

The Gutah Research Project

2004 Field Season and Post Field Summary Report

Archaeological Permit 2003-247 • OGC Funding Agreement 2004-07



**THE GUTAH RESEARCH PROJECT
2004 FIELD SEASON AND POST FIELD SUMMARY REPORT
Archaeological Permit 2003-247
OGC Funding Agreement 2004-07**

Prepared for

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Abstract

The evidence recovered during the two field seasons at HkRe-1, and the +/- 100 archaeological sites recorded during assessments of oil & gas developments over the same time period by both Heritage North and Big Pine Heritage, provides strong evidence that 'Crying Bear' Lake was utilized more during the archaeological past than any other area in the Gutah-ring Border area. The lake was most likely utilized by a fairly large group of people (extended families) over multiple generations. In contrast, the smaller sites within the Gutah-Ring Border area are most likely satellite hunting camps used by small numbers of people belonging to the same group. Only a very small portion of HkRe-1 was excavated during the two field seasons. The size of the location would require multiple years of evaluation. Evidence recovered from the two field seasons suggests that the location was utilized for both domestic and tool making activities. The main point type produced at HkRe-1 is a concave base side notched point as pictured on the cover page.

A 5m deep core of lake sediments was successfully recovered. This 5m sediment core most likely covers the entire Holocene and possibly from the late Pleistocene as well. Dating and counting of the pollen and spores is currently in progress and the results will be available by August 2006.

The project area is situated with Registered Trapline 747T008. Seven trappers have harvested the area since the traplines were established in 1926. Evidence of their trapping activities is still visible throughout the project area.

The final report will provide a detailed environmental and human history of the area during the archaeological and historical past suitable for professional, academic, and public interests. Because HkRe-1 and adjacent sites along the south facing north terrace of the lake, is the largest concentration of archaeological resources recorded in the Gutah-Ring Border area, 'Crying Bear' Lake is an excellent candidate for future summer research programs suitable for local and university students interested in securing field experience in Boreal Forest archaeology and environmental studies. A summer field school is highly recommended.

Introduction

This report provides a summary of the 2004 field season and post field analyses completed to date. The majority of the analyses of the lithic artifacts collected from HkRe-1 during the 2003 and 2004 field season have been completed. Pollen analysis and dating of lake sediment samples are currently in progress. It is anticipated that the pollen analysis for the paleoenvironmental reconstruction and our final report will be completed by August 2006. Detailed background information has previously been covered in the 2003 Field Season Summary Report and will not be addressed in any detail in this report. Three maps are provided at the end of the report. Map 1 (1:250,000 map coverage showing the project area and all sites currently recorded in mapsheet 94 H. Map 2 (1:1000) provides the grid system established at HkRe-1, location of excavated units, and test units. Map 3 (1:200) provides an enlarged area of HkRe-1 showing location of excavation and test units.

2004 Field Season

The field season began on July 12, and ended on August 13, 2004. Supplies and equipment was transported by vehicle to the Velma airstrip and from here by helicopter to 'Crying Bear' Lake. The helicopter support was provided by Bailey Helicopter of Fort St. John with funding from Burlington Resources Canada Ltd.

The 2004 field crews included members of the Doig River First Nation and Heritage North staff and 2 students from the University of Alberta. The field crew from Doig River First Nation included: Dick Davis (elder), Jessie Attachie (excavator), Mark & Rayleen Apsassin (student excavators), and Edna Acko (cook). Heritage North crew included: Keary Walde (project director), Julie Smith (project archaeologist), Melissa Knight (archaeologist), Sherilyn Hale & Jordan Kirillo (student archaeologists, University of Alberta), and Todd Kristensen (archaeologist, Aug 2-13).

Paleoenvironmental

In October 2003, Dr. Richard Hebda (Royal BC Museum) and the writer successfully removed 5m of lake sediment from 'Crying Bear' Lake. Two inflatable boats, joined together with a sheet of ¾" plywood, were used as a coring platform. A Bailey's A-Star helicopter funded by Burlington Resources was used to sling in the boats and equipment from the Velma airstrip. Each of the five-1m long core samples was divided into 5cm

units at the site and conserved in plastic sample bags annotated with its applicable depth. Compact glacial (?) clays were encountered at 5m. While bagging the sample from 375-380cm, a wood fragment was recovered. The piece of wood was later submitted to Beta Analytic for dating. The sample returned a calibrated intercept date of 9,420 years Before Present (Beta-184159). The date and stratigraphic location of the sample indicates that a complete environmental history is preserved within the lake sediments covering the entire Holocene and probably a portion of the late Pleistocene was successfully recovered from the lakebed sediment samples.

