

Archeological Reconnaissance of Yukon-
Charley Rivers National Preserve

by

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National Park Service

Alaska Regional Office

1983

Yukon-Charley Rivers National Preserve
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ABSTRACT

Between June 5 and July 20, 1982, a prehistoric site survey was conducted in the Yukon-Charley Rivers National Preserve. Twenty sites were found along the Yukon River between Calico Bluff and Takoma Bluff. One site was found on the Charley-River between its confluence with Copper Creek and its confluence with the Yukon. Cultural resources discovered reflect a variety of ages and affiliations. Recommendations were made to the Preserve staff for the future management of the sites. Four of the sites found were considered highly significant.

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ACKNOWLEDGEMENTS

1. This project could not have been successful without the cooperation and support of many people. First of all, we owe a debt of gratitude to our crew, whose professionalism, strength of character and combined sense of humor enabled the survey to thrive under sometimes adverse conditions. This report is primarily for you--Peter G. Phippen (crew leader), Joseph A. Bartolini, James D. Bloemker, William G. Kirk, Diane Lang, W. Mark Luttrell, and Mark S. Roe.
2. In all phases of the project, we had the full support of the Division of Cultural Resources, Alaska Regional Office. Special credit is due Leslie Starr Hart, Craig W. Davis, Harvey M. Shields and William E. Brown -- for their support, guidance and insights.
3. Each staff member of the Yukon-Charley Rivers National Preserve contributed in his or her own way to completion of a successful field season. Without the continuing support of Superintendent David Mihalic, the survey would not have been the success that it was. Dave Evans shared his knowledge of the river, its historic cultural resources, and his hospitality as well. Bill Goebel's enthusiasm for the area's prehistory was infectious and his back country lore will be retold many times. Kate Cannon, Colette Daigle-Berg, Bill Berg and Steve Ulvi all lent us a helping hand in one way or another.
4. In addition, we wish to thank Bruce Ream and Pat Fall of the Cooperative Park Studies Unit, Fairbanks, for logistical support and their continued

friendship. The staff of Gates of the Arctic National Park and Preserve also provided logistical support. A special thanks goes to Gordon MacDonald of Sunshine Helicopters in Circle, Alaska for supplying and keeping track of us.

5. Finally, we give a special thank you to the people who live in Eagle and along the Yukon River who gave us their warm friendship and wisdom: Dick Cook, John O., Regi Goebel, Sage Patton, Faye and Richard Smith, Tony Jordan, and Sarge Waller--we all admire you deeply.

As always, any omissions or errors of fact are solely the authors'.

I. INTRODUCTION

The 1982 Yukon-Charley Archeological Survey is the result of an agreement between the superintendent of the Yukon-Charley Rivers National Preserve and the National Park Service, Alaska Regional Office. Its purpose was to locate, identify and initiate an understanding of prehistoric cultural resources within Preserve boundaries. This report is intended to make management recommendations to NPS and to primarily present our findings to the profession.

The mandate for the survey lies in a number of legal documents reflecting our need to know where cultural resources are and their significance in order to effectively manage them. These documents include the National Historic Preservation Act, Executive Order 11593, 36 CFR 60 and 36 CFR 61. Documentation of these resources, as reflected in this report, is written in compliance with NPS 28, Cultural Resources Management Guidelines, and 36 CFR 66 ---Recovery of Scientific, Prehistoric, Historic and Archeological Data; Methods, Standards, and Reporting Requirements: Proposed Guidelines.

Previous cultural resources surveys in the project area and its general vicinity have focused primarily on the Historic period and on subsistence strategies. Therefore, it was prudent to conduct a systematic archeological survey to identify prehistoric resources. Results of the four limited prehistoric site surveys conducted in the past 20 years indicated the strong possibility of locating sites of all ages, from "Early Man" to

Historic Athapaskan within the boundaries of the Preserve. Further, the potential of locating a deeply buried or stratified site, rarities in many areas of Alaska, was high due to the dynamics of the Yukon River and its tributaries. Also, the Yukon corridor was unglaciated during the Wisconsin glacial age, and is close to the hypothesized ice-free corridor connecting Pleistocene Alaska with the contiguous 48 states. For this reason, the area has great potential in elucidating problems relating to Early Man in the New World. In sum, the area encompassed by the Preserve is predicted to contain many prehistoric sites vital to the understanding and interpretation of many research problems in North American prehistory. The 1982 survey was an initial step taken toward this understanding.

II. RESEARCH DESIGN

A. Introduction

The outline of this research design is a combination of four sources: 36 CFR 66.2; NPS 28; Schiffer and Gumerman (1977:130-134) and Raab (1977:168). The following sections--previous relevant research, problem domains, theoretical and methodological considerations and procedures--provides the necessary context for proposed research in the Preserve.

B. Previous Relevant Research

Four prehistoric site surveys have been conducted within and around the Preserve over the past 20 years. Results were largely negative and, thus, the area remains poorly known. Most recent in-depth research has revolved around subsistence strategies (Caulfield 1976) and historic structures (Grauman 1977), rather than prehistoric remains.

The first prehistoric survey was undertaken by West in 1963 and 1964 (West et.al. 1965). The survey covered the Yukon corridor from the mouth of the Nation River downstream to the mouth of the Tanana, as well as a portion of the Steese Highway south of Circle. A total of 14 sites was found; most consisted of flake scatters. One site, Twelve Mile Bluff, was stratified and contained diagnostic artifacts. It is described more completely in Section IV.

The second survey was conducted by Hall and Stern in 1974 (Hall 1976). They "casually checked" the river banks along the lower 40 miles of the Charley River, and at the mouths of the Tatonduk, Nation and Kandik rivers. The only cultural remains encountered were several cabins and collapsed structures on the lower Charley. No prehistoric sites were found at any area checked during the survey.

A third survey conducted by Bowers and Hoch in 1976 (Bowers and Hoch 1978) covered the area from the headwaters of Copper Creek to its confluence with the Charley River. Of the 12 sites located, 11 were situated near the headwaters, while only one was found near the confluence of the Charley. All prehistoric sites were chipping stations or lookouts. Microblades were found at several sites indicating the presence of a core and blade industry.

The most recent survey was conducted by Craig Davis in 1981 (Davis personal communication 1982). The three-day reconnaissance was conducted to verify Bowers' and Hoch's field data, as well as to locate additional cultural resources. Thirteen new sites were encountered, each consisting of surface lithic scatters. One site contained a "double-ended" wedge shaped core, along with two associated microblades.

The Eagle area, just outside the eastern boundary of the Preserve, has received much attention in recent years due to Fort Egbert and the Eagle Historic District. Andrews (1977) discussed nine prehistoric localities in the immediate vicinity of Fort Egbert. Sites consisted basically of lithic scatters and one group of eight house pits. At least ten additional

prehistoric localities and several historic sites were recorded for this area as part of a data inventory for the Bureau of Land Management in 1977 (Shinkwin, et al. 1978).

Beyond these recent investigations, little has been accomplished systematically within or near the Preserve. Information collected in the 1930's and 1940's has been sporadically described in the literature. For example, Rainey (1940:32) mentions a large clay deposit used aboriginally to make pottery near Rampart Rapids; Hibben (1943:Pl. xv:d) illustrates a "Folsom-like" point found near Circle; and West (1963:51) describes an obsidian leaf-shaped point found in the vicinity of the Fort Egbert airfield in Eagle.

C. Problem Domains

A fundamental problem domain of this survey and many others concerns site location, or, why sites are located where they are. The basic underlying assumption is that site location is non-random and is determined by ecological variables. These variables include proximity to potable water, accessibility to game, visibility from the site, elevation, and availability of raw material with which to manufacture weapons and tools. Determination of a set of ecological criteria facilitates prediction of site location. This general approach is subsumed under the rubric of cultural ecology, discussed more fully in part D. Other problem domains, discussed below, are more specific questions dealing with cultural history or, the "where" and "when" of prehistory, rather than the "how" and "why".

While it is generally recognized that man entered the New World from Siberia by way of the Bering Land Bridge (Chard 1974; Hopkins 1967; West 1980), exact time periods and routes are hotly debated. Early lithic assemblages from Interior Alaska date to approximately 11,000 years ago, during the Late Wisconsin glacial age. At this time, much of the Interior, including the project area, was ice free (Pewe 1975:16, 21). Because the Alaska Range to the south and Brooks Range to the north were ice-covered throughout the Wisconsin, the project area and surrounding territory may have functioned as a natural "refugium" for human and animal populations.

The project area is located strategically to address issues concerning the timing and nature of man's early occupation of the Americas. The date for man's arrival in the New World is somewhat equivocal. Various specialists suggest times ranging from 60,000 to 70,000 years ago (Cook 1975) to between 13,000 and 15,000 years ago (Powers and Hamilton 1978; West 1980). Similar diversity of opinion concerns the nature of early adaptations as reflected in tool kits. Current evidence suggests three possibilities: a core and blade industry (Anderson 1968, 1970), a flake and core industry (Plaskett and Dixon 1978; Powers and Hamilton 1978), or a bone tool technology (Bonnichsen 1979; Irving and Harington 1973). It is highly probable that "Early Man" sites are located within the Preserve. Their discovery is not necessarily difficult; however, their recognition and interpretation is. Proper interpretation rests in locating a site which is stratified and datable, not merely "old".

A related problem is the chronological and cultural position of fluted and lanceolate points in Alaska. Some scientists contend that Clovis and

Folsom point technology originated during the Wisconsin age in Alaska and later spread to the American southwest, becoming the Paleo-Indian horizon. Others believe that the culture originated in the American southwest, south of the coalescing ice sheets and only later filtered north to Alaska, and recent dated finds on the North Slope tend to support this view. See West (1980:193-209), Hoffecker (1980) and Dumond (1980:984-991) for more in-depth treatment of the subject.

Resolution of this issue depends, in part, on the existence of an ice-free corridor between the Cordilleran and Laurentide ice sheets during late Wisconsin times, connecting Alaska with the high plains. The route taken would have passed east of the project area and gone southeast through Western Canada to the United States. Discovery of either a fluted or lanceolate point in secure stratigraphic, datable context within the project area is a distinct possibility and would help to solve the problem.

Another problem domain is the chronological range of core and blade industries. Again, there are contrasting viewpoints. According to some (Anderson 1968, 1970; West 1980), they appear 10,000 to 15,000 years ago and disappear about 6,000 B.P. in some areas. Others (Cook 1969, 1975; Shinkwin 1979) propose that they last considerably longer, possibly as recently as 1,000 years ago.

While locating an early manifestation of microblade technology in the project area would not refute its later existence, finding a recent microblade component would offer direct evidence of a stable, conservative tradition.

For example, securing micro-blades above the White River Ash, a volcanic tephra deposit dated to 1,890 years ago (Workman 1979) could speak to their enduring use in the Interior.

A problem domain related to the preceding one is the character of the earliest Athapaskan assemblages. The longest stratigraphic sequence of definite Athapaskan material extends back 1,200 years at the Klo-kut site on the Porcupine River (Morlan 1973). Yet, the nature of initial Athapaskan material culture is not fully recognized. Relating this issue to the preceding problem domain, a question which can be asked is: Do microblade technologies have a place in the "Athapaskan continuum," or do they predate it? The project area offers the potential for locating an Athapaskan site with a stratigraphic sequence perhaps longer than that of the Klo-kut site.

As will be shown in Section V, none of the above problems have been completely solved. The questions raised cannot be answered by any one survey. However, our findings may help address these issues. In other words, data collected during the 1982 field season provide another piece of the puzzle, another link in the chain in the pursuit of answers to extremely complex questions.

D. Theoretical and Methodological Considerations

Cultural ecology, a term made popular by Julian Steward in the 1950's, is an approach to anthropology and archeology which considers the role of man's interaction with his immediate surroundings. It focuses on the "important creative process..." in which "...culture change is induced by adaptation to (the) environment" (Steward 1955:5). It is not so much a

formal discipline with a recognized body of literature, but an approach, or "pervasive point of view" (Netting 1977:1). It sees man as a fundamental interacting component of the environment, yet recognizes the "super-organic factor of culture" (Steward 1955:31). The interface between environment and culture provides us with a theoretical point of departure in constructing a model of site location. The model utilized in this report is intuitive and qualitative due to the preliminary nature of the survey rather than formal, statistical and quantitative. Further, areas surveyed are so incompletely known that a statistical approach is inappropriate.

Our intuitive model of site location is comprised of two components--1) identifying, on an intuitive basis, landforms likely to yield cultural material eg. terminus, confluence of lake and stream, knolls, ridges and hills, and 2) utilizing ecosystemic information as a means of stratifying accessible portions of the project area. Underlying the model is the basic assumption that hunters and gatherers are intimately tied to their environment.

Refinement of our model was greatly enhanced by the geological report prepared for the survey. Based on variables such as time of deposition and adjacent landforms, Thorson (1982:10) identified the following "potential archeologic targets":

- eolian sands;
- tributary junctions with terrace edges;
- corner of terrace edges;
- intersection of Y4 terraces with the Yukon; and
- bluff edge sands.

Terms used frequently in this report, such as "Y4" are explained in Appendix C.

Our intuitive model of site location is comprised of two components--1) identifying, on an intuitive basis, landforms likely to yield cultural material eg. terraces, confluence of lake and stream, knolls, ridges and hills, and 2) utilizing ecosystemic information as a means of stratifying accessible portions of the project area. Underlying the model is the basic assumption that hunters and gatherers are intimately tied to their environment.

We operationalized the 1982 survey model by designing it to cover two major river corridors within the Preserve, the Yukon and the Charley; we were restricted to a portion of all accessible terrain. In essence, the project area was "stratified" to include a particular environmental zone, riverine, at the exclusion of others. Within the riverine system, the area was further stratified as stated earlier by selecting high probability areas based on physiographic characteristics of certain localities and on the geological report. Along the Yukon, we selected to survey confluences of major and minor drainages with the river. Selections included the mouths of major tributaries of such as the Tatonduk, Nation, Charley and Kandik rivers; and minor tributaries such as Thanksgiving, Washington and Weshrinarin creeks. Prominent landforms, such as high terraces and bluffs overlooking the river were also targeted as probable locations for game lookouts and quarry sites. These selections included Calico, Biederman, Chester and Takoma bluffs, and Kathul Mountain.

The same model was applied to the survey along the Charley. Additionally, the length of the river chosen was selected to supplement data retrieved by Bowers and Hoch (1978), who primarily surveyed upper Copper Creek. Their survey ended with an examination of the confluence of Copper Creek with the Charley. The 1982 survey began just above their end point and terminated at the confluence of the Yukon with the Charley.

While previous cursory survey at the mouths of the Nation, Kandik and Charley had been performed (Hall 1976; West, et al. 1965), results had been negative. A reexamination of these areas was justified in order to provide a check on results that were in apparent contradiction with our intuitive model.

E. Procedure

The 1982 survey may be classed as a non-exclusive comprehensive survey with sub-surface testing, the goal of which is to "...find all the types of archeological sites present in the area" (King 1978:37).

To accomplish this task, one three-man crew surveyed the Charley River and two three-man crews surveyed the Yukon. Base camps were set up at the confluence of a drainage, at a prominent lookout, or in a location between two high-potential areas. A particular base camp was used between four days and one week. From the camps, access to target areas was by foot or by boat. Along the Yukon, the two crews usually separated during the day to cover more ground. Usually, field decisions were made

after arrival at a preselected camp, so logistics were planned daily. Upon reaching the prescribed landform, subsurface testing was performed in likely spots, such as exposed areas, or along the lengths of particular terraces.

When a site was encountered, several procedures were followed. A standard rule for tagging was followed. Two stakes, designated A and B delineated a N-S baseline through the site. The northern (A) stake received a heavy weight aluminum tag with an Alaska Heritage Resource Survey Index number. If physiographic conditions did not permit a N-S baseline, an E-W line was set, with the tag on the western stake. If neither of these was feasible, the baseline was oriented in whatever manner the terrain allowed with the compass bearing noted and the stakes specifically designated A and B, with the A stake receiving the tag. A single stake with a tag was left at isolated artifacts. The distance between stakes A and B varied to accomodate a specific situation. Surface artifact provenience was recorded by distance and bearing. Test pits and shovel tests were mapped in relation to the baseline. Unless otherwise deemed necessary, all test pits were 50 x 50 cm and excavated in 5 cm levels until sterile soil was reached. Shovel tests were placed away from the main datum (A) to determine site limitation. Site limitations were determined by the presence or absence of cultural material in shovel test or surface indications.

All pertinent data were recorded on the Site Survey Form (Appendix D). A fundamental goal of this format was to record data in such a fashion that information was easily retrieved during the post-season report

writing stage. Soil and tephra samples were also collected for future analysis.

F. Conclusion

This research design as modified proved more than adequate. While we did not answer the questions raised in the problem domain section, we located material which will contribute information toward understanding these problems. Our intuitive model was particularly successful and underwent no modification during the field season.

Modifications to the research design were made in the methodological and procedural components. Chief among these modifications was the elimination of a second phase of survey, originally planned for the Upper Charley area. Another modification to the research design was to eliminate the amount of survey in low-lying boggy areas and many prominent areas separated from the river by burned and fallen timber. An additional modification entailed not covering several high-potential locations--the mouth of the Seventymile for example -- which had been considered prior to the field season.

Finally, based on our findings, we concluded that a predictive model of site location, beyond very general statements, would be premature due to the small amount of area surveyed. The reasons for these changes range from bad weather to faulty equipment, to time restraints, the vagaries that affect all expeditions. The intuitive model, however, is still quite operative. While there was a general reduction in the scope of work performed, we feel it ensured a higher quality of survey in those areas covered.

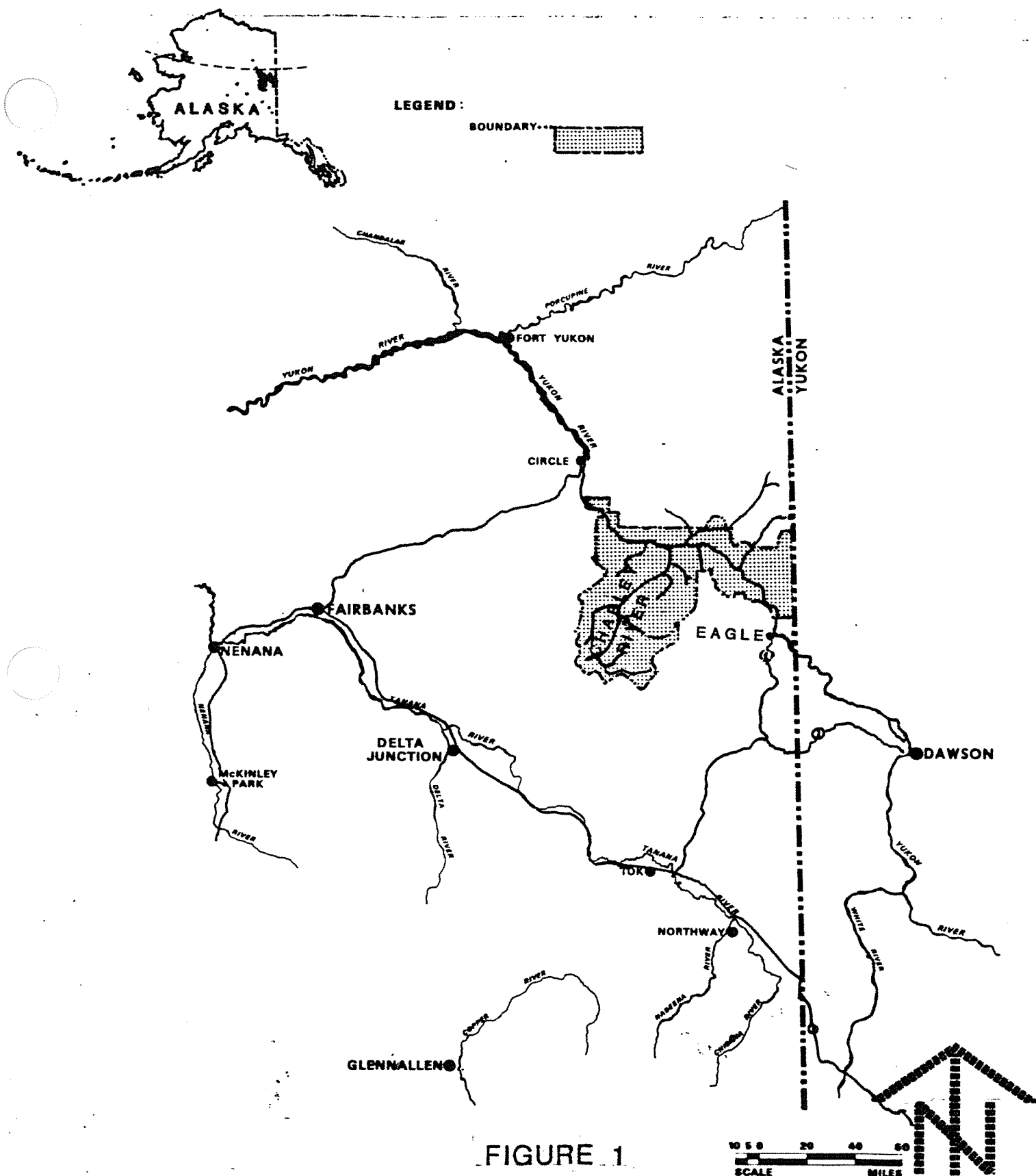
III. The Project Area

A. Physiography

Yukon-Charley Rivers National Preserve consists of 8,016 km² within the Northern Plateaus physiographic province of east-central Alaska. This province is comprised of a large ancient wedge of intricately dissected uplands and alluvium-covered valleys. Upland areas in the southern portion of the Preserve grade into a lowland belt. The two areas are demarcated by the Tintina fault zone which parallels the Yukon River, 10 to 20 km south of the river corridor (Alaska Planning Group 1975:29).

The Yukon River winds through the preserve for about 240 km and is bounded on one or both sides by terraces of early Holocene and Pleistocene age, high bedrock outcroppings, steep bluffs and mountains. This quite spectacular and rugged topography loses elevation and becomes flat just downstream of Takoma Bluff. The bluff marks the beginning of the Yukon Flats subunit of the Northern Plateaus province.

Throughout most of its middle course, the Yukon River generally trends southeast to northwest at about 200 to 300 m ASL (Young 1976:8). Sixteen to 32 km south of the main Yukon corridor and paralleling it, the gently rolling terrain becomes a rugged mountain subunit. Here, some peaks attain a height of over 1,900 m, rivaling areas of the Brooks Range (Young 1976:9). The Charley River draining an area south of the Yukon is the largest tributary within the project area. For most of its length it is characterized



THE REGION

YUKON — CHARLEY

YUKON-CHARLEY RIVERS NATIONAL PRESERVE, ALASKA

by rugged uplands, grading into more rolling terrain near its confluence with the Yukon.

B. Geology

The Tintina fault zone effectively cuts the area into two different geological provinces. To the south of the fault zone, bedrock is composed of metamorphosed Precambrian rock and Paleozoic sedimentary and igneous rock in association with Mesozoic granite. North of the zone is a series of unmetamorphosed and sedimentary rock ranging in date from Upper Precambrian to Upper Tertiary age (Alaska Planning Group 1975:30).

Along the main Yukon corridor, there were six stages in the evolution of the river (Thorson 1982:4-7). Stage 6, the oldest, represents the formation of bedrock units. During portions of this earliest stage, the Project Area was submerged (Alaska Planning Group 1973:33). By the early or middle tertiary, tectonic uplift and warping had occurred. Subsequently, during Stage 5, a plateau was created which now rises 300 to 600 m above the present river. Slightly later in the Tertiary, partially as a result of the tectonic uplift, the Yukon River was incised in this plateau from Canada to the Bering Sea, a distance of over 2400 km.

