

COQUIHALLA HIGHWAY PROJECT
MERRITT TO PEACHLAND, B.C.

DETAILED HERITAGE RESOURCE INVENTORY
AND IMPACT ASSESSMENT

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MANAGEMENT SUMMARY

Between March and October, 1986, Arcas Associates undertook a detailed heritage resource inventory and impact assessment of the proposed Coquihalla Highway between Merritt and Peachland, British Columbia. This study was conducted in accordance with the Heritage Conservation Branch's (1982) "Guidelines for Heritage Resource Impact Assessment in British Columbia", under provincial permit number 1986-15. The objectives of this study were:

1. To identify and record all heritage sites within the proposed development study area;
2. To evaluate the significance of all heritage sites in the development area;
3. To identify and assess all impacts by the proposed development on heritage sites; and
4. To recommend viable options for the management of any adverse impacts which may take place as a result of the proposed development;

A total of 11 heritage sites were located during the course of this study. These sites consisted of seven historic homesteads and four small prehistoric lithic scatters. One of the lithic scatters also contained historic features including a section of the Hudson's Bay Company Fur Brigade Trail. These sites are described in Section 3.2. and listed in Table 2.

The recorded sites were assessed as to their scientific, public, ethnic, historical, and economic significance. Site assessment methodology is presented and described in Section 4.1. Each site was assigned either a low, low-to-moderate, moderate, high-to-moderate, or high heritage significance rating for each of the significance categories and was also given an overall rating. Of the 11 recorded sites, five were given an overall low significance rating and six were given a low-to-moderate overall rating. The results of the site significance assessment are presented in Section 4.2. and in Table 3.

A total of five sites (DkQv 42, DkQw 40, D1Rd 4, EaRd 15, and EaRd 16) will definitely be disturbed or destroyed by the highway construction, and two other sites (D1Rd 5 and D1Rd 6) are close to the impact zone and could be affected. The remaining four sites (D1Rc 1, D1Rc 2, D1Rd 2, and D1Rd 3) are well away from the construction impact zone, and will not be affected unless development plans are significantly changed. Results of the impact assessment are presented in Section 5.2. and on Table 2.

Based on the results of the site inventory, site significance evaluation, and impact identification and assessment, the following recommendation has been made concerning the heritage resources in the Merritt to Peachland section of the Coquihalla Highway:

1. That no further archaeological research be undertaken at any of the heritage sites recorded in the Merritt to Peachland heritage inventory.

In addition, two recommendations were made concerning the need for additional archaeological field work:

2. That final design plans for the Merritt to Aspen Grove portion of the highway be reviewed as soon as they become available to ensure that the final location of the impact zone lies within the area examined during this study. If some of the impact zone falls outside the area examined, then additional archaeological field reconnaissance may be necessary.
3. That a heritage inventory and impact assessment be undertaken of borrow pits, construction camps, or other ancillary development feature locations not examined in the present study, if such locations include terrain assessed as having low-to-moderate or higher heritage potential. These will consist of areas identified in 1987, and, therefore, not included in the mandate of the 1986 study. In the case of borrow pits, most of their locations have now been identified, and their locations and heritage inventory requirements are given in Table 4.

6.0. These recommendations are discussed in more detail in Section

ACKNOWLEDGEMENTS

The principals of Arcas Associates would like to thank the B.C. Ministry of Transportation and Highways and the Heritage Conservation Branch of the B.C. Ministry of Tourism for their support of this study. In particular, we would like to acknowledge the assistance provided by Mr. Brian Apland of the Heritage Conservation Branch, Victoria.

We would also like to thank our field and support staff. These persons are named in Section 1.3. of this report.

Informants who contributed to the ethnographic study are acknowledged in Appendix II. We would also like to thank Mrs. Dolores McLeod of Aspen Grove for providing much useful information about the history of the Aspen Grove area.

All errors, omissions, and other shortcomings in this report are, of course, ours alone.

TABLE OF CONTENTS

	Page
MANAGEMENT SUMMARY	iii
ACKNOWLEDGEMENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF APPENDICES	x
1.0. INTRODUCTION	1
1.1. BACKGROUND AND DEFINITIONS	1
1.2. SCOPE AND OBJECTIVES	3
1.3. SCHEDULE AND PERSONNEL	4
1.4. REPORT ORGANIZATION	5
1.5. CURATION	6
2.0. STUDY AREA: NATURAL AND CULTURAL SETTING.....	7
2.1. NATURAL SETTING	7
2.2. CULTURAL SETTING	9
2.3. PREVIOUS ARCHAEOLOGY	11
3.0. HERITAGE RESOURCE INVENTORY	14
3.1. PURPOSE AND METHOD	14
3.2. INVENTORY RESULTS	19
3.3. ETHNOGRAPHIC DATA	28
4.0. SITE SIGNIFICANCE EVALUATION	31
4.1. PURPOSE AND METHOD	31
4.2. SIGNIFICANCE EVALUATION RESULTS	33
5.0. PRELIMINARY IMPACT IDENTIFICATION AND ASSESSMENT	36
5.1. PURPOSE AND METHOD	36
5.2. IMPACT ASSESSMENT RESULTS	37

6.0. RECOMMENDATIONS AND CONCLUDING REMARKS	40
TABLES	43
FIGURES	49
REFERENCES CITED	71
APPENDICES	78

LIST OF TABLES

	Page
1. Percentage of highway right-of-way receiving field inspection between Aspen Grove and Peachland by 10 km section	43
2. Heritage resource inventory: site location, type, condition, size, and impact status	44
3. Heritage site significance evaluation results	46
4. Heritage inventory status for borrow pits associated with the Merritt to Peachland section of the Coquihalla Highway	47

LIST OF FIGURES

	Page
1. The Coquihalla Highway Project	49
2. The Coquihalla Highway Project: Phase III	50
3. Heritage site locations: eastern portion of the study area	51
4. Heritage site locations: western portion of the study area	52
5. DkQv 42 site map	53
6. DkQw 40 site map	54
7. DkQw 40, looking north	55
8. D1Rc 1 and 2 site map	56
9. D1Rc 1, looking west at the northern portion of site	57
10. D1Rd 2 site map	58
11. D1Rd 2, looking southeast	59
12. D1Rd 3 site map	60
13. D1Rd 3, looking southeast at standing log barn (HF 1)	61
14. D1Rd 4 site map	62
15. D1Rd 4, looking northeast	63
16. D1Rd 5 site map	64
17. D1Rd 5, looking southwest at log building (HF 1)	65
18. D1Rd 6 site map	66
19. D1Rd 6, looking north at log house (HF 2) and barn (HF 3)	67
20. EaRd 15 site map	68
21. EaRd 15, looking southeast	69
22. EaRd 16 site map	70

LIST OF APPENDICES

	Page
1. Archaeological Site Inventory Forms	78
2. Indian History and Knowledge of the Aspen Grove to Peachland area, by Dorothy Kennedy and Randy Bouchard, B.C. Indian Language Project	121

1.0. INTRODUCTION

Between March and October, 1986, Arcas Associates undertook, on behalf of the Design and Survey Branch of the B.C. Ministry of Transportation and Highways (MOTH) and the Heritage Conservation Branch (HCB) of the B.C. Ministry of Tourism, a detailed heritage resource inventory and impact assessment for the Merritt to Peachland section of the proposed Coquihalla Highway. This report presents the results of that study.

1.1. BACKGROUND AND DEFINITIONS

The new Coquihalla Highway is being constructed in three phases (Figure 1). Phase I, which extends between Hope and Merritt, was officially opened in the spring of 1986. Phase II, between Merritt and Kamloops, is presently under construction and is scheduled to open in the fall of 1987. The third phase of the Coquihalla Highway connects Merritt to the Okanagan Valley at Peachland, and involves the upgrading of existing Highway 5A between Merritt and Aspen Grove, and the building of a new road between Aspen Grove and Peachland across the Thompson Plateau (Figure 2). The upgraded Highway 5A will be a rural arterial divided highway (RAD 90) with a 2.5 m wide median (D. Perkins, personal communication 1987), whereas the new road between Aspen Grove and Peachland will be a four-lane expressway similar to the completed Phase I highway between Hope and Merritt. As of early March, 1987, clearing and grubbing of most of the Aspen Grove to Peachland section of this route had already been completed.

Several heritage studies have been undertaken as part of the overall Coquihalla Highway development (Section 2.3.). A detailed heritage resource inventory and impact assessment was undertaken of Phase II (Merritt to Kamloops) prior to the commencement of construction (Arcas Associates 1985a, 1986a). In addition, preliminary heritage studies were conducted on Phase III as part of the original environmental overview studies undertaken for this route. The heritage studies consisted of a preliminary heritage resources overview (Arcas Associates 1985b), and a

detailed heritage resources potential evaluation (Arcas Associates 1986b).

Arcas Associates was awarded the contract to undertake the detailed heritage resource inventory and impact assessment for the Aspen Grove to Peachland section of the Coquihalla Highway in May 1986. Because of an accelerated development schedule on the eastern end of the proposed highway route, some field work for this project was undertaken in March 1986 prior to the awarding of this contract. This field work was conducted under the auspices of the Phase II (Surrey Lake to Kamloops) detailed heritage resources inventory and impact assessment contract, but will be reported on here. The Phase III contract was later modified by the HCB to include the proposed upgrading of the Merritt to Aspen Grove section of Highway 5A.

Guidelines for a detailed heritage resource inventory and impact assessment study can be found in the HCB's "Guidelines for Heritage Resource Impact Assessment in British Columbia" (HCB 1982). A detailed heritage resource inventory and impact assessment study is concerned with the identification and evaluation of heritage resources within a proposed development area. Heritage resources consist of paleontological, archaeological, and historical sites and objects (Heritage Conservation Branch 1982). Paleontological sites contain the fossil remains of plants and animals. Archaeological and historical sites contain evidence (artifacts, etc.) for past human occupations. Archaeological sites are sites which can be investigated only by archaeological methods (primarily excavation), whereas historical sites can be studied not only by archaeological methods but also through the analysis of written records such as diaries, government documents, newspapers, etc. Archaeological sites are generally the product of preliterate peoples--in this case the Amerindians. Historical sites are associated with literate peoples such as the early Euro-Canadian settlers and modern Amerindians. Prehistoric sites predate the establishment of literate societies in an area; historic sites are, therefore, always historic in age, but archaeological sites may be either prehistoric or historic in age. In the

study area, the historic period begins between 1811 and 1820 with the establishment of fur trade routes through this area.

1.2. SCOPE AND OBJECTIVES

No formal terms of reference were issued for this project. However, specific recommendations as to the requirements of this study were made in the detailed heritage resources potential evaluation report written by Arcas Associates (1986b) as part of the Phase III preliminary environmental studies. These recommendations were used as informal terms of reference for the detailed heritage resources inventory and impact assessment. Specifically, five development areas or features were identified as requiring examination. These areas are:

1. The highway right-of-way between Aspen Grove and Peachland.
2. Interchanges.
3. Haul roads.
4. Construction camp locations.
5. Gravel extraction areas.

These features and the scope of the survey are described in detail in Section 3.1. These areas were later amended to include the proposed upgrading of Highway 5A between Merritt and Peachland.

The study was to be conducted in accordance with the requirements of a Detailed Impact Assessment as defined in the "Guidelines for Heritage Resource Impact Assessment in British Columbia" issued by the HCB (1982). The Detailed Impact Assessment has been referred to as a detailed heritage resources inventory and impact assessment throughout this report. These guidelines identify four objectives for a detailed heritage resources inventory and impact assessment (p. 18-19), and these objectives were adopted for this study as follows:

1. To identify and record all heritage sites located within the proposed highway corridor;

2. To evaluate the significance of all heritage sites identified within the highway corridor;
3. To identify and assess all impacts by the proposed highway development on the identified heritage sites; and
4. To recommend viable alternatives for the management of adverse impacts on heritage sites by the proposed development.

1.3. SCHEDULE AND PERSONNEL

The heritage resource inventory and impact assessment study was conducted according to the following schedule and by the following field personnel:

1. Ethnographic research: several days in 1985 as part of preliminary heritage resources overview study; six days in February 1986 as part of detailed heritage resources potential evaluation; six days in June 1986 as part of detailed heritage resources inventory. Research conducted by Randy Bouchard and Dorothy Kennedy, British Columbia Indian Language Project.
2. Heritage site survey and impact assessment of the easternmost 3.5 km of the proposed route between Trepanier Creek and Gorman's Mill: March 19 to 20, 1986. Survey conducted by Michael Rousseau and David Suttles.
3. Heritage site survey and impact assessment between Aspen Grove and Trepanier Creek: May 29 to June 6, 1986. Survey conducted by Richard Brolly and Geordie Howe.
4. Heritage site survey and impact assessment of Kentucky-Alleyne Lake construction access road: August 7, 1986. Survey conducted by Stephen Lawhead.

5. Heritage site survey and impact assessment between Merritt and Aspen Grove: September 22 to 27, 1986. Survey conducted by Michael Rousseau and Ian Kuijt.
6. Data processing: March 29 to 30, June 8 to 11, September 28 to 29, 1986, February 12 to 17, 1987.
7. Report preparation: February 17 to March 11, 1987.

Data processing (site form completion, data tabulation, typing of field notes, etc.) took place at the Arcas offices in Kamloops and Vancouver. The site forms were completed by Michael Rousseau, Richard Brolly, and Geordie Howe, and are included as Appendix I.

Randy Bouchard and Dorothy Kennedy of the British Columbia Indian Language Project conducted the ethnographic and ethnohistoric research, with the exception of interviews with two local "oldtimers" conducted by Michael Rousseau and Mary MacGregor to obtain information on historic sites in the Aspen Grove area, and archival research conducted by Stephen Lawhead at the Kamloops and Kelowna Museums, and at the Kamloops Land Title Office. Bouchard and Kennedy prepared Appendix II, which presents the results of their research.

Preparation of the final report was the responsibility of Stephen Lawhead. The report maps are the work of Arcas draftsman Jerry Pettyjohn. The report was typed by Mary Macgregor and Stephen Lawhead.

1.4. REPORT ORGANIZATION

This report begins with a brief MANAGEMENT SUMMARY which presents a synopsis of the project objectives, results, and recommendations. This summary is intended for those who wish an overview of the study.

The main body of the report consists of six sections and contains a detailed description of the objectives, methods, and results of the study. The first section, Section 1, provides a background to the project, identifies the scope and objectives of the study, defines certain basic terms, and gives both the schedule of activities and the personnel involved. Section 2 describes the study area natural environment as well as the ethnographic and archaeological setting. The methods and results of the heritage resource inventory are presented in Section 3. The significance of the identified heritage sites is evaluated in Section 4, and Section 5 presents an assessment of possible impacts on the heritage sites by the proposed development. Recommendations and some concluding remarks are presented in Section 6.

The tables and figures are presented at the end of the text. A list of references and two appendices--the Archaeological Site Inventory forms and the results of the ethnographic research--conclude the report.

1.5. CURATION

All notes, records, artifacts, and photographs generated by this study are on deposit with the Archaeology Division of the British Columbia Provincial Museum, Victoria, B.C. They can be accessed by contacting the Supervisor of Collections, Archaeology Division, British Columbia Provincial Museum, 601 Belleville Street, Victoria, B.C. V8V 1X4, telephone: (604) 387-2414.

2.0. STUDY AREA: THE NATURAL AND CULTURAL SETTING

The study area consists of the highway corridor for the Merritt to Peachland section of the Coquihalla Highway. In addition, it includes areas to be affected by ancillary project developments such as haul roads, construction camps, and gravel extraction pits. The proposed highway will begin at Merritt in the Nicola Valley, and extends 25 km south-southeast to Aspen Grove following Highway 5A. Highway 5A, an existing two-lane road, will be upgraded to a four-lane highway. From Aspen Grove, a new highway will extend 84 km eastward across the Thompson Plateau to meet with Highway 97 near Peachland (Figure 2).

A highway corridor width of 100 m was used between Aspen Grove and Peachland, whereas a 25 m-wide corridor on either side of Highway 5A was used between Merritt and Aspen Grove. The study area includes two major interchanges, one near Aspen Grove where the road diverges from Highway 5A, and the other in the Okanagan Valley at the intersection with Highway 97. Other ancillary features associated with this project are discussed in Section 3.1.

2.1. NATURAL SETTING

A variety of environmental reports were prepared as part of MOTH's Functional Design Study of the Merritt to Peachland section of the Coquihalla Highway Project. These study reports deal with a variety of environmental concerns such as fisheries, wildlife, surficial geology, vegetation, hydrology, and agriculture. In addition to these reports, detailed terrain mapping is available showing the vegetation, landform, and wildlife capability characteristics of the study area. This detailed information is available at the MOTH offices in Victoria, and will not be repeated here. However, a brief description of general study area characteristics is germane, as it provides a background for the discussion of study methodology presented in Section 3.1.

The elevation of the highway route varies from about 500 m a.s.l. at the Highway 97 interchange in the Okanagan Valley to over 1,700 m a.s.l. on the highest point of the Thompson Plateau. From an elevation of about 665 m in the Nicola Valley near Merritt, the route quickly climbs out of the Nicola Valley, staying between 1000 and 1100 m for most of the distance along Highway 5A to Aspen Grove. Eastward from Aspen Grove, the route again climbs and stays above the 1500 m elevation mark for most of the traverse of the Thompson Plateau. About 20 km from the Okanagan Valley, the route begins a relatively quick descent along the steep slopes of the Trepanier Creek gully. The lowest point along the entire route occurs at the highways eastern end in the Okanagan Valley.

At lower sections, such as in the Nicola and Okanagan Valleys, the study area is characterized by hot summers, moderately cold winters, and low annual precipitation. With increasing altitude there is a corresponding decrease in temperature and increase in annual precipitation. These temperature and precipitation differences are significant enough to affect local vegetation patterns, and as a result, the highway route passes through several biogeoclimatic zones (Krajina 1965).

The Ponderosa Pine-Bunchgrass zone occurs in the Nicola and Okanagan Valleys at elevations up to 900-1,000 m a.s.l.. Ponderosa Pine is the only climax tree species, and it occurs in open parkland-like stands. Grasses such as bluebunch wheatgrass (Agropyron spicatum) and needleandthread grass (Stipa comata), and shrubs such as sagebrush (Artemesia tridentata), rabbitbush (Chrysothamnus nauseosus), and saskatoon (Amelanchier alnifolia) dominate the steppe-like plant communities.

In the western portion of the study area, the Interior Douglas Fir zone occurs between elevations of 1,000 and 1350 m a.s.l., dominating much of the area between Merritt and Aspen Grove and extending up to Shrimpton Creek on the Thompson Plateau. The climax tree throughout this zone is Douglas-fir (Pseudotsuga menziesii var. glauca). The characteristic ground cover in this area includes pinegrass (Calamagrostis rubescens), kinnikinnick (Arctostaphylos uva-ursi), flat-topped spirea

(Spirea lucida), and several other low-lying shrubs. This zone is also extensive in the eastern portion of the study area, occurring throughout most of the Trepanier Creek Valley and onto the lower portions of the Thompson Plateau.

Two biogeoclimatic zones occur on the higher portions of the Thompson Plateau. The Montane Spruce and Engelmann Spruce-Subalpine Fir zones occur at elevations above 1350 m a.s.l., and are characterized by dense stands of spruce (Picea engelmannii) and subalpine fir (Abies lasiocarpa), although lodgepole pine (Pinus contorta) stands can be found in old burns and logged areas. This zone is often characterized by a dense forest understory containing several different shrub species such as the white-flowered rhododendron (Rhododendron albiflorum).

A wide variety of wildlife can be found within these biogeoclimatic zones. Major species include mule deer (Odocoileus hemionus), moose (Alces alces), black bear (Ursus americanus), cougar (Felis concolor), grouse (Galliformes spp.), and trout (Salmo sp.). Faunal and floral resources available to the Native inhabitants of the study area are discussed in Appendix II.

2.2. CULTURAL SETTING

The Indian history of the study area has been summarized in Appendix II. The primary ethnographic sources for the study area include Teit (1900, 1930), Hill-Tout (1911), Boas (1895), Dawson (1892), Lerman (1952-54), and Kennedy and Bouchard (1985). Historical data on the Nicola and Okanagan Valley areas can be found in the journals of the Nicola Valley Historical Society (1977-present) and Okanagan Historical Society (1931-present), respectively. A summary of the history of mining in the western portion of the study area can be found in Cockfield (1948), and ranching history is presented in Weir (1964) and Woolliams (1979).

The reader is referred to Appendix II for a description of local Indian history and ethnography. A brief summary of the Euro-Canadian history of the study area follows.

The first Euro-Canadian explorers in the study area were David Stuart and Alexander Ross of the Pacific Fur Company, who journeyed through the Okanagan Valley to "Cum Cloups" (Kamloops) in 1811 to trade furs with the Shuswaps. Alexander Ross established a small trading post there in May of 1812, and in November of the same year a second trading post was built by Joseph La Rocque of the North West Fur Trading Company.

The fur trade route through the Okanagan Valley was part of a 1,500 mile-long brigade trail that moved furs from the British Columbia northern interior to Fort Vancouver on the Columbia River. In 1813, the American Pacific Fur Company sold out to the North West Company, and the route became a "Canadian" venture. The route was used by the North-West Company until 1821, when they amalgamated with the Hudson's Bay Company, and this new company (which retained the Hudson's Bay name) used this route until the late 1840s when it was abandoned because of the drawing of the Oregon boundary line.

A trail used by the fur traders was also present in the western portion of the study area. This trail appears on an 1826 map by Archibald MacDonal and extended from Quilchena to Princeton through the Aspen Grove. According to pre-emption maps dating to the 1890s, this trail was later referred to as the Nicola-Granite Road.

The fur trade industry flourished into the 1860s, but declined rapidly and was abandoned in the 1870s. After the decline of the fur trade these trails were used by miners, settlers, and others as access routes into the British Columbia interior.

The first European to journey through the Nicola Valley, at the northwest end of the study area, was A.C. Anderson in 1847 (Nicola Valley Historical Quarterly 1977). Permanent European occupation of the Merritt-Nicola Lake area began in the late 1860s. In the Aspen Grove

area the first homesteads date to the late 1880s, whereas the first settlements in the Okanagan Valley date to the 1860s around Kelowna (Buckland 1948), but the Peachland area was probably not settled until at least the 1880s. Ranching and farming were the main economic activities of the first settlers, although logging and mining also soon became important.

2.3. PREVIOUS ARCHAEOLOGY

For a general summary of previous archaeological work in the B.C. southern interior, and for a culture-historical synthesis of this region, refer to Rousseau and Richards (1985) and Arcas Associates (1986c). A brief summary of previous archaeological work in the vicinity of the study area follows. This includes a discussion of previous archaeological work associated with the Coquihalla Highway Project.

In the Nicola Valley, pioneering archaeological investigations were conducted by Harlan I. Smith (1899), who located and tested several sites. Almost 70 years later, Wyatt (1969, 1970, 1972) undertook a site inventory and test excavation program in several locations in the Nicola Valley. At about the same time, Archer (1971) carried out excavations at the Monck Park site on Nicola Lake. Since the early 1970s, archaeological research in the Nicola Valley has consisted primarily of linear corridor studies for B.C. Hydro transmission lines (Mohs and Hoy 1973; Weber and Seymour 1976; Warner 1980; Aresco Ltd. 1981; Bussey 1982), highway and road surveys (Robinson and St. Pierre 1973; Bates and McMath 1976; Rousseau and Richards 1980; Broly 1983), and pipeline surveys (Bernick and Eldridge 1978). Exceptions to these corridor studies include the excavation of a single human burial west of Merritt in 1976 (Carfantan 1977), and an industrial development assessment near Godey Creek in 1978 (Rousseau and Howe 1978).

In the Okanagan Valley, a variety of heritage studies have been conducted including site inventory (Caldwell 1954; Grabert 1968; Lawhead 1975; Lawhead and McAleese 1976; Rousseau and Wales 1977), site excavation

(Grabert 1974; Rousseau 1984), and heritage overview (Arcas Associates 1986d) projects. Previous archaeological research in the central Okanagan up to 1984 is summarized in Rousseau (1984). In a heritage overview study conducted by Arcas Associates (1986d) for the proposed Westside Road, almost 150 recorded heritage sites were noted on the western side of Okanagan Lake between Peachland and O'Keefe at the northern end of Okanagan Lake. Most sites in the Okanagan are located close to the lakeshore, but sites can also be found on the valley-side slopes.

Archaeological research has occurred much less frequently in the upland areas than in the major river valleys, and has consisted primarily of linear corridor studies (e.g., Haugen and Galvin 1977; Roberts and Brolly 1976; Warner 1980). An exception to this is the major excavation project carried out by Arcas Associates (1983, 1986c) in the Highland Valley north of Merritt. This study demonstrated that this upland area had been used by aboriginal peoples for at least the last five millenia.

A variety of archaeological studies have been undertaken in conjunction with the Coquihalla Highway Project. Two heritage resource overview studies were conducted for the Merritt to Kamloops section (Phase II) of the proposed Coquihalla Highway, prior to the selection of the final highway route. Bussey (1984) evaluated the potential impact of highway route that approximately follows the present Merritt to Kamloops highway (Highway 5), whereas Archer (1981) examined the heritage resource potential of the highway corridor that was eventually selected (Figure 1). In 1984, Arcas Associates (1985a) conducted a heritage site inventory and impact assessment of the Merritt to Surrey Lake section of this highway corridor and located eight new sites consisting of seven prehistoric lithic scatters and one historic sawmill. In the following year, the Surrey Lake to Kamloops section of this route was examined, and three heritage sites--two prehistoric lithic scatters and one historic homestead--were located (Arcas Associates 1986a).

Two heritage studies associated with Phase III of the Coquihalla Highway were carried out prior to the present study. These consisted of a preliminary heritage resource overview (Arcas Associates 1985b) and a

detailed heritage resource potential evaluation (Arcas Associates 1986b). These studies were undertaken to assist in the selection of the final route of the Aspen Grove to Peachland section of this highway. These studies were largely archival, and did not result in any new heritage sites being recorded in the vicinity of the proposed development project.

To summarize, although considerable archaeological research has taken place in the Nicola and Okanagan valleys, very little archaeological research has taken place in the immediate vicinity of the Merritt to Peachland Highway route, and, prior to the present study, no heritage sites had been recorded within or close to the development impact zone.

3.0. HERITAGE RESOURCE INVENTORY

In this section, the methodology and results of the heritage resource inventory are presented. It includes the results of the detailed inventory of the highway right-of-way and associated ancillary features, and a summary of the historic site locations and traditional native resource areas identified in the ethnohistoric and ethnographic research.

3.1. PURPOSE AND METHOD

A heritage resource inventory involves "... a program of in-field identification of heritage resources within a proposed development area" (HCB 1982:20). A heritage inventory is usually accomplished through a field survey (or reconnaissance) which is an inspection of land for the purpose of locating heritage sites and objects. The purpose of such a study is to obtain a heritage resource data base for the subsequent assessment of the kind and scale of impacts which might be generated by the proposed development project.

As discussed in Section 1.2., five development areas or features required examination in the heritage inventory. These five areas were:

1. The highway right-of-way

The proposed right-of-way between Aspen Grove and Peachland was assigned heritage resource potential ratings in the preliminary environmental studies of this route (Arcas Associates 1986b). A five-fold rating scheme was used, with a 1 being the highest rating and a 5 the lowest. In this rating system, Class 5 terrain was considered to have low to nil heritage potential.