Pollen types present in a number of selected samples is provided in Table 1. As noted the earliest pollen record is indicative of a sparse sageland environment that is subsequently replaced by an aspen parkland/forest at 475-480 cm., which in turn is followed by open dry forest from 435-440cm to 375-380cm (9,420 years BP). Samples between 105 and 375cm are currently being evaluated. The upper 100cm of sediment is characteristic of a Boreal Forest environment. Samples submitted to Beta are currently being dated and their results will complete the dating of the sedimentary history of the lake and surrounding landscape. A detailed pollen analysis will be completed and submitted with the final report expected in August of 2006.

Archaeology

Including the 2003 and 2004 field seasons, ninety-two, 1m x 1m units, were excavated at HkRe-1 (2003: 62, 2004: 30). Of the 2003 units excavated, 27 were within the dozer cleared highly disturbed area in the SW corner of wellsite c-54-K, 94-H-10, and the remaining 35 units were excavated from areas of undisturbed ground. Of the latter, 8 units were excavated on the west side of the north-south seismic line, and the remaining 27 units were excavated on the east side of the seismic line. In 2004, the units on the east side of the seismic cut were expanded with 29 additional units, and 1 unit was placed on the west side of the seismic line. The location of all excavated units and positive/negative tests are provided on Maps 2 & 3. Three samples of charred material collected from the main excavation area on the east side of the north-south seismic cut were submitted to Beta Analytic for dating. The samples provided the following dates.

	<u>Sample #</u>	<u>Unit</u>	<u>Material</u>	<u>Date</u>
1.	Beta-190980	S150-E112	Charred material	1280 +/- 40 BP
2.	Beta-190981	S168-E110	Charred material	41,140 +/-420 BP
3.	Beta-190982	S169-E112	Charred material	33,860 +/- 400 BP

Samples 2 & 3 are too old and are most probably reworked material deposited by glacial activity. Sample 1 was obtained from a burned area, +/-9cm below surface and is interpreted to represent a possible late occupation at HkRe-1.

The raw data of the lithic artifacts recovered from the two field seasons that have been analyzed to date are provided in the enclosed CD. In total, 11,534 artifacts have been analyzed. Initial lithic analyses are provided on Table 2 (a & b), and Table 3 (a, b, c & d).

As shown on Table 2a, 80.63% of the cultural material is waste removal flakes that can be attributed to tool manufacturing. An additional 10.64% of the material can also be attributed to various stages of lithic reduction activity. Small fragments of unidentifiable calcined bone (7.93%) were recovered, as well. The presence of calcined bone likely reflect the discarded remains of cooking of meat/bones for consumption. As noted on Table 2a & b, less than 1% (0.67%) of the assemblage are tools. Of these, scrapers (31.17%), are the most common, followed by bifaces (19.48%), projectile points (9.09%), hammer stones (3.90%), preforms (3.90%) and choppers & grinding stones (Each 2.60%). The most common projectile points recovered from the site is a small concave base side-notched point (see cover page for photos).

Table 3 (a-d) provides information on the lithic materials used at the site in the manufacturing of tools. The most prevalent flake type (Table 3a) is small tertiary flakes (89.56%) that are associated with the final manufacturing of tools, followed by secondary flakes (9.90%), and primary flakes (0.54%). The condition of the recovered flakes is shown on Table 3b. As noted, the condition of these flakes, are relatively equal in distribution. Table 3c provides information on the size class of the recovered flakes. These percentages are relative to the type of flakes shown in Table 3a. Table 3d provides

information on the lithic materials utilized in the production of tools in the areas excavated at HkRe-1. The most prevalent material utilized is chert (97.90%), followed by low percentages of quartzite (1.56%), chalcedony (0.16%), siltstone (0.05%), obsidian (0.06%), and other (0.28%).

The artifacts indicate that domestic and tool manufacturing were the main activities carried out at HkRe-1.

Historical

The study area is situated within Trapline 747T008 and lies immediate east of, and adjacent to, Trapline 747T017. A review of government trapline files provides some information on past owners of the trapline.

