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PRELIMINARY FIELD RECONNAISSANCE

**Island Copper West Block Property,
Hushamu-Hep, NW EXPO, and Pemberton
Geophysical IP Survey Grids, Rupert Land District,
Northern Vancouver Island, B.C.**

Non-Permit



PREPARED FOR

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**BC Geological Survey
Assessment Report
32890e**

April 2012



**Preliminary Field Reconnaissance (PFR) Report:
Island Copper West Block Property**

HCA Permit #: Non-permit

Project Officer: N/A

Client:	<i>NorthIsle Copper and Gold Inc.</i>	Client Contacts:	Konstantin Lesnikov John McClintock
Locations:	Holberg Inlet, Hushamu Mountain, Nahwitti Lake Holberg Inlet, Goodspeed River Holberg Inlet, Pemberton Hills	Development:	Commercial Mineral Exploration
Land District:	Rupert	FN Traditional Territory:	Quatsino FN

Development

Biogeoclimatic Zones:	CWHvm1 CWHvh1	Mineral Tenures:	231651, 231667, 231668, 231671, 231672, 231683, 231686, 231961, 231965, 231966, 231990, 231995, 394718, 405216, 506021, 513076, 513093, 513094, 513682, 513758, 513927, 513910, 513911, 513912, 513929, 513931, 516075, 516078, 516081, 517055	Dates:	2012/13
Geophysical IP Survey Grids:	Hushamu-Hep NW EXPO Pemberton	Development Type:	Geophysical Exploration	Exploration Type:	Diamond Drilling
Hushamu-Hep: 23.45 km	NW EXPO: 32.6 km	Pemberton: 8.1 km	Total Area:	64.15 km	

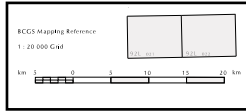
Field Survey Summary

Project Supervisor:	Hartley Odwak, MA	Field Directors:	Kennedy Richard, BA Kevin Robinson, MA, RPCA
Archaeologists:	Blake Evans, MA Morgan Bartlett, BA	First Nation Representatives:	Mark Wallas (QFN) Ryan Nelson (QFN) Cameron Davis (QFN) Frank Williams (QFN)
Proponent Field Personnel:	Arnd Burgert, P. Geo.	Survey Dates:	29-30 May, 2011 1, 8-15, 21 June, 2011

FIG. 1

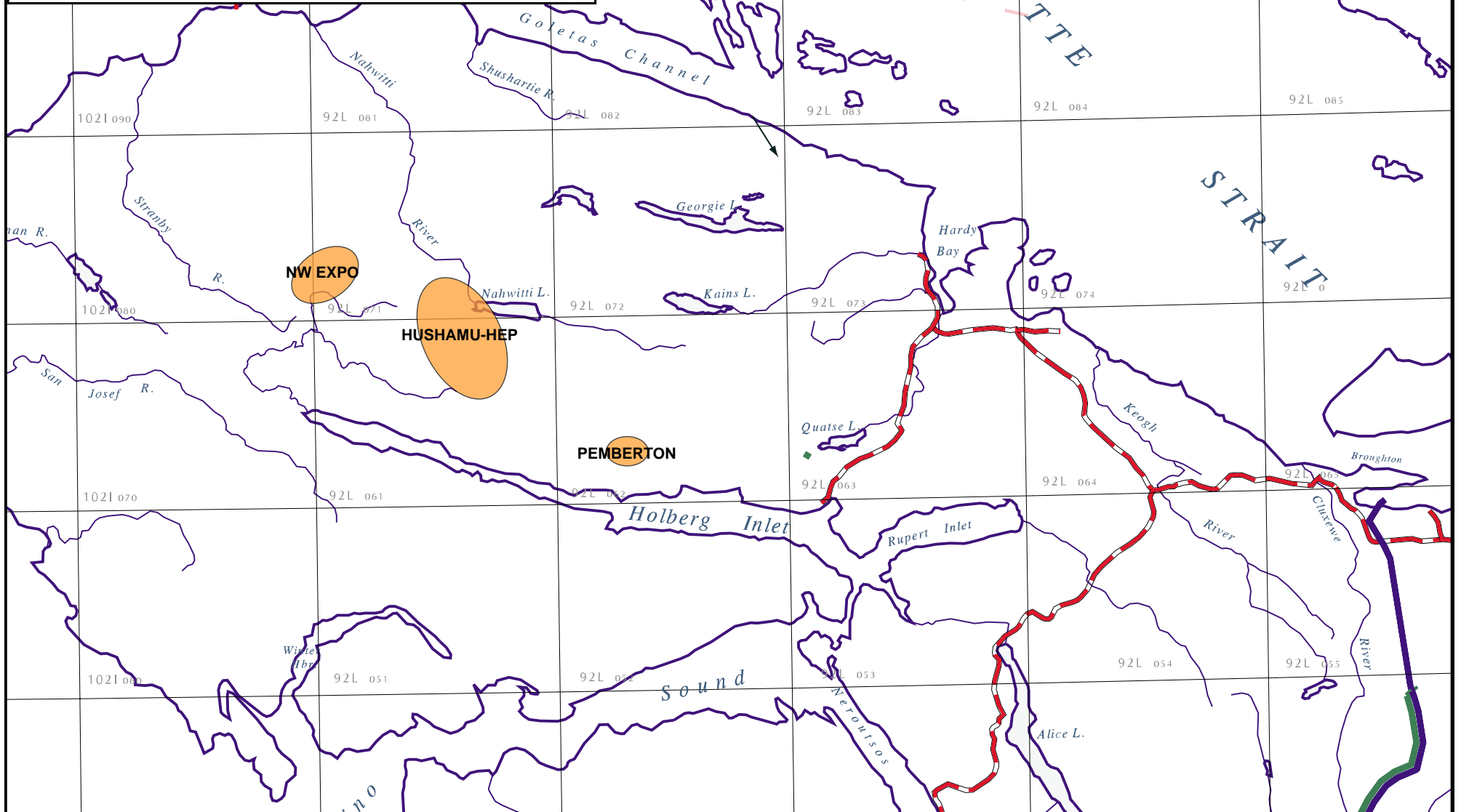
Island Copper West Block Property, Hushamu-Hep, NW EXPO and Pemberton Geophysical IP Survey Grids, Rupert Land District, Northern Vancouver Island, B.C.

