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REPORT ON

ARCHAEOLOGICAL IMPACT ASSESSMENT OF D.L. 1371, OPENIT PENINSULA CLAYOQUOT SOUND, B.C.

HERITAGE CONSERVATION ACT
PERMIT 2000-154

Submitted to:

Hotsprings Holdings Ltd.
c/o 102 Deep Dene Rd.
West Vancouver, B.C.
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Attn.: Mr. Chris Page

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September 2000 002-1746

MANAGEMENT SUMMARY

At the request of Hotsprings Holdings Ltd., Golder Associates Ltd. conducted an archaeological impact assessment (AIA) of District Lot 1371 on June 6 to 9, 2000. The property is located on the Openit Peninsula, north of the community of Hotsprings Cove, in Clayoquot Sound, B.C. The impact assessment was conducted under *Heritage Conservation Act* Permit No. 2000-154.

The primary objectives of the AIA were: to identify and evaluate archaeological resources present within the development areas; to assess the significance of any identified sites; to assess potential development impacts to the sites; and to recommend measures for managing any potential adverse impacts.

A judgmental ground surface and forest cover survey was conducted throughout the property. Previously recorded sites DiSn-11, DiSn-16, DiSn-17, DiSn-23, and DiSn-39 are located within the study area. Sites DiSn-16, 17, and 23 were revisited, reassessed, and potential development impacts were evaluated. Recommendations for managing potential adverse impacts to the sites are provided. Sites DiSn-89 through 100 were newly identified. All are culturally modified tree (CMT) sites of recent age. Although none are likely to be old enough to qualify for automatic protection under the *Heritage Conservation Act*, the Ahousaht First Nations, citing the Clayoquot Sound Interim Measures Extension Agreement, have requested that the CMTs be protected.

CREDITS

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1.0 INTRODUCTION

At the request of Hotsprings Holdings Ltd., Golder Associates Ltd. (Golder) conducted an archaeological impact assessment of District Lot (D.L.) 1371, on the Openit Peninsula, east of the community of Hotsprings Cove, Clayoquot Sound, B.C. The impact assessment was conducted between June 6 and 9, 2000, under *Heritage Conservation Act* Permit 2000-154, issued by the Archaeology Branch (Ministry of Small Business, Tourism and Culture). The Archaeology Branch Project Officer is Ms. Jane Warner.

1.1 Study Area

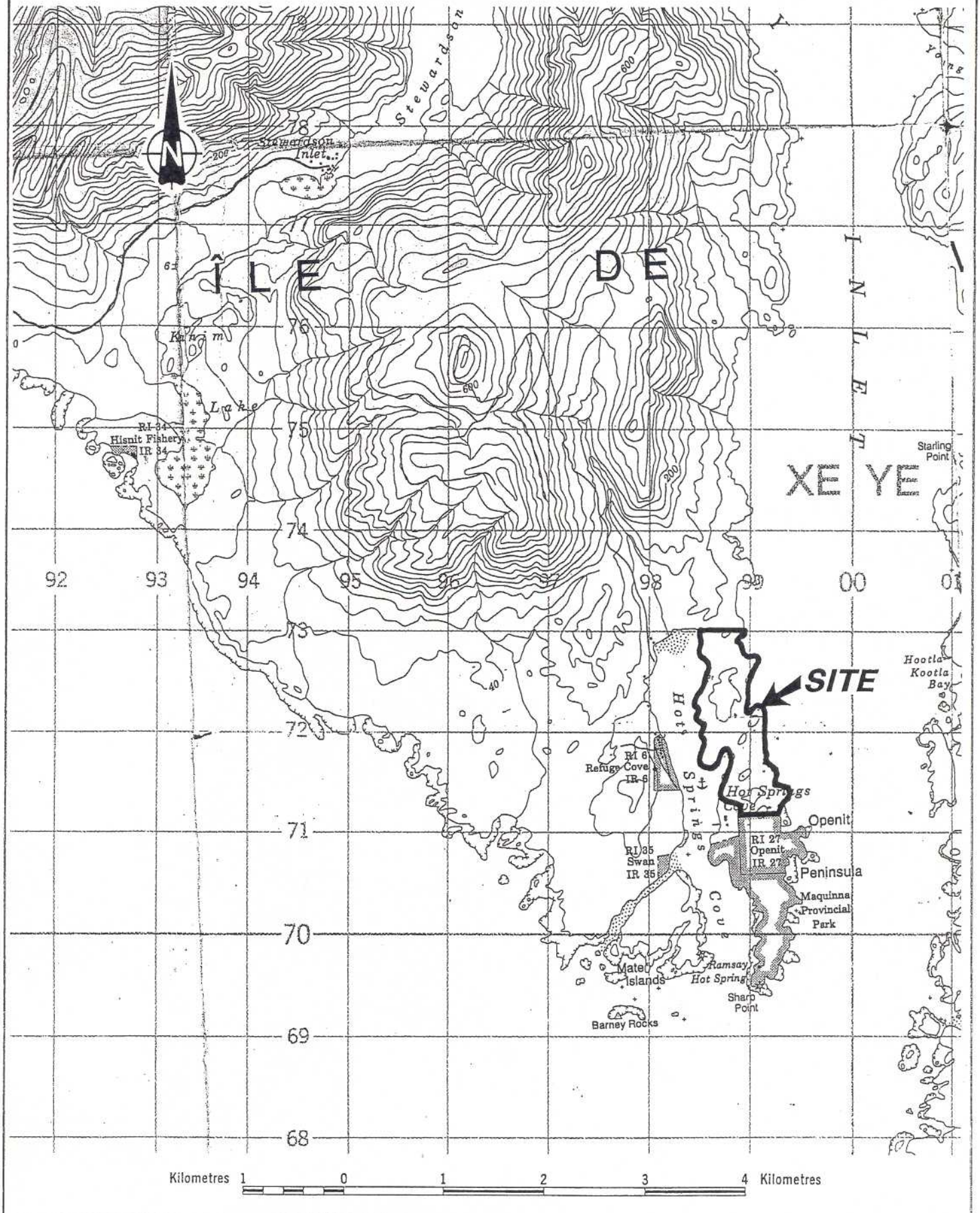
District Lot 1371 is situated on the Openit Peninsula, which is on the west side of Sydney Inlet, approximately 40 km north of Tofino, in Clayoquot Sound (Figure 1). The subject property measures approximately 85 ha in area and straddles the peninsula, with Hotsprings Cove on the west shore and Sydney Inlet on the east shore. The elevation of the subject property ranges from sea level to approximately 80 m above sea level.

1.2 Development Plans and Scheduling

Hotsprings Holdings has applied to rezone D.L. 1371, as defined by Zoning Bylaw "109 Cottage Seasonal (SC) District", with the Alberni Clayoquot Regional District. The proponent would like to undertake a low impact development on individual parcels of land of approximately 0.8 ha each, located along the shorelines of Hotsprings Cove and Sydney Inlet (Figure 2). Collectively, these shoreline lots comprise approximately 40% of the development area. The remaining inland portion of approximately 80 ha (60% of the land) will remain largely undeveloped. Development will begin following the completion of all necessary studies and receipt of required permits.