1. 1926: Government trapline legislation established. Lawrence Chuilli of Fort St. John was the first registrant, and he probably held the line until 1939 when WWII broke out.
2. 1941-1966: Gust (Dan) Hack (also spelled Heck). Geographical Placenames of BC indicate that nearby Heck Creek was named after a trapper named Heck who had a cabin on the creek. The trapper was most likely Gust Hack (or Heck). The name became official in 1980. The trapline file indicates that a Martin Craft also trapped within line up to 1976. Files also indicate that in 1965 a John Weir was also trapping within this trapline.
3. 1962-1982: Fred Bodaly of Fort St. John, BC.
4. 1982-1998: No information available in file (sometime after 1982, the line was sold to a Dorothy Campbell).
5. 1998: Line sold to Larson Peterson by Dorothy Campbell.
6. 2005: Line sold to Doig River First Nation (sale is still pending at this time).

Fred Bodaly was contacted and he indicated that when he took over the trapline, he built the cabin referred to in the previous report as Cabin #2. A number of photos of his camp that were provided by Mr. Bodaly are included in this report (see Plates 1-8). The other two cabins were collapsed and unusable when he took over the line in 1962. The cabin at the east end of the ridge (Cabin # 1) was one of Heck's. The third cabin (Cabin # 3, Plate

9) was no longer standing when he took over the line, and could date back to when Chuilli had the line in the late 1920-1930s. Further archival research on the trapping history is in progress and will be reported in the final report.

Cabin # 3 (Plate 9), located at the terrace breaks into the lake, south of Bodaly's cabin was selected for evaluative excavation. The cabin was identifiable only by a low rectangular mound indicating the outside of the cabin's walls as delineated in Plate 9. Photographs of the cabin excavation are provided in the same plate. The cabin is likely the oldest of the three cabin features present at 'Crying Bear' Lake. No time diagnostic artifacts were recovered. However, it is interesting to note that lithic artifacts (waste flakes) were recovered during the excavation. At this time the cabin is tentatively attributed to Lawrence Chuilli, dating to the 1920s.

Summary Conclusions

Paleoenvironmental Reconstruction

The samples collected from the lake core contain pollen and spores deposited in the lake over the last 10,000, or more years. Once the counting and analysis of the pollen/spores have been completed, we will be able to provide a detailed vegetational history of the Gutah area of NE British Columbia since the demise of the last glacial event. These data will provide important information for future paleoenvironmental reconstructions for northern British Columbia and adjacent Alberta. Also, this information will provide background data on climatic conditions covering the time period of human occupation in the area. The counting of pollen/spores and analysis is current in progress and the final paleoenvironmental/vegetational reconstruction of the area will be completed and submitted in the final report this summer.

Archaeology

A total of 92, 1m x 1m evaluative units, were excavated at HkRe-1, from which 11,534 artifacts have been analyzed to date (analysis of the remaining artifact is in progress). Based on artifact types, HkRe-1 was utilized for domestic and tool manufacturing activities. In addition, our initial evaluation of the south-facing terrace along the north

edge of the lake southwest of HkRe-1 indicates that the entire north terrace of the lake was extensively utilized by the residents of HkRe-1.

Archaeological assessments completed by Heritage North and Big Pine Heritage on Burlington Resources projects in the Gutah-Ring Border area has resulted in over 100 archaeological sites being recorded since 2003. These results attest to the fact that this predominantly black spruce muskeg environment was extensively utilized during the archaeological past. Of all the sites so far recorded, HkRe-1 (including those along the north terrace of the lake) has the highest concentrations of archaeological resources within the Gutah and Ring Border development area. Taken as a whole, the immediate vicinity of 'Crying Bear' Lake appears to have been a focal point for people and was likely utilized throughout the year over many generations. In contrast the numerous small sites in the Gutah-Ring Border area are probably related to the same people who maintained a base camp at the lake.

Only a small portion of HkRe-1 was excavated during the 2003-04 field seasons. The size of the site and the close proximity of the high concentration of sites along the north terrace of the lake would take many years to evaluate. Consequently, the 'Crying Bear' Lake area is an excellent candidate for an archaeological/environmental/educational field school for both local student and those from the university communities in British Columbia, Alberta and elsewhere in Canada requiring academic work experience in Boreal Forest research. At this time, the relatively isolate location of the area for summer research requires expensive helicopter support. If/when an all weather road is constructed to the Burlington compressor site located 1km southeast of the lake, then the cost of access would be mitigated. Doig River First Nation is a strong supporter for an integrated field school at the lake, however they currently have serious concerns that an all weather road would have negative effects on the wildlife in the area, especially by uncontrolled hunting access.