During Stage 4 times, the first terraces (Y4 and T4) were cut by the Yukon and its tributaries. These terraces occur between 30 and 90 m above the river and are assumed to have been formed prior to the middle Pleistocene. About 50 percent of Alaska was ice-covered during the Illinoian glacial

advance. In the project area, glaciation was restricted to local cirques and short valley glaciers (Pewe: 1975:116). Y3 terraces incised during Stage 3, are slightly lower in elevation (30m above the river) and are thought to have been formed between 120,000 and 50,000 years ago, probably during the last interglaciation.

Glaciation during the most recent advance, the Wisconsin, was much less pronounced than during the preceeding Illinoian advance (Bowers and Hoch 1978:10). The project area was ice-free except for cirque glaciers in the Upper Charley area (Pewe 1975:118). Unglaciaded areas, notably, the Yukon River corridor, are characterized by subdued, rolling topography. By contrast, in the Upper Charley, cirques, tarns, moraines and sharpened ridges provide evidence of the Illinoian and Wisconsin advances. Stage 2 terraces were cut during the Wisconsin, and date to between 32,000 and 13,000 years ago. They are found just above the level of the modern floodplain. Finally, Y1 terraces probably are as old as 5,000 and 6,000 years ago, dating to the Holocene. They occur on the margins of the modern flood plain and are subject to deposition and even eradication during spring breakup.

C. Ecosystems

Seven vegetation systems are found within the Project Area (Joint Federal-State Land Use Planning Commission 1975:283). Bottom land spruce-poplar forest is found in level broad floodplains, low river terraces and thawed south-facing slopes of rivers and major tributaries. Principal species

include white spruce, balsam poplar, cottongrass, alder, willow, various berries, ferns and mosses.

Upland spruce-hardwood forest is found on the Porcupine plateau. Characteristic plant species are white and black spruce, birch, aspen, balsam poplar, cotton-grass, willow, alder, currants, cranberry, raspberry, crowfoot, ferns and mosses.

By contrast, lowland spruce-hardwood forest is found in intermontaine basins, lowlands (e.g.--Yukon flats), shallow peat, glacial deposits, outwash plains, alluvial fans and on north-facing slopes. Principal species include white and black spruce, birch, aspen, balsam poplar, tamarack, cottongrass, willows, dwarf birch, cranberry, blueberry, mosses and ferns.

High brush communities are found in two distinct areas, 1) along riverbanks as an early stage of succession, following obliteration of more mature vegetation during spring break up, and 2) a "brush zone", usually located just above tiberline. Characteristic plants are aspen, balsam poplar, alder, dogwood, cranberry, blueberry, bearberry, crowberry, dwarf birch, sweetgrass, and lichens.

Lowbush bog and muskeg are ground within forest communities on old river terraces, outwash, filling ponds, and old sloughs. Principal plant species include tamarack, black spruce, cottongrass, bog rosemary, dwarf birch, willow, alder, cranberry, blueberry, buffaloberry, sedges and mosses. Bog communities are the product of permafrost close to the surface which inhibits drainage and aeration.

Moist tundra is principally found on rolling, south-facing terraces and ridges. No trees are present. Typical vegetation types include low growing willow, dwarf birch, alder, cottongrass, tufted hairgrass, blueberry, cranberry, sedges and mosses.

Finally, alpine tundra is found on mountains, along ridges, rubble slopes, alluvial fans and dry portions of river terraces. Characteristic plant species are dwarf birch, crowberry, mountain heath, sweetgrass, lichens, sedges and mosses. No trees are present. A third variety of tundra, dry (stony) tundra, is sometimes recognized. It is confined to dry rocky ridges, talus slopes and bluff faces. Vegetation consists of dwarf shrubs, a few wild flowers and grasses, lichens and mosses. In general, tundra is most extensive in the upper Charley and Seventymile area.

A variety of fauna--large and small mammals, and birds--crosscut these ecosystems. Five large mammals--moose, caribou, grizzly, Black bear, and Dall sheep--have inhabited the project area since the Pleistocene. Most other large mammals, such as mammoth, became extinct at the beginning of the Holocene, while most small mammals, muskrat and beaver for example, survived (Alaska Planning Group 1973:57-68).

Dall sheep inhabit a few rugged alpine areas, along a portion of the Tatonduk River for example. Moose and caribou, the principal foragers in the project area, have a wider range of exploitation. Caribou belong to the Fortymile herd. This herd, comprised of between 6,000 and 8,000 individuals, is the least predictable herd in Alaska, changing its seasonal round almost annually.

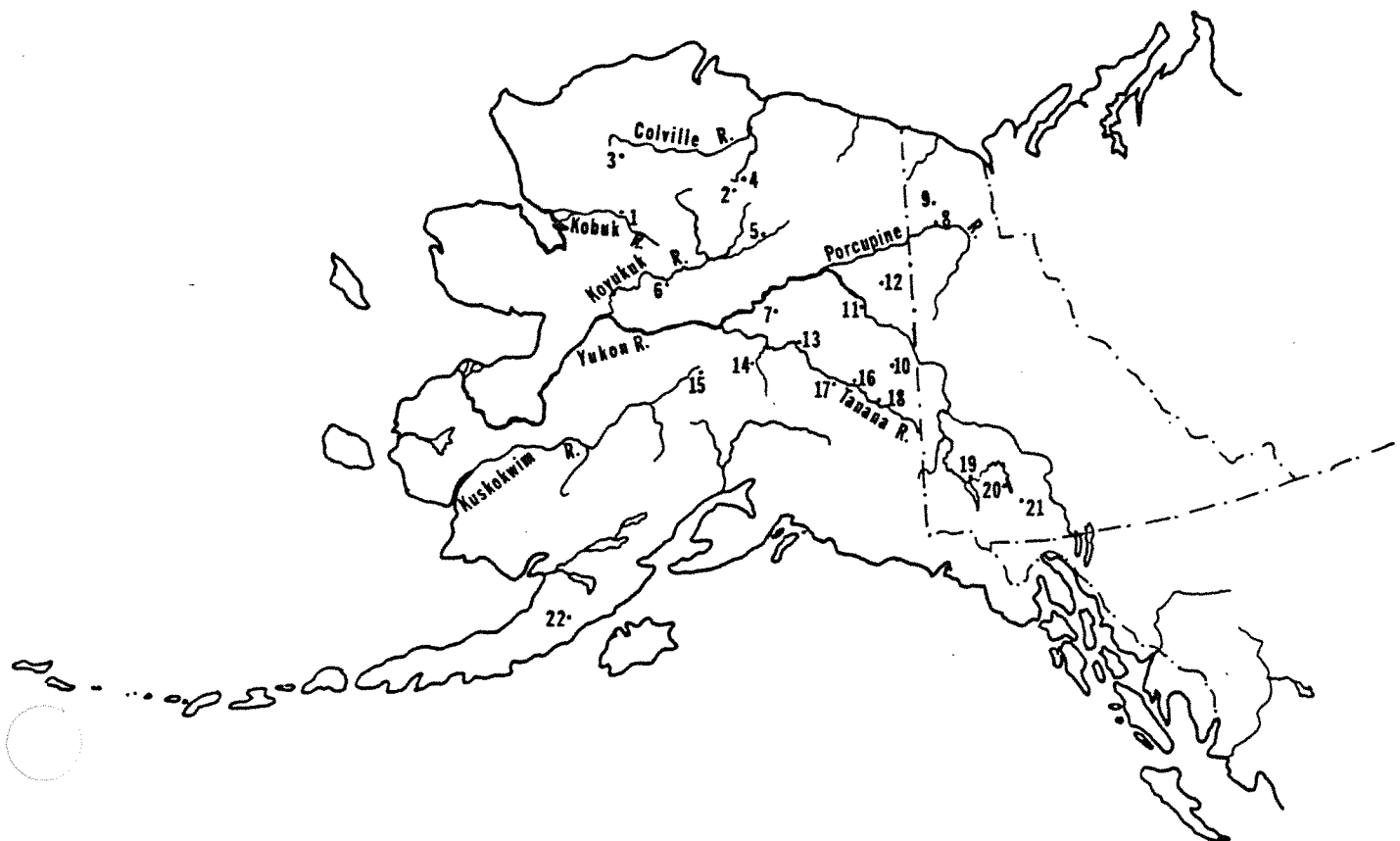
Generally, however, during winter, a segment of the herd inhabits the Salcha and Goodpaster area, while another travels to Canada. When spring arrives, the two groups meet either in the Charley drainage or at the headwaters of Birch Creek and Salcha River.

IV Prehistory

A. Synopsis of Interior Alaskan Prehistory.

A generally accepted model of the colonization of North America suggests that various groups arrived from northeast Asia by way of the Bering Land Bridge when Alaska was connected to Asia during the Pleistocene (Chard 1974:18; Muller-Beck 1967:373; West 1980). At this time, unglaciated Interior Alaska would have presented relatively favorable conditions to immigrants in contrast to the ice-covered Alaska Range to the south and the Brooks Range to the North. In essence, the two ranges may have acted as a natural funnel to the Interior for early populations of men and large game.

The earliest record of possible human occupation in the New World Arctic comes from Old Crow Flats, about 200 miles northeast of the project area (Irving and Harington 1973:335-340 ; Morlan 1980). Numerous bones of extinct Pleistocene and non-extinct Holocene animals were found in a redeposited context. Among them was a caribou tibia, the proximal tip of which was reworked into a flesher. A radiocarbon date of 27,000 years ago was obtained from the artifact, but the problem of whether the bone was modified more recently remains unsatisfactorily resolved for many specialists. A similar situation was recently reported from Chicken, Alaska, just south of the project area. Bones of Pleistocene caribou were found which appeared to have been broken by man (Dumond 1980:991; Morlan 1980).



RELEVANT ARCHEOLOGICAL SITES, ALASKA AND CANADA

- | | | | |
|----|-------------------|----|-----------------|
| 1 | ONION PORTAGE | 12 | CHALKYITSIK |
| 2 | ANAKTUVUK PASS | 13 | CAMPUS |
| 3 | LISBURNE, MESA | 14 | DRY CREEK |
| 4 | PUTU | 15 | LAKE MINCHUMINA |
| 5 | GIRL'S MILL | 16 | HEALY LAKE |
| 6 | BATZA TÉNA | 17 | DONNELLY RIDGE |
| 7 | LIVENGOD | 18 | DIXTHADA |
| 8 | KLOKUT | 19 | LITTLE ARM |
| 9 | OLD CROW LOCALITY | 20 | AISHINIK LAKE |
| 10 | CHICKEN | 21 | TAYE LAKE |
| 11 | 12 MILE BLUFF | 22 | UGASHIK NARROWS |

FIGURE 2

During the terminal Pleistocene, we have our first well-documented sites in Interior Alaska. Dry Creek, located near the town of Healy, contained three components. Component I, dated to $11,120 \pm 85$ years ago contained a large blade-like flake, a flake core, a small triangular biface, two possible burins, one chopper, six scrapers, and almost 300 flakes (Powers and Hamilton 1978:75). This and other recently found localities in the Nenana valley indicate the possibility of an early (10,000 to 12,000 B.P.) "Beringian point technology" followed by microcore and microblades complexes (Hoffecker 1980:4, 22).

The lowest level at the Village Site at Healy Lake, located near the confluence of the Healy River and the Tanana River, dates to $11,090 \pm 170$ years ago. It is characterized by bifaces and thin microblades (Cook 1969:259).

Another major site of this time period is Onion Portage, in northwest Alaska on the Kobuk River. In the lowest level, the investigator found an assemblage characterized by microblades, wedge-shaped cores and core bifaces (Anderson 1970:13). This assemblage, termed the Akmak complex, has been dated to 10,000 years ago (Anderson 1970:70).

Assemblages characterized by blades, microblades, bifaces of various sizes, a burin technology, core bifaces and occasional projectile points are generally grouped under the term, "American Paleo-Arctic tradition", as originally applied by Anderson to the Akmak and succeeding Kobuk complexes at Onion Portage (Anderson 1968:27-28). This name has been expanded to include other assemblages, possibly regional variants (Dumond 1977:41). Examples include West's Denali complex--in particular the Campus site in Fairbanks, the older component of Dixthada, and West's Donnelly Ridge site

on a tributary of the Tanana River (West 1967). Also subsumed under the tradition are Component II of Dry Creek (Powers and Hamilton 1978:75). and the Chindadn complex at Healy Lake (Dumond 1977:41; Cook 1969:115, 334).

According to Anderson (1968:29), the American Paleo-Arctic tradition terminated about 8,000 years ago at Onion Portage. After this date, there is another gap in the archeological record, lasting until 6,000 B.P. Fluted and lanceolate point forms may well fill this gap (see Dumond 1980:991). Fluted points are rare and found primarily in the northern half of Alaska, whereas lanceolate points have a wider distribution. There are problems associated with the interpretation of these forms culturally and chronologically. Fluted points may have developed in Siberia and spread to North America, or they may be an indigenous form to this continent (Clark 1981:108; Haynes 1966:1412). Concomittently, there is the problem of their placement in time. Some researchers place them quite early in Alaska, around 11,5000 B.P. or even earlier (Alexander 1973; Humphrey 1970), while others think they may be as recent as 4000 to 5000 B.P. (Gal n.d.; Hall 1969).

The position of lanceolate points is even more ambiguous. They appear throughout the state and date anywhere from 11,500~~0~~ years ago to 1,500 years ago (Workman 1978:209). It is our position that fluted and lanceolate points are most likely quite early based on certain finds, such as the Mesa site on the North Slope. Here, several lanceolate to pentagonal points in association with hearths date to 7,500 years ago (Bowers 1979:16, Kunz, personal communication, 1979). However, production of these points appears to be a long-lived tradition and while the Mesa site may give us a date for

their appearance, the exact range of their temporal placement is still unknown. It seems possible that these projectile points became incorporated into other Arctic traditions, notably the Eskimo continuum (Giddings 1963:4-11).

Following this apparent hiatus is the Northern Archaic tradition, as defined by the Palisades II and Portage assemblages at Onion Portage (Anderson 1968:30). Hallmarks of the Northern Archaic as reflected at Onion Portage include side and corner-notched projectile points, large irregular knives and large crescentic or oval bifaces. The Portage assemblage of this tradition includes basally thinned lanceolate points that are possibly derived from earlier forms. While microblades are absent in these particular assemblages, they occur elsewhere. The Northern Archaic is thought to represent a boreal-forest adaptation when the climate and vegetation of Interior Alaska became more stable than in earlier millenia. (Bowers and Hoch 1978:21).

The Tuktu complex of Anaktuvuk Pass (Campbell 1961:65, 69; Clark 1981: 112-113) contains all the diagnostics of the Northern Archaic, with the addition of tabular cores, microblades and a form of lanceolate point. It has been dated to about 6,500 to 6,000 B.P. While the Tuktu assemblage is possibly mixed, the association of side-notched points with microblades occurs elsewhere as at Healy Lake. A variant is found at Hank's Hill in the Livengood area (Cook 1977:275-276), where microblade segments were found together with corner-notched points.

The Twelve Mile Bluff site (CHR 001), located just outside the project area near Circle is most closely related to Tuktu (West, et.al. 1965:90-110). Immediately below the surface, fire cracked rock was encountered. Cultural remains of this upper component were attributed to a recent Athapaskan occupation. A deeper component produced the following artifacts: 1) small, side-notched points, 2) leaf-shaped or lanceolate Lerma forms; 3) notched pebble axes; 4) two forms of endscraper, and 5) "scraper planes or split pebble choppers." Core and blade technology was absent as were burins. Based on the "ubiquitous" temporal distribution of sidenotched and lanceolate points, West estimated the age of the 12 Mile Bluff Site at 5,000 years ago, with a range of 7,000 and 2,500 B.P. Cook (1975:128) dates the assemblage to between 6,000 and 4,300 B.P. based on typological comparisons. A site of similar content and age, with the addition of microblades, was recently reported near Chalkyitsik, on the Black River, a tributary of the Porcupine (Mobley 1982:20). However, it should be noted that the association between the points and microblades is unclear.

In the adjacent southwest Yukon territory, a technological break has been observed in the archeological record. The Little Arm phase, dated to between 8,000 and 4,500 years ago, is characterized by microblades, burins and other Paleo-Arctic hallmarks, while the succeeding Taye Lake phase, dated to between 5,000 and 1,600 B.P. emphasized a variety of notched points without microblades (Workman 1978:379, 404, 414). The break is so sharp, that a migration has been suggested between 4,000 and 5,000 years ago (Clark 1981:116). At Onion Portage, the occurrence of side-notched points without microblades has been interpreted as the displacement of

Eskimo progenitors by proto-Athapaskans migrating northward. The next levels at Onion Portage contain evidence of the first recognized Eskimo culture, the Arctic Small Tool tradition (Anderson 1968:30).

By the end of the early Northern Archaic, and during the time period at Onion Portage characterized by the Arctic Small Tool tradition (4,000 to 2,500 B.P.), a different line of development was occurring in the Interior. Generally, it appears that a proto-Athapaskan tradition was developing, marked by the association of notched or stemmed projectile points with the continued popularity of the Denali complex, culminating about 3,000 years ago (Derry 1975:136; Holmes and Bacon 1982). Microblades and Denali cores, or their variants, are apparently found into the first millenium B.C. at Dixthada (Shinkwin 1979:168-169), Lake Minchumina (Holmes 1973:100-101), Donnelly Ridge, and Healy Lake (Cook 1975:129). "Late Denali" sites are usually found in association with Kavik points (Derry 1975:136, 144), a high-shouldered, lozenge-shaped projectile point (Campbell 1968: 37) originally identified at Anaktuvuk Pass.

It would seem that the prehistory of Interior Alaska, from the end of the Northern Archaic times (4,200 B.P.) to the beginning of the late prehistoric age, is vaguely defined, with the exception of notched points associated with a microblade technology. This is thought by some to signify the beginning of the Athapaskan tradition (Cook 1975:129; Derry 1975:136). However, all manifestations of a late Denali complex have been called into question by F.H. West, who originally discovered and named the complex (West 1980).

About 1,890 years ago, a catastrophic volcanic eruption in the St. Elias mountains is said to have triggered a series of movements among the indigenous population in Central Alaska and the southwest Yukon (Workman 1979:349). A tephra deposit, called the White River Ash, the tangible results of the catastrophe, is found sporadically within the project area. It has been hypothesized (Derry 1975:134-135) that the results of the eruption precipitated an ecological imbalance of the affected areas, which was the cause of population reduction and movement. A suggested migration route begins in the southwest Yukon territories, runs northwest along local river systems to the west of Eagle, and then north, to the Porcupine River--Old Crow Flats area.

Kavik points are considered by some as diagnostic of a northern Athapaskan occupation (c.f. Clark 1981:118). These points have been found in Aishihik Lake phase sites (1,600-200 B.P.) in the southwest Yukon (Workman 1978:360-367); at the Dixthada site, midden deposits, dated to AD 1560 $\pm$ 50 and AD 1180 $\pm$ 40 (Shinkwin 1979: 65); Kloo-Kut, Historic and Late Prehistoric periods, dated between 600 and 100 B.P. (Morlan 1973:480); Healy Lake, Village site, level 2, dated to about 1,200 years ago (Cook 1969:291); and the Kavik type site, which dates to "...within the last few centuries" (Campbell 1968:33). Derry (1975:138, 140) suggests a distribution of Kavik points along the migration route as groups reorganized territories following the eruption 1,890 years ago. While Wilson (1978:187-199) concurs that this artifact is Athapaskan, he contends that the Kavik point is more recent, based on findings in the Brooks Range.

Taking into account glottochronological evidence (Krauss, in Workman 1973:253-254), we have an estimate of $2,500 \pm 500$ years ago for the original dispersion of Athapaskan speakers from their homeland, placed in the Tanana valley by Cook (1975:129). This date roughly coincides with the Neoglaciation and it may be hypothesized that the movement was in response to climatic deterioration. Around 1,620 years ago, roughly the same time range as the eruption in the St. Elias Mountains, linguistic evidence points to the dispersal of the Pacific and Apachean branches of the Athapaskan language family. In short, there appears to have been two periods of movement. It is at the time of the second hypothesized migration that Athapaskan assemblages are generally recognizable as such.

At Kloo-kut on the Porcupine River in the Yukon Territories, we have the longest documented continuum of Athapaskan prehistory, extending back 1,200 years. Characteristic of the Early Prehistoric Period (1,200 - 600 B.P.) are unifacially flaked implements and a high frequency of tchi-thos, flat stone scrapers of sandstone or schist (Morlan 1973:377). The Late Prehistoric period is characterized by an increase in the number of bone beamers and burinated flakes; a decrease in the number and quality of bone and antler tools; a decline in the use of birch bark; and the introduction of bifacial flaking (Morlan 1973:379,388).

Kloo-kut, especially the Late Prehistoric period, compares favorably with the upper level at Dixthada (Shinkwin 1979:158). In particular, similarities include Kavik points, end scraper forms, boulder spall scrapers, whetstones, hammerstones, and general similarities in bone tools (Shinkwin 1979:165).

Absent at Kloo-kut but present at Dixthada and Healy Lake is an apparently late manifestation of the Denali complex (Cook 1969:288). Core and blade technology is absent in the Aishihik Lake phase of the southwest Yukon (Workman 1978:366-367), but close counterparts in copper artifacts exist between this area and Dixthada (Shinkwin 1979:168). The lack of bifacial tool making in the early period at Kloo-kut is unique.

Clark (1981:118) gives the following list of artifacts typical of late northern Athapaskan sites: Kavik points, small side-notched points, tchi-thos, boulder flake implements, bone beamers and defleshers, heavy grooved adzes, slender barbed bone points, copper working, and, as one approaches the Historic period, European trade goods, hide-scraping stones, whetstones, or abraders, points, and basketry. However, in his comments on diagnostics of the Early to Late Prehistoric components at Kloo-kut, Morlan states:

The fragments of material continuity--bone beamers, end-of-the-bone-scrapers, tabular tch-de-tho, bark vessels, the use of hematite as red paint, certain forms of bone awls, stories concerning the use of stone adzes, and the presence of adze-cut stumps--lend confirmation to this ethnohistorical evidence, and they are inadmissible as conclusive evidence only because each of these traits is widespread and cannot be regarded as diagnostics of Kutchin material culture (1973:488-489).

In other words, some late Athapaskan sites may go unrecognized, because elements of their artifact inventory can occur in almost any context.

In the site descriptions presented above, it should be apparent that all sites share a constellation of traits, but no single site presents the complete range of artifacts. This may be due to regional, temporal or

seasonal variations. For example, Kloo-kut was occupied during the late spring and early summer (Morlan 1973: ii), while Dixthada was a winter village (Clark 1981:120). In sum there are many questions to be asked and answered before we know definitively the full nature and range of late Athapaskan occupation.

B. Summary

While archeological evidence is thus far scanty, it is possible that man entered the New World from northeast Asia, crossing the Bering Land Bridge as early as 60,000, to 70,000 years ago. The first possible evidence for early occupation is from Old Crow Flats, where a caribou flesher was dated to 27,000 years ago. The tool and associated date are highly debated.

Well-documented sites appear in the archeological record just prior to 11,000 years ago. Dry Creek, component I, exhibits a flake and core technology dated to $11,120 \pm 170$ years ago. Other early assemblages, such as the lower levels of Onion Portage and Healy Lake, exhibit a core and blade technology, defined as the American Paleo-Arctic tradition. Subsumed under this term is the Denali complex, including the Campus and Donnelly Ridge sites. A hiatus between 8,000 and 6,000 years may be more apparent than real. It is suggested that fluted and lanceolate points make their first appearance in the Arctic at this time, as Paleo-Indian technology diffused or migrated northward. Dating is insecure, however, and these artifacts have been placed as early as 11,500 B.P. and as recently as 3,000 B.P.