1.3 Potential Impacts to Archaeological Sites

Although specific development plans were not provided, there are a number of possible development-related activities that have the potential to impact archaeological sites. For example, road and trail construction, the excavation of building foundations, trenching for service installation, blasting, filling, and levelling have the potential to impact archaeological sites by disturbing cultural deposits and features, damaging artifacts, and



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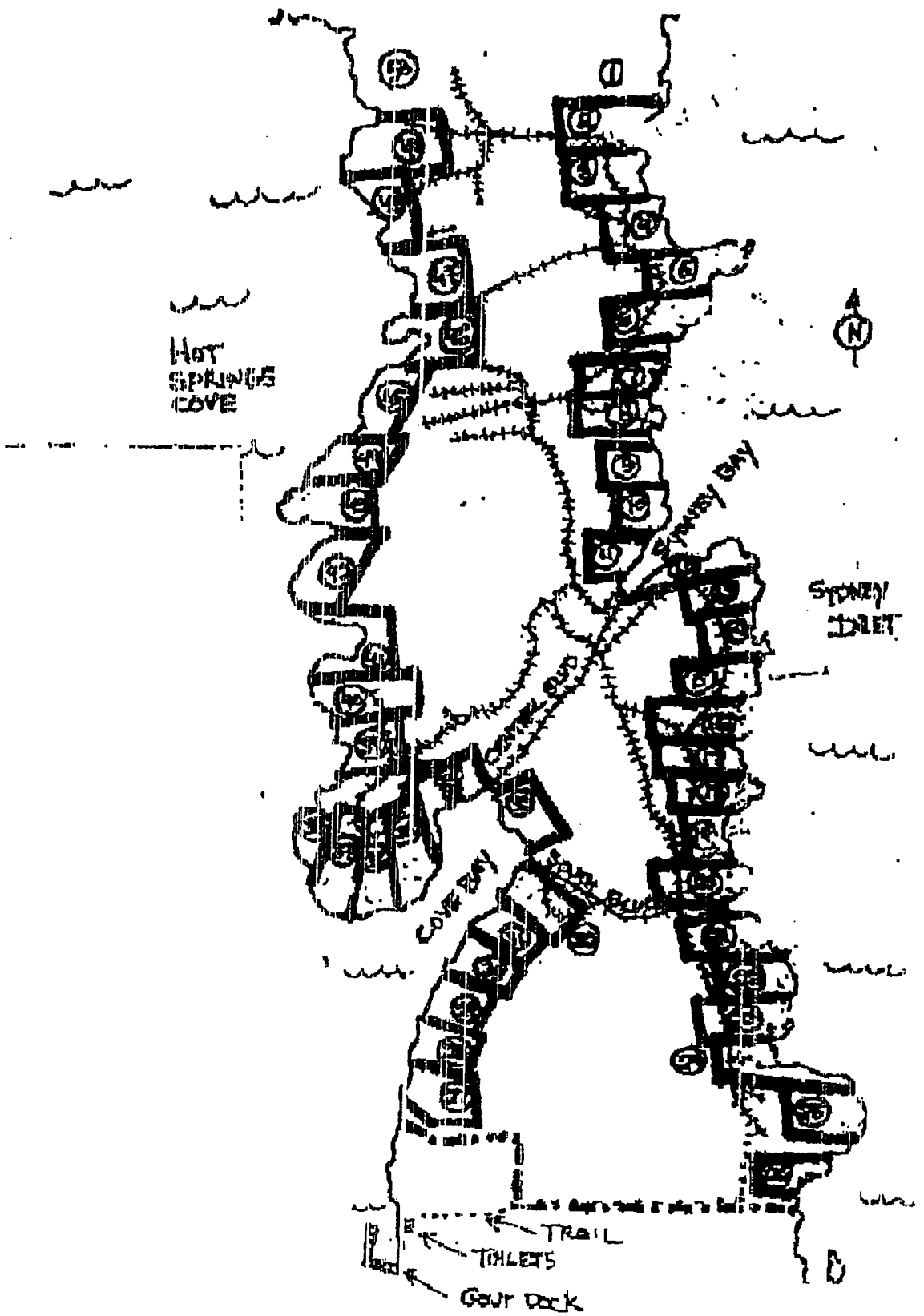
Golder Associates

STUDY AREA

Figure **1**



Schematic Only – Not to Scale

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Golder Associates	**PROPOSED DEVELOPMENT**	Figure **2**

destroying contextual information essential for interpreting site function and age. Less intensive activities such as augering for fence posts, planting trees, or rototilling may also damage intact archaeological sites. Increased access to archaeological sites may lead to site vandalism or unauthorized disturbance of deposits. The proponent intends to protect all known archaeological sites by a set of formal covenants that will include suitable set-backs and a set of protocols to ensure that sites are undisturbed.

1.4 Relevant Legislation

All archaeological sites on Provincial Crown or private land that predate A.D. 1846 are automatically protected under 1996 amendments to the *Heritage Conservation Act* (HCA). Certain sites, including burials and rock art sites, are protected regardless of age. In addition, shipwrecks more than two years in age are protected.

Sub-surface investigation of an archaeological site, or investigation with the intent to locate a site, requires a permit under Section 14 of the HCA. Only qualified archaeologists may hold Section 14 permits. The Archaeology Branch (Ministry of Small Business, Tourism and Culture) is the provincial government ministry responsible for administering the HCA, issuing permits, maintaining a database of recorded archaeological sites, and handling referrals from various development agencies.

Site protection under the HCA does not necessarily negate impact. In some cases, development proceeds following a thorough impact assessment or other mitigative actions. With the exception of impacts occurring under a Section 14 permit, any alteration to a known archaeological site must be permitted under Section 12 of the HCA. A Section 12 permit is held by the individual responsible for the site alteration, and normally includes data recovery or mitigative requirements such as development monitoring or data sampling.

All applications for Section 12 or Section 14 HCA permits are forwarded by the Archaeology Branch to appropriate First Nations for review. A 30-day review period is provided for comments regarding the proposed methodology.

A glossary of technical terms is provided in Appendix I.

2.0 OBJECTIVES AND METHODOLOGY

2.1 Objectives

Archaeological impact assessments are conducted in advance of development to ensure that heritage resources are identified and properly managed. The primary objectives of this study were:

- to identify and evaluate archaeological resources present within the study area;
- to assess the significance of any identified archaeological sites;
- to assess potential development impacts to the sites; and
- to recommend appropriate measures for managing potential adverse impacts.