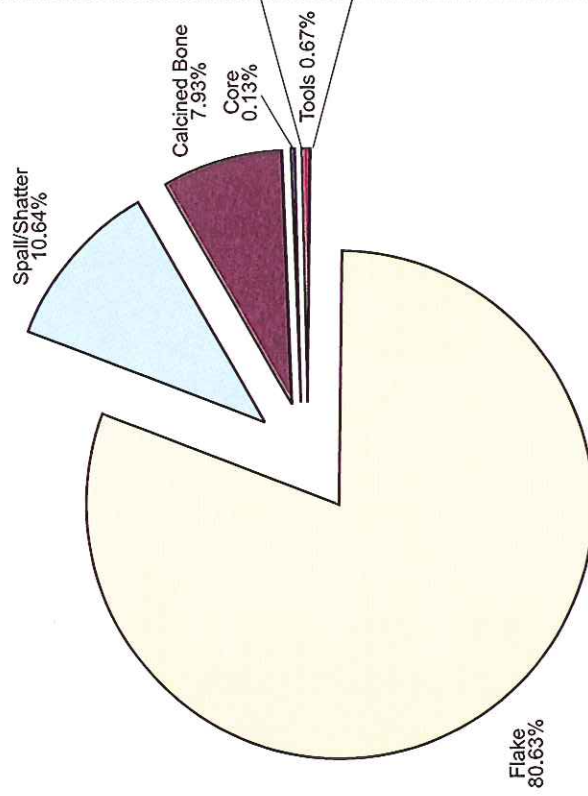
Historical

The initial research on the historical utilization of the study area indicates that the fur bearing animals have been activity harvested by non-native trappers since the establishment of trapline territories in 1926. Records indicate that at least 7 people have trapped in 747T008 since 1926. Evidence of their trapping activities in the vicinity of the lake is still visible today, and provides a trapping history of the area over the last 80 years.

Table 1. Preliminary Paleoenvironment Interpretation for "Crying Bear Lake".

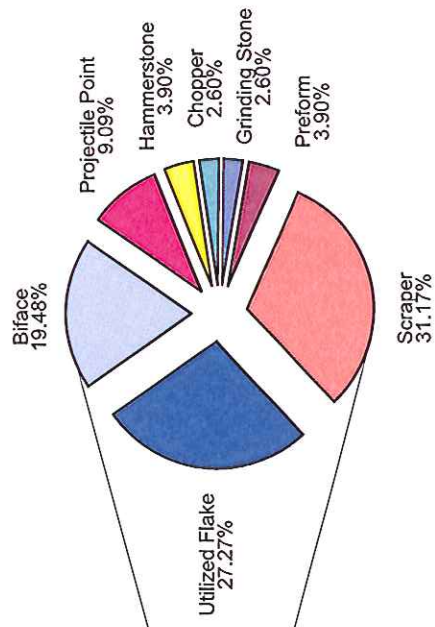
Depth (cm)	Stratigraphy	Pollen Types	Ecology	C14 Sample	Years Before Present	Epoch
0-5	Crying Bear Lake Depth 2.13 m					
0-5		Spruce, birch, pine, alder, <i>Myriophyllum</i> , <i>Lycepodium</i> . Traces of sedge, <i>Najas</i> , and willow.	Boreal Forest			
50-55		Sedge, spruce, pine, alder, birch, <i>Potamogeton</i>				
100-105	100	Spruce, birch, alder. Traces of pine.	Boreal Forest	Submitted	Pending	
200	200					
Lacustrine Silts						
300	300			Submitted	Pending	Holocene
				Submitted		
375-380		Spruce and birch. Traces of <i>Populus</i> .	Dry open forest (absence of pine significant)	Submitted	Pending	
				Wood Fragment	9420	
410-415		Birch and spruce. Traces of grass and <i>Populus</i> .	Open dry forest.			
420-425		Spruce and birch.	Dry forest.			
435-440		Birch and spruce. Traces of grass and <i>Populus</i> .	Open dry forest.			
465-470		<i>Populus</i> , spruce and birch. Traces of <i>Artemisia</i> and grass.	Aspen parkland with forest patches	Submitted	Pending	
470-475		<i>Populus</i> , birch and willow. Traces of grass.	Aspen parkland or forest (shallow water in basin)			
475-480		<i>Artemisia</i> and reworked conifers.	Sagebrush			
480-485		As above.	Sagebrush			
495-500		As above, little pollen.	Sagebrush	Submitted	±10,000	
	Compact Glacial Clay					Pleistocene