Northern Archaic assemblages provide evidence of a boreal adaptation and date to between 6,000 and 4,000 B.P. Side-notched projectile points, sometimes occurring in association with a core and blade technology, as at the Tuktuk site in Anaktuvuk Pass, are the hallmark of this time period.

After 4,000 years ago, Eskimo sites are discernable in the archeological record and are subsumed under the term, the Arctic Small Tool tradition. While appearing as close as Anaktuvuk Pass, no elements of Eskimo culture occur as far inland as the project area. At this time in the Interior, notched points and core and blade technology continue to be associated in many assemblages. At about 3,000 years ago, wedge-shaped cores and microblades seem to have been a major industry in Interior Alaska, although this has been the subject of much debate.

Presumably, Denali assemblages lasted in some areas, until early in the Christian era. About 1,890 B.P., a major volcanic eruption in the St. Elias mountains may have contributed to the displacement of several populations. An hypothesized route for their movement is from the southwest Yukon areas of Aishihik and Kluane Lakes, northwest, through the project area, and on into the Brooks Range. This displacement may coincide with the emergence of an Athapaskan tradition typified by Kavik points, tchi-thos, and other generalized implements.

Klo-Kut, on the Porcupine River, provides the longest unbroken prehistoric record of presumable Athapaskan occupation, from 1,200 years ago to the

Historic Period. It does not contain a core and blade technology, while other sites of this general time period -- Minchumina and Healy Lake-- apparently do.

The Denali elements in Athapaskan sites disappear by 1,000 A.D., while in the southwest Yukon, they are absent earlier, by about 3,000 years ago. After 1,200 to 800 years ago, the Athapaskan tradition is most likely present, probably having developed in the Tanana valley. However, many artifacts characterizing these assemblages are so generalized that lacking additional dates and long sequences, the precise nature of later Athapaskan prehistory has not yet been fully disclosed.

C. Recent Native Occupation

Most of the project area was inhabited by the Han group of Athapaskan Indians, one of the least known groups in Alaska. Unfortunately, only one major source exists on the Han. This is Osgood's (1971) "compilation of ethnographic and historical data" on the area. Osgood's fieldwork was performed during a period of three weeks in 1932, long after traditional Han culture had been thoroughly disrupted (1971:19). While it is a masterful attempt at ethnographic reconstruction based on such early sources as Schwatka, Schmitter, and Murray, it may not reflect accurately the aboriginal culture of the Han. However, all ethnographic accounts appearing after Osgood's--Hall (1976:333-353), Bowers and Hoch (1978:23-30); and Crow and Obley (1981:506-513)--are based on his accounts, and this discussion is similarly constrained, except where otherwise indicated.

Our rendition leaves out some components of Han culture and highlights others. The reason for this imbalance is to give more attention to those aspects which can be potentially discovered in the archeological record. A religious system cannot be excavated, nor can a social structure, but their material manifestations can sometimes be retrieved. Thus, the discussion addresses aspects of these systems along with technology, settlements, structures, the seasonal round, trade, status, wealth, burial practices and culture change. It should be clear that despite the ability to infer status or religion as reflected in material culture, eg. burial practices, the archeological record is biased, and much of Han material culture is lost. This bias, along with inherent deficiencies in Osgood's paper results in a somewhat distorted view of Han life at contact. Thus, while general conclusions may be drawn by careful investigation and comparison with neighboring groups, the specifics of Han culture may be beyond our grasp.

Han is a shortened form of Han Kutchin, the name given by the neighboring Kutchin tribes to the north and west. The name translates literally as "people of the river" (Crow and Obley 1981:512). The term Kutchin is a suffix meaning "people who dwell" (Nelson 1973:16). The natives living in Eagle today refer to themselves as Hungwichin, apparently a variant of Han Kutchin.

It cannot be said in all certainty how long the Han inhabited their aboriginal territory. The nature of the archeological record and our knowledge of the Han at contact are too fragmentary to say with assurance. Based on early sources, Osgood places Han territory between the Klondike River downstream

along the Yukon to Takoma Bluff, encompassing all major intervening tributaries-- the Fortymile, Seventymile, Tatonduk, Kandik and Charley Rivers. To the south, Han territory extended almost to the Tanana River and, to the north, stopped just below the headwaters of the Peel and Porcupine Rivers.

There were three Han settlements, corresponding to three local bands (Crow and Obley 1981:512). Farthest upriver was Nuklako, near the mouth of the Klondike, opposite Fort Reliance. A middle band was located at Johnny's Village (Klat-ol-klin), or David's Camp which are associated with present-day Eagle village. The third was Charley's Village (Tadush), located either at the mouth of or across from the mouth of the Kankik. Osgood recognizes a fourth village, Fetutlin, at the mouth of the Fortymile. However, recent reviews of the literature (Crow and Obley 1981:513) have determined that Fetutlin was actually Johnny's village. Mention of these permanent villages in the literature should not mislead the reader into thinking that the Han were a sedentary people. Mobility was quite high and boundaries shifted frequently (Bowers and Hoch 1978:24). Typically, a Han family spent seven months in a village along the Yukon or one of its tributaries (Hall 1976:338). Therefore, it seems that villages functioned as base camps from which various subsistence activities were launched. From July through September, salmon were caught along main waterways and berries were harvested. After freeze up in October major encampments were left in order to hunt, butcher and cache caribou away from the rivers. In late October, the Han returned to their villages, spending most of their time preparing for the upcoming winter. Several trips were made in late winter to their upland caribou meat caches. Villages survived on caribou meat until the spring.

Spring was a time of preparation for the upcoming salmon run. Although salmon and caribou were the mainstays of the Han diet, other resources were also utilized: bear, sheep, moose, lynx, beaver, wolverine, fox, wolf, ground squirrel, and various waterfowl and fishes. There was a good deal of flexibility among families year to year, depending on local conditions: "In lean years, the population was forced to disperse considerably--and venture into the hills in search of food. 'Fat' years may have resulted in greater population concentrations at the major village sites, probably along major rivers" (Bowers and Hoch 1978:28).

Several types of shelter were built (Bowers and Hoch 1978:29-30; Hall 1976:339). The first was a rather permanent moss house used in winter. A second type of winter house was less permanent, designed to be put up in one day's time. It was constructed of spruce poles and caribou skin. A variant of the "travelling house" was used in summer. It was similar, although the hearth was placed in front of it instead of inside it. Other structures included an emergency snow house, sweatbath, an open brush camp, smokehouse and platform cache.

Much of Han material culture is not visible in the archeological record because it was made of perishable material. Moose hide and caribou skin were used in clothing, doors, on houses, and lines. Willow rods were made into line, gill nets, dip nets, and basket traps. Birch bark provided containers and canoe covering. Bows and arrows were fashioned of spruce or birch. Other plant materials used were willow bark, whole willow, and spruce root. Many wooden items were decorated with red ochre, which was

also used to paint faces at dances. Many weapons and tools were made from bone and antler; arrowheads, fish spears, hunting knives, and awls are examples. Items such as large spoons were made of horn or wood.

Stone is one of the few materials which survive in this environment. Some projectile points, scrapers, and knives were made of varieties of local chert. Adze blades and hammerstones were fashioned of ground stone. Use of traded copper may be quite old, predating European contact. It was used especially in the manufacture of knives and projectile points. Finally, trade beads, dating as early as precontact times, provided decoration for clothing and skin bags.

Chieftanship was a much sought after position and its attainment was based primarily on wealth. Han chiefs initiated large feasts or potlatches, at various points in their careers. Potlatches involved the giving away of food and material items--moccasins, Hudson's Bay Blankets, and other European trade goods. A chief occupied a position of elevated status, as reflected in burial customs. The Han, by and large, practiced cremation, but chiefs were sometimes interred in a hollow log placed on a platform (Crow and Obley 1981:509). Only chiefs were buried this way, because this method of interment required much more work than simple cremation.

By the time of the first Euro-American contact, the Han were known as "active, aggressive traders," because of their central location between Hudson's Bay Company traders to the east and Russian posts in the west (Hall 1976:343). No doubt the Han had been long a part of a large trading

network, exchanging red ochre and other local items for copper weapons, beads and dentalium shells. Thus, they had contact with various neighboring Kutchin tribes, as well as the Tanana, Kaska and Tutchone (Osgood 1971:14, Fig. 1). The neighboring tribes to the north and west in turn traded with Eskimo Groups (Osgood 1970:66, 88). Within the project area, the neighboring tribe was the Kutcha Kutchin, or Yukon Flats Kutchin, whose territory extended along the Yukon from Sam Creek near Takoma Bluff, down to Fort Yukon (Slobodin 1981:516). The Han undoubtedly traded with and warred against them.

White contact was made in 1847, or shortly thereafter, with the establishment of Fort Yukon. The Han had been in indirect contact with the Russians to the west and Hudson's Bay Company to the east. For example, it was observed that the first group of Han to visit Fort Yukon were already familiar with tobacco (Hall 1976:349) and trade beads had been highly-prized possessions for some time. The first direct white contact within Han territory occurred about 1851, when a representative of Hudson's Bay Company travelled downstream from Fort Selkirk, passing through their territory. In 1873, a trader from Fort Yukon named Moses Mercier founded a post on Belle Isle, opposite what was to become Eagle City.

During this early contact period, Han culture began to slowly change. The first shift was in subsistence strategies. The Han came to rely less on hunting and fishing and became more interested in trapping for trading purposes at Fort Yukon. The introduction of firearms in the 1870's expanded the role of hunting at the expense of fishing.

During the 1880's and 1890's, various trading outposts and settlements were founded. Han culture continued to change with the adoption of western dress and with the use of the dog sled. There was an increasing dependence on white food staples such as lard and flour. Traditional dwellings were abandoned in favor of canvas frame tents and sawed-lumber cabins.

Gold had been known to be present in the Yukon Basin since the 1870's, but the first major strike, on the Fortymile, did not occur until 1886 (Crow and Olbey 1981:510). Throughout the last half of the 19th century, prospectors and miners came in ever increasing numbers. Circle City was founded as a mining camp in 1893. Other claims resulted in settlements at Seventymile in 1888 and at Mission Creek (Eagle) in 1895. In 1897, gold was discovered on the Klondike River in Canada and the "Klondike stampede" was on.

Literally tens of thousands of people poured into Han territory. Dawson, Eagle and Circle became boomtowns. Between these major nodes, smaller settlements and outposts--Nation, Miller's Camp, Biederman's, Slaven Cabin, Star City and Woodchopper Roadhouse--became hubs of activity. The Yukon River became the highway, connecting all of these places by riverboat.

The effect on the Han was irreversible. Major elements of their material culture changed. The fish wheel was introduced further changing their settlement patterns, the birch bark canoe was no longer made, and most traditional bone and stone tools were replaced by European or American implements. At this time, aspects of Han social structure--the clan systems, residence rules, and marriage customs--were drastically altered or disappeared

totally. Finally, with the influx of people in the thousands, came the attempt to convert the Han to Christianity, while traditional ceremonial activities such as the potlatch were either banned or passed out of existence. With sustained white contact also came death by disease, and the Han underwent a severe population decline. The effect of the Goldrush from 1897 through the first part of the twentieth century on the Han was total and fundamental:

A few hundred Indians, the total population of the Han nation, were simply lost among tens of thousands of white immigrants whose diggings along every tributary of the Yukon, and along every side stream of the tributaries, literally changed the physical form of Han territory (Osgood 1971:138).

After gold was discovered near Fairbanks, population along the Yukon, at Eagle and Circle declined steadily. Places such as Nation became ghost towns. While many Euro-Americans left the area, irreparable damage to the Han culture had already been done.

V. Results of the 1982 Survey.

A. Description of Cultural Resources

The 1982 survey located 20 prehistoric and one historic site between June 5 and July 20, 1982. (Figs. 3 and 4). Additionally, two sites, EAG 177 and CHR 015, were located and recorded by Preserve staff rather than our survey party.

1. Calico Bluff - Tatonduk River

Eight sites were located in this general locality. A ninth site found by Preserve staff is also included here. The most complex site of the season is EAG 172, the Calico Ridge site (Fig. 7). It stands apart in size, density, and character of finds. For example, it is one of the few sites located which has the potential of producing datable artifacts in a secure, stratigraphic provenience. Calico Ridge produced locally dense concentrations of debitage and tools. One test pit in Locality C produced over 400 flakes. Locality D, a localized and highly intensive activity area, produced some of the most interesting material of the season. One artifact, tentatively classified as a scraper/core biface (UA82-104-39, Fig. 13), was found between 20 and 25 cm below the surface. It most closely resembles Anderson's core biface classes 1-A and 1-C (Anderson 1970: 20, 22) assumed to be used in cutting, chopping and scraping. The Calico Ridge specimen also appears to have served more than one function as is evident from the various retouched, utilized and battered edges. In the same test pit, three portions of a

smaller biface were located (UA-104-29,30,37; Fig. 14). It may also be Akmak related. However, due to their generalized appearance and lack of firm stratigraphic position, the assemblage represented at the Calico Ridge site, Locality D, could be of almost any age (John P. Cook, personal communication 1982).

Several flake cores and one core rejuvenation flake (UA-82-104-14, Fig. 15e) were found at the Calico Ridge site. While none of these is diagnostic, the illustrated specimen comes closest to resembling a blade core. However, it is too fragmentary to say with any certainty. No definitive evidence of a core and blade industry was found. Important elements of the Denali complex--burins, microblades, wedge-shaped cores and core platforms (West 1967:365-369) were not located. Unfortunately, no White River Tephra, a convenient time marker, was found here. EAG 172 in all likelihood is a multicomponent site, because the material we recovered was separated by sterile layers. It occupies a unique physiographic position; one that would have attracted hunters through the millenia. Its exact cultural affiliation awaits more extensive testing and excavation.

The most striking similarity between EAG 172 and other sites in the vicinity is in lithic material type. Many flakes from EAG 176, 194, 193, 174, 175, and 173 are fashioned of black coarse-grained chert. Although no source was located this raw material was observed along the riverbank throughout the area. EAG 176 and EAG 194 are located on the opposite bank of the Yukon and downstream from Calico Bluff and the mouth of the Seventymile River. Neither produced many artifacts because both sites appeared to be significantly eroded. Both sites produced a core fragment (UA82-107-1 and

UA82-110-1, Fig. 16). Neither is diagnostic. They most likely represent by-products of an early stage in reduction and cannot be attributed to any time period or cultural affiliation. The specimen from EAG 176 is of a fine-grained grey banded chert, while the other is coarse-grained and black. It is the same material as artifacts at Calico Ridge. It is of poorer quality, however, and is broken along a cleavage plane.

EAG 173 and 175 on the left bank of the Yukon, opposite the mouth of the Tatonduk River, are on the same Pleistocene age terrace. EAG 173 occupies the very edge of the terrace and has mostly eroded away. EAG 175 produced a badly eroded hearth, flakes and fire-cracked rock. Buried cultural material was found to a depth of 66 cm., and the ash layer varied in depth from 50 to 75 cm. Unfortunately, no diagnostics or White River Tephra were found in association with cultural material. The site remains undatable.

Two sites were found directly across the river at the mouth of the Tatonduk. EAG 174 has almost eroded over a cut bank. It contained lithic material like that at the Calico Ridge site. EAG 193, the Bead Site, located on the same terrace, is attributed to protohistoric or early historic Athapaskan occupation based on the presence of 200 to 300 glass trade beads within a probable house depression.

CHR 010, the Red Ochre site, just downstream and across the river from the mouth of the Tatonduk, produced a complete projectile point (UA82-112-1, Fig. 12a). It most closely resembles the "diminutive notched point" from the southwest Yukon pictured in Workman (1978:207. fig. 40s). Following

MacNeish's terminology, Workman (1978:217) terms these Stott points, although these are subsumed by Shinkwin (1979:160) under a more generalized Kavik point typology. Kavik points, as discussed in Section IV, post-date the White River Tephra, making them, at most, 1,890 years old. They may be an early hallmark of Athapaskan material culture (Clark 1981:118). However, this specimen is not a "typical" Kavik point, such as illustrated in Morlan (1973:547, Pl. 6). Of the Stott variant, Workman (1978:217) states: "To my knowledge none have as yet been discovered anywhere in Alaska, a circumstance in itself not without some interest." White River Ash and a thick band of red ochre were present at CHR 010 but the projectile point was not found in association with either.

The remaining site, CHR 015, in the vicinity of Hardluck Creek, is represented by an isolated surface find. It was found this summer by Preserve personnel. It is the basal half of a lanceolate point, bi-plano in cross-section (UA82-30-1, Fig. 12b). One face of the base is thinned. The flaking pattern is random and a portion of one side appears to be utilized, indicating possible use as a knife. Because of its fragmentary nature and random flaking pattern, it is difficult to place in time. In outline, it vaguely resembles certain points of the undated Bedwell complex at the Putu site (Alexander 1974:30, Fig. 3k) but in cross-section, it is much thinner. For the same reason, it cannot be said to be affiliated with the 7,500 year old Mesa site points (Kunz 1979:16b). Closer correspondences are found with certain "straight-based lanceolate points" from the southwest Yukon (Workman 1978: 297, Fig. 40g,h) and a few points from the upper levels at Healy Lake (Cook 1969:353, Pl 19.8-10; 355, Pl. 21.6). Correspondences, however, are

inexact. Based on general similarities, the point may most directly correlate with the Taye Lake phase of the southwest Yukon, early in the Christian era (Workman 1978:209). This classification is tentative at best.

Of the eight sites located by the survey, five are situated on Y3 terraces, predating the Pleistocene or on Y4 terraces, dating to the Wisconsin maximum. Of the remaining three sites, two are found on colluvial (C) deposits and one on bedrock (B). All are adjacent to, if not occurring directly on, Y3 and Y4 terrace systems. There appears to be no one particular elevation more promising than another. The Bead Site and Red Ochre site are 4 m above the Yukon, while the Calico Ridge site is over 125 m above it.

2. Montauk Bluff

Two prehistoric sites and one historic site were found in this general area. CHR 036 is a small flake scatter eroding from an active cutbank. CHR 011 is the single previously unrecorded historic site located this summer. Because the survey was prehistoric in focus, CHR 011 does not figure in the site description (Appendix A). It consists of a large and deep rectangular pit, half eroded into the river. It may have something to do with fishing. No associated artifacts were found, but its distinctness suggests an historic age.

CHR 035 produced the only quartz crystal (UA82-114-8, Fig. 15d) and obsidian (UA82-114-3, Fig. 15b) of the season. Neither item is indicative of any

cultural affiliation. The obsidian piece is light smokey grey in color and has been retouched, possibly into a graver. A biface fragment (UA82-114-1, Fig. 15a) of tan and grey banded chert is too generalized to pinpoint in time. Similarly, an endscraper (UA82-114-2, Fig. 12c) of the type found here is found in many assemblages of various ages. It most closely resembles what Workman (1978:278) refers to as "typical endscrapers." A possible microblade fragment (UA82-114-5; Fig. 15c) and about 80 flakes were the only items found below the surface. The lack of any other indications of a core and blade industry casts doubt as to whether the artifact mentioned above is really a microblade. It could easily be a blade-like flake. The temporal distribution of microblade industries is, as has been shown, in question.

The three sites in question are found on three different landforms: CHR 1 is on a Y3b terrace and adjacent to Y4 and T3 landforms. CHR 35 occupies colluvium covered bedrock (Bc), in association with colluvium (C) and T3. Finally, CHR 036 is on a Y4 terrace, adjacent to a Y3b terrace. No pattern of site location is discernable due to the small sample.

3. Kandik River.

Three sites were found near the Kandik River. The first, CHR 012 is upstream from the mouth, at the western edge of Kathul Mountain. Four flakes were found here, none below the surface. CHR 038 is downstream from the mouth of the Kandik, on the opposite bank of the river. It is represented by a single subsurface black chert flake. Of greater interest is CHR 037, just

upstream from the isolate. The site consists of four depressions which, because of size and shape, are most likely house pits. Artifact density was quite low. While no diagnostics were found, the site is undoubtedly late prehistoric or early historic in age. It may represent a part of or a "satellite" of Charley's Village. This possibility is discussed more fully in Appendix A.

CHR 012 is on bedrock, 275 m above the Yukon River. Associated landforms are colluvium-covered bedrock and a Y3 terrace system. CHR 038 is on a Y3 terrace adjacent to a Bc landform (Bc and all other geological terms are defined in Appendix C). The house depressions are on the same terrace at an elevation of 5 m above the river. In physiographic setting, CHR 012 is most like the Calico Ridge site. It is at the easternmost edge of a long, flat terrace with a southern exposure. While it was not examined, this terrace has a potential of yielding an important site somewhere along its edge.

4. Chester Bluff.

Three sites were found quite close together. One hundred meters downstream from the western edge of Chester Bluff, CHR 013 produced one flake and 28 pieces of burned bird bone. At the western edge of the Bluff, CHR 061 yielded an hearth feature as well as fire-cracked rock, bone, charred wood and chert flakes. Both sites have almost completely eroded into the river. The late prehistoric/early historic burial (CHR 060) was between the two sites. A recent date for the burial is suggested due to the presence of trade beads--the same kinds are present here as at the Bead Site--as well as the excellent condition of the human phalanges.

The burial is in colluvium and associated with a Y4 terrace and colluvium covered bedrock. The other two sites are on the colluvium covered bedrock surface, associated with the colluvium based landform on which the burial is found and in association with the same Y4 terrace. The sites are within 25 m of the river.

5. Charley River

EAG 213 is the only site located this year along the Charley River, near its confluence with Crescent Creek. It consists of a small subsurface deposit of flakes and bone. No diagnostics were found, although the fresh condition of the bone may indicate some recency. This area was not included in Thorson's surficial geology description due to lack of adequate aerial photographs. Thus, we cannot associate site location with any particular sequence of landforms. The site is on a forested terrace 30 m above and parallel to the river.

6. Takoma Bluff

CHR 014, a subsurface lithic scatter, at the confluence of Thanksgiving Creek and the Yukon, produced about 70 flakes of various lithologies to a depth of 30 cm below the surface. Localized activity of uncertain cultural age is represented. CHR 039, located further downstream, is a small subsurface flake scatter. Two nonutilized chert flakes comprise the entire assemblage. Finally, CHR 062 is another subsurface lithic scatter. Fifty-

eight flakes occurring from 5 to 10 cm below the surface were recovered in tests. The only possible indication of recency is the shallowness of cultural material.

CHR 014 is on colluvium-covered bedrock in association with a T3 landform and a Y1 terrace of Holocene age. CHR 039 is situated on the same feature, adjacent to a bedrock outcrop, and an undifferentiated slope deposit (S). CHR 062 is on bedrock. Adjacent features are colluvium covered bedrock and a Y1 terrace. The sites are at 150, 175 and 145 m above the river, respectively.

B. Summary

Sites were found scattered on a number of different landforms and at various elevations. Site ages run the gamut from fairly recent--the burial and the Bead Site--to possibly quite old--the Calico Ridge site. Many sites consisted only of undiagnostic material found in eroding cut banks and are therefore not useful in determinations of cultural affiliations.

Tantalizing, but elusive suggestions of the American Paleo-Arctic tradition were encountered. However, firmer indications of its presence--an associated burin technology, for example--are necessary to draw conclusions about its presence along the main Yukon corridor. Based on the general nature of all assemblages, we may tentatively assign some of the sites to this broad category although exact cultural affinity--e.g. Denali or Akmak--is beyond our grasp.

