

Information Bulletin Number 16 - January 31, 2006

**Using the Archaeological Site Inventory Form and Detailed Data Table
to Record CMT Features**

Feature recording for the new site form and guide has been revised. CMT features are now summarized within the site form while detailed metric and descriptive feature attributes are attached to the record as a separate document. This bulletin clarifies the use of the site form for recording CMT features.

Three tables are used to describe a CMT feature: the Site Typology and CMT Feature Descriptions are found within the BC Archaeological Site Inventory Form, and the Detailed Data Table is attached to the site record. If dated, a fourth table, Chronology, contains the specific dating information.

The Site Typology table is used to describe groups of CMT features within a site. The CMT Feature Table elaborates on each descriptor. For example, a group of 130 large rectangular barkstripped CMT features and 41 taper stripped CMT features would be described in these two tables as:

SITE TYPOLOGY TABLE

Site Class	Type	Subtype	Site Type Descriptor
Traditional Use	Culturally Modified Tree	Bark-stripped	large rectangular scar
“	“	“	tapered scar

CMT FEATURE DESCRIPTION TABLE

Feature and (#)	Remarks
large rectangular scars (130)	Most are western redcedar but some cypress noted. No dates but most features suitable for dating. See the attached Detailed Data Table
tapered scar (41)	See the attached Detailed Data Table

Metric and descriptive attributes for each feature described are included in Detailed Data Tables (only first CMT feature shown):

DETAILED DATA TABLE

CMT FEATURE RECORDING FORM														
Temp Site Number:														
CMT	SP	ST	DES	FEAT	DBH	SLP	LEN	WID	THK	HAG	SDE	TMK	NT	REM
1	C	BS	LRC	1	70	5	155	30	-	70	U	N	-	Flagged in the field as CMT 1/Feature 1

SITE TYPOLOGY

CMT features are described using class, type, subtype and site type descriptors from the table below (excerpt from Appendix A, BC Archaeological Site Inventory Form Guide). These are entered on the site form under Site Typology. Within the site form, multiple site type descriptors can be used if separated by commas.

Site Class	Type	Subtype	Site Type Descriptor
Traditional Use	Culturally Modified Tree (only pre-1846)	Aboriginally-logged	stump; step stump; barberchair stump; basin stump; log; flat stump; planked; canoe; notched; sectioned; felled; undercut; tested
		Bark-stripped	other scar; girdled scar; large rectangular scar; tapered scar; cambium stripped
		Other modified tree	pitch collection; delimbed; message; blazed; knotted tree; marker; burned; kindling collection; arbourgraph; sap collection; arbourglyph

Note to *Archaeological Data Import Facility* users: Multiple descriptors may not be used in a single row within the application. Each descriptor must be part of a new line entry that includes class, type and subtype entries.

CMT FEATURE TABLE

Two fields comprise the CMT feature table section of the site form. When describing culturally modified trees, each subtype found at the site should be summarized in one row. The feature and # (number) field holds the subtype and number of features of that subtype. The Remarks field contains the number of each site type descriptor and other important information in a 4000 character, free text format. (See **CMT FEATURE DESCRIPTION TABLE EXAMPLE**, Page 1)

DETAILED DATA TABLE

A NOTE ON ATTACHED DOCUMENTS

THE ARCHAEOLOGY DATABASE ALLOWS DOCUMENTS TO BE ATTACHED TO A SITE RECORD. THESE DOCUMENTS CAN BE ANY TYPE OF ELECTRONIC FILE, INCLUDING PHOTOS (.JPEG), MOVIES (.MPEGs), MS EXCEL SPREADSHEETS (.XLS), MS WORD DOCUMENTS (.DOC) OR SCANNED DOCUMENTS (.PDF) . THE PREFERRED FORMAT FOR DETAILED DATA TABLES, AS AN ATTACHED DOCUMENT, IS EXCEL. EXCEL ALLOWS DATA TO BE ANALYSED OR EXPORTED TO A NUMBER OF FORMATS.

The detailed data table is a derivation of the CMT Feature Recording Form found in the British Columbia CMT Handbook and is used to record the metric and descriptive attributes for each CMT feature.

CMT FEATURE RECORDING FORM HEADINGS

CMT FEATURE RECORDING FORM														
Temp Site Number:														
CMT	SP	ST	DES	FEAT	DBH	SLP	LEN	WID	THK	HAG	SDE	TMK	NT	REM
Unique identifying number	CMT species	CMT Subtype	CMT Descriptor	Listing of each CMT feature	CMT diameter at breast height	Slope of area around CMT	Length of feature	Width of feature	Thickness of feature	Height of feature above	Side of tree	Toolmarks	Nursing tree	Remarks

CMT:

Enter a unique number identifying the CMT. Sequential numbering of CMTs by site is recommended. This same number must be used if individual CMTs are shown on a site map.