Table 2a. Cultural Material Recovered



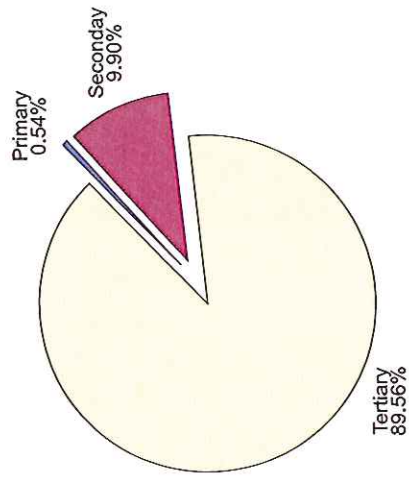
$\Sigma = 11,534$

Table 2b. Tools Recovered



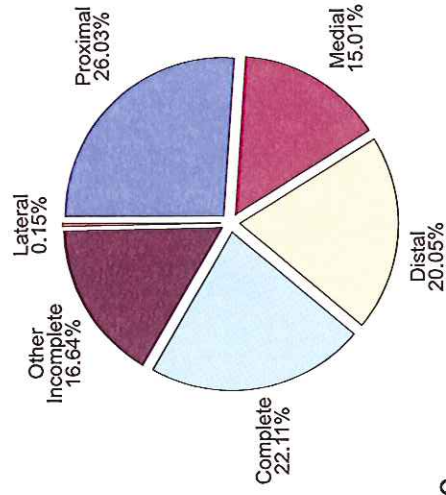
$\Sigma = 77$

Table 3a. Flake Types



$\Sigma = 9300$

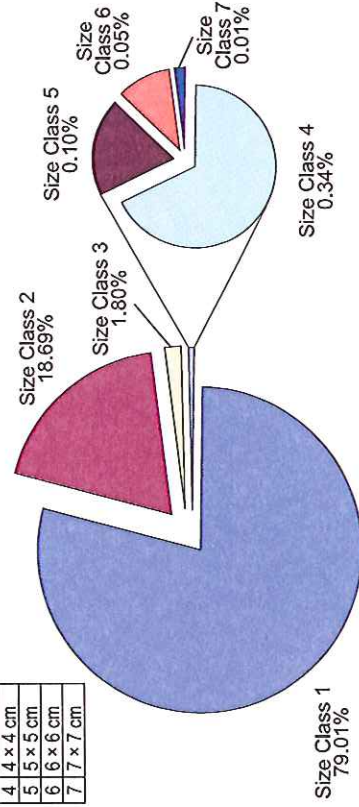
Table 3b. Flake Condition



$\Sigma = 9158$

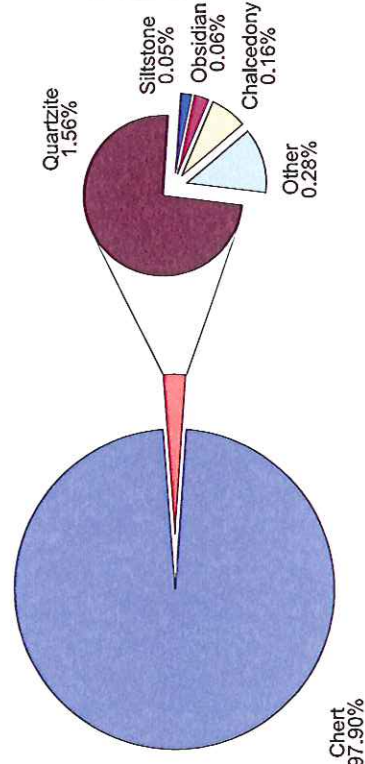
Table 3c. Size Class of Flakes

1	<1 x 1 cm
2	2 x 2 cm
3	3 x 3 cm
4	4 x 4 cm
5	5 x 5 cm
6	6 x 6 cm
7	7 x 7 cm



$\Sigma = 9300$

Table 3d. Artifact Materials



$\Sigma = 9782$

Plate 1. Collapsed cache feature at Cabin #2, looking west, with inset showing location ca. 1962.





Photo Courtesy of Fred Bodaly

Plate 2. Fred Bodaly's cabin with doghouse in foreground, looking north (ca. 1962).