2.2 Methodology

2.2.1 First Nations Involvement

The subject property lies within the traditional territory of the Ahousaht First Nations. Kim Miller of the Ahousaht First Nations and Chuck Lucas of the Hesquiaht First Nation, both experienced archaeological field investigators, participated as field assistants. The Ahousaht First Nations provided site management comments, and will be provided with a copy of this report.

2.2.2 Background Research

Prior to field investigations, a review of relevant cultural and environmental data was undertaken. This included published and unpublished sources dealing with local and regional history, archaeology, ethnography, and environment. Existing archaeological site inventory forms were examined to provide information on site types, locations, and density on the Openit Peninsula, and previous archaeological investigations in the study area were reviewed. National Topographic Systems (NTS) contour maps and other plans of the study area were also inspected.

2.2.3 Field Methods

The study area was subject to a ground surface and forest cover inspection designed to locate and assess archaeological deposits and features. Survey traverses were conducted in groups of two to four people spaced between 10 m and 20 m apart, depending on

terrain, forest cover, and assessed site potential. Traverses followed existing trails and skid roads, pre-determined compass bearings, and biophysical features such as ridges and knolls. Survey intensity was greatest in areas of gentle terrain, high redcedar content, good ground visibility, or predicted high potential. A number of low potential areas were also examined to confirm the potential rating. As the shoreline has been recently surveyed with modern inventory techniques (Golder 1998a), only a limited shoreline survey was undertaken.

The survey sought to locate archaeological remains including (but not limited to) stone, shell, bone, antler, or other artifacts, fire-cracked rock, cultural features (e.g., depressions), culturally modified trees (CMTs), pictographs or petroglyphs, trails, and historic structural remains and debris. Existing sub-surface exposures, including road cuts and tree throws, were examined to assess soil development and to search for cultural remains. Mature trees of all species, but particularly mature western redcedar, were examined for bark removal scars or other evidence of cultural modification.

Given the inland setting of most of the survey and the abundance of existing sub-surface exposures, shovel testing and probing was not undertaken.

2.2.4 Site Recording Methodology

Two types of sites were encountered during this study - burial caves and culturally modified trees. A recent shipwreck is also located near the study area but it was not revisited. The burial caves have been previously recorded and were only re-inspected during this study to note any net change since the site was mapped. The caves were entered to the point where further progress meant possibly disturbing the remains. Notes were taken describing net changes and site forms were updated as appropriate.

With the exception of two clearly modern CMT sites, CMTs were recorded to Level II standards and classified using the typology described in the CMT Handbook published by the Vancouver Forest Region (Ministry of Forests 1997). The two modern CMT sites were recorded to the Level I standard. Each CMT was plotted in relation to previously mapped features on survey plans using a compass and hipchain. A site location datum was established using a hand-held geographic positioning system (GPS). Increment borer sampling techniques outlined in the *Handbook for the Identification and Recording*

of Culturally Modified Trees (Ministry of Forests 1997), and *Increment Core Sampling Techniques for High Quality Cores* (Jozsa 1988) were used in an attempt to date each of the CMTs.

British Columbia site inventory forms were prepared for all newly recorded sites, with Level II CMT recording forms attached, if applicable. Updated site forms were also prepared for previously recorded sites revisited in the field. Detailed field notes and a photographic record were made for each site. Burial cave photographs were limited to views of the cave mouths from the intertidal area.

2.2.5 Site Significance Determination and Management Recommendations

Identified archaeological sites were assessed according to Archaeology Branch *Guidelines* (Apland and Kenny 1998). Site significance evaluations are based on a collective consideration of scientific, cultural, public and economic significance criteria, with emphasis on the scientific and cultural categories. Cultural significance was determined in direct consultation with the Ahousaht First Nations.

Each identified site was also assessed in terms of potential adverse impacts from the proposed developments, and recommendations were formulated for minimizing potential impacts.

3.0 PHYSICAL SETTING

The study area is comprised of a large section of the Openit Peninsula, extending roughly from the northern boundary of Openit I.R. 27 to the head of Hotsprings Cove. The property is adjacent to the protected waters of Hotsprings Cove in the west and on the east side is open to the more exposed coastline in Sydney Inlet. Howes (1999) has recently compiled biophysical data for the shoreline components of the study area in an oil spill response atlas. In general, the shoreline of the study area consists of a rock ramp subtidal zone with a gravel beach intertidal and a rock cliff backshore. The Sydney Inlet side of the study area contains numerous surge channels and several sea caves. Beaches are few. The opposite shoreline of the study area is more irregular with a number of bays and considerably more “beaches” than the eastern side of the study area.

Inland, areas of D.L. 1371 vary considerably. The terrain tends to be relatively flat but is interspersed with a number of knolls, and several areas of the shoreline on either side drop off as high cliff faces.

The study area falls within the Coastal Western Hemlock (CWH) biogeoclimatic zone which is, on average, the rainiest biogeoclimatic zone in British Columbia and is the most productive in terms of overall biomass (Jones and Annas 1978; Pojar et al. 1991). The subject property exhibits extensive evidence of large-scale commercial logging in the recent past. This includes an extensive network of skid roads, log sorts, log dumps, the presence of stumps, and the absence of mature timber. The "roads" illustrated in Figure 2 are actually existing skid roads.

In general, timber on the property had been "high graded", leaving only unmerchantable timber and snags (Photograph 1). The few older growth trees that were observed tended to be located in difficult to reach areas such as inland knolls or they were snags. Many of the larger stands of trees consisted of stunted, contorted, or dead trees on poor, wet grow sites (Photograph 2). Forest cover was dominated by redcedar, hemlock, balsam, and alder.

The understory vegetation is generally lush, but varies with local topography and slope. Dominant species include evergreen huckleberry and salal, with salmonberry in more open areas such as skid road margins. In general, the understory is very thick and in places is very difficult to penetrate. This is typical for areas that have been subject to commercial logging in the recent past.

4.0 CULTURAL SETTING

4.1 The Ahousaht First Nations

The study area lies within the traditional territory of the Ahousaht First Nations. The Ahousaht were originally a small group from southwestern Vargas Island and the Calmus Passage and Cypress Bay areas of Vancouver Island. During the post-contact period, they absorbed the more numerous Otsosaht who occupied Flores Island, as well as the Owinmitisaht and Quatsweaht local groups. The Keltsomaht amalgamated with the

Photograph 1
General view of "High Graded" portion of study area.

Photograph 2
Typical inland forest cover.

Ahousaht after a large number of Keltsomaht men were lost at sea during a sealing expedition in the late 1880s. In the 1940s, at the instigation of the Department of Indian Affairs, the few remaining Manhousaht also officially amalgamated with the Ahousaht (Bouchard and Kennedy 1990:19).

Ahousaht is an anglicization of the term *ʔaahuuʔath* or 'people of the *ʔaahuus*' (Arima and Dewhirst 1990). The word *ʔaahuus* means 'facing away from the ocean' and is the name of a former local group site located on Ahous Point on southwestern Vargas Island. Many Ahousaht live today at the community of Marktosis on Flores Island. The name is an anglicization of the term *maaktusiis* meaning 'moving from one side to another', a reference to the narrow isthmus on which the village is built.

