Undalla gas fields with the LNG plant on Curtis Island in Gladstone. The pipeline system includes the main transmission pipeline, Wolleebee Lateral, the Condabri Lateral. The pipeline will be approximately 450km in length and will be buried. The diameter of the main transmission pipeline is 42" (1066.8mm), the Wolleebee Lateral is 30" (762.0mm) and the diameter of the Condabri Lateral is 36" (914.4mm). Where practical, the pipeline will be co-located with other proposed coal seam gas high pressure gas transmission pipelines, including co-location within the Callide Common Infrastructure Corridor and Gladstone State Development Area common corridor being developed by the Queensland Government.

1.1 Setting

The pipeline study area, which includes the pipeline route centred within a 10km wide buffer zone, traverses a diverse range of landscapes between the coal seam gas field near the Central Queensland town of Miles and the LNG Plant on Curtis Island, off the Central Queensland coast (See Figure 1, Appendix 1). It passes through undulating downs of the Brigalow Belt around Miles, Wandoan and Taroom. This area was formerly covered with dense brigalow (*Acacia harpophylla*) scrub, but is now substantially cleared for agriculture and cattle grazing. The extent of clearing has implications for the survival of cultural heritage items along many sections of the route. The pipeline route crosses the Great Dividing Range east of Wandoan and the Calliope and Callide Ranges to the east of Biloela. To the west of the pipeline route is the Dawson River valley. The line skirts the northern edge of the Mount Larcom Range, then crosses the Narrows, a 1.8km channel separating the mainland at Friend Point from Laird Point on Curtis Island.

The route is located to the east of the Central Queensland Sandstone Belt, dominated by precipitous sandstone escarpments, in which are found Indigenous rockshelter sites containing evidence of occupation at least 20,000 years old.

1.2 Purpose

As part of the overall assessment of development impacts, the Indigenous heritage of the project area has been investigated. This investigation provides an historical and archaeological context for assessing the likely Indigenous use of the area, documents the registered heritage places and potentially significant site locations, and proposes measures to mitigate any impacts resulting from the project. In combination with Cultural Heritage Management Plans (CHMPs), being developed with each Aboriginal Party along the pipeline route, the purpose of this assessment is to document the process to be undertaken ensuring Indigenous heritage values are preserved to the greatest extent possible.

The aims of the Indigenous heritage assessment are to meet the Terms of Reference for the project and specifically to:

- provide a context for assessing Indigenous occupation of the region through which the Australia Pacific LNG transmission pipeline passes
- recognise the presence of Registered Indigenous heritage sites in the Australia Pacific LNG pipeline corridor
- propose a methodology, whereby Aboriginal heritage values are identified, their significance assessed and appropriate agreements reached, between Australia Pacific LNG and each Aboriginal Party. These agreements would be in a form Cultural Heritage Management Plans recognised under the *Aboriginal Cultural Heritage Act, 2003*.

Figure 2, Appendix 1, outlines the location of Registered Indigenous heritage sites within the study corridor. Cultural Heritage Management Plans are presently being negotiated with each Aboriginal Party with an interest in lands along the route.

1.3 Scope of Works

This assessment examines the main transmission pipeline system of the Project. Separate assessments have been prepared for the Gas field and LNG Gas Plant on Curtis Island, the other two main components of this project.

This assessment considers the legislative requirements in relation to Indigenous cultural heritage and reviews known Indigenous heritage and history along the pipeline route. In keeping with the wishes of the Traditional Owners, the locations of sites and items of cultural heritage significance are not identified in this, a public document, to ensure these are not exposed to threats posed by unauthorised visitation and disturbance. A list of registered sites within the 10km wide study corridor is provided, and an evaluation of potential risks posed by pipeline construction, but only general location details are presented.

There are a number of identified Aboriginal Parties with an interest in the land through which the pipeline route passes. In this area, Aboriginal Parties are the Native Title Claimants, some with current claims, others with unsuccessful claims, but who are still recognised under the terms of Part 4 of the *Aboriginal Cultural Heritage Act, 2003* as being approved Aboriginal Parties. Aboriginal Parties with an interest in areas of the Pipeline route are identified in Table 1 and the location of Native Title claim areas is shown in Figure 2.

Table 1 Aboriginal Parties along the Australia Pacific LNG main transmission pipeline route

Aboriginal Party	NT Claim Number	Federal Court Claim Number	Details
Barunggam People	QC99/5	QG6005/99	Dismissed 5 June 2008
Western Wakka Wakka	QC99/4	QG6004/99	Deregistered
Iman People # 2	QC97/55	QG6162/98	Current claim
Wulli Wulli People	QC00/07	Q6006/00	Current claim
Gangulu People	QC97/36	QG6144/98	Deregistered 27 April 2007
Port Curtis Coral Coast	QC01/29	Q6026/01	Current claim, which is an amalgam of four previously registered claims by the Gooreng Gooreng, Bailai, Taribelung

Aboriginal Party	NT Claim Number	Federal Court Claim Number	Details
			Bunda and Gurang

Figure 1 outlines the location of Native title claims along the pipeline corridor. In addition to areas presently under claim, is the area between Curtis Island and the mainland, which is not subject to Native Title claim. Indigenous groups with an interest in this area will be identified through the formal public notification process. There are two other Native Title Claimant groups in areas fringing the transmission pipeline route. These are the Wakka Wakka People #2 (QC99/33) and the Djaku-nde & Jangerie Jangerie Peoples (QC00/10). Although the 10km wide pipeline corridor used for this heritage assessment traverses the area occupied by these groups, the pipeline route and associated infrastructure will not encroach on either claim area.

1.4 Legislative framework

Several pieces of Commonwealth and State legislation serve to protect Indigenous heritage sites in Queensland. Each of these is relevant to the protection and management of sites found in the vicinity of the proposed Australia Pacific LNG transmission pipeline.

1.4.1 Commonwealth Legislation

Australian Heritage Commission Act, 1975

This legislation established the Australian Heritage Commission (AHC) whose responsibilities included the creation and administration of the Register of the National Estate (RNE). The RNE included places assessed as being significant for their natural, historical or Indigenous values. Listing on the RNE imposed no restrictions or responsibilities on the owners of those places, although it did require Commonwealth agencies to seek advice from the Australian Heritage Commission concerning the management of listed places. The Australian Heritage Commission Act was repealed in 2003 with amendments to the Environmental Protection and Biodiversity Conservation Act, 1999 (EPBC Act). The AHC was replaced by the Australian Heritage Council, which fulfils the same role as its predecessor: providing independent advice to the Commonwealth on heritage matters.

Environmental Protection and Biodiversity Conservation Act, 1999

The main objective of this legislation is to protect the environment, including nationally and internationally significant fauna, flora, ecological communities and heritage places, particularly where these can be considered as Matters of National Environmental Significance. Amendments to the EPBC Act in 2003 led to the inclusion of national heritage places as Matters of National Environmental Significance, and established the Commonwealth and National Heritage Lists.

The EPBC Act works in parallel with the State heritage system, providing another level of protection for sites that might otherwise be threatened by major developments. A determination from the Commonwealth Minister for the Environment, Heritage and the Arts is required when activities occur in areas of National or International significance, such as the Great Barrier Reef World Heritage Area. An Indigenous Advisory Committee was established to advise the Minister on Indigenous matters connected to the EPBC Act.

Australian Heritage Council Act, 2003

This legislation established the Australian Heritage Council to replace the Australian Heritage Commission, as the principal advisory body to the Commonwealth Minister for the Environment, Heritage and the Arts on heritage issues. The Heritage Council is responsible for administering the Commonwealth Heritage List, for sites on Commonwealth land and the National Heritage List, for other sites. The Register of the National Estate remains as a statutory register until February 2012, by which time many of its sites will be included on national, state or local government heritage registers.

Aboriginal and Torres Strait Islander Heritage Protection Act, 1984

This is the principal Commonwealth legislation protecting Indigenous heritage in Australia. The Act complements state/territory legislation and is intended to be used only as a 'last resort' where state/territory laws and processes prove to be ineffective. The Commonwealth Minister for the Environment, Heritage and the Arts can make declarations protecting threatened sites. This legislation is being reviewed by the Commonwealth to improve its effectiveness in protecting Indigenous sites of outstanding heritage value.

1.4.2 State legislation

The primary piece of State legislation protecting Aboriginal cultural heritage sites is the *Aboriginal Cultural Heritage Act, 2003*. Indigenous sites may also be protected by the *Queensland Heritage Act, 1992*.