Study Area



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Heritage Concerns:	No	Archaeological:	No	Traditional Use Site	No
Features:	N/A	Borden Block/s:	EdTa, EeSx, EdSx, EdSw	Permanent Site No./s:	N/A

Report

Author:	Morgan Bartlett, BA Robbin Chatan, MA	Illustrations:	Nick Weber, MA
Attachments:	Figures 1-3; Plates 1-6.		

1.0 POTENTIAL ASSESSMENT

1.1 Ethnographic Backgrounds

These three (3) proposed Island Copper West Block property geophysical IP survey grids are located within the asserted traditional territory of the Quatsino First Nation, within the tribal territories of the Hoyalas and Gusgimukw (Koskimox) tribal groups. No documented ethnohistoric or ethnographic sites were located within or immediately adjacent to these three study areas. The nearest ethnohistoric village sites to these study areas include the seasonal fishing camps of *Pacatlline* at the mouth of the Pegattem Creek, and *Tohquoough* on the Tohquoough Islands in Holberg Inlet (Galois 1994:373, Ks17, Ks20; Bouchard 1995:14). Both these sites were allotted as Indian Reserves IR #2 Toh.quo.eugh and IR #3 Pa.cat'l.lin.ne in 1889 and confirmed in 1893. Table 1.1 below lists the nearest documented ethnohistoric and ethnographic sites to these three study areas in the Island Copper West Block property (Boas 1934: Maps 3 and 5; Bouchard 1995; Galois 1994).

Table 1.1: Nearest Documented Ethnohistoric/Ethnographic Sites

Geophysical IP Survey Grid	Location	Site Name	Site Type	References
Pemberton	Holberg Inlet	<i>gwā' xadē'</i>	Cultural Landform, Named Place	Boas 1934: Map 3/130
Pemberton	Pemberton	<i>nū' x''nē mis</i>	Cultural Landform, Named Place	Boas 1934: Map 3/131

The nearest two documented ethnographic sites are situated along or near the shorelines of Holberg, both consisting of Kwakwaka'wakw named places situated about 2.8 km away from the Pemberton geophysical IP survey grid area. According to the Quatsino Traditional Use Study (QTUS) database and 1:20,000 scale Trim Maps (92L.061, 92L.062, 92L.071) indicate that additional natural resource procurement sites are situated within the vicinities to these three Island Copper West Block geophysical IP survey grid study areas. These include a wood resource area (Q-0115), hunting polygon (Q-0496), and, more significantly, a natural copper source (Q-0070).

1.2 Archaeological Backgrounds

No documented archaeological sites were found within or immediately adjacent to the Hushamu-Hep, NW EXPO, and Pemberton geophysical IP survey grid areas. The nearest four (4) registered archaeological sites are situated about 2.8 km from the Pemberton geophysical IP survey grid area (HCA 2005-471, Chatan *et al.* 2009). Table 1.2 below summarises the nearest recorded archaeological sites to this proposed geophysical IP survey grid study area.

Table 1.2: Nearest Registered Archaeological Sites

Geophysical IP Survey Grid	Borden No.	Site Type	Subtype	Descriptor	HCA Permit
Pemberton	EdSw 016	Cultural Material	Subsurface	Shell Midden	2005-471
Pemberton	EdSw 022	Cultural Material	Subsurface	Shell Midden	2005-471
Pemberton	EdSw 023	Culturally Modified Tree	Aboriginally Logged	Stumps; Log Sections; Plank Scar; Notch	2005-471
Pemberton	EdSw 024	Cultural Material	Surface	Lithic Scatter	2005-471

All these recorded archaeological sites are located on or near the shoreline of the Holberg Inlet.

1.3 Summary of Archaeological Potential

The archaeological potentials for the proposed Hushamu-Hep, NW EXPO, and Pemberton geophysical IP survey grid study areas were determined by its proximity to known ethnohistoric, ethnographic, and archaeological sites; their geographical proximities to the inner coastal waters of Holberg Inlet, freshwater fish- and non-fish-bearing drainage systems; as well as their known topographical and vegetation/forest settings. Table 1.3 below summarizes the archaeological potential ratings for the three geophysical IP survey grids.