The study area (Openit Peninsula) is named after a village site on I.R. 27 (Openit), which is located immediately south of the study area (Figure 1). Openit is an anglicization of the term *ʔupnit* (Bouchard and Kennedy 1990). No translation for this term has been reported, but it is the traditional name of the principal Manhousaht village. *ʔupnit* was used mainly for whaling and may have also been used by the Otsosat.

For additional information concerning the Ahousaht First Nations, refer to works by Drucker (1951), Arima and Dewhirst (1990) and Bouchard and Kennedy (1990).

4.2 Previous Archaeological Research

The west coast of Vancouver Island has long been an area of considerable archaeological interest due to the complexity of coastal cultures and the deep stratification of many habitation sites. In addition, the extensive ethnographic documentation available has made research appealing as, in many cases, it has allowed archaeologists to apply a direct historic approach to interpreting archaeological remains. Considerable academic research has focussed on the west coast of Vancouver Island, and the results of many investigations have been presented as dissertations, theses, articles, academic papers, and permit reports. More recently, significant research has been conducted by professional consulting archaeologists at the request of First Nations or in response to development plans related to forestry and other land developments with the potential to disturb archaeological resources. The main categories of archaeological research that have been

undertaken are research-oriented excavation and survey, and development-related overviews, inventories, impact assessments, and mitigative excavations.

General discussions of the prehistory of the Nuu-chah-nulth culture area can be found in McMillan (1998, 1999) and in Mitchell (1990).

With respect to the study area, Golder and Shoreline Archaeological Services Inc. (SASI) recently completed three seasons of archaeological inventory in Clayoquot Sound (Golder 1998a, 1998b, 1999), including the shorelines of the Openit Peninsula. During the survey, a number of archaeological sites were identified and recorded (DiSn-11, 16, 17, 23, and 39). As a number of these sites were revisited during the present study, they are each discussed in Section 5.0.

5.0 RESULTS

A ground surface and forest cover survey was conducted in judgmentally selected areas of District Lot 1371 (Figure 3). While the survey was conducted judgmentally, areas assessed as having moderate to high archaeological potential were thoroughly inspected and coverage is considered adequate to identify any significant archaeological concerns.

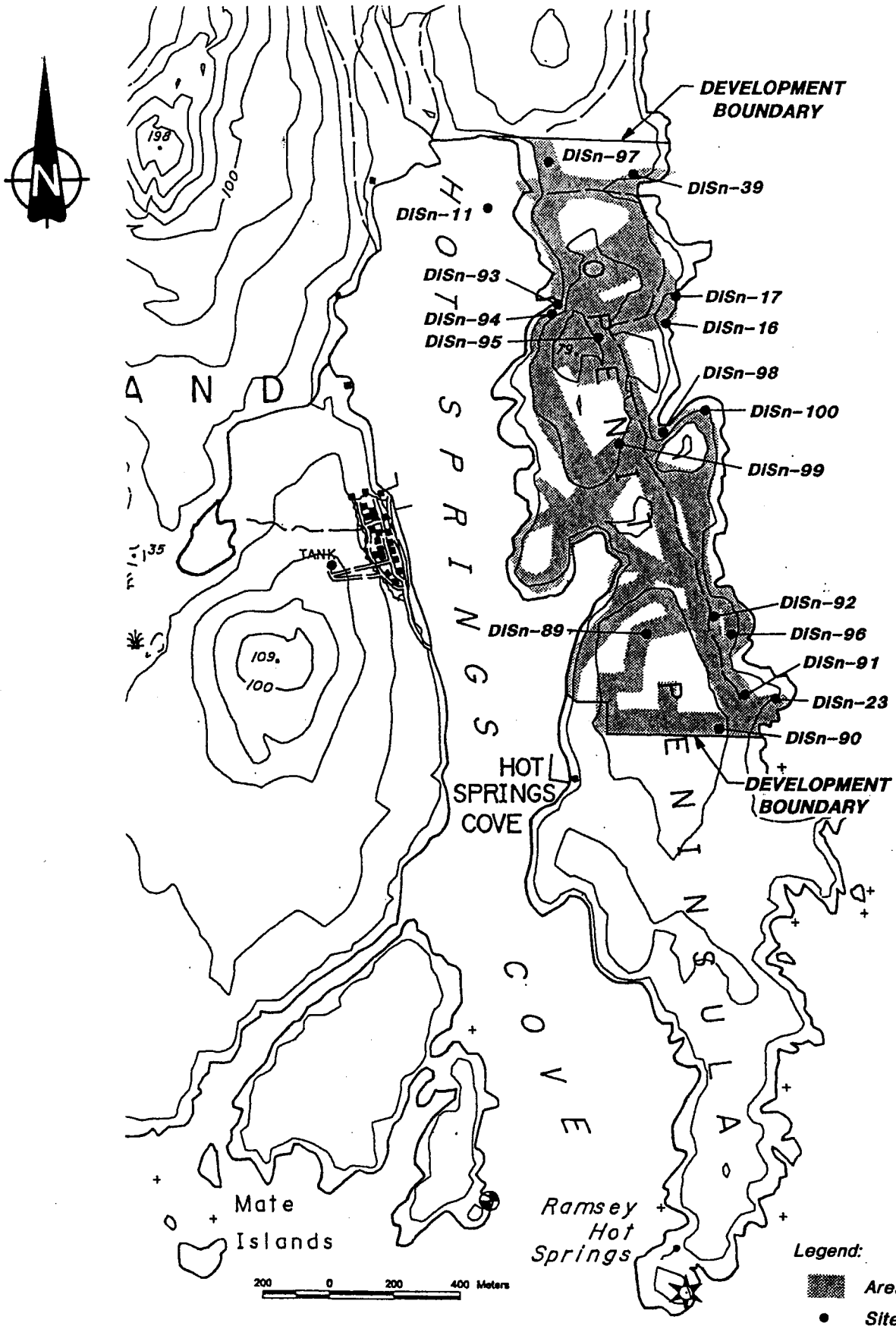
In total, three previously recorded sites were revisited and twelve new archaeological sites were identified (Table 1). Two previously recorded sites in the study area were not revisited as no “new” information would have resulted given the type of site. All sites in the study area, including revisited and not revisited sites from the original Golder-SASI study, are discussed as follows.