The Queensland Government Department responsible for Indigenous heritage protection is the Department of Environment and Resource Management (DERM). It keeps an Aboriginal and Torres Strait Islander Database and Register, and administers Queensland's *Aboriginal Cultural Heritage Act, 2003* (ACHA). It also keeps a register of significant heritage places and sites, the *Queensland Heritage Register* (QHR), and administers the *Queensland Heritage Act, 1992*.

Aboriginal Cultural Heritage Act, 2003

The main objective of Queensland's Aboriginal Cultural Heritage Act is to effectively recognise and protect Aboriginal cultural heritage and to establish a process whereby this can be achieved. It places the onus on anyone whose activities might disturb or destroy an Aboriginal place or site, to observe a 'duty of care'. It places the assessment of significance solely with the Aboriginal Parties involved, to be decided in a manner consistent with tradition, and emphasises that the definition of places and sites goes beyond archaeological sites to include those where there are no physical traces. It requires developers who are obliged through other legislation to develop an Environmental Impact Statement, to also initiate the creation of Cultural Heritage Management Plans with the appropriate Aboriginal Party. Major elements of the Act are:

- blanket protection of areas and objects of traditional, customary, and archaeological significance
- recognition of the primary role of Aboriginal Parties in cultural heritage protection and management
- establishment of a Cultural Heritage Register and Cultural Heritage Database
- the provision of Duty Of Care Guidelines to place site protection responsibilities with developers
- establishment of a cultural heritage management planning process

- the mandatory requirement to prepare Cultural Heritage Management Plans in situations where an Environmental Impact Statement is required for development approval, and
- increased penalties for damaging Aboriginal and Torres Strait Islander cultural heritage or breaching the Duty Of Care Guidelines.

Duty of care is the guiding principle in the administration of the Act. Section 23 (1) of the Act states that a person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage (the “cultural heritage duty of care”).

Cultural heritage is defined as:

- A significant Aboriginal area or Aboriginal object (significant to Aboriginal people according to tradition or history).
- Evidence, of archaeological or historic significance, of Aboriginal occupation of an area.

The Act requires consultation as the foundation of Aboriginal cultural heritage management. Section 1.16 of the gazetted Duty of Care Guidelines, states “... the views of the Aboriginal Party for an area are key in assessing and managing any activity which is likely to harm Aboriginal cultural heritage”.

Australia Pacific LNG is developing Cultural Heritage Management Plans with all Aboriginal Parties whose lands are affected by the Project.

Queensland Heritage Act, 1992

The Queensland Heritage Act, 1992 primarily provides protection for non-Indigenous heritage places, and also for those with joint Indigenous and non-Indigenous values, namely post-contact sites.

1.4.3 Local Government Legislation

Inclusion on a local heritage register or planning overlay also protects Indigenous heritage. Amendments to the Queensland Heritage Act 1992 required local government agencies to establish their own registers of heritage places, unless they already had satisfactory measures in place to protect sites under existing planning instruments. This includes non-Indigenous sites and sites with joint Indigenous / non-Indigenous values.

A further 2008 amendment provided for the integration of State and local government assessment and approval processes under the Integrated Development Assessment System (IDAS) of the *Integrated Planning Act* 1997 (Section 121). Sites listed on local government heritage schedules are subject to assessment provisions specified under this Act.

Although the requirement for local heritage lists was established under the *Queensland Heritage Act* and therefore would not apply to sites solely significant to Indigenous people, some local heritage overlays do include Indigenous sites. These sites could therefore be subject to provisions of the *Integrated Planning Act* 1997. Registered Indigenous heritage sites are however offered greater protection under Queensland's *Aboriginal Heritage Act*, 2003.

1.5 Cultural heritage significance assessment

Under Queensland's Aboriginal Cultural Heritage Act 2003, assessment of significance is a matter solely for the Aboriginal Parties involved. Unless sites are listed on International or National Heritage Registers because of joint Indigenous/non-Indigenous values, in which case their significance can

partially be assessed using principles in the Burra Charter (Marquis-Kyle and Walker 1992), heritage significance of Indigenous sites is assessed by the Aboriginal group. All Indigenous sites or places considered significant along the pipeline route will be addressed in Cultural Heritage Management Plans negotiated with each Aboriginal Party.

2. Methodology

Assessing and minimising the potential impacts of Australia Pacific LNG transmission pipeline construction on Indigenous heritage values has been a multi-stage process. The initial phase of this study was the collation of site information from the following sources:

- on-line resources, principally for heritage site databases and regional history
- Commonwealth Heritage lists (World Heritage List, National Heritage List, and Register of the National Estate) for sites of international and national significance
- Indigenous Cultural Heritage Register (ICHR) and Database
- the Queensland Heritage Register (QHR)
- Australia Pacific LNG Cultural Heritage Database
- Register of the National Trust of Queensland
- data in heritage studies previously carried out in nearby areas
- publicly available books and local histories
- targeted field inspections to test the validity of models of Indigenous site distribution developed from the literature review.

The second stage used these mapped site locations to identify patterns in the data and from these identify zones of high site occurrence and high site potential (Site Provinces) (See Figure 2, Appendix 1). These zones guided the route selection process, and led to the rejection of alignments that would have led to potentially adverse impacts to significant cultural landscapes and heritage sites. The third stage of the assessment process further refined the route through targeted field investigations, checking the validity of the sensitivity zones and identified further heritage features that would preclude pipeline construction.

At the time of writing, the next stage in the process will be the detailed route investigation to be undertaken by the authorised Aboriginal Parties. This stage of the project will take place imminently.

Cultural Heritage Management Plans will be developed as the final stage of the heritage management process, to specify how heritage values will be protected before, during and after construction. The Cultural Heritage Management Plans will directly address the management of impacts to identified sites.

This report documents the first three stages of this process; the site mapping and research; the constraints analysis; and the route refinement phase, and identifies the process that will lead to the formulation of Cultural Heritage Management Plans with the Aboriginal Parties.

The first stage in the assessment process is the examination of the raw site data that provided evidence of patterns in site distribution.

2.1 Site information

Most information on Indigenous cultural heritage has been collected during heritage assessments associated with the preparation of Environmental Impact Statements. These studies have been carried out to fulfill obligations under the operating heritage legislation and results of these studies have in the

past been provided to the relevant Government agencies. This information is now maintained by the Queensland Department of Environment and Resource Management.

Queensland site information comes from three main sources: a site card catalogue, a report catalogue (collectively designated the “Aboriginal and Torres Strait Islander Cultural Heritage Database”) and a compilation of this information in the form of layers in a Geographic Information System (GIS) database.

The site card catalogue contains detailed information on individual sites recorded since the 1960s, with most dating since the mid-1970s when legislation was enacted requiring the preparation of Environmental Impact Statements. The report catalogue contains the reports prepared as part of those assessments and also those produced from archaeological research projects. These are available with written permission of the relevant Indigenous groups. The database is a synthesis of these data and is accessible as layers in a GIS. It is used as a research and management tool, allowing selective retrieval of information based on site type or location.

Information from some of these data sources is available to meet Duty of Care obligations, or to *bona fide* researchers, although access is controlled and the data can only be disseminated in a form that protects the location of the sites.

Some indigenous site information is also contained in the Queensland Heritage Register established under the *Queensland Heritage Act*, 1992. Although this is primarily a register of non-Indigenous heritage places, some locations also have Indigenous heritage values. The Queensland Heritage Register is maintained by the Queensland Heritage Council and administered by the Department of Environment and Resource Management. Many of the details are available through on-line searches. More detailed information on the registered and nominated sites is obtained on application directly from the Department of Environment and Resource Management.

Most information on Indigenous cultural heritage has been collected during heritage assessments associated with the preparation of Environmental Impact Statements. These studies have been carried out to fulfill obligations under the operating heritage legislation and results of these studies have in the past been provided to the relevant Government agencies. This information is maintained by DERM.

Some information obtained during heritage studies and site clearances undertaken for different companies has been kept in their own databases. Other reports are found in libraries, particularly the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) in Canberra, public libraries and archives, the libraries of the Traditional Owner groups who conducted or supervised the site clearances, or in the collections of the archaeologists who undertook site clearance or research. These databases are less accessible but often more comprehensive.

Indigenous site data for Laird Point and the adjacent area on the mainland are also contained in confidential reports owned by the Port Curtis Coral Coast Aboriginal Corporation and has not been submitted to the database. Relevant material from these reports will be included in the Cultural Heritage Management Plan being developed for the area, in a form identifying the significance of the sites, without necessarily disclosing their location.

2.2 Site mapping

Indigenous site information collated from diverse sources was mapped in a Geographical Information System (GIS) database. With layers for each site type, geological information, native vegetation, water sources and topography, it was possible to observe patterns in site distribution. This was subsequently used in the constraints analysis to highlight site provinces and zones of high heritage sensitivity.