Table 1.3: Predicted Archaeological Potentials

Geophysical IP Survey Grid	Location	Surface/Subsurface Site Potential	CMT Site Potential
Hushamu-Hep	Holberg Inlet, Hushamu Mountain, Nahwitti Lake	Low-Moderate	Moderate-High
NW EXPO	Hoblerg Inlet, North Goodspeed River	Low-Moderate	Moderate-High
Pemberton	Holberg Inlet, Pemberton Hills	Low-Moderate	Moderate-High

Therefore, based on these archaeological and CMT site potential assessments for the three proposed Island Copper West Block property geophysical IP survey grid areas, and following the criteria of the *Quatsino Protocol* (2002, 2007), the Preliminary Field Reconnaissance (PFR) surveys of these three study areas was required.

2.0 FIELD SURVEY

2.1 Pre-Field Research

Prior to the commencement of the field work component the field team examined a series of 1:50,000 scale NTS topographic, 1:20,000 scale MEU, 1:20,000 scale geophysical survey line, and 1:250,000 project location maps in order to target the highest archaeological potential areas for the proposed Island Copper West Block property. The targeted survey areas in these three geophysical IP survey grids consisted of a series of between 3 (Pemberton) and 17 (NW EXPO) straight and parallel flagged geophysical IP survey grid lines.

2.2 Field Survey Methods

Field survey in the proposed Island Copper West Block property composed of the Hushamu-Hep, NW EXPO, and Pemberton geophysical IP survey grid areas aimed to focus on the flagged geophysical lines containing mature second-growth and veteran old-growth tree species, higher elevation terraces and benches, as well as those areas adjacent to past and present drainage networks. The survey methodologies included a systematic surface ground survey of the proposed geophysical exploration impact areas. In the case of the flagged line-cutting areas, the pedestrian survey included field investigation along both the 1m flagged lines and the visible surrounding terrain. Where terrain and archaeological potential warranted it, an area of 50 m or greater outside of the flagged line was also subject to inspection by the field crews, especially between lines and coastal buffer zones. Such a survey strategy is designed to be both flexible to the shape, size, terrain and forest cover along marked lines, and to allow for the assessment of the immediate surrounding area outside the lines in case these lines are subsequently modified.

The field crew consisted of two (2) teams of two (2) individuals who navigated the proposed flagged geophysical IP survey grid lines in parallel traverses, or when warranted, the survey was intensified with parallel zigzag traverses. The survey covered transects ranging between a minimum of 10 m and a maximum of 100+ m (Figures 2-3). Traverse coverage depended upon the terrain and conditions encountered which either enhanced or hampered visibility. Overall, survey visibility ranged between poor (5 m – 10 m radius) in areas of high understorey density and height, and excellent (50+ m radius) in areas of relatively open understorey within second-growth stands or marshland.

During the survey, all natural cuts, exposures, as well as root masses and holes from dead- and wind-thrown trees encountered during the survey were inspected for the presence of buried archaeological remains, deposits, features, and palaeosols. No surface or subsurface archaeological remains were encountered in the examination of the natural exposures during the PFR surveys conducted in the three proposed geophysical IP survey grid study areas.

When encountered or known, all exposed rock outcrops were inspected for natural karst or karst-like features, such as caves, rock-shelters, overhangs, crevices, fissures, and sinkholes that could hold archaeological remains. No archaeological remains were discovered in the inspection of the geological features encountered in this survey.

The locations of survey coverage and site location was determined by the use hip chains, compasses, and clinometer, and where possible, by portable Geographical Positioning System (GPS) device. These were tied in

with existing mapped features, including permanent local topographic features and marked geophysical line stations.

2.3 Culturally Modified Tree Inventory

In areas of perceived low, moderate and high archaeological potential, all standing and fallen cedars within the visual range of the surveyor were examined by proceeding from tree to tree or stand to stand. Other species of trees were examined for cultural modifications if they fell within or along each transect. All CMTs discovered were to be recorded according to the standards contained in *Culturally Modified Trees of British Columbia Handbook*² (British Columbia, Archaeology Branch 2001). Site extent or boundaries and feature composition would be determined in accordance to the B.C. Archaeology Branch Bulletin #12 (dated 25 May 2004) on “*CMT Site Boundaries*”

(http://www.tca.gov.bc.ca/archaeology/bulletins/bulletin12_defining_culturally_modified_tree_site_boundaries.htm). CMT site boundaries are determined by feature distance (≤ 100 m apart), feature distribution, and by about 10 m radius from the trunk or log section at a minimum, with exceptions based on clear topographical reasons or particular development concerns, such as safety criteria and development feasibility. No archaeological or post-1846 traditional use CMT features or sites were encountered in the PFR surveys conducted in the three proposed Island Copper West Block property geophysical IP survey grid areas.

2.4 Burials

In the case where human burials and/or remains were encountered, *SOURCES* would follow the B.C. Archaeology Branch’s policy on “*Found Human Remains*”

(http://www.tca.gov.bc.ca/archaeology/policies/found_human_remains.htm), dated 22 September 1999. No human remains or burial features were encountered in the PFR surveys of the three proposed geophysical IP survey grid study areas.