SP: Species;

Enter the species of tree. Use abbreviations on Ministry of Forests forest cover maps. Common abbreviations are:

C	Western Redcedar	At	Aspen
YC	Yellow Cedar (Cypress)	Py	Yellow Pine
H	Hemlock	E	Birch
S	Spruce	Pa	Whitebark Pine
Pl	Lodgepole Pine	B	Balsam

ST: CMT Subtype (These are called CMT Class in the CMT Handbook)

Use only the abbreviations in the following table:

Aboriginally-logged	AL
Bark-stripped	BS
Other modified tree	OM

DES: CMT Descriptor (CMT Type in the Handbook).

Use the abbreviation in the following tables.

Aboriginally Logged Tree Descriptor Abbreviations:

BarberChair Stump	BC	Notched Tree	N
Basin Stump	BS	Planked Tree	P
Canoe Tree	C	Undercut Tree	U
Flat Stump	FS	Sectioned Tree	S
Felled Tree	F	Step Stump	SS
Log	L	Tested Tree	T

Bark-Stripped Tree Descriptor Abbreviations

Tree with T apered Bark-Strip Scar(s)	T	Tree with G irdled Bark-Strip Scar(s)	G
Tree with Large Rectangular Bark-Strip Scar(s)	R	Tree with O ther Bark-Strip Scar	O
Tree with C ambium Stripping	C		

Other Modified Tree Descriptor Abbreviations

Message Tree	Me	B lazed Tree	Bl
Arboursglyph Tree	A	B urned Tree	Bu
Arbourgraph Tree	G	K indling Collection	K
D elimbed	D	P itch Collection	P
K notted Tree	K	S ap Collection Tree	S
M arker Tree	Ma		

FEAT: Listing of each CMT feature

Number each feature for ease of reference. List the features in sequence. Start with the tree, if standing or windfallen; the stump if felled; or the log if no stump is present. Features located on other features are given the number of the larger, containing feature (e.g., notch at end of plank scar)

- for bark-strip scars, stumps, and log sections, list kind of scar, stump, or section
- for bark-strip scars that are not confirmed as cultural, enter “?” after scar icon
- for planked trees, include in list of features the partial notches that usually are present at one or both ends of the plank scar

Use of Icons to represent CMT features is optional. The following Icon Table is an excerpt from the CMT Handbook:

ICONS FOR MOST COMMON CMT FEATURES		
Standing Tree 	Platform Notch 	Plank Scar 
Bark-Strip Scar	Test Hole 	Canoe Blank 
Tapered 	Undercut Scar 	Logging Detritus 
Rectangular 	Log 	Lofting Log 
Girdled 	Log Section	Pitch Collection Scar 
Other 	Butt  B	Kindling Removal Scar 
Stump	Medial  M	Other:
Barberchair  B	Crown  C	
Flat  F	Missing 	
Step  S	Notch 	
Unclassifiable  U		
Basin  N		

DBH — CMT diameter at Breast Height

This is the diameter at breast height of the modified tree

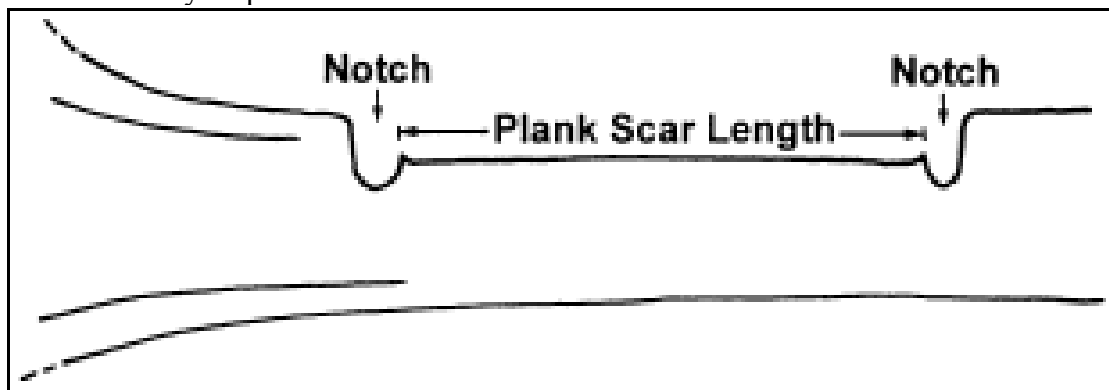
SLP — Slope of area around CMT

This is the average slope of the area around the CMT expressed in % (rise over run). Do not confuse percentage of slope with degree of slope. If possible, the slope measurement should be determined from the adjacent slope, for example, the slope of the area where the bark-stripper walked to strip the tree. Use a clinometer to determine slope.