Collated data was placed in the Geographic Information System (GIS) built for the constraints analysis.

A wide buffer around the project area (50km to the west based on an earlier alignment) led to the inclusion of sites well distant from the location of any planned development. This was necessary as many aspects of the project were still being planned at time the site mapping was being undertaken, and importantly, it provided a large sample of sites to investigate site distribution patterns that may apply in areas where no systematic survey had been undertaken.

2.3 Constraints analysis

Patterns of site distribution and heritage site sensitivity were sought from the sites mapped in the GIS. These assisted with the evaluation of factors potentially affecting the selection of the pipeline route.

By examining the environmental setting of previously located sites and comparing these with Indigenous land use patterns found elsewhere in the region, it was possible to develop a model of pre-contact Indigenous settlement in the area to explain site distribution. This allows site patterning to be predicted in areas where no sites had previously been found, based on the distribution of key resources (food, water, raw materials for tool manufacture).

A similar investigation of site distribution in the wider Southeast Queensland Bioregion was undertaken by Rowland and Connelly (2002) using a larger data set. The types of sites and the distribution patterns they detected have direct relevance to the present study. They observed that near the coast, between 50% and 75% of recorded sites are shell middens, while stone artefact scatters and scarred trees are the site types that predominate in inland land systems (Rowland and Connolly 2002:51).

Rowland and Connolly (2002:57) observed that inland and to the south of Gladstone, nearly 50% of sites occur within 200m of water sources and 91.5% within 700m of a water source. Along the transmission pipeline route, 75% of sites are located within 200m of watercourses and almost all (95%) within 700m of water.

Generalised models of site distribution tally with the patterning of known sites recorded in the Australian Pacific LNG Project Area, suggesting the models have widespread application. It is possible to observe clustering of sites and the presence of further resource-rich zones in the site provinces. The location of these site provinces was used in the selection of the final pipeline route.

One such province of relevance to the transmission pipeline route is the Coastal Fringe Site Province (See Figure 2). Sites in this zone include shell middens, stone artefact scatters and scarred trees, and areas within this province are likely to be rich in sites. The Coastal Fringe Site Province covers an area of approximately 46 km² and is crossed by 2.1km of the pipeline route.

Another site rich province of relevance to the transmission pipeline route is the Callide Range Site Province. This encompasses the portion of the Callide Range located in the pipeline corridor and particularly the area to the south of the proposed pipeline route. The site province covers an area of approximately 230km² and is crossed by 5.4km of the pipeline route. Previous studies have revealed a small number of sites in this area. These are mainly sites containing stone artefacts, including stone artefact scatters and quarry sites. Additionally, rock art has been recorded in sandstone outcrops in the Callide Range. As the geological formations in which the art and quarries occur are widespread in the area, there is a strong probability that these will also be present in the vicinity of the pipeline route. As the route parallels an existing road alignment through the Callide and Calliope Ranges, sites may have already been disturbed. The Callide Range was nominated for inclusion in the Register of the National Estate, for its natural features, geology and vegetation, including rare plant species. Given

the presence of large numbers of previously detected sites, it could have equally been nominated on the grounds of Indigenous heritage.

General comments, predictions and recommendations from the constraints analysis of the pipeline route are as follows:

1. Of 2,262 sites identified from the Cultural Heritage database for the wider region in which the pipeline is located, a small range of sites occur. These site types are listed in Table 2. Further sites of these types may be found during field survey of the transmission pipeline route and these will be considered in Cultural Heritage Management Plans being developed with each of the Aboriginal Parties.
2. Isolated stone artefacts and stone artefact scatters are clearly the main evidence of prior Aboriginal habitation across the Project Area and reflect the durability of this form of evidence. Isolated stone artefacts may represent the discard or loss of maintenance tools during foraging expeditions or may result from incomplete exposure of larger concentrations of artefacts left during more intensive activity. Although important in themselves, these traces may point to the location of other, more substantial archaeological sites, namely, stratified occupation deposits.
3. There is a strong likelihood that cultural heritage places and sites, particularly isolated stone artefacts and artefact scatters, scarred trees, shell middens and hearths will be identified throughout the transmission pipeline corridor. In all instances where previous surveys have been carried out, sites and isolated artefacts have been detected. These heritage places are most commonly found near water.
4. Site densities decline with distance from water sources. The decrease reflects the concentration of Indigenous domestic activities near water sources. Beyond 200m, sites with stone artefacts are usually smaller (unless they comprise raw material sources), reflecting shorter periods of continuous use.
5. Where the pipeline crosses site rich landscapes, such as the Coastal Fringe Site Province or the Callide Range Site Province, or where it crosses in the vicinity of previously recorded sites, detailed impact mitigation measures may be required.
6. Burial sites are most often uncovered from soft sediments (source bordering dunes, friable silts) near water, or as bundle burials or cached secondary interments in sandstone shelters. Avoiding areas with these types of geological profile minimises the potential for the inadvertent disturbance of burial sites.
7. While cultural heritage sites and places have been found across the Australia Pacific LNG Project Area, these do not necessarily represent an irredeemable impediment to construction. Isolated stone artefacts and small stone artefact scatters are often seen by Aboriginal Parties to be of low to moderate heritage significance, and may be avoided by minor relocation of the proposed development, or through recovery of occupation material using surface collection or controlled excavation. These issues will be dealt with following consultation with the relevant Indigenous heritage bodies and outlined in negotiated and approved Cultural Heritage Management Plans.

Much of the assessment will refer to the Cultural Heritage Management Plans to be developed for the transmission pipeline route. Confidential results of previous heritage surveys held by the Aboriginal Parties, will be combined with fieldwork results to help inform the Cultural Heritage Management Plan process.

Table 2 Cultural Heritage Database Results for the main transmission Pipeline

Site type	Number	Percentage
Isolated stone artefacts and stone artefact scatters	1,902	84.08
Scarred trees	238	10.52
Hearths	42	1.86
Quarries or raw material sources	20	0.88
Shell middens	19	0.84
Hatchet head grinding grooves	14	0.62
Burials	10	0.44
Art sites	6	0.27
Stone pathways/bora rings	4	0.18
Wells	3	0.13
Potential archaeological deposits	3	0.13
Rockshelters	1	0.04
Total	2,262	100

2.4 Limitations

There are limitations in the data collected both for the earlier constraints analysis and for this assessment.

One of the main limitations of the heritage constraint analysis lay in the quality and coverage of the site data obtained from the various heritage registers and reports. Most information came from minor studies, predominantly assessing impacts of small, localised or linear developments, aiming to avoid site-rich landscapes, or in clusters at mines and other facilities, rather than wide-ranging studies attempting to identify sites and the relationship between site distribution patterns and landscape features. There have been regional site recording studies along the Southern Curtis Coast, to the south of the pipeline route (Ulm 2006), and some excavations in the Dawson River district (Morwood and Godwin 1987). Although not regional surveys, such excavations of stratified deposits can yield information applicable across a region.

Site information contained in the various lists and registers, was collected under different legislative regimes since the 1960s. The definition of what constituted Aboriginal heritage was different under these dissimilar pieces of legislation, and influenced the decisions made to register them. Queensland heritage legislation (*Aboriginal Relics Preservation Act*, 1967-1976 and the *Cultural Record (Landscapes Queensland and Queensland Estate Act)*, 1987) were limited in scope as their main focus was on archaeological sites, at the expense of those sites of special importance to Indigenous people that bore no physical traces (i.e. sacred sites).

The *Aboriginal Relics Preservation Act*, 1967-1976, was directed towards the protection and preservation of 'relics' defined under Section 4 as: "Any Aboriginal remains and any trace, remains or handiwork within the State of Aboriginal culture: The term does not include such handiwork made for the purpose of sale for money." The legislation reflected the thinking of the time, but viewed the cultural record as being populated exclusively by artefacts and clusters of artefacts, rather than suites

of sites or cultural landscapes. This was to some extent redressed with the legislation that replaced it: The *Cultural Record (Landscapes Queensland and Queensland Estate Act)*, 1987. This Act defined cultural heritage as:

“ evidence of human occupation of the areas comprising Queensland at any time that is at least 30 years in the past but does not include anything –

(a) made or constructed as a facsimile; or

(b) made or constructed at or after the commencement of this Act for the purpose of sale; or

(c) that is not of prehistoric or historic significance.

The database of sites resulting from these pieces of legislation was heavily skewed towards archaeological sites and places and contained only places with a physical fabric. Many locations potentially containing non-archaeological sites with heritage significance have not been identified by their inclusion on any register.