The inventory field crews were given the heritage potential rating maps, and were instructed to examine only areas with a heritage

potential better than Class 5 (i.e., Class 1 to 4). Class 1 to 4 terrain was relatively common on the western and eastern ends of the Aspen Grove to Peachland section, but occurred infrequently in the higher portions of the Thompson Plateau. Because of the preliminary nature of the heritage potential ratings, the field crews were also instructed to use their own judgement and to change the potential ratings to suit the conditions they observed in the field.

The approximate percentage of right-of-way inspected (i.e., considered to have higher than Class 5 heritage potential) by 10 km section beginning at Aspen Grove is presented in Table 1. As can be seen in this table, most of the area examined was on the eastern and western ends of the route. A right-of-way width of 100 m was used in the field reconnaissance of the Aspen Grove to Peachland section. This is similar to right-of-way widths used in the detailed heritage inventories undertaken as part of Phase II of the Coquihalla Highway Project (Arcas Associates 1985a, 1986a).

2. Interchanges

Two major proposed interchanges were examined as part of this study. These interchanges were located in the Okanagan Valley where the proposed new highway meets Highway 97, and near Aspen Grove at the intersection with Highway 5A (Figure 2). Several smaller interchanges are planned between Aspen Grove and Peachland, but these interchanges were either in low heritage potential areas, or were mostly included within the 100 m right-of-way width used in the field reconnaissance.

Detailed design plans were available for the Highway 97 interchange, and this interchange area was inspected in detail. Detailed plans were not yet available for the interchange near Aspen Grove, however, and only the approximate interchange area was known. As a result, a relatively large area was examined for this

second interchange, to ensure that the interchange area was completely covered.

3. Haul roads

Where possible, haul (construction) roads associated with the highway construction project were examined. Ideally, such inspection should occur prior to road construction, but in most cases this was not possible as detailed plans for such roads were not available, nor were planned roads well-flagged in the field. Field inspection, therefore, was often conducted after the roads had been constructed. This was generally not a major problem, however, as most of the haul roads were in low heritage potential areas, or were within the 100 m wide right-of-way used in the field reconnaissance. In the latter instance, these roads provided subsurface exposures that otherwise would not have been available.

One construction access road that was in a moderately high heritage potential area was the Kentucky-Alleyne Lake access road south of Aspen Grove. This road was widened and upgraded for heavy equipment traffic, but was inspected prior to most of the upgrading, and no heritage sites were located.

4. Construction camps

At this time, the location of possible construction camps is not known, although it is likely that no construction camps will be needed for this route (D. Perkins, personal communication 1987). However, if construction camps do become necessary, their locations should be examined prior to setup if the camp is located in areas assessed as having Class 4 or higher heritage potential.

5. Borrow (gravel extraction) areas

As of November, 1986, the locations of gravel extraction areas had not been finalized, although a number of areas had been proposed

(Jeff Stock (MOTH), personal communication 1986). Many of these areas are located on the high elevation Thompson Plateau, have low heritage potential, and do not require further examination. Some areas, however, particularly near Aspen Grove and between Aspen Grove and Merritt, have higher heritage potential and require an in-field inspection. This work was not possible as part of the present study, however, as the final location of many of the borrow areas has only recently been identified. In addition, winter weather conditions prevented the examination of some of the proposed areas. Recommendations concerning further work in these areas are presented in Section 6.0.

As noted earlier, the Merritt to Aspen Grove section of the proposed route was added to the heritage inventory study in the fall of 1986. Construction in this section involves the upgrading of Highway 5A to a four-lane arterial route (Section 1.1). Because detailed plans for this upgrading were not available, a 25 m-wide corridor on each side of Highway 5A was examined, as it was estimated that this would include most of the impact zone. Only areas judged as having moderate (Class 3) or higher heritage potential were examined. A high percentage of the new right-of-way was inspected, however, as Highway 5A passes through several areas of good heritage potential between Merritt and Aspen Grove.

As of March, 1987, detailed plans for this upgrading project were not yet available, although preliminary route selection has been completed. It appears that the 25 m-wide corridor used during the field reconnaissance has adequately covered the project impact zone, with the exception of the north end of the highway where the road will take a new route to achieve a 6% grade on the hill coming out of Merritt (D. Perkins, personal communication 1987). An in-field inspection may be necessary in this area; see Section 6.0. for a discussion of additional work that may be needed.

The site reconnaissance of the right-of-way and ancillary development features was carried out on foot using vehicular access. Access to the western half of the study area was via Highway 5A and as-

sorted logging and highway construction roads, whereas access to the eastern half of the study area was via Highway 97 in the Okanagan Valley, the Brenda Mine road, and assorted logging, mining, and highway construction roads. In several places, particularly on the upper portions of the Thompson Plateau, vehicle access was difficult and some "bushwhacking" was necessary.

Standard archaeological survey techniques were employed. Man-made and natural exposures were inspected for archaeological and paleontological evidence. In areas with little surficial vegetation and good ground exposure, the surface was systematically traversed and inspected for structural, artifactual, and other evidence for past human occupation or utilization. Locations with a thick forest litter mat were examined using shovel tests, with these tests placed in areas assessed as having a high potential for containing heritage sites. The shovel tests measured 35 cm by 35 cm and were excavated to the C soil horizon. Several specific environmental attributes were used to assess the heritage potential of an area. These included surface topography, the nature of the soil matrix, stability of the land surface, exposure to sunlight, ground surface slope, and degree of erosion. Areas considered to have good heritage site potential included glacial outwash and river terraces, alluvial fans, elevated landforms, and locations in close proximity to rivers, streams, lakes, and marshes.

Sites recorded during this study were photographed with 35 mm color print and slide film, mapped by pace and compass, plotted on project design maps, and recorded on B.C. Archaeological Site Inventory forms (Appendix I).

Each site in the study area was briefly documented as to type (see below), size, condition, the presence or absence of buried cultural deposits, and, when possible, age and cultural affiliation. Additional information on recorded historic sites was collected, where possible, from local archives and from interviews with local "oldtimers". The site classification scheme used in this study follows the site typology estab-

lished for use with the B.C. Archaeological Site Inventory forms (Heritage Conservation Branch n.d.: Appendix E).

Heritage sites are numbered according to the Borden Site Designation Scheme (Borden 1952) which is used throughout Canada. This scheme is based on the maps of the National Topographic Series and uses latitude and longitude to pinpoint a site's location. The four alternating upper and lower case letters (e.g., D1Rd) designate a specific 10' latitude (11.5 miles north-south) by 10' longitude (7.0 miles east-west) block. Sites are numbered sequentially within this block based (usually) on their date of discovery (i.e., D1Rd 4 would be the fourth site recorded in block D1Rd).

3.2. INVENTORY RESULTS

A total of 11 heritage sites were located during this study. Eight of these sites (DkQv 42, D1Rc 1, D1Rc 2, D1Rd 2, D1Rd 3, D1Rd 4, D1Rd 5, and D1Rd 6) were of historic age or had an historic component. These sites consisted of seven homesteads and one site containing a possible section of the Hudson's Bay Company Fur Brigade Trail, an historic rock feature (petroform), and pre-W.W.I historic garbage. Four sites (DkQv 42, DkQw 40, EaRd 15, and EaRd 16) were of prehistoric age or had a prehistoric component. These four sites all contained small scatters of stone artifacts.

Of these 11 sites, five are located entirely or partly within the development impact area, two are adjacent to the impact zone, and four are a considerable distance away from the proposed development area. The four sites away from the development impact zone are D1Rc 1, D1Rc 2, D1Rd 2, and D1Rd 3. D1Rc 1 and D1Rc 2 were recorded because plans available at the time suggested that these two sites were adjacent to the highway right-of-way. D1Rd 2 and D1Rd 3 were recorded because of the uncertainty in the location of the Highway 5A interchange. Although present design plans indicate that these sites are not really within the

defined "study area", they will be kept as part of the inventory in case of changes or additions to the design plans.

Site descriptions and the results of any evaluative testing are presented below. Each of the sites recorded in the study are briefly described in alphanumeric order, which roughly corresponds to presenting the sites from east to west. Site locations are shown on 1:100,000 scale maps in Figures 3 and 4. Detailed site maps (usually 1:1,000 scale) and photos are presented in Figures 5 to 22. Table 2 summarizes the site data, and Archaeological Site Inventory forms are presented in Appendix I.

The description of the sites within the study area is followed by a brief discussion of the results of the ethnohistoric research. A report on the ethnohistoric research conducted by Randy Bouchard and Dorothy Kennedy of the British Columbia Indian Language Project is presented as Appendix II.

DkQv 42 (Figure 5)

This site is located in the northeast corner of Lot 2690 on the west side of Okanagan Lake between Peachland and Westbank (Figure 3). The site is about 4.3 linear km northeast of the mouth of Trepanier Creek, and is on the north side of Highway 97. It measures 400 m north-south by 25 m east-west, and is bounded by Highway 97 to the east and west, and a gravel quarry and terrace edge to the south. The northern site boundary is in the middle of an open terrace (Figure 5).

DkQv 42 contains both prehistoric and historic cultural material including three stone artifacts, pre-W.W.I historic garbage, an historic rock alignment (petroform), and a 225 m-long section of the Hudson's Bay Company Fur Brigade Trail (Figure 5). The stone artifacts consist of a large red chalcedony knife, a proximal portion of a stemmed (?) basalt projectile point, and a yellow/brown chalcedony flake core. The pre-W.W.I historic garbage consists primarily of solder-top tin cans. The petroform is about 20 m long (east-west) by 1.0 m wide and 0.5 m

high, and may be an historic survey marker as it lies along the northern boundary of Lot 3493. Local landowner, Michael Ryder, confirmed that the trail remnant was indeed part of the Hudson's Bay Company Trail (personal communication to Michael Rousseau 1986).

The site area has been disturbed by dirt roads and by a small drive-in theatre (1950s?) located in the large clearing which contains most of the site. It is probable that a depression and collapsed remains near the center of this clearing associated with parallel earthwork hummocks was the location of the projection shack.

About 10 shovel tests were excavated in judgementally selected areas on the flat terrace which contains most of the site. No cultural material or features were located in these tests.

It appears that the prehistoric artifacts at DkQv 42 were probably deposited along an aboriginal trail leading up from the lakeshore through the narrow pass to the northeast. This aboriginal trail was later used as part of the Fur Brigade Trail. Surveyor's maps dating to the early 1900s show this trail was still in use through Lot 2690.

The pre-W.W.I historic debris and the petroform at this site probably date to the late 1800s or early 1900s and the first homesteads in this area. Early survey plans for this area give an indication of the age some of this historic debris, as the lot boundaries for Lot 2690 were surveyed in August, 1904, and the boundaries of Lot 3493 were surveyed in March, 1913.

DkQw 40 (Figures 6 and 7)

This site is also located within Lot 2690 on the west side of Okanagan Lake (Figure 3). DkQw 40 is about 3.5 linear km northeast of the mouth of Trepanier Creek, and 75 m east of Drought Creek. The site measures 40 m north-south by 25 m east-west, and is located on a large flat terrace on the east side of Drought Creek (Figures 6 and 7).

This site is a small lithic scatter consisting of three small basalt flakes. The flakes were found along a dirt road in an area containing numerous car wrecks and other modern garbage (Figure 7). According to a local resident (M. Ryder, personal communication to M. Rousseau 1986), a projectile point was collected 75 m south of the site area, but no evidence could be found for other cultural material in this area.

About 10 shovel tests were excavated in judgementally selected areas near the recovered flakes and along the creek margin, but no cultural material or features were observed. This site appears to be the remains of a very small prehistoric campsite, containing very little cultural material.

DIRc 1 (Figures 8 and 9)

This site is located in District Lot 2711, on the north bank of Pothole Creek about 11.5 km east-southeast of the community of Aspen Grove (Figure 4). It is located near the km 50 marker of the proposed highway right-of-way, and is on Douglas Lake Cattle Company property. A large grass meadow is adjacent to this site.

The site consists of 11 historic architectural features including log cabins, log barns, a chicken house, sheds, and an outhouse (Figures 8 and 9). At least one of the structures is still in use today, possibly by hunters or hay cutters. These structures are described in detail on the DIRc 1 Archaeological Site Inventory form in Appendix I. The site also contains other features such as a plank cattle chute and an old hay wagon; however, noticeably absent is historic garbage such as tin cans, bottles, and other household refuse.

The age of this site is uncertain. The Crown Grant for the property was issued to Sarah Tyrer, Oliver Hubbard, and Florence Goulding on October 26, 1923, but the buildings on the property were built at least 10 years prior to the issuance of the Crown Grant, as one of the log buildings (Appendix II) was lined with 1913-1915 newspapers and

magazines. Apparently the homesteads on lots 2711 and 2712 (see below) were amalgamated sometime after the 1930s by a man named Harry Gilroy (Norman Wade, personal communication to Mary MacGregor, 1987). Gilroy sold this property to Norman Wade in 1957, and Mr. Wade lived there until 1962. This property is currently used by the Douglas Lake Cattle Company as a wild hay ranch.

D1Rc 2 (Figure 8)

This site is located in District Lot 2712, about 375 m south-east of D1Rc 2 (Figures 4 and 8). It is situated on the south side of Pothole Creek, just above the creek and the wet meadow through which it flows. This site is also on Douglas Lake Cattle Company property.

The site consists of five architectural features including two log barns, a log bunkhouse, and two root cellars (Figure 8). These structures are described in detail on the D1Rc 2 Archaeological Site Inventory form in Appendix I.

There were no diagnostic artifacts observed at this site, and its age is uncertain. The Crown Grant for this property was issued to Hans A. Haferdahl on October 13, 1930, but based on the poor condition of the extant buildings when compared with nearby D1Rc 1, it is probably at least as old as that site, which we know dates to at least the 1910s. As discussed above, Lots 2711 and 2712 were later amalgamated and sold to Norman Wade in 1957, and he lived there until 1962. The property is currently being used by the Douglas Lake Cattle Company as a wild hay ranch.

D1Rd 2 (Figures 10 and 11)

This historic homestead (?) is located 1.0 km north of the community of Aspen Grove in the southeast corner of District Lot 1327 (Figure 4). The site is 75 m east of Highway 5A and 150 m north of a small unnamed lake on Otter Creek (Figures 10 and 11). At an elevation of 1065 m a.s.l., the site is about 5 m below the level of the present highway.

This site consists of the foundation of a small structure associated with porcelain fragments and early historic green and brown bottle glass. The foundation measures 3.0 m north-south by 2.5 m east-west by 1.0 m deep, and contains several rough-hewn planks and square iron nails which are probably the remains of the building superstructure. This building had a southeasterly facing entrance, and was probably a small cabin or storage shed.

Based on the presence of square nails, this site probably dates to about 1890-1910. Local informant, Dolores McLeod, was questioned about this foundation but she could not identify the occupants or use of this structure. According to Land Registry records, the Crown Grant for this property was issued to Kossuth Garcia on March 14, 1907, and the cultural remains on the property could date to this time period.

DIRd 3 (Figures 12 and 13)

This historic homestead and schoolyard is known locally as William (Smoky) Chisholm's place (D. McLeod, personal communication to M. Rousseau 1986). It is located 2.5 linear km north of Aspen Grove in District Lot 1337 (Figure 4). The site measures 60 m north-south by 90 m east-west, although much of this area has been disturbed by Highway 5A which intersects the western edge of the site (Figure 12). The extant portion of the site is 1 to 2 m higher than the present level of the highway.

This site consists of a log barn (HF 1) (Figure 13) 10 m west of the highway, and a rectangular rock building foundation (HF 2), a small rectangular cultural depression (HF 3), an outhouse (HF 6), a rock cairn (HF 4), and an historic refuse dump (HF 5) on the east side of the highway (Figure 12).

According to D. McLeod (personal communication to M. Rousseau 1986), this site was first occupied around 1910-1911. The crown grant for this property was to William Chisholm and is dated March 2, 1911. Chisholm built his house on the east side of the present highway (D.

McLeod, personal communication to M. Rousseau 1986). His house was moved to the north end of Tule Lake where it was used as a school until it burnt down in the winter of 1920. A new school was built at Tule Lake in 1921, and this building was moved back to William Chisholm's place some time in the 1930s. The school was abandoned and dismantled in the mid-1940s. The rectangular rock foundation at D1Rd 3 may be the foundation of this school.

The barn on the west side of the highway was originally from Harry Charter's place, which was located about 1 km to the south on the east side of the present highway (but outside of the study area). The date that this building was moved to its present location could not be determined.

D1Rd 4 (Figures 14 and 15)

This historic homestead is known locally as the "Marshall place". It is located 3.8 linear km north of the community of Aspen Grove in the southwestern corner of District Lot 4276 (Figure 4). The site measures 15 m north-south by 15 m east-west (Figure 14). It is situated well away from Highway 5A, but was recorded because of the potential conflict with the proposed interchange and new highway in this area.

This site consists of a standing log cabin measuring 5 m by 5 m by 2.5 m high (Figure 15). The cabin is set in a small clearing southwest of a large swampy lowland area (Figure 14).

This site was originally homesteaded in 1910 by Isabelle Shuttleworth, the sister of D. McLeod (D. McLeod, personal communication to M. Rousseau 1986). According to Mrs. McLeod, Mrs. Shuttleworth lived there intermittently until 1918, when she sold the place to Deacon Marshall who lived there until 1922. However, the Crown Grant was issued on October 8, 1920, to Matilda Paige and Isabelle MacKay (Shuttleworth?), raising some question about these dates. The cabin has apparently been abandoned since the 1920s.

D1Rd 5 (Figures 16 and 17)

This historic homestead is known locally as the "Garcia homestead" (D. McLeod, personal communication to M. Rousseau 1986). It is located about 750 m southeast of Tinmilsh Lake within the southern half of District Lot 2817 (Figure 4). It is situated on the west side of Highway 5A, about 20 m from the present road right-of-way (Figure 16).

This site contains a number of architectural features, although only two of these features are considered to be heritage features and were recorded as part of this site. The remaining features at this site are modern buildings. The two heritage structures are a large log house (HF 1) (Figure 17) measuring ca. 10 m north-south by 6 m east-west, and a smaller log house (HF 2) measuring ca. 7 m north-south by 5 m east-west. The larger structure was built just prior to 1910, and was used until 1926, whereas the second structure was built in 1924 and is still in use today. In addition, there used to be a cabin on the east side of the highway, but it burnt down, and two barns were destroyed when the highway was built.

This homestead was initially settled by John Garcia shortly after 1900 (D. McLeod, personal communication to M. Rousseau 1986), although the Crown Grant for this property was not issued to Mr. Garcia until February 21, 1924. D. McLeod, our principal historical informant for this area, was born in the large log structure in 1910, and she has lived at this homestead all of her life.

D1Rd 6 (Figures 18 and 19)

This historic homestead is known locally as the "Charter's place" (D. McLeod, personal communication to M. Rousseau 1986). It is located 1.0 km north of Tinmilsh Lake in the northwest corner of District Lot 385 (Figure 4). It is situated on the east side of the highway (Figure 18) at an elevation of 1065 m a.s.l. about 5 m below the level of the highway.

This site consists of four historic features: a rock building foundation (HF 1), a log cabin (HF 2), a log chicken coup (HF 3), and a log barn (HF 4) (Figures 18 and 19). The inside of the building foundation contained scattered stove parts, metal cooking utensils, glass, porcelain, and other household refuse.

According to D. McLeod (personal communication to M. Rousseau 1986), this homestead was initially occupied by Harry and Pauline Charters just prior to 1900. However, the Crown Grant for this property was issued to George Tinmilsh on August 22, 1887. An 1893 pre-emption map for this area shows George Tinmilsh living on this lot. Mr. Tinmilsh was "a naturalized Indian", whose name was given to a nearby creek and lake. The 1893 pre-emption map also shows a section of the Nicola-Granite Road (formerly the fur brigade trail?) passing through this property, although all evidence for this former road appears to have been destroyed by the construction of Highway 5A and modern ranching and farming.

The Charters left the property around 1910, although their daughter Lillian continued to live there until about 1915. At this time the property was rented to the McAvoy's for a few years. Later, in the early 1940s, the property was purchased by the Douglas Lake Cattle Company, and Reginald and Alice Shuttleworth moved in. It is not certain when the site was abandoned.

EaRd 15 (Figures 20 and 21)

This small lithic scatter is located on the west side of Courtney Lake between Highway 5A and the lake (Figure 4). The site is in District Lot 4240, and is 350 m north of the south boundary of this lot and is immediately south of a small roadside picnic site (Figures 20 and 21). The site measures 50 m north-south by 60 m east-west, but may have been larger prior to the construction of the highway and the picnic site.

A stemmed basalt Shuswap Horizon (ca. 4000-2400 years before present [BP]) projectile point was found in the cut bank near the southwest corner of the picnic area, and a white chalcedony corner-notched

Plateau Horizon (ca. 2400-1200 years BP) projectile point was found near the lake where people had been digging for worms. A third artifact, an unmodified basalt (?) flake, was also found in this area.

Several shovel tests were excavated throughout the site area, but no additional cultural material or any cultural features were observed. Ground exposures caused by gopher activity and by people digging for earthworms were also examined with similar results, and it appears that the cultural content of this site is very low.

EaRd 16 (Figure 16)

This small lithic scatter is located on the western shore of Courtney lake in the northeastern corner of Lot 4240 (Figure 4). The site is on the east side of the highway about 75 m north of the small picnic site and 250 m north of EaRd 15. The site measures 15 m north-south by 15 m east-west (Figure 16).

Three basalt flakes were observed at this site: two on the surface and one in a shovel test placed near these surface items. Five shovel tests were excavated in the site area, and no additional cultural material or cultural features were observed. In addition, there is reasonably good ground exposure because of gopher activity, and no other artifacts were observed on the surface.

This site appears to represent a small prehistoric campsite or station of unknown age. It has a very low cultural content and a small spatial extent.

3.3. ETHNOHISTORIC AND ETHNOGRAPHIC DATA

The purpose of the ethnohistoric and ethnographic research was to obtain archival and informant information about possible historic sites and Native landmarks or resource utilization areas in the vicinity of the highway impact zone. Most of this research was conducted by Doro-

thy Kennedy and Randy Bouchard of the British Columbia Indian Language Project. Some preliminary archival research was also conducted by Stephen Lawhead at the Kamloops and Kelowna Museums and at the Kamloops Land Title Office. Much of the information on the history of the Aspen Grove area was obtained by Michael Rousseau, who interviewed local resident Dolores McLeod. Additional historic information was obtained by Mary MacGregor who interviewed Norman Wade, a former resident of sites D1Rc 1 and 2.

The methods and results of the research conducted by Kennedy and Bouchard are presented in Appendix II. This research focused on the Aspen Grove to Peachland portion of the route, as the Merritt to Aspen Grove section was not part of the study mandate at the time this work was carried out.

Kennedy and Bouchard collected important information on the use of Aspen Grove to Peachland area by Native people. This included information on both traditional and modern hunting, fishing, and plant collecting locations. Fortunately, direct impacts to these areas by the highway development appear to be minor, although indirect impacts because of increased access and changes to game movement patterns could be more significant (Section 5.2.). The information obtained by Kennedy and Bouchard is presented in Appendix II.

The information collected on the historic sites in the Aspen Grove area is presented in Section 3.2. when these sites are individually discussed. This information is largely based on the information collected by Rousseau in his interview with D. McLeod, but also includes some of the crown grant data obtained from the Kamloops Land Title Office by Stephen Lawhead and some of the information collected by Mary MacGregor in her interview of Norman Wade.

Additional information on the development area was collected at the Kamloops and Kelowna Museums. This information is largely concerned with historic trail locations, as portions of two major trails are potentially present within the development area. Evidence for one of

these trails was found at DkQv 42, where an extant section of the Okanagan Fur Brigade Trail is present. This brigade trail was part of a 1,500 mile-long route that moved furs from the British Columbia northern interior to Fort Vancouver on the Columbia River. This route was used between 1811 and 1848 when it was abandoned because of the drawing of the Oregon boundary line. The route was later used by early miners, settlers, and others.

A second fur brigade trail was present in the valley near Aspen Grove. This trail extended from Quilchena to Princeton, and first appears on the maps of Archibald MacDonald in 1826. According to early pre-emption records, this trail appears to have passed through Lot 385 north of Aspen Grove (as the Nicola-Granite Road), but no evidence for this trail was found in the field inspection of this area. It is likely that the evidence for this trail was obliterated by the construction of Highway 5A, and by modern ranching activities in this area.

In Arcas Associates (1986b:29-30) two possible heritage site locations obtained from local landowners were discussed. These included portions of an old wagon road in Lot 4533 near Boulder Lake and a possible section of the Okanagan brigade trail in Lot 449 near Peachland. No attempt was made to document the possible wagon road, as it is outside of the development impact zone. The fur brigade trail remnant near Peachland was very poorly defined, and is not associated with either historic or prehistoric artifacts. As per HCB guidelines, this was not recorded as a heritage site and is not included in the site inventory. In any case, even if this is a brigade trail remnant, it is considered to have low significance and requires no further investigation.

4.0. SITE SIGNIFICANCE EVALUATION

In this section the heritage significance of each site located in this study is evaluated. The significance categories established by the HCB in their "Guidelines for Heritage Resource Impact Assessment in British Columbia" (1982 edition) are used in this evaluation.

4.1. PURPOSE AND METHOD

Each site identified in the heritage resource inventory for the Merritt to Peachland section of the Coquihalla Highway was evaluated as to its scientific, public, ethnic, historical, and economic significance. These types of significance are defined as follows (HCB 1982:29-30):

Scientific Significance:

A site's potential for yielding information which will enhance the understanding of British Columbia's historic and prehistoric past.

Public Significance:

A site's potential for enhancing the public's understanding and appreciation of the past.

Ethnic Significance:

The degree to which a site has religious, mythological, social, or other special symbolic value to an ethnically distinct community or group of people.

Historical Significance:

The degree to which a site can be associated with an event or individual who made an important contribution to the development of a particular locality of the province.

Economic Significance:

A site's potential to provide monetary benefits based on the public's use of the site as an educational or recreational facility.

The purpose of the significance evaluation is to provide a general assessment of the importance of each of the heritage sites located in the inventory. A number of criteria have been used to evaluate significance including: present site condition; uniqueness; quantity and variety of artifacts, structures and activities present; historic integrity; public interest; educational value; regional representation; and relevance to specific cultures, time periods, individuals, or particular events. Site significance ratings, together with detailed impact assessment information (Section 5.0.), provide the basic data for deciding what mitigative procedures should be used at sites which will be impacted by proposed development.

Using the above criteria, each site was assigned a significance rating for each of the five significance categories. A five-fold rating scheme was used, with sites given either a high, moderate-to-high, moderate, low-to-moderate, or low rating for each category. These ratings were then averaged to obtain a single overall significance rating for each site.

Sites assigned a particular significance rating usually share several general characteristics. Sites of high significance are typically unique sites, public interest sites, sites of special importance to specific living groups, and sites with major potential for

contributing to problem-oriented research. Sites of moderate-to-high significance are important, but possibly not unique, sites with definite potential for contributing to problem-oriented research, high public or ethnic interest, and little or no disturbance. Sites of moderate significance include intact sites of definite, but not major, potential for contributing to problem-oriented research, sites of moderate public or ethnic interest, and sites with only limited disturbance. Sites of low-to-moderate significance include sites with definite but limited potential for contributing to problem oriented research, sites of limited public or ethnic interest, and sites with modest disturbance. Sites of low significance include badly disturbed sites or destroyed sites, sites of very limited potential for contributing to problem-oriented research, and sites of little or no ethnic interest.

4.2. SIGNIFICANCE EVALUATION RESULTS

Table 3 presents the results of the significance evaluation for the 11 sites located during the Merritt to Peachland inventory. The significance rating for each category and an overall significance rating are presented.