Table 1. Summary of Previously Recorded and New Archaeological Sites

Site #	Site Type	Previously Recorded or Newly Recorded	Revisited
DiSn-11	Shipwreck	Previously recorded	Not revisited
DiSn-16	Burial	Previously recorded	Revisited
DiSn-17	Burial	Previously recorded	Revisited
DiSn-23	Burial	Previously recorded	Revisited
DiSn-39	Culturally Modified Trees	Previously recorded	Not revisited
DiSn-89	Culturally Modified Trees	Newly recorded	
DiSn-90	Culturally Modified Trees	Newly recorded	
DiSn-91	Culturally Modified Trees	Newly recorded	
DiSn-92	Culturally Modified Trees	Newly recorded	
DiSn-93	Culturally Modified Trees	Newly recorded	
DiSn-94	Culturally Modified Trees	Newly recorded	
DiSn-95	Culturally Modified Trees	Newly recorded	
DiSn-96	Culturally Modified Trees	Newly recorded	
DiSn-97	Culturally Modified Trees	Newly recorded	
DiSn-98	Culturally Modified Trees	Newly recorded	
DiSn-99	Culturally Modified Trees	Newly recorded	
DiSn-100	Culturally Modified Trees	Newly recorded	

DiSn-11

Site DiSn-11 is a shipwreck site located in the northeast corner of Hotsprings Cove. The ship is stranded on the intertidal mud flats so that it is mostly covered by high tide. The Karmar I is a traditional westcoast double ended (canoe stern) troller that was destroyed by fire and set free to drift to its present location around 1995. DiSn-11 was recorded in 1997 as part of the Clayoquot Sound Archaeological Inventory Project (Golder 1998a) and was not revisited during the present study.



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ARCHAEOLOGICAL SURVEY AND SITE LOCATIONS

Figure 3

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DiSn-16

Site DiSn-16 is a burial site located on the shore of Sydney Inlet on the east side of the Openit Peninsula. The site is a large sea cave containing multiple human remains and the fragmentary remains of wooden boxes. DiSn-16 was recorded in 1997 as part of the Clayoquot Sound Archaeological Inventory Project (Golder 1998a).

This site was re-visited by Golder during the present study. The cave was not entered or re-mapped due to the distribution of human remains across the cave floor, however, it is apparent that the site has been disturbed slightly since being recorded in 1997. Disturbance includes the re-arrangement of some artifacts, including human skeletal elements and plank fragments, and the possible disappearance of others, including a human skull (the skull was not observed, but was not intensively looked for). Most of the disturbance is likely natural, resulting from winter storm waves and debris entering the cave. A sign has been placed outside the cave identifying the place as a burial site (Photograph 3).

DiSn-17

Located just north of DiSn-16 is another burial cave, DiSn-17. This is a deep sea cave, which contains human remains and fragments of one or two bentwood boxes. In the right alcove, there is a larger burial box. DiSn-17 was recorded in 1997 as part of the Clayoquot Sound Archaeological Inventory Project (Golder 1998a).

This site was re-visited by Golder during the present study. The cave was not entered or re-mapped due to the distribution of human remains across the cave floor, however, it is apparent that the site has been disturbed slightly since being recorded in 1997. Disturbance consists of re-arrangement of some human skeletal elements. Disturbance is likely natural, resulting from winter storm waves and debris entering the cave. A sign has been placed outside the cave identifying it as a burial site.

DiSn-23

Located along the east shore of the Openit Peninsula, at the end of a narrow surge channel, site DiSn-23 is a shallow sea cave containing human remains. The remains of

Photograph 3

Burial cave placard.

several individuals were identified in the cave, along with broken box fragments and a pair of shoes. The site appears to be the same burial cave noted as traditional use site #237 (*ʔaʔitlkwuuʔa*) by Bouchard and Kennedy (1990). DiSn-23 was recorded in 1997 as part of the Clayoquot Sound Archaeological Inventory Project (Golder 1998a).

This site was re-visited by Golder during the present study. The cave was not entered or re-mapped due to the distribution of human remains across the cave floor, however, it is apparent that the site has been disturbed slightly since being recorded in 1997. Disturbance includes re-arrangement of some artifacts, including human skeletal elements and cedar box fragments and boards. Disturbance is likely natural, resulting from winter storm waves and debris entering the cave. A sign has been placed outside the cave identifying it as a burial site.

DiSn-39

CMT site DiSn-39 is located near the east shore of the Openit Peninsula, opposite the head of Hotsprings Cove. The site is comprised of five western redcedar CMTs: four with kindling removal scars and one with a blaze scar. Site DiSn-39 was recorded in 1997 as part of the Clayoquot Sound Archaeological Inventory Project (Golder 1998a). This site was not revisited as part of the present study. Although dating samples could not be obtained from these CMTs, they are undoubtedly similar in age to other CMTs identified on the Openit Peninsula.

DiSn-89

This site, consisting of two western redcedars with tapered bark-strip scars, is located on Openit Peninsula, approximately 400 m north of the northwest corner of Openit I.R. 27 and 200 m inland from Hotsprings Cove. An increment borer sample was taken from the right scar lobe of CMT-2 and indicated the cultural modification took place 22 ± 5 years ago (A.D. 1973 to 1983) (Photograph 4).

DiSn-90

This site, consisting of seven bark-stripped cedars, is located on Openit Peninsula, approximately 50 m north of Openit I.R. 27 and 100 m inland from Sydney Inlet. The culturally modified trees are comprised of four western redcedars with tapered bark-strip scars and three yellow cedars with tapered bark-strip scars. An increment borer sample was taken from the right scar lobe of scar #1 on CMT-2. Unfortunately, the sample missed the scar crust and did not provide a reliable sample by which to date the cultural modification. However, given the estimated age of the tree and the size of the healing lobe, it is likely that the modification was made in the last 30 to 50 years.

Photograph 4

CMT #2 at site DiSn-89.

DiSn-91

This site, consisting of one western redcedar with a plank removal scar, is located on Openit Peninsula, on a small promontory approximately 200 m northeast of the northeast corner of Openit I.R. 27. The plank scar measures 2.9 m in length, with a width of 38 cm and a thickness of 8 cm. A platform notch, likely cut to aid the insertion of a board or plank to stand on in the removal of the plank, is located on a small hemlock nurse tree.

An increment borer sample was taken from the right scar lobe of the CMT. Unfortunately, the sample missed the scar crust and did not provide a reliable sample by which to date the cultural modification. However, given the estimated age of the tree and the size of the healing lobe, it is likely that the modification was made in the last 30 to 50 years.

DiSn-92

This site, consisting of a western redcedar with a tapered bark-strip scar, is located on Openit Peninsula, roughly 400 m north of Openit I.R. 27 and 100 m inland from Sydney Inlet. An increment borer sample was taken from the right scar lobe of CMT-2. Unfortunately, the sample missed the scar crust and did not provide a reliable sample by which to date the cultural modification. However, given the estimated age of the tree and the size of the healing lobe, it is likely that the modification was made in the last 30 to 50 years.

DiSn-93

This site, consisting of a western redcedar with a test hole, is located on Openit Peninsula, near the top of a large knoll approximately 1,400 m north-northwest of Openit I.R. 27 and 70 m inland from Hotsprings Cove. The test hole was likely cut to determine the soundness of the interior of the tree, and it may have been considered for the construction of a canoe at one point. The test hole measures 40 cm x 48 cm x 28 cm (Photograph 5). No well-defined tool marks were observed, however, it was likely made with an axe or similar tool. The tree is dead. Although a dating sample was not obtained from this CMT, it is likely similar in age, or perhaps slightly older than the other CMTs identified on the Openit Peninsula.