LEN — Length of feature

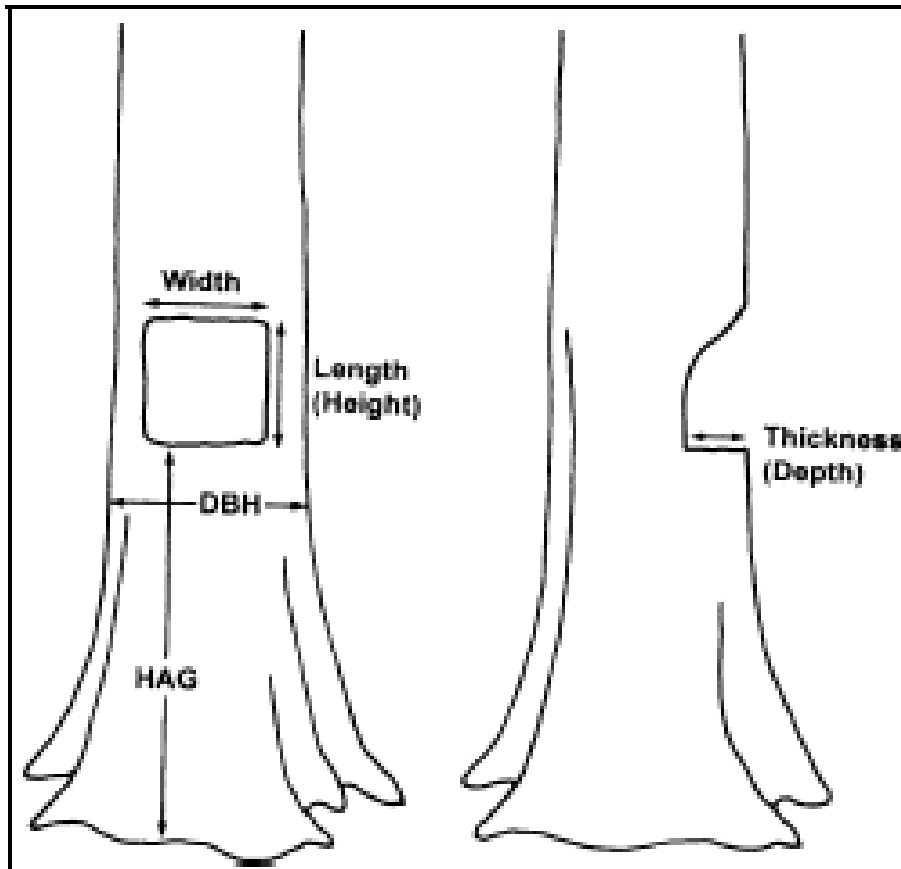
This is the maximum length of a feature: • for long tapering bark-strip scars, length can be measured with a clinometer or estimated. When scar length is estimated, it is not necessary to first establish the original location of the scar base (if absent) since estimates are not precise for rectangular bark-strip scars, length often can be measured. First determine if bark above and below scar has died and sloughed off tree, thereby making scar longer than when stripped. Whenever possible, use toolmarks to establish top and bottom of scar. Scar bottoms often are indicated by an eroded horizontal groove. When entering an estimated length follow value with an upper case “E.”

- for plank scars, measure between the ends of the scar, excluding any notch remnants that may be present



Selected measurements on plank scar.

- for test holes, undercut scars, notches, platform notches, pitch collection scars, and kindling removal scars, this attribute refers to the maximum height of the feature. The height of these features is always measured along the long axis of the tree. In some cases, these features can be wider than they are high. If the minimum height of the feature is substantially less, enter minimum height in the Remarks field. (See following figure)
- for logging detritus, all debris associated with a single CMT is treated as one feature. Individual pieces will vary in size and can vary in other attributes such as the absence or presence of toolmarks and the kinds of toolmarks present. Generally the minimum and maximum dimensions of the detritus pieces and the types of toolmarks present are recorded. Some may want to record “typical” dimensions, or dimensions of individual pieces. If necessary, detritus dimensions can be entered in the Remarks field.



Selected measurements on test hole, notched and undercut CMTs.

WID — Width of feature

This is the maximum width of a feature in centimetres. If the minimum width of the feature is substantially different, enter minimum width in the Remarks field.

