trig Wand Valley Consor

#### Schroeter, Tom EMPR:EX

From:

Schroeter, Tom EMPR:EX April 30, 2007 9:47 AM

Sent: To:

Madu, Bruce E EMPR:EX

Subject:

RE: Precious Metal Production at Highland Valley Copper.

Thanks, Bruce. These compare favourably with the numbers I were given (12,790 oz Au/1,894,203 oz Ag). Hopefully, in the future you will have an 'easier' time in ferretting out these numbers from HVC for our needs. Cheers,

Tom

Tom Schroeter, P.Eng./P.Geo. Senior Regional Geologist Geological Survey Branch Mining and Minerals Division Ministry of Energy, Mines and Petroleum Resources

Direct Telephone 604 660-2812 Messages & Enquiries 604 660-2708 Facsimile 604 775-0313 email tom.schroeter@gov.bc.ca

----Original Message---From: Madu, Bruce E EMPR:EX
Sent: April 30, 2007 8:33 AM
To: Schroeter, Tom EMPR:EX

Subject: FW: Precious Metal Production at Highland Valley Copper.

----Original Message----

From: Rouleau Peter [mailto:PRouleau@hvcopper.com]

Sent: April 30, 2007 8:22 AM To: Madu, Bruce E EMPR:EX

Cc: Amon Frank

Subject: RE: Precious Metal Production at Highland Valley Copper.

Bruce the total production of silver and gold at HVC in 2006 were;

Silver

1.9 million (contained Ozs)

Gold

13 Thousand (contained Ozs)

Hope this helps.

Regards Pete Rouleau

From:

Schroeter, Tom EMPR:EX

Sent:

April 27, 2007 3:18 PM Madu, Bruce E EMPR:EX

To: Subject:

RE: HVC - 2005/2006 Production Stats

Sounds good to me -thanks.

#### Tom

Tom Schroeter, P.Eng./P.Geo. Senior Regional Geologist Geological Survey Branch Mining and Minerals Division Ministry of Energy, Mines and Petroleum Resources

Direct Telephone 604 660-2812 Messages & Enquiries 604 660-2708 Facsimile 604 775-0313 email tom.schroeter@gov.bc.ca

From:

Madu, Bruce E EMPR:EX

Sent:

April 27, 2007 3:08 PM Schroeter, Tom EMPR:EX

To: Subject:

RE: HVC - 2005/2006 Production Stats

I have already sent a note to Frank Amon at the mine - he's at CIM right now though. I might wait for him to provide me the numbers rather than back out of the request.

From:

Schroeter, Tom EMPR:EX

Sent:

April 27, 2007 3:06 PM Madu, Bruce E EMPR:EX

Subject:

HVC - 2005/2006 Production Stats

Bruce, I have rec'd **CONFIDENTIAL** stats for 2005 and 2006 (prelim.) for Cu,Mo,Au,Ag from Jim Lewis in Headquarters. If you haven't started the follow-up with HVC, I guess I'm "OK" with the numbers from HQ. If you would like the numbers, suggest you contact Jim directly. Cheers,

#### Tom

Tom Schroeter, P.Eng./P.Geo. Senior Regional Geologist Geological Survey Branch Mining and Minerals Division Ministry of Energy, Mines and Petroleum Resources

Direct Telephone 604 660-2812 Messages & Enquiries 604 660-2708 Facsimile 604 775-0313 email tom.schroeter@gov.bc.ca

From: Sent:

Lewis, Jim E EMPR:EX April 27, 2007 11:32 AM

To:

Schroeter, Tom EMPR:EX
Special CONFIDENTIAL REQUEST

Subject:

### Tom as on phone:

### **Mineral Production**

2005	
00.1.9.3,1 gold prod cont (g)	358,841
00.1.9.3,2 gold ship cont (g) 00.1.9.3,3 gold ship rec (g)	358,841 345,316
00.1.9.3,4 gold @ \$17.33 (\$)	345,316 5,984,326
00.1.9.3,5 gold ship paid (g)	215,304
00.1.9.3,6 gold ship pa (\$)	3,731,219
00.1.9.3,7 Avg price co.(\$/g)	17.33
2006 Proliminary action of	
2006 Preliminary estimate	444.050
00.1.9.3,1~ gold prod cont (g) 00.1.9.3,3~ gold ship rec (g)	411,250 403,048
00.1.9.3,4~ gold @\$21.729(\$)	8,757,830
50.0 (g)	0,101,000
2005	
00.1.23,1 Silv Prod cont (kg)	62,076.194
00.1.23,2 Silv Ship cont (kg)	62,076.194
00.1.23,3 Silv Ship rec (kg)	59,752.106
00.1.23,4 Silv@ \$285.905 (\$) 00.1.23,5 Silv Ship paid (kg)	17,083,426
00.1.23,6 Silv Ship paid (kg)	55,868.576 15,973,105
00.1.23,7 Avg price co. (\$/kg)	285.90
(4.mg)	200.00
2006 Preliminary estimate	
00.1.23,1~ Silv Prod cont (kg)	60,899.488
00.1.23,3~ Silv Ship rec (kg)	59,982.516
00.1.23,4~ Silv@\$411.781 (\$)	24,699,660
2005	
00.1.8,1 Copp Prod cont (kg)	179,043,276
00.1.8,2 Copp Ship cont (kg)	179,043,276
00.1.8,3 Copp Ship rec (kg)	175,265,790
00.1.8,4 Copp @ \$4.456 (\$)	780,984,360
00.1.8,5 Copp Ship paid (kg)	173,224,371
00.1.8,6 Copp Ship pa (\$)	771,887,798
00.1.8,7 Avg price co. (\$/kg)	4.46

2006 Preliminary estimate	
00.1.8,1~ Copp Prod cont (kg)	171,331,692
00.1.8,3~ Copp Ship rec (kg)	171,375,045
00.1.8,4~ Copp @ \$7.730 (\$)	1,324,729,098
2005	
00.1.17,1 Molybdenum Prod (kg)	2,860,579
00.1.17,3 Molybdenum Ship (kg)	2,860,579
00.1.17,4 Molybdenum Ship @ 83.832 (\$)	239,808,059
Unit price	83.83
2006 Preliminary estimate	
00.1.17,1~ Molybdenum Prod (kg)	1,871,439
00.1.17,3~ Molybdenum Ship (kg)	1,843,418
00.1.17,4~ Molybdenum Ship @ 60.865(\$)	112,199,637
Unit price	60.87

For - Mineral Statistics in BC:

http://www.em.gov.bc.ca/mining/miningstats

Jim Lewis -- Economist Mining Division Ministry of Energy, Mines and Petroleum Resources British Columbia

jim.lewis@gov.bc.ca Phone: (250) 952-0521 Fax: (250) 952-0271

From:

Schroeter, Tom EMPR:EX

Sent:

April 27, 2007 3:06 PM

To: Subject: Madu, Bruce E EMPR:EX HVC - 2005/2006 Production Stats

Bruce, I have rec'd **CONFIDENTIAL** stats for 2005 and 2006 (prelim.) for Cu,Mo,Au,Ag from Jim Lewis in Headquarters. If you haven't started the follow-up with HVC, I guess I'm "OK" with the numbers from HQ. If you would like the numbers, suggest you contact Jim directly. Cheers.

### Tom

Tom Schroeter, P.Eng./P.Geo. Senior Regional Geologist Geological Survey Branch Mining and Minerals Division Ministry of Energy, Mines and Petroleum Resources

Direct Telephone 604 660-2812 Messages & Enquiries 604 660-2708 Facsimile 604 775-0313 email tom.schroeter@gov.bc.ca

From:

Jake.Jacobs@gov.bc.ca

Sent:

April 26, 2007 7:34 AM

To:

PAB EMPR MEDIA

Cc:

Jacobs, Jake PAB:EX

Subject: EMPR Media Watch - Thursday, April 26, 2007

• Plans for copper refinery on hold

The Daily News (Kamloops) Thursday, April 26, 2007

Page A01

By Cam Fortems

Teck Cominco Ltd. has "stopped the clock" on a refinery proposal at Highland Valley Copper that would have provided more than 150 jobs using clean technology developed in B.C.

Wolf Nickel, president of Highland Valley Copper, said Wednesday the mine has informed the provincial Environment Assessment Office it will no longer proceed with studies done in parallel with an economic analysis.