All 11 sites in the inventory have been assigned a low scientific significance rating. The prehistoric sites are all small lithic scatters, exhibiting little internal stratification, small artifact assemblages, and no cultural features. The historic sites, although possessing some public, economic, and historical significance values, do not make any major contribution to our scientific knowledge.

A site's public and economic significance are often related and pertain to a site's ability to provide interpretive, educational, or recreational values to the general public. Several of the historic sites recorded in this study are considered to possess low-to-moderate public and economic significance, and one site (D1Rd 6) has been given a public significance rating of moderate. Specific, but limited, economic benefits of these sites can be seen in their contribution to local tourism,

as many of the heritage buildings in these sites, particularly in the Aspen Grove area, are quite scenic and are occasionally photographed by tourists.

The determination of a site's ethnic significance usually requires the participation of local Native groups, non-native "old-timers", and local historical societies. The ethnographic research identified a number of Native resource areas and landmarks, although it appears that none of these areas will suffer direct project impact, with the possible exception of a reported fishery and campsite at the north end of the Kentucky-Alleyne Lake chain (Section 3.3.). No archaeological evidence was found at this location, however, and it was not recorded as a heritage site. The four prehistoric sites in the inventory were not mentioned by any Native informants, and do not contain burials, petroglyphs or pictographs, or other items that may contribute to their ethnic significance, and have been assigned low ethnic significance values. The historic sites in the inventory generally have low ethnic significance values, with the exception of D1Rd 3, which is the site of a former school, and has some sentimental value to local residents who attended this school (D. McLeod, personal communication to M. Rousseau 1986). This site has been assigned low-to-moderate ethnic significance.

Most of the recorded historic sites are only of local interest, and make little contribution to our understanding of regional history. They do, however, contribute to our understanding of local history, particularly to the history of ranching and homesteading in the Aspen Grove area, and have generally been assigned low-to-moderate historical significance. Site DkQv 42 in the Okanagan Valley has been assigned moderate historical significance because of the presence of an extant portion of the Hudson's Bay Company Fur Brigade Trail (Section 3.3.). This trail has high regional significance, although this particular section of the trail has lost some of its heritage value because of extensive post-fur trade modifications.

To summarize, low to low-to-moderate values have been given to all significance categories for all 11 sites, with the exception of a

moderate historical significance rating at DkQv 42 and a moderate public significance rating at D1Rd 6. In terms of the overall site ratings, five sites have low overall significance and six sites have low-to-moderate overall ratings (Table 3). No sites were assigned moderate or higher overall significance ratings.

5.0. IMPACT IDENTIFICATION AND ASSESSMENT

The impacts of the proposed highway construction project on the heritage resources of the study area are discussed in this section.

5.1. PURPOSE AND METHOD

The purpose of the impact identification and assessment component of a heritage study is to determine "... the net change between the integrity or condition of a heritage site with and without the proposed development." (HCB 1982:35). The identification of the type and level of impact on the heritage resources within the study area is an important component of the heritage resource impact assessment process. In conjunction with site significance evaluation, it forms the basis for the development of meaningful and effective impact management strategies.

Impacts on heritage resources by a development project can be either beneficial or adverse. The former occurs whenever, "...a proposed development project actively protects, preserves, or enhances a heritage resource." (HCB 1982:35). A reduction in natural site erosion would be an example of a beneficial impact. Most impacts, however, are adverse and result in a detrimental change to site condition and integrity. The proposed highway construction project will, in nearly all cases, result in adverse impacts to the heritage resources.

Adverse impacts on heritage resources are characterized by a "level of effect" (HCB 1982:38), which measures, "... the extent or degree to which future opportunities for scientific research, preservation, or public appreciation are foreclosed or otherwise adversely affected by a proposed action." (HCB 1982:38). Several criteria such as magnitude, duration, range, diversity, and rate of change are used to measure the degree of impact a proposed development will have. The proposed highway construction project will, in general, have a high level of effect on heritage resources, as heritage sites within the construction area will usually be badly disturbed or totally destroyed.

A development project can have direct, indirect, and potential adverse impacts (HCB 1982). Direct impacts consist of the immediately demonstrable effects that proposed project construction will have on a given heritage resource/site. The bulldozing of a heritage site during construction would be an example of a direct impact. Indirect impacts refer to those activities which are not directly related to the main development project which could disturb heritage sites. Increased vandalism of heritage sites as a result of improved access would be an example of an indirect impact caused by the proposed highway construction. Potential impacts are removed in time (and possibly distance) from the project and are not immediately evident. For instance, potential impacts could result from a change in population density and land use patterns as a result of the highway project, but such impacts are difficult to assess and quantify.

For the purposes of this study, a 100 m-wide corridor will be considered to be the impact zone between Aspen Grove and Peachland, and a 25 m-wide corridor on either side of Highway 5A will be considered to be the impact zone between Merritt and Aspen Grove. The impact zone for ancillary developments such as haul roads and interchanges depends on the nature and extent of these developments, and these ancillary features will be considered on an individual basis where necessary.

5.2. IMPACT ASSESSMENT RESULTS

Total site areas and areas of each site within the development impact zone are given in Table 2. Of the 11 recorded sites, five sites are wholly or partly within the impact zone. These sites are: DkQv 42, DkQw 40, D1Rd 4, EaRd 15, and EaRd 16 (Table 1). The percentage of these sites within the impact zone varies from about 30% at EaRd 15 to 80% or higher at DkQv 42, DkQw 40, and EaRd 16. The percentage of D1Rd 4 in the impact zone is uncertain, as detailed plans for the area in the vicinity of the Highway 5A interchange were not available, and the highway centreline had not been staked at the time of the field reconnaissance.

DkQv 42 is near the proposed Highway 97 interchange north of Peachland, and at least 90% of this site will be destroyed by interchange construction. DkQw 40 is situated almost entirely within the highway right-of-way south of DkQv 42, and at least 80% of this site will be destroyed when this section of the road is built.

Based on a 25 m-wide impact zone, sites EaRd 15 and EaRd 16 will both be affected by the proposed expansion of Highway 5A. A significant portion of EaRd 15 may have already been destroyed when Highway 5A and the nearby picnic site were constructed, and further disturbance of the western portion of this site will probably occur with the proposed highway upgrading. All of EaRd 16 is within the impact zone for the Highway 5A expansion, and this entire site will probably be destroyed.

Site D1Rd 4 is located 300 m east of Highway 5A in the vicinity of the proposed interchange for this area. Although detailed plans for this area were not available, the interchange location and the proposed highway route were known from 1:50,000 scale maps. This site is probably too far east to be affected by interchange construction; however, the site appears to be within the 100 m-wide road corridor and will probably be disturbed or destroyed by highway construction.

Sites D1Rd 5 and D1Rd 6 are adjacent to the proposed upgraded right-of-way of Highway 5A. Detailed plans for this upgrading are not yet available, and these two sites may yet fall within the development impact zone.

The remaining four sites--D1Rc 1, D1Rc 2, D1Rd 2, and D1Rd 3--are well outside of the project impact zone, and should not be affected by highway construction. Sites D1Rc 1 and D1Rc 2 are located about 100 m from the highway right-of-way, but were recorded by the field crew as design plans available at that time suggested that these sites were much closer to the impact zone than they are. Sites D1Rd 2 and D1Rd 3 are located adjacent to Highway 5A south of the proposed interchange. These sites were recorded because of uncertainty about the final location of the proposed Highway 5A interchange. Any, or all, of these

sites could be affected if develop plans are changed; however, at this time it appears that these four sites will not be affected by highway construction.

All of the impacts described above are direct impacts. It is important to note that exact impacts to sites in the Merritt to Aspen Grove section of the highway are difficult to identify, as detailed plans for this part of the route are not yet available.

It is difficult to assess the nature and degree of indirect impacts on heritage resources in this area, although it is likely that increased traffic flow could result in increased site vandalism, particularly to some of the heritage buildings which can be found in the Aspen Grove area.

The impacts to ethnographic sites is also difficult to assess. There do not appear to be any direct impacts, except possibly for a reported native fishing location and campsite near the northern end of the Kentucky-Alleyne Lake chain. There was no archaeological evidence at this location, however, and it was not recorded as a heritage site. Indirect impacts could include increased use and possible disturbance of reported native hunting, fishing, and plant collecting areas, although such impacts are difficult to quantify.

In summary, five of the 11 heritage sites in this inventory will suffer direct impacts as a result of the highway construction project. Two other sites are close enough to the project impact zone that they could be affected by even minor design changes. The remaining four sites are well outside the development impact zone, and will not be affected by the construction project.

6.0. RECOMMENDATIONS AND FINAL REMARKS

A total of 11 heritage sites--seven historic homesteads and four prehistoric lithic scatters--were recorded during the heritage inventory of the Merritt to Peachland section of the Coquihalla Highway Project. Most of these sites were located in the Aspen Grove area in the western portion of the proposed development, although two sites were recorded in the Okanagan Valley. There were no heritage sites recorded in the higher portions of the Thompson Plateau.

The lack of heritage sites in the upper portions of the Thompson Plateau is primarily due to the relatively infrequent use of this area by Native people and early settlers, although it should be noted that sites are easier to locate in the lower valleys than in the heavily forested uplands. Of some surprise is the lack of significant prehistoric sites in the Aspen Grove to Merritt area, which appears to contain several areas of relatively high heritage potential. Previous surveyors in this area have also been surprised by this lack of prehistoric cultural material (R. Brolly, personal communication 1986). This suggests that this area was not intensively used by Native people prior to European contact. This is supported by the ethnographic data for this area, which also appears to indicate that this area was not heavily used by Native people (Appendix II).

Five of the 11 recorded heritage sites are within or partially within the impact zone of the proposed highway. These sites are: DkQv 42, DkQw 40, D1Rd 4, EaRd 15, and EaRd 16. Sites D1Rd 5 and D1Rd 6 are adjacent to the proposed new right-of-way for Highway 5A. Detailed plans for this upgrading are not yet available, and these two sites may yet fall within the development impact zone. The remaining four sites--D1Rc 1, D1Rc 2, D1Rd 2, and D1Rd 3--are well outside of the project impact zone, and should not be affected by highway construction.

Six of the 11 recorded sites have been assessed as having low-to-moderate overall significance, and five sites have been given low overall significance. Four of the five sites that will be affected by the

development have low overall significance and one site has low-to-moderate significance.

Based on the results of the site inventory, site significance evaluation, and impact identification and assessment, the following recommendations have been made concerning the heritage resources in the Merritt to Peachland section of the Coquihalla Highway:

1. That no further archaeological research be undertaken at any of the heritage sites recorded in the Merritt to Peachland heritage inventory. All of the recorded sites have low overall significance values and further archaeological work at these locations is not necessary.

Two recommendations have also been made concerning the possible need for additional archaeological field research:

2. That final design plans for the Merritt to Aspen Grove portion of the highway be reviewed as soon as they become available to ensure that the final location of the impact zone lies within the area examined during this study. This is particularly a concern at the northern end of this section, where the highway route will be modified to improve the grade on the long hill just outside of Merritt (D. Perkins, personal communication 1987). Additional field reconnaissance may be necessary.
3. That a heritage inventory and impact assessment be undertaken of borrow pits, construction camps, or other ancillary development feature locations not examined in the present study, if such locations include terrain assessed as having low-to-moderate or higher heritage potential. These will consist of areas identified in 1987, and, therefore, not included in the mandate of the 1986 study. In the case of borrow pits, most of their locations have now been identified, and their locations and heritage inventory requirements are given in Table 4. This table is based on information available in early March, 1987, and is

subject to revision by MOTH. Prior to any field reconnaissance, the geotechnical office of MOTH in Kamloops should be contacted to see if any revisions or additions have been made to these data.

Any additional field work for this project should commence in the spring of 1987 as soon as weather and snow cover conditions permit. At higher elevations, field reconnaissance may not be possible until late May or early June, although work could begin at some of the lower elevations in April. During the field work, it is important that the archaeological contractor maintain good communication with the construction firms and MOTH. This will ensure that all areas are investigated as required, and that no work is delayed because of the last minute discovery of an important heritage site.

Table 1. Percentage of highway right-of-way receiving field inspection between Aspen Grove and Peachland by 10 km section.

SECTION*	LOCATION	INSPECTED**
0-10	Hwy. 5A interchange to Pothole Creek	95
10-20	Pothole Creek to Shrimpton Creek	30
20-30	Shrimpton Creek to Elkheart Lake	5
30-40	Elkheart Lake to Sunset Lake	5
40-50	Sunset Lake to Pennask Creek	5
50-60	Pennask Creek to MacDonald Creek	5
60-70	MacDonald Creek to Silver Creek	5
70-80	Silver Creek to Law Creek	35
80-84	Law Creek to Hwy. 97 interchange	100

* Distance (in km) from Highway 5A interchange near Aspen Grove.

** Percentage (to nearest 5%) of 100 m-wide corridor inspected during the field reconnaissance.

Table 2. Heritage resource inventory: site location, type, condition, size, and impact status.

SITE	LOCATION*	TYPE**	PRESENT CONDITION+ % Comment	SITE AREA (SQ M)++		COMMENTS
				Total	Impact Zone	
<u>ASPEN GROVE TO PEACHLAND</u>						
DkQv 42	83.8	SLS/HT/HP	40? Disturbed by drive- in theatre, Hwy. 97, and gravel pit.	10,000	>9,000	In Highway 97 Interchange area. Contains a section of the Hudson's Bay Company Fur Brigade Trail.
DkQw 40	83.1	SLS	70? Disturbed by dirt roads and modern refuse dump.	1,000	800	
DIRc 1	15.2	HH	90	36,000	0	Over 100 m from impact zone.
DIRc 2	15.8	HH	75	10,000	0	Over 100 m from impact zone.
<u>MERRITT TO ASPEN GROVE</u>						
DIRd 2	1.0	HH	20	375	0	South of proposed Hwy. 5A interchange.
DIRd 3	2.5	HH	40 Site intersected by Highway 5A.	2,000	0	South of proposed Hwy. 5A interchange.
DIRd 4	3.8	HH	40	200	?	This site will probably be impacted by highway construc- tion, but detailed plans were not available.

Table 2. Continued.

SITE	LOCATION*	TYPE**	PRESENT CONDITION+ %	Comment	SITE AREA (SQ M)++		COMMENTS
					Total	Impact Zone	
DIRd 5	4.1	HH	75	Highway 5A may have destroyed part of this site.	1,700	0	Eastern edge of site near impact zone.
DIRd 6	5.4	HH	50		6,000	0	Western edge of site near impact zone.
EaRd 15	7.8	BLS	40?	Site probably disturbed by Highway 5A to west and picnic ground to north.	2,700	850	
EaRd 16	8.0	BLS	80		225	225	

* For sites between Aspen Grove and Peachland the location is expressed as distance (in km) along the highway corridor from the Highway 5A interchange. For sites between Merritt and Aspen Grove the location is expressed as distance (in km) north of Aspen Grove.

** Abbreviations are: SLS = surface lithic scatter; BLS = buried lithic scatter (unstratified); HH = historic homestead; HT = historic trail; HP = historic petroform.

+ Expressed as percentage of site intact.

++ Between Aspen Grove and Peachland impact zone is defined as 100 m-wide corridor. Between Merritt and Aspen Grove impact zone is defined as 25 m-wide corridor on each side of present highway. Impact zone for ancillary developments (haulroads, interchanges, etc.) depends on nature and extent of ancillary development.

Table 3. Heritage site significance evaluation results.

SITE	SIGNIFICANCE CATEGORIES					OVERALL
	Scientific	Public	Ethnic	Historical	Economic	
DkQv 42	L*	L-M	L	M	L	L-M
DkQw 40	L	L	L	-	L	L
D1Rc 1	L	L-M	L	L-M	L-M	L-M
D1Rc 2	L	L-M	L	L-M	L-M	L-M
D1Rd 2	L	L	L	L	L	L
D1Rd 3	L	L-M	L-M	L-M	L-M	L-M
D1Rd 4	L	L	L	L-M	L-M	L-M
D1Rd 5	L	L-M	L	L-M	L-M	L-M
D1Rd 6	L	M	L	L-M	L-M	L-M
EaRd 15	L	L	L	-	L	L
EaRd 16	L	L	L	-	L	L

*L = low, L-M = low-to-moderate, M = moderate, M-H = moderate-to-high, H = high

Table 4. Heritage inventory status for borrow pits associated with the Merritt to Peachland section of the Coquihalla Highway.

PIT NAME*	LOCATION	INVENTORY REQ'D	COMMENT
1. Jack Creek Pit	Trepanier Creek bottom	No	Already in use; low heritage potential area
2. Miller Prospect	Trepanier Creek Valley side	No	Low heritage potential area
3. Upper MacDonald Creek Pit	Upper MacDonald Creek	No	Low heritage potential area
4. Brenda Mines	Near Brenda Mine	No	Brenda Mines tailings; area already disturbed
5. Bear Cub Prospect	Near Pennask Creek	No	This pit will probably not be used; low heritage potential area
6. Brenda Creek Prospect	Between Brenda and Hidden Lakes	No	Low heritage potential area
7. Pennask Lake Pit	North of Pennask Mountain	No	Low heritage potential area
8. Culmination Prospect	Northeast of Culmination Point	No	This pit will probably not be used; low heritage potential area
9. S.O.L. 4531 Prospect	North of Siwash Lake	No	Low heritage potential area
10. Bob's Lake Pit	West of Paradise Lake	Yes	Areas near Bobs Lake and Island Lake should be examined
11. Siwash Creek Pit	South of Elkheart Lake	No	Low heritage potential area
12. Homestead Pit	South of Pothole Creek	Yes	Areas overlooking Pothole Creek should be examined
13. Shrimpton Pit	North of Shrimpton Creek	Yes	Areas overlooking Shrimpton Creek should be examined
14. Loon Lake Pit	East of Loon Lake	Yes	Historic homesteads could be located in this area
15. Pothole Lake Prospect	North of Pothole Lake	No**	This pit will probably not be used

Table 4. Continued.

PIT NAME*	LOCATION	INVENTORY REQ'D	COMMENT
16. Crater Lake Prospect	North of Crater Lake	No**	This pit will probably not be used
17. L. 448 Pit	North end of Courtney Lake	No	An extant gravel pit; should be examined if the pit is going to be expanded
18. Corbett Lake Prospect	North end of Corbett Lake	No**	This pit will probably not be used
19. Chutter Ranch Prospect	On Hamilton Creek in the Nicola Valley	Yes	High heritage potential area

* Pits are listed from east to west.

** These pits all have some higher heritage potential areas, and should be examined if MOH revises their plans and decides to use these pits.

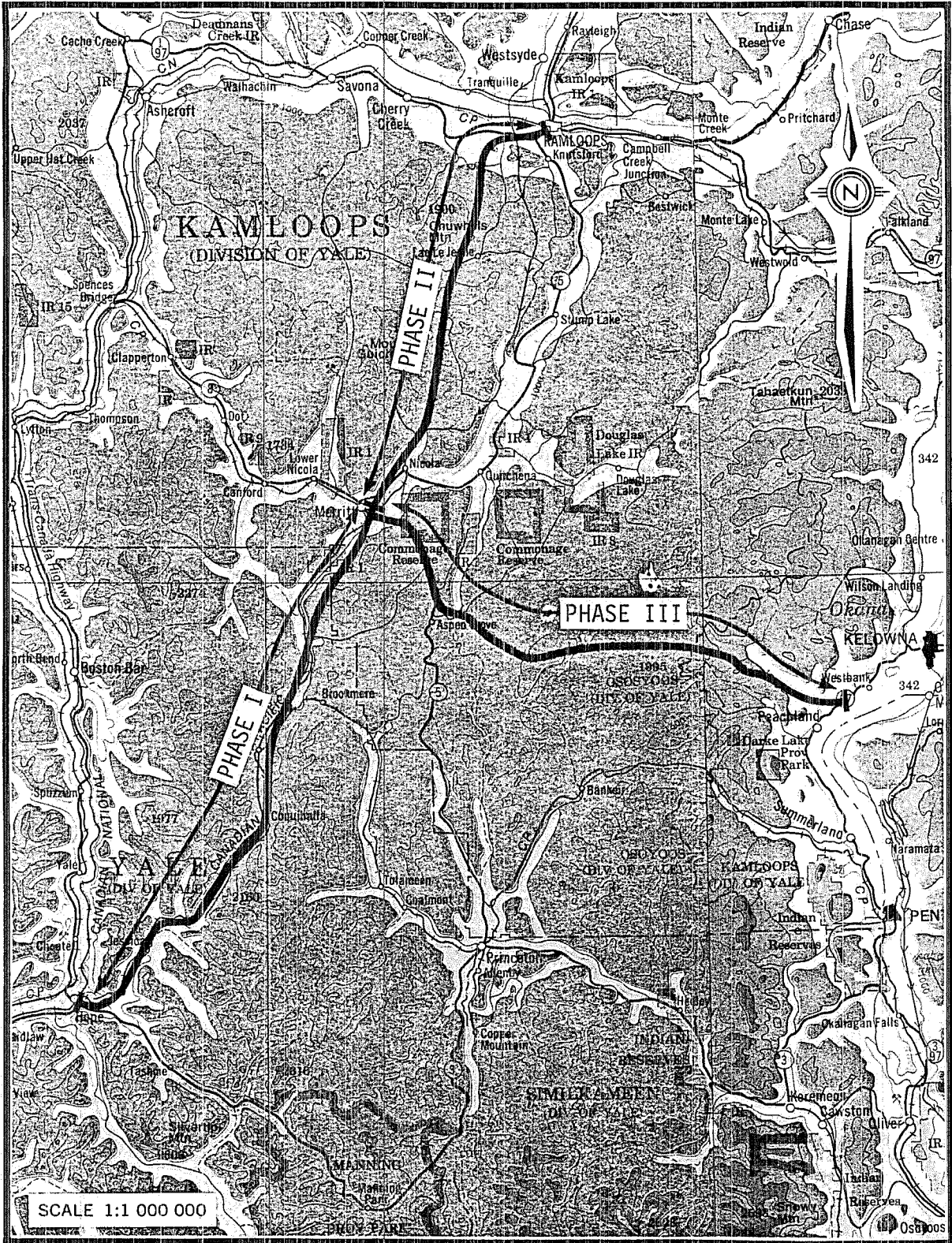


Figure 1. The Coquihalla Highway Project.

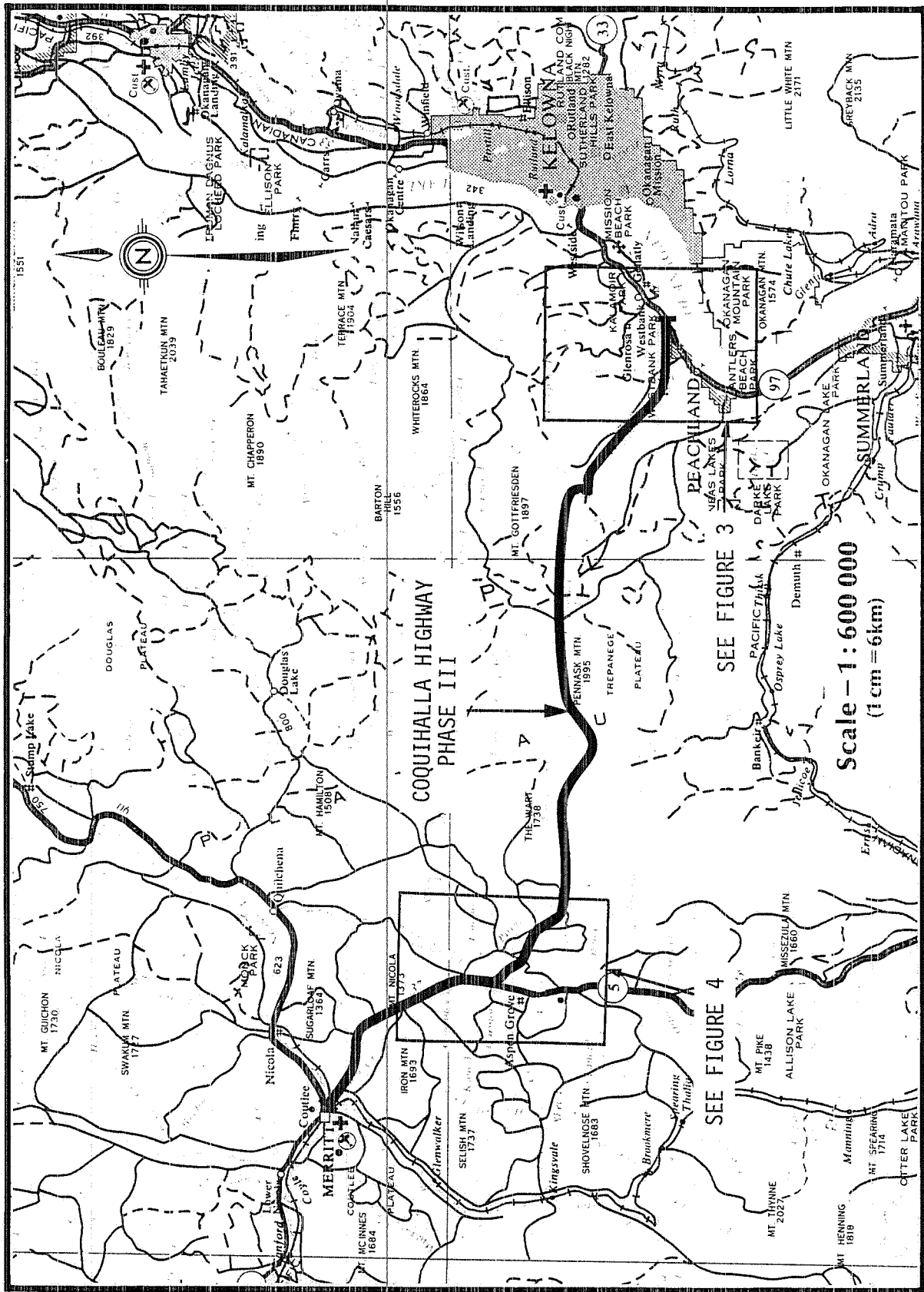


Figure 2. The Coquihalla Highway Project: Phase III.