- for stumps, width is measured at the cut (top) of the stump, excluding the barberchair spire
- for test holes, undercut scars, notches, platform notches, plank scars, pitch collection scars, and kindling removal scars, width is always measured at right angles to the grain of the tree. In some cases, these features can be wider than they are high [see figure above]
- for bark-strip scars with healing lobes, record the width of the original scar if this can be determined. Do NOT record here the size of the gap between the lobes because this gap is usually smaller than the original width of the scar
- for logging detritus, see comment under LEN - Length.

THK — Thickness of feature

This is the maximum thickness of a feature in centimetres:

- for test holes, undercut scars, notches, platform notches, plank scars and kindling removal scars, this attribute refers to the depth of the feature (the distance into the tree). In some cases, these features can be thicker (deeper) than they are high or wide
- for bark-strip scars and pitch collection scars, this attribute does not apply. Do not record the thickness of the healing lobes as the thickness of the bark-strip scar. Healing lobe thickness may be recorded for dating purposes in some cases (see Handbook section on CMT dating); these measurements should be entered in the Remarks field.

- for logging detritus, see comment under LENgth

HAG — Height of feature above ground

This is the location of the feature on the tree expressed in height above ground (HAG).

Measure in centimetres as follows:

- or features on standing trees, measure distance between the base (bottom) of feature and ground
- for stumps, measure distance between ground and cut (highest part of stump, including step on step stumps but excluding spire on barberchair stumps). For stumps on steep slopes, measure on uphill side
- for features on logs, measure distance between base of feature and butt end of log or log section
- for features on windfallen trees, measure distance between base of feature and what is thought to be the past ground surface based on staining and wood erosion near base of tree
- for bark-strip scars, measure distance between scar base (or toolmarks if present instead of scar base) and ground surface. Enter a value of “0” only if it can be determined through the presence of toolmarks that the bottom of the scar base is at ground level
- for bark-strip scars where wood is exposed to the ground, but which cannot be confirmed as having started at ground level, enter “N/A” for HAG

SDE — Side of tree

This attribute indicates the location of one feature relative to the tree or another feature.

- for features on standing trees (bark-stripped scars, undercut scars, test holes, etc.), platform notches, logs, and canoe blanks indicate if feature is on upslope (“U”), downslope (“D”) or sideslope (“S”) side of tree
- for notches and plank scars on logs and log sections, indicate if feature is on top (“T”), side (“S”) or bottom (“B”) surface
- for some features such as pitch collection scars and kindling removal scars, side is usually not recorded. These could be recorded if important for a specific study
- for barberchair stumps, the side on which the spire is located is usually recorded

TMK — Toolmarks

This important attribute refers to the kinds of toolmarks present, and should be entered as follows:

- if toolmarks present, enter type (adze, axe, hatchet, knife, metal chisel, non-metal chisel)
- if unsure of identification, follow type with “?”
- if toolmarks present, but type not known, enter “Y” (for “Yes”)
- if unsure whether marks are cultural, enter “?”
- if toolmarks are absent, enter “N” (for “No”)
- if more than one type of toolmark is present, enter each type

Make sure that the toolmark is associated with the tree modification and was not added later.

NT — nursing tree

This attribute indicates whether or not a nursing tree is present on a CMT feature. If present, enter the abbreviation for the species of the nursing tree using the abbreviations listed above for the Tree Species field. Make sure that the nursing tree is growing **ON** the CMT feature, and not beside it. If nursing trees of more than one species are present on a feature, enter them abbreviations for each species. Note the diameter of the largest nursing tree. Other trees which aid in dating the feature can also be included in this section (e.g., trees growing within the missing section of an aboriginal logging feature).

REM — Remarks (called Comments in the Handbook)

Remarks will depend on the particular interests of the recorder. Some observations that could be entered here include:

- whether or not CMTs were flagged or otherwise marked in field
- photographs taken
- description of “Other” bark-strip scars
- description of features for “Other” modified trees
- functional interpretations, such as “medicine bark scar,” and basis for such interpretation (for example, information from Elders)
- shape of scar window and scar base on bark-strip scar
- description of canoe blank, including overall shape, shape of bow and stern, etc.
- description of other complex features (some kinds of test holes, logs with multiple plank scars and notches, etc.)
- minimum dimensions (maximum dimensions are in the **LENgth**, **WIDth** and **THicKness** fields.
- the amount of logging detritus and variation in size of pieces
- size and location of spire on barberchair stump
- height of step on stepped stump
- location and description of platform notches on stump
- dates obtained by tree-ring dating, or estimates of age relative to other CMTs at site