The current legislation, the *Aboriginal Heritage Act 2003*, has a broader definition of Aboriginal cultural heritage, however it has only been operating for a short period and few sites have been added that differ from those recorded previously. Approval for listing comes from the relevant Indigenous group, many of whom are not willing to disclose site information. This is a problem for those wishing to document and interpret heritage sites. Reticence to reveal sensitive cultural information is understandable, however, given the public availability of much of the information on the Aboriginal and Torres Strait Islander Cultural Heritage Database. It is also a problem for developers as these sites warrant protection, whether they have been listed or not. The mandated procedure of requiring consultation and the development of Cultural Heritage Management Plans for developments where there is a legal requirement to produce an Environmental Impact Statement, goes some way toward addressing this problem.

The accuracy of many of the sites records is questionable as many were recorded before the general availability of Global Positioning System (GPS) receivers (pre-1989), or before the removal of selective availability from the signals transmitted by the satellites forming the GPS network in May 2000. Prior to the advent of GPS, sites were recorded using 1:250 000 mapsheets. These provided considerable scope for inaccuracy. Further errors arose from changes to coordinate systems, first with the change from maps using imperial grid systems to those using a metric grid. More recently, there was a change in the grid system used for mapping (AMG to MGA) which led to the displacement of coordinates by up to 200m since the 1980s. There is still confusion by some archaeologists as to which grid system should be used, some preferring the older system, which allows continued use of older paper topographic maps.

There has been no systematic attempt to check the data contained in the heritage databases and so there are likely to be multiple errors in the accuracy of the site information contained therein. Errors of up to 200m in the accuracy of a site's location details can have profound implications for the assessment of potential heritage impacts from development. Site locations should be considered only approximate for planning purposes. In the constraints analysis a buffer of up to 250m radius was applied to site locations identified by the various site registers, to accommodate the inaccuracies in past site recording.

3. Existing environment

Included in this section is an evaluation of the historical and archaeological context for Indigenous use of the area traversed by the Australia Pacific LNG Pipeline, and the results of register searches.

3.1 Historical context

Aspects of the pre-contact period of Indigenous occupation of the pipeline study area can be inferred to some degree from archaeological studies (see next section, 3.2) and through oral history transmitted by past Aboriginal people to their descendants according to tradition. Written historical sources in this area provide only a fleeting account of Aboriginal life at the time of European contact, with more extensive accounts of the conflict occurring in the early years of settlement. Despite biases in the written account, it is a valuable resource that can set the context in which we evaluate the surviving sites throughout the regions traversed by the pipeline route. The common history is also seen in the presence of sites important from a non-Indigenous perspective and investigated in the non-Indigenous heritage investigations carried out as part of this project.

3.1.1 Southern region

The southern end of the study area was crossed by European explorers when Leichhardt set out from *Jimbour* Station on his 1844-46 expedition to Port Essington. Leichhardt's own account of his 1844-45 expedition (Leichhardt 1847) has little mention of Indigenous people. Bunce, who accompanied Leichhardt on his second and third expeditions on the other hand, recorded a number of encounters with Aboriginal people as well as observations providing insights into traditional behaviour. Not far into the second of Leichhardt's expeditions (the first for Bunce) he came across Aboriginal shell middens:

Heaps of a large kind of mussell shell (Unio) were apparent on the banks of the river and in the scrubs, to which they had been probably carried, cooked, and eaten by the natives, whose tracks were plainly to be seen. [Bunce 1857:94 written in 1846]

Once settlement began in the district at the southern end of the pipeline route, however, conflict with the new settlers soon began. Isaac who had accompanied Leichhardt on his first expedition returned to claim *Dulacca*. He settled the run in 1849 and soon afterwards his flock of 3,000 sheep were scattered by Aboriginal people. With the help of the Native Mounted Police, based on Tchanning Creek, he was able to recover some, but disheartened, he allowed his lease to lapse (Ford *et al.* 1978:10).

Ferguson wrote of John Ferrett, a squatter who had claimed Dogwood in 1850:

[Aboriginal people] had driven most of the squatters from the lower Condamine with great loss of life, Ferrett only holding his run through his great tenacity. [Ferguson 1960:20]

On many of the stations the shepherds were targeted by the Aboriginal people and, contingents of Native Police, paid for by the squatters, sets up camp on many of the properties.

In 1848 conflict occurred in the Chinchilla area and pastoralists sought 'relief' claiming 6,000 sheep and eight settlers had been killed. A year later Goggs, the owner of *Chinchilla* and *Wongongera* stations, reported another ten murdered and also his intention to take deadly revenge. These incidents involved misunderstanding, provocation and retaliation but essentially were a fight for land.

The situation escalated dramatically with the 1857 massacre of almost an entire family at Hornet Bank station and the large-scale reprisal massacres of Aboriginal groups that followed. Massacres of

Aboriginal people following these events were noted as far as the Banana and Wandoan districts. Even in the Port Curtis district, people were appalled at the scale of reprisals undertaken by the aggrieved vigilante settlers (Frederick Sinnett 1859).

The first European casualty in the Banana Shire area was a pastoralist-explorer, speared before he claimed any land and his 500 sheep driven off. At *Rawbelle* provisions were stolen, the pastoralist and a Chinese shepherd killed and 1,700 sheep driven off. Native police contingents were set up near Gladstone, Eidsvold, Banana and Rannes. Violence continued and included attacks on teamsters, the police and squatters, with resulting retaliation (Perry 2005).

3.1.2 Port Curtis region

The first words written about Indigenous people in the pipeline study area were by Matthew Flinders in 1802, when he found the entrance into Port Curtis via the channel between Facing Island and Curtis Island. Whalers may have previously had contact with Indigenous people along the coast (Hogan 1898:37) but it was members of Flinders' party who had the first recorded non-Indigenous encounter with the 'Byellee' people on Curtis Island. Flinders wrote:

The naturalist and his companions landed at the west side of the entrance where some Indians had assembled to look at the ship; but they retired at the approach of our gentlemen, and afterwards taking advantage of a hillock, began to throw stones at the party; nor would they desist until two or three muskets were fired over their heads, when they disappeared. There were seven bark canoes lying on the shore, and near them hung upon a tree some parts of a turtle; and scoop nets, such as those at Hervey bay, were also seen. [Matthew Flinders 5th August 1802]

The Bailai are one of four groups who now form the Port Curtis Coral Coast native title claim group (PCCC), and are responsible for sites at the northern end of the pipeline corridor.

On exploring both the southern end of the Narrows and the coastal edge of Curtis Island Matthew Flinders' wrote:

Traces of inhabitants were found upon all shores where we landed, but the natives kept out of sight after a little skirmish on the first day of our arrival; they subsist partly on turtle, and possess bark canoes and scoop nets ... Fish seemed to be plentiful ... [Matthew Flinders 1802]

When John Oxley visited Port Curtis in November 1823 he encountered no Indigenous people and saw no recent campsites. He believed the Indigenous people were elsewhere at that time of year (Unaicke cited in McDonald 1988:10).

George Barney, the next to briefly visit Port Curtis, in 1846, was initially met on friendly terms but later his men were stoned by the local Indigenous people, prompting Barney to order a military detachment to guard his labourers (McDonald 1988:10-11).

The next to arrive was McCabe, in 1853, and soon after him, the Native Police. In 1854 O'Connell arrived to administer the new Northern Australia residency. In 1855 Richard Mitchell, the seventeen year old son of the Surveyor General, arrived to assist McCabe. He observed the lifestyle of the several hundred Aboriginal people camped at Point Barney at Port Curtis. He wrote of the gunyahs, the family composition with extra wives, the singing, corroborees at full moon, the body decoration on the men, the array of wooden weapons and shields, and what he called war-councils to discuss attacks on other Indigenous groups. He noted the practice of using hoop iron for spear tips instead of stone, noted the deference to Elders and recorded words from the language (McDonald 1988:12-15).

At *Mount Larcom* station, 35km from Gladstone, and within one kilometer of the pipeline route, an incident occurred in 1855, which had significant impacts on the relations between the local Indigenous groups and European settlers. Squatter William Young's station was attacked and four Europeans and an Aboriginal man were murdered and the station ransacked. Murray of the Native Police, assisted by squatters, took revenge, and it is reported that many Aboriginal people were killed (McDonald 1988:17).

The number of 'Byellee' was soon to decline, from 300 in 1855, to 32 in 1882 (Curr 1887 2:114), victims of violence at the hands of the white settlers, opium addiction and introduced disease. Opium addiction had begun when squatters paid for stock work with opium ash (McDonald 1988:16).