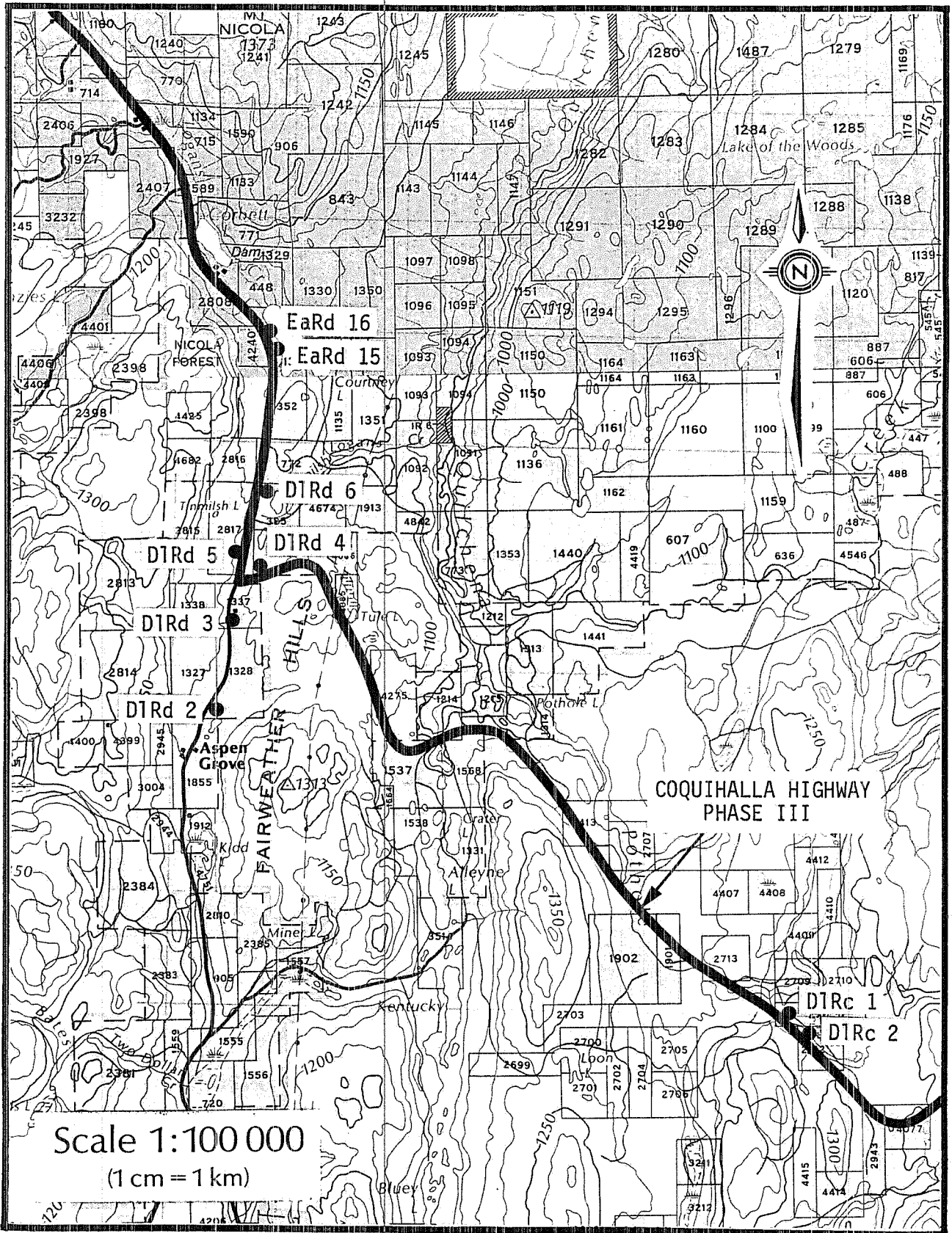


Figure 4. Heritage site locations: western portion of the study area.

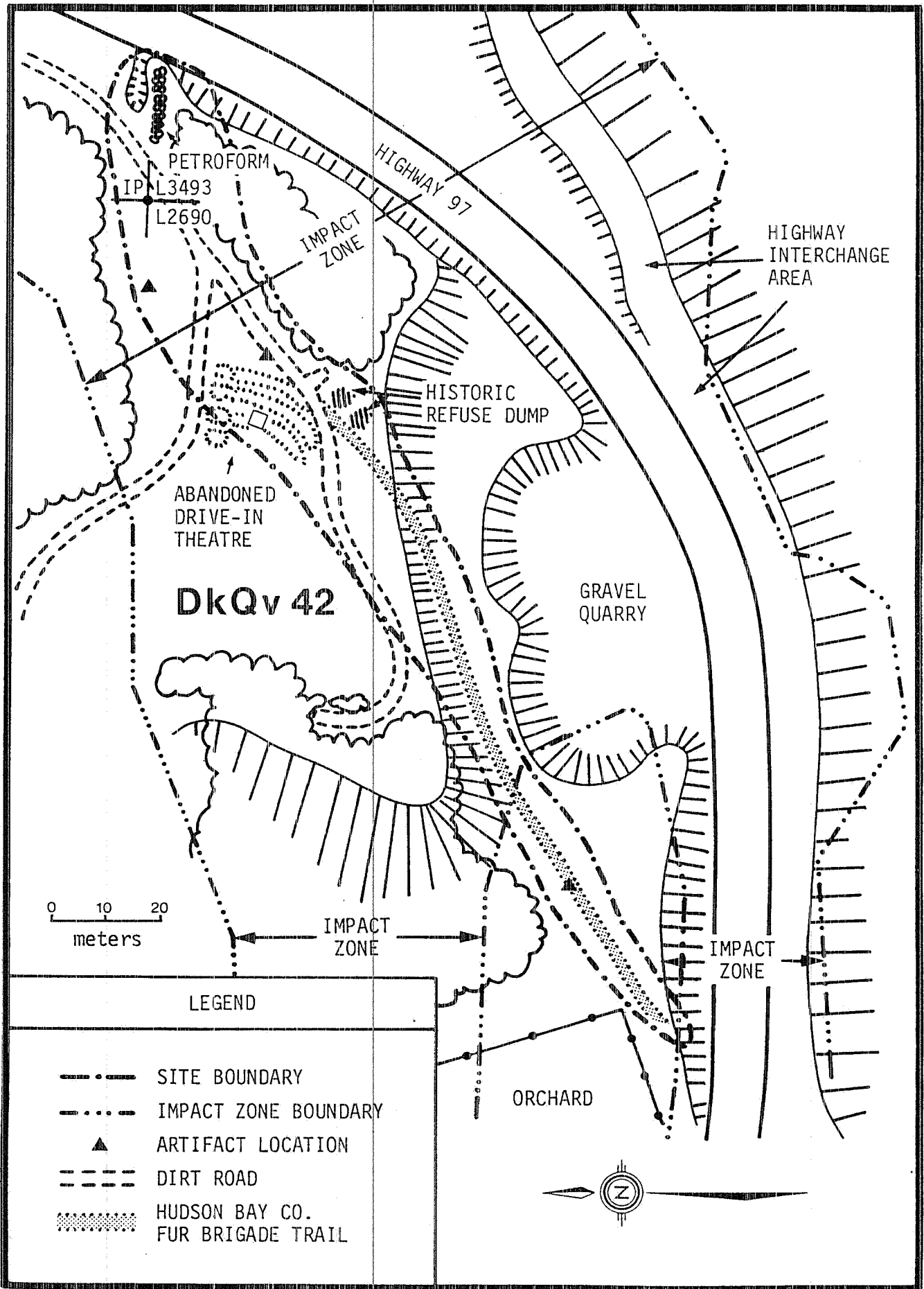


Figure 5. DkQv 42 site map.

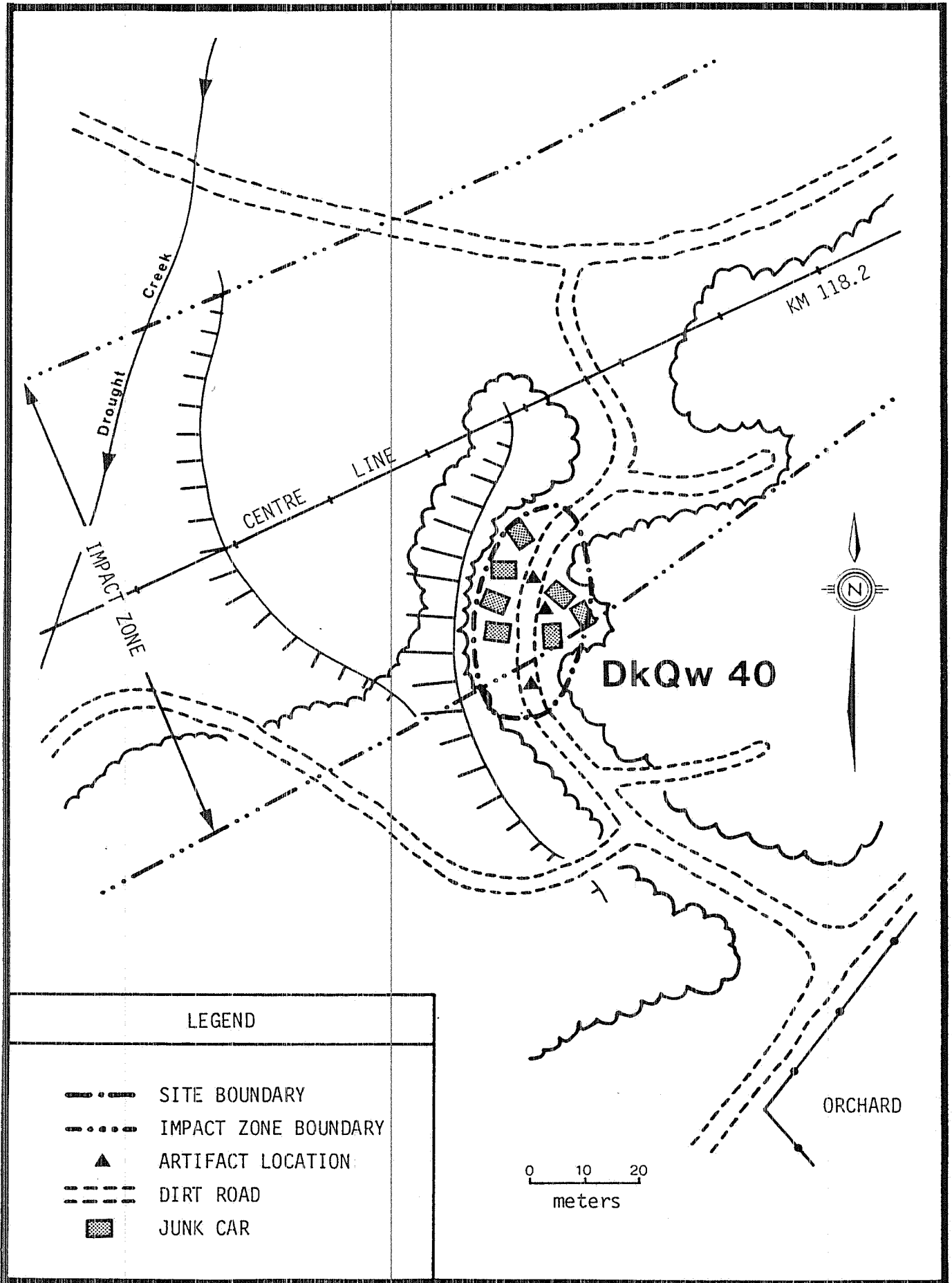


Figure 6. DkQw 40 site map.



Figure 7. DkQw 40, looking north.

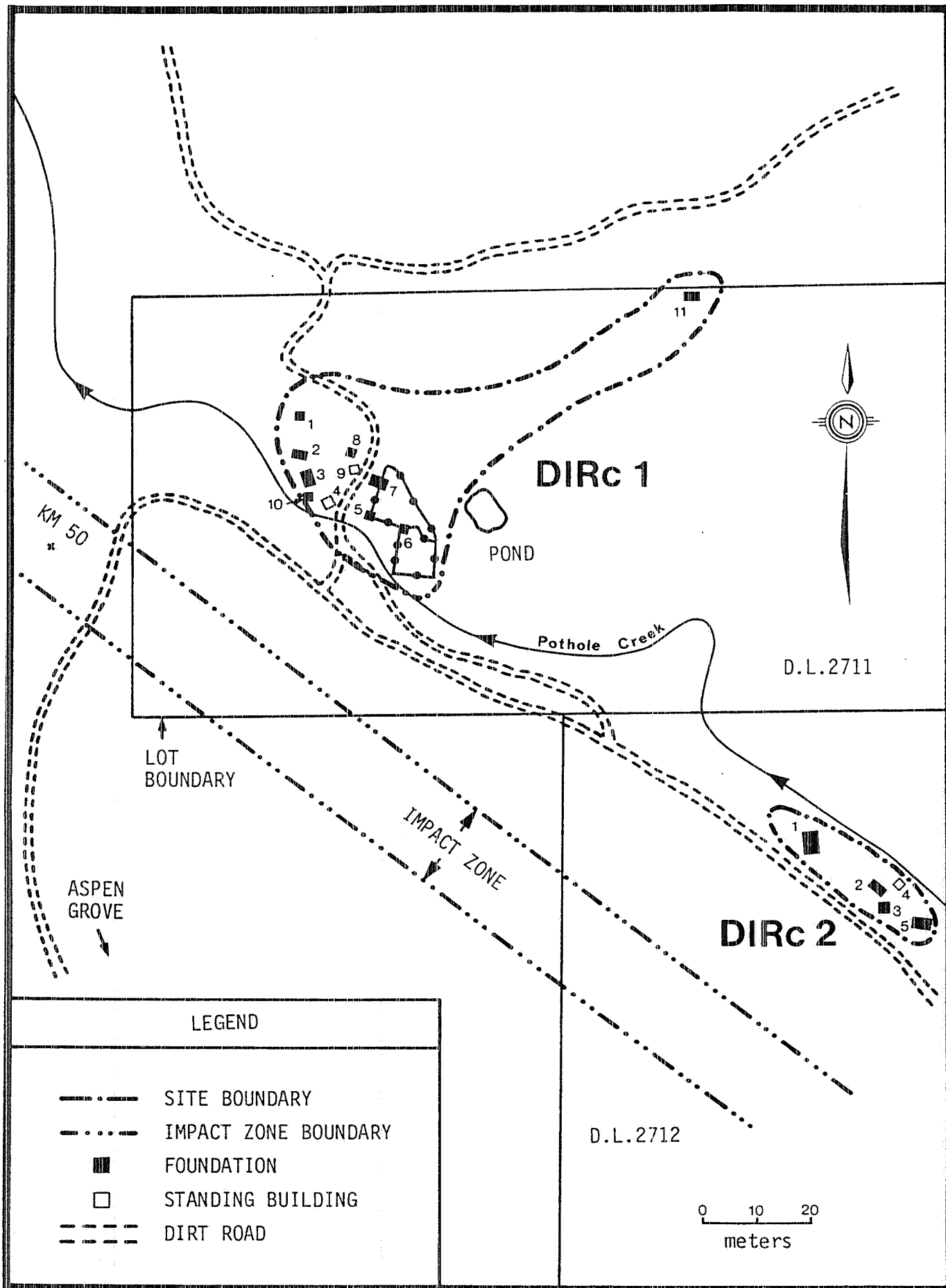


Figure 8. DIRc 1 and 2 site map.



Figure 9. D1Rc 1, looking west at the northern portion of the site.

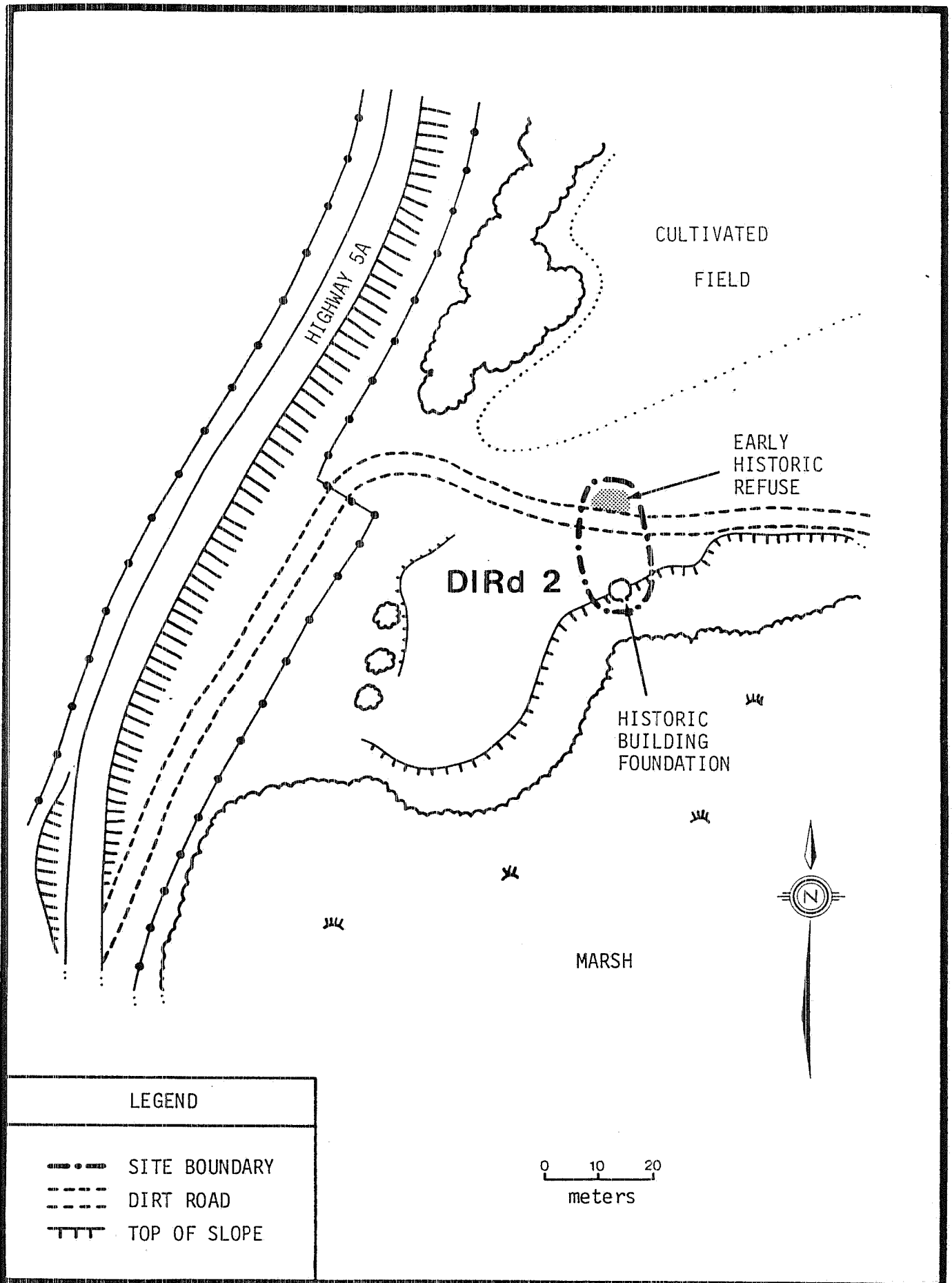


Figure 10. DIRd 2 site map.



Figure 11. D1Rd 2, looking southeast.

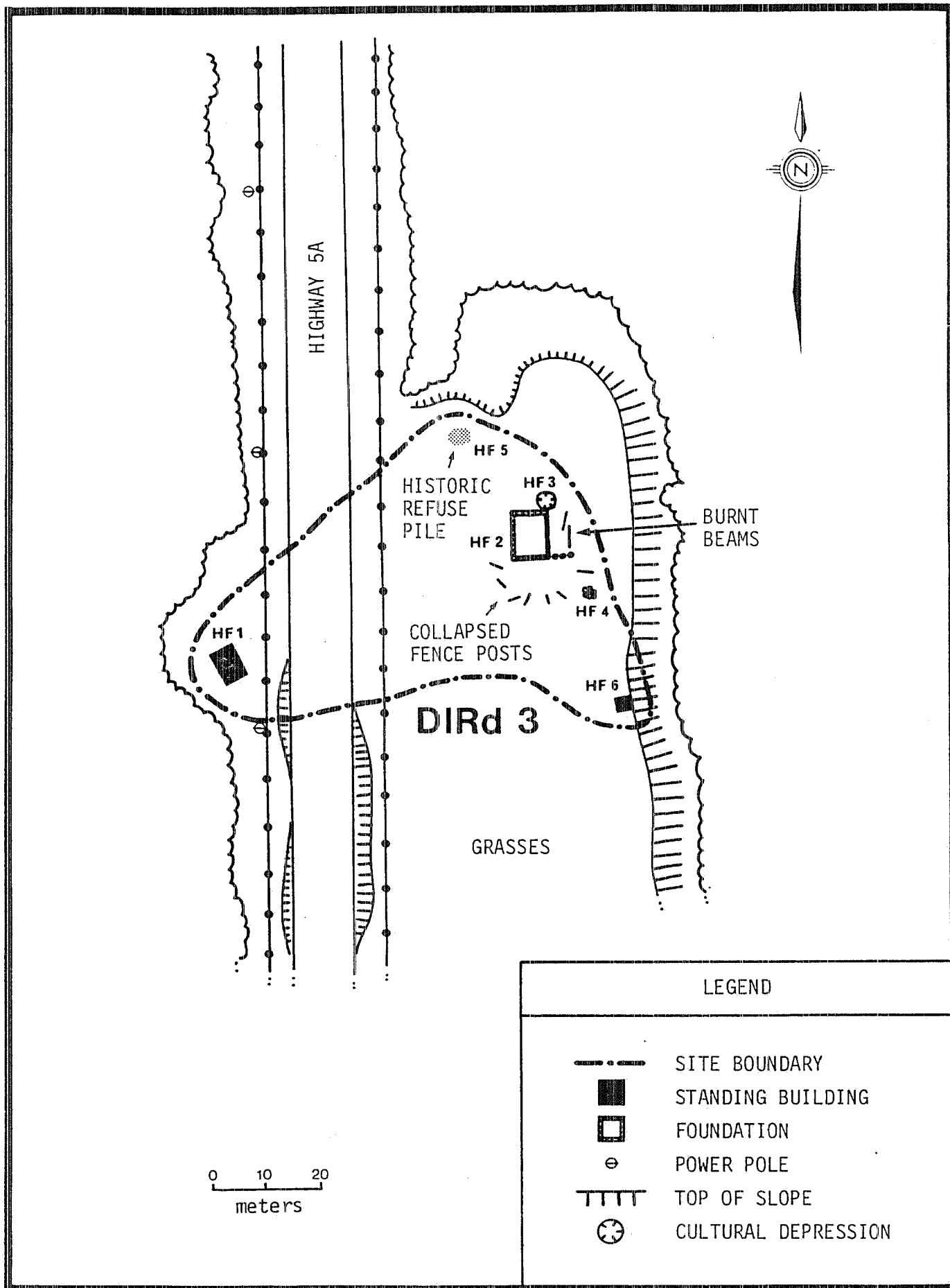


Figure 12. DIRd 3 site map.



Figure 13. D1Rd 3, looking southeast at standing log barn (HF 1).

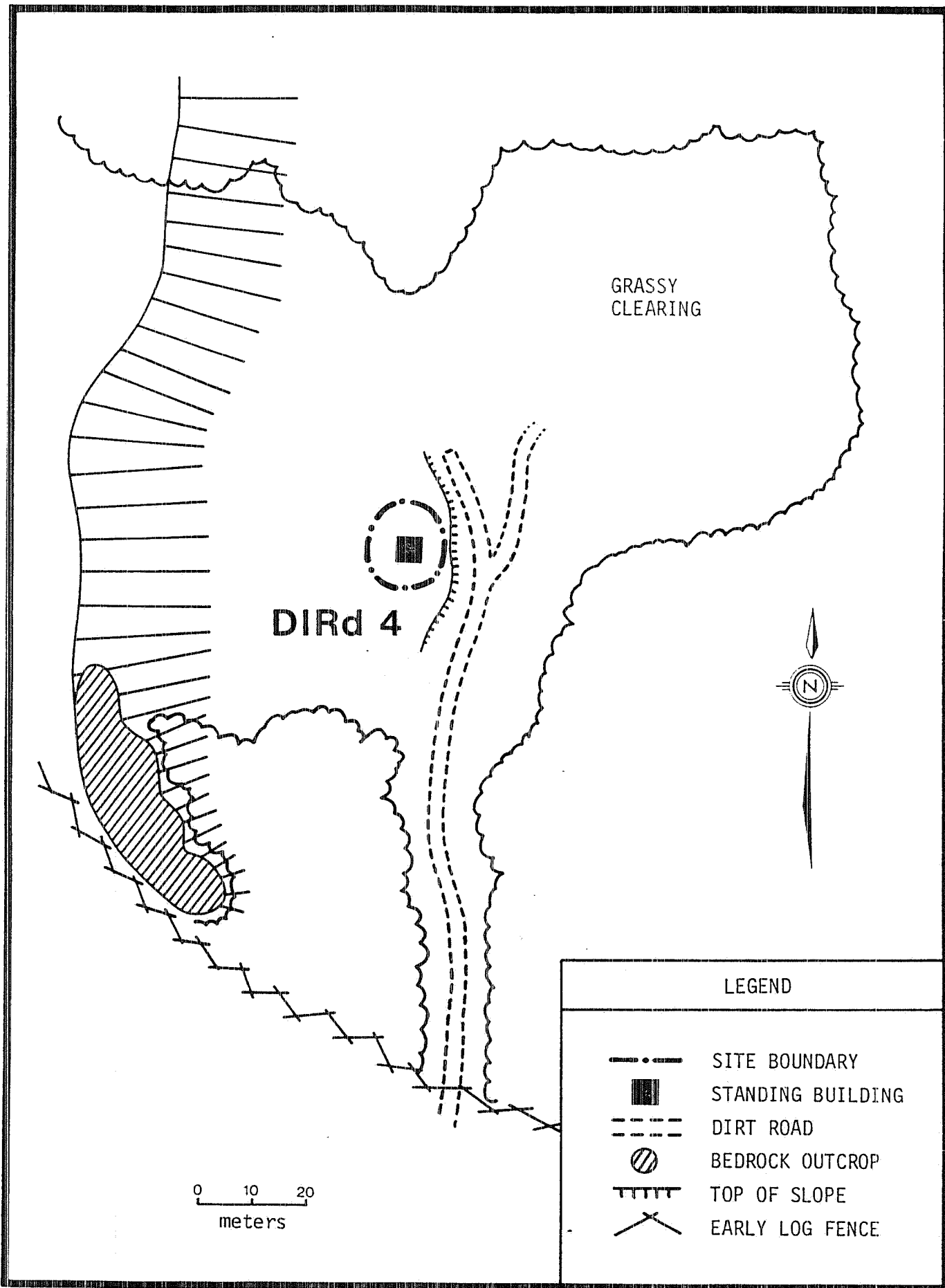


Figure 14. DIRd 4 site map.



Figure 15. D1Rd 4, looking northeast.

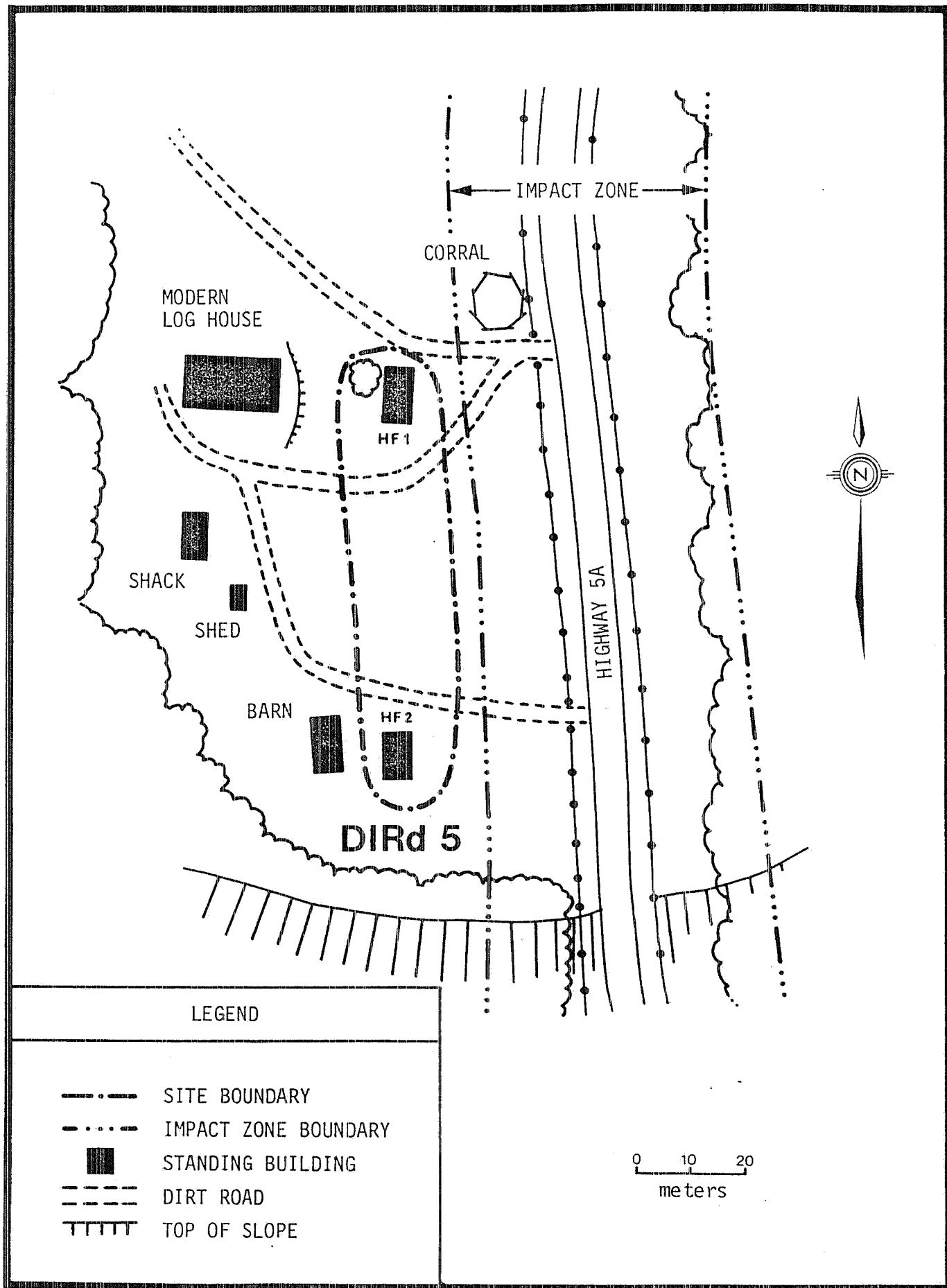


Figure 16. DIRd 5 site map.



