

CALCULATION OF
CHIP AVERAGE MARKET VALUES



December 01, 08

Introduction

The purpose of this paper is to identify the process used to collect the average market values for chips (Chip AMVs) and explain how the information is used to calculate the Revenue Branch Parameters for the Interior Market Pricing System.

Reporting of Chip Sales

Each month sawmill licensees' report Chip AMVs to Revenue Branch, as required by the *Forest Act* Section 136. Net Sales and volumes are reported on the "*Chip Sales AMV Monthly Report*" (Appendix 1).

Net Sales means the total value received including all bonuses and chip quality index (CQI) payments, less freight costs (if applicable), duties and penalties, which are reported in Canadian dollars. The volume can be reported in bone dry units (BDU), bone dry tons (BDTs), oven dry tons (ODTs) or cubic meters (m³). Net sales are reported separately for Whitewood, Cedar and Deciduous chips.

Chip AMVs are audited annually by the ministry's regional audit accountants.

The reporting licensees are deemed to deliver their chips sold to the closest pulp / paper mill.

Pulp Mills

Currently there are 13 pulp / paper mills in the BC Interior, which are listed below:

Common Name	Location
Abitibi – Consolidated Company of Canada	Mackenzie
Canfor Taylor Pulp	Taylor
Cariboo Pulp & Paper Co. Ltd.	Quesnel
Celgar Pulp Ltd.	Castlegar
Eurocan Pulp & Paper Co.	Kitimat
Intercontinental Pulp Mill	Prince George
Canfor's Northwood Pulp Mill	Prince George
Pope & Talbot Ltd.	Mackenzie
Prince George Pulp & Paper	Prince George
Quesnel River Pulp Co.	Quesnel
Tembec Industries Ltd.	Skookumchuck
Tembec Industries Ltd.	Chetwynd
Domtar Industries (Weyerhaeuser)	Kamloops

Average Market Value Zones (AMV Zones)

For the purposes of calculating Chip AMVs reporting licensees are separated into the five AMV Zones (5 – 9)

A guideline of three (3) reporting sawmills applies to chips. If there are less than three sawmills reporting Chip AMVs in any one zone, the Chip AMV for that zone may be combined with the Chip AMV in a contiguous zone.

The five AMV Zones and the Points of Appraisal, within each zone, (as at December 01, 2008) are listed below:

AMV Zone	Points of Appraisal		
5 - Northern Interior	Bear Lake Engen Houston Prince George Strathnaver	Burns Lake Fort St. James Isle Pierre Quesnel Vanderhoof	Clear Lake Fraser Lake Mackenzie Smithers
6 – Skeena*	Carnaby Terrace	Hazelton	Kitwanga
7 - Southern Interior	Adams Lake Canoe Creston Grand Forks Lavington Merritt Princeton Slocan Vavenby	Armstrong Castlegar Elko Kamloops Lumby Midway Radium Thrums Westbank	Canal Flats Craigellachie Galloway Kelowna McBride Okanagan Falls Revelstoke Valemount Ymir
8 - South Cariboo	100 Mile House Lytton	Boston Bar Squamish	Chasm Williams Lake
9 - Fort Nelson Peace	Chetwynd	Fort St. John	Fort Nelson

* due to low activity zone 6 currently uses zone 5 averages

Chip AMV Calculation

The Chip AMVs are produced each quarter, which are effective: January 1, April 1, July 1 and October 1. Twelve months of data, ending three months prior to the effective date, is used to calculate a volume weighted average for each AMV Zone.

Example

For a Chip AMV effective October 1, 2007, data for the 12 months ending June 30, 2007 would be used as follows:

12 month average Chip AMV for Zone 5 – Northern Interior	
Total Volume Reported (BDU)	3,111,265
Total Amount Reported (\$)	<u>216,155,784</u>
Chip AMV for Zone 5 (\$ per BDU)	\$ 69.48 / BDU

The above Chip AMV is rounded to the nearest dollar (\$69) and applied to each point of appraisal in AMV Zone 5 (Appendix 2).

Chip AMVs are published and entered into the General Appraisal System (GAS), which is used to calculate stumpage rates.

Revenue Branch reviews the Chip AMVs from each licensee and, if the data is not at fair market value it will be excluded. Market conditions, timing and other terms of the contract determine chip values. Distances from the reporting sawmill to the nearest pulp mill are ignored.

Species and Whole Log Chippers

Whitewood Chip AMVs are the source of information and used to calculate the Chip AMVs.

Cedar Chip AMVs

Reported cedar chips are not included in the calculations. However, Whitewood Chip AMVs are used to value cedar chips:

Zone 6 (Carnaby, Hazelton, Kitwanga, and Terrace) cedar chips are deemed to have the same value as whitewood chips. Both whitewood and cedar chips are milled and hauled together.

All other Zones (5, 7, 8, and 9) cedar chips are given a value at 75% of whitewood chips.

Deciduous and Whole Log Chippers

Chips reported from deciduous logs and whole log chippers are not included in the calculations.

Converting Volumes to Bone Dry Units

Chip AMVs are calculated using a volume weighted average of the chips sales reported. They are calculated using BDUs therefore all sales reported in BDTs, ODTs and m³ have to be converted to BDUs. The following are a list of the conversion factors used in the calculations.