While the isolated lanceolate point could range in time from 11,500 to 1,500 years ago, it most probably dates to early in the Christian era. The complete projectile point, the most readily "typed" artifact in our collection, post dates the White River Ash and probably belongs somewhere in the first millenium AD, based on similar artifacts from the southwest Yukon. It is quite possibly the first Stott point found in Alaska. Late prehistoric and/or contact age sites are represented by house depressions, glass trade beads and human bones.

C. Evaluation of the Model

As discussed in Section II, our intuitive model of site location consists of two components: 1) identification of high-probability areas on an inductive basis, and 2) utilization of ecosystemic data as a means of stratification. While we were fairly successful in pinpointing likely locations of sites, it would be premature to formalize criteria of likely localities based on a sample of 21. However, some observations can be made if the constraints of small sample size and uneven coverage are kept in mind. These observations are made by comparing two sample statements of site location found in the literature.

First, Bowers (1976) observed: "Most sites along the Yukon are on the north shore". During 1982, 11 out of 20 sites, or roughly half, were found on the north (right) bank. No clear trend is apparent. Second, Fetter and Shinkwin state:

Each (site on the Koyukuk) was located on a vantage point i.e., a knoll, hill, terrace or moraine that was situated near a river and/or small lake, representing a lookout site for caribou hunting. Thus far, then, all sites containing Kayuk material represent a utilization of a piedmont mountain or mountain environment rather than a riverine setting (1978:37).

Statements such as these reflect a bias toward site localities easily spotted, as does our own model. In other words, vantage points are readily discernable and, more often than not, a prehistoric site is found there for the very reason stated by Fetter and Shinkwin. However, sites on vantage points represent only one variety of setting. It can be said with some assurance, based on our findings, that many sites regardless of age or cultural affiliation, are not located in prominent spots and can be found only by subsurface testing. This summer, approximately one quarter of all sites had no surficial manifestations and were located only by shovel tests. A notable example is EA6 194, the Bead Site.

In retrospect, the first component of our model of site prediction yielded positive results because high-probability locations are often prominent. In order to obtain a less biased picture of prehistoric adaptations, the less than prominent land surfaces must also be surveyed. To accomplish this, the second component of the model should have been given more precedence. However, we could not test this component due to time and logistical constraints.

In order to adequately test this component of the model in further studies, two general suggestions may be made. First, although we had the benefit of knowing the relative age of landforms, this must be supplemented with

paleoecological data as well. Second, the realization that certain encampments were probably originally situated where they would be inconspicuous and not prominent will give us a better conception of prehistoric utilization in the Preserve and elsewhere.

Finally, while the reconnaissance-level nature of the survey precludes specific statements of site location, it seems to be that older sites--EAG 172, for example, are situated high above the river. All sites recognizable as Athapaskan--CHR 060, CHR 037, EAG 194, and possibly CHR 010--are within 5 m elevation of the current water course. Any relationship between the variables of elevation and age of site cannot be firmly substantiated until a greater sample of sites of known cultural affiliation are found.

D. Evaluation of Geological Data

Throughout this project, we made use of R. Thorson's air-photo reconnaissance of the Yukon River corridor. Thorson singled out five archeological targets (Thorson 1982: 10): 1) eolian sands, 2) tributary junctions with terrace edges, 3) corner of terrace edges, 4) intersection of Y4 terraces with the river and 5) bluff edge sands. All targets were encountered and generally yielded positive results. Examples of sites found on these targets are: 1--CHR 012; 2--EAG 173; 3--EAG 175; 4--CHR 036, and 5--CHR 035.

Of the 20 sites found along the Yukon, six were found on Y3 terraces, five on colluvium covered bedrock, three on bedrock, another three on colluvium, two on Y4 terraces and one on a Y3b terrace. The most common landform, as defined by Thorson, found in association--less than a kilometer--with the

sites on Y3 terraces is the Y4 terrace, followed by colluvium and colluvium covered bedrock. The second most "popular" setting for a site, colluvium covered bedrock was most commonly associated with other colluvial deposits and less often with Y4 and T3 terraces. No sites were found on Y2 or Y1 terraces.

An inferred goal of Thorson's report was the location of stratified archeological sites. However, our utilization of his data was basically in site location, whether the site was stratified, buried, surficial or eroding from an exposed cut bank. In terms of predicting where a site might be located, application of report criteria along with our own intuitive approach usually produced the desired results. As an example, in studying both the geological and the topographic maps, we concluded that exposed areas with prominent views facing the river on Y3 and Y4 terraces held the most promise. While more sites were located on Y3 terraces than any other landform, only two sites, EAG 173 and CHR 036, were found on Y4 terraces. We are at a loss to explain this discrepancy, although because of time and logistic constraints, it is obvious that an adequate sample of either Y3 or Y4 terraces was not obtained.

No well stratified sites were found on the basis of Thorson's criteria. A number of target locations with high potential for stratified sites were examined but stratification was absent or poorly developed. Conversely, a number of stratified deposits were encountered (most notably 1 km downstream from Montauk Bluff on the right bank of the Yukon), but were devoid of cultural material. We strongly feel that our inability to find well stratified sites is due to the combination of our intuitive approach with Thorson's. Thorson's predictions can best be tested by restricting survey and subsurface

testing to terraces, not areas deemed intuitively promising to an archeological survey party. Further, many stratified sites at lower elevations are probably deeply buried (2-3 m) and their discovery will most likely require additional effort, notably the use of an auger.

In sum, Thorson's meticulous research provided us with a means of project area stratification and site location. If future archeological studies at a level more intensive than reconnaissance apply the geological criteria more uniformly, we suspect that greater positive results will be produced.

VI. RECOMMENDATIONS AND MANAGEMENT SUMMARY

A. Specific Recommendations Concerning Prehistoric Resources located during 1982 Field Season.

Four sites in particular --EAG 172, CHR 035, CHR 037, and CHR 060 -- are considered top priority and merit further attention. EAG 172, the Calico Ridge site, affords future investigators the possibility of retrieving datable material and associated diagnostics in order to help build a local sequence. It is the most extensive site documented in 1982 and contains surface and subsurface material. Several activities seem to be represented-- game look out, tool manufacturing site or food processing station and camp site. Further, although it occupies a ridge 125 m above the river and is about .8 km inland from it, the site is extremely accessible. The town of Eagle is only 13 km upstream. As noted in the site description, Calico Bluff is the most prominent landform in the area. Consequently, it is visited often by tourists, scientists and local inhabitants. It must be protected from possible unauthorized artifact collecting. Further testing and excavation are strongly recommended. Calico Ridge, no doubt, will yield much information crucial to the understanding of the prehistory of the Preserve and, most likely, to Interior Alaska in general.

CHR 035 produced the only obsidian and quartz crystal artifacts of the season. At the very least, the obsidian should be analyzed in order to ascertain its source and age, especially since it is the only potentially

datable material recovered this summer. The presence of "exotic" materials may indicate the presence of a long-established trading network. No known obsidian source is located within the Preserve, but its existence cannot be dismissed out of hand. Consultation with geologists and archeologists well versed on the subject is in order. The site is about 5 km from the Yukon and is not subject to extensive pot hunting. Nevertheless, it should be tested further, and perhaps excavated before extensive use within the Preserve impacts it. Due to the variety of raw materials and artifacts associated with a definable stratigraphy, this site merits further research.

CHR 037, a group of four subrectangular depressions on either side of a small drainage opposite the mouth of the Kandik, probably represents an historic Athapaskan settlement. Due to its location, it may be related to Charley's Village, whose exact location is in dispute. More to the point, it may be Charley's Village. As a preliminary step, a thorough literature search should be conducted to confirm or refute the presence of Charley's Village"--located roughly opposite the mouth of the Kandik River on the left bank of the Yukon" (Osgood 1971:26). The significance of CHR 037 will lie not so much in further testing or excavation, but in the documentation of a Late Athapaskan settlement type. As such, it may potentially answer many questions concerning the recent Native occupation within the area.

Finally, CHR 060, a late Athapaskan burial, demands immediate attention. It reflects a period of culture change as mirrored in burial practices. In addition, the burial is eroding into the River and faces possible vandalism.

It could wash away during the 1983 spring break up. CHR 060 should be completely excavated, documented and reinterred at a location suitable to the local Native population.

All four sites should be evaluated to determine their eligibility for inclusion on the National Register of Historic Places. Because of the general lack of knowledge of the area, all sites within the Preserve should be treated as if they were potentially eligible for nomination. Middle priority sites are those which possess a degree of integrity, do not face immediate adverse impact and merit further testing to obtain additional information. In future surveys, these sites should be relocated, impact noted and additional tests excavated. These sites are: EAG 175, EAG 193 (The Bead Site), EAG 194, EAG 213, CHR 010 (Red Ochre Site), CHR 012, CHR 014, CHR 038, CHR 039, and CHR 062.

Low priority sites are those which are so badly eroded that hardly any cultural material, if any at all, remains. No additional information will be gained from their reexamination and it is highly probable that they will be completely eradicated by the time a second prehistoric site survey takes place in the Preserve. These sites are: EAG 173, EAG 174, EAG 176, CHR 013, CHR 036 and CHR 061. The one historic site, CHR 011, is about half eroded into the river. An effort should be made to relocate it next summer in conjunction with the projected historic site stabilization efforts because its function was not determined by this project. Stabilization activities would benefit from the presence of an archeologist to check for prehistoric, as well as historic remains in the immediate vicinity.

B. Recommendations for Future Surveys

During the 1982 field season, the Yukon corridor between Calico Bluff and Takoma Bluff, and the Charley River from 10 km above Copper Creek to its confluence with the Yukon were covered in a reconnaissance-level survey. Our experiences on the rivers have enabled us to suggest those areas where additional cultural resources might be located as well as effective survey strategies for reaching them. However, as stated earlier, the area is still too little known to accurately predict specific site location. We suggest continuing, at present, on an intuitive basis with a few modifications.

First of all, preselecting two or three areas and spending a longer period of time at each is recommended. This should include areas already sampled and known to have prehistoric sites as well as areas with no known cultural resources. An example of a field season of the same duration as ours with fewer camps would center on the confluences of the Yukon with the Tatonduk Nation and Kandik. Several sites were located around the mouths of the Tatonduk and the Kandik, but none at the Nation. More intensive surveys will undoubtedly locate additional resources. Of prime importance in this strategy is travelling further upstream along these major tributaries to sample areas different from those on the main River corridor.

The rationale behind this strategy would be to supplement information about those areas which are known to a certain degree and to fill in intervening gaps from other areas. The Nation was chosen in this example although three days were spent surveying around its mouth. It is unlikely that the

lower reaches of this tributary are devoid of archeological sites. That none were found is merely a reflection of the length of time spent in the area. A survey of this type would be most easily accomplished from semi-permanent base camps. Helicopter support is practically a necessity if time is to be efficiently spent looking for sites and not hiking from one survey area to the next.

Several specialists have pointed out that more prehistoric sites may be located farther up main tributaries and along secondary drainages than along the Yukon (Bowers and Hoch 1978:15; West et al. 1965:124, 126). In particular, the introduction of the fish wheel in 1904 is said to have brought about a move from the tributaries to the main river corridor (Clark 1981:44; Hall 1976:351). Therefore, another survey should look solely at major and minor tributaries. It is highly likely that by restricting archaeological fieldwork to main river corridors, we are also missing aspects of the seasonal round. For example, Bowers and Hoch (1978:29) note that aboriginally, the Han spent a good deal of time away from the river during the fall and winter hunting caribou. We are missing the complete picture in restricting investigations to the lower reaches of main drainages.

Similarly, much activity took place in upland regions. For example, West states: "...the greatest potential for the recovery of good archaeological remains would lie in the marginal hills and uplands, away from the great flood plain areas of the large rivers" (West et al. 1965:126). A promising survey area would be the uplands of the upper Charley drainage as had been planned for this past season. A survey in the Ruby Pass and Twin Cirque Lakes area would complement data from our findings.

Finally, a survey similar in scope to our own would not be out of order.

the 7½ weeks spent along the Charley and Yukon Rivers, we did not begin to survey many high potential areas. There are several field seasons work of survey left along the main corridors.

This summer, we surveyed many areas which produced no cultural resources (Figs, 5 and 6), and bypassed other areas which were likely to contain archeological remains. This set of recommendations is intended to guide future surveys in selecting target areas along the Yukon and the Charley Rivers which hold the most promise.

1. Yukon River

Due to extremely high water and bad weather, making navigability difficult, the mouth of the Seventymile River was not surveyed. The north face of Calico Bluff overlooks the drainage and it is highly probable that the inhabitants of the Calico Ridge site utilized the resources of the river. The mouth offers a wide range of topography--flat, marshy lowlands; broad terraces of medium height; and steep, prominent and exposed slopes. Thus, several classes of terrain are present at the mouth of the Seventymile and perhaps several varieties of site types -- butchering areas, lookouts, manufacturing stations -- may also be found.

A promising area is a 100 m high table-like terrace on the right bank of the Yukon on the downstream side of the mouth of the Tatonduk River, just above Miller's Camp. It was surveyed for one day but nothing was found.

It seems highly unlikely the landform is devoid of cultural resources. The terrace commands a panoramic view in all directions and both the Yukon and the Tatonduk are readily accessible from it. An effort should be made to test it more intensively.

No sites were found at the mouth of the Nation River, although several days were spent in its exploration. Most puzzling was the lack of sites on the left bank of the river. There are many terraces and intervening minor drainages, suitable for a wide variety of site types. Lack of time precluded sufficient subsurface testing of the area. Therefore, more systematic testing over a period of seven days is desirable. The right bank of the Nation holds considerably less promise. Steep, unvegetated cliffs plunge abruptly into the river and few suitable camp site locations exist. Across from the mouth of the Nation, two high, exposed areas were checked on either bank of Fourth of July Creek, approximately 5 km inland from the Yukon. Our efforts would probably have been rewarded had we concentrated instead on the 305 m contour line facing the Yukon. Several days of intensive survey here might prove rewarding in terms of locating prehistoric sites.

Another favorable location is a high terrace on the downstream side of Kathul Mountain. Only the eastern edge was reached and it produced one site, CHR 012. The entire length of the terrace edge, about 3 km, should be checked and tested. In physiographic character, it is quite similar to Calico Ridge--it is positioned high above the river and has a southern exposure. It is predicted to contain a series of small chipping stations.

In the Takoma Bluff vicinity, three areas deserve more attention. First, additional testing upstream from Webber Creek is desirable. A flat-topped, forested terrace at the 305 m contour level faces the Yukon and only a portion of it was surveyed. Testing along one extreme edge of the exposed portion of the terrace revealed nothing. However, prehistoric sites may be found back from the edge and further upstream. Both banks of Thanksgiving Creek at its confluence with the Yukon were surveyed. One site, CHR 014, was located on the right bank. Additional survey away from the Yukon may provide supplementary information on the utilization of this minor drainage. Finally, Takoma Bluff proper was not surveyed, although two sites, CHR 039 and CHR 062, were found just upstream, on the south side of Takoma Creek. Takoma Bluff is a prominent landform, high and flat-topped, providing easy access to adjacent drainages. Traditionally, it was a landmark signifying the boundary between the Han and the Kutcha Kutchin so that it may contain cultural remains of both groups.

2. Charley River.

The Charley River can be divided into three basic sections with respect to characteristic topography and navigability. In its upper portion, above the confluences of Crescent and Copper creeks, the Charley occupies a fairly broad valley with small non-navigable tributaries and rolling, forested topography near the timber line, rising to uplands of the Upper Charley watershed. The river is shallow and occasionally braided through this section without many meanders. Elevation is approximately 650 m ASL at the mouth of Copper Creek. The middle section consists of steep bedrock

bluffs alternating with forested bluffs and terraces in a constricted, tightly meandering river valley. The majority of the survey was spent in between the confluences of Crescent and Everett creeks with the Charley. The lower section of the Charley occupies a broad floodplain vegetated by black spruce forest and muskeg. The river becomes deeper and reworking of floodplain deposits is obvious through this flatter, meandering portion of the river. Major tributaries to the Charley here are Flat and Bonanza Creeks.

Survey was begun from an unimproved airstrip about 10 km above the confluence of Copper Creek near the upper limit of practical navigability for survey purposes. Prominent landforms or isolated topographic features, old river terraces and bluffs, tributary confluences and floodplain deposits along tributaries and the Charley River were selected and surveyed in the course of floating the River from this point to its confluence with the Yukon. Limitations on time, river conditions and the method of survey precluded survey of several areas along the river that bear investigation in the future. These include the confluences of Hosford, Highland, and Uncompagnre creeks. Each of these creeks could be followed away from the river to higher terraces paralleling the Charley which are considered medium to high potential areas for locating archaeological sites. Likewise, higher terraces or benches overlooking the lower Charley floodplain in the vicinity of Cultas, Flat and Bonanza creeks could be checked in future surveys although these areas are difficult to reach on foot from the river due to intervening muskeg and marsh.

The lack of sites found along the Charley River is conspicuous. The only one, EAG 213, was located on a forested terrace about 7 km northeast of Crescent Creek's confluence with the Charley. Subsequent survey and testing of similar terraces downriver proved negative although they should not be disregarded in future surveys. Virtually all sites found in previous surveys of Copper Creek occurred at high elevations several kilometers from the Charley, although Bowers and Hoch (1978) surveyed the creek to its confluence with the Charley and also noted a lack of archeological remains near the river. The constricted nature of much of the river may have discouraged its non-winter use as a corridor to reach higher ground away from the Yukon River. This may be a possible explanation for the general lack of sites found along it. Another possibility may relate to the lack of a significant fish population in the Charley. Local observation seems to confirm this condition (Mihalic, personal communication). Alternatively, the Copper Creek surveys evidence exploitation of, and movement through, higher elevations in the Charley watershed. It is likely that additional survey of tributaries to the Charley, and the upper Charley itself, will reveal additional archaeological sites in these areas.

Several options exist for future archaeological field work in the Yukon-Charley Rivers National Preserve. Vast areas remain unknown and few areas are adequately known. In order to understand and interpret man's role in the prehistory of east-central Alaska, additional studies are needed.

C. General Recommendations and Goals for Long-Term Studies.

Wise and proper management of known and potential cultural resources in the Preserve should be founded on region-wide analyses. An attempt should be

made not only to document individual sites, but to interpret them together and then compare them as a whole to prehistoric resources in surrounding areas. This takes archeology out of the realm of "particularist" studies into that of a generalized approach.

We are not alone in this sentiment. Bowers and Hoch (1978:45) express the same opinion; "...an extensive regional analysis demonstrating the diversity of prehistoric cultural patterns, is the necessary next step in Interior Alaskan archeology."

This is best accomplished in a multistage, or hierarchical framework, such as that discussed by Redman (1973:61-79). Tailored to the needs of the Preserve, the following program is envisioned:

- 1) A survey of the Yukon River with the specific task of testing Thorson's model;
- 2) Two additional non-exclusive comprehensive surveys in two different ecological zones;
 - a) the upper Charley River, in the vicinity of Twin Cirque Lakes and Ruby Pass;
 - b) the headwaters of a major tributary to the north of the Yukon, such as the Kandik, and all intervening confluences with secondary tributaries;
- 3). An analytical comparison of all three surveys;

4. Three "controlled-exclusive" surveys (King 1978: 33) within the initial areas, to more intensively ascertain the range of sites present in each area;
- 5). Selected excavation of a percentage of sites within each area;
and
- 6). Regional synthesis.

Regional synthesis means the drawing together of all particular data into a general framework. Its goal is to look beyond individual site inventories and address broader issues such as settlement patterns and seasonality.

Two prerequisites, which are covered in the above program, are location of an adequate number of sites and a sufficient range in diversity of sites of various ages, activities and cultural affiliations. The strategy is effective because it provides for a sequence of "checks and balances" after each of the steps is carried out. The plan is worthwhile and necessary in order to go beyond pure "culture history" and contribute substantially to a true understanding and appreciation of the past and its various implications for the future.

D. Conclusions

Twenty prehistoric sites and one historic site were located by the 1982 Yukon-Charley Archeological Survey between June 5 and July 20. Evidence of past human activity was found in various topographical settings making site

prediction uncertain. Results are encouraging, merely indicating how little is known about the general area. That sites were located in low-potential areas and, conversely, were not found at some more likely spots is stimulating. It calls into question predetermined ideas concerning the nature of man's prehistoric use of the Yukon and Charley rivers, and the distortion inherent in the archeological record. For these reasons, the field season was exciting as well as productive. There is no doubt that future field seasons will prove equally as provocative.

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Appendix A: Site Descriptions

EAG 172 (The Calico Ridge site)

EAG D-1; 1:63,360

Sec. 15 and 16, T.1N., R.32E. Fairbanks Meridian

Lat. 64° 54' 28"N., Long. 141° 12' 30"W.

Land Status: Native Village

Eag 172, the Calico Ridge site, is the largest site located during the 1982 field season. It occupies the exposed south facing edge of a ridge 125 meters (365-400m ASL) above the western bank of the Yukon River, 19 kilometers downstream from Eagle City. The ridge is the southernmost and westernmost portion of Calico Bluff, a 600 m high outcropping of interbedded limestone and shale of Upper Mississippian and Lower Pennsylvanian age. Landforms adjacent to the site include Y4 and Y3 terraces of middle and late Pleistocene age. The ridge commands a panoramic view to the south, west and east, including Ford Lake, the Yukon River and the Ogilvie Mountains. The sparse vegetation on the edge of the ridge consists primarily of mixed spruce and birch stands, and secondarily of quaking aspen, willow, low bushes, grasses and various wildflowers. The amount of vegetation cover increases from the east to west as the ridge gradually loses elevation. Vegetation also becomes more dense to the north on the flat top of the ridge.

Black chert flakes were discovered on the surface at the extreme eastern boundary of the ridge. The entire exposed edge was surveyed and it was found that flake scatters occurred sporadically on the surface for approximately 650 m, or, along its entirety. Surface material tended to follow the edge and was further exposed by a well-defined game trail which also followed the contour. Six localities were defined on the presence of medium to high-density areas of material and its near absence elsewhere on the ridge.

Locality A, the easternmost area, contained many cryptocrystalline silicate (CCS) flakes. Chief among them are course-grained black, fine-grained dark grey/green; and fine-grained light grey chert. Material in test pits was recovered to a depth of 20 cm to 25 cm below the surface. Surficial material collected includes an amorphous, non-diagnostic black chert core (UA82-104-4) and a portion of a biface (UA82-104-11). One edge of the biface is retouched. Both artifacts were found downslope with no meaningful provenience.

Two artifacts were recovered at Locality B, a possible core fragment of black chert and a large ventifact of fine grained quartzite, triangular in cross-section, which displays battering at one end. While the item may be natural, it appears to have been transported to the site because this type of quartzite does not occur on the site naturally. Also found at Locality B was a concentration of fire-cracked rock in association with very small, intermittant lenses of charcoal. The amount of charcoal is insufficient for dating purposes. Artifact density in this locality is comparatively low.

A total of 244 flakes were retrieved at Locality C in a single test pit, to a depth of 10 cm below the surface. Of these, 11 are utilized and one is retouched to form a notch. Fine and coarse-grained black chert predominates. Also collected from this area is a large coarse-grained quartzite cobble which displays battering and may have served as a chopper. In another test pit, about 400 flakes were observed on or just beneath the surface. Ten percent of these are extremely small, representing tool production debris. A third test pit was sterile. Locality C, it appears, is an area of intensive, localized activity.