Figure 17. D1Rd 5, looking southwest at log building (HF 1).

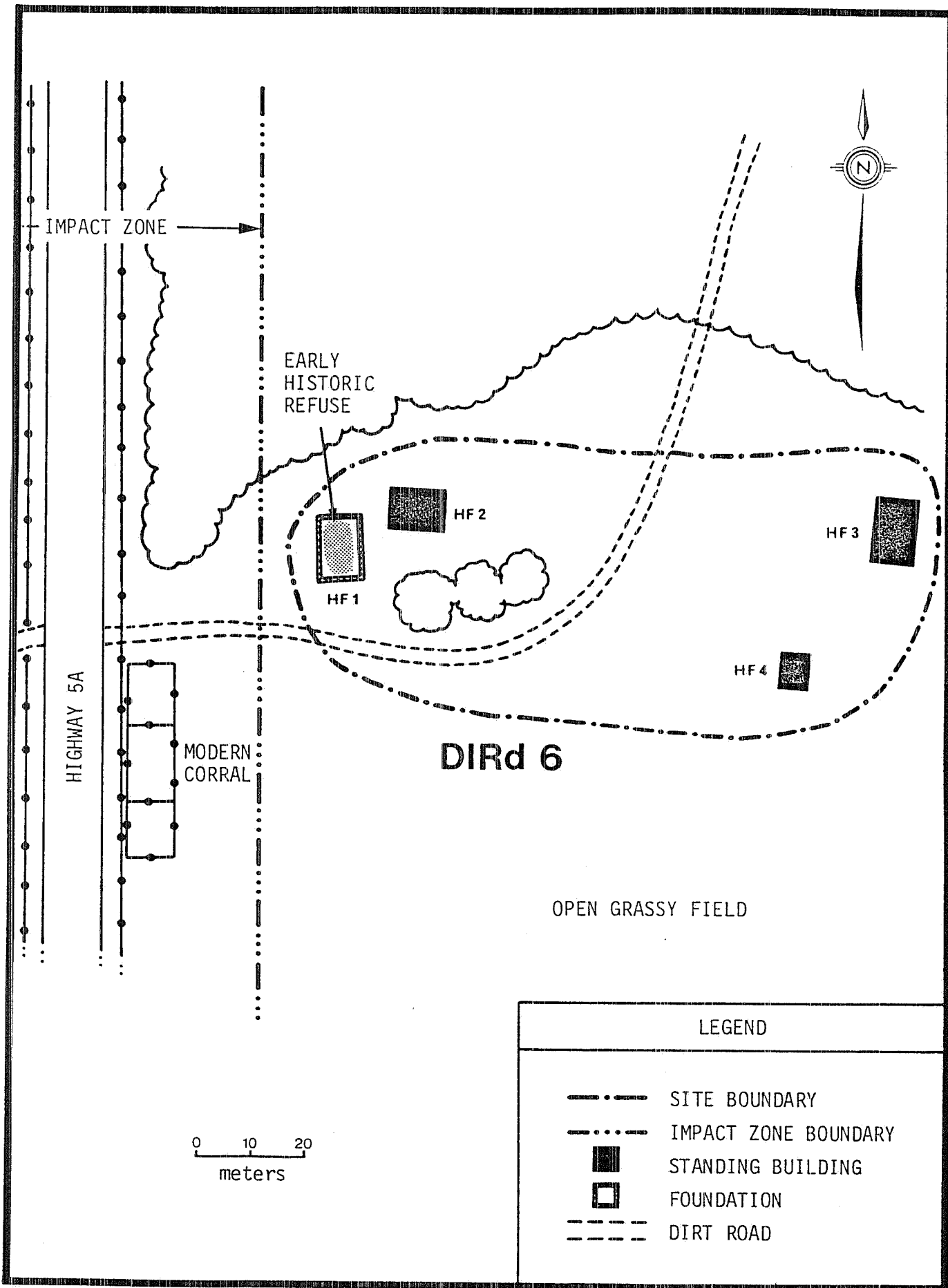


Figure 18. DIRd 6 site map.



Figure 19. D1Rd 6, looking north at log house (HF 2) and barn (HF 3).

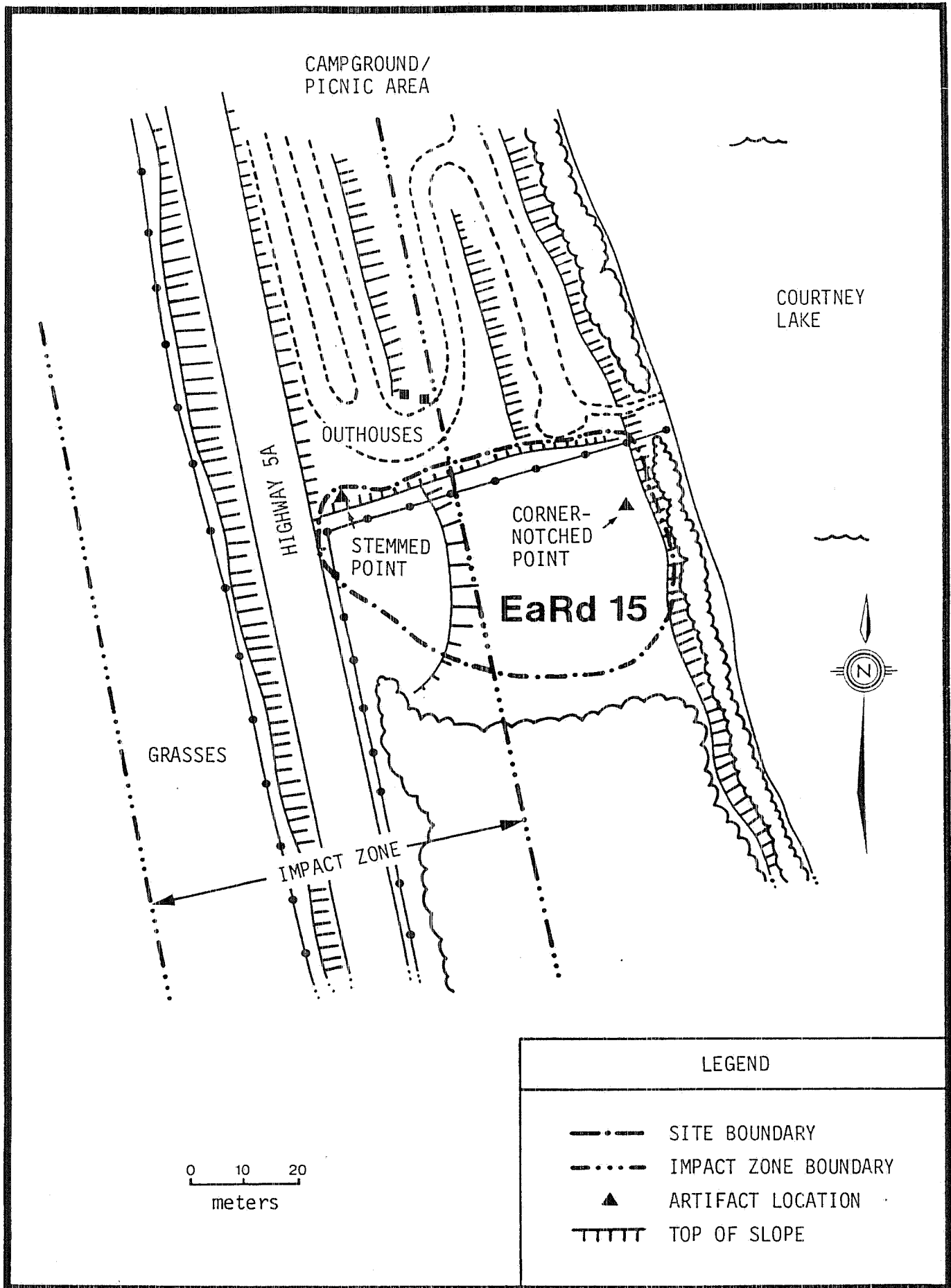


Figure 20. EaRd 15 site map.



Figure 21. EaRd 15, looking southeast.

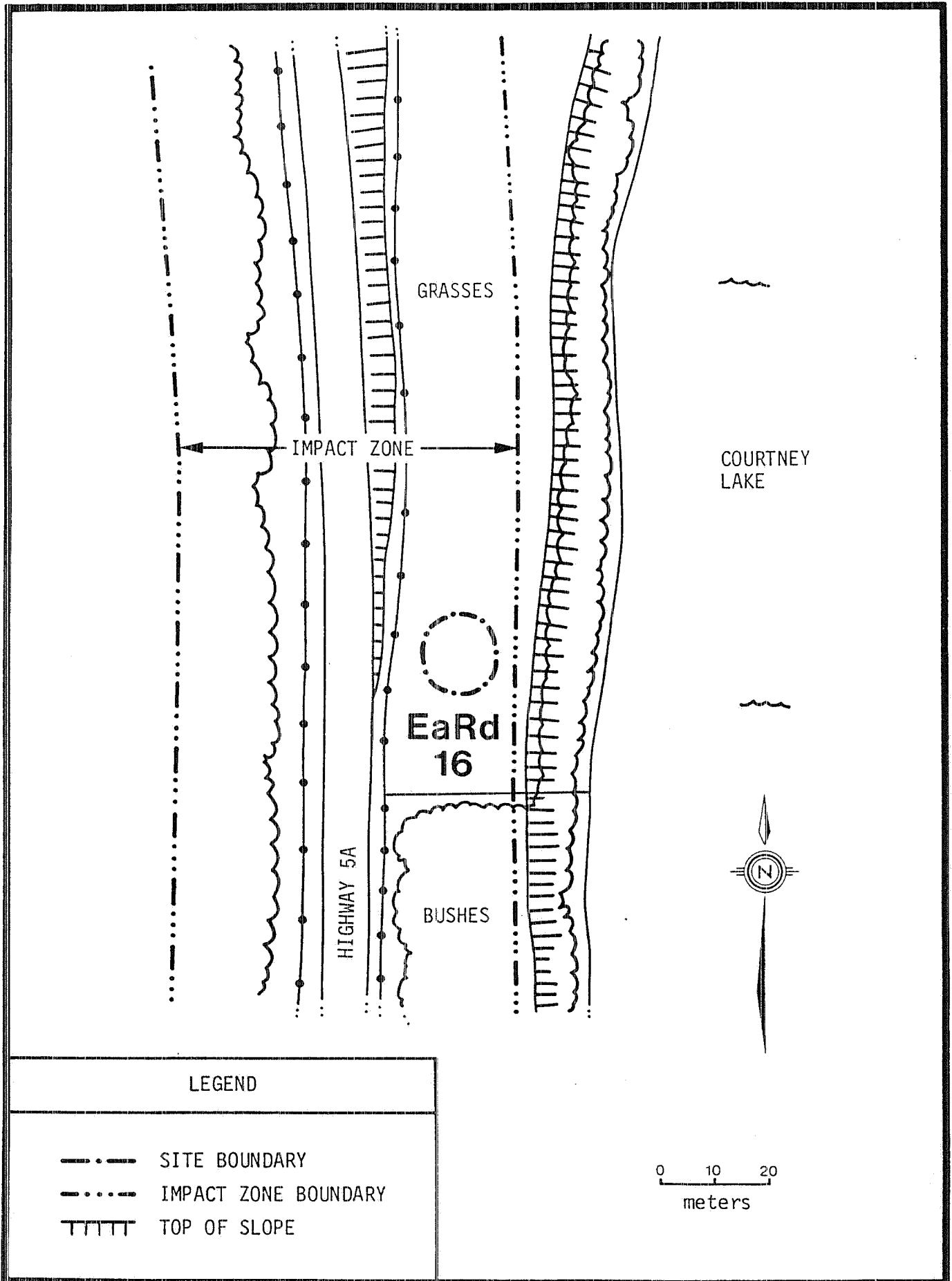


Figure 22. EaRd 16 site map.

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APPENDIX I

ARCHAEOLOGICAL SITE INVENTORY FORMS

The Archaeological Site Inventory Forms for sites DkQv 42, DkQw 40, D1Rc 1, D1Rc 2, D1Rd 2, D1Rd 3, D1Rd 4, D1Rd 5, D1Rd 6, EaRd 15, and EaRd 16 are attached in this appendix.

1. SITE NO.: DkQv 42

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. PREVIOUS DESIGNATION(S): DkQv T86-1
3. SITE NAME(S): N/A
4. LEGAL: Within the NE corner of District Lot 2690, ODYD
5. (a) LOCATION: Site is located on the W side of Okanagan Lake between Peachland and Westbank. Site is ca. 4.25 linear km NE of the mouth of Trepanier Creek, and is on the N side of Highway 97 in the very NE corner of Lot 2690.
(b) ACCESS: Travel ca. 8.5 km NE on Highway 97 from Peachland until a large gravel quarry on the right (E) side of the highway at the top of a steep hill is reached. Proceed for another 150 m and turn left (W) on a small dirt road which leads SE. Continue on this dirt road for ca. 150 m until a large clearing is reached. The HBC Brigade Trail leads S from the SE end of the clearing.
6. ADMINISTRATIVE JURISDICTION
 - (a) REGIONAL DISTRICT: Central Okanagan
 - (b) FOREST/GRAZING DISTRICT: Kamloops
 - (c) HIGHWAYS DISTRICT: 2-29, Kelowna
 - (d) PARK DISTRICT: 2-1, Okanagan
 - (e) RESOURCE MANAGEMENT REG.: Thompson-Okanagan
7. LATITUDE: 49°48'23"N
8. LONGITUDE: 119°39'48"W
9. UTM: 11U LF/ E083 N202
10. AIR PHOTO: B.C. 7668 020
11. MAP (a): 82 E/13, Peachland
(b): Ministry of Transportation and Highways, Design and Surveys Branch, Merritt-Peachland, Sheet A5 (1:5,000)
12. DRAINAGE
 - (a) MINOR: N/A
 - (b) MAJOR: 7-Okanagan
13. ELEVATION
 - (a): 503 m ASL
 - (b): Ca. 10 m above Highway 97

14. CULTURAL AFFILIATION
 (a): Okanagan
 (b): Partly historic Euro-Canadian
15. SITE TYPE: General Activity: lithic scatter/Historic: Refuse dump, petroform, and trail remnant
16. DIMENSIONS
 (a) EXACT: 400 m N-S x 25 m E-W
 (b) ESTIMATED: Same
 (c) ORIGINAL: Same
17. CONDITION
 (a) PRESENT: 40% INTACT
 (b) FUTURE: Site will be impacted by proposed Merritt-Peachland Highway construction
18. PRIORITY:
19. DETAILED INFORMATION
 (a) VEGETATION ON SITE: Ponderosa pine, bunchgrass, and cactus
 (b) MAJOR VEGETATION: Ponderosa Pine-Bunchgrass
 (c) CULTURAL MATRIX: Site consists of surface artifacts, a petroform, and a trail remnant--no discernable cultural matrix
 (d) DEPTH OF CULTURAL MATRIX: N/A
 (e) NON-CULTURAL MATRIX: Yellowish brown sand and gravels
 (f) WATER SOURCE: Okanagan Lake is located ca. 500 m to the S
20. KNOWN FINDS AND PRESENT LOCATION:
 (1) Three lithic artifacts were located on, or in close proximity to the HBC Trail: a large red chalcedony (jasper) triangular bif-ace; a proximal portion of a stemmed? basalt projectile point; and a yellow/brown chalcedony core.
 (2) A disturbed section of the Hudson's Bay Brigade Trail measuring ca. 225 m long by 2 m wide;
 (3) Historic refuse dumps containing mostly tin cans (some solder-dot tops); and
 (4) A linear boulder/cobble petroform measuring ca 20 m long (E-W) by 1 m wide by 0.5 m high.
Several (ca. 10) shovel tests were dug but no other cultural material was found. The lithic items were collected, all others left in situ.

21. PHOTO RECORD: Arcas Associates, Coquihalla Highway Project, Merritt to Peachland Heritage Inventory (1986), Roll 1:3-10
22. PUBLISHED AND UNPUBLISHED REFERENCES
- (a): Coquihalla Highway Project, Merritt to Peachland. Detailed Heritage Inventory and Impact Assessment report by Arcas Associates (1987) - permit #1986-15, on file at the HCB
 - (b): Field notes by M. Rousseau (Arcas files)
23. SITE AGE AND/OR DATE
- (a): Prehistoric/early historic
ABSOLUTE: ; RELATIVE: XX
 - (b) SOURCE: As per observed artifacts
24. OWNER/TENANT: Pat Ryder, R.R. #2, S. 24, B.C. 2, Peachland, B.C. 767-9179
- 25.
- (a) INFORMANT: Same as above
 - (b) OBSERVER: Mike Rousseau and David Suttles (Arcas Associates)
DATE: March 19, 1986
 - (c) RECORDER: Mike Rousseau (Arcas Associates)
DATE: March 30, 1986
 - (d) REVISITOR: N/A DATE: N/A
26. REMARKS:

PLEASE NOTE: This site was recorded as part of the Coquihalla Highway Project Phase III (Merritt-Peachland) Heritage Resource Inventory and Impact Assessment carried out by Arcas Associates for the Ministry of Transportation and Highways and the Heritage Conservation Branch (permit #1986-15).

It appears that the prehistoric materials at the site were probably deposited along an aboriginal trail leading up from the lake through the narrow pass to the NE. Two of the items (the point base and the core) were found on the trail route, and the jasper biface was found about 20 m from where the trail is estimated to have passed. The trail was then used by the HBC and it may have been widened either during (1811-1846) or after (post-1846) the fur trade era. The length of the relatively intact section of the trail is 225 m NE-SW by ca. 2 m wide. Mr. Michael Ryder, who lives in the orchard to the SW of the site, indicated that the trail was

indeed a segment of the HBC trail. The petroform at the NE end of the site measures ca. 20 m E-W by 20 m long by 0.5 m high, and is probably historic as it lies along a survey boundary for the northern boundary of District Lot 3493. Mr. Ryder also noted that there used to be a Drive-In Theatre (1950s?) in the clearing where the site is located. It is probable that the cultural depression in the center of the site associated with the earthwork berms (for cars) was the projection shack.

The pre-W.W.I historic debris (i.e., solder-top cans) probably dates to the early homestead period (ca. 1890-1910). According to early survey maps, the boundary for Lot 2690 was surveyed in 1904 and the boundary for Lot 3493 was surveyed in 1913.

IMPACT STATUS AND RECOMMENDATIONS

Most of the site will be destroyed by construction of the Coquihalla Highway/Highway 97 interchange. Western section of HBC trail may not be affected, although continued gravel quarrying could destroy this feature.

Cultural yield at this site was very low and no further work is recommended. HBC trail is an interesting feature, but considered of low-to-moderate significance because of post-use modifications.

1. SITE NO.: DkQw 40

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. PREVIOUS DESIGNATION(S): DkQw T86-1
3. SITE NAME(S): N/A
4. LEGAL: District Lot 2690, ODYD
5. (a) LOCATION: Site is located on the W side of Okanagan Lake between Peachland and Westbank. Site is ca. 3.5 linear km NE of the mouth of Trepanier Creek, 75 m E of Drought Creek, and 400 m S of the northern boundary of Lot 2690. It is just S of the proposed Coquihalla Highway Phase III (Merritt-Peachland) centre line between km 118+100-118+400.
(b) ACCESS: Travel ca. 6.5 km NE on Highway 97 from Peachland to where Drought Creek crosses the highway (creek is quite small). Proceed for another 250 m to Ryder's orchard and farmhouse. Gain permission, go to W end of orchard. Site is ca 100 m N of the NW corner of the orchard on a ridge about 75 m E of Drought Creek.
6. ADMINISTRATIVE JURISDICTION
 - (a) REGIONAL DISTRICT: Central Okanagan
 - (b) FOREST/GRAZING DISTRICT: Kamloops
 - (c) HIGHWAYS DISTRICT: 2-29, Kelowna
 - (d) PARK DISTRICT: 2-1, Okanagan
 - (e) RESOURCE MANAGEMENT REG.: Thompson-Okanagan
7. LATITUDE: 49°48'08"N
8. LONGITUDE: 119°40'21"W
9. UTM: 11U LF/ E076 N198
10. AIR PHOTO: B.C. 7668 020
11. MAP (a): 82 E/13, Peachland
(b): Ministry of Transportation and Highways, Design and Surveys Branch, Merritt-Peachland, Sheet A5 (1:5,000)
12. DRAINAGE
 - (a) MINOR: Drought Creek
 - (b) MAJOR: 7-Okanagan
13. ELEVATION
 - (a): 505 m ASL

- (b): Ca. 5 m above Drought Creek
14. CULTURAL AFFILIATION
- (a): Okanagan
- (b): Unknown
15. SITE TYPE: General Activity: lithic scatter
16. DIMENSIONS
- (a) EXACT: 40 m N-S x 25 m E-W
- (b) ESTIMATED: Same
- (c) ORIGINAL: Same
17. CONDITION
- (a) PRESENT: 70% INTACT
- (b) FUTURE: Site is on southern edge of Merritt-Peachland Highway corridor in impact zone
18. PRIORITY:
19. DETAILED INFORMATION
- (a) VEGETATION ON SITE: Ponderosa pine, bunchgrass, and deciduous bushes (e.g., Saskatoon)
- (b) MAJOR VEGETATION: Ponderosa Pine-Bunchgrass
- (c) CULTURAL MATRIX: Vitreous basalt flakes (small) on surface--no discernable cultural matrix
- (d) DEPTH OF CULTURAL MATRIX: Unknown
- (e) NON-CULTURAL MATRIX: Sand and gravel
- (f) WATER SOURCE: Drought Creek is ca. 75 m to the W
20. KNOWN FINDS AND PRESENT LOCATION: Three small basalt lithic waste flakes were found on the roadway in the vicinity of the wrecked cars. Several shovel tests (ca. 10) were dug around and in the site area, however, no further cultural material was located. Items left in situ. Mrs. Pat Ryder (property owner) found a projectile point about 75 m S of the site area near the NW corner of the orchard.
21. PHOTO RECORD: Arcas Associates, Coquihalla Highway Project, Merritt to Peachland Heritage Inventory (1986), Roll 1:11-13
22. PUBLISHED AND UNPUBLISHED REFERENCES
- (a): Coquihalla Highway Project, Merritt to Peachland. Detailed Heritage Inventory and Impact Assessment report by Arcas Associates (1987) - permit #1986-15, on file at the HCB

- (b): Field notes by M. Rousseau (Arcas files)
23. SITE AGE AND/OR DATE
(a): Unknown prehistoric
ABSOLUTE: ; RELATIVE: XX
(b) SOURCE: N/A
24. OWNER/TENANT: Pat Ryder, R.R. #2, S. 24, B.C. 2, Peachland, B.C.
767-9179
25. (a) INFORMANT: Same as above
(b) OBSERVER: Mike Rousseau (Arcas Associates)
DATE: March 20, 1986
(c) RECORDER: Mike Rousseau (Arcas Associates)
DATE: March 30, 1986
(d) REVISITOR: N/A DATE: N/A

26. REMARKS:

PLEASE NOTE: This site was recorded as part of the Coquihalla Highway Project Phase III (Merritt-Peachland) Heritage Resource Inventory and Impact Assessment carried out by Arcas Associates for the Ministry of Transportation and Highways and the Heritage Conservation Branch (permit #1986-15).

The location of this site was pointed out by Mr. Michael Ryder (Pat Ryder's son), and he indicated that his mother found a projectile point near the NW corner of the orchard on the same ridge that the site is located on. I did not see this point, nor talk to Mrs. Ryder. The site where the point was reportedly found was thoroughly examined but nothing else was found.

IMPACT STATUS AND RECOMMENDATIONS:

It appears that this site will be destroyed by the proposed Merritt-Peachland Highway construction, however, because the cultural materials are sparse at the site, no further work is recommended.