The *Aboriginal Protection and Restriction of the Sale of Opium Act* came into force in 1897. Protectors were appointed as a result of this Act. Dr Walter Roth was appointed for the area north of the Tropic of Capricorn and was to write a detailed anthropological record of the area. Archibald Meston was appointed south of the Tropic of Capricorn. Meston was in charge of petty session districts at Gladstone, Banana, Dalba, Eidsvold, Gayndah, Taroom, Warwick and Yuleba.

A period of intense frontier conflict and the resulting dispersal of Aboriginal people from their traditional estates, led to them congregating on the fringes of towns, settlements and stations. Pressure was placed on the government to create reserves, and by 1909 residents concerns at Taroom had forced the establishment of the Taroom Aboriginal Settlement. This was followed in 1927 by the establishment of Woorabinda Aboriginal Settlement 170km further to the north, built as a replacement for the Taroom settlement (Fox 1959:131). Aboriginal people were forcibly moved to these reserves, including the surviving Barunggam, moved to the Taroom Aboriginal Settlement in 1912.

Artefacts and sites mentioned in the accounts of early explorers and settlers are sometimes represented in the archaeological traces found throughout the area. Artefacts dating from the contact period and indications of the conflict can also be found. Traces may include artefacts made from introduced raw materials: glass, iron and ceramic, particularly at the location of fringe settlements.

3.2 Archaeological context

Recent archaeological studies (Lance 2009) have been carried out in the Yuleba district at the southern end of the pipeline route, although 60km west of the pipeline corridor. These studies provide the first radiocarbon dates in the area, demonstrating an Aboriginal presence of at least 6,700 years. As there are no deep, dated archaeological sequences from the region, we must look to sites in surrounding regions, particularly those from the Central Queensland sandstone belt, for comparative stone tool sequences. These sites: Kenniff Cave, The Tombs, Rainbow Cave, Cathedral Cave, Buckland Bower and Wanderers Cave (Mulvaney and Joyce 1965, Mulvaney and Kamminga 1999, Beaton 1977, 1991a and b, Morwood 1979, 1981, 1984), provide evidence of Aboriginal occupation dating back nearly 20,000 years. The oldest tools in these stratified rockshelter sites are simple retouched flakes, believed by the researchers to have been hand-held tools. From around 4,100 years at Kenniff Cave and 3,500 years ago at The Tombs, a suite of small implements was added to the toolkit. These implements including backed artefacts (points and microliths) and adzes. These were interpreted by the researchers as having been hafted into handles and used as composite tools. After 2,500 years ago, the small, retouched tools were dropped from the tool assemblage and the long, retouched Juan knife was added, although it did not necessarily functionally replace the small tools. The main raw material used for tool manufacture throughout the sequence was quartzite, although within the last 4,000 years volcanic stone was also used.

Sites excavated in the Balonne River sub-catchment area (Lance 2009) contain stone artefact assemblages more similar to those from the Dawson River catchment investigated by Morwood and

Godwin than from the Central Queensland sandstone belt sites. In both sets of open sites there is an absence of formal tool types, such as adzes, backed artefacts and extensively retouched flake tools. While there is an overlap in the times these sites were occupied, there appears to be little overlap in the tool industries present. The sites in the Yuleba district were occupied by Aboriginal people using unspecialised flake tool industries with an absence of formal tool types, at the same time as Aboriginal people occupying shelters in the sandstone belt were using specialised tool industries, with large numbers of retouched tools and formal tool types. One possible explanation is that there were cultural differences between those using the sandstone belt sites and those occupying sites in the Bolonne River sub-catchment. As the formal tool types are known from open sites elsewhere in the study region, such an interpretation is unjustified. The discrepancy can better be explained as resulting from differences in activities occurring in rockshelters compared with open sites.

Morwood and Godwin (1987) excavated several open and rockshelter sites along the Dawson River near Nathan Gorge, 21km to the west of the pipeline route. These sites include shell middens and occupation deposits with stone artefact assemblages and date from the last 1,500 years. Tools found in these sites were only partially retouched or had edge damage indicative of use. There were few formal tool types (backed artefacts, adzes, “scrapers”). At Site 3, 21.5% of the 79 pieces bore traces of retouch or use (Morwood and Godwin 1987:103). At Site 5, a hearth associated with shell midden and small numbers of stone artefacts was excavated and recovered charcoal revealed the hearth dated from 300±60bp (Morwood and Godwin 1987:105). Shell midden recovered from the same site gave a date of 610±50bp. The middens were small and discrete, characteristic of the “dinner-time camp” identified in ethno-historical studies carried out in northern Australia (Meehan 1982, 1988).

A previous study directly relevant to the gas transmission pipeline area is Hall's (1988) archaeological assessment of the Wallumbilla - Gladstone State gas pipeline. The area surveyed for this assessment initially passed to the west of the present pipeline route, before turning eastward towards Gladstone. In the area to the west of Gladstone, most of the located sites were low density background scatters around the major creek crossings around the Calliope River (Hall 1988).

Studies in the Boyne Valley, 40km to the south of the pipeline route, revealed a diverse suite of sites including isolated artefacts and stone artefact scatters, rock shelter habitation sites, stone arrangements, ceremonial sites, burials, massacre sites, scarred trees and raw material sources (Lilly 1980, Hiscock 1982, Archaeo Cultural Heritage Services 2000, Gorman 2002). These studies seem to indicate the valleys were used as a transition zone between the coastline and hilly hinterland area.

Since the late-1980s there has been a considerable amount of site clearance work undertaken in the Gladstone region for infrastructure development (Alfredson 1989, 1992; Ann Wallin and Associates 1995, 1997, 1998, and 1999a, b, c, d; Archaeo Cultural Heritage Services 2000, 2002, 2004a-c, 2005a, b, 2006a, b, 2007). These studies reveal a consistent pattern of selective resource use with habitation sites generally located on higher ground in close proximity to fresh water and near food sources or flakeable stone resources.

An investigation of the Port Curtis area was undertaken by Burke (1993). Extensive shell middens and artefact scatters were found along the coast and also on the offshore islands including Curtis, Facing, South Trees and Hummock Hill Islands. She also located a quarry at Monte Cristo Creek on Curtis Island. Extensive oyster shell middens were found on the mainland adjacent to the Narrows.

There has been a substantial concentration of fieldwork on the Curtis Coast in recent years by researchers conducting investigations as part of the Gooreng Gooreng Cultural Heritage Project (see Ulm 2006). This interdisciplinary study has examined Indigenous sites and associated histories in coastal and hinterland settings in the region between Gladstone and Bundaberg. A number of reports

have emerged from these investigations, including a series of archaeological, ethnographic, ethno-historical and linguistic studies.

3.3 Results of register searches

Within the 10km wide pipeline corridor can be found a small number of Indigenous cultural heritage sites listed on the various Local, State and Federal heritage registers. Most of these identified sites have been avoided during the route selection process.

World Heritage List – Great Barrier Reef. The Narrows is part of this listed site. While it has been listed for natural values, Indigenous cultural values are also recognised, although no locations are identified specifically.

The whole of Curtis Island is within the Great Barrier Reef World Heritage Area. This World Heritage Site is divided into World Heritage Area (Marine) and World Heritage Area (Land). Curtis Island is the largest of the islands included in the World Heritage Area (Land). The criteria in support of its listing relate to evolutionary history, geological processes, biological diversity, rare phenomena, exceptional natural beauty, and habitat for endangered plant and animal species. There are no criteria specifically relating to the cultural heritage values of Laird Point.

While register searches provide a small catalogue of sites on the mainland, none have been listed for Laird Point. The field inspection undertaken by the PCCC showed the absence of sites on the site register was no indication of the actual distribution of sites.

National Heritage List – Great Barrier Reef

Register of the National Estate –

National Trust of Queensland – no listed sites within the pipeline corridor.

Aboriginal Cultural Heritage Database and Register

A total of 71 Aboriginal heritage sites are listed on the Aboriginal Cultural Heritage Register within the 10km wide main transmission pipeline corridor route. Of these, 11 sites are found within 1km of the pipeline route. The nearest listed site is 230m from the pipeline route, although route refinement may provide a wider buffer to ensure construction impacts do not eventuate. The sites found in the 10km wide pipeline study area are listed in Table 3 below.

