

Esso Highlands Limited



Papua New Guinea LNG Project

**Environmental and Social Management Plan  
Appendix 13: Cultural Heritage  
Management Plan**

**PGGP-EH-SPENV-000018-015**

**Attachment 3: Cultural Heritage Chance Finds  
Protocol**

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## **1.0 PURPOSE, OBJECTIVES AND SCOPE**

Construction of the infrastructure and facilities which comprise the PNG LNG Project has the potential to disturb or alter as yet unknown or unrecorded archaeological sites. These unknown archaeological sites, including skeletal remains, discovered during archaeological salvage or construction activities are referred to as chance finds.

Esso Highlands Limited (Company) has developed this Chance Finds Protocol, the overall purpose of which is to define the process which governs the management of chance finds during construction (and for human skeletal remains discovered during archaeological salvage or construction).

The objectives of the Chance Finds Protocol are to:

- Define the processes which must be followed to ensure the management of sites and preservation and appropriate treatment of chance finds while also minimising disruption to the construction schedule
- Enable compliance with all relevant national laws and regulations and other requirements.

The Chance Finds Protocol applies to all PNG LNG Project Contractors and Subcontractors and at all worksites.

## 2.0 DEFINITIONS

**Table 1: Definitions**

<b>Archaeological Site</b>	A cultural heritage site with physical evidence of past cultural activity visible on or in the ground
<b>Archaeological Site of Low Significance (LNG Plant Site)</b>	Material is common and/or was identified during the LNG salvage program including: <ul style="list-style-type: none"> <li>• Pottery</li> <li>• Fauna bones</li> <li>• Obsidian</li> <li>• Shell material</li> <li>• Lapita pottery</li> <li>• Stone artefacts</li> </ul>
<b>Archaeological Site of Medium Significance (LNG Plant Site)</b>	Materials are found on the surface (no evident stratification); <b>and</b> Material is rare in the region and has not been previously characterised.
<b>Archaeological Site of High Significance (LNG Plant Site)</b>	Materials are found beneath the surface (below the topsoil); <b>and</b> Material is rare in the region and has not been characterised previously; <b>and</b> The variety of artefacts is extensive with a large number of artefacts.
<b>Archaeological Site of Low Significance (Upstream)</b>	Materials are found on the surface or in disturbed soil (i.e., no evident stratification); <b>and</b> Material is common in the region (and may have already been characterised by a previous survey); <b>and</b> The variety of artefacts is limited and the number of artefacts is small.
<b>Archaeological Site of Medium Significance (Upstream)</b>	Materials are found on the surface (no evident stratification); <b>and comprise at least one of the following characteristics:</b> a) Material that is rare in the region and that was previously characterised (e.g., cores, polished stone axe/adzes); b) A limited variety but a large number of artefacts.
<b>Archaeological Site of High Significance (Upstream)</b>	Materials are found beneath the surface (below the topsoil) <b>and comprise at least one of the following characteristics:</b> a) Material that is rare for the region; or b) Material that has not be characterised previously; or c) The variety of artefacts is extensive and the number of artefacts is large.
<b>Burial Site</b>	A location containing complete or fragmented human skeletal remains excluding isolated teeth
<b>Chance Find</b>	An archaeological site, which can include human skeletal remains, that was unknown prior to discovery during construction (despite best effort to identify all sites prior to construction through Cultural Heritage Surveys), and through salvage where human skeletal remains are involved.
<b>Cultural Heritage</b>	The tangible and intangible cultural history of a region or of a people; the engagement of people with their customary practices (particularly through specific sites) in the past and in the present; cultural heritage sites are divided into two non-mutually exclusive types: archaeological sites and oral tradition sites.

<b>Cultural Heritage Site</b>	An archaeological or oral tradition site, the size of which is determined by the extent of cultural material and/or features. Where surface artefacts govern the size of the site, then a site extends for as far as there is cultural material where the distance between artefacts does not exceed 15 m.
<b>Human Skeletal Remains</b>	Includes all of the bones and teeth that comprise foetal, neonate, infant, juvenile and adult individuals, irrespective of their state of presentation; i.e., they include fragmentary and isolated bones and teeth as well as complete and articulated bones and teeth, unless otherwise excepted.
<b>Known Human Skeletal Remains</b>	Relatively recent burials known to the local communities (through oral traditions or recent burial).
<b>Oral Tradition Site</b>	A cultural heritage site known by a person or people through their cultural historical stories
<b>Upstream</b>	The Highlands region, Lake Kutubu region and Kikori-Gulf region are collectively referred to as upstream.