"The feasibility study was inconclusive," Nickel said of the economics of the project. "What they're (Teck Cominco) saying is 'hold everything.' "

The mine has also told its consultants "to wind things down and stop the clock."

Parent company Teck Cominco announced late in 2005 it was resurrecting a proposal for a copper refinery using in-house technology designed in B.C. It was first proposed in 1998, when then-premier Glen Clark flew to the mine by helicopter to announce it would be considered under his Jobs for Power Initiative.

The project was ruled out because of its high capital costs.

Six years later, buoyed by copper prices three to four times the level of the late 1990s, Teck Cominco renewed study of the proposed refinery.

The project was touted to save millions a year in transportation costs by reducing the amount of material the mine must ship to overseas smelters.

Nickel cautioned the proposal is not dead, but on hold. Time is not on the side of the refinery, however, because limited mine life at Highland Valley is one of the major reasons Teck Cominco is not moving ahead.

The mine is expected to be depleted of reserves in 2019.

"What happens in 2019?" Nickel asked. "We'll be winding down. If you're going to build it, it would be (finished in) 2010 or 2011. You have nine years and a capital cost north of \$600 million."

As designed, the refinery would also be unable to recover associated precious metals contained in the ore. Nickel estimated Highland Valley Copper earned at least \$10 million last year -- of its overall profit of more than \$1 billion -- from silver recovered in its ore.

More importantly, any producer wishing to use the refinery after 2019 would not be able to recover gold or silver that is often associated with copper deposits in B.C. That would include ore from New Gold Inc.'s proposed copper-gold mine on Kamloops' western boundary.

"You would have huge facilities inland and you would have to scour the ends of the earth (after 2019) to find suitable feed."

Also weighing against the project is the fact Highland Valley Copper produces a "clean" concentrate for smelting overseas, Nickel said.

Teck's refinery technology is economically better suited to "dirty" concentrates that may contain arsenic, for example.

South American mining giant CVRD is building a refinery in Brazil using Teck Cominco's technology. It is slated to produce about 10,000 tonnes of concentrate a year. Highland Valley's refinery was to be more than 30 times that size.

cfortems@kamloopsnews.ca

From: Sent: Schroeter, Tom EMPR:EX April 26, 2007 10:49 AM

To:

Madu, Bruce E EMPR:EX Cathro, Mike EMPR:EX

Subject:

RE: HVC Au + Ag Production-2006?

Thanks, Bruce. In my files I have the following for HVC in 2005:

Au=16,015oz (500kg)

Ag=2,250,550 oz (70,000kg)

I note in the PAB report from Victoria this morning a clipping from **The Daily News (Kamloops)**, Thursday, Apr. 26, 2007, Page A01 by Cam Fortems, which has reference to importance of the associated precious metals in the ore (i.e. Au and Ag). In it, Wolf Nickel, Pres. of HVC, stated that of HVC's overall profit in 2006 of more than \$1 billion, at least \$10 million was earned from the recovery of **SILVER** (unfortunately - no mention of GOLD). As you know, I keep "Commodity" files which contain TOTAL "Production" and "Resources" info - used mainly in my Technical Marketing (e.g. 'Explore BC') efforts to attract new investment to BC. I understand your comment about Denis Merber; however, perhaps if he understood my/our request, he might get permission from the President of HVC (Wolf Nickel) to provide us with the data? Can I leave this with you for a couple of weeks (since I believe your office is the best 'target' point), or would you prefer me to persue on my own? Cheers,

BM will "Chase drum"

#### Tom

Tom Schroeter, P.Eng./P.Geo.
Senior Regional Geologist
Geological Survey Branch
Mining and Minerals Division
Ministry of Energy, Mines and Petroleum Resources

Direct Telephone 604 660-2812 Messages & Enquiries 604 660-2708 Facsimile 604 775-0313 email tom.schroeter@gov.bc.ca

From: Sent: To: Madu, Bruce E EMPR:EX April 26, 2007 10:02 AM Schroeter, Tom EMPR:EX

Cc: Subject: Cathro, Mike EMPR:EX RE: HVC Au + Aq Production-2006?