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. PREVIOUS DESIGNATION(S): DIRc T86-1
3. SITE NAME(S): N/A
4. LEGAL: District Lot 2711, KDYD
5. (a) LOCATION: On the left bank (N side) of Pothole Creek about 11.5 km ESE of the rural community of Aspen Grove on Highway 5A; at the W end of a large meadow now used as a hay ranch by the Douglas Lake Cattle Company. About 100 m N of Coquihalla Highway Phase III (Merritt-Peachland) right-of-way between Km 50.1-50.3.
(b) ACCESS: Current access via a complicated network of dirt tote roads from Highway 5A; by 1988 should be able to drive almost directly to site along Merritt-Peachland section of Coquihalla Highway. 1986 access as follows: from Princeton or Merritt, proceed along Highway 5A to turnoff for Kentucky-Alleyne Lake Provincial Recreation Area, about 5 km S of Aspen Grove, then drive ca. 6 km NE and N to the SE corner of Alleyne Lake. A dirt road (plotted on current NTS maps) runs SE towards Loon Lake, then swings E and NE towards the site on D.L. 2711; this road crosses the centerline of the proposed Coquihalla Highway extension to Peachland near the Km 50.0 point, or about 15 km in from Highway 5A. Continue about 1.25 km further easterly along the road to a turnoff leading to the NW; it will be observed that the tote road traverses the crest of an outwash terrace and an open meadow lies just below and N of this feature. Proceed NW along the latter track--4WD will probably be required to make an awkward ford of Pothole Creek and to navigate flooded terrain between some of the buildings here. The site is situated on the N side of the creek; 10 of the structural features are located here, and an isolated hay barn will be found 375 m ENE behind a low hill.
6. ADMINISTRATIVE JURISDICTION
 - (a) REGIONAL DISTRICT: Thompson-Nicola
 - (b) FOREST/GRAZING DISTRICT: Kamloops
 - (c) HIGHWAYS DISTRICT: 2-25, Merritt

- (d) PARK DISTRICT: 2-5, Thompson River
(e) RESOURCE MANAGEMENT REG.: Thompson-Okanagan
7. LATITUDE: 49°53'52"N
 8. LONGITUDE: 120°28'52"W
 9. UTM: 10U FL/ E809 N301
 10. AIR PHOTO: BR 85043:68,1 Line 3SE (59-71)
 11. MAP (a): 92 H/16, Aspen Grove
(b): Ministry of Transportation and Highways, Design and Surveys Branch, Merritt-Peachland Sheet 24 (1:5,000)
 12. DRAINAGE
(a) MINOR: Pothole Creek
(b) MAJOR: 8-Thompson
 13. ELEVATION
(a): 1,172 m ASL
(b): N/A
 14. CULTURAL AFFILIATION
(a): N/A
(b): Historic
 15. SITE TYPE: Historic: Homestead
 16. DIMENSIONS
(a) EXACT: 210 m N-S x 360 m E-W
(b) ESTIMATED: Same
(c) ORIGINAL: Same
 17. CONDITION
(a) PRESENT: 90% INTACT
(b) FUTURE: Probably will not be affected by Coquihalla Highway construction
 18. PRIORITY:
 19. DETAILED INFORMATION
(a) VEGETATION ON SITE: Pinus contorta (lodgepole pine), Pseudotsuga menziesii (Douglas-fir), Populus tremuloides (trembling aspen), Alnus tenuifolia (mountain alder), Salix scouleriana (scouler's willow), Ribes lacustre (prickly gooseberry), Rosa woodsii (wood's rose), Rubus idaeus (wild raspberry), Arabis holboellii (holboell's rockcress), Capsella bursa-pastoris (shepherd's purse), Thlaspi arvense (field pennycress), Fragaria

virginiana (wild strawberry), Potentilla recta (erect cinquefoil), Epilobium angustifolium (fireweed), Prunella vulgaris (self-heal), Achillea millefolium (yarrow), Cirsium vulgare (bull thistle), Taraxacum officinale (common dandelion)

(b) MAJOR VEGETATION: Interior Douglas Fir

(c) CULTURAL MATRIX: Not observed

(d) DEPTH OF CULTURAL MATRIX: Unknown

(e) NON-CULTURAL MATRIX: Glacial outwash deposits

(f) WATER SOURCE: Pothole Creek flows past site to S

20. KNOWN FINDS AND PRESENT LOCATION: An historic ranch or homestead, presently used as a wild hay ranch by the Douglas Lake Cattle Company. A carriage house (Feature 1 below) had been lined with 1913-1915 vintage newspapers and magazines, so we might surmise that the site is at least that old; all of the older structures except for a hay barn (Feature 11 below) appeared contemporary with the carriage house. Metrical attributes of the buildings here as follows:

Feature 1: log carriage house, 5 m x 8 m; lined with newspaper and magazine clippings; about half a dozen dated fragments were observed--these dated between 1913 and 1915. Only one identification of a specific title could be made out--this was the Family Weekly Herald, a very well-known weekly news magazine popular in rural areas. This structure is pretty much intact, although beginning to sag along its NE corner; roof is in quite good condition.

Feature 2: a log house, 10 m x 11 m; this is a well-preserved gable-roofed structure still occupied by hay-cutters and hunters; a plank veranda faces the creek, and a trapdoor cellar is accessed from this.

Feature 3: a log barn, 8 m x 12 m; this has a low-ceilinged first floor and a high hay loft. Structurally the building seems well-preserved, but the roof is in poor condition.

Feature 4: a frame foundation, 6 m x 11 m; this may have been a log or frame structure (bunkhouse, perhaps?) that appears to have been removed; no wreckage in the vicinity indicates that a building here has subsequently collapsed or burned. A galvanized drainpipe

from the middle of this feature runs down to the creek.

Feature 5: a log chicken house, 5 m x 7 m; this structure is in good condition, and a log or pole fence surrounds this feature and the next.

Feature 6: a log bull pen or calving shed, 5 m x 10 m; functional assignation based on the association of this structure with a very large log fence; it is a shed-roofed building with unchinked walls, and the roof is missing.

Feature 7: a log horse barn, 12 m x 13 m; four stalls on the ground floor, while a small hay loft still contains some hay; the roof of this building is in poor condition, but the walls are generally good; a shed-roofed extension to the N has collapsed completely--this was of frame construction.

Feature 8: a log tool shed, 5 m x 6 m; this is a well-preserved, gable-roofed building with assorted broken farm implements and ironmongery within.

Feature 9: a upended frame shed, 3 m x 4 m; no perceptible function can be assigned; the structure has been tipped S off of its foundation near Feature 8.

Feature 10: a frame privy, 2 m x 2 m; this has been tipped into the creek from a location probably between the big log barn and the frame foundation.

Feature 11: a log hay barn, 6 m x 8 m; this building is 375 m ENE of the main site cluster, very near the N boundary of D.L. 2711; it appears to be quite well-preserved, and may not be as old as the other structures at this site.

A variety of other items were observed at this site; a plank cattle-loading chute suggest that this site might also be a round-up point that is not used as such any longer. A wheel-less hay wagon was observed. Strikingly absent is any diagnostic historic garbage--cans, bottles, and other household refuse.

21. PHOTO RECORD: Arcas Associates, Coquihalla Highway Project, Merritt to Peachland Heritage Inventory (1986), Roll 2:1-6, 32-38

22. PUBLISHED AND UNPUBLISHED REFERENCES

(a): Coquihalla Highway Project, Merritt to Peachland. Detailed

Heritage Inventory and Impact Assessment report by Arcas Associates
(1987) - permit #1986-15, on file at the HCB

(b): R. Brolly field notes (Arcas files)

23. SITE AGE AND/OR DATE

(a): 1913-1915

ABSOLUTE: ; RELATIVE: XX

(b) SOURCE: Dated newspapers and magazines from interior of carriage house

24. OWNER/TENANT: Douglas Lake Cattle Company, Douglas Lake, B.C.

25. (a) INFORMANT: Gordon McLeod, Aspen Grove, B.C.

(b) OBSERVER: R. Brolly and G. Howe (Arcas Associates)

DATE: June 1, 1986

(c) RECORDER: R. Brolly (Arcas Associates)

DATE: June 11, 1986

(d) REVISITOR: N/A DATE: N/A

26. REMARKS:

PLEASE NOTE: This site was recorded as part of the Coquihalla Highway Project Phase III (Merritt-Peachland) Heritage Resource Inventory and Impact Assessment carried out by Arcas Associates for the Ministry of Transportation and Highways and the Heritage Conservation Branch (permit #1986-15).

This historic ranch site is situated in D.L. 2711, ESE of Aspen Grove at Km 50.2 on the new right-of-way. No associated household refuse was observed, which makes it difficult to assess the nature and longevity of occupation here. The Crown Grant for the property was issued to Sarah Tyrer, Oliver Hubbard, and Florence Goulding on October 23, 1923, but the buildings on the site were built at least 10 years prior to this based on the presence of the 1913-1915 newspapers. Apparently the homesteads on Lots 2711 and 2712 were amalgamated sometime after the 1930s by a man named Harry Gilroy. Gilroy sold this property to Norman Wade in 1957, and Mr. Wade lived there until 1962. This property is currently used by the Douglas Lake Cattle Company as a wild hay ranch.

IMPACT STATUS AND RECOMMENDATIONS:

The highway design plans available in 1986 showed that the N edge of the proposed right-of-way just grazed the edge of this site; however, revised plans available after the field work was completed indicate that this site will be at least 100 m from the impact zone and will not be affected by the development project. No further work is recommended at this site.

1. SITE NO.: D1Rc 2

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. PREVIOUS DESIGNATION(S): D1Rc T86-2
3. SITE NAME(S): N/A
4. LEGAL: District Lot 2712, KDYD
5. (a) LOCATION: On the right bank (S side) of Pothole Creek about 11.75 km ESE of the rural community of Aspen Grove on Highway 5A; on a narrow, cleared terrace just above the creek and the wet meadow through which it flows; in the extreme NW corner of the D.L.; S of and below a dirt road that skirts the big meadow on D.L. 2711 and D.L. 2712. The site is N of the Coquihalla Highway Phase III (Merritt-Peachland) right-of-way between Km 50.7-50.9.
(b) ACCESS: Current access via a complicated network of dirt tote roads from Highway 5A; by 1988 should be able to drive almost directly to site along Merritt-Peachland section of Coquihalla Highway. 1986 access as follows: from Princeton or Merritt, proceed along Highway 5A to turnoff for Kentucky-Alleyne Lake Provincial Recreation Area, about 5 km S of Aspen Grove, then drive ca. 6 km NE and N to the SE corner of Alleyne Lake. A dirt road (plotted on current NTS maps) runs SE towards Loon Lake, then swings E and NE towards the site on D.L. 2712; this road crosses the centerline of the proposed Coquihalla Highway extension to Peachland near the Km 50.0 point, or about 15 km in from Highway 5A. Continue about 1.75 km further easterly along the road; a ruined log structure will be observed just N of the track. Park and hike about 50 m N down to the open terrace above Pothole Creek upon which is located the site, extending E from the structure visible from the road.
6. ADMINISTRATIVE JURISDICTION
 - (a) REGIONAL DISTRICT: Thompson-Nicola
 - (b) FOREST/GRAZING DISTRICT: Kamloops
 - (c) HIGHWAYS DISTRICT: 2-25, Merritt
 - (d) PARK DISTRICT: 2-5, Thompson River
 - (e) RESOURCE MANAGEMENT REG.: Thompson-Okanagan
7. LATITUDE: 49°53'44"N

8. LONGITUDE: 120°28'57"W
9. UTM: 10U FL/ E812 N298
10. AIR PHOTO: BR 85043:68, Line 3SE (59-71)
11. MAP (a): 92 H/16, Aspen Grove
(b): Ministry of Transportation and Highways, Design and Surveys Branch, Merritt-Peachland Sheet 24 (1:5,000)
12. DRAINAGE
(a) MINOR: Pothole Creek
(b) MAJOR: 8-Thompson
13. ELEVATION
(a): 1,180 m ASL
(b): N/A
14. CULTURAL AFFILIATION
(a): N/A
(b): Historic
15. SITE TYPE: Historic: Homestead
16. DIMENSIONS
(a) EXACT: 200 m NW-SE x 50 m NE-SW
(b) ESTIMATED: Same
(c) ORIGINAL: Same
17. CONDITION
(a) PRESENT: 75% INTACT
(b) FUTURE: Probably will not be affected by Coquihalla Highway construction
18. PRIORITY:
19. DETAILED INFORMATION
(a) VEGETATION ON SITE: Not observed, but see list for D1Rc 1
(b) MAJOR VEGETATION: Interior Douglas Fir
(c) CULTURAL MATRIX: Not observed
(d) DEPTH OF CULTURAL MATRIX: Unknown
(e) NON-CULTURAL MATRIX: Glacial outwash deposits
(f) WATER SOURCE: Pothole Creek is 5 m below and flows past site to N
20. KNOWN FINDS AND PRESENT LOCATION: An historic ranch or homestead, presently abandoned and going to ruin, but on property owned by the Douglas Lake Cattle Company. The relative ruination of this site

vis-a-vis nearby historic site DIRc 1 may mean that this ranch is older than that one. Features observed in 1986 as follows:

Feature 1: the ruins of a very large log barn, 15 m sq; the roof has collapsed to the level of the hay loft floor, but log courses seem quite sturdy; a curious aspect is an extension built onto the S end of this structure--this is several courses high and is more or less roofless; most striking, just one tiny opening, 0.3 m x 0.75 m, has been cut into the unchinked walls--there is no egress into the main area of the barn, nor outside; this part of the structure may have been left unfinished.

Feature 2: a log bunkhouse in two parts, 6 m x 12 m; main habitation area to the E is square with a plank floor, section to W appears to have a dirt floor and no passage to habitation area. The roof of this building has collapsed, but log walls seem sturdy.

Feature 3: a log-faced root cellar, 5 m x 5 m; this is a gable-roofed structure close to the bunkhouse described above.

Feature 4: the ruins of another root cellar, about 3 m x 5 m; this structure is due N of the previous feature and was excavated into the sidehill just above the creek.

Feature 5: a log horse barn, 5 m x 7 m; a couple of stalls were observed within, and some ironmongery was also seen; like Feature 2, the roof has collapsed.

21. PHOTO RECORD: Arcas Associates, Coquihalla Highway Project, Merritt to Peachland Heritage Inventory (1986), Roll 2:7-12
22. PUBLISHED AND UNPUBLISHED REFERENCES
 - (a): Coquihalla Highway Project, Merritt to Peachland. Detailed Heritage Inventory and Impact Assessment report by Arcas Associates (1987) - permit #1986-15, on file at the HCB
 - (b): R. Brolly field notes (Arcas files)
23. SITE AGE AND/OR DATE
 - (a): Unknown
ABSOLUTE: ; RELATIVE:
 - (b) SOURCE: N/A
24. OWNER/TENANT: Douglas Lake Cattle Company, Douglas Lake, B.C.
25. (a) INFORMANT: None

(b) OBSERVER: R. Brolly and G. Howe (Arcas Associates)

DATE: June 2, 1986

(c) RECORDER: R. Brolly (Arcas Associates)

DATE: June 11, 1986

(d) REVISITOR: N/A DATE: N/A

26. REMARKS:

PLEASE NOTE: This site was recorded as part of the Coquihalla Highway Project Phase III (Merritt-Peachland) Heritage Resource Inventory and Impact Assessment carried out by Arcas Associates for the Ministry of Transportation and Highways and the Heritage Conservation Branch (permit #1986-15).

This historic ranch site is situated in D.L. 2712, ESE of Aspen Grove at Km 50.8 on the new right-of-way. Absolute or relative dating of the site was not possible owing to the almost total lack of diagnostic historic artifacts, but it is the opinion of the surveyors that this site is at least as old as nearby D1Rc 1, which dates to 1913 or earlier. The Crown Grant for Lot 2712 was issued to Hans A. Haferdahl on October 13, 1930. It appears that the homesteads on Lot 2711 and 2712 were later amalgamated by a man named Harry Gilroy. Gilroy sold this property to Norman Wade in 1957, who lived there until 1962. This property is currently being used by the Douglas Lake Cattle Company as a wild hay ranch.

IMPACT STATUS AND RECOMMENDATIONS:

This site is at least 100 m from the highway impact zone and will not be affected by the proposed highway construction. No further work is recommended at this site.

1. SITE NO.: D1Rd 2

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. PREVIOUS DESIGNATION(S): D1Rd T86-1
3. SITE NAME(S): N/A
4. LEGAL: District Lot 1327, KDYD
5. (a) LOCATION: Site is located between Merritt and Aspen Grove immediately beside Highway 5A. It is 1.0 km N of the small community of Aspen Grove, exactly 75 m E of Highway 5A, and ca. 150 m N of a small lake in the SE corner of Lot 1327.
(b) ACCESS: Travel ca. 25 km SE of Merritt on Highway 5A; or 1 km N of Aspen Grove. Take small dirt access road leading E from the highway at the N end of a small lake. Site is ca. 75 m E of the highway, and is intersected by the dirt access road.
6. ADMINISTRATIVE JURISDICTION
 - (a) REGIONAL DISTRICT: Thompson-Nicola
 - (b) FOREST/GRAZING DISTRICT: Kamloops
 - (c) HIGHWAYS DISTRICT: 2-25, Merritt
 - (d) PARK DISTRICT: 2-5, Thompson River
 - (e) RESOURCE MANAGEMENT REG.: Thompson-Okanagan
7. LATITUDE: 49°56'50"N
8. LONGITUDE: 120°37'22"W
9. UTM: 10U FL/ E706 N352
10. AIR PHOTO: Unknown
11. MAP (a): 92 H/15, Aspen Grove
(b): N/A
12. DRAINAGE
 - (a) MINOR: Small unnamed lake on Otter Creek
 - (b) MAJOR: 8-Thompson
13. ELEVATION
 - (a): 1,065 m ASL
 - (b): ca. 5 m below highway
14. CULTURAL AFFILIATION
 - (a): Thompson and Nicola/Similkameen
 - (b): Historic Euro-Canadian

15. SITE TYPE: Historic: Homestead(?)
16. DIMENSIONS
- (a) EXACT: 25 m N-S x 15 m E-W
 - (b) ESTIMATED: Same
 - (c) ORIGINAL: Same
17. CONDITION
- (a) PRESENT: 20% INTACT
 - (b) FUTURE: Site lies ca. 25 m outside and to the E of the eastern boundary of the proposed highway corridor and therefore is not presently threatened with impact by the associated development. Upgrading and widening of the existing small dirt access road could impact site.
18. PRIORITY:
19. DETAILED INFORMATION
- (a) VEGETATION ON SITE: Small deciduous bushes, shrubs, and grasses
 - (b) MAJOR VEGETATION: Interior Douglas Fir
 - (c) CULTURAL MATRIX: Not observed
 - (d) DEPTH OF CULTURAL MATRIX: Unknown
 - (e) NON-CULTURAL MATRIX: Compact, poorly-sorted sand and gravels
 - (f) WATER SOURCE: Small lake is situated ca. 150 m to the S
20. KNOWN FINDS AND PRESENT LOCATION:
- Feature 1: A small building foundation measuring 3 m N-S x 2.5 m E-W x 1.0 m deep. In the feature were several rough-hewn planks containing square iron nails, which probably represent remains of the collapsed upper superstructure. It appears to be a small cabin or shed foundation. There is a distinct trench-like break facing SE toward the small marshy lake, in the rim of the feature.
- Feature 2: A low density concentration of early historic green and brown bottle glass and several pieces of porcelain.
- All items left in situ.
21. PHOTO RECORD: Arcas Associates, Coquihalla Highway Project, Merritt to Peachland Heritage Inventory (1986), Roll 4:13, 14
22. PUBLISHED AND UNPUBLISHED REFERENCES
- (a): Coquihalla Highway Project, Merritt to Peachland. Detailed Heritage Inventory and Impact Assessment report by Arcas Associates

(1987) - permit #1986-15, on file at the HCB
(b): Field notes by M. Rousseau (Arcas files)

23. SITE AGE AND/OR DATE

(a): Early Historic (ca. 1880-1910)

ABSOLUTE: ; RELATIVE: XX

(b) SOURCE: As per historic artifacts

24. OWNER/TENANT: Unknown

25. (a) INFORMANT: N/A

(b) OBSERVER: Mike Rousseau and Ian Kuijt (Arcas Associates)

DATE: September 24, 1986

(c) RECORDER: Mike Rousseau (Arcas Associates)

DATE: October 1, 1986

(d) REVISITOR: N/A DATE: N/A

26. REMARKS:

PLEASE NOTE: This site was recorded as part of the Coquihalla Highway Project Phase III (Merritt-Peachland) Heritage Resource Inventory and Impact Assessment carried out by Arcas Associates for the Ministry of Transportation and Highways and the Heritage Conservation Branch (permit #1986-15).

A small early historic site. The structure foundation is situated on the edge of an extinct shoreline. Local old-time resident, Dolores McLeod, was questioned about this site; however, she could not identify who occupied or used this structure or area. It appears to have been a small cabin or field work-shed. It has a southeasterly facing entrance.

According to Land Registry records, the Crown Grant for this property was issued to Kossuth Garcia on March 14, 1907, and the cultural remains on the property could date to this time period.

IMPACT STATUS AND RECOMMENDATIONS:

The site lies ca. 25 m to the E of the proposed corridor and will not be impacted by the proposed highway four-laning.

1. SITE NO.: DIRd 3

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. PREVIOUS DESIGNATION(S): DIRd T86-2
3. SITE NAME(S): William (Smoky) Chisholm's homestead
4. LEGAL: District Lot 1337, KDYD
5. (a) LOCATION: Site is located between Merritt and Aspen Grove. It is exactly 2.5 linear km N of Aspen Grove; and exactly 100 m N of the S boundary of D.L. 1337. The highway bisects the site.
(b) ACCESS: Travel ca. 23.5 km SE of Merritt on Highway 5A (or 2.6 km N of Aspen Grove) until an abandoned log cabin/barn on the W side of the highway is reached. Site occupies both sides of the highway.
6. ADMINISTRATIVE JURISDICTION
 - (a) REGIONAL DISTRICT: Thompson-Nicola
 - (b) FOREST/GRAZING DISTRICT: Kamloops
 - (c) HIGHWAYS DISTRICT: 2-25, Merritt
 - (d) PARK DISTRICT: 2-5, Thompson River
 - (e) RESOURCE MANAGEMENT REG.: Thompson-Okanagan
7. LATITUDE: 49°57'42"N
8. LONGITUDE: 120°37'04"W
9. UTM: 10U FL/ E709 N368
10. AIR PHOTO: Unknown
11. MAP (a): 92 H/15, Aspen Grove
(b): Map of Kamloops Division Yale District, Crown Grant #1140274
12. DRAINAGE
 - (a) MINOR: N/A
 - (b) MAJOR: 8-Thompson
13. ELEVATION
 - (a): 1,080 m ASL
 - (b): 1-2 m above highway
14. CULTURAL AFFILIATION
 - (a): Thompson and Nicola/Similkameen
 - (b): Historic Euro-Canadian
15. SITE TYPE: Historic: Homestead and schoolyard

16. DIMENSIONS

- (a) EXACT: 60 m N-S x 90 m E-W
- (b) ESTIMATED: Same
- (c) ORIGINAL: Same

17. CONDITION

- (a) PRESENT: 40% INTACT
- (b) FUTURE: Could be affected if this part of Highway 5A is up-graded. Not within impact zone of Coquihalla Highway Project.

18. PRIORITY:

19. DETAILED INFORMATION

- (a) VEGETATION ON SITE: Trembling aspen, small deciduous bushes, and grasses
- (b) MAJOR VEGETATION: Interior Douglas Fir
- (c) CULTURAL MATRIX: Not observed
- (d) DEPTH OF CULTURAL MATRIX: Unknown
- (e) NON-CULTURAL MATRIX: Compact sand, silt, and some gravel
- (f) WATER SOURCE: None immediately evident

20. KNOWN FINDS AND PRESENT LOCATION:

On the W side of the highway:

Feature 1: a log barn is the only standing structure remaining at the site, and it lies ca. 10 m W of the present highway. This barn measures ca. 6 m N-S x 5 m E-W x 3 m high, and is constructed with sawn logs and round wire nails.

On the E side of the highway:

Feature 2: a rectangular building foundation marked by cobbles and boulders measuring 7 m N-S x 6 m E-W

Feature 3: a small rectangular cultural depression measuring 2.5 m square by 0.75 m deep which was situated in the NE corner of the rectangular building foundation

Feature 4: a cobble cairn measuring 1.5 m dia x 0.25 m high, about 10 m SE of the building foundation

Feature 5: an historic refuse pile containing car and tractor parts and household items; about 15 m NW of the building foundation; and

Feature 6: a standing outhouse made of planks and round nails

measuring 2 m sq x 2.5 m high, located ca. 30 m SE of the building foundation.

All items left in situ.

21. PHOTO RECORD: Arcas Associates, Coquihalla Highway Project, Merritt to Peachland Heritage Inventory (1986), Roll 4:15-17
22. PUBLISHED AND UNPUBLISHED REFERENCES
 - (a): Coquihalla Highway Project, Merritt to Peachland. Detailed Heritage Inventory and Impact Assessment report by Arcas Associates (1987) - permit #1986-15, on file at the HCB
 - (b): Field notes by M. Rousseau (Arcas files)
23. SITE AGE AND/OR DATE
 - (a): Historic (ca. 1911 to mid-1940s)
ABSOLUTE: XX; RELATIVE:
 - (b) SOURCE: Mrs. Dolores McLeod; B.C. District of Yale Land Act Document No. 1140274
24. OWNER/TENANT: Unknown
25.
 - (a) INFORMANT: Dolores McLeod; Aspen Grove, B.C.
 - (b) OBSERVER: Mike Rousseau and Ian Kuijt (Arcas Associates)
DATE: September, 1986
 - (c) RECORDER: Mike Rousseau (Arcas Associates)
DATE: October 1, 1986
 - (d) REVISITOR: N/A DATE: N/A
26. REMARKS:

PLEASE NOTE: This site was recorded as part of the Coquihalla Highway Project Phase III (Merritt-Peachland) Heritage Resource Inventory and Impact Assessment carried out by Arcas Associates for the Ministry of Transportation and Highways and the Heritage Conservation Branch (permit #1986-15).

This is an historic site whose occupations date from 1911 to the mid-1940s. Informant Dolores McLeod (age 76), who has lived in the area all her life, indicated that this homestead was established by William (Smoky) Chisholm in 1910. The Crown Grant to Chisholm is dated March 2, 1911. His house, which used to sit on the E side of the highway (its original location might be the cabin indicated on the District of Yale Land Act map for Lot 1337) was moved to the N

end of Tule Lake (ca. 2.25 km to the E) in 1919, where it was used as a school for the children in the area. It burnt down in 1920 just before Christmas. A new school was built at Tule Lake in 1921, and it was later moved back to Smoky Chisholm's place sometime between 1930-1940. It was abandoned and dismantled in the mid-1940s. The rectangular cobble/boulder foundation at this site may be the foundation of this school. Some of the historic debris around this foundation (i.e., tobacco cans, glass mug fragments) suggest a date compatible with the reported use of the school.

The barn which stands on the W side of the highway was moved from Harry Charter's place, which used to be on the E side of the highway about 1.6 km N of the store at Aspen Grove (reported location of Charter's place is well outside the proposed highway corridor, and there is no remaining evidence for this homestead.

IMPACT STATUS AND RECOMMENDATIONS:

This site has some historic and public significance, as it has some nostalgic importance to local people who went to school there, and tourists occasionally stop to take pictures of the barn on the W side of the highway. However, this site is well south of the proposed Highway 5A interchange of Phase III of the Coquihalla Highway Project, and will not be impacted. Therefore, no further archaeological research is necessary at this location.