Locality D produced the most interesting artifactual material. Test Pit 1 was placed at the base of an overturned tree adjacent to a surface lithic scatter of coarse-grained black chert flakes. Cultural material was found to a depth of 20 cm below the surface, with a possible hiatus at 15 cm below the surface. Some charcoal was present. The presence of what may be pot lid fractures on some flakes indicates the possibility of heat treatment. One or two blade-like flakes were found between 0 cm and 10 cm below the surface.

Test pit 3 contained cultural material to a depth of 25 cm below the surface. Sixteen chert and rhyolite flakes were recovered and a total of nine utilized and retouched flakes, and bifacially worked artifacts were also found. Between 0 and 5 cm below the surface, two fragments of a black chert biface (UA82-104-29,30) were found. The two pieces, when refitted, form roughly one half of what would have been the complete artifact. A third piece of the same artifact (UA82-104-37) was found between 15 cm and 20 cm. Taken together, approximately three quarters of the biface is represented. Two utilized flakes and three utilized/retouched flakes were also recovered. Finally, a bifacially worked black chert artifact (IA82-;04-39) was found between 20 cm and 25 cm. The piece displays a high degree of battering, utilization, and retouch. It is tempting to classify this piece as a core biface, but this classification must remain tentative. All material from this test pit is of the same material. Most artifacts were found in a matrix of reddish-brown silty soil.

Five additional test pits were excavated, yielding a total of 24 flakes, none found deeper than 10 cm below the surface. It would seem that activity in Locality D was intensive and extremely localized. Due to the high number of utilized flakes and finished artifacts, this locality may represent a processing area of some sort.

Locality E is a low density area in a comparatively more densely vegetated section of the ridge. Two artifacts were surface collected--a quartzite cobble preform (UA82-104-41) and what may be an amorphous flake core (UA82-104-42) of grey chert. The latter displays much battering. A portion of one edge is retouched. Most shovel tests in Locality E were sterile.

Finally, Locality F yielded one amorphous flake core (UA82-104-43) and 76 flakes. Interestingly, material here differs from other areas of the site. The majority of flakes are coarse-grained, medium grey, coarse-grained, light grey; and fine-grained light grey chert. A few flakes are speckled or banded. The typical black chert is confined to a few specimens.

The site is delimited on its eastern end by a steep rise in elevation to Calico Bluff proper, and in the west by the end of the ridge. Artifact concentration is confined principally to the level southfacing edge; not extending grid north into the forested area, or south down the steep slope. However, some surface artifacts have migrated downslope. Stratigraphy is highly variable although various silts and sands are common throughout. Subsurface flakes tend to be associated with small lenses or pockets of

reddish silts. Charcoal flecks are found in several areas in association with cultural layers. Unfortunately, in no case was there enough charcoal to collect.

The Calico Ridge site represents several possible functions--lookout, temporary campsite, manufacturing and processing station. The area was unquestionably used as a game lookout due to its commanding view of the surrounding area. From here it would be possible to observe the migration of what is known today as the Seventymile caribou herd, for example. Calico Ridge probably served as a temporary and sporadic campsite location based on the scattered charcoal remains, but additional evidence is required to substantiate this hypothesis. Manufacturing is in evidence from the amount of debitage and the number of flake cores found. Processing is indicated by finished tools and by retouched and utilized flakes.

Further testing and excavation are strongly recommended for EAG 172. The possibility exists for recovering cultural material in a stable, stratified context. Additionally, acquiring sufficient datable material is not beyond reason. Future work on the site may tell investigators whether the various lithic materials found represent different behavioral episodes or not. Of course, the retrieval of recognizable diagnostics in situ is highly probable. Ideally, Locality D should be excavated. It is the area of most intensive activity; may contain two components; and displays evidence of several different activities.

EAG 172 merits protection due to its proximity to Eagle and its accessibility from the river. Calico Bluff is the most prominent landform in this area of the Preserve. Undoubtedly, it will be visited more frequently as use within the Preserve increases. A determination should be sought as to whether it is eligible for nomination to the National Register of Historic Places.

<u>Catalog #</u>	<u>Description</u>
UA 82-104-1	11 small ccs flakes
UA 82-104-2	1 utilized chert flakes
UA 82-104-3	12 ccs flakes
UA 82-104-4	1 generalized flake core
UA 82-104-5	52 ccs flakes
UA 82-104-6	75 ccs flakes
UA 82-104-7	5 ccs flakes
UA 82-104-8	9 ccs flakes
UA 82-104-9	46 ccs flakes
UA 82-104-10	1 chert core
UA 82-104-11	1 chert possible biface fragment
UA 82-104-12	9 ccs flakes
UA 82-104-13	1 polished, battered rock
A 82-104-14	1 chert core fragment
UA 82-104-15	1 chert flake
UA 82-104-16	5 utilized chert flakes
UA 82-104-17	22 ccs flakes
UA 82-104-18	1 notched chert flake
UA 82-104-19	1 chert flake with pot lid fracture
UA 82-104-20	5 utilized chert flakes
UA 82-104-21	184 ccs flakes
UA 82-104-22	25 ccs flakes
UA 82-104-23	1 ccs cobble/chopper
UA 82-104-24	1 chert flake with pot lid fracture
UA 82-104-25	3 chert flakes
UA 82-104-26	6 chert flakes
UA 82-104-27	5 chert flakes
UA 82-104-28	1 chert flake
UA 82-104-29	1 chert biface fragment
UA 82-104-30	1 chert biface fragment
UA 82-104-31	1 utilized chert flake
UA 82-104-32	1 utilized, retouched chert flake
UA 82-104-33	1 utilized, retouched chert flake
UA 82-104-34	1 utilized retouched chert flake
UA 82-104-35	5 chert flakes

UA 82-104-36	1 utilized flake with pot lid fracture
UA 82-104-37	1 utilized chert biface fragment
UA 82-104-38	6 chert flakes
UA 82-104-39	1 retouched, utilized biface
UA 82-104-40	3 chert flakes
UA 82-104-41	1 quartzite core/split cobble
UA 82-104-42	1 worked/utilized chert cobble/preform
UA 82-104-43	1 blocky ccs core
UA 82-104-44	46 ccs flakes
UA 82-104-45	22 ccs flakes
UA 82-104-46	2 chert flakes
UA 82-104-47	2 chert flakes
UA 82-104-48	4 chert flakes

EAG 173
 Eagle C-1; 1:63,360
 Sec. 14, T.2N; R.31E, Fairbanks Meridian
 Lat. 64° 59' 38"N; Long. 141° 22' 25"W.
 Land Status: Native Village

EAG 173 is located on the western side of the Yukon River across from the mouth of the Tatonduk River, about 1.8 km to the east. The site overlooks a small unnamed tributary to the Yukon about 60 m to the north, and is about 25 m above the present river level at an elevation approximately 275 m ASL, vegetation consists of lowland spruce-hardwood forest, on a landform corresponding to R. Thorson's Y4 terrace classification. Mixed spruce in this area, with sphagnum moss and grasses, is the major surface vegetation.

The site represented by one chert flake, was located eroding out of the terrace edge, at the tip of a 30°-40° slope. Subsurface testing on the terrace top produced no further artifacts, although several fire-cracked rock fragments and two other chert flakes were found as a result of cleaning the eroded exposure of slope in front of the terrace. No artifacts were collected from this site due to the lack of meaningful provenience and non-diagnostic nature of lithics.

It is presumed that the majority of this site has eroded downslope from its original position atop the terrace. Its function was quite possibly that of an overlook and temporary hunting camp, as it offers a relatively unobstructed view of the Yukon, the Tatonduk River mouth, several river islands, and the small drainage just downstream of the site.

EAG 174
Eagle D-1; 1:63,360
Sec. 18 T.2N; R.32E, Fairbanks Meridian
Lat. 64° 59' 40"N; Long. 141° 19' 25" W.
Land Status: Native Village

EAG 174 is located on the promontory of a Y3 terrace on the southern bank of the Tatonduk River about 1 km east of the confluence of the Tatonduk and Yukon Rivers, at an elevation of approximately 280 m ASL. The site overlooks the Tatonduk drainage and the Yukon River Valley with unobstructed views to the northwest, north, and west. A small tributary feeds the Tatonduk about 100 m west of the site and passes within 35 m of the site. Vegetation of the area is lowland spruce-hardwood, with birch and aspen occurring more frequently than spruce in the site vicinity. Ground cover around the site is dominated by low birch trees, berries, some grasses, and mosses.

All but two artifacts, two biface fragments (UA82-105-3), were eroding out of the cut bank slope on the north side of the bluff. Three 50 x 50 cm sterile test pits were excavated along the stable bluff top, between one and two meters from the eroding edge. A shovel test within one meter of the bluff edge produced two fine-grained black chert flakes at 20 cm below the surface. Sedimentation consists of medium to well-sorted silts and

sandy silts becoming darker and somewhat sandier with depth. A variety of lithologies (see catalog) are represented at this site, although there are no diagnostic artifacts among them.

Site function is difficult to assess due to advanced state of erosion and displacement of artifacts. The site was possibly a chipping station and lookout, although the rather ideal environmental setting would seem to have encouraged more intensive or longer-term occupation. Density of artifacts observed and collected was low, scattered over 35-40 m of the bluff face.

<u>Catalog #</u>	<u>Description</u>
UA 82-105-1	1 reddish brown ccs flake
UA 82-105-2	1 black chert flake
UA 82-105-3	2 biface fragments (quartzite?)
UA 82-105-4	3 grey chert flakes
UA 82-105-5	1 black chert flakes
UA 82-105-6	2 black chert flakes

EAG 175
Eagle D-1
Sec. 23, T.2N; R.31E. Fairbanks Meridian
Long. 64° 59' 22"N; Lat. 141° 22' 17"W.
Land Status: Native Village

EAG 175 consists of surface and subsurface flakes and fire-cracked rock on a colluvial deposit at the edge of a Y4 terrace overlooking the western bank of the Yukon River, facing southeast. It is situated on a prominent edge, 85 m, above the river. It commands a panoramic view to the south and to the east. Calico Bluff may be seen from the site. It is further situated .8 km upstream of EAG 173, on the same terrace but separated by a large,

unnamed drainage. VABM Panto, a large bedrock outcrop, is situated 1.5 km upstream on the same bank.

Vegetation is subalpine, consisting mainly of spruce on top of the well-drained terrace. Ground cover is principally grasses, lupines, wild rose and bluebells. Spruce and cottonwood stands cover the steep southeast facing slope.

The site is confined to the terrace edge, extending discontinuously for 100 m. There are two main areas of concentration. The first is located near the datum. Cultural material was observed in what is probably a hearth which has mostly eroded over the bluff edge. Three chert flakes were collected from slough associated with and immediately underneath the hearth. Interestingly, the flakes represent three different kinds of chert: grey-green, grey, and very granular grey. What remains of the feature is a thin lens of whitish ash, some diffuse charcoal, and one fire-cracked rock. The feature rests on a layer of grey silt and is overlain by the same material. Small flecks of bone were found just to the north of the feature at the same elevation. The hearth is 35 cm below the terrace edge and is approximately 5 cm thick. White River Ash is found 36 cm below it. Because there was too little charcoal and bone for dating purposes, none was collected.

Test Pit 2 contained the only other cultural material. Two flakes, one of grey granular chert, was found 66 cm below the surface. The second flake, of chalcedony, was found 60 cm below the surface. Both were located in a

matrix of dark brown and tan banded clay and sand. No White River Ash was found here but it occurred in other test pits. Aboriginal excavation may be the cause of its absence in the one case.

Approximately 60 m grid south of this area, Test Pit 6 revealed about 20 large fire-cracked rocks, some of which were lying on the surface. All fire-cracked rock was slumping downslope, confined to the eastern, or downslope, half of the test. There was no apparent order to them, and no charcoal was found in association. Two other test pits were sterile. White River Ash was encountered between 50 cm and 75 cm below surface at this part of the site.

Flakes observed but not collected were found along the terrace edge unassociated with any specific soil matrix. The fact that two flakes were found in Test Pit 2 at 60 cm and 66 cm below surface is provocative, although frustrating due to the lack of the White River Ash above or beneath them.

The site probably functioned as a temporary lookout and camp. The extremely low density of flakes attests to its transient nature. However, because all material collected or observed was at or very near the terrace edge, it is likely that most of the site has washed downslope.

<u>Catalog #</u>	<u>Description</u>
UA 82-106-1	3 chert flakes
UA 82-106-2	2 chert flakes

EAG 176
Eagle D-1; 1:63,360
Sec. 5, T.1N; R.32E. Fairbanks Meridian
Lat. 64°56' 50"N., Long. 141° 15' 45"W.
Land Status: Native Village

EAG 176 is a flake scatter located on colluvium adjacent to Y3 and Y4 terraces on the north side of the Yukon River. It is 2.9 km NE of the mouth of the Seventymile River, at an elevation of about 310 m ASL. The site is about 65 m above the present river level and is situated on the higher of two terraces paralleling the river. The mouth of the Seventymile River, part of a traditional caribou migration route in this region, is visible from the site. Local vegetation is lowland spruce-hardwood forest with abundant willow, low brush, rosebush, grasses, and sphagnum moss characterizing the ground cover. Vegetation of the terrace top and site vicinity is similar and generally less dense than on the surrounding slope.

The site was found while checking an actively eroding exposure along the terrace front. Two chert flakes, one a possible blade core fragment, (UA82-107-1) were found while cleaning the face of the exposure, between 15 and 20 cm below the vegetated edge of the terrace. These were out of context as the stratigraphy was mixed and displaced due to recent erosion and slumping. Seven additional shovel tests on the terrace top were sterile and no other artifacts or features were encountered while checking the exposure.

Weathering and erosion have destroyed the integrity of what remains of this site, and further testing is not recommended here. Limited as the number

of artifacts are, and given the small size of the area from which they came, this site is typical of many hunting, tool manufacturing, and lookout sites found throughout interior Alaska. Less densely vegetated terrace and bluff edges often offer excellent vantage points for game observation.

Catalog #

Description

UA 82-107-1

1 dark grey chert blade core fragment (?)

UA 82-107-2

1 grey chert waste or reduction flake

EAG 193 (The Bead Site)

Eagle D-1: 63,360

Sec. 24, T.2N; R.31E. Fairbanks Meridian

Lat. 64° 59' 14"N, Long. 140° 20' 20"W.

Land Status: Native Village

Eagle 193 is located on a flat, well drained Y3 terrace measuring 50 m N-S and 20 m E-W, on the east bank of the Yukon River. Approximately .8 km south of the mouth of the Tatonduk River. Elevation at the site is about 250 m ASL and the present river level is approximately 4 m below the site. Surrounding vegetation is mature bottomland spruce-poplar with scattered low brush, grasses, and mosses covering the ground.

Site vegetation is characterized by mature poplar and birch trees with black and white spruce occurring less frequently. Most trees are greater than 20 cm in diameter and many birches have been stripped of bark sections near the bases, an indication of traditional native use of the area. A small tributary stream enters the Yukon about 100 m downriver from the

site, although it bends to the south and passes behind the site within 30 m, offering easy access to clear water.

The site consists of a 4 x 2.5 m shallow depression, possibly a house floor, some 0-10 cm lower than the surrounding surface. Testing of this feature revealed cultural disturbance to 20 cm below the surface. The top 2 cm of the depression consists of surface vegetation and decomposing forest litter. From 2 cm to 10 cm there is a root and humic soils mat with finely divided organics attributable to occupation. These include many fragments of wood, spruce and birch bark, charcoal, and burned and unburned bone. Many red, black, and white glass trade bead (UA82-109-2,9) were encountered within 10 cm below the surface, some of which were fused together in clumps, indicating intense heating. Fire-cracked rock and chert fragments were found from 2-20 cm as well as two retouched dark grey chert flakes. Two of three 50 x 50 cm test pits excavated within the feature contained beads, bone and fire-cracked rock. One test pit was sterile. All beads observed were collected, totaling between 200 and 300. All cultural materials observed and collected occurred in this level, predominantly within the upper 10 cm. Sterile mottled silt and sandy silt occurs below about 25 cm in all test pits. Four additional shovel tests outside the feature were sterile.

The nature of the artifacts indicates a semi-permanent camp, with trade beads representing direct or indirect white contact in the region. The condition of the beads is somewhat puzzling as it appears many were intentionally

burned. A significant portion of the feature has been effectively excavated in testing, although it is likely that complete excavation would produce additional artifacts and possibly structural information.

The feature apparently represents the presence and occupation of a rectangular or subrectangular semi-subterranean structure. The western edge of the depression is very close to the top of the bank currently eroding into the Yukon and it is possible that part of the original feature has already sloughed into the river; thus further testing or excavation is not critical in adding to information already obtained but may be considered for salvage purposes.

<u>Catalog #</u>	<u>Description</u>
UA 82-109-1	5 bone fragments
UA 82-109-2	23 red and white glass trade beads
UA 82-109-3	3 burned bone fragments
UA 82-109-4	4 pieces of heat-fractured grey chert
UA 82-109-5	1 fire-cracked rock fragment
UA 82-109-6	Ca. 50 burned bone fragments
UA 82-109-7	4 charred wood fragments
UA 82-109-8	2 retouched dark grey chert flakes
UA 82-109-9	200-300 red, white, and black glass trade beads

EAG 194
Eagle D-1, 1:63.360
Sec 5, T.1N; R.32E. Fairbanks Meridian
Lat. 64° 56' 20"N; Long 141° 16' 55"W.
Land Status: Native Village

EAG 194 is located on an eroding Y3 terrace on the north side of the Yukon River approximately 1.6 km NE of the mouth of the Seventymile River.

Elevation is about 260 m ASL. This 35-40 m stretch of terrace is raised relative to its extension east and west. Local vegetation is bottomland spruce-poplar with cottonwood, birch, and black and white spruce occurring near the site. Understory vegetation consists of grasses, moss, and low shrubs.

The site was located while checking an exposed 12-15 m high cut bank along the terrace front. Grasses and shrubs dominate the terrace edge above this actively eroding exposed bank. View from the site is unobstructed to the SE, S, and SW. Calico Bluff and the flats near the outlet of the Seventymile River are easily seen, although the mouth is partially obscured by an island in the Yukon.

Stratigraphy at the site is composed of a deep, banded succession of wind and water-born silt, silty sand, and sand. From the surface or terrace top to 70 cm below surface is an essentially sterile depositional sequence of reddish brown, brown, tan, and grey silts with organics scattered throughout. There is a possible fire-cracked rock fragment at 25 cm below surface in association with a reddish-brown to grey/brown silty deposit containing charcoal flecks. It is doubtful whether this can be associated with any cultural activity; it may have resulted from a natural fire. Between 70 cm and 80 cm below the surface is a light grey silt containing charcoal fragments and a concentration of fire-cracked rock in association with decomposed burned bone that appears cultural in nature. No lithic artifacts were found in situ. Between 80 cm and 85 cm there is a sterile layer of mottled grey/brown to grey silt, below which is a definite grey/white fine-grained

ash lens, assumed to be the White River volcanic ash. Below the ash is a mottled light and medium-brown silt with a thin charcoal lens at about 96 cm. One black chert blade-like flake (UA82-110-2) was found in situ in this level at 93 cm. Below 100 cm is another succession of silts and silty sands, becoming generally more sandy with depth. The sequence overlies a yellowish fine grained sand at 150 cm. Numerous black chert flakes and a possible core (UA82-110-1) were found out of context in a recent slump feature of the terrace front, and may be associated with the in situ blade-like-flake at 93 cm below the surface. There is an outcropping of black chert about 100 m downstream from the site near a small clearwater tributary which could have served as source material for lithics at this site.

EAG 194 is one of many similar terrace sites bordering the Yukon in this vicinity although deposition here is generally thicker and stratigraphy is easier to follow. There are two definite components at this site, the lower occurring below the White River Ash, making it older than about 1,890 years B.P. Site function is difficult to determine other than the probability of its use as a chipping and lookout location, especially considering the annual caribou migration route through the Seventymile River drainage just across the river from the site. Active erosion and slumping has obviously buried further into the cutbank. Continued deeper stratigraphic testing would be required to determine additional site remains although future breakup and high water effects will likely destroy the remains of this already low density site.

<u>Catalog #</u>	<u>Description</u>
UA 82-110-1	1 tabular black chert core (?) fragment
UA 82-110-2	1 black chert blade-like-flake
UA 82-110-3	1 retouched black chert flake

EAG 213
Eagle D-5, 1:63.360
Sec. 24, T.2N; R.21E. Fairbanks Meridian
Lat. 64°59'15"N, Long. 144° 36' 00" W.
Land Status: National Park Service

EAG 213 is a subsurface lithic scatter located on a southeast dipping slope on the western side of a large meander of the Charley River, approximately 7 km northeast of the confluence of Crescent Creek and the Charley River. Elevation at the site is about 490 m ASL. Vegetation of the area is dominated by upland spruce-hardwood forest with open moist tundra occurring at slightly higher elevations to the west.

The site is situated on a small east-west oriented knoll midway up the first prominent forested terrace paralleling the present river meander. Site specific vegetation is dominated by an open stand of black spruce with a fairly well developed moss and lichen mat covering the surface. The knoll is about 30 m above the river which is approximately 200 m to the northeast at its closest point, and not easily visible from the site at the present time.

Only one of eight shovel tests placed on and around the knoll contained cultural material. A total of 30 grey chert flakes were collected from a 50 x 50 cm test pit. All flakes occurred in a light-brown silty sand between 10 cm and 20 cm below the surface. Moss and roots occurred above this deposition from 0-10 cm. A concentration of unburned bone fragments was found in the southern third of this test pit at a depth of 14 cm to 19 cm. The silty sand became sterile below 20 cm and continued to 40 cm at which point excavation was stopped.