Photograph 5

Test hole feature at Site DiSn-93

DiSn-94

This site, consisting of a western redcedar with a tapered bark-strip scar, is located on Openit Peninsula, 1,350 m north-northwest of the northwest corner of Openit I.R. 27 and 30 m inland from Hotsprings Cove (Photograph 6). An increment borer sample was taken from the right scar lobe of the CMT. Unfortunately, the sample missed the scar crust and did not provide a reliable sample by which to date the cultural modification.

However, given the estimated age of the tree and the size of the healing lobe, it is likely that the modification was made in the last 30 to 50 years.

DiSn-95

This site, consisting of four bark-stripped cedars, is located on Openit Peninsula, 1,350 m north of the northwest corner of I.R. 27 and 150 m inland from Sydney Inlet. The CMTs from this site include two western redcedars with tapered bark-strip scars and two yellow cedars with bark-strip scars. An increment borer sample was taken from the right scar lobe of CMT-3 and revealed the cultural modification was made 36 years earlier (A.D. 1964).

DiSn-96

This site, consisting of one western redcedar with a kindling removal scar, is located on Openit Peninsula, on the top of a knoll 350 m north of Openit I.R. 27 and 25 m inland from Sydney Inlet. Although dating samples could not be obtained from this CMT, it is likely similar in age to other CMTs identified on the Openit Peninsula.

DiSn-97

This site, consisting of one western redcedar with a tapered bark-strip scar, is located at the north end of the Openit Peninsula, roughly 75 m east of the head of Hotsprings Cove. Based on the age of the tree and the size of the scar healing lobes, this tree was likely modified in the past 30 to 50 years.

Photograph 6

Bark stripped CMT at Site DiSn-94

DiSn-98

This site, consisting of four western redcedars with tapered bark-strip scars, is located 1 km north of Openit I.R. 27, on the north side of a rocky headland overlooking Sydney Bay (see Figure 2). As these CMTs appear to have been made in the last 5 to 10 years, they were only documented to the Level I standard as outlined in the Ministry of Forests' CMT Handbook (Ministry of Forests 1997). An increment borer sample from CMT-2

indicates the tree was modified seven years ago (A.D. 1993). At least one of the trees in this cluster was stripped on all sides, effectively "ringing" the tree and will result in the death of the tree.

DiSn-99

This site, consisting of a western redcedar with a test hole, is located on Openit Peninsula, 1 km north of the northwest corner of Openit I.R. 27 and 100 m inland from the head of Sydney Cove (see Figure 2). The test hole measures 30 cm x 70 cm x 25 cm and was cut with an axe (Photograph 7). The purpose of the test hole is unclear, given its width and relatively shallow depth. Perhaps the feature began as a test hole, was expanded somewhat to resemble a faller's undercut, then subsequently abandoned. Although a dating sample was not obtained from this CMT, it is likely similar in age, or perhaps slightly older than the other CMTs identified on the Openit Peninsula.

DiSn-100

This site, consisting of two western redcedars with tapered bark-strip scars, is located on Openit Peninsula, 1 km north of Openit I.R. 27 and the northern tip of a small promontory that forms the south shore of Sydney Cove (Figure 2). Similar to DiSn-98, the CMTs located at this site are very recent and were only recorded to the Level I standard (Ministry of Forests 1997). Although a dating sample was not taken, the modifications are clearly modern, likely ranging from 5 to 10 years old at most.

6.0 SITE SIGNIFICANCE EVALUATION

Archaeological sites are evaluated in terms of their scientific, historic, public, cultural, and economic significance, as defined in the *British Columbia Archaeological Impact Assessment Guidelines* (Apland and Kenny 1997). These are defined as follows:

Photograph 7

Test hole feature at Site DiSn-99.

1) Scientific significance is based upon the potential of an archaeological site to provide evidence that would substantively enhance our understanding of culture history, culture process, and other aspects of local and regional archaeological history.

2) Historic significance refers to the association of a site with an important historic event or person.

3) Public significance pertains to the potential of an archaeological site to serve in an interpretive, educational, or recreational capacity.

4) Cultural significance refers to the traditional, social, or spiritual importance of a site to a particular ethnic community. In this case, the Ahousaht First Nations evaluated the cultural significance (see Appendix II).

5) Economic significance involves the potential financial benefits that could be derived from the public's use of the site as an educational or recreational facility.

The evaluated significance for each site is explained in the following section and summarized in Table 2 below.

Table 2 Summary of Site Significance Evaluation Ratings

Site #	Type	Scientific Significance	Public/Economic Significance	Cultural Significance[1]	Overall Significance
DiSn-11	Shipwreck	Low	Low	Information not provided	Low
DiSn-16	Burial Cave	Moderate to High	Low	High	High
DiSn-17	Burial Cave	Moderate to High	Low	High	High
DiSn-23	Burial Cave	Moderate to High	Low	High	High
DiSn-39	CMT	Low	Low	High	Moderate
DiSn-89	CMT	Low	Low	High	Low to Moderate
DiSn-90	CMT	Low	Low	High	Low to Moderate
DiSn-91	CMT	Low to Moderate	Low	High	Moderate
DiSn-92	CMT	Low	Low	High	Low to Moderate
DiSn-93	CMT	Low to Moderate	Low	High	Moderate
DiSn-94	CMT	Low	Low	High	Low to Moderate
DiSn-95	CMT	Low	Low	High	Low to Moderate
DiSn-96	CMT	Low	Low	High	Low to Moderate
DiSn-97	CMT	Low	Low	High	Low to Moderate
DiSn-98	CMT	Low	Low	High	Low to Moderate
DiSn-99	CMT	Low to Moderate	Low	High	Moderate
DiSn-100	CMT	Low	Low	High	Low to Moderate

6.1 DiSn-11

This site consists of a modern shipwreck and was assigned an overall low significance rating based on its modern age and the fact that details concerning the manufacture and operation of similar ships is likely readily available.

6.2 DiSn-16

This burial cave site was given an overall high significance rating due to its extremely sensitive nature. This assessment is almost entirely based on the cultural significance rating provided by the Ahousaht First Nations. While there is some scientific

[1] Cultural significance determined by the Ahousaht First Nations.

significance to the contents of the site (e.g., information concerning material culture, demographics, and disease), the recent nature of the remains makes them less significant to the scientific community, and it would be extremely unlikely that they would ever be permitted to be examined.

6.3 DiSn-17

This burial cave site was given an overall high significance rating due to its extremely sensitive nature. This assessment is almost entirely based on the cultural significance rating provided by the Ahousaht First Nations. While there is some scientific significance to the contents of the site (e.g., information concerning material culture, demographics, and disease), the recent nature of the remains makes them less significant to the scientific community, and it would be extremely unlikely that they would ever be permitted to be examined.