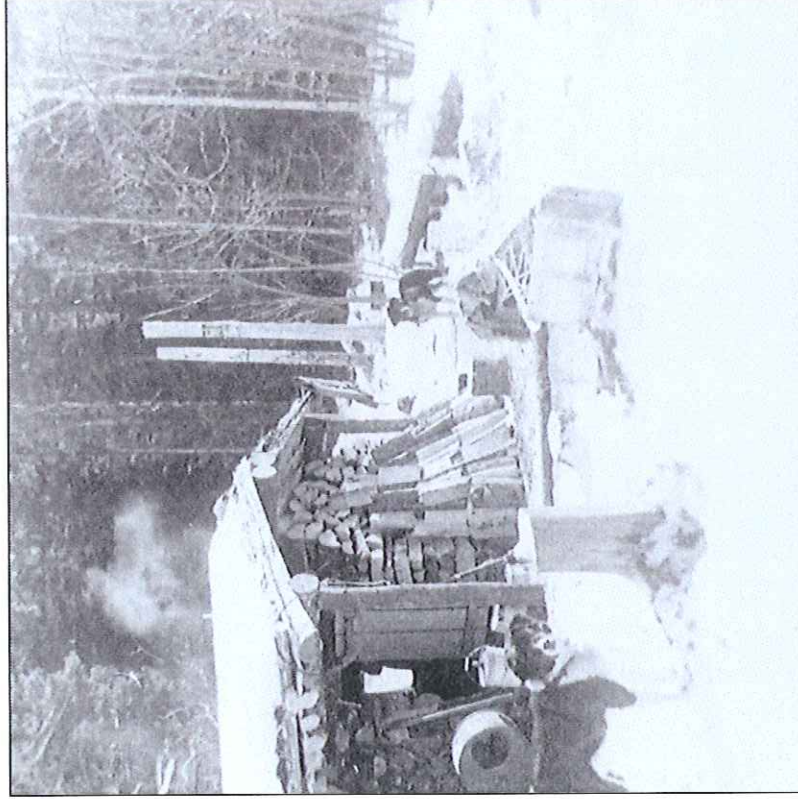


Photo Courtesy of Fred Bodaly

Plate 3. Fred Bodaly's cabin looking east toward construction of cache (ca. 1962).

Plate 4. Collapsed dog house, with insets showing location ca. 1962.





Photo Courtesy of Fred Bodaly

Plate 5. Completed cache at Bodaly's cabin site, looking south (ca. 1962).



Photo Courtesy of Fred Bodaly

Plate 6. New cache at Bodaly's cabin site.



Photo Courtesy of Fred Bodaly

Plate 7. Bodaly's dog team ca. 1962.