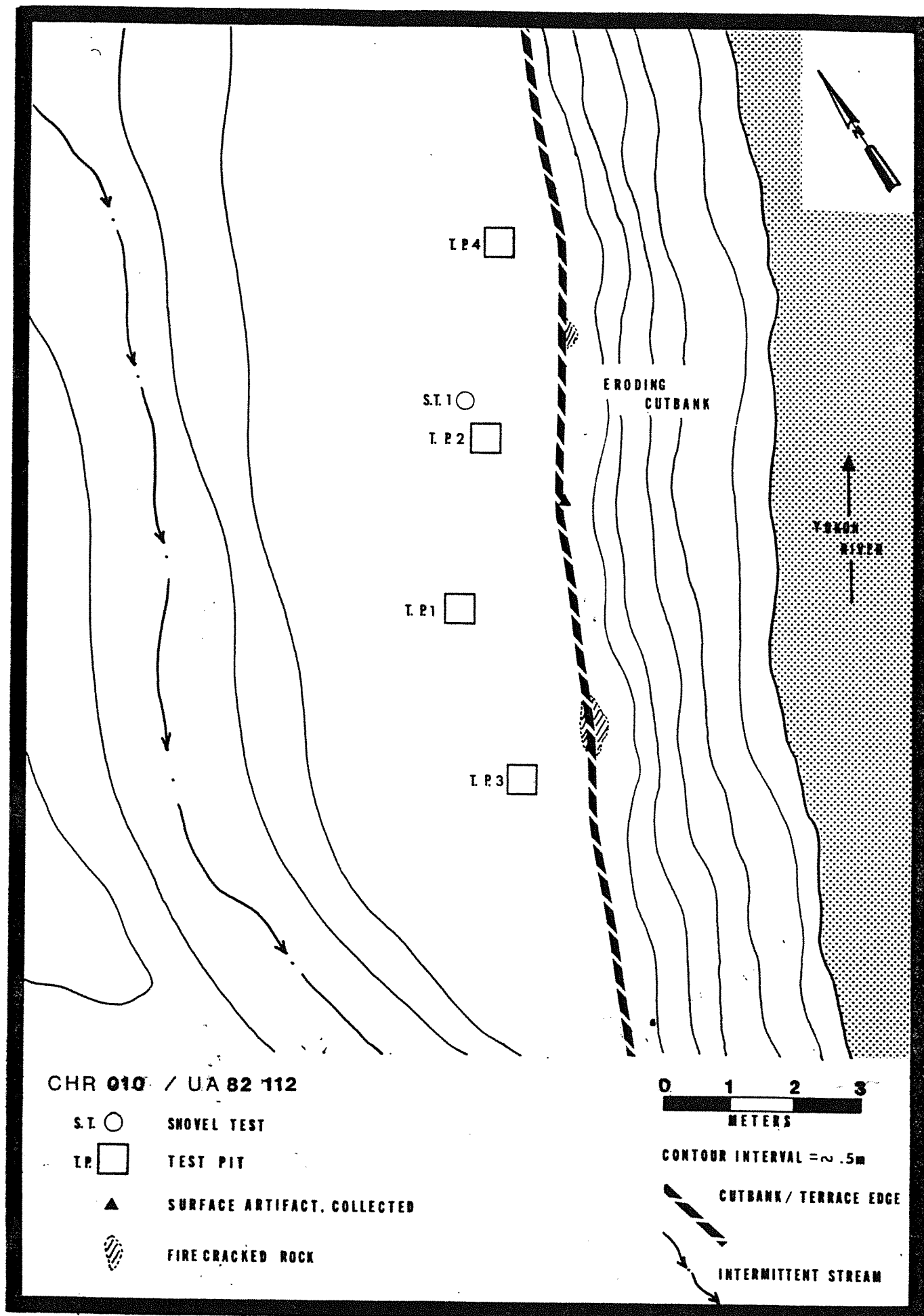


FIGURE 8

No diagnostic artifacts or tools were found at this site, although the presence of bone fragments and two possibly utilized flakes may indicate a temporary hunting camp of limited activity and occupation. The recovered bone fragments are relatively fresh and intact and may indicate a late prehistoric age for the site. The absence of additional artifacts from intensive testing of the knoll and surrounding areas indicates a localized and limited activity and it is possible that the majority of this site has been excavated in testing.

<u>Catalog #</u>	<u>Description</u>
UA 82-111-1	1 utilized(?) grey chert flake
UA 82-111-2	4 grey chert waste flakes
UA 82-111-3	17 grey chert waste flakes
UA 82-111-4	1 utilized (?) grey chert flake
UA 82-111-4a	1 unburned bone fragment
UA 82-111-5	7 grey chert waste flakes
UA 82-111-6	10 bone fragments

CHR 010 (The Red Ochre Site)
 Charley River A-1, 1:63.360
 Sec. 12, T.2N.; R.31E. Fairbanks Meridian
 Lat. 65° 10' 16" N; Long. 141° 11' 50" W.
 Land Status: National Park Service

CHR 010 is located on an actively eroding Y3 terrace fronting on the west side of the Yukon River about 1.9 km NNE of Miller's Camp and approximately 400 m upstream from VABM Reef situated just off the river. Elevation at the site is about 250 m ASL and the terrace top is 4 m above the present river level. Bottomland spruce-hardwood forest dominates the area with wild roses, grasses, and many wildflower species comprising the underbrush.

White spruce, alders, and willows dominate site-specific vegetation, with black spruce occurring frequently in lower areas and along a small unnamed stream passing west of the site and entering the Yukon about 10 m south or upstream of the site. View from the site is unobstructed up and down river for at least 1 km in each direction, and the flats north of the Tatonduk River and west of Windfall Mountain are easily visible.

Like many sites bordering the Yukon, this one is in an advanced state of erosion and slumping. The only lithic artifact found was out of context on a slump surface. This is a small dark grey chert notched projectile point (UA82-112-1) which most closely resembles the Stott point of the southwest Yukon and may be as old as 1,600 B.P. Fire-cracked rock fragments were found on the slump and were not collected. Four 50 x 50 cm test pits excavated along the stable terrace top were sterile and permafrost was encountered within 70 cm below the surface. A discontinuous lens of relatively pure red ochre up to 1 m in thickness was noted in a freshly exposed cut bank column occurring between 40 cm and 58 cm below the surface of the terrace. No artifacts or cultural material were present in or around this deposit although it is possible that the occurrence of this pigment is related to the presence of artifacts now out of context at this site. The rest of the depositional sequence were is characterized by alternating brown, light-brown, grey, and grey-brown silts. Some charcoal fragments or staining is visible above and below a prominent lens of white river volcanic ash which occurs between 34 cm and 36 cm below the surface.

The disturbed nature of this site precludes recommendation for further testing. Positive correlation of the projectile point with other sites has yet to be determined. Site function and boundaries are rather ambiguous from what is left. It may have served as a resource location given the quality of the red ochre deposit here, although this is difficult to state with assurance due to the lack of any associated cultural materials.

<u>Catalog #</u>	<u>Description</u>
UA 82-112-1	Dark grey chert notched projectile point
UA 82-112-2	White River Ash sample

CHR 011
Charley River A-2; 1-63,360
Sec. 2. T3N. R30E. Fairbanks Meridian
Lat. 65° 7' 00" Long. 142° 25' 00"
Land Status: National Park Service

CHR 011, the only non-Native historic site encountered, is located 4.5 km downstream of Montawk Bluff. It occupies the eroding edge of a low terrace at an approximate elevation of 255 m ASL and 10 m above the present river channel.

Site specific vegetation consists of birch and spruce stands, low bush, wild flowers and grasses. Vegetation in the vicinity becomes more dense proceeding north, away from the terrace edge, culminating in thick spruce stands.

The site consists of a rectangular pit partially eroded into the Yukon and approximately 3 x 3 m. It is about 1 m deep along the back, or northern,

"wall". A few partial, milled timbers remain along the wall beginning at about 15 cm below the surface. Some of these contain wire nails which were used locally until the turn of the century. It was further noticed that several trees had been cut down in the immediate vicinity to clear the area.

Several functional interpretations were offered by David Evans of Nation River, a trained historian who guided Grauman in her historic site inventory of the area (Grauman 1977). Among these are: a root cellar, shelter, or mooring for steamboats. The most plausible explanation is that the pit functioned in fish storage.

While the immediate vicinity was thoroughly checked, no test pits were excavated. No artifacts were found.

Research potential is considered low due to rapid erosion of the bluff edge. However, it should be noted that this type of structure was previously unknown and location of similar sites in better condition will shed light on its (their) function.

CHR 012
Charley River B-3; 1:63.360
Sec 14, T.6N; R.27E. Fairbanks Meridian
Lat. 65° 20' 33"N, Long. 142° 20' 10" W.
Land Status: National Park Service

CHR 012 is a low density lithic scatter situated on a colluvium covered bedrock bluff or plateau edge on the north side of the Yukon River at an elevation of approximately 460 m ASL, about 225 m above the level of the

Yukon. The site is situated on the western extreme of the Kathul Mountain massif, about 2.8 km NW of the mouth of Washington Creek and 4.9 km WNW of the mouth of Weshrinarin Creek. VABM Kat is 2.9 km at 60° E of True North from the site. Vegetation is characterized by sparse upland spruce-hardwood forest.

Dwarf birch, willows, wild flowers, and high brush dominate the immediate site vicinity, with lichens and dry moss occurring along the 45 m extent of the break in slope on which the flake scatter occurs. The site offers a panoramic view of lakes and landforms on both sides of the Yukon. Both Weshrinarin and Washington Creek mouths are visible across the river and the site directly overlooks several lakes on the flats between this side of Kathul Mt. and the river. A majority of the southwestern high ridges and drainages of Kathul Mt. are also visible from the site.

Stratigraphy at this site is poorly developed and shallow, with sporadic medium brown gravelly soil occurring only to a few centimeters depth. Much of the surficial moss and lichen growth overlies small angular gravels and bedrock. Two lithic material types were noted among the three waste flakes found, neither of which occur naturally at the site. Three flakes were of fine-grained black chert and one was of grey quartzite.

This site essentially functioned as a chipping station and overlook. Accessibility to the upper plateaus and drainages of Kathul Mt., as well as to lower lakes, flats, and the Yukon River makes this location ideal for a short-term hunting camp.

<u>Catalog #</u>	<u>Description</u>
UA 82-113-1	1 grey quartzite waste flake
UA 82-113-2	1 fine-grained black chert waste flake
UA 82-113-3	1 fine-grained black chert waste flake

CHR 013

Charley River B-4; 1:63.360

Sec. 23, T.6N.;, R.24E. Fairbanks Meridian

Lat 65° 19' 55"N; Long. 142°, 44', 10" W.

Land Status: National Park Service

CHR 013 is a small campsite located on the north side of the Yukon River about 2.7 km NE of the mouth of the Charley River and approximately 100 m downstream from the dissected western terminus of Chester Bluff. The site is situated roughly 12 m above the present level of the Yukon which flows about 10 m to the south. Elevation at CHR 013 is approximately 230 m ASL. Vegetation consists of lowland spruce-hardwood forest and dense low brush growth. Vegetation grades into low brush bog and muskeg within 1 km to the northwest, away from the river.

Site vegetation is dominated by dense clumps of grass, with Labrador tea, rose bush, willow, and various wildflowers occurring less frequently. Small white spruce and birch are scattered throughout the area, becoming more frequent in small drainages and away from the river. View from the site is panoramic across the river to the east, south, and southwest over the flats surrounding the mouth of the Charley River.

The site consists of a hearth eroding out of the actively slumping front of the river bank. Much of the surface along this contour paralleling the

river is undergoing similar erosional activity. There is a lack of stratigraphic context due to this movement although the feature was probably between 5 cm and 25 cm below the present vegetated surface based on remnant discoloration of sediments at this level. The eroding surface was freshly exposed to determine any integrity of the feature but no cultural materials were found in positive stratigraphic context. Two additional shovel tests near the feature were sterile. One black chert waste flake and several burned bird bone fragments were recovered from marginally disturbed mottled light brown and grey silt from 0 cm to 10 cm below the vegetated surface. Several burned bone fragments and fire-cracked rock in association with the lighter grey silt were not collected.

The appearance and material remains of this site indicates its use as a temporary campsite. It is impossible to determine how much of the site has already eroded away and research potential here is low, based on the limited remains. The area is significant, though, in that there were three sites found in this western margin of Chester Bluff. One of these sites is a burial and the other is a hearth feature similar to CHR 013. Further investigation of the this region, particularly around the small lakes and drainages to the northwest and north may reveal sites of a more permanent nature. Sites bordering the Yukon here are likely to be undergoing similar states of erosion and wasting.

Catalog #

Description

UA82-122-1

1 black chert waste flake

UA82-122-2

28 burned bird bone fragments

CHR 014

Charley River B-6; 1:63,360

Sec. 16, T.7N.; R.20E. Fairbanks Meridian

Lat. 65° 25' 39"N., Long. 142° 37' 55" W.

Land Status: National Park Service

CHR 014 is a subsurface lithic scatter located on the end of a NW-SE trending ridge overlooking the confluence of Thanksgiving Creek and the Yukon River. This ridge steeply terminates about 75 m below the mouth of Thanksgiving Creek. Elevation at the site is approximately 350 m ASL. About 150 m above the present level of the Yukon. Upland spruce-hardwood forest characterizes the vegetation of ridge and hilltops in the area.

Aspen and white spruce are the dominant on-site boreal vegetation, growing sparsely enough to permit good visibility several kilometers up Thanksgiving Creek to the south, upriver to the east along older terraces, and east across the river to Eureka Creek drainage and 40 Mile Bluff. Ground cover at the site is composed of low brush berries, rose bush and grasses. A spring is located just downslope and to the south of the southeasterly exposed site.

Several grey ccs flakes were discovered while shovel testing the ridge end. The three shovel tests that revealed subsurface lithics were expanded into 50 x 50 cm test excavations. Twelve additional shovel tests on the ridge end were sterile. A total of 69 grey ccs waste flakes were recovered from test pit #1. Twelve occurred from 0-10 cm below the surface in the upper dark brown organic soil containing roots and decomposing forest duff.

Twenty three grey ccs waste flakes were found from 10 cm to 20 cm in a medium to reddish-brown silt. Thirty four grey ccs flakes were recovered from 20 cm to 30 cm in the lower extreme of the same deposit. Light brown sterile silt occurred at 20 cm grading into grey sandy silt with gravels at 36 cm. Two light grey chert flakes were found in test pit #2 between 20 and 30 cm in a reddish brown clayey silt horizon. This deposit occurred beneath the organic and humic soils layer (0-12 cm) and a tan silt (12-20 cm). Deposition below 30 cm consisted of compacted light brown to tan silt lenses becoming intermixed with small gravels at 50 cmm. Test pit 3 produced three grey chert flakes between 10 cm and 20 cm in a reddish-brown clayey silt deposit. The stratigraphic profile of test pit 3 is similar to test pits 1 and 2 although the intermixed silt and gravel was encountered closer to the surface at 30 cm.

Artifact density could be considered medium to low at this site, given the large number of sterile shovel tests. Test pit 1 had a high density of waste flakes that may represent a localized activity. Test pit 3 was located one meter east of test pit 1 and probably reflects the periphery of the same activity. A concentration of six shovel tests around these two test pits revealed no expansion of cultural material limits. Test pit 2 was excavated about 25 m NW and slightly up slope from the other two tests, and produced similar lithic material in roughly the same stratigraphic context. It may represent a similar activity. Research potential is considered medium at this site. It is apparent that further testing would produce additional lithic material and there is a possibility of finding

deeper and older cultural material at this site. An overlook and hunting camp function is assumed for this site and its topographic prominence proposes its repeated use as such.

<u>Catalog #</u>	<u>Description</u>
UA82-120-1	12 grey brown ccs flakes
UA82-120-2	23 grey brown ccs flakes
UA82-120-3	34 grey brown ccs flakes
UA82-120-4	2 light grey chert flakes
UA82-120-5	3 grey chert flakes

CHR 035
Charley River A-2; 1:63.360
Sec. 26, T.4N; R.30E. Fairbanks Meridian
Lat. 65° 08' 22"N. Long. 141° 35' 00" W.
Land Status: National Park Service

CHR 035 is a quarry or material source situated on an east-west trending exposed bedrock ridge on the north side of the Yukon River approximately 8.5 km SE of the mouth of the Nation River, 5.6 km NE of the mouth of Montauk Creek, and 4.9 km at 112° east of true north from VABM Moty. This landform is part of the northeastern extreme of Montauk Bluff and is about 2.4 km from the Yukon at its closest point. Lowland spruce-hardwood is the dominant vegetation type to the north and east, with low brush bog and muskeg dominating the floodplain vegetation to the northwest, west and south.

Site specific vegetation is relatively more sparse than areas immediately surrounding due to its location atop exposed bedrock. Black and white spruce and scattered birch occur on a slope rising to the northeast above

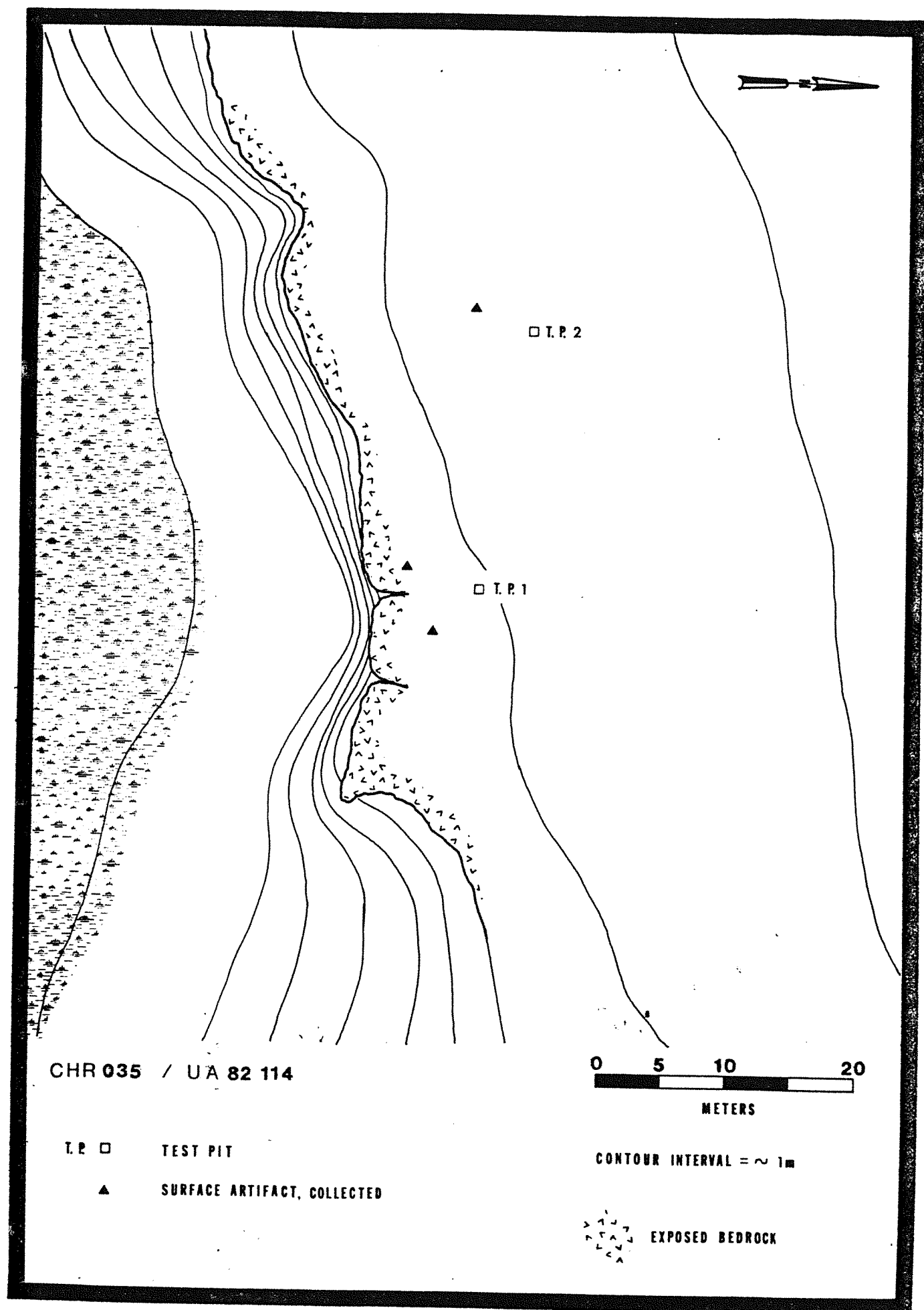


FIGURE 9

the site. There is much deadfall and associated primary growth of grasses and wildflowers due to a recent fire in the area. Scattered mosses and lichens cover portions of the exposed bedrock at the site. The site is about 50 m above the floodplain allowing for excellent panoramic views of the Yukon drainage to beyond the mouth of the Nation River to the NW and Calico Bluff to the SE..

Soil development is fairly deep several meters back from the bedrock bluff edge, although gravels and colluvium occur throughout. Two 50 x 50 cm test pits were excavated in these soils; test #2 was sterile. A total of 52 flakes of various materials were recovered from three soil layers in test #1. Eight CCS flakes were found from 0-8 cm below the surface in a deposit of organic soil containing charred wood and charcoal fragments. One chert blade-like flake or microblade fragment and 35 waste flakes of various silicious materials were recovered from 8 cm to 24 cm below the surface in a light brown gravelly silt horizon. Three waste flakes of similar material were found from 24 cm to 42 cm in a reddish-brown oxidized gravelly silt with some occurrence of charcoal fragments. All other materials collected from this site were surficial and representative of several lithic types including smoky grey obsidian, clear quartz crystal, and several varieties of chert. The observed material collectively represents a low density of tools or utilized artifacts and a high density of debitage and debris. Worked materials included a chert scraper, (UA82-114-2) retouched obsidian (possibly a graver), (UA82-114-3) quartz crystal biface fragment, (UA82-114-8) and a chert biface fragment (UA82-114-1).

This site likely functioned as a chipping or tool manufacture station, overlook, and quarry site. There are concentrations of flakes eroding out of the break in slope near the bluff edge, and visibility from the site is unobstructed for great distances. Given the variety and abundance of materials at this site, as well as artifacts in association with definable stratigraphy, CHR 035 merits further investigation. Similar landforms occur to the northwest and should also be surveyed. Further testing at CHR 035 may possibly reveal the presence of a multicomponent site in this presently undisturbed setting.

<u>Catalog #</u>	<u>Description</u>
UA 82-114-1	1 grey brown chert biface fragment
UA 82-114-2	1 dark grey chert scraper
UA 82-114-3	1 smokey grey retouched obsidian flake
UA 82-114-4	8 ccs waste flakes
UA 82-114-5	1 blade-like-flake or microblade fragment
UA 82-114-6	35 waste flakes, various materials
UA 82-114-7	8 waste flakes, various materials
UA 82-114-8	1 clear quartz fragment, bifacially retouched

CHR 036
 Charley River A-2; 1:63,360,
 Sec 6, T.3N.; R.30E. Fairbanks Meridian
 Lat. 65°06'50"N; Long. 141°, 31', 42"W.
 Land Status: National Park Service

CHR 036 is an overlook site located on the eroding edge of a Y4 terrace on the north bank of the Yukon River about 1.6 km north of the mouth of Montauk Creek. The site is situated about 30 m above the present river level at an elevation of approximately 275 m ASL. Much of the 700 m to 800 m terrace front is undergoing surficial erosion and has formed a 35° to 40° slope terminating at the river. The top of this terrace is relatively flat and

vegetation is characterized by lowland spruce hardwood with associated low brush and grasses.

Poplar, birch, and alder dominate site specific vegetation, occurring just back from the eroding edge of the terrace that is presently dominated by rose bush and grasses. Vegetation of the south facing slope of the terrace is limited to sparse sage growth. Views from the site are unobstructed for 180° up and down river, as well as Montauk Creek mouth and associated floodplain and unnamed tributaries across the river. The higher regions of Montauk Bluff are fairly accessible across the terrace top about 500 m to the northeast.

The site was discovered by observing two flakes on the top of the slope, just below the vegetated edge of the terrace. Only one of three test pits excavated along the terrace top contained cultural material. Stratigraphy of this test pit consisted of an 8 cm to 10 cm deposit of dark brown silt underlying grassy surface vegetation. Three chert waste flakes were found in the lower portion of this deposit. Nine chert waste flakes were recovered from a reddish-brown silt underlying the above, at a depth of 10 cm to 20 cm. Deposition below 20 cm consisted of fine grained tan silt grading into grey clayey silt at 36 cm. No cultural material was present below 20 cm. Two chert waste flakes were also collected from the erosion slope surface.

Research potential at this site is considered low due to the active downslope movement of terrace sediments and the low density of artifacts found in

subsurface testing of the terrace top. The site is situated on an ideal landform for viewing the local river valley and further investigation of similar landforms may reveal sites in better states of preservation.

<u>Catalog #</u>	<u>Description</u>
UA 82-115-1	3 chert waste flakes
UA 82-115-2	9 chert waste flakes
UA 82-115-3	1 chert waste flake
UA 82-115-4	1 chert waste flake

CHR 037
Charley River B4; 1:63.360
Sec 2, T.6N., R.25E. Fairbanks Meridian
Lat. 65⁰, 22', 38"; N; Long. 142⁰, 31', 10"W.
Land Status: Native Allotment, Approved

CHR 037 is a two loci site situated on a Y3 terrace on the south bank of the Yukon River about 1.2 km ENE of the lower mouth of the Kandik River. Elevation at the site is approximately 230 m ASL and the terrace top is about 4 m above the present river level. Two recent cabins are within 150 m of both loci. Vegetation is fairly dense, consisting of lowland spruce hardwood forest, with grasses, rosebush, horsetail and mosses characterizing the surface vegetation.