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. PREVIOUS DESIGNATION(S): DIRd T86-3
3. SITE NAME(S): The "Marshall Place"
4. LEGAL: District Lot 4276, KDYD
5. (a) LOCATION: Site is located between Merritt and Aspen Grove on the E side of Highway 5A. It is ca. 3.75 linear km N of the community of Aspen Grove, and is in the SW corner of Lot 4276. Site is 150 m N of the S boundary of L. 4276, and 75 m E of its western boundary.
(b) ACCESS: Travel 22.5 km SE of Merritt on Highway 5A and turn left (E) on an abandoned access road which is ca. 75 m N of a cattle underpass. Proceed through gate and continue on access road for ca. 0.5 km in a general NE direction to its end. Site is located on the W edge of a clearing at the road's end.
6. ADMINISTRATIVE JURISDICTION
 - (a) REGIONAL DISTRICT: Thompson-Nicola
 - (b) FOREST/GRAZING DISTRICT: Kamloops
 - (c) HIGHWAYS DISTRICT: 2-25, Merritt
 - (d) PARK DISTRICT: 2-5, Thompson River
 - (e) RESOURCE MANAGEMENT REG.: Thompson-Okanagan
7. LATITUDE: 49°58'12"N
8. LONGITUDE: 120°36'37"W
9. UTM: 10U FL/ E714 N378
10. AIR PHOTO: Unknown
11. MAP (a): 92 H/15, Aspen Grove
(b): N/A
12. DRAINAGE
 - (a) MINOR: A very small intermittent stream channel lies ca. 50 m E of the cabin; and marshes lie ca. 250 m to the NE and the NW.
 - (b) MAJOR: 8-Thompson
13. ELEVATION
 - (a): 1,080 m ASL
 - (b): N/A

14. CULTURAL AFFILIATION
- (a): Thompson and Nicola/Similkameen
 - (b): Euro-Canadian settler
15. SITE TYPE: Historic: Homestead
16. DIMENSIONS
- (a) EXACT: 15 m N-S x 15 m E-W
 - (b) ESTIMATED: Same
 - (c) ORIGINAL: Same
17. CONDITION
- (a) PRESENT: 40% INTACT
 - (b) FUTURE: Site is located ca. 150 m N of the presently proposed highway link right-of-way. It is not clear whether the site will be in conflict with a proposed intersection due to the lack of detailed development plans.
18. PRIORITY:
19. DETAILED INFORMATION
- (a) VEGETATION ON SITE: Douglas fir, deciduous bushes, and grasses
 - (b) MAJOR VEGETATION: Interior Douglas Fir
 - (c) CULTURAL MATRIX: Not observed
 - (d) DEPTH OF CULTURAL MATRIX: Unknown
 - (e) NON-CULTURAL MATRIX: Chernozemic brunosol
 - (f) WATER SOURCE: Small intermittent stream channel lies ca. 50 m to the E.
20. KNOWN FINDS AND PRESENT LOCATION:
- Feature 1: A standing log cabin measuring 5 m square by 2.5 m high. The roof has collapsed. It is set in a small clearing to the SW of a large swampy lowland area.
- All items left in situ.
21. PHOTO RECORD: Arcas Associates, Coquihalla Highway Project, Merritt to Peachland Heritage Inventory (1986), Roll 4:19-20
22. PUBLISHED AND UNPUBLISHED REFERENCES
- (a): Coquihalla Highway Project, Merritt to Peachland. Detailed Heritage Inventory and Impact Assessment report by Arcas Associates (1987) - permit #1986-15, on file at the HCB
 - (b): Field notes by M. Rousseau (Arcas files)

23. SITE AGE AND/OR DATE

(a): AD 1910 to 1922

ABSOLUTE: XX; RELATIVE:

(b) SOURCE: Mrs. Dolores McLeod

24. OWNER/TENANT: Douglas Lake Cattle Co. Ltd., Douglas Lake, B.C.

25. (a) INFORMANT: Dolores McLeod, Aspen Grove, B.C.

(b) OBSERVER: Mike Rousseau and Ian Kuijt (Arcas Associates)

DATE: September 24, 1986

(c) RECORDER: Mike Rousseau (Arcas Associates)

DATE: October 1, 1986

(d) REVISITOR: N/A DATE: N/A

26. REMARKS:

PLEASE NOTE: This site was recorded as part of the Coquihalla Highway Project Phase III (Merritt-Peachland) Heritage Resource Inventory and Impact Assessment carried out by Arcas Associates for the Ministry of Transportation and Highways and the Heritage Conservation Branch (permit #1986-15).

This is an historic homestead known locally as the "Marshall Place" on the E side of the highway in the SW corner of Lot 4276. It is in proximity to the proposed intersection/interchange with the Peachland connector. Dolores McLeod indicated that it was originally established by her sister Isabell Shuttleworth around 1910. Isabell lived there intermittently, and sold the place to Deacon Marshall and his wife Murtle in 1918. The latter had two sons. Marshall was a road foreman and he tended some dairy cows there. The Marshalls left the homestead in 1922. We noted some mining activity on the northern end of a large bedrock outcrop about 200 m NE of the cabin, and Dolores told us that this was the work of Louie Angel who prospected all over this general area between 1900-1920.

The Crown Grant for this property was issued to Matilda Paige and Isabelle MacKay (Shuttleworth?) on October 8, 1920, which appears to contradict some of the information provided by Mrs. McLeod, as she states that the property was sold to the Marshalls in 1918.

The exact status of this property between 1915-1925 is still uncertain.

IMPACT STATUS AND RECOMMENDATIONS:

It is unknown if this cabin will be impacted, as there is some uncertainty about the exact location of the interchange and the Peachland connector corridor. However, based on available 1:50,000 plans, it appears that this cabin is within the highway impact zone and will be disturbed by highway construction. This site is assessed as having low overall heritage significance, and no further work is recommended at this location.

1. SITE NO.: DIRd 5

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. PREVIOUS DESIGNATION(S): DIRd T86-4
3. SITE NAME(S): Garcia Homestead
4. LEGAL: Southern Half of District Lot 2817, KDYD
5. (a) LOCATION: Site is located between Merritt and Aspen Grove immediately W of Highway 5A. It is ca. 0.75 km SE of Tinmilsh Lake within the southern half of Lot 2817, and is 350 m N of the southern boundary of Lot 2817.
(b) ACCESS: Travel ca. 22.2 km SE of Merritt on Highway 5A until a cluster of early to modern historic log cabins and sheds on the W side of the highway are reached.
6. ADMINISTRATIVE JURISDICTION
 - (a) REGIONAL DISTRICT: Thompson-Nicola
 - (b) FOREST/GRAZING DISTRICT: Kamloops
 - (c) HIGHWAYS DISTRICT: 2-25, Merritt
 - (d) PARK DISTRICT: 2-5, Thompson River
 - (e) RESOURCE MANAGEMENT REG.: Thompson-Okanagan
7. LATITUDE: 49°58'19"N
8. LONGITUDE: 120°36'55"W
9. UTM: 10U FL/ E711 N380
10. AIR PHOTO: Unknown
11. MAP (a): 92 H/15, Aspen Grove
(b): N/A
12. DRAINAGE
 - (a) MINOR: Small marsh lies ca. 200 m to the E; Tinmilsh Lake lies ca. 0.75 km to the NW
 - (b) MAJOR: 8-Thompson
13. ELEVATION
 - (a): 1,090 m ASL
 - (b): 5 m above highway
14. CULTURAL AFFILIATION
 - (a): Thompson and Nicola/Similkameen
 - (b): Euro-Canadian settler

15. SITE TYPE: Historic: Homestead
16. DIMENSIONS
- (a) EXACT: 85 m N-S x 20 m E-W
 - (b) ESTIMATED: Same
 - (c) ORIGINAL: Same
17. CONDITION
- (a) PRESENT: 75% INTACT
 - (b) FUTURE: Proposed highway four-laning will not impact site.
18. PRIORITY:
19. DETAILED INFORMATION
- (a) VEGETATION ON SITE: Grasses
 - (b) MAJOR VEGETATION: Interior Douglas Fir
 - (c) CULTURAL MATRIX: Not observed
 - (d) DEPTH OF CULTURAL MATRIX: Unknown
 - (e) NON-CULTURAL MATRIX: Sand and gravels
 - (f) WATER SOURCE: Small marsh lies ca. 200 m to the E
20. KNOWN FINDS AND PRESENT LOCATION: Of heritage importance are two log structures on the W side of the highway:
- Feature 1: HF 1 is a large log house measuring ca. 10 m N-S x 6 m E-W and was built just prior to 1910 and was used until 1926;
- Feature 2: HF 2 is 7 m N-S x 5 m E-W and was built in 1924, and continues to be used.
- All of the other structures in this settlement are modern (post-1950). There used to be a cabin on the E side of the road, but it burnt down. There were also two barns but they were destroyed by the construction of the present highway. All items left in situ.
21. PHOTO RECORD: Arcas Associates, Coquihalla Highway Project, Merritt to Peachland Heritage Inventory (1986), Roll 4:21-24
22. PUBLISHED AND UNPUBLISHED REFERENCES
- (a): Coquihalla Highway Project, Merritt to Peachland. Detailed Heritage Inventory and Impact Assessment report by Arcas Associates (1987) - permit #1986-15, on file at the HCB
 - (b): Field notes by M. Rousseau (Arcas files)
23. SITE AGE AND/OR DATE
- (a): AD 1909 to present

ABSOLUTE: XX; RELATIVE:

(b) SOURCE: Mrs. Dolores McLeod

24. OWNER/TENANT: McLeod family, Aspen Grove, B.C.

25. (a) INFORMANT: Dolores McLeod, Aspen Grove, B.C.

(b) OBSERVER: Mike Rousseau and Ian Kuijt (Arcas Associates)

DATE: September 25, 1986

(c) RECORDER: Mike Rousseau (Arcas Associates)

DATE: October 1, 1986

(d) REVISITOR: N/A DATE: N/A

26. REMARKS:

PLEASE NOTE: This site was recorded as part of the Coquihalla Highway Project Phase III (Merritt-Peachland) Heritage Resource Inventory and Impact Assessment carried out by Arcas Associates for the Ministry of Transportation and Highways and the Heritage Conservation Branch (permit #1986-15).

This is an historic homestead known locally as the "Garcia Homestead". It is located on the W side of the highway within the southern half of Lot 2817. Its location is marked by two buildings on the 1:50,000 NTS map. It was initially settled by John Garcia and his wife Lillian shortly after 1900, although the Crown Grant for this property was not issued to John Garcia until February 21, 1924. Of heritage importance are two log structures (HF 1 and 2) on the W side of the highway. Dolores McLeod was born in HF 1 in 1910 and she has lived at this homestead all her life. Her husband's name was Scotty. All of the other structures in this settlement to the W of HF 1 and 2 are modern (post-1950). There used to be a cabin on the E side of the road; however, it burnt down. There were also two barns but they were destroyed by the construction of the present highway.

IMPACT STATUS AND RECOMMENDATIONS:

Proposed four-laning of the highway will not impact the historic log cabins (HF 1 and 2), and no further work is necessary at this site.

1. SITE NO.: DIRd 6

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. PREVIOUS DESIGNATION(S): DIRd T86-5
3. SITE NAME(S): The "Charters Place"
4. LEGAL: District Lot 385, KDYD
5. (a) LOCATION: Site is located between Merritt and Aspen Grove immediately E of Highway 5A. It is situated 1.0 km NE of Tinmilsh Lake in the NW corner of Lot 385, and is immediately E of the highway, and immediately S of the northern boundary of Lot 385.
(b) ACCESS: Travel 20.9 km SE of Merritt on Highway 5A until a corral and several log structures on the E side of the highway, and a log cabin and trailer on the W side of the highway are reached. The site is located on the left (E) side of the highway.
6. ADMINISTRATIVE JURISDICTION
 - (a) REGIONAL DISTRICT: Thompson-Nicola
 - (b) FOREST/GRAZING DISTRICT: Kamloops
 - (c) HIGHWAYS DISTRICT: 2-25, Merritt
 - (d) PARK DISTRICT: 2-5, Thompson River
 - (e) RESOURCE MANAGEMENT REG.: Thompson-Okanagan
7. LATITUDE: 49°58'59"N
8. LONGITUDE: 120°36'32"W
9. UTM: 10U FL/ E715 N393
10. AIR PHOTO: Unknown
11. MAP (a): 92 H/15, Aspen Grove
(b): Map for Pre-emption No. 265, July 1893
12. DRAINAGE
 - (a) MINOR: Large marsh and Tinmilsh Creek lie 500-750 m to the SE
 - (b) MAJOR: 8-Thompson
13. ELEVATION
 - (a): 1,065 m ASL
 - (b): Ca. 5 m above highway
14. CULTURAL AFFILIATION
 - (a): Thompson and Nicola/Similkameen
 - (b): Euro-Canadian settler

15. SITE TYPE: Historic: Homestead
16. DIMENSIONS
- (a) EXACT: 50 m N-S x 120 m E-W
 - (b) ESTIMATED: Same
 - (c) ORIGINAL: Same
17. CONDITION
- (a) PRESENT: 50% INTACT
 - (b) FUTURE: Proposed highway four-laning will not impact site.
18. PRIORITY:
19. DETAILED INFORMATION
- (a) VEGETATION ON SITE: Douglas fir, poplars, deciduous bushes, and grasses
 - (b) MAJOR VEGETATION: Interior Douglas Fir
 - (c) CULTURAL MATRIX: Not observed
 - (d) DEPTH OF CULTURAL MATRIX: Unknown
 - (e) NON-CULTURAL MATRIX: Sand and gravel
 - (f) WATER SOURCE: Large marsh lies ca. 500 m to the SE; Timmilsh Creek lies ca. 750 m to the SE
20. KNOWN FINDS AND PRESENT LOCATION:
- Feature 1: a building foundation marked by a rectangular arrangement of cobbles and boulders measuring 11 m N-S x 6 m E-W, and inside it was a scattering of old stove parts, metal cooking utensils, glass, porcelain, etc.;
- Feature 2: a log house measuring 8 m E-W x 6 m N-S x 2.5 m high;
- Feature 3: a log chicken coop measuring 6 m N-S x 5 m E-W x 1.75 m high; and
- Feature 4: a log barn measuring 8 m N-S x 7 m E-W x ca. 5 m high.
- All items left in situ.
21. PHOTO RECORD: Arcas Associates, Coquihalla Highway Project, Merritt to Peachland Heritage Inventory (1986), Roll 4:25-28
22. PUBLISHED AND UNPUBLISHED REFERENCES
- (a): Coquihalla Highway Project, Merritt to Peachland. Detailed Heritage Inventory and Impact Assessment report by Arcas Associates (1987) - permit #1986-15, on file at the HCB
 - (b): Field notes by M. Rousseau (Arcas files)

23. SITE AGE AND/OR DATE

(a): Late 1890s to early 1950s

ABSOLUTE: XX; RELATIVE:

(b) SOURCE: Mrs. Dolores McLeod

24. OWNER/TENANT: Douglas Lake Cattle Co. Ltd., Douglas Lake, B.C.

25. (a) INFORMANT: Dolores McLeod, Aspen Grove, B.C.

(b) OBSERVER: Mike Rousseau and Ian Kuijt (Arcas Associates)

DATE: September 26, 1986

(c) RECORDER: Mike Rousseau (Arcas Associates)

DATE: October 1, 1986

(d) REVISITOR: N/A DATE: N/A

26. REMARKS:

PLEASE NOTE: This site was recorded as part of the Coquihalla Highway Project Phase III (Merritt-Peachland) Heritage Resource Inventory and Impact Assessment carried out by Arcas Associates for the Ministry of Transportation and Highways and the Heritage Conservation Branch (permit #1986-15).

This is an historic homestead site known locally as the "Charters Place". It is located on the E side of the highway in the NW corner of Lot 385. The pre-emption map supplied by Randy Bouchard and Dorothy Kennedy, indicated that George Tinmilsh owned Lot 383 in 1893, and this is supported by the Crown Grant records which show that this lot was granted to George Tinmilsh on August 22, 1887. Mr. Tinmilsh was "a naturalized Indian" after whom a nearby lake and creek were named.

According to local old-time resident Dolores McLeod, this homestead was occupied just prior to 1900 by Harry Charters and his wife Pauline. Harry was a rancher and used to work for the Douglas Lake Ranch. The Charters left around 1910 or so. Their daughter Lillian lived there also, and she left around 1915. After that the place was rented to the McAvoy's (no first names obtained) for a few years, and in the early 1940s the Douglas Lake Cattle Co. Ltd. purchased the property. At that time Reginald Shuttleworth and his wife Alice moved in.

An historic road or trail is also shown on the 1893 map, but no evidence for this feature was observed.

IMPACT STATUS AND RECOMMENDATIONS:

The structures at this site do not lie within the proposed highway widening impact zone. However, a recently constructed corral on the E side of the highway does. No further work is required at this location.

1. SITE NO.: EaRd 15

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. PREVIOUS DESIGNATION(S): EaRd T86-1
3. SITE NAME(S): N/A
4. LEGAL: District Lot 4240, KDYD
5. (a) LOCATION: Site is located between Merritt and Aspen Grove, between Highway 5A and Courtney Lake. It is exactly 350 m N of the southern boundary of L. 4240, and immediately S of the picnic ground.
(b) ACCESS: Travel 18.5 km SE of Merritt on Highway 5A and park at public picnic/campground facility at Courtney Lake. Site is to the immediate S of the picnic ground between the highway and the lake in a small grassy field.
6. ADMINISTRATIVE JURISDICTION
 - (a) REGIONAL DISTRICT: Thompson-Nicola
 - (b) FOREST/GRAZING DISTRICT: Kamloops
 - (c) HIGHWAYS DISTRICT: 2-25, Merritt
 - (d) PARK DISTRICT: 2-5, Thompson River
 - (e) RESOURCE MANAGEMENT REG.: Thompson-Okanagan
7. LATITUDE: 50°00'18"N
8. LONGITUDE: 120°36'18"W
9. UTM: 10U FL/ E717 N417
10. AIR PHOTO: Unknown
11. MAP (a): 92 I/2, Merritt
(b): N/A
12. DRAINAGE
 - (a) MINOR: Courtney Lake
 - (b) MAJOR: 8-Thompson
13. ELEVATION
 - (a): 1,020 m ASL
 - (b): ca. 5 m below highway
14. CULTURAL AFFILIATION
 - (a): Thompson and Nicola/Similkameen
 - (b): N/A
15. SITE TYPE: General Activity: buried lithic scatter

16. DIMENSIONS

- (a) EXACT: 50 m N-S x 60 m E-W
- (b) ESTIMATED: Same
- (c) ORIGINAL: 100? m N-S x 75? m E-W

17. CONDITION

- (a) PRESENT: 40?% INTACT
- (b) FUTURE: Possible conflict existing with western edge of the site and the proposed highway four-laning project.

18. PRIORITY:

19. DETAILED INFORMATION

- (a) VEGETATION ON SITE: Grasses, small deciduous bushes, and poplars
- (b) MAJOR VEGETATION: Interior Douglas Fir
- (c) CULTURAL MATRIX: Chalcedony and basalt lithic artifacts in dark Ah horizon
- (d) DEPTH OF CULTURAL MATRIX: Unknown
- (e) NON-CULTURAL MATRIX: Compact sand and silt with small percentage of pea gravel
- (f) WATER SOURCE: Immediately beside Courtney Lake

20. KNOWN FINDS AND PRESENT LOCATION:

- #1: A basalt, stemmed Shuswap horizon (ca. 3500-2400 BP) projectile point was found in the cutbank in the very SW corner of the camp/picnic area;
- #2: A white chalcedony corner-notched Plateau Horizon (ca. 2400-1200 BP) projectile point was found in the eastern edge of the site near the lake where people have been digging for worms. Another flake was also found in this area. Both points were collected--held by the B.C.P.M.

21. PHOTO RECORD: Arcas Associates, Coquihalla Highway Project, Merritt to Peachland Heritage Inventory (1986), Roll 4:29, 30, 33, 34

22. PUBLISHED AND UNPUBLISHED REFERENCES

- (a): Coquihalla Highway Project, Merritt to Peachland. Detailed Heritage Inventory and Impact Assessment report by Arcas Associates (1987) - permit #1986-15, on file at the HCB
- (b): Field notes by M. Rousseau (Arcas files)

23. SITE AGE AND/OR DATE
 (a): Multicomponent prehistoric: Shuswap and Plateau Horizons
 ABSOLUTE: ; RELATIVE: XX
 (b) SOURCE: Diagnostic artifacts
24. OWNER/TENANT: Unknown
25. (a) INFORMANT: N/A
 (b) OBSERVER: Mike Rousseau and Ian Kuijt (Arcas Associates)
 DATE: September 26, 1986
 (c) RECORDER: Mike Rousseau (Arcas Associates)
 DATE: October 1, 1986
 (d) REVISITOR: N/A DATE: N/A

26. REMARKS:

PLEASE NOTE: This site was recorded as part of the Coquihalla Highway Project Phase III (Merritt-Peachland) Heritage Resource Inventory and Impact Assessment carried out by Arcas Associates for the Ministry of Transportation and Highways and the Heritage Conservation Branch (permit #1986-15).

This is a prehistoric lithic scatter site located on the western shore of Courtney Lake on the eastern edge of Lot 4240 immediately S of the camp/picnic area. The northern edge of the site appears to have been destroyed by the construction of this camp/picnic area, and the highway lies on top of its western edge. The estimated remaining portion of the site measures ca. 50 m N-S x 60 m E-W. A stemmed, basalt, Shuswap Horizon point was found in the cutbank in the very SW corner of the camp/picnic area, and a white chalcedony corner-notched Plateau Horizon point was found in the eastern edge of the site near the lake where people have been digging for worms. Another flake was also found in this area. Both points were collected, as they were not in primary context, and would have been picked up by someone later on. We dug several shovel tests throughout the site although nothing further was found. Pocket gophers and worm-digging activities have exposed large areas of the site near the shore; however, it appears that cultural material density is quite low.

IMPACT STATUS AND RECOMMENDATIONS:

The proposed highway widening may be in conflict with the western edge of the site, however, because of the location of the campground/picnic area, it is quite likely that this site will be avoided in an effort to straighten the present highway right-of-way. However this site may be impacted by highway widening activities and/or by the southward expansion of the campsite/picnic area. Even if such impacts should occur, no further work is recommended at this site as the cultural yield is very low, and the site is considered to have low overall significance.

BRITISH COLUMBIA ARCHAEOLOGICAL SITE INVENTORY FORM

2. PREVIOUS DESIGNATION(S): EaRd T86-2
3. SITE NAME(S): N/A
4. LEGAL: District Lot 4240, KDYD
5. (a) LOCATION: Site is located between Merritt and Aspen Grove, between Highway 5A and Courtney Lake. It is exactly 125 m S of the northern boundary of L. 4240.
(b) ACCESS: Travel ca. 18.25 km SE of Merritt on Highway 5A and park at the N end of the campground/picnic facility at Courtney Lake. Site is ca. 75 m N of the N end of the picnic area between the highway and the lake in a small grassy area.
6. ADMINISTRATIVE JURISDICTION
 - (a) REGIONAL DISTRICT: Thompson-Nicola
 - (b) FOREST/GRAZING DISTRICT: Kamloops
 - (c) HIGHWAYS DISTRICT: 2-25, Merritt
 - (d) PARK DISTRICT: 2-5, Thompson River
 - (e) RESOURCE MANAGEMENT REG.: Thompson-Okanagan
7. LATITUDE: 50°00'24"N
8. LONGITUDE: 120°36'20"W
9. UTM: 10U FL/ E716 N419
10. AIR PHOTO: Unknown
11. MAP (a): 92 I/2, Merritt
(b): N/A
12. DRAINAGE
 - (a) MINOR: Courtney Lake
 - (b) MAJOR: 8-Thompson
13. ELEVATION
 - (a): 1,020 m ASL
 - (b): ca. 1 m above highway
14. CULTURAL AFFILIATION
 - (a): Thompson and Nicola/Similkameen
 - (b): N/A
15. SITE TYPE: General Activity: buried lithic scatter

16. DIMENSIONS

- (a) EXACT: 15 m N-S x 15 m E-W
- (b) ESTIMATED: Same
- (c) ORIGINAL: Probably larger

17. CONDITION

- (a) PRESENT: 80% INTACT
- (b) FUTURE: In possible conflict with proposed highway four-laning

18. PRIORITY:

19. DETAILED INFORMATION

- (a) VEGETATION ON SITE: Grasses and small shrubs
- (b) MAJOR VEGETATION: Interior Douglas Fir
- (c) CULTURAL MATRIX: Basalt flakes in dark Ah horizon
- (d) DEPTH OF CULTURAL MATRIX: Unknown
- (e) NON-CULTURAL MATRIX: Sand, silt, and pea gravel
- (f) WATER SOURCE: Immediately beside Courtney Lake

20. KNOWN FINDS AND PRESENT LOCATION:

Three basalt flakes were noted: two were found on the surface, and the other was found in a shovel test beside them. They were left in situ.

21. PHOTO RECORD: Arcas Associates, Coquihalla Highway Project, Merritt to Peachland Heritage Inventory (1986), Roll 4:31, 32

22. PUBLISHED AND UNPUBLISHED REFERENCES

- (a): Coquihalla Highway Project, Merritt to Peachland. Detailed Heritage Inventory and Impact Assessment report by Arcas Associates (1987) - permit #1986-15, on file at the HCB
- (b): Field notes by M. Rousseau (Arcas files)

23. SITE AGE AND/OR DATE

- (a): Unknown prehistoric
ABSOLUTE: ; RELATIVE: XX
- (b) SOURCE: Lithic flakes

24. OWNER/TENANT: Unknown

25. (a) INFORMANT: N/A

- (b) OBSERVER: Mike Rousseau and Ian Kuijt (Arcas Associates)
DATE: September 26, 1986

- (c) RECORDER: Mike Rousseau (Arcas Associates)
DATE: October 1, 1986

(d) REVISITOR: N/A DATE: N/A

26. REMARKS:

PLEASE NOTE: This site was recorded as part of the Coquihalla Highway Project Phase III (Merritt-Peachland) Heritage Resource Inventory and Impact Assessment carried out by Arcas Associates for the Ministry of Transportation and Highways and the Heritage Conservation Branch (permit #1986-15).

This site is a small prehistoric lithic scatter located on the western shore of Courtney Lake in the northeastern corner of Lot 4240 on the E side of the highway about 75 m N of the northern end of the campground/picnic area. Pocket gopher disturbance had dug up two flakes about 20 m E of the present highway and ca. 25 m W of the lakeshore on a small low ridge. We dug about 5 shovel tests in the area and found one flake in one of the tests near where the other two flakes were noted. There was ample gopher disturbance over the entire area; however, no other cultural materials were observed. It appears that this site is a localized, low-density lithic scatter, which is probably the remnant of a small lithic reduction station. It is estimated to be about 15 m in diameter, based on the surface evidence and the shovel testing.

IMPACT STATUS AND RECOMMENDATIONS:

Four-laning of highway may impact this site; although the site would be avoided if highway expansion was restricted to the western side of the present highway. This would avoid the campground/picnic area and straighten the existing right-of-way. In any case, this site is assessed as having low significance, and no further work is recommended at this site.

APPENDIX II

INDIAN HISTORY AND KNOWLEDGE OF THE ASPEN GROVE TO PEACHLAND
CORRIDOR OF THE COQUIHALLA HIGHWAY

By Dorothy Kennedy and Randy Bouchard
British Columbia Indian Language Project, June 1986

This appendix presents the results of the ethnohistoric and ethnographic research undertaken by Dorothy Kennedy and Randy Bouchard of the B.C. Indian Language Project under the direction of Arcas Associates as part of the heritage resource inventory and impact assessment for the Coquihalla Highway (Phase III) between Merritt and Peachland. Because of the length of this appendix, a separate Table of Contents has been provided. The references appearing in this appendix are listed in the references cited section of the main report.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	123
INTRODUCTION	124
STUDY CHRONOLOGY AND METHODOLOGY	124
INDIAN HISTORY OF THE STUDY AREA	125
NATIVE RESOURCES IN THE NICOLA UPLANDS	127
HISTORIC SITES IN THE NICOLA UPLANDS	134
ETHNOGRAPHIC SIGNIFICANCE OF THE STUDY AREA	134
PROJECT IMPACT ON ETHNOHISTORIC AND ETHNOGRAPHIC SITES	135

ACKNOWLEDGEMENTS

We gratefully acknowledge the assistance that was provided to us in June 1986 by the following Indian people living in the Nicola Valley region: Chief Gordie Antoine, Albert and Bernadette Antoine, and Herb Manuel. At Westbank in August 1985 we were assisted by Brain Eli, Norman and Elizabeth Lindley, and at Penticton in September 1985 by Selina Timoyakin.

Also included in this present report is some information provided by William Alec of Quilchena and by Walker McRae and his wife of the Douglas Lake Indian Reserve in September 1984, at which time we were conducting research concerning the Merritt to Surrey Lake portion of the Coquihalla Highway.

We also wish to acknowledge the assistance of Delores McLeod, a descendant of one of Aspen Grove's early settlers, and her son Gordon and his wife, Val. Information was also provided during a telephone conversation with Arthur Schlender, who has maintained a trapline in the vicinity of the highway development.

The staff of the Provincial Archives of British Columbia, Victoria, and the Nicola Valley Museum and Archives, Merritt, provided us with professional and courteous assistance which we also acknowledge.