3.0 FIELD SURVEY RESULTS

3.1 Hushamu-Hep Geophysical IP Survey Grid Survey Description

3.1.1 Survey Specifics

A) Access: This study area was accessed by vehicle from Port Hardy on the built forestry haul road networks by driving west on the Holberg Road and then following built Northeast (NE) 60 branch line. From this built road the proposed geophysical IP survey grid study area was then accessed by foot.

B) Survey Crew and Spacing: The team consisted of four (4) individuals that were divided into separate crews of three (3) and two (2) individuals spaced at intervals between a minimum of 5 m and a maximum of 15 m. The survey transect breadths ranged between 15 m and 100 m (Figure 2; Plates 1-2).

C) Survey Visibility Range: Survey visibility ranged between a minimum of poor/fair (5 m radius) and maximum of good (20 m – 35 m radius) depending upon the nature of the topography and the variable densities of the understorey encountered.

3.1.2 Observed Terrain

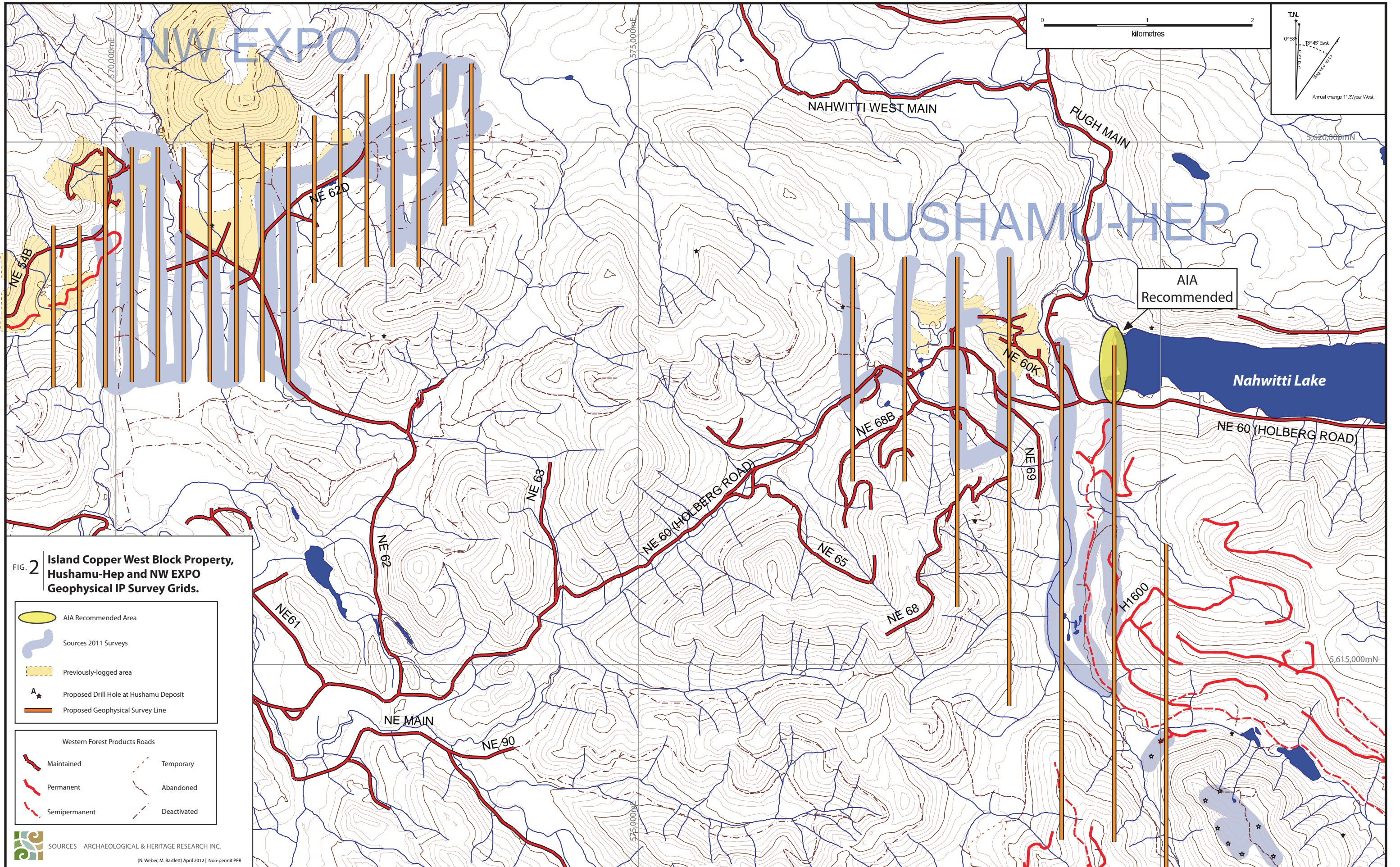


FIG. 2 Island Copper West Block Property, Hushamu-Hep and NW EXPO Geophysical IP Survey Grids.