Units	Conversion Factor ¹
BDU	1.0000000
BDT or ODT	0.9185917
m ³	0.3531472

EXAMPLES

WHITEWOOD		
VOLUME BDT	\$ NET SALES	\$/BDT
100,100	8,508,500	85.00

$$100,100 \text{ BDT} * 0.9185917 = 91,951.029 \text{ BDU}$$

$$8,508,500 / 91,951.029 = \$92.53/\text{BDU}$$

WHITEWOOD		
VOLUME ODT	\$ NET SALES	\$/ODT
75,335	7,006,155	93.00

$$75,335 \text{ ODT} * 0.9185917 = 69,202.106 \text{ BDU}$$

$$7,006,155 / 69,202.106 = \$101.24/\text{BDU}$$

WHITEWOOD		
VOLUME m ³	\$ NET SALES	\$/m ³
83,000	2,550,076	30.72

$$83,000 \text{ m}^3 * 0.3531472 = 29,311.218 \text{ BDU}$$

$$2,550,076 / 29,311.218 = \$87.00/\text{BDU}$$

¹ Conversion Factors based on Forintek Canada Corp. publication No SP-24 R – 1985.

APPENDIX 1



CHIP SALES (AMV) MONTHLY REPORT

Mill Name: _____

Mill #: _____

Contact: _____

Phone: _____

Month: _____

UNITS: (Circle One)

BDU	BDT	ODT	m3
0B	0D	0O	0Z

WW

WHITWOOD				
COMPANY SHIPPED TO	LOCATION	VOLUME	\$ NET SALES	\$ AVERAGE UNIT PRICE
				-
				-
				-
				-
TOTAL		0.000	0	-
WHOLE LOG CHIPS				
				-
				-
TOTAL		0.000	0	-

CE

CEDAR				
COMPANY SHIPPED TO	LOCATION	VOLUME	\$ NET SALES	\$ AVERAGE UNIT PRICE
				-
				-
				-
TOTAL		0.000	0	-
WHOLE LOG CHIPS				
				-
				-
TOTAL		0.000	0	-

DC

DECIDUOUS				
COMPANY SHIPPED TO	LOCATION	VOLUME	\$ NET SALES	\$ AVERAGE UNIT PRICE
				-
				-
				-
TOTAL		0.000	0	-
WHOLE LOG CHIPS				
				-
				-
TOTAL		0.000	0	-

NOTE NET SALES IS THE TOTAL VALUE RECEIVED INCLUDING ALL BONUSES AND CQI, LESS FREIGHT COSTS & PENALTIES.

APPENDIX 2

INTERIOR AVERAGE CHIP VALUES EFFECTIVE OCTOBER 1, 2008 For The Twelve Months Ended June 30, 2008

APPRAISAL POINT	CODE	WW \$/BDU	CEDAR \$/BDU	APPRAISAL POINT	CODE	WW \$/BDU	CEDAR \$/BDU
100 Mile House	100M	83	62	Lillooet	LILL	83	62
Adams Lake	ADLK	106	80	Louis Creek	LSCK	106	80
Armstrong	ARMS	106	80	Lumby	LUMB	106	80
Bear Lake	BELK	79	59	Lytton	LYTT	83	62
Boston Bar	BOBA	83	62	Mackenzie	MKEN	79	59
Burns Lake	BSLK	79	59	McBride	MBRI	106	80
Canoe	CANO	106	80	Merritt	MERR	106	80
Carnaby	CARN	79	79	O.K. Falls	OKFA	106	80
Chasm	CHSM	83	62	Prince George	PRGE	79	59
Chetwynd	CHET	78	59	Princeton	PRIN	106	80
Clear Lake	CLLK	79	59	Quesnel	QUES	79	59
Craigellachie	CRAI	106	80	Revelstoke	REVE	106	80
Engen	ENGE	79	59	Smithers	SMIT	79	59
Fort Nelson	FTNE	78	59	Squamish	SQUA	83	62
Fort St. James	FTJA	79	59	Strathnaver	STRA	79	59
Fort St. John	FTJO	78	59	Taylor	TAYL	78	59
Fraser Lake	FRLK	79	59	Terrace	TERR	79	79
Hazelton	HAZE	79	79	Upper Fraser	UPFR	79	59
Houston	HOUS	79	59	Valemount	VALE	106	80
Isle Pierre	ISPI	79	59	Vanderhoof	VAND	79	59
Kamloops	KAML	106	80	Vavenby	VAVE	106	80
Kelowna	KELO	106	80	Westbank	WEST	106	80
Kitwanga	KITW	79	79	Williams Lake	WILK	83	62
Lavington	LAVI	106	80	Ymir	YMIR	106	80
Canal Flats	CAFL	106	80				
Castlegar	CAST	106	80				
Cranbrook	CRAN	106	80				
Creston	CRES	106	80				
Elko	ELKO	106	80				
Galloway	GALL	106	80				
Grand Forks	GRFO	106	80				
Midway	MIDW	106	80				
Park Siding	PASI	106	80				
Radium	RADI	106	80				
Slocan	SLOC	106	80				
Thrusms	THRU	106	80				
Ymir	YMIR	106	80				

Verified by: _____