Birch occurs most commonly at both loci, which are separated by a small unnamed drainage. Horsetail fern and rosebush are the most common surface vegetation. Willow and alder occur more densely on the immediate river bank, some 20 m north of both loci, and partially obscure views across the Yukon.

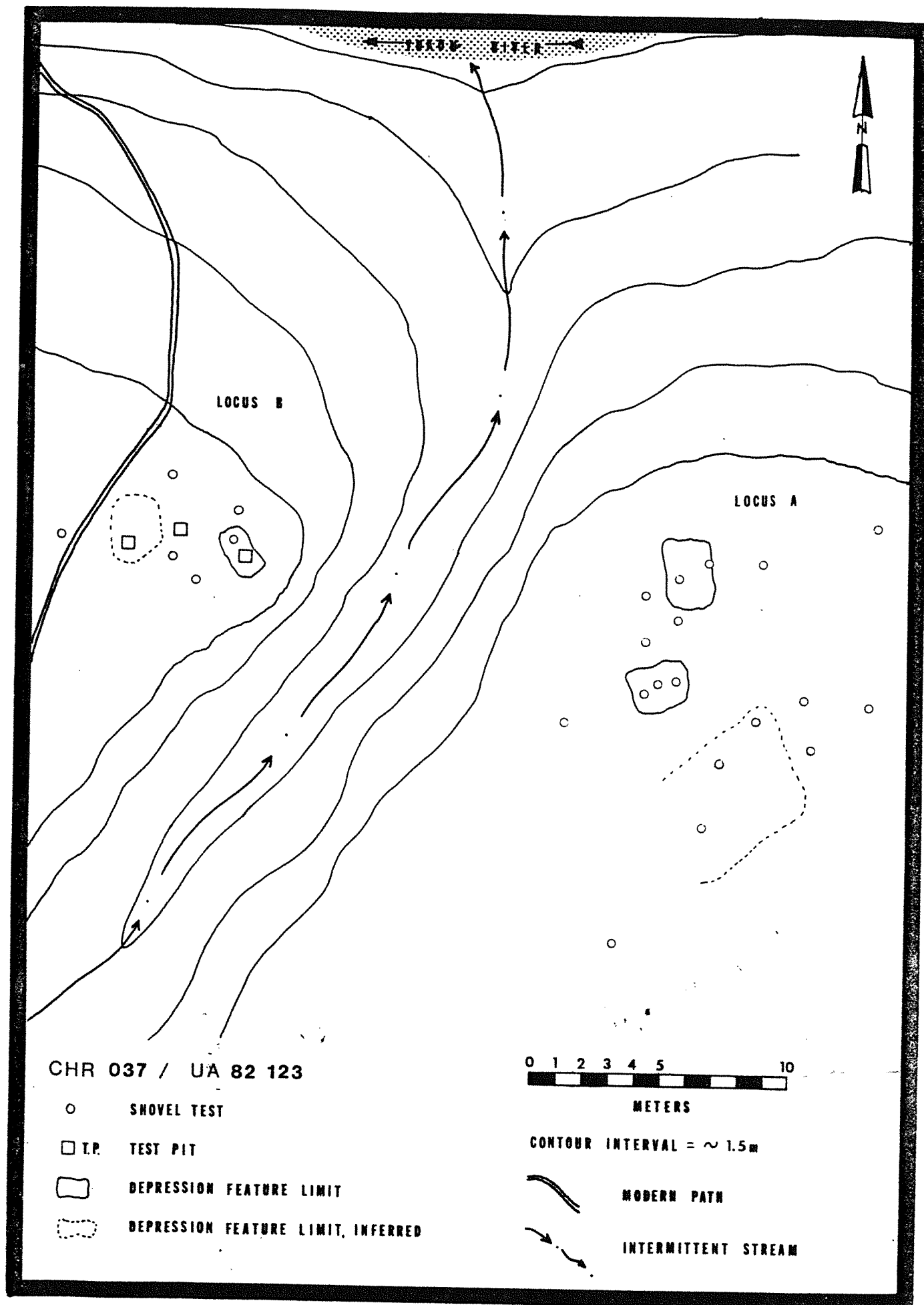


FIGURE 10

Locus A, the easternmost locus, consists of three subtle but discernable subrectangular shallow depressions measuring about 2.5 x 3.5 m. No cultural material was found in a total of 16 shovel tests inside and outside of these features, although the humic soil development was noticeably thinner within the features than outside of them. Locus B consists of one definite rectangular depression measuring 2 x 3 m and one subtle subrectangular depression measuring 3 x 4 m. A 50 x 50 cm test pit excavated in the southeast quadrant of the smaller depression revealed large amounts of fire-cracked rock and scattered charcoal. This concentration occurred at 10 cm below the center of the depression surface, beneath a medium-brown silty deposit with numerous roots and decomposing organic matter. A compact bright reddish-brown silt with charcoal fragments occurs below the fire-cracked rock concentration, and may represent a floor surface. Light-brown sterile silt occurs below this and testing was stopped at 40 cm below the surface. A 50 x 50 cm test pit excavated in the southwest quadrant of the larger and more subtle depression produced six amorphous slate flakes and three burned bone fragments from 8 cm to 10 cm below the surface just above a hard-packed grey-brown clayey silt. The upper 8 cm of the test consisted of a loosely compacted humic soil with decomposing organics throughout. The corner of a large tabular cobble was encountered at 16 cms in the northwestern corner of the pit and may be part of a feature within the depression. Loosely-compacted grey sterile silt was encountered at 20 cm. All other shovel tests and one other test pit contained no cultural material.

Although artifact density was low at this site, it may be significant in demonstrating the existence of a semi-permanent historic Athapaskan settlement

in the vicinity of the mouth of the Kandik River, and may be related to Charley's Village. It was said to have been located above the Kandik mouth and flooded out in 1913. Further testing of these depressions may provide additional information concerning their function and affiliation.

<u>Catalog #</u>	<u>Description</u>
UA 82-123-1	4 fire-cracked rock fragments
UA 82-123-3	6 dark grey slate flakes, 3 burned bone fragments
UA 82-123-3	1 charcoal sample
UA 82-123-4	1 matrix sample

CHR 038
Charley River B-4; 1:63.360
Sec. 2, T.6N.; R.25E. Fairbanks Meridian
Lat. 65° 22' 49" N; Long. 142° 32' 13"W.
Land Status: National Park Service

CHR 038 is represented by an isolated artifact found approximately 600 m downstream from CHR 037 on the same Y3 terrace on the south side of the Yukon River. Elevation at the site is about 235 m ASL and the terrace top overlooks the river about 5 m below. The mouth of the Kandik River is about 1.9 km ESE from this point. Vegetation is lowland spruce-hardwood forest grading into low brush bog and muskeg on the floodplain about 200 m west of the site.

Black and white spruce, and birch occur commonly along the terrace at the site, with rosebush and horsetail fern dominating the ground cover. The view of the Yukon is fair although somewhat obstructed by river bank vegetation of willow and alder. The mouth of the Kandik River is obscured by the vegetated sand bar on the downstream side.

An isolated black chert waste flake was found in a shovel test at about 25 cm while surveying the terrace top. The 50 x 50 cm shovel test pit test was expanded into a 1 x 1 m test pit but no further cultural material was revealed. Stratigraphy consisted of surface vegetation overlying a moss-root mat and organic soils deposit to 20 cm below the surface. A reddish-brown silt with scattered charcoal fragment underlay this from 20 cm to 36 cm. The flake came from this horizon. Light grey-brown silt occurred from 36 cm to 45 cm, at which point excavation was stopped. Four additional shovel tests placed within 3 m of test pit #1 were sterile.

Speculation as to site function is not possible in this case, although there is the possibility of its relationship to CHR 037 just upstream. Further testing at this site may reveal additional cultural material although site density is very low as determined by this survey.

<u>Catalog #</u>	<u>Description</u>
UA 82-116-1	1 black chert flake

CHR 039
Charley River B-6; 1:63,360
Sec 8, T.7N; R.20E. Fairbanks Meridian
Lat. 65° 27' 03"N, Long 143° 41' 55" W.
Land Status: National Park Service

CHR 039 is a small chipping station site located on the west side of the Yukon River on a colluvium and eolian silt capped bedrock ridge about 100 m south of the mouth of Takoma Creek. Elevation at the site is approximately

365 m ASL. The Yukon is about 175 m lower in elevation and about 200 m west of the site at its closest point. Regional vegetation is upland spruce hardwood forest. Several weathered, friable, dolomite pinnacles and promontories occur on the east or river facing slope of this ridge system.

The site occupies a flat ridgetop forested by aspen, birch, and white spruce. Black spruce and alder occur in drainages and lower elevations off the ridge top. Mosses, various grasses, and low brush comprise the ground cover. The southeastern exposure offers good views upriver including the north of Eureka Creek and 40 Mile bluff. Steep, constricted drainages along the eastern side of the ridge offer the only obvious clear water sources in the area.

Two chert flakes were found in a shovel test between 10 cm and 15 cm below the surface in an oxidized reddish-brown silt. This was expanded into a 50 x 50 cm test pit which revealed no further cultural materials. A 5 cm thick organic rooty soil occurred above the oxidized silt which extended to 20 cm. A sterile, light tan fine-grained silt occurred below 20 cm. The excavation was discontinued at 35 cm. Five additional shovel tests placed within 15 m of test pit #1 were sterile.

Density of artifacts is low and no further testing is presently recommended at this site. There is little or no erosion or natural impact occurring at the site. CHR 039 may be considered as a small overlook site or chipping station.

<u>Catalog #</u>	<u>Description</u>
UA 82-119-1	2 dark grey chert flakes

CHR 060

Charley River B-4; 1:63,360

Sec. 23, T.6N., R.24E. Fairbanks Meridian

Lat. 65° 19' 57"N, Long, 142° 44' 57"W.

Land Status: National Park Service

CHR 060 is a burial located on a Y4 terrace on the northern side of the Yukon River about 300 m downstream from the western end of Chester bluff and approximately 2 km northeast of the mouth of the Charley River.

Elevation at the site is about 230 m ASL and the terrace top is 4 m above the present river level. Area vegetation consists of bottomland spruce-hardwood forest grading into low brush bog and muskeg several hundred meters to the northeast away from the river.

The site lies about 1.5 m north of the edge of an actively eroding and undercutting cutbank, in a narrow grove of white spruce and birch, with rosebush, Labrador tea, and mosses covering the ground. Visibility is unobstructed to the east, south, and southwest across the floodplain and flats surrounding the lower extreme of the Charley River.

The site consists of a 2.4 x 3.3 m rectangular depression feature, long axis oriented parallel to the river). One black chert waste flake was also found on a recent slump surface in front of the terrace. Upon subsurface testing, the feature was found to contain a human burial under a decomposing wood covering at about 40 cm below the surface. Subsurface testing was discontinued upon finding several glass trade beads and human phalange sections in the cavity beneath the wood covering. A total of 36 small,

S.T.5 ○

● S.T.4

S.T.3 ○

S.T.2 ○

S.T.1 ○

CHR 060 / UA 82 117

S.T. ○ SHOVEL TEST

S.T. ● SHOVEL TEST REVEALING BURIAL

▲ SURFACE ARTIFACT, COLLECTED

- - - DEPRESSION FEATURE LIMIT

0 1 2 3
METERS

CONTOUR INTERVAL = ~ .5m

▲ CUTBANK/TERRACE EDGE

FIGURE 11

round trade beads (UA82-117-1) were collected; including 14 white, 17 black, and 4 red. Seven whole phalange were returned to the burial. Fifteen centimeters of light brown silt fill lies atop the wood covering. A thin layer of birch bark occurs above this fill, at 23 cm. Less consolidated tan and light brown mottled silt fill with scattered organics occurs above the birch bark to about 4 cm below the surface where surficial humic soils and denser root mat presently occur. No other artifacts were discovered in four additional shovel tests around the feature, or subsequent examination of the exposed cutbank and freshly eroded sediments.

This site is significant in that burials of this period are rare. Further, this may be a chief's burial because at contact commoners were usually cremated while chiefs were buried extended. Adverse impact due to continued erosion and undercutting at this site is imminent within the next five years.

<u>Catalog #</u>	<u>Description</u>
UA82-1	36 glass trade beads, various colors
UA82-117-2	1 black chert waste flake

CHR 061
Charley River B-4; 1:63,360
Sec. 23, T.6N., R.24E. Fairbanks Meridian
Lat 65° 20' 03"N, Long. 142° 44' 03"W.
Land Status: National Park Service

CHR 061 is located two thirds the way up a steep south facing slope on the north side of the Yukon River at the western extreme of Chester Bluff,

about 2.9 km northeast of the mouth of the Charley River. Chester Bluff is dissected into a series of fingerline ridges in this area landform is classified as colluvium covered bedrock. Regional vegetation consists of spruce, birch, and poplar covered ridges, the deciduous trees predominating better drained and higher areas. Numerous bush berries, low brush and grasses occur throughout the site vicinity. The site is presently eroding out of sparsely vegetated sediments at the interface between the exposed slope face and more stabilized vegetated ridgetop just above. The view from the site is panoramic to the east, south, and southwest, encompassing the flats around the mouth of the Charley river. Site elevation is about 245 m ASL and present river level is about 25 m below.

The site consists of a partially eroded hearth with bone flecks and burnt bone fragments, fire-cracked rock, black chert waste flakes and some charred wood. Stratigraphy is difficult to ascertain due to active erosion and slumping, although several flakes were found in situ between 60-70 cm below the surface while cleaning the profile of the disturbed feature. A test pit located 50 cm west up slope of this eroding feature revealed five black chert flakes between 0-10 cm.

The site appears to have been a hunting camp giving access to the tip of Chester Bluff and lower marshy areas west of it. An advanced state of erosion already exists at the site.

<u>Catalog #</u>	<u>Description</u>
UA82-118-1	4 fire-cracked rock fragments
UA82-118-2	15 bone fragments
UA82-118-3	5 black chert waste flakes
UA82-118-4	4 charred wood fragments
UA82-118-5	possible White River Ash sample
UA82-118-6	2 fire-cracked rock fragments
UA82-118-7	4 bone fragments
UA82-118-8	5 black chert waste flakes
UA82-118-9	5 Black chert waste flakes

CHR 062

Charley River B-6; 1:63,360
 Sec. 8, T.7N, R.20E. Fairbanks Meridian
 Lat. 65° 27' 17" N, Long. 143° 41' 55"W.
 Land Status: National Park Service

CHR 062 is a subsurface flake scatter located on the south facing slope of the first prominent knoll south and about 350 m upriver from Takoma Creek on the west side of the Yukon. Site elevation is approximately 325 m ASL, and about 145 m above the present level of the river. Upland spruce-hardwood forest characterizes vegetation of the ridges and rolling terrain west of the river in this area. The prominent landform at this site is situated above a friable and weathered sequence of dolomitic bedrock pinnacles and bare ridges dropping steeply to the river.

Site vegetation consists of an open birch poplar stand with scattered white spruce. Understory is composed of rose and low bush berries, grasses, a variety of wildflowers, and occasional labrador tea. Mosses and lichens are fairly sparse with decomposing forest duff covering the surface. Alder and willow occur downslope in ravines and along the river. Visibility from the site is unobstructed to the south, southeast, and east, covering the Yukon valley upriver for many kilometers, the flood plain, the vicinity of

Eureka Creek drainage, and 40 Mile bluff on the north side of the Yukon.

Two grey chert flakes were found while shovel testing on the south side of the knoll top. A total of 58 grey chert flakes were found in two subsequent 50 x 50 cm test pits, each excavated to a depth of 30 cm. All material was encountered between 5 and 10 cm below the surface, concentrated at the interface of surfacial humic soil deposition and underlying light brown clayey silt. Roots occurred throughout the cultural component in both test pits. Test pit 1 contained 33 grey chert waste flakes. Test pit 2 contained 25 grey chert waste flakes including one possible core or core fragment. Deposition below the cultural level was composed of medium to light tan sterile clayey silt. Five additional shovel tests in the surrounding area were sterile.

This site is likely a fairly recent (late prehistoric) overlook camp-chipping station given the shallow depth of deposition and light concentration of waste flakes. The approximately 5 m by 5 m gentle south slope was intensively tested for additional cultural material and it is possible that the majority of the site has been excavated. Research potential is low.

<u>Catalog #</u>	<u>Description</u>
UA82-121-1	33 light grey chert waste flakes
UA82-121-2	13 light grey chert waste flakes
UA82-121-3	12 light grey chert waste flakes

APPENDIX B: ARTIFACT DESCRIPTION

The artifacts described here constitute roughly 12% of the total collected lithic artifact inventory from the 1982 reconnaissance survey of Yukon-Charley National Rivers Preserve. They are not intended to serve as a quantitative cross section or statistically valid sample, but rather reflect the more obvious worked, utilized, and identifiable lithics from seven of 22 sites found this season. Time constraints on the report write-up preclude more intensive and complete artifacts analysis and description. Many sites contained no more than small debitage concentrations and as important as these may be in assessing types and time depths of lithic assemblies, they have been forgone in this preliminary artifact description for the Yukon-Charley material.

The format, including definitions, for artifact descriptions is generally taken from the 1981 NPR-A laboratory manual and artifact descriptions publication (Davis et.al., Vol. 4). All measurements are in centimeters, weights are in grams, the material type, shape, cross section, and retouch edge angle are given for each artifact where applicable.

I. Projectile Points

CHR 015 / UA82-30-1

(Fig. 12b)

Material: Black CCS

Condition: Base Fragment

Facial Flaking: N/A

Cross Section: Slightly asymmetrical bi-plano

Base Form: Concave

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge Angle</u>
4.32	2.25	.60	7.65	55-60



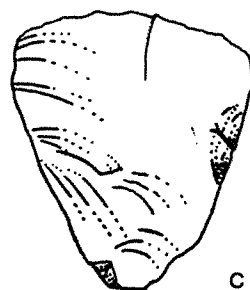
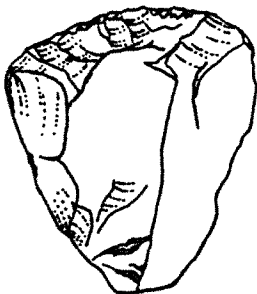
a

UA 82 112 - 1

UA 82 30 - 1



b



c

UA 82 114 - 2



FIGURE 12

UA 82 104 - 39

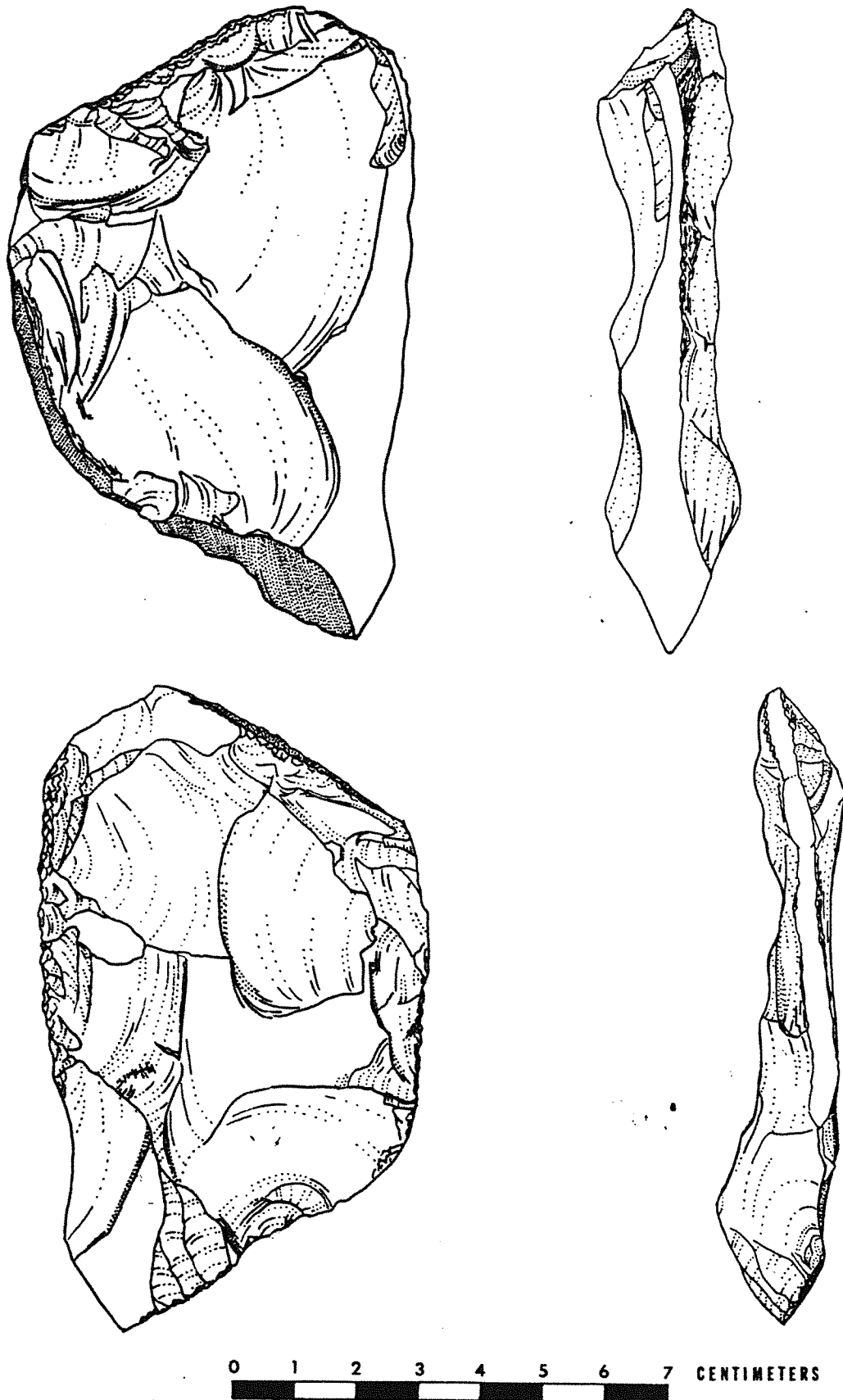
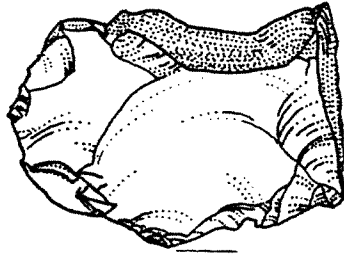
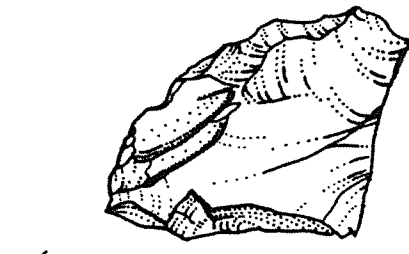
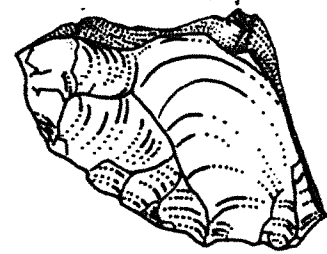
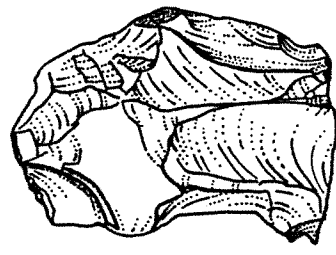