INTRODUCTION

This report forms part of the heritage resource inventory and impact assessment study of the Merritt to Peachland section of the Coquihalla Highway. The primary objective of the ethnohistoric and ethnographic research was to compile information concerning the history of Indian occupation and land use in the Merritt to Peachland area. It also included interviews with local non-Indians to obtain information about abandoned homesteads along the proposed highway corridor.

Emphasis was placed on the collection of information pertaining to possible heritage site locations in the vicinity of the proposed highway project. Because our terms of reference for this study only included the Aspen Grove to Peachland section of the proposed route, very little information was collected about the Merritt to Aspen Grove section. However, a review of the ethnographic literature and our own field notes suggest that this section of the route does not have high cultural significance.

The term Nicola Uplands, as used in this appendix, refers to the area of the Thompson Plateau bounded by the Nicola Valley to the north, the Okanagan Valley to the east, Trout Creek to the south, and the Coldwater River to the west.

STUDY CHRONOLOGY AND METHODOLOGY

The research for this report began in March and May of 1985, at which time we made a preliminary assessment of ethnographically-known sites in the Aspen Grove to Peachland area, based on archival documents from our own files. This entailed two person-days of research.

In late August and early September of 1985, we spent four person-days interviewing Okanagan Indian consultants in Westbank and Penticton. Westbank Indian Band Councillor Brian Eli arranged for us to meet Norman Lindley (NL), who was born in 1920, and his wife Elizabeth (EL), who was born in 1938. We interviewed them both at their home on the Westbank Indian Reserve and while driving with them around the area of Trepanier Creek and Westbank. These interviews related to their knowledge of the Indian people's utilization of this eastern portion of the study area. We also interviewed our friend of many years, Selina Timoyakin (ST), who was born in 1908. This interview, which also concerned the eastern portion of the study area, was conducted at the home of Selina's daughter-in-law on the Penticton Indian Reserve.

In February 1986, we spent an additional six person-days conducting archival research relating to the entire study area (Aspen Grove to Peachland). Most of this research was conducted at the Provincial Archives of British Columbia, Victoria.

A further six person-days were spent in early June, 1986, conducting interviews with Thompson-speaking and Okanagan-speaking Indian people. These interviews related to the westerly and central portions of the Aspen Grove to Peachland area. Coldwater Indian Reserve Chief Gordon Antoine arranged for us to meet with his parents, Albert and Bernadette Antoine, who also live on the Coldwater Reserve. Albert Antoine (AA), who was born in 1926, speaks Thompson and understands Okanagan, and Bernadette Antoine (BA), also born in 1926, speaks both Thompson and Okanagan. Gordie Antoine also arranged for us to meet with Herb Manuel (HM), who was born in 1937 and lives on the Spahomin Indian Reserve at Douglas Lake. Herb Manuel speaks Okanagan and understands Thompson.

Our interviews were conducted both at the home of Albert and Bernadette Antoine and while driving with them throughout that portion of the study area with which they were familiar. This same procedure was followed with Herb Manuel.

We also spoke with the McLeod family of Aspen Grove concerning early homesteaders in the Aspen Grove and Pothole Creek areas.

INDIAN HISTORY OF THE STUDY AREA

In the heritage resource inventory and impact assessment report for the Merritt to Surrey Lake section of the Coquihalla Highway Project prepared by Arcas Associates (1985a) in March 1985, we discussed the chronology of Indian history in the Nicola Valley (Kennedy and Bouchard 1985:70-80). In this report, we noted that although the Nicola Valley is occupied today by Thompson and Okanagan Indians speaking languages belonging to the Interior Salish division of the Salishan Language Family, their year-round residency in this area is relatively recent. The former occupants of the Nicola Valley (and also the Similkameen Valley) were the *stewix*, a now-extinct Athapaskan-speaking group, the remnants of whom were assimilated with the Salish-speaking peoples in the eighteenth and nineteenth centuries. Even earlier than this, around 1700, territorial boundaries throughout the interior plateau had changed with the introduction of the horse. This increased the Indian peoples' mobility, but now they required pasturage for their horses, and, beginning in the mid to late 1800s, their cattle. The grazing lands in the Nicola Valley area were plentiful and were a great attraction to the residents of neighbouring valleys.

Ethnographer James Teit (1930:214; 1900) described how the Shuswap Indians from the Kamloops area at one time spent the summer and fall months hunting and fishing around Salmon, Chapperon, Stump and Douglas Lakes, and even as far as the north end of Nicola Lake. But the horse-wealthy Okanagans from the head of Okanagan Lake were attracted to the Upper Nicola by the good grazing lands and by the good fishing and hunting areas, and they gradually drifted into this region.

Teit (1930:214) stated that the Shuswap ceded the Upper Nicola area to the Okanagan by agreement, but this was only after the Okanagan had encroached upon Shuswap hunting grounds. It was decided, however, that the Okanagan would have "the perpetual use over all the Shuswap territory...southeast and west of Chapperon Lake, comprising Douglas Lake and Fish [Salmon] Lake" (Teit 1930:266). It is interesting to note that several Shuswap place names in this area are still known today.

At first, the Okanagan Indian people limited their stay in this region to the summer months. These summer headquarters were around Salmon and Douglas Lakes, but eventually they established permanent settlements there.

Within the study area between Aspen Grove and Peachland, Thompson territory is said to have been defined quite precisely, at least by one source. This source is the famous Thompson Indian chief, Sexpinlm, who is quoted by Teit (1917a:50) as stating in 1858 that Thompson territory in this region was defined by a line running between the upper Quilchena Creek vicinity (the area known today as Hamilton Creek I.R. No. 7), and the area around Hedley on the Similkameen River.

The Thompson Indian practice of fishing and hunting in the Nicola Valley on a seasonal basis had apparently been followed for a long time. For example, Hudson's Bay Company employee A.C. Anderson observed in June 1846 that Nicola Lake was a "much frequented summer fishery" of the Thompson people (Anderson 1846).

Although the Thompson Indians had been intermarrying with the Nicola-Similkameen, Thompson permanent settlement in the area began only in the mid-1800s. At this time, people from throughout Thompson territory, but primarily from villages along the Fraser River, settled along the Nicola River and further intermarried with the few remaining Nicola-Similkameen.

The Thompson people also continued to hunt and fish around Douglas Lake and the population there became mixed Okanagan and Thompson (Teit 1930:214). It was slightly after the mid-1800s that Thompson Indians from the Boston Bar area travelled over the mountains and established homes along the Coldwater River. Again, the attraction was the rich grazing lands for their horses and cattle.

By the time George Dawson visited the Nicola Valley around 1880, the majority of the native population was either of Thompson or Okanagan ancestry. During his 1888 explorations, Dawson's guide told him that only eight men remained of the original Athapaskan-speaking people (Nicola-Similkameen) and that the Indians now inhabiting the valley were "new comers from various places". He further noted that it was the "good grass country for horses" that brought these people to the valley (Dawson 1888).

NATIVE RESOURCES IN THE NICOLA UPLANDS

Sites Associated With Hunting Activities

The same grasslands that fed the newcomers' horses had once supported large herds of elk. A Thompson myth recorded by Teit (1912:331) provided a Native explanation for the presence of elk in the Nicola Valley. In this story, one of the Grasshopper brothers killed an elk that had come out of the ground where the sun rises in the east. This elk was the first one ever to be seen and slaughtered, it was explained. Soon after this first elk was killed, two more elk appeared from the east and became the progenitors of all the elk in the Nicola Valley. In another myth recorded by Teit (1917a:6) concerning the origin of elk in the Nicola Valley, it was said that the Elk-wife of Coyote ran away and became a regular elk when Coyote tried to eat her.

Dawson (1888) observed elk antlers, both whole and partial, scattered throughout the hills near Stump Lake. As well, Teit (1912:332fn.) remarked that elk were "very common in many parts of the Okanagan and Thompson countries, especially so in Nicola". And HM of the Douglas Lake Indian Reserve stated that elk were said to be formerly numerous in this region and that many elk antlers were said to have been found in the hills around Douglas Lake. This assertion is substantiated by the archaeological work of David Wyatt (1972) who found numerous elk bones in sites throughout the Nicola Valley.

According to Teit (1930:268-269), the elk population decreased in the early 1800s. This decrease was partly due to massive elk drives both before and after a war expedition to Lillooet country that was lead by Chief Nicolas to avenge the death of his father. Great numbers of these animals were driven over cliffs and into enclosures to be slaughtered. Such a hunting method has also been described by HM who pointed out to us a place called *nxiyaxáptn* 'stick back end over cliff' on the Douglas Lake Indian Reserve where elk and deer were killed in this manner.

After the depletion of the elk, deer herds predominated in the Nicola Uplands. Consequently, data elicited from contemporary Thompson and Okanagan people concerning hunting are restricted mostly to deer. Along with the plentiful herds of deer, moose have been found here since the 1950s.

The Native people we interviewed emphasized strongly the importance of the area between Aspen Grove and Peachland, not only as a traditional hunting ground, but also as one still very much in use today.

Within this general area are a few ethnographically-recorded sites known as hunting camps, although it appears that none are directly within the proposed highway right-of-way. The distribution of these sites does, nevertheless, provide us with an ethnographic context in which any archaeologically-recorded sites can be evaluated.

Dawson (1892:14) noted that among the Interior Salish Indians, hunting areas were formerly owned by specific families. He stated further that at the time of his visits to the Nicola Valley, this practice was still preserved there, although it was practically obsolete among the Kamloops Shuswap. But property rights were not exclusive, he noted, and visitors participated in the distribution of freshly killed game and were given permission to hunt by the host group.

Today, however, the Indian people refer to specific hunting grounds used by members of various Indian bands. Each of the Native people whom we interviewed conceded that these specific hunting grounds are not used by one group to the exclusion of others. It appears to us that the entire area between Peachland and Aspen Grove is now a common hunting ground for both Okanagan and Thompson people. Local non-Indians whom we met confirmed that they, too, hunt in this game-rich area.

The Nicola Uplands continue to be important for hunting. Pick-up trucks and four-wheel drive vehicles utilizing numerous access roads allow hunting trips to be carried out on a one-day basis so that hunters are able to return home each evening. Consequently, the traditional Indian hunting camps have seldom been used since the 1940s.

The Thompson and Okanagan people whom we interviewed knew of several traditionally-used hunting camps in the general area of the proposed highway. One that they all mentioned was situated at Brenda Lake, which HM identified as *stkeltkitkw* in the Okanagan language. In former times the Indians burned the underbrush around here to encourage new growth for the deer's food. The Indian camp was on the north end of Brenda Lake where there was a large meadow in which their horses could be staked. HM believes that the old stakes for tying the horses can still be seen in this meadow. From this camp the hunters set out for the day to hunt in an approximately six-mile radius from the camp (HM). Pennask Mountain was known as an especially good deer hunting area that people travelled to from their Brenda Lake camp. Both NL and HM pointed out this mountain as a wintering place for deer.

"Pennask" is an anglicization of the Indian term *pengásk't* which HM stated is a Shuswap word meaning 'sky above all'. Teit (1917b), however, said this is a Thompson term meaning 'gathered to a point cloud', while Lerman's (1952-1954) Indian consultant said this was an Okanagan term. HM noted that this mountain is also called "Black Mountain" because its thick timber makes the mountain look dark when viewed from a distance. According to HM, when the deer travel from the Pennask area to the vicinity of Summerland they used to follow a route through an area about one kilometre southeast from Brenda Mine that is known locally as "Buck Point". This area has been destroyed by development, however. Because deer used to be found here, this was an area visited frequently by hunters (HM).

HM recalls his family participating in a fall hunting excursion to Brenda Lake in the 1940s. The expedition consisted of five men, all of whom were from Douglas Lake, two women, and three children, including HM. Large drying racks were the only permanent structures at the hunting camp. The men spent part of each day hunting and then helped the women

gather firewood for roasting and smoke-drying the meat. Once some deer were killed, one of the men remained behind at the camp and helped the women with the butchering. It was the children's job to tend the fires.

According to HM, the Westbank Okanagan Indians generally preferred the hunting grounds around the Barton Hills and Mount Gottfriedsen. However, NL of Westbank stated that his family prefers hunting between Paradise Lake and Reservoir Lake. NL also noted several deer hunting areas along Trepanier Creek as far west as MacDonald Creek that are no longer used because of development and cattle. Mount Miller (called tsk'lhixwils in Okanagan), Lookout Mountain, Silver Creek, Law Creek, Jack Creek, and Mount Coldham are among these former Westbank hunting grounds. NL recalled that base camps were located at the mouth of Clover Creek and at the McCall Lakes. He further noted that the Silver Creek and Lookout Mountain area was formerly an elk habitat but they left the area about thirty years ago.

AA of the Coldwater Indian Reserve described hunting camps used by Thompson people at Leonard Meadow and Loon Lake. He further noted that he had been told about a place called nxe'xlhniwt, which was said to be about one day's ride on horseback south of Pennask Lake, where both Thompson and Okanagan people camped while hunting deer.

Courtney Lake was a resting area for waterfowl, especially Canada geese, during their spring and winter migration and was therefore known as nkw'sixwátkw 'Canada geese water' (AA;BA; Paul 1973).

Sites Associated with Plant Gathering

While camped at the hunting grounds, the Indian people engaged in other activities as well, particularly fishing and plant food gathering. Concerning the latter activity, AA and BA recalled people picking pine mushrooms (Armillaria ponderosa) that grow in abundance around Pennask Lake. They, themselves have picked mushrooms tentatively identified as the "thunderhead mushroom" (Tricholoma gambosum) growing in the springtime around Minnie Lake. Pennask Lake is also one of the locations where Indian people pick the leaves of Labrador tea (Ledum groenlandicum) and where the bark of the subalpine fir (Abies lasiocarpa) was gathered when Mabel Joe of Shulus required a medicine to treat the beginning symptoms of tuberculosis (Turner 1985).

It was also noted by AA that the roots of xenxin (bugleweed [Lycopus uniflorus]) can be found in the swampy areas around Pothole Lake.

Huckleberries grow in abundance around Paradise Lake and NL and EL recall picking them there while fishing and hunting in the area.

Annie York of Spuzzum, who was raised in Merritt, noted that her family used to harvest black tree lichen (Alectoria fremontii) around Aspen Grove where it was very abundant (Turner et al. 1984).

Sites Associated with Fishing Activities

A variety of fish are available seasonally in widely dispersed areas of the Nicola Uplands. Consequently, the local Indian people developed a procurement strategy requiring an impressive knowledge concerning the logistics of seasonal movements that were appropriate to harvesting this resource. Some of this knowledge remains among those Indian people who continue to supplement their diet with locally-available foods. Several of the traditional fisheries are still visited, while others are still remembered but no longer used.

It appears there may only be one fishery where archaeological evidence of this activity may possibly be directly impacted by the proposed highway. This fishery was situated at the northern end of a small lake known locally as "Red Bull" Lake, which is the most northern of the Kentucky-Alleyne Lake chain. AA stated that a cylindrical basketry trap used in conjunction with a small weir was placed in the small stream that at one time drained into the north end of this lake. This type of trap was last used when AA's father was a young boy, although AA himself made a similar type of fish trap using an old bedspring. Thompson people continued to fish for trout in this lake until the late 1940s, but at that time a gill net was used instead of a trap. While at this fishery, the people camped on the prominent knoll on the east side of the lake (AA).

A basketry trap was also used to catch spring-spawning trout in the stream draining the north end of Pothole Lake. Kokanee were fished here in the fall. A weir was constructed across the creek and the fish were scooped from the water with a dip-net. While fishing at Pothole Creek, the people camped on the flats alongside the creek (AA). HM recalls that an elderly woman named Ada Mike from the Hamilton Creek Indian Reserve used to camp here while fishing for "brook trout" in the falls slightly downstream from the mouth of Pothole Creek. According to a 1901 pre-emption record, this area, D.L. 1213, was homesteaded by a man named J.E. Bate who, HM stated, allowed the Indian people to camp and fish here as they were accustomed.

Another well known fishery was Alleyne Lake, which is known among the older Indian people as "Jasper Lake", named after a man who homesteaded here. Remains of Bill Jasper's cabin can still be seen on the hillside at the northwest end of the lake. AA recalls that when he was a young boy, he camped in one of Jasper's abandoned buildings while his family fished in the lake. AA was told that the original Indian campgrounds were situated at the north end of the lake where a picnic area is now located, and on the knoll slightly to the east. This lake was especially noted for its whitefish, trout and suckerfish. AA stated that Indian people from as far away as Lytton and Douglas Lake came to fish in this lake and in others in its vicinity.

Situated between Crater Lake and the small unnamed lake to its immediate north was another Indian campground. AA observed only one species of fish in Crater Lake--a silver-coloured trout.

In the fall of the year some Thompson people made camp at the northern end of Missezula Lake while fishing for kokanee at the mouth of Shrimpton Creek, about one kilometre down the lake (AA).

One of the largest traditional Indian fisheries that attracted both Thompson and Okanagan Indians was at Pennask Lake. In June, people from as far away as Lytton and Boston Bar gathered at this lake to fish rainbow trout (AA; NL) and Dolly Varden char (Kennedy 1976). Indeed, the rainbow trout stocks in this lake are so plentiful that according to Regional Fisheries Biologist J.W. Cartwright, "Pennask would rate as one of the best pre-culture (rainbow trout only) lakes in British Columbia if not in Canada in terms of sustained natural production" (Cartwright 1976). HM noted that thousands of fish were caught here, all of a uniform size of about 12 inches long.

At the southwest end of Pennask Lake along the banks of Pennask Creek was where the Indian people camped while fishing (HM). The abundance of artifacts that we observed on the ground's surface when we visited this area with HM on June 6th 1986, substantiates this claim. Another significant archaeological site exists near the northwest end of Pennask Lake (Archaeological Site Inventory Form EaRa 1).

Rainbow trout may have been abundant in Pennask Lake, but for larger and tastier trout the people would fish in Marsh Lake, called nk'elhtútiyemxw in the Thompson language (HM). He explained that the fish caught at Pennask Lake would be preserved, while fish caught at Marsh lake would be eaten fresh.

Several other lakes in the Nicola Uplands were fished. One of them, Brenda Lake, is said to be another place where a basketry trap was used in conjunction with a small weir to catch trout. The trap was used in the small stream draining the north end of Brenda Lake. Alongside this stream was the Indian campsite (HM).

Paradise Lake, Pattison Lake, and Hatheume Lake were also trout and Dolly Varden char fisheries (HM; NL; Kennedy 1976), as was Minnie Lake, which is called nkáksulh (Lerman 1952-1954; HM). Both Lerman and HM stated that this lake's name was derived from the observation that fish die off here on a regular basis--HM specified that this occurs every four to seven years. Although both Lerman's informant and HM stated that nkáksulh means 'rotten fish,' the former said it was an Okanagan term while the latter identified it as Thompson. A substantial archaeological site has been recorded along the northwest side of Minnie Lake (Archaeological Site Inventory Form EaRc 1).

Still further away from the proposed highway is Chapperon Lake, called txwáxwitsn (HM; Lerman 1952-1954; Paul 1973). Herb Manuel stated that this word is a Shuswap term meaning 'jagged edge'. Louie Louis, Lerman's informant, who was born in Douglas Lake in 1894, said this was an Okanagan term meaning 'come together' because the Thompson, Shuswap and Okanagan people gathered here, and William Alec of Quilchena stated simply that it was a Thompson term. According to HM and William Alec, this was the first lake visited in the spring by the Nicola Valley Indians in search of suckers, peamouth, and trout.

When Indian Reserve Commissioner G.M. Sproat visited the Nicola Valley in 1878, he was told by local rancher Laurent Guichon that as many as a thousand Shuswap, Okanagan, and Thompson Indians gathered at this fishery each spring for fishing and festivities. Guichon also explained that fish of a large size and fine quality could be caught in this lake earlier than any other lake in the Nicola Valley region. The actual fishery that Sproat reserved was about one mile up the creek emptying into the east side of Chapperon Lake, although the campground, race track, and graves were situated at the northwest end of the lake (Sproat 1878; Woolliams 1979:20).

G.M. Sproat also reserved the fishery at Salmon or Fish Lake. HM stated that this lake is called kw'emknatkw, a Shuswap term, while Louie Louis (Lerman 1952-1954) and William Alec stated that this name is a Thompson term, which Louis translated as 'where they used to pile horns'. Harriet Paul (1973) also gave this name for Salmon Lake. Lerman recorded the Okanagan name for this lake as "stšāstmqumikain" (Lerman's transcription) and stated that the meaning of this term was the same as the Thompson name for Salmon Lake. This fishery was used by Okanagan, Thompson, and Shuswap people who camped at the north end of the lake while fishing.

Fishing occurs also during the winter months. Walker McRae and his wife of the Douglas Lake Indian Reserve noted that Indian people from the Douglas Lake and Quilchena area still fish for "shiners" in Kidd Lake, and use them for bait. Harry Robinson (Bouchard 1974) identified this lake as a7klhelhk'ink meaning 'place of shiners' in the Okanagan language, because of the abundance of these fish here.

Information on fisheries in the vicinity of the Trepanier Creek terminus of the proposed highway was provided by NL. September was the time when Okanagan Indians from Westbank and from the head of Okanagan Lake, and any others who wished to join them, gathered at the mouth of Trepanier Creek to fish for kokanee. The people camped along the north bank of the creek east of the present highway. An archaeological site has been recorded here (Archaeological Site Inventory Form DkQw 19). EL recalled seeing drying racks here in the early 1940s. After this time, people continued to fish in Trepanier Creek, but returned home each evening with their catch. Both NL and EL stated that it was around 1960 when Indian people stopped fishing at Trepanier Creek because of increased development in the immediate area of the creek.

Kokanee fishing in Trepanier Creek occurred as far upstream as the falls. In recent years gaff hooks have been used to catch the spawning kokanee, although in former times, dip nets, cylindrical basketry traps, or even simple snares manipulated by hand were used (NL;ST). The women dried the kokanee by first splitting it open and cleaning it, and then, after placing two small sticks across the flesh to keep it open, hanging it on a drying rack by means of a stick inserted through the tail end of the fish. ST of the Penticton Indian Reserve noted that kokanee could also be sun-dried by simply cutting off the head, cleaning the fish and hanging it on the rack. The female kokanee were occasionally dried whole (but cleaned) with the eggs intact, over a small red alder fire (ST).

Trepanier Creek also supported a rainbow trout fishery that attracted Indian people to it each spring. But it has been many years, according to NL, since Indian people fished here for trout.

While camped at Trepanier Creek the men hunted in the hills near the headwaters of the creek or crossed to the east side of Okanagan Lake (NL). At the Trepanier Creek campsite, both NL and EL observed sweathouses that the men used prior to hunting.

The Okanagan term for Trepanier Creek, *spekeḷkeḷihxw* 'bald eagle nest', was derived from the presence of these nests on the cliffs here around the falls. At one time, Indian people went here to get eagle feathers (NL; Lerman 1952-1954).

Silver Lake, west of upper Trepanier Creek, was another place where Westbank people fished for "lake trout" (NL).

Sites Associated with Mythological and Spiritual Activities

Certain places in the general vicinity of the study area between Aspen Grove and Peachland are known to the Indian people not because they harvested food there, but because of a peculiar characteristic or event said to have taken place there. Trepanier Creek is such a place. NL explained that older Okanagan people told him that *sts'wanáytmx* 'sasquatches' were known to be around this area. Apparently NL's grandfather came near one while horseback riding--he became dizzy and his horse ran away.

Another place that is said to be unusual is a small lake connected by a stream to the north end of Pennask Lake. This is believed to be the home of the *kwúkwi7 kwu7* 'water chief' (in the Thompson language). When an Indian doctor determines that a person is ill because their spirit-power has fallen into the water, he will go to this lake to retrieve it from the "Water Chief" (HM).

The late Matilda Chilhitza told HM that a pond near Pothole Lake is "sacred," although he does not recall the belief.

Sites Associated with Other Activities

The grasslands that first attracted the Thompson and Okanagan Indians to the Nicola Valley continued providing, until quite recently, open pasturage for their horses and cattle. A few specific areas for this purpose were noted by AA during our interviews in early June, 1986.

Until around 1940, Indian people pastured their horses during the summer months in the area between Courtney Lake and Kidd Lake. Part of this area, DL 385, was originally homesteaded by BA's grandfather, Tinmalst, whose Indian name was given to a creek and small lake in this area (Merritt Herald, Oct. 16, 1952).

Horses belonging to Indian people living on the Hamilton Creek Indian Reserve were left to feed on the wild hay in the area east of Tule Lake, according to AA.

Indian people from the Boston Bar area wintered their horses up around the Shrimpton Meadows because they were short of land along the Fraser River (AA). AA noted, however, that Shrimpton Creek homesteaders, Gilroy and Stephens, wintered their horses where the present Merritt golf course is now situated.

HISTORIC SITES IN THE NICOLA UPLANDS

Homesteading in the Nicola Uplands began mostly in the early 1900s, a full three decades after homesteaders established farms and ranches in the Nicola Valley. Whatever their reasons for settling here, these homesteaders established family-sized cattle operations. Several of these ranches lasted only a short period of time and were soon for sale. Almost all of them were bought for summer grazing by the Douglas Lake Cattle Company (Woolliams 1979:213).

It appears that the only buildings presently remaining from these homesteads that are near the proposed Aspen Grove and Peachland highway right-of-way are situated on District Lots 2711 and 2712, near the confluence of Quilchena Creek and Pothole Creek. This ranch is referred to by local residents as "the old Wade place", as Norman Wade ranched this property between 1957 and 1962 prior to its purchase by the Douglas Lake Cattle Company. Gordon McLeod of Aspen Grove stated that this land was originally pre-empted by Hans Halferdahl, who owned the buildings closest to Pothole Creek, and by a man named Hubbard, who owned the building set away from the creek. The buildings on these lots were recorded as two separate heritage sites (D1Rc 1 and D1Rc 2) during the heritage inventory. Detailed information on these sites is available in Section 3.2. and in Appendix I.

ETHNOGRAPHIC SIGNIFICANCE OF THE STUDY AREA

Based on the limited number of interviews we have conducted among the local Indian people in the Nicola Valley and Westbank areas, we conclude that the traditional and contemporary utilization of the study area as an Indian hunting ground is significant. The Indian people we interviewed fear that highway development will have an adverse impact on the resident deer and moose populations.

We have also concluded from our limited number of interviews with Indian people, and from our survey of the available literature, that the plant food harvesting still being conducted in the Nicola Uplands will not be seriously impacted by the development.

In addition, the contemporary Indian use of the Nicola Uplands lakes adjacent to the study area is clearly not as extensive as it was a generation ago. We found no information concerning either Sunset Lake or the small lake about 3 km west of Elkheart Lake, both of which appear to be within the proposed highway corridor. Major fisheries do occur at Pennask Lake and some of the other larger lakes in the general area, but none of these lakes is close to the highway corridor.

PROJECT IMPACT ON ETHNOHISTORIC AND ETHNOGRAPHIC SITES

The results of the ethnohistoric and ethnographic research suggest that only two possible heritage locations could suffer direct impact from the highway development project. These two sites are:

Possible Fish Weir on "Red Bull" Lake

This traditional trout fishery, possibly containing a fish trap and a weir, is located along a dry stream bed at the north end of "Red Bull" lake, the northernmost lake of the Kentucky-Alleyne Lake chain.

Historic Homestead in Lots 2711 and 2712

Two separate historic homesteads were located in this area along Pothole Creek. Detailed information concerning these two sites can be found in Section 3.2. and in Appendix I.

The impact of the highway development on these two locations is discussed in Section 5.2.