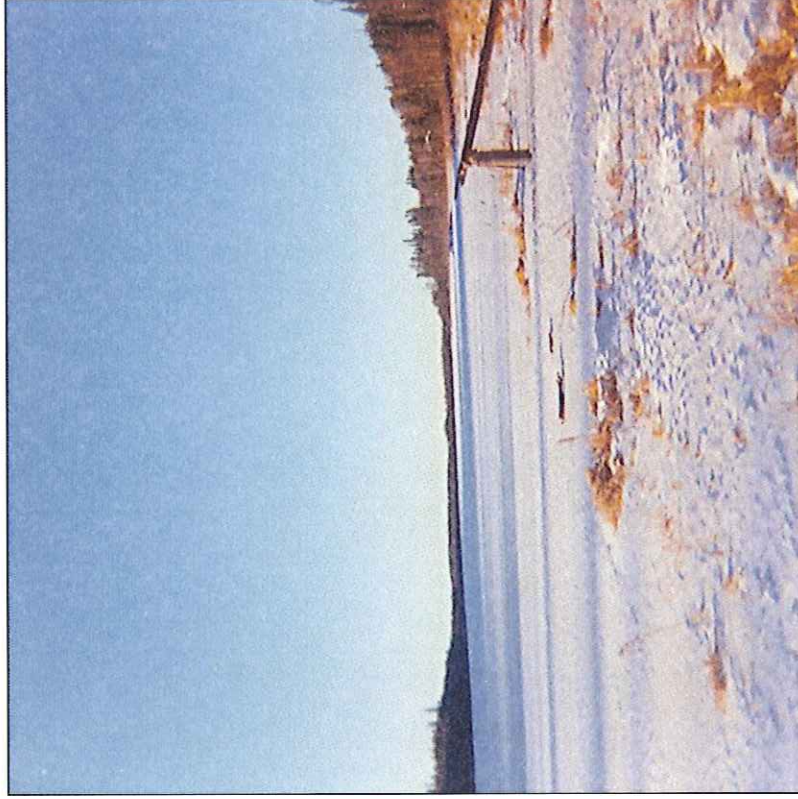
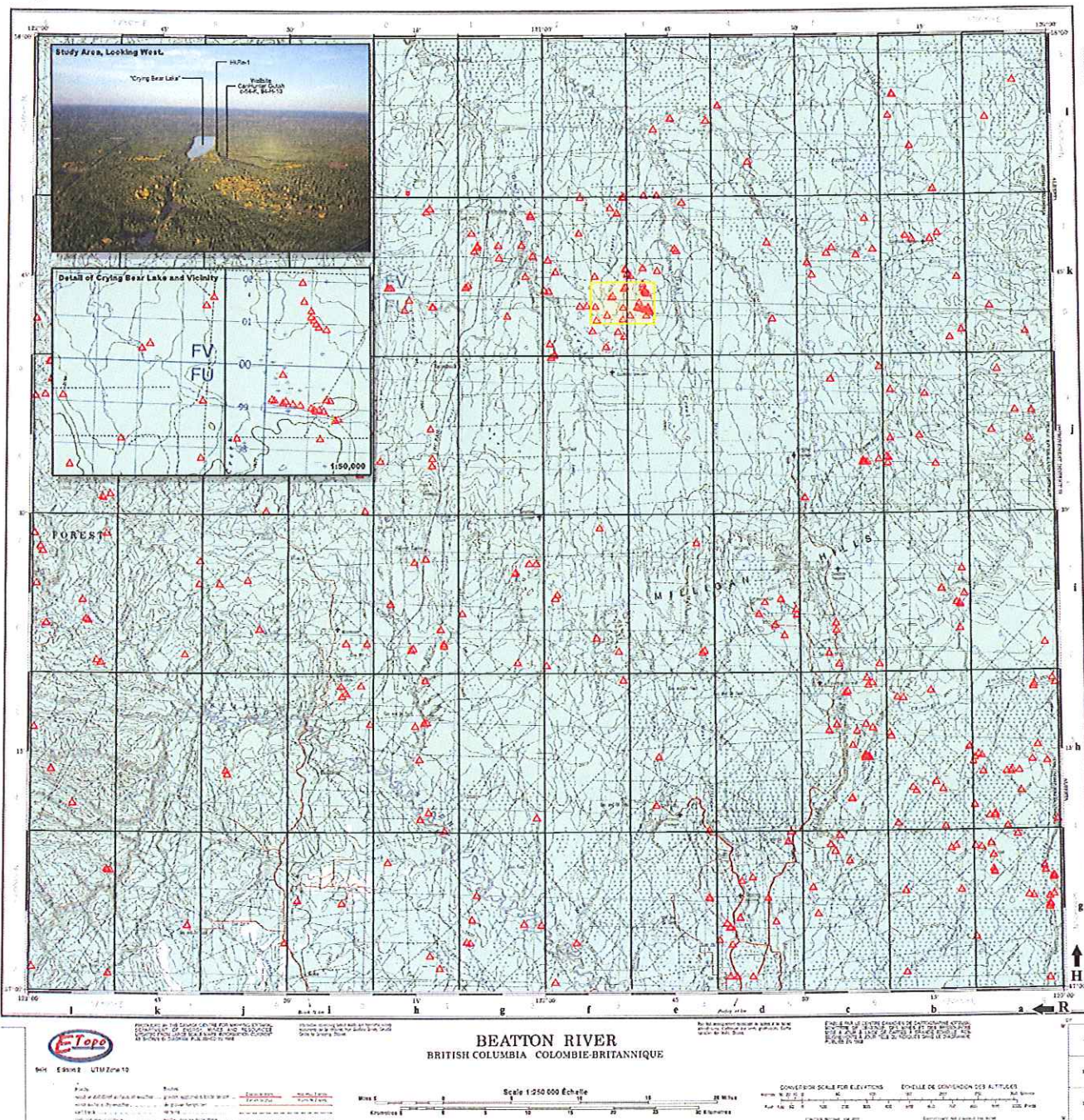


Photo Courtesy of Fred Bodaly

Plate 8. "Crying Bear" (Burnt) Lake ca. 1962, showing dock ramp for unloading supplies flown in by plane.

Plate 9. Rectangular earth mound delineating perimeter of a pre 1930s (?) cabin. Inset photos show excavation.