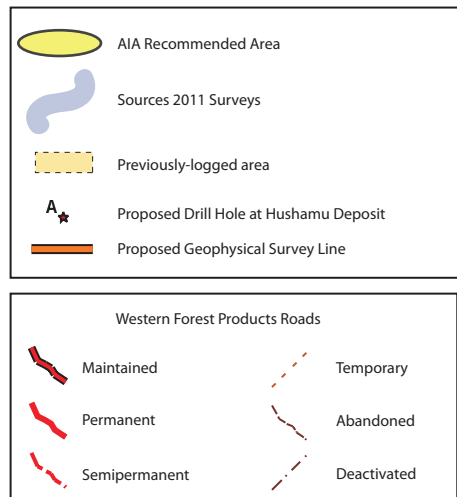




Plate 1. Hushamu-Hep Geophysical IP Survey Grid - View north from clear-cut showing marshy patches within the proposed geophysical survey lines. (Source: Morgan Bartlett, P6140110.jpg)



Plate 2. Hushamu-Hep Geophysical IP Survey Grid - Rock outcrop and cliff features within the proposed geophysical survey lines. (Source: Blake Evans, P1010340.jpg)

A) Elevation Range: This study area is composed of seven (7) lines (01-07), varying from 2150 m to 4350 m in length, at intervals of 500 m beginning at UTM easting 577050. Elevations in this area range between 0 m and 200 m above sea level (asl).

B) Slope Range: The slopes range between a minimum of relatively flat/gently sloped (>5%) and a maximum of very steep (100+%) gradients.

C) Drainages: This study area is bisected by several intermediate and intermittent/ephemeral seasonal drainages.

D) Exposed Geological Features: This study area is punctuated by numerous exposed granite bedrock features such as bluffs, cliffs, and talus slopes. No archaeological remains were discovered in the examination of these geological features encountered during this survey.

E) Natural Exposures: The examination of the natural exposures encountered during this survey, such as wind-thrown root holes and root masses, erosional cuts, *etc.*, did not yield any evidence for buried archaeological remains or palaeosol horizons.

F) Subsurface Testing: No subsurface testing was conducted during this survey. However, a high archaeological potential zone for subsurface testing was identified on line 06 at the western end of Nahwitti Lake.

3.1.3 Observed Forest Cover:

A) Forest Cover Age Class: The moderate to high-density forest in this study area consists of a mixture of old-growth stands with second-growth regeneration.

B) Stand Composition Ranges: Western hemlock (20%-80%) with stem diameters ranging between 10 cm and 80 cm DBH; western redcedar (10%-80%) with DBH measurements between 10 cm and 1+ m; amabilis fir (20%-60%) with stem diameters between 10 cm and 90 cm DBH; red alder (30%-70%) with DBH measurements between 10 cm and 35 cm; shore pine (10%-80%) with DBH measurements between 10 cm and 80 cm; and yellow cedar (40%-70%) with DBH measurements between 9 cm and 1 m. Other tree species encountered in this geophysical IP survey grid were the occasional yew tree.

C) Presence of Wind- and Dead-fall: Patches range between low and moderate density, some with large veteran/old-growth logs. There are some areas with occasional remnant wind-snapped stumps and standing snags.

D) Natural Scarring (“Cat-faces”): The examination of both standing stems and wind-thrown logs indicated that these trees were impacted by natural scars caused by impacts from wind or dead-throws, rockslides, wind and arboreal pathologies.

E) Presence of Historic Commercial Logging: Evidence of a previous logging and shake-blocking episodes are found in patches with remnant felled stump features exhibiting sawn cut-faces and spring-board notching.

F) Culturally Modified Trees (CMTs): No CMT features were identified during this survey.

G) Understorey: Moderate to high density salal, huckleberry, devil’s club, thimble berry, and conifer saplings (hemlock, redcedar).

H) Ground Cover: Composed of mosses, skunk cabbage, bleeding heart, tall grasses, false lily of the valley, horsetail and ferns.



Plate 3. NW EXPO Geophysical IP Survey Grid – Un-named creek gully and general forest cover with Cameron Davis (QFN), Frank Williams (QFN) and Kevin Robinson (*SOURCES*). (Source: Morgan Bartlett, P6090050.jpg)



Plate 4. NW EXPO Geophysical IP Survey Grid - Historically logged redcedar stump with Cameron Davis (QFN). (Source: Morgan Bartlett, P6100066.jpg)

The non-permit archaeological PFR survey of the proposed cut lines in the **Hushamu-Hep geophysical IP survey grid area** covered an estimated 50% of its total area or a distance of about 11.7 km. No visible archaeological or post-1846 aboriginal traditional use sites or features were encountered either within or immediately adjacent the proposed impact areas. However, a zone of perceived high archaeological potential for surface/subsurface sites and CMTs was identified in the northern section of geophysical IP survey grid line 06, located along the western shore of Nahwitti Lake (see Figure 2).

3.2 NW EXPO Geophysical IP Survey Grid Survey Description

3.2.1 Survey Specifics

A) Access: This study area was accessed by vehicle from Port Hardy along the built forestry road networks by driving west on built Holberg Road, then west on the built NE 60 branch line, and then north on NE 62 sub-branch line. From this built road this geophysical IP survey grid area was accessed by foot.