6.4 DiSn-23

This burial cave site was given an overall high significance rating due to its extremely sensitive nature. This assessment is almost entirely based on the cultural significance rating provided by the Ahousaht First Nations. While there is some scientific significance to the contents of the site (e.g., information concerning material culture, demographics, and disease), the recent nature of the remains makes them less significant to the scientific community, and it would be extremely unlikely that they would ever be permitted to be examined.

6.5 DiSn-39

Site DiSn-39 was assigned an overall moderate significance rating. The relatively recent age of the CMTs and the presence of similar features in the area precludes a higher scientific significance ranking, but CMT sites of all ages have cultural importance to the Ahousaht First Nations, as reflected in the Appendix II.

6.6 DiSn-91

Site DiSn-91 was assigned an overall moderate significance rating based on the relatively recent age of the CMT. However, given that the plank removal CMT is unique to the study area, it has a slightly higher significance rating than other nearby CMTs.

6.7 DiSn-93

Site DiSn-93 was assigned an overall moderate significance rating based on the relatively recent age of the CMT. However, given that the site contained one of only two test hole features found in the study area, it was given a slightly higher significance rating than other nearby CMTs.

6.8 DiSn-99

Site DiSn-99 was assigned an overall moderate significance rating based on the relatively recent age of the CMT. However, given that there were only two test hole features found in the study area, this site was given a slightly higher significance rating than other nearby CMTs.

6.9 DiSn-89, DiSn-90, DiSn-92, DiSn-94, DiSn-95, DiSn-96, DiSn-97, DiSn-98, and DiSn-100

These sites were all assigned a low to moderate heritage significance rating. The relatively recent age of the CMTs and the presence of similar features in the area argues for a low scientific significance ranking. Due to their apparent post-1846 age, these CMT sites would not be automatically protected under the *Heritage Conservation Act*. However, the low scientific significance rating is offset by the cultural importance of CMT sites of all ages to the Ahousaht First Nations, as indicated in Appendix II and as reflected in the Clayoquot Sound Interim Measures Extension Agreement.

7.0 IMPACT ASSESSMENT

Although not finalized, proposed developments will be designed to minimize any disturbances to the subject property with the removal of trees and brush kept to a minimum. Up to fifty small, unobtrusive seasonal cottages will be built on individual two acre sites, as detailed in the Hotsprings Cove Development Plan, prepared by Waterfront Plus Architecture, April 15th, 2000.

Water will be carried in or be supplied by rain water cisterns with sewage disposed of in either outhouses or composting toilets. Grey water from showers or dish washing will be disposed of according to the current sewage disposal regulations. No new roads will be built, however existing trails will be upgraded and some new trails will be built to link cottage sites. Two small floats will be moored at Cove Bay and Sydney Bay.

The proponents plan to avoid impacts to cultural resources identified on the property.

7.1 DiSn-11

Although not presently proposed, it is possible that future wharf construction could potentially impact site DiSn-11.

7.2 DiSn-16

This burial cave will not be directly impacted by the proposed development, however, increased human activity in the area could expose the cave contents to disturbance or vandalism. Trails or access roads could improve access to the burial cave area.

7.3 DiSn-17

This burial cave will not be directly impacted by the proposed development, however, increased human activity in the area could expose the cave contents to disturbance or vandalism. Trails or access roads could improve access to the burial cave area.

7.4 DiSn-23

This burial cave will not be directly impacted by the proposed development, however, increased human activity in the area could expose the cave contents to disturbance or vandalism. Trails or access roads could improve access to the burial cave area.

7.5 DiSn-39

Future land development, including access road or trail construction, could result in the falling of the CMTs identified at this site.

7.6 DiSn-89 through DiSn-97

Although there are no plans at present to develop inland portions of the study area, future land development, including access road or trail construction, could result in the falling of the CMTs identified at these sites.

7.7 DiSn-98

The CMTs at this site are located on the edge of a steep bank adjacent to an existing skid road. With the exception of timber harvest at some point in the future, no impacts are anticipated. However, at least one of the CMTs has been stripped on all sides and will soon die.

7.8 DiSn-99

Although there are no plans at present to develop inland portions of the study area, future land development, including access road or trail construction, could result in the falling of the CMT identified at this site.

7.9 DiSn-100

The CMTs at this site are located on the edge of a steep bank adjacent to an existing skid road. With the exception of timber harvest at some point in the future, no impacts are anticipated.

8.0 RECOMMENDATIONS

As a result of increased recreational use of the Openit Peninsula, there is potential for visitors to damage archaeological sites. The proponent may wish to advise co-op members and guests that any archaeological remains they might encounter should not be disturbed and no materials may be collected. Highly visible sites are particularly at risk from souvenir hunters. The establishment of formal covenants by Hotsprings Cove Holdings Ltd. for the protection of the three burial cave sites should help to minimize impacts to these sites as a result of increased public access. When discussing the need for protection of the burial caves and other archaeological sites, the proponent should avoid drawing unnecessary attention to the precise locations of archaeological resources on the Openit Peninsula.

Consistent with the intent of the *Heritage Conservation Act*, the proponent is advised that if additional archaeological remains are encountered during development, all work in the vicinity of the remains should cease until the Archaeology Branch, the Ahousaht First Nations, and a Golder archaeologist are contacted and an appropriate site management plan is devised.

Site-specific recommendations are provided as follows.

8.1 DiSn-11

This site has low heritage value and should the proponent wish to develop in this area, they are advised to contact the Archaeology Branch for a site alteration permit prior to the development of the site.

8.2 DiSn-16

As discussed earlier, burial caves are extremely sensitive cultural sites. All management discussions should involve the direct participation of the Ahousaht First Nations. It is Golder's understanding that this location will not be developed and that a restrictive covenant will be placed around this site. The exact wording and size of the covenant should be discussed with the Ahousaht First Nations and the Archaeology Branch. The presence of this site should be kept strictly confidential, and unauthorized persons in the area should be asked to leave at once. Any evidence of trespass or vandalism at this site

should be reported to the Ahousaht First Nations and the R.C.M.P. The burial cave notification placard at the entrance to this site should be removed. The wording of any signage, if appropriate, should be developed with the Ahousaht First Nations and the Archaeology Branch.

8.3 DiSn-17

As discussed earlier, burial caves are extremely sensitive cultural sites. All management discussions should involve the direct participation of the Ahousaht First Nations. It is Golder's understanding that this location will not be developed and that a restrictive covenant will be placed around this site. The exact wording and size of the covenant should be discussed with the Ahousaht First Nations and the Archaeology Branch. The presence of this site should be kept strictly confidential, and unauthorized persons in the area should be asked to leave at once. Any evidence of trespass or vandalism at this site should be reported to the Ahousaht First Nations and the R.C.M.P. The burial cave notification placard at the entrance to this site should be removed to avoid alerting the public as to the presence of an archaeological site. The wording of any signage, if appropriate, should be developed with the Ahousaht First Nations and the Archaeology Branch.