[illegible]

Map 2

UNSURVEYED

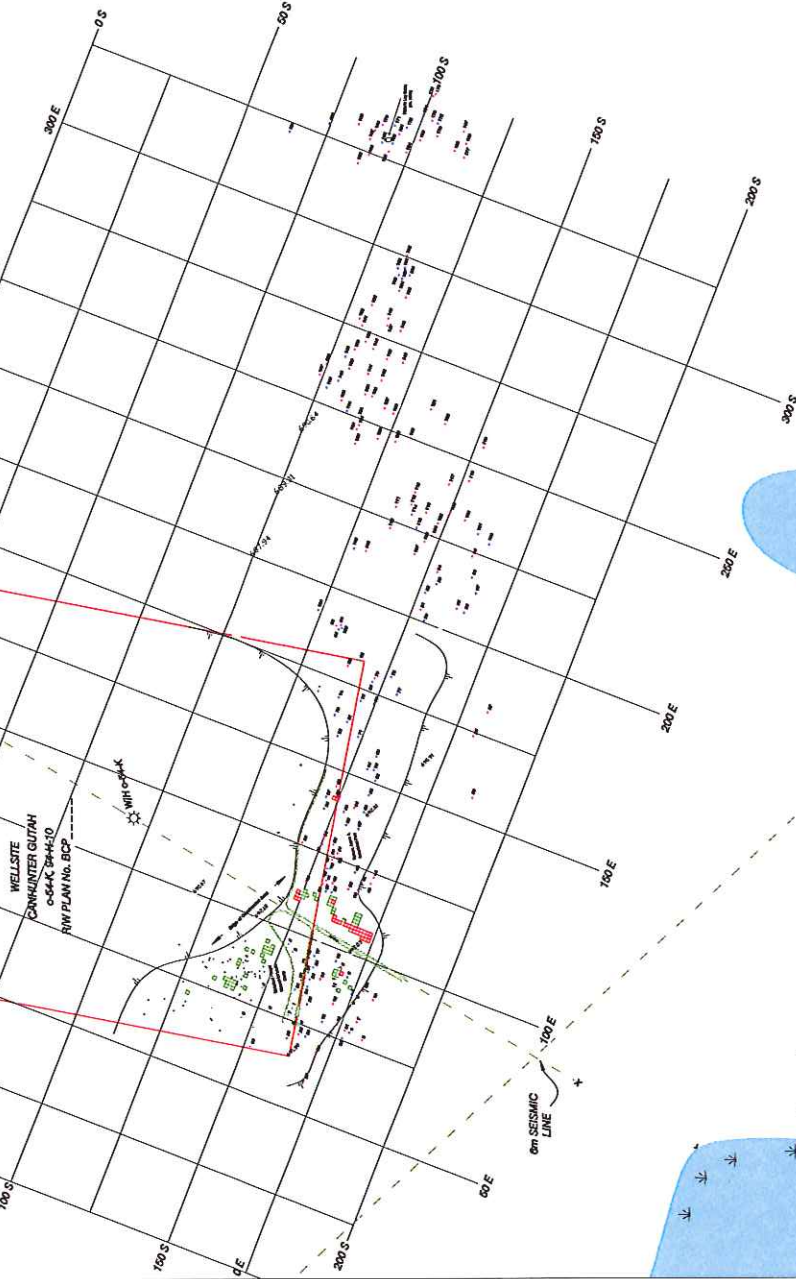
BLOCK G,

94-H-10



GUTAH RESEARCH PROJECT
ARCHAEOLOGICAL
STUDY AREA 2003

CROWN



LAND

SKETCH PLAN SHOWING EXCAVATION EXTENT AND TEST PIT SURVEY OF THE GUTAH (HRe-1) ARCHAEOLOGICAL RESEARCH PROJECT 2003/2004

B.C.G.S. 94H. 077

PEACE RIVER DISTRICT



HERITAGE NORTH
CONSULTING LIMITED

8812-109th Street, Fort St. John, BC Y1J 6H4
Phone: 250-760-0314; Fax: 250-760-0072

NOTES

- Producing Well
- Cabin
- Seismic Line
- Archaeological Grid Layout
- Ditch/Break in Slope
- Elevation
- Point West Test Pit 2002
- Ditch/Break Negative Test Pit
- Ditch/Break Positive Test Pit
- 2003 Excavation Unit
- 2004 Excavation Unit
- Surface Artist Collection

All Dimensions are in metres and decimals thereof.

0	ORIGINAL PLAN PREPARED	DATE
1	HRe-1 STUDY AREA FOR 2003 FIELD SEASON	04/02/04
2	2004 DATA ADDED	04/02/04

DESCRIPTION	DWG No.	DATE
MELHANNY ASSOCIATES Professional Archaeologists 100-100th Street, Fort St. John, BC Y1J 6H4	1488SKI	MARCH 10, 2006.

Map 3