B) Survey Crew and Spacing: The team consisted of four (4) individuals that were divided into separate crews of three (3), and two (2) individuals spaced at intervals between a minimum of 5 m and a maximum of 15 m apart. The survey transect breadths ranged between 15 m and 100 m (Figure 2; Plates 3-4).

C) Survey Visibility Range: Survey visibility ranged between a minimum of poor/fair (5 m radius) and maximum of good (20 m – 35 m radius) depending upon the nature of the topography and the variable densities of the understorey encountered.

3.2.2 Observed Terrain

A) Elevation Range: This study area is composed of seventeen (17) lines (01-17), varying from 1550 m to 2300 m in length, at intervals of 250 m beginning at UTM easting 569400. Elevations in this area range between 55 m and 200 m asl.

B) Slope Range: The slopes range between a minimum of gently sloped (+/-5%) and a maximum of very steep (75+% gradients).

C) Drainages: This study area is bisected by several intermediate and intermittent/ephemeral seasonal drainages flowing west and joining the Goodspeed River.

D) Exposed Geological Features: No exposed geological features including karst or karst-like features were encountered during the survey of this proposed study area.

E) Natural Exposures: The examination of the natural exposures encountered during this survey, such as wind-throw root holes and root masses, erosional cuts, *etc.*, did not yield any evidence for buried archaeological remains or palaeosol horizons.

F) Subsurface Testing: No subsurface testing was conducted during this survey.

3.2.3 Observed Forest Cover:

A) Forest Cover Age Class: The moderate to high-density forest in this study area consists of a mixture of old-growth stands with second-growth regeneration.

B) Stand Composition Ranges: Hemlock (20%-90%) with stem diameters ranging between 10 cm and 40 cm DBH; redcedar (10%-80%) with DBH measurements between 10 cm and 60 m; amabilis fir (10%-60%) with stem diameters between 10 cm and 40 cm DBH; red alder (5%-90%) with DBH measurements between 2 cm and 20 cm; shore pine (10%-60%) with DBH measurements between 2 cm and 20 cm; and yellow cedar (5%-20%) with DBH measurements between 20 cm and 60 m. Other tree species include the occasional western yew.

C) Presence of Wind- and Dead-fall: Patches range between low and moderate density, some with large veteran/old-growth logs. There are some areas with occasional remnant wind-snapped stumps and standing snags.

D) Natural Scarring (“Cat-faces”): The examination of both standing stems and wind-thrown logs indicated that these trees were impacted by natural scars caused by impacts from wind or dead-throws, rock-slides, and arboreal pathologies.

E) Presence of Historic Commercial Logging: Evidence of a previous historic logging episode is found in patches with remnant felled stump features exhibiting sawn cut-faces and spring-board notching. In addition, the survey crew found traces of recent shake block activity.

F) Culturally Modified Trees (CMTs): No CMT features were identified during this survey.

G) Understorey: Moderate to high density salal, huckleberry, devil’s club, thimble berry and conifer saplings (hemlock, redcedar).

H) Ground Cover: Composed of mosses, skunk cabbage, bleeding heart, tall grasses, false lily of the valley, horsetail and ferns.

The archaeological survey of the **NW EXPO geophysical IP survey grid area** covered an estimated 70% of its total area or a distance of about 22.8 km. No visible archaeological or post-1846 aboriginal traditional use sites or features were encountered either within or immediately adjacent the proposed impact areas.

3.3 Pemberton Geophysical IP Survey Grid Survey Description

3.3.1 Survey Specifics

A) Access: This study area was accessed by vehicle from Port Hardy on the built forestry road networks by driving south on built Coal Harbour (CH) Main line, west on the built Wanakano (W) Main line, and north on the built Pemberton (P) Main line. From this built road the geophysical IP survey grid area was accessed by foot.

B) Survey Crew and Spacing: The team consisted of four (4) individuals that were divided into separate crews of two (2) individuals spaced between a minimum of 5 m and a maximum of 15 m apart. The survey transect breadth ranged between 15 m and 90 m (Figure 3; Plates 5-6).

C) Survey Visibility Range: Survey visibility ranged between a minimum of poor/fair (5 m radius) and maximum of good (20 m – 35 m radius) depending upon the nature of the topography and the variable densities of the understorey encountered.

3.3.2 Observed Terrain

A) Elevation Range: This study area is composed of three (3) lines (01-03), 2700 m in length, at intervals of 500 m beginning at UTM northing 5609700. Elevations in this area range between 150 m and 580 m asl.