### **3.0 CHANCE FINDS WORK PROCESS**

#### **3.1 Planning**

##### **3.1.1 Consultation**

Company shall consult with all relevant parties, including the PNG National Museum and Art Gallery, in order to agree this Chance Finds Protocol.

##### **3.1.2 Laboratory and Other Support**

Company shall make arrangements for suitable laboratory and other necessary facilities at either the Archaeology Department at the University of Papua New Guinea or the Prehistory Department at the PNG National Museum and Art Gallery.

##### **3.1.3 Training and Awareness**

Company shall develop and issue to Contractor a Cultural Heritage Training and Awareness Package. The Cultural Heritage Training and Awareness Package will include basic training in the identification of archaeological materials relevant to the area, including human skeletal remains. Contractor shall deliver the Cultural Heritage Training and Awareness Package to all relevant Contractor personnel prior to their participation in works activity.

#### **3.2 Implementation**

##### **3.2.1 Monitoring**

Contractor shall monitor ground disturbance works using Contractor's Archaeologist(s) and/or other appropriately trained Contractor personnel.

Monitoring shall require the Contractor's Archaeologist and/or appropriately trained personnel to determine the significance of a chance find in accordance with Section 2.0, Table 1 Definitions. Once the potential level of significance (i.e., low, medium or high), of a cultural heritage chance find is assessed, the Contractor's Archaeologist and/or appropriately trained personnel shall proceed in accordance with the Annex 1, LNG Plant site Chance Find Flowchart or the Annex 2, Upstream Chance Find Flow Chart, depending on where the cultural heritage chance find site is discovered.

##### **3.2.2 Stop Work**

Contractor shall, in the event that a site of potentially high significance is discovered, immediately stop works within an approximate distance of five metres of the site. Contractor shall demarcate and secure the area.

##### **3.2.3 Evaluation**

Contractor shall evaluate sites in accordance with Annexures 1 and 2. Company should be consulted for materials/sites already characterised by past salvage.

##### **3.2.4 Notification**

All cultural heritage sites will be reported to Company as part of Contractor's Monthly Environmental Construction Report (see section 8.0 of the Cultural Heritage Management Plan).

Should Contractor's Archaeologist(s) confirm that a site is a cultural heritage site of high significance, Contractor shall immediately notify Company, describing the type of find and whether the site contains human skeletal remains.

### 3.2.5 Management of Chance Finds

#### 3.2.5.1 Archaeological Chance Finds

Should Contractor's Archaeologist determine that the cultural heritage site is a highly significant archaeological site without skeletal remains, Contractor's Archaeologist, in consultation with Company shall determine the appropriate action.

The following management options will be considered as per Annexes 1 and 2:

**Avoidance:** This option minimises the impact to the site through partial or complete project redesign or relocation. This is the preferred option from a cultural resource management perspective.

**Salvage Excavation:** This data recovery option is site destructive and can delay construction. If required, salvage excavation shall be conducted in accordance with the requirements of Company's Cultural Heritage: Investigation, Salvage and Compensation Protocol.

**In-situ Management:** This option includes the application of site protection measures, such as fencing or barricades, or capping the site area with fill. Appropriate protection measures will be identified and agreed between Contractor, Company and the PNG National Museum and Art Gallery on a site-specific basis. If this option is the best but likely to involve some damage to a significant site (e.g. in process of capping site area with fill), it may be combined with limited salvage excavation.

**Surface Collection:** If a site is assessed as having limited salvage excavation potential but contains significant surface archaeological items, those surface finds may be individually mapped and collected in accordance with Company's Cultural Heritage: Investigation and Salvage Protocol.

**Destruction:** If a site is assessed as having limited archaeological significance, it may be destroyed once a complete photographic record has been made and the Chance Finds Report Form has been completed (see Annex 3).

#### 3.2.6 Skeletal Remains Chance Finds

Contractor shall notify Company immediately upon discovery of skeletal remains and stop work.

Contractor's Archaeologist shall, in consultation with Company, photograph and document the find<sup>1</sup>.