FIGURE 13

UA 82 104 - 30



UA 82 104 - 37



UA 82 104 - 29

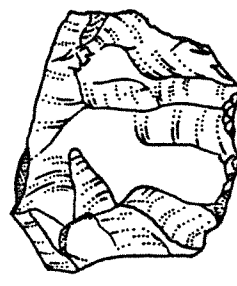
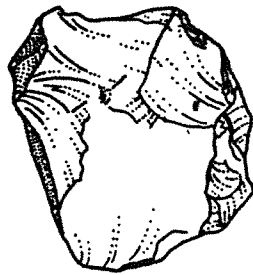
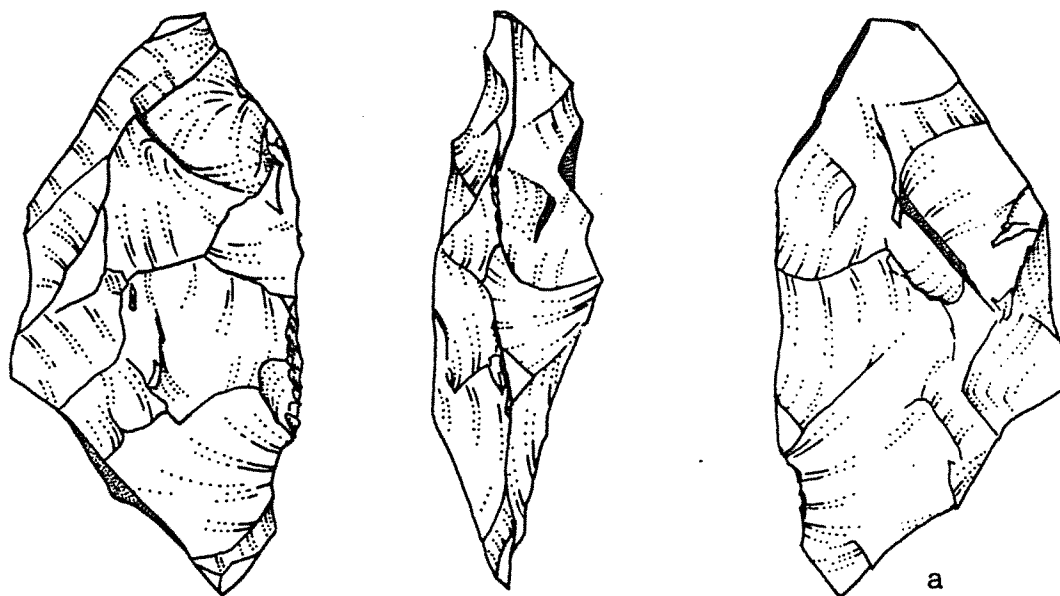
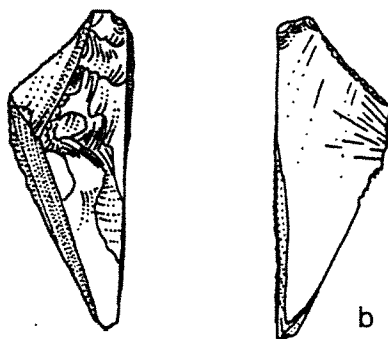


FIGURE 14

UA 82 114 - 1



UA 82 114 - 3



UA 82 114 - 5



UA 82 114 - 8



UA 82 104 - 14

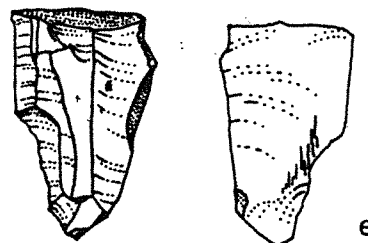
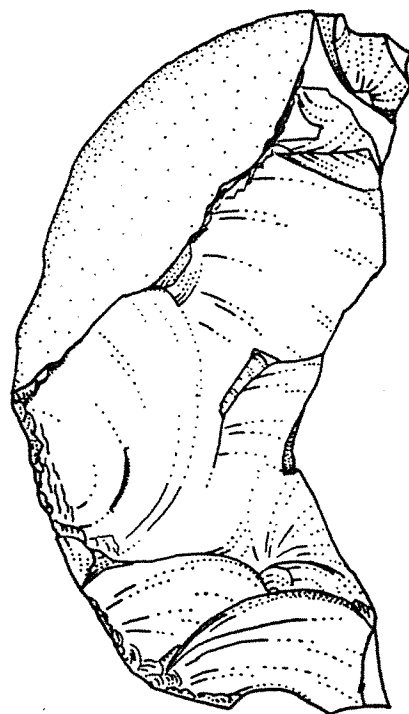
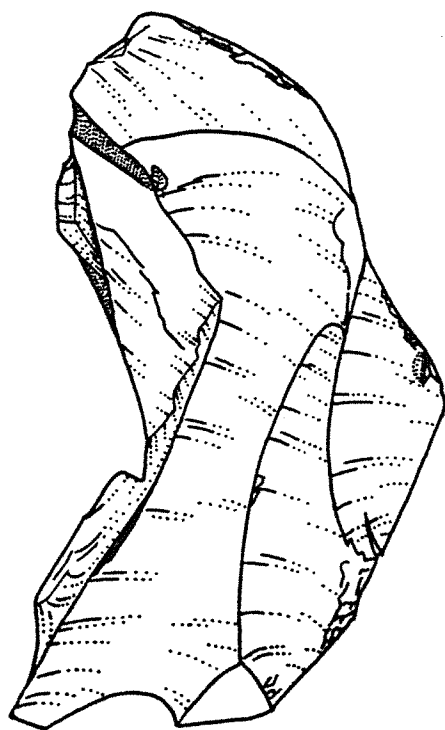


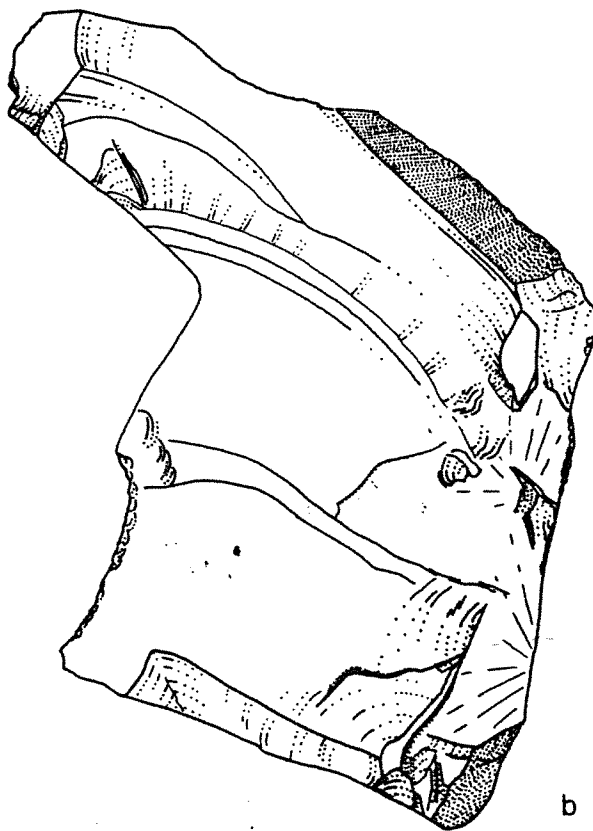
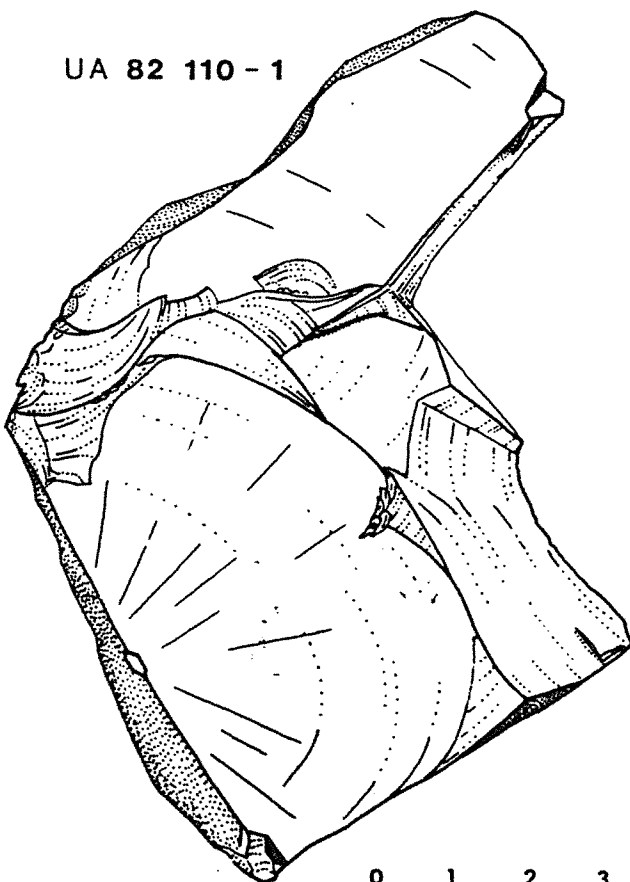
FIGURE 15

UA 82 107 - 1



a

UA 82 110 - 1



b

0 1 2 3 4 5 6 7 CENTIMETERS

FIGURE 16

CHR 010 / UA-112-1
 Material: Very dark grey CCS
 Condition: Complete
 Facial Flaking: Random
 Cross Section: Asymmetric Bi-convex
 Base form: Rounded convex

(Fig. 12a)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge Angle</u>
2.10	1.30	.42	.98	50-55

II. End Scraper

CHR 035 / UA82-114-2
 Material: Black CCS
 Condition: Complete
 Facial Flaking: Random
 Cross Section: Concavo-Convex
 Outline: Subtriangular

(Fig. 12c)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge Angle</u>
3.74	3.32	.81	10.90	60-65

III. Scraper/Core Biface

EAG 172 / UA82-104-39
 Material: Black CCS
 Condition: Complete
 Facial Flaking: Random
 Cross Section: Bi-convex
 Outline: Quadrilateral

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge Angle</u>
10.20	6.25	1.65	103.17	66-70

IV Generalized Bifaces and Biface Fragments

Probable Preform (ovoid biface)
 EAG 192 / UA82-104-29*
 Material: Black CCS
 Condition: Fragment

(Fig. 14)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge Angle</u>
3.60	2.90	1.00	12.54	56-60

EAG 172 / UA82-104-30*
 Material: Black CCS
 Condition: Fragment

(Fig. 14)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Wedge Angle</u>	<u>Edge Angle</u>
3.22	3.18	1.15	12.63	46-50

EAG 172 / UA82-104-37*
 Material: Black CCS
 Condition: Fragment

(Fig. 14)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge Angle</u>
4.20	3.10	1.40	19.92	66-70

CHR 035 / UA82-114-1
 Material: Veined greyish brown CCS
 Condition: Fragment

(Fig. 15a)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge angle</u>
7.70	4.05	2.15	53.70	56-60

* UA82-104-29,30,37 are articulating portions of the same ovoid biface.

V. Bifacially retouched tool remnants

(Fig. 15d)

CHR 035 / UA82-114-8
 Material: Clear quartz crystal

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge angle</u>
1.90	1.20	.40	1.04	46-50

EAG 172 / UA82-104-11
 Material: Black CCS

(Not Illustrated)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge angle</u>
3.68	2.69	.92	8.93	60-65

VI. Modified boulder spall (two fragments)

(Not illustrated)

EAG 174 / UA82-105-3
 Material: Grey quartzite
 Condition: Complete
 Cross section: Bi-plano
 Outline: Semi-lunate

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge angle</u>
13.00	8.50	2.20	218.20	40-45

VII. Retouched Flake/graver

(Fig. 15b)

CHR 035 / UA82-114-3
 Material: Grey obsidian
 Condition: N/A
 Cross section: Plano-convex
 Outline: Sub-triangular

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge angle</u>
4.21	1.60	.80	5.67	65-70

VIII. Generalized Flake Cores

(Not illustrated)

EAG 172 / UA82-104-10
Material: Black CCS
Outline: Sub-rectangular

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge angle</u>
5.45	4.30	2.30	61.97	60-65

EAG 172 / UA82-104-42
Material: Veined dark grey CCS
Outline: Amorphous

(Not illustrated)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge angle</u>
7.10	3.40	3.20	102.96	66-70

EAG 172 / UA82-104-4
Material: Black CCS
Outline: Rectangular

(Not illustrated)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge angle</u>
9.05	4.72	1.78	72.32	66-70

Blade/Blade-like core
EAG 176 / UA82-107-1
Material: Banded very dark grey CCS
Outline: Amorphous

(Fig. 16a)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge angle</u>
9.25	5.10	3.05	151.41	75-80

Tabular Flake Core
EAG 194 / UA82-110-1
Material: Black CCS

(Fig. 16b)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>	<u>Edge angle</u>
11.70	8.20	2.15	176.41	55-60

IX. Blade-like Flakes

(Not Illustrated)

EAG 194 / UA82-110-2

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>
5.45	1.75	.45	3.91

CHR 035 / UA82-114-5

(Fig. 15c)

<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>
1.58	.90	.22	.42

X. Core Rejuvenation Flake

(Not Illustrated)

EAG 172 / UA82-104-14

Material: Black CCS

Condition: Fragment

Outline: Sub-rectangular

Longitudinal cross section: Rectangular

Platform shape: Sub-rectangular

Measurements:	<u>Length</u>	<u>Width</u>	<u>Thickness</u>	<u>Weight</u>
	2.90	1.80	.55	3.76
Platform:	<u>Length</u>	<u>Angle</u>	<u>Chord Length</u>	
	.59	106-110	1.70	

XI. Historic Artifacts: Euro-American Manufacture

Beads

(Not Illustrated)

EAG 193 / UA82-109-2

Material: Translucent Green, and Opaque white glass

Condition: 23 complete; 5 reddish brown (painted over translucent green glass) and 18 opaque white.

Outline: Circular

Cross Section: Asymmetrical bi-plano

Method of manufacture: Drilled and ground

Measurements:	<u>Diameter</u>	<u>Length</u>
Range:	.25-60 cm	.18-.45 cm

EAG 193 / UA82-109-9

Material: Translucent Green (painted reddish brown), opaque black, and white glass approximately one half are white, one half mix red and black, very few blue.

Condition: 250 variable; fragmentary to complete, many heat deformed.

Outline: Circular and spherical; several not drilled.

Cross Section: Asymmetrically Bi-Plano, discoidal, and amorphous.

Method of Manufacture: Drilled and ground.

Measurements:	<u>Diameter</u>	<u>Length</u>
Range	.20-61 cm	.18-50cm

CHR 060 / UA82-117-1

Material: Translucent green, opaque black and white glass

Condition: 36 complete; 4 reddish brown (painted over translucent green glass), 14 opaque white, and 17 opaque black.

Outline: Circular

Cross Section: Asymmetrically Bi-Plano

Method of manufacture: Drilled, ground, and polished

Measurements:	<u>Diameter</u>	<u>Length</u>
Range:	.25-61cm	.15-45cm

Appendix C: EXPLANATION OF GEOLOGICAL TERMS

ALLUVIUM

Yukon River

Y1 - Recent alluvium. Channelled surfaces of modern floodplain and recent nonpaired low terraces. Shows evidence of periodic flooding. Brush and forest covered. Contains poorly bedded to well bedded sand and gravel with sand, silt, and peat interbeds at surface. 5,000-6,000 years old. (Holocene).

Y2 - Prominent paired terraces above active floodplain showing channel scars and scarps largely unmodified. Forested on scarps. Poorly drained in interfluves. Minor eolian mantle and solifluction. Lies slightly below next older terrace. Contains poorly to well bedded sand and gravel possibly coarser than Y1 deposits. Surface mantle of peat and silt possibly thicker than Y1. Contains permafrost. Between 32,000 and 13,000 years old. (Wisconsin maximum).

Y3 - Prominent paired terraces strongly modified by post-depositional processes. Terrace edge usually well defined. Thick mantle of poorly drained permafrost rich, brush and tussock covered colluvial sediments at inner margin that slopes gently to terrace edge. Much of terrace covered by alluvial fans. Bedrock probably exposed below sandy gravel where terrace intersects river. Surface very poorly drained with large areas of peat and thaw lakes. Between 120,000 and 50,000 years old (Illinoian-Wisconsin interglaciation).

Y3b - is a discontinuous lower terrace cut into Y3 that shows similar characteristics. Best exposed toward Canadian Border. Slightly later in time than Y3.

Y4 - Prominent paired terrace of variable height. Highly dissected and gullied by tributaries. Thin discontinuous mantle of oxidized sandy gravel. Peat and colluvium overlies bedrock. Original gravel largely removed in places. Brush and forest covered, except where overlain by colluvium because bedrock is close to surface. (Pre-middle Pleistocene in age).

Tributaries

T1 - Tributary alluvium. Complex channelled forested and unvegetated surfaces of streams and low terraces. Represent tributary meander migration since river stability. Typically sandy gravel, possibly finer than Yukon. Water and peat-filled sloughs common.

T2 - None found.

T3 - Tributary alluvium graded to Y3 surfaces. Similar to T1 but includes much colluvium and small alluvial fans. Poorly drained, unforested because of wet conditions.

T4 - Bedrock strath terraces which are high level and unpaired representing surfaces cut by tributaries during Stage 4. Possibly with discontinuous

gravel cap. Commonly overlain by poorly drained colluvial deposits. Most commonly preserved on east side of valleys.

Small Tributaries

A1 - Not found.

A2 - Not found.

A3 - Alluvial fan deposits built out over the Y3 terrace. Presently inactive. Coarse poorly sorted gravel mixed with mud and colluvial sediments. Proximal portions commonly forested. Distal portions poorly drained and muskeg covered, and grade out into colluvium or onto colluvially covered Y3 terraces.

SLOPE DEPOSITS

C - Colluvium. Poorly drained zones commonly overlapping terrace flats and lying below bedrock exposures where they grade upward into rock rubble and gelifluction deposits. Also includes large areas of poorly drained muskeg covered terrain underlain by gelifluction sheets. In most areas colluviation is still active, and the deposits are thought to have formed since Stage 3 time. Includes small alluvial fans at gully mouths. Also includes stream sediments of reworked colluvium. Gradational to other units.

R - Rubble. Mantle of debris that is thick enough to obscure underlying bedrock, but not poorly drained in most cases. Includes gelifluction deposits in places. Generally brush covered.

S - Slope deposits undifferentiated. Variable unit comprised dominantly of poorly drained upland surface sediments into which the modern streams are incised. Peat gelifluction deposits, and rubble. Surface may represent ancient Tertiary upland.

EOLIAN DEPOSITS

E - Eolian Sand? Dry elevated doubly-sloping irregular to regular ridges within swampy terrain. May be sand dunes. One ridge appears Barchan-like in outline. Not positive identification. Occurs on broad Y3 surfaces north of river only.

L - Loess deposits. Terrain not bedrock and not colluvial in form, but consists of irregular rolling topography with fine-textured poorly drained soils. Probably thick deposits of loess, but could be dissected poorly consolidated tertiary deposits.

BEDROCK

Bc - Covered Bedrock. Mixed rubble, colluvium, and minor alluvium overlying bedrock at shallow depth. Generally brush covered and or poorly drained. Major topographic expression controlled by rock. Minor zones of exposed rock.

B - Exposed Bedrock. Includes talus.

Appendix D.

Archaeological Survey Form
Yukon-Charley Rivers National Preserve, 1982

1.
 - a. Site #
 - b. Recorded By:
 - c. Date:

2. Site Location:
 - a. USGS Quad:
 - b. $\frac{1}{4}$, $\frac{1}{4}$, T, R:
 - c. Lat., Long.:

3. Site Name:
 - a. Native Name(s):
 - b. Other:

4. Site Description:
 - a. Environmental
 1. Physical setting:
 2. Ecosystem(s):
 - b. Archeological
 1. Stratigraphy
 2. Features
 3. Artifacts
 - a. What was collected
 - b. What was observed, but not collected
 - c. Density

4. Type of site
 5. Estimated Age/cultural affiliation
 6. Site Boundaries (Dimensions)
-
5. Research Potential (significance)
 - a. High, medium, low
(or national, regional, local)
 - b. Impact on site
 1. present condition
 2. Yes/No
 3. If yes; source, immediacy and extent of impact
 4. Recommendations
-
6. Photos
 - a. Roll #
 - b. Photo #
 - c. Direction of View(s)
 - d. Short statement of photo content
-
7. General comments:
-
8. Maps, Profile, artifact drawings:

Explanation

1.
 - a. Site#--assigned by Alaska Heritage Resource Survey (AHRS)
 - b. Recorded by--all people contributing notes
 - c. Date--Date(s) discovered and tested
 - d. Owned by--most entries will read "NPS" but, occasionally, some sites may be on property individually owned, or on Native Allotments.
2.
 - a. Quad--Eagle, Circle or Charley River
 - b. $\frac{1}{4}$, $\frac{1}{4}$, T, R--eg NW $\frac{1}{4}$ of SE $\frac{1}{4}$ of T3N, R29E
 - c. Lat., Long.--eg. W142° 30' 10", N65° 45' 10"
3. Site Name
 - a. Native Name(s)--eg. Charley's Village
 - b. Other--eg. "none"
4. Site Description
 - a. Environmental
 1. Physical Setting -- land forms, such as knobs, ridges, benches, bluffs, knolls, etc. Glacial features -- moraines, kames, Geology -- kinds of rocks and minerals on site and general area; outcrops.
 2. Ecosystem(s) -- alpine tundra, moist tundra, high brush, spruce -hardwood forest, muskeg, bog, etc. Include here types of

veg (mosses, lichens, alders, spruce, tussocks, berries, etc.).

3. Why is the site located where it is? Good lookout, close to game trails, accessibility to water, access to chert outcrop, etc.

b. Archeological

1. Stratigraphy -- note depth of cultural material as well as soil/geological characteristics such as texture, color, composition, of strata. Selected profiles will be drawn.

2. Features -- Describe and measure hearths, cache pits, house pits tent rings, flake scatters, etc.

3. Artifacts

a. List all artifacts collected, stating whether surface collected or whether found in a test pit. If found in a test pit, state and at what depth.

b. Observed -- sometimes items located on the surface will not be collected. This applies to large flake clusters and to certain diagnostics if we have already recovered several of them.

c. Density -- High, medium, or low. This is a rather subjective category.

4. Type of Site - ie. quarry, lookout, village, camp, cemetery, manufactory, etc.

5. Age/Affiliation -- describe in detail any diagnostic artifacts (wedge-shaped cores, for example). Depth and degree of weathering may provide further information.

6. Boundaries/Dimensions -- we will determine site limits through additional test pits if need dictates. At a minimum, the length and width of the site must be measured and hopefully, the rough shape of it delineated. Another variable to consider is where the site is most dense.

5. Research Potential/Significance

a. To rank, you must ask: What is the site's potential for revealing aspect of the region's cultural history? What research questions can be addressed by investigating this site? It is simply an amorphous flake scatter, or is it another Dry Creek or Onion Portage?

Factors to consider are site size, density, number, and kinds of features diagnostics and stratification.

b. Impact

1. Condition. Is site undisturbed or is it being eroded or pothunted?

2. Yes/No - Does site face impact in any way?

3. Source--ie. construction, mining.

4. Recommendations -- further investigation, mitigation, leave alone.

6. Photos -- Self explanatory.

7. General Comments. This is perhaps the most important section in that the previously recorded data is to be pulled together. If possible, estimates should be made concerning site function and cultural affiliation, as well as relating the site to its setting. Also, mention should be made of any other noteworthy data not previously covered.

8. All sites are mapped. At least one profile was drawn for each site. Selected artifacts were drawn.

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