Table 3. Registered Indigenous heritage sites found in the pipeline study area

Place ID	Place Type	Location	Aboriginal Party	Proximity to Pipeline
JC:A99	Stone artefact	Cooaga State Forest	Iman People QC97/55	4.8km
JC:C41	Scarred tree	Nine Mile Creek tributary	Barunggam People QC99/5	2.9km
JC:A34	Stone artefact scatter, Culturally significant area	Nine Mile Creek tributary	Barunggam People QC99/5	1.8km
JC:E26	Hatchet head grinding grooves	“L” Tree Creek	Barunggam People QC99/5	200m
JC:E25	Stone artefact scatter	Bottletree Creek	Barunggam People	3.7km

Place ID	Place Type	Location	Aboriginal Party	Proximity to Pipeline
			QC99/5	
JC:E92	Stone artefact scatter	Giligulgul	Barunggam People QC99/5	2.3km
JC:C17	Quarry	Orchard Vale	Barunggam People QC99/5	4.5km
JC:C32	Stone artefact scatter	Mount View	Western Wakka Wakka People QC99/4	3.1km
JD:D12	Rock Art (Painted)	Quinns Gully	Wulli Wulli People QC00/7	4.4km
JD:D10	Bora Ring	Camboon	Wulli Wulli People QC00/7	1.9km
JE:A15	Stone artefact scatter	Kilburnie	Gangulu People QC97/36	500m
JE:A16	Stone artefact scatter	Callide Range	Gangulu People QC97/36	1.5km
JE:A35	Stone artefact scatter	Callide Range	Gangulu People QC97/36	3.8km
JE:A33	Stone artefact scatter	Callide Range	Gangulu People QC97/36	3.7km
JE:A34	Stone artefact scatter	Callide Range	Gangulu People QC97/36	3.7km
JE:A37	Stone artefact scatter	Callide Range	Gangulu People QC97/36	3.8km
JE:A38	Stone artefact scatter	Callide Range	Gangulu People QC97/36	4.05km
JE:A36	Stone artefact scatter	Callide Range	Gangulu People QC97/36	4.04km
JE:B18	Isolated stone artefact	Callide Range	Gangulu People QC97/36	3.9km
JE:A45	Stone artefact scatter	Callide Range	Gangulu People QC97/36	4.7km
JE:A32	Stone artefact scatter	Callide Range	Gangulu People QC97/36	4.4km
JE:B33	Isolated stone artefact	Callide Range	Gangulu People QC97/36	4.6km
JE:B35	Isolated stone artefact	Callide Range	Gangulu People	4.0km

Place ID	Place Type	Location	Aboriginal Party	Proximity to Pipeline
			QC97/36	
JE:B34	Isolated stone artefact	Callide Range	Gangulu People QC97/36	3.7km
JE:B17	Isolated stone artefact	Callide Range	Gangulu People QC97/36	2.6km
JE:B32	Isolated stone artefact	Callide Range	Gangulu People QC97/36	4.4km
JE:B19	Isolated stone artefact	Callide Range	Gangulu People QC97/36	4.2km
JE:B21	Culturally significant area	Callide Range	Gangulu People QC97/36	4.0km
JE:B20	Quarry	Callide Range	Gangulu People QC97/36	4.8km
JE:B22	Isolated stone artefact	Callide Range	Gangulu People QC97/36	4.6km
JE:B28	Stone artefact scatter	Callide Range	Gangulu People QC97/36	4.3km
JE:B23	Stone artefact scatter	Callide Range	Gangulu People QC97/36	4.4km
JE:B24	Stone artefact scatter	Callide Range	Gangulu People QC97/36	4.4km
JE:B25	Stone artefact scatter	Callide Range	Gangulu People QC97/36	4.4km
JE:B26	Culturally significant area	Callide Range	Gangulu People QC97/36	4.9km
JE:B27	Isolated stone artefact	Callide Range	Gangulu People QC97/36	4.9km
JE:A30	Rock art, paintings, engravings	Callide Range	Gangulu People QC97/36	4.6km
JE:A29	Stone artefact scatter	Callide Range	Gangulu People QC97/36	3.3km
JE:A28	Stone artefact scatter	Callide Range	Gangulu People QC97/36	3.3km
JE:D96	Stone artefact scatter	Callide Range	Gangulu People QC97/36	3.8km
JE:D97	Isolated stone artefact	Callide Range	Gangulu People QC97/36	4.0km

Place ID	Place Type	Location	Aboriginal Party	Proximity to Pipeline
JE:D98	Landscape feature	Callide Range	Gangulu People QC97/36	4.1km
JE:D89	Landscape feature	Louisa Creek	Gangulu People QC97/36	800m
JE:D88	Isolated stone artefact	Vale Royal	Gangulu People QC97/36	300m
JE:D87	Isolated stone artefact	Vale Royal	Gangulu People QC97/36	300m
JE:D86	Isolated stone artefact	Vale Royal	Gangulu People QC97/36	400m
JE:D85	Isolated stone artefact	Bell Creek	Gangulu People QC97/36	1.0km
JE:D84	Isolated stone artefact	Bell Creek	Gangulu People QC97/36	1.0km
JE:E25	Stone artefact scatter	Wyalla	Port Curtis Coral Coast QC01/29	900m
JE:E24	Stone artefact scatter	Alma Creek	Port Curtis Coral Coast QC01/29	1.9km
JE:E23	Stone artefact scatter	Alma Creek	Port Curtis Coral Coast QC01/29	2.0km
JE:E16	Stone artefact scatter	Alma Creek	Port Curtis Coral Coast QC01/29	2.4km
JE:E17	Stone artefact scatter	Alma Creek	Port Curtis Coral Coast QC01/29	2.5km
JE:E18	Stone artefact scatter	Zig Zag Creek	Port Curtis Coral Coast QC01/29	2.1km
JE:E19	Stone artefact scatter	Harper Creek	Port Curtis Coral Coast QC01/29	2.7km
JF:D47	Stone artefact scatter	Paddock Creek	Port Curtis Coral Coast QC01/29	3.8km
JF:D48	Stone artefact scatter	Paddock Creek	Port Curtis Coral Coast QC01/29	4.3km
JF:D62	Stone artefact scatter	Scrub Creek	Port Curtis Coral Coast	2.9 - 3.9km

Place ID	Place Type	Location	Aboriginal Party	Proximity to Pipeline
			QC01/29	
JF:D49	Stone artefact scatter	Larcom Creek	Port Curtis Coral Coast	2.0km
			QC01/29	
JF:D50	Stone artefact scatter	Larcom Creek	Port Curtis Coral Coast	1.8km
			QC01/29	
JF:D62	Stone artefact scatter	Bruce Highway	Port Curtis Coral Coast	300m
			QC01/29	
JF:D51	Scarred tree	Police Creek	Port Curtis Coral Coast	800m
			QC01/29	
JF:D53	Stone artefact scatter	Mount Sugarloaf	Port Curtis Coral Coast	4.9km
			QC01/29	
JF:D52	Isolated stone artefact	Mount Sugarloaf	Port Curtis Coral Coast	2.1km
			QC01/29	
JF:D54	Isolated stone artefact	Mount McCabe	Port Curtis Coral Coast	1.6km
			QC01/29	
JF:D62	Stone artefact scatter	Mount McCabe	Port Curtis Coral Coast	1.9km
			QC01/29	
JF:D62 (duplicate listing)	Stone artefact scatter	Larcom Creek	Port Curtis Coral Coast	2.0-2.2km
			QC01/29	
JD:A82	Rock art site	Boronia State Forest		
JF:A85	Scarred tree	Bottle Tree Hill	Port Curtis Coral Coast	5.0km
			QC01/29	
JF:A93	Scarred tree	Friend Point	Port Curtis Coral Coast	1.7km
			QC01/29	
JF:A91	Stone artefact scatter	Friend Point	Port Curtis Coral Coast	1.4km
			QC01/29	
JF:A92	Stone artefact scatter	Friend Point	Port Curtis Coral Coast	1.4km
			QC01/29	

Local Heritage Lists and Heritage Overlays

- Gladstone Shire, part of Gladstone Regional Council – no sites recorded with Indigenous heritage values.
- Calliope Shire, part of Gladstone Regional Council Local Heritage Overlay – a small number of sites with solely Aboriginal significance have been placed on the local heritage overlay. These include a number of sites outside the 10km pipeline study area corridor, including: a large artefact scatter at Ramseys Crossing; a shell midden and two linear shell middens on East Beach, Curtis Island; a quarry on Monte Christo Creek, Curtis Island; three shell middens on Wild Cattle Island; an artefact scatter at Telegraph Creek; and an earthen arrangement at Connor Creek. The source for this information to the Council was the Department of Environment and Heritage, Rockhampton (Gladstone Port Authority and Queensland Department of Environment and Heritage, 1994).
- Banana Regional Council – no sites recorded with Indigenous heritage values.
- Western Downs Regional Council – no sites recorded with Indigenous heritage values.