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<sup>1</sup> Documentation may include standard skeletal recording forms for all skeletal elements, along with written notes. Agreed standard metric and non-metric observations recorded on the remains must follow the recording procedures developed by the Australian National Provenancing Project (Bennett & Pardoe, 1998). Documentation shall include the quality of preservation, intactness, morphology and pathology. Documentation shall be undertaken in accordance with best archaeological field practice, including plotting each bone or bone fragment and grave goods on an X-Y coordinate, full photography in situ, and the preparation of a site diagram to a cartesian grid indicating the presence of each bone or bone fragment. Depending on that stage of ground disturbance works at which the remains are observed, it is possible that the remains may not be present in their original spatial context (i.e., the remains may be observed in stockpiled soil rather than in their original location).

All remains shall be fully documented and managed as follows:

If deemed by Contractor's Archaeologist to be a suspicious death (e.g., involving criminal activity), the following steps shall be taken:

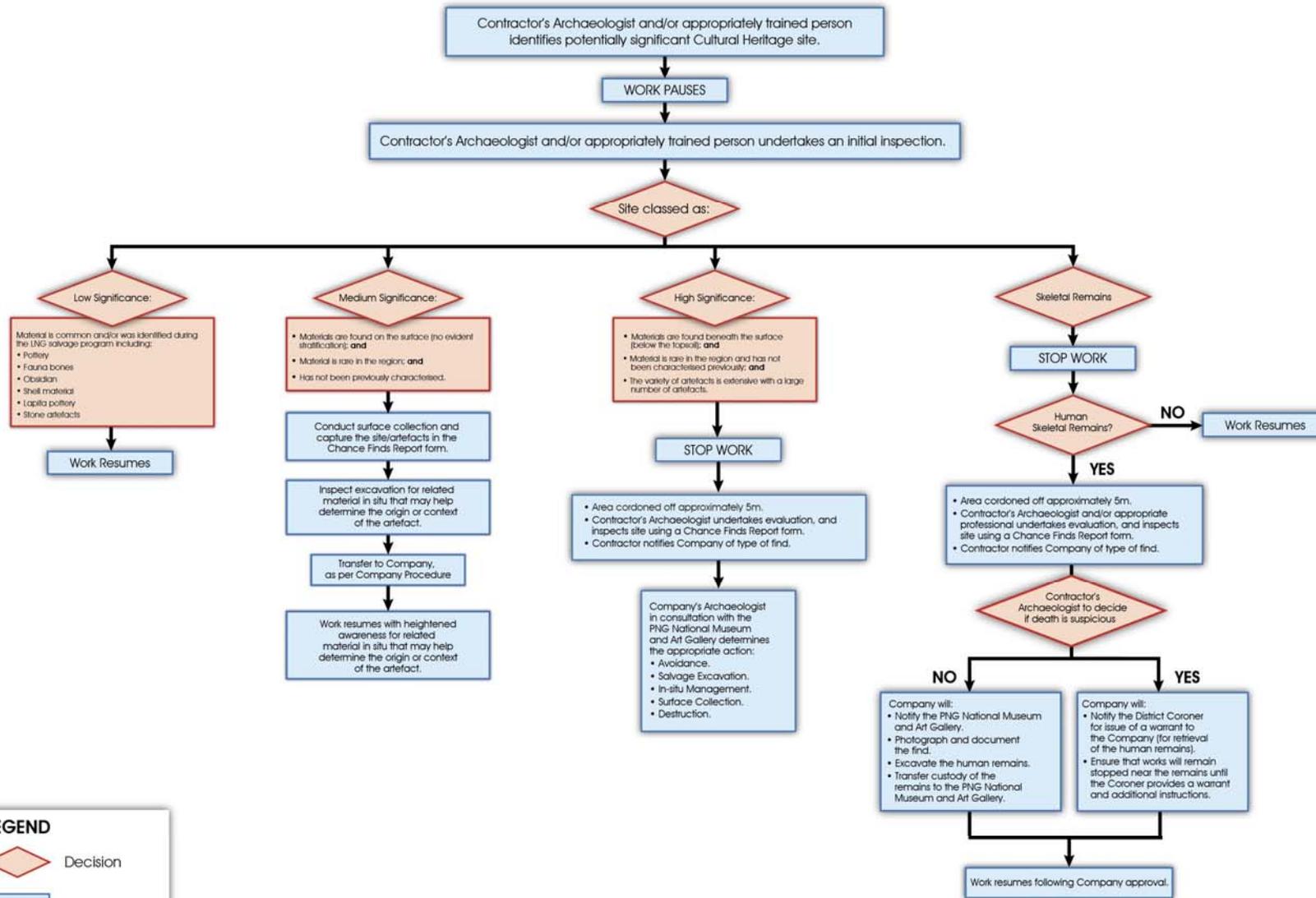
- 1) Contractor shall notify Company immediately.
- 2) Company will notify district Coroner who must issue a warrant to Company for retrieval of the human remains by Contractor's Archaeologist.
- 3) Work shall stop until Coroner provides warrant and additional instructions.
- 4) Contractor shall resume work following Company approval.