8.4 DiSn-23

As discussed earlier, burial caves are extremely sensitive cultural sites. All management discussions should involve the direct participation of the Ahousaht First Nations. It is Golder's understanding that this location will not be developed and that a restrictive covenant will be placed around this site. The exact wording and size of the covenant should be discussed with the Ahousaht First Nations and the Archaeology Branch. The presence of this site should be kept strictly confidential, and unauthorized persons in the area should be asked to leave at once. Any evidence of trespass or vandalism at this site should be reported to the Ahousaht First Nations and the R.C.M.P. The burial cave notification placard at the entrance to this site should be removed. The wording of any signage, if appropriate, should be developed with the Ahousaht First Nations and the Archaeology Branch.

8.5 DiSn-39

Based on the history of land use in the area, the age of trees found on Openit Peninsula, and the results of CMT dating elsewhere on the property, it is likely that these CMTs are recent and are not protected under the *Heritage Conservation Act*. However, the Ahousaht First Nations have asked that they be protected, as provided by the Clayoquot Sound Interim Measures Extension Agreement (see Appendix II). If the CMTs can be avoided, we recommend that a windfirm buffer be maintained, if possible. If avoidance is not feasible, we recommend that the proponent consult with the Ahousaht First Nations prior to removing any CMTs.

8.6 DiSn-89 through DiSn-100

None of these sites are likely to be old enough to qualify for automatic protection under the *Heritage Conservation Act*. However, the Ahousaht First Nations have asked that they be protected, as provided by the Clayoquot Sound Interim Measures Extension Agreement. Based on the locations and small size of the sites, avoidance during development should be possible in most or all cases. If the CMTs can be avoided, we recommend that a windfirm buffer be maintained, if possible. If avoidance is not feasible, we recommend that the proponent consult with the Ahousaht First Nations prior to removing any CMTs.

9.0 USE OF REPORT

This report was prepared for the exclusive use of Hotsprings Holdings Ltd., and any use, reliance, or decisions made by third parties on the basis of the report are the responsibility of such third parties. This study was not specifically designed to address issues of traditional aboriginal use of the subject property and does not constitute a traditional use study.

10.0 CLOSURE

We trust the information contained in this report is sufficient for your present needs. Should you have any questions regarding the project, please do not hesitate to contact the undersigned.

GOLDER ASSOCIATES LTD.

Andrew R. Mason, M.A., R.P.C.A
Senior Archaeologist

Reviewed by

Rebecca J. Balcom, M.A.
Principal, Golder Associates Ltd.

ARM/BJB/clc
002-1746

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APPENDIX I

GLOSSARY OF TECHNICAL TERMS

Archaeology: A branch of anthropology that studies human cultures through the material remains of their behaviour. Some of the objectives of archaeological research include the development of culture histories, reconstruction of past lifeways, and the study of cultural processes.

Artifact: A portable object intentionally modified by human action. Examples include stone points, bone needles, and basketry.

Biogeoclimatic zone: An ecosystem classification scheme based on vegetation, soils, topography, and climate.

BP: Before Present, a dating convention often used with radiocarbon dating. For the sake of consistency, present is universally accepted to be A.D. 1950 when discussing radiocarbon dates.

Culturally Modified Tree (CMT): A tree that has been intentionally altered as a result of aboriginal use of the forest, e.g., bark stripping, blazing, plank removal, testing, or felling. The term is commonly reserved for trees believed to have been modified by aboriginal people as part of a traditional economic system.

Ethnography: A descriptive, in-depth study of the culture of a particular social group through participatory observation and interviews with group members.

Feature: An archaeological component that cannot be removed intact from a site. Examples include houses, storage pits, or petroglyphs, or the traces of such components, such as house floors or hearths.

Fire-cracked rock: Stone that has been heat fractured as a result of rapid or alternate heating and cooling, caused, for example, by stone boiling or heating in campfires.

Impact Assessment: Archaeological work used to assess the possible impacts of a proposed development such as timber harvesting, mining, or construction on archaeological sites. Investigations often include documentary research, survey, sub-surface testing, and other lines of inquiry. Recommendations are generally made regarding the significance of any archaeological resources encountered and whether mitigative measures are required.

Old growth: Natural stands of old and young trees and their associated plants, animals, and ecological systems, which have remained essentially undisturbed by human activity. The age and structure of old growth forests varies by forest type and between biogeoclimatic zones.

Site: A place where physical evidence of past human activity has been detected. A wide

range of types of archaeological sites are known.

Site Significance: The importance of an archaeological site for scientific research, public education, or to a distinct cultural group.

Survey: The examination of areas for archaeological evidence based primarily on surface indications; sub-surface testing may also be employed.

Traditional Use Area: An area used by First Nations peoples while conducting traditional activities such as resource procurement or ceremonial activities. Such areas may or may not exhibit physical evidence of such use (i.e., archaeological sites).

Traverse: A linear sampling area.

APPENDIX II

CORRESPONDENCE FROM THE AHOUSAHT FIRST NATIONS

AHOUSAHT ADMINISTRATION
General Delivery
Ahousaht, B.C. V0R 1A0
Phone (250) 670-9563

September 1, 2000

Golder Associates Ltd.
500 - 4260 Still Creek Drive
Burnaby, BC
V5C 6C6

Attention: Andrew Mason

RE: Archaeological Assessment - Openit Peninsula

Thank you for giving Ahousaht the opportunity to express our concerns with regard to the archeology assessment you have completed at Openit.

First and foremost it IS Ahousaht Territory therefore no other First Nation should have input in this matter. Consequently all resources at this site lay within the Ha-houlth-ee of the Ahousaht Hawiilth. This site also forms a part of the land selected by Ahousaht in the Treaty process. Second, we understand the plans for this project include building docks adjacent to the property. In keeping with the philosophy of Hii-shuuk-ish-tsw-alk (everything is one), we use the water adjacent to the site in our herring fishery. Therefore we are very concerned with the impact on the environment and our right to access the fish.

With respect to the management of this archaeology sites identified in your draft report, we agree that the burial sites should be fully protected. Out of respect for the ancestral burial sites we would like to ensure that the site is protected and undisturbed by intruders for any reason. Ahousaht would like to bring your attention to clause 25 in the Interim Measures Extension Agreement -A Bridge to Treaty states that no CMT is to be disturbed ancient or otherwise, unless with written consent of the First Nation in whose territory the CMT exists. Therefore we do not agree with the Heritage Act that only pre-1846 CMT's are protected. We ask that all CMT's identified in your assessment are protected.

Ahousaht is prepared to meet with the owners of the cooperative to discuss details for the management of these sites as well as the medicinal greenery in this area.

Sincerely,

Anne M. Atleo
Chief Councillor

AMA/rvra