While register searches provide a small catalogue of sites to be considered and avoided during transmission pipeline route planning, the results of these searches cannot be construed as a comprehensive record of the cultural heritage sites in the regions traversed by the pipeline route. Site registers document unusual or spectacular sites known to the community, or Indigenous sites and places identified during previous intensive cultural heritage clearances. Many parts of the study area have not yet been examined for traces of prior Aboriginal habitation and will certainly contain sites.

4. Potential Impacts

No listed cultural heritage items are likely to be impacted by construction of the proposed Australia Pacific LNG transmission pipeline. This has been achieved through careful route selection and refinement to avoid listed Indigenous heritage items. It is acknowledged, however, that not all sites in the pipeline corridor have been catalogued in the various heritage registers. Unrecorded items of Indigenous cultural heritage will occur along the proposed pipeline route and without appropriate site management initiatives would be threatened by construction impacts.

Unrecorded Indigenous heritage along the pipeline route will be identified during detailed field surveys to be conducted by each approved Aboriginal Party. The conduct of the Cultural Heritage study and the implementation of site protection or remediation measures will be specified in an approved Cultural Heritage Management Plan either already negotiated, or still to be negotiated with each Aboriginal Party having an interest in lands traversed by the pipeline route.

4.1 Cumulative impacts

In addition to impacts that will arise from construction in the transmission pipeline, additional infrastructure will occur in the gas field to the south of the pipeline and an LNG Plant on Curtis Island at the northern end of the pipeline. Flexibility in placement of these facilities will minimise the impacts to Indigenous heritage sites and places, and any potential impacts will be managed through the mechanism of negotiated agreements with the relevant Aboriginal Parties.

In addition, to the effects on Indigenous heritage sites of construction of this pipeline, are the potential effects of several other pipelines planned by other proponents that parallel this pipeline route. These other pipeline projects could potentially place other Indigenous heritage sites at risk, however, these proponents are also managing the heritage in a similar manner, through avoidance of identified sites. Other land uses (agriculture and pastoralism) and natural processes (erosion and decomposition) also contribute to the loss of Indigenous heritage sites. These processes cannot be contained or impacts managed in the same manner as will occur through the heritage management regime of projects such as this.

Through avoidance of identified Indigenous heritage sites, management of development impacts in the vicinity of these sites, formulation of procedures to deal with sites detected during construction, detailed archival recording of threatened sites, and recovery of information on Indigenous land use, it will be possible to minimise the cumulative effects of development on Indigenous sites in this region.

4.2 Matters of National Environmental Significance

A review of the Australian Heritage Places Inventory was undertaken to identify sites with Indigenous heritage values in areas to be affected by pipeline construction. No items with strictly Indigenous heritage values are recorded on the World, National or Commonwealth Heritage lists or the Register of the National Estate for the transmission pipeline project area. Indigenous heritage values are recognised in the listing and management of the Great Barrier Reef as a national and world heritage area, although it has primarily natural heritage values. To ensure that Indigenous heritage values are retained, the Great Barrier Reef Marine Park Authority consults with Traditional Owners, recognised Native Title claimants and Aboriginal representative bodies. The same groups with an interest in the project area have been consulted for the World Heritage portions of the project area.

Indigenous heritage sites in the project area are primarily protected under provisions of the Queensland *Aboriginal Cultural Heritage Act*. Any potential impacts to sites are being addressed in Cultural Heritage Management Plans being negotiated with those Aboriginal Parties who have an interest in land and sites along the pipeline route. Site protection and impact management will be undertaken prior to the commencement of construction, under terms negotiated in the CHMPs.

5. Mitigation and management

Measures to manage impacts to Indigenous cultural heritage items and sites along the pipeline route are the subject of discussions between each Aboriginal Party and Australia Pacific LNG. A number of meetings have already been held, and further meetings are planned. Potential impacts to previously undetected Indigenous heritage sites can be managed through measures specified in the each Cultural Heritage Management Plan. In general, the principle governing transmission pipeline route selection has, and will continue to be, that wherever possible, known heritage sites will be avoided. This principle has been applied previously in the route selection process, where the alignment has been shifted to avoid significant sites, and will continue in light of discoveries made during field investigations carried out by each Aboriginal Party.

Impact mitigation measures that may be required include: avoidance of certain highly sensitive areas; further field investigations including sub-surface testing; recovery of datable occupation material; collection and relocation of cultural heritage items. These measures will be outlined in a Cultural Heritage Management Plan being negotiated between Australia Pacific LNG and each Aboriginal Party.

6. Cultural Heritage Management Plans

Site protection along the Australia Pacific LNG pipeline route will be undertaken through the mechanism of Cultural Heritage Management Plans, recognising the primary role of Indigenous people in the custodianship of their heritage. Aboriginal Parties with an affinity with the lands along the transmission pipeline route, have been notified of development proposals. These recognised Aboriginal Parties, have been invited to participate in the formulation of management plans to ensure site protection.

Notification has been made in accordance with Part 7 of the *Aboriginal Cultural Heritage Act, 2003*. The Chief Executive of the Department of Natural Resources and Water, landowners along the route and relevant Indigenous groups, were notified of the intention to develop Cultural Heritage Management Plans for the proposed transmission pipeline route.

Negotiations are continuing with the Aboriginal Parties over the formulation of Cultural Heritage Management Plans to direct how items and places with Indigenous cultural heritage values are managed before, during and after construction of the proposed Australia Pacific LNG pipeline.

6.1 Consultation/ Negotiation

To date, a number of formal meetings have been held with most of the Aboriginal Parties along the transmission pipeline route. The status of negotiations between Australia Pacific LNG and each Aboriginal Party is described in Table 4.

Table 4 Consultation with Aboriginal Parties along the Transmission Pipeline Corridor

Aboriginal Party	Meeting Details	Status
Barunggam People	4 meetings	Negotiations over the CHMP have commenced
Western Wakka Wakka		Initial CHMP meetings being arranged to commence negotiations on heritage management along their portion of the pipeline route
Iman People	7 meetings	Negotiations have progressed well towards reaching agreement over a CHMP.
Wulli Wulli People	3 meetings	Negotiations have progressed well towards reaching agreement over a CHMP.
Gangalu People	3 Meetings	Negotiations over the CHMP have commenced
Port Curtis Coral Coast	3 meetings	Negotiations over the CHMP have progressed and a field survey of the Australia Pacific LNG Plant on Curtis Island has been conducted by PCCC representatives.

Finalised Cultural Heritage Management Plans will be subject to confidentiality agreements precluding their public release, however, the general contents of the plans can be presented here. The Cultural Heritage Management Plans will address issues relating to the identification and management of cultural heritage in areas through which the transmission pipeline will pass. They will cover all aspects of Indigenous site identification and protection, before, during and after construction.

Issues to be addressed by the Cultural Heritage Management Plans to be presented for approval under Part 7 of the *Aboriginal Cultural Heritage Act, 2003*, will include issues of the ownership and identification of Indigenous cultural heritage, and the management of cultural heritage before, during and after construction.

Cultural Heritage Ownership

The Cultural Heritage Management Plans will affirm the principles espoused in the *Aboriginal Cultural Heritage Act, 2003*, that the Traditional Owners are the rightful guardians, keepers and knowledge holders of Aboriginal cultural heritage. As a consequence, the recognised Aboriginal Parties will retain ownership and control of sensitive site information, providing to Australia Pacific LNG information on site locations in sufficient detail for those sites to be protected from development impacts.

The Cultural Heritage Management Plans will outline the responsibilities of Australia Pacific LNG and the Aboriginal Parties in relation to the discovery and reporting of significant cultural heritage sites. It will specify how sensitive cultural material, particularly human remains, will be managed.

Conflict resolution

The Cultural Heritage Management Plans will provide guidelines to resolve disputes, should these arise, between the parties. If no resolution of the conflict can be obtained, mediation will be sought between the parties.

Identifying Cultural Heritage

The Cultural Heritage Management Plans will specify how cultural heritage studies are to be conducted, the expected outcomes of these studies and the timing and format of the information provided by the Aboriginal Parties to Australia Pacific LNG to facilitate redesign of facilities to avoid heritage items. Field studies undertaken by Aboriginal Parties, with assistance from their technical advisors will be required along the pipeline corridor and in nearby areas where ground disturbance will occur. Results of the studies will include documentation and identification of significant areas, sites and objects and evaluation of their significance.

In some instances agreements have been negotiated with the Aboriginal Parties to conduct cultural heritage studies to inform the Cultural Heritage Management Plan process. These studies are soon to commence.