If deemed by Contractor's Archaeologist to be a non-suspicious death (i.e., remains are ancient and not suspect of criminal activity), the steps below shall be taken. If there is any doubt as to whether foul play is associated with the remains, then the default action will be to treat the remains as suspicious.

- 1) Company shall notify the PNG National Museum and Art Gallery of the find. The PNG National Museum and Art Gallery may determine the subsequent appropriate course of action.
- 2) Subject to Company approval, Contractor Archaeologist may exhume the human remains and associated grave goods.
- 3) Retrieval of the remains shall be undertaken in such a manner as to reveal the stratigraphic and spatial relationship of the human skeletal remains with other archaeological features in the excavation (e.g., grave goods, hearths, burial pits, etc.). A catalogue and bagging system shall be utilised that will allow ready reassembly and relational analysis of all elements in a laboratory. The remains will not be touched with the naked hand; all Contractor personnel working on the excavation must wear clean cotton or non-powdered latex gloves when handling remains in order to minimise contamination of the remains with modern human DNA.
- 4) Company shall transfer custody of the remains to the PNG National Museum and Art Gallery.
- 5) Company shall notify Contractor when work can resume.

## **Annex 1: LNG Plant Site Chance Finds Flowchart**

Chance Finds Protocol Annex 1: LNG Plant Site Chance Finds Flowchart – PNG LNG Project