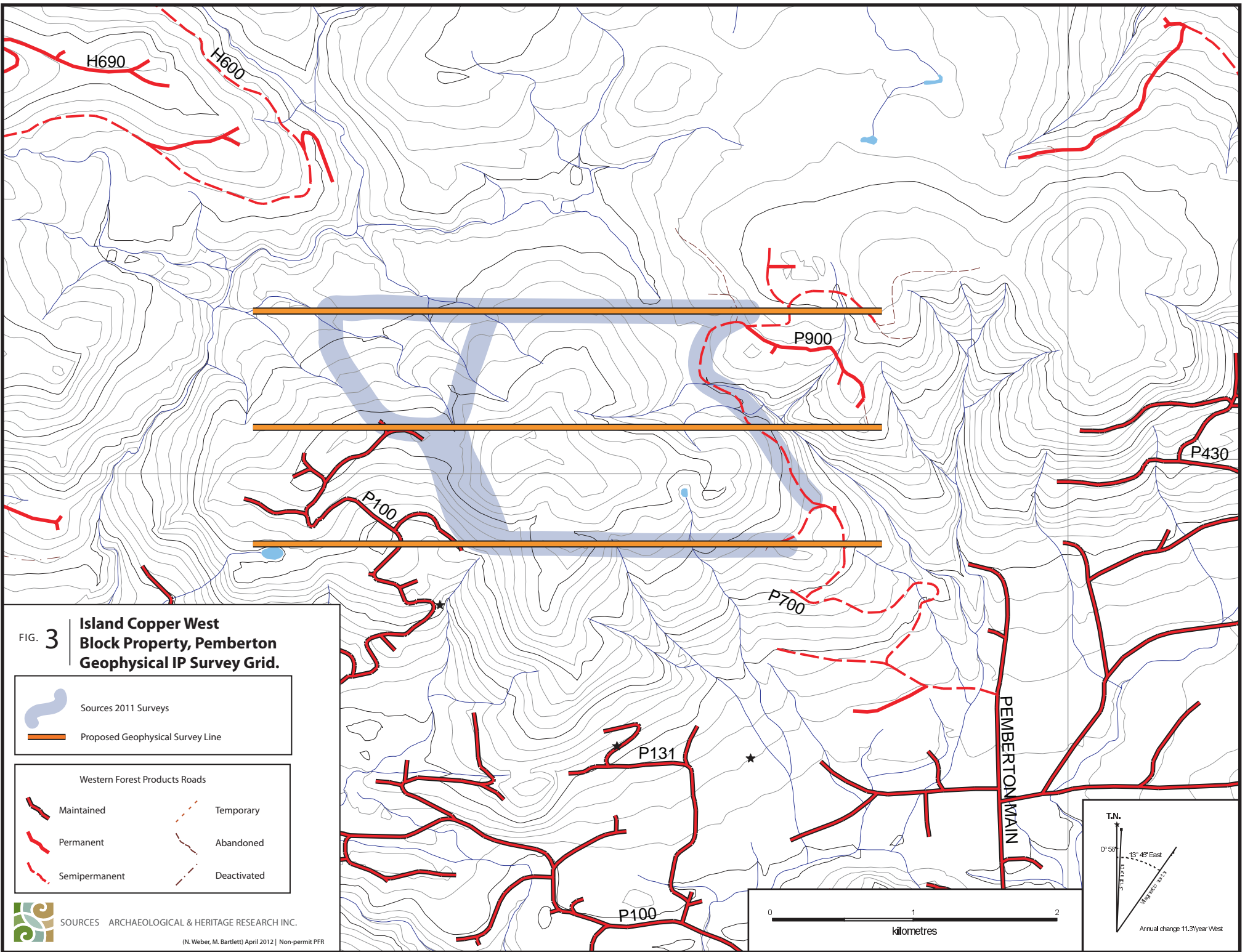


FIG. 3 **Island Copper West Block Property, Pemberton Geophysical IP Survey Grid.**

	Sources 2011 Surveys
	Proposed Geophysical Survey Line

Western Forest Products Roads	
	Maintained
	Temporary
	Permanent
	Abandoned
	Deactivated
	Semipermanent



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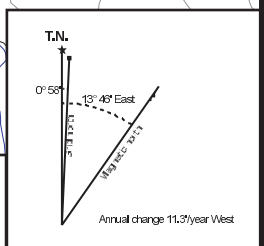
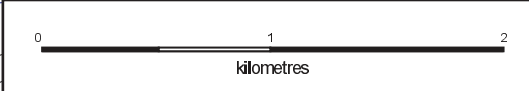




Plate 5. Pemberton Geophysical IP Survey Grid - General slope, forest and groundcover with Kennedy Richard (*SOURCES*). (Source: Blake Evans, P1020556.jpg)



Plate 6. Pemberton Geophysical IP Survey Grid - General forest cover along the proposed geophysical survey line. (Source: Blake Evans, P1020563.jpg)

B) Slope Range: The slopes range between a minimum of moderately sloped (30%) and a maximum of very steep (70+%) gradients.

C) Drainages: This study area is bisected by several intermittent/ephemeral seasonal drainages flowing south and joining the Youghpan River and subsequently Holberg Inlet.

D) Exposed Geological Features: This study area is punctuated by numerous exposed granite bedrock features such as bluffs, cliffs, and talus slopes. No archaeological remains were discovered in the examination of the geological features encountered during this survey.

E) Natural Exposures: The examination of the natural exposures encountered during this survey such as wind-throw root holes and root masses, erosional cuts, *etc.*, did not yield any evidence for buried archaeological remains or palaeosol horizons.

F) Subsurface Testing: No subsurface testing was conducted during this survey.

3.3.3 Observed Forest Cover:

A) Forest Cover Age Class: The moderate to high-density forest over in this study area consists of a mixture of old-growth stands with second-growth regeneration.