Managing Cultural Heritage

On the basis of findings of the Cultural Heritage studies, procedures for the management of cultural heritage objects, areas and values will be negotiated. While a major objective of the Australia Pacific LNG Indigenous site strategy is to avoid detrimental impacts to significant cultural heritage places, sites and items, this may not always be possible, given the nature of the proposed development. The Cultural Heritage Management Plans will mandate further negotiations to follow the Cultural Heritage Survey, concerning identified cultural heritage items in the pipeline corridor and agreeing upon appropriate measures to protect their heritage values. Pre-construction measures may include further field investigations, collection of significant objects and/or test pitting and open area excavation to investigate significant heritage sites and recover significant heritage items before construction.

Measures during construction may include:

Construction monitoring

Construction monitoring may be undertaken in sensitive locations (Potential Archaeological Deposits) to recover exposed heritage items. This will be a last resort option as this has proven to be a relatively ineffective management tool. If significant items are present, these are usually destroyed or displaced during construction activities, diminishing their significance. If areas have a very high potential to yield significant heritage items, the preferable option is to have them investigated prior to construction. Before the commencement of construction, located items of considerable significance can be fully assessed and if necessary, project plans can be modified to ensure their survival.

Unexpected finds

Procedures for dealing with unexpected finds will also be specified. These procedures will identify the methodology should cultural heritage items be uncovered during construction. Activities will cease in the vicinity of suspected heritage items but may recommence away from the suspected items. Cultural heritage items will be reported to the Cultural Heritage Coordination Unit, the approved Aboriginal Party or their designated technical advisor for assessment.

Burials

In the case of burials, procedures to be followed are specified in the Human Remains Guidelines under the Aboriginal Cultural Heritage Act, 2003. Under these guidelines, the Police will first be notified, as will the Cultural Heritage Coordination Unit, the approved Aboriginal Parties and/or their designated technical advisors, in accordance with the Aboriginal Cultural Heritage Act, 2003, the Coroners Act, 2003 and the Criminal Code Act, 1899. Procedures for the management of burials will be clearly outlined in construction documentation. In those areas where burials are thought likely to occur, previous site examinations will have taken place prior to construction.

Induction of workers and contractors

The Cultural Heritage Management Plans will specify that all workers on the construction of the Australia Pacific LNG project will receive cultural awareness training and cultural heritage identification and education on all workers' responsibilities in reporting of cultural heritage items, should they be uncovered during construction.

Post-construction heritage management

Following completion of the project, significant cultural heritage items recovered prior to construction and items identified and salvaged during construction will require management and curation. Issues relating to the storage of significant items of cultural heritage will be agreed upon and specified in the Cultural Heritage Management Plans.

7. Conclusions

Aboriginal people have an acknowledged interest in Indigenous cultural heritage in the regions through which the Australia Pacific LNG pipeline is to pass. The process of engaging with Aboriginal Parties concerning their heritage has commenced, in accordance with guidelines specified by the *Aboriginal Cultural Heritage Act, 2003*, with the view to affording Traditional Owners the rights to exercise control over their heritage. While the ultimate goal of the Cultural Heritage management procedure for the Australia Pacific LNG project is the successful negotiation of Cultural Heritage Management Plans with those recognised Aboriginal Parties with an interest in lands along the transmission pipeline route, this process has not yet been completed. This document has outlined the measures that have been undertaken to date to achieve this goal. The engagement with the Aboriginal Parties will continue to completion.

The procedures followed as part of the Indigenous Cultural Heritage management for the Australia Pacific LNG project have been designed to minimise any impacts to Indigenous cultural heritage. This has included collation of site data through the project area from a range of sources including the Aboriginal Heritage Register and Database, published and unpublished sources, studies undertaken with the Aboriginal Parties in neighbouring areas (including Laird Point on Curtis Island) and modeling of site distribution as part of a constraints analysis. The pipeline route has been modified in light of these findings to minimise impacts to sites. This has led to the situation where no registered site is nearer than 200m from the pipeline route. While this result provides an indication of the desire of Australia Pacific LNG to avoid culturally significant sites, the limitations of the data, expressed in this document, make it clear that inevitably, further unidentified sites will be found near the pipeline route. Mechanisms for dealing with these unrecorded sites have been anticipated in the preparation of Cultural Heritage Management Plans being negotiated with the approved Aboriginal Parties. Further work will continue to identify these sites and deal with them in a manner consistent with the desires of the Aboriginal Parties to exercise control of their heritage.

Australia Pacific LNG will continue the process of negotiating Cultural Heritage Management Plans with the Aboriginal Parties. Once these have been satisfactorily concluded, comprehensive cultural heritage studies will be conducted for the pipeline route. Some have already been scheduled as part of the process of reaching agreement over the Cultural Heritage Management Plans.

Once the cultural heritage studies have been completed, a program to manage the identified cultural heritage will be implemented, to ensure that significant Indigenous cultural heritage values are retained. Measures will be introduced to manage these heritage values during the project.

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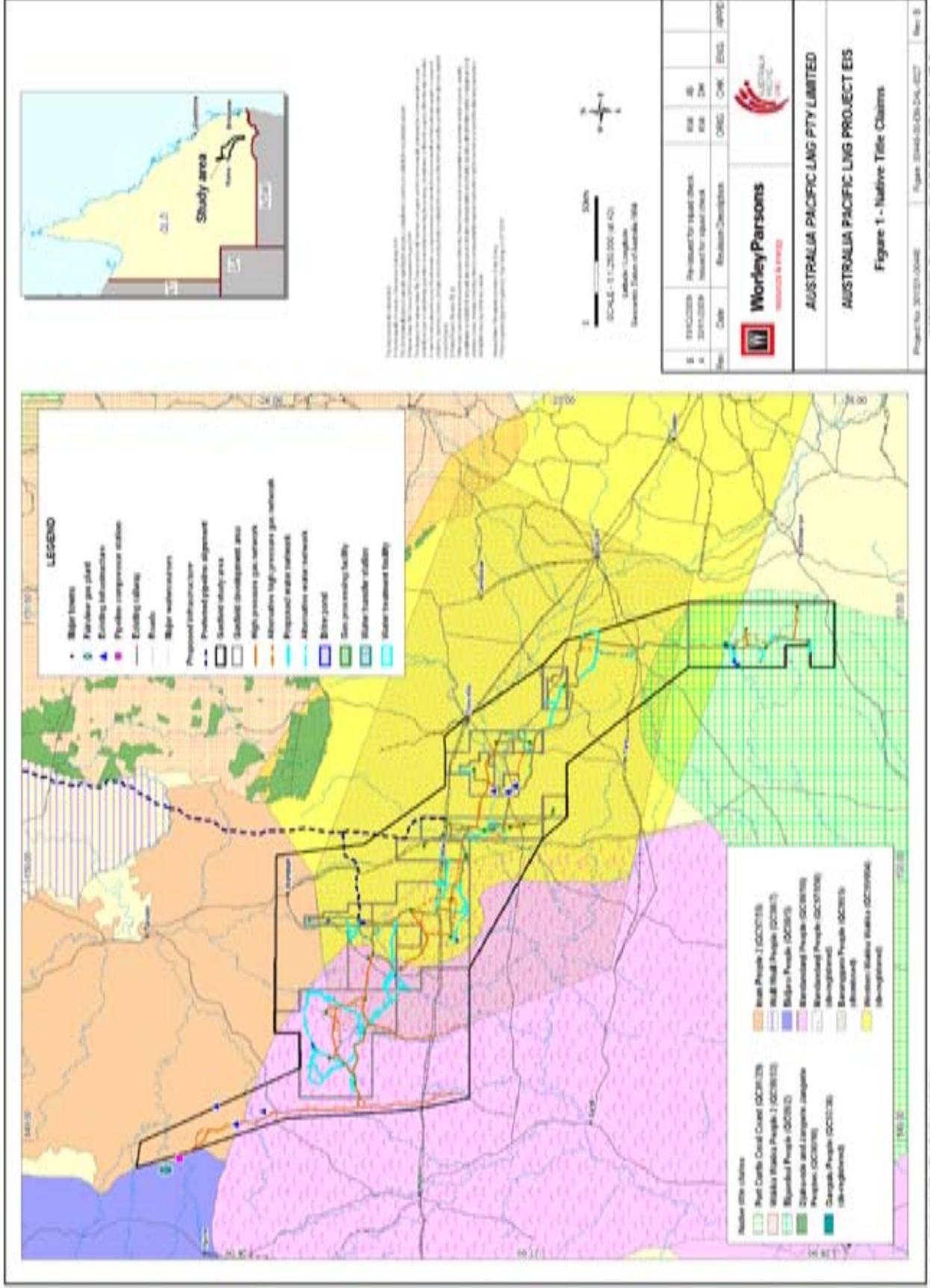
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Appendix A Figures

Volume 5: Attachments
 Attachment 36: Indigenous Heritage Technical Report – Gas Fields



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