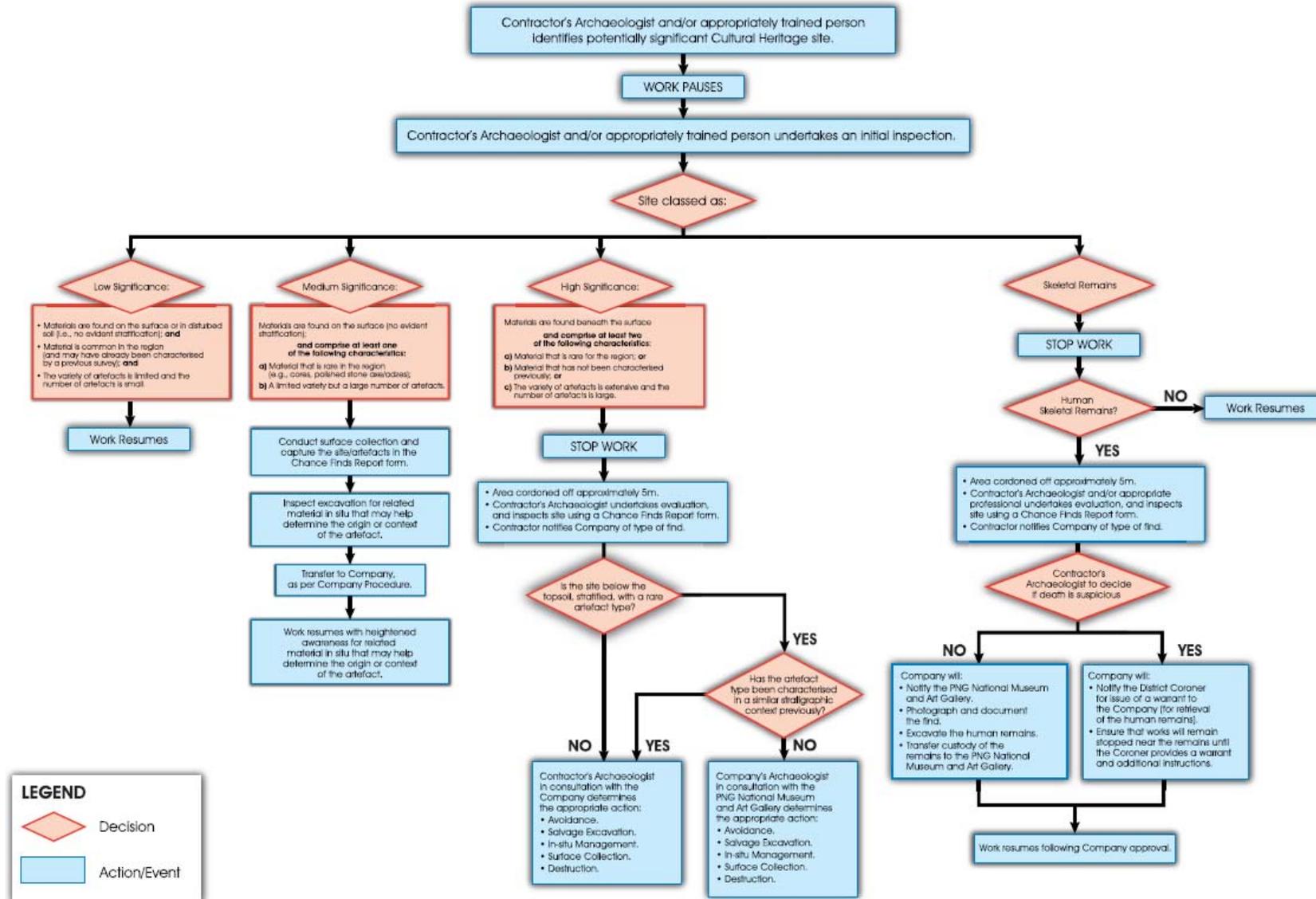


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## **Annex 2: Upstream Chance Finds Flowchart**

### Chance Finds Protocol Annex 2: Upstream Chance Finds Flowchart – PNG LNG Project



Rev 1

### **Annex 3: Chance Finds Report Form**



## Chance Finds Report Form

Please contact: \_\_\_\_\_  
To discuss find, on: \_\_\_\_\_

### Initial Detail

Location of Find: \_\_\_\_\_ Date of Find: \_\_\_\_\_ Person who identified find: \_\_\_\_\_

### Description of Initial Find:

Was work stopped in the immediate vicinity of the find?  Yes  No  
Was an archaeologist contacted?  Yes  No

### Archaeological Detail:

Date of inspection: \_\_\_\_\_ Reporting Archaeologist: \_\_\_\_\_  
GPS coordinates: \_\_\_\_\_ Photo Record: \_\_\_\_\_  
Zone: \_\_\_\_\_ N: \_\_\_\_\_ E: \_\_\_\_\_  Yes  No  
Does Chance Find Correspond to a known PNG National Museum site?  Yes  No  
If Yes, which site code: \_\_\_\_\_  
If No, temporary site code is: \_\_\_\_\_  
If No, new Museum site code is: \_\_\_\_\_

### Description of Find (fill in applicable information) (use additional pages if required):

Artefact type: \_\_\_\_\_  
Max artefact length (in mm): \_\_\_\_\_ Max artefact width (in mm): \_\_\_\_\_  
Max artefact thickness (in mm): \_\_\_\_\_ Max artefact platform width (in mm): \_\_\_\_\_

Approximate number of artefacts at site:

- 1  
 2 to 10  
 > 10  
 >50

Approximate size of site:

Site area: \_\_\_\_\_ m<sup>2</sup>  
Site length: \_\_\_\_\_ m  
Site height (max) (for rockshelters/caves): \_\_\_\_\_ m

Other: \_\_\_\_\_

Brief description of site and vegetation (e.g., surface sediment type, ground surface visibility, distance to nearest freshwater source, attach site sketch if necessary):

Brief description of find(s):

### Statement of Significance (scientific, spiritual, historic, aesthetic and emotive and any evidence of stratification):

**Level of Significance as per the PNG LNG Chance Finds Protocol Flowchart**

Low  Medium  High  Skeletal

**Impact Assessment**

Is site destroyed?  Yes  No

Can further impacts to the chance find be avoided?  Yes  No

Avoidance and mitigation measures discussed:

**Impact to Find**

Avoidance and mitigation outcome:

Date completed form lodged:

Person who lodged form:

Signature:

\_\_\_\_\_