B) Stand Composition Ranges: Hemlock (20%-80%) with stem diameters ranging between 10 cm and 1 m DBH; redcedar (20%-40%) with DBH measurements between 10 cm and 1+ m; shore pine (10%-40%) with DBH measurements between 10 cm and 20 cm; and yellow cedar (40%-60%) with DBH measurements between 10 cm.

C) Presence of Wind- and Dead-fall: Patches range between low and moderate density, some with large veteran/old-growth logs. There are some areas with occasional remnant wind-snapped stumps and standing snags.

D) Natural Scarring (“Cat-faces”): The examination of both standing stems and wind-thrown logs indicated that these trees were impacted by natural scars caused by impacts from wind or dead-throws, rock-slides, and arboreal pathologies.

E) Presence of Historic Commercial Logging: Evidence of a previous logging and shake-blocking episodes are found in patches with remnant felled stump features exhibiting sawn cut-faces and spring-board notching.

F) Culturally Modified Trees (CMTs): No CMT features were identified during this survey.

G) Understorey: Moderate to high density salal, huckleberry and conifer saplings (hemlock, red cedar).

H) Ground Cover: Composed of mosses, skunk cabbage and ferns.

The archaeological survey of the **Pemberton geophysical IP survey grid area** covered an estimated 60% of its total area or a distance of about 4.9 km. No visible archaeological or post-1846 aboriginal traditional use sites or features were encountered either within or immediately adjacent the proposed geophysical IP survey grid impact areas.

4.0 IMPACT ASSESSMENTS

No visible pre-1846 archaeological and post-1846 aboriginal traditional use sites and features were found in the non-permit archaeological PFR archaeological surveys of proposed Hushamu-Hep, NW EXPO, and Pemberton geophysical IP survey grid areas. However, during the survey of the Hushamu-Hep geophysical IP survey grid

one area or zone was observed to possess a high archaeological potential that warrants further archaeological assessment, including subsurface testing, under a BC HCA Site Inspection Permit.

5.0 RECOMMENDATIONS

5.1 *Specific Recommendations*

The non-permit archaeological PFR surveys conducted by *SOURCES* in three (3) proposed Island Copper West Block property geophysical IP survey grid areas covered between an estimated minimum of 50% (Hushamu-Hep) and a maximum of 70% (NW EXPO) of the total geophysical exploration line impact areas. No pre-1846 archaeological or post-1846 aboriginal sites or features were encountered in these field surveys. However, one (1) zone was considered to possess high archaeological potentials for the presence of archaeological surface/subsurface and CMT features and sites was identified during the PFR field surveys in the Hushamu-Hep geophysical IP survey grid area. This identified high potential zone is:

5.1.1 The northern section of Hushamu-Hep geophysical IP survey grid line 06, located along the western shore of Nahwitti Lake (see Figure 2).

After the completion of the PFR survey of the Hushamu-Hep geophysical IP survey grid, this particular section of this line considered to have high archaeological potential was removed from the proposed exploration plans, and subsequently, no further archaeological work will be required. However, should the Proponent decide to pursue commercial mineral exploration in the Hushamu-Hep geophysical IP survey grid near the shoreline of Nahwitti Lake containing high archaeological potential an archaeological impact assessment (AIA) conducted by a qualified archaeologist under a B.C. HCA Site Inspection Permit will be required.

5.2 *General Recommendations*

With the exceptions of the single zone of high archaeological potential discussed above, based on the survey coverage and the negative findings, the remaining portions of the proposed geophysical exploration grid lines in the Hushamu-Hep, NW EXPO, and Pemberton geophysical IP survey grid areas are considered to possess low archaeological potentials and further work is highly unlikely. However, in the likelihood that any previously unidentified archaeological features, sites, or deposits may be encountered during the course of the proposed *NorthIsle* commercial mineral exploration operations in the Island Copper West Block property it is further recommended that:

5.5.1 That *NorthIsle Copper and Gold Inc.* informs all contractors and personnel involved in the proposed commercial mineral/geophysical exploration and ancillary developments that all unrecorded archaeological remains in British Columbia are protected from disturbance, either intentional or inadvertent, by the *B.C. Heritage Conservation Act* (RSBC 1996, Chapter 187), the *Forest Planning and Practices Regulation* (2002, Section 10), and the *ILMB Vancouver Island Land Use Plan* (December 2000); and;

5.5.3 In the event that previously un-identified archaeological remains are encountered, all activities in the area concerned must be immediately suspended. Archaeological Permitting and Assessment Section, B.C. Archaeology Branch, Ministry of Forests, Lands, and Natural Resource Operations (Victoria), and

the Quatsino First Nation (Coal Harbour, IR #18 Quattishe Subdivision) must be informed as soon as possible of the location and type of the archaeological remains and the nature of the disturbance.

These recommendations apply solely to physical archaeological evidence of past human activity and in no way attempt to encompass or represent any traditional land use or aboriginal rights and title concerns of the Quatsino First Nation.

6.0 REFERENCES

- Apland, Brian C., and Ray Kenny,
1998 *British Columbia Archaeological Impact Assessment Guidelines*⁴. B.C. Archaeology Branch, Ministry of Tourism, Culture, and the Arts, Victoria. <http://srmwww.gov.bc.ca/arch/pubs/impweb/impact.htm>
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