Hi Tom,

Mike reported in 2004 and 2005 Exploration and Mining that HVC produced 500 kg gold and 70 000 kg silver in those years. I have gone through the files here and found no published record of those numbers through quarterly or annual reports. Teck Cominco has consistently not reported on gold and silver production at HVC. In my 2006 work I reported "minor" gold and silver production - one could argue there's nothing minor about 500 kg of gold. The last time I asked I recall that the company does not receive any smelter credits for gold and silver in their concentrate. They used to juice it up with gold from Snip(?) but they don't any more.

So if Teck Cominco doesn't report gold and silver production - should we? I could run Mike's numbers by Denis Merber, but I wanted to check back with you first. When I have asked Denis before for information it generally is delivered in exact accordance with the company's published information.

From:

Schroeter, Tom EMPR:EX

Sent: To: Cc: April 25, 2007 10:23 AM Madu, Bruce E EMPR:EX Lewis, Jim E EMPR:EX

**Subject:** 

HVC Au + Ag Production-2006?

Bruce, On March 28th, you very kindly emailed me some 2006 'stats' for HVC. Do you have the production stats for GOLD and SILVER? If not, can you find out? Thanks.

AU 7.

From:

Madu, Bruce E EMPR:EX

Sent:

March 28, 2007 10:04 AM Schroeter, Tom EMPR:EX

To: Subject:

Recent figure on capital investment at Highland Valley Copper

From Teck Cominco's recent annual report: \$80 million cap, investment for 2006

#### 100% 2006 2005 2004

Tonnes milled (000's) 45,356 50,666 50,623 Copper grade (%) 0.412 0.398 0.384 Copper recovery (%) 91.5 88.8 87.7 Copper production (000's tonnes) 171.3 179.0 170.3 Copper sales (000's tonnes) 185.2 185.8 156.1 Molybdenum production (million pounds) 4.1 6.3 10.7 Molybdenum sales (million pounds) 3.9 6.9 10.8 Capital expenditures (\$ millions) 80 14 4

Operating profit (\$ millions) (Note) 1,019 613 431

Note: Commencing March 1, 2004, the Company increased its interest to 97.5% and consolidated 100% of the mine's operating profit with a 2.5% minority interest.

#### Bruce Madu, P.Geo.

Regional Geologist Mining and Minerals Division **BC Ministry of Energy and Mines** 

162 Oriole Road, Kamloops, BC, V2C 4N7 Phone (250) 371-6071 Cel (250) 819-0887 FAX (250) 371-6070

From: Sent: Schroeter, Tom EMPR:EX Tue, March 6, 2007 8:08 PM Cathro, Mike EMPR:EX

To: Subject:

Re: HVC cap costs

What Bruce provided is great - thanks!

---- Original Message -----From: Cathro, Mike EMPR:EX

To: Madu, Bruce E EMPR: EX; Schroeter, Tom EMPR: EX

Sent: Tue Mar 06 14:25:31 2007 Subject: RE: HVC cap costs

I think to get accurate numbers, you will need to ask them directly.

It appears they don't publish this info for individual operations.

Mike Cathro
Regional Director
Mining and Minerals Division, Kamloops
B.C. Ministry of Energy, Mines and Petroleum Resources

From:

Madu, Bruce E EMPR:EX

Sent: March 6, 2007 2:22 PM

To: Schroeter, Tom EMPR:EX; Cathro, Mike EMPR:EX

Subject: RE: HVC cap costs

I have pieced together what I could find for evidence. I have not yet contacted HVC about this as I am not sure to what accuracy this needs to be (they tend to be pretty busy at the mine and putting this type of data together can be a time sink for them). They do release a lot of data on their website.

2005 Q4 report - Mine life extension to 2013 announced in September 2005, capital acquisitions required \$40 million, stripping of Valley pit east wall \$150 million. Stripping begins late 2005.

2006 Ql Report - No mention of capital expenses w.r.t. 2013 expansion

2006 Q2 Report - capital expenses for HVC extension - \$5 million for quarter

2006 Q3 Report - capital expenses for HVC extension - \$5 million for quarter 2006 Q4 Report - capital expenses for HVC extension - \$6 million for quarter

The \$150 million for stripping does not appear to be accounted for as a capital expense. Teck Cominco does indicate it will amortize the stripping costs over the period of 2006-2009 (4 years). I might assume that they would split the cost into 4 to average it at \$37.5 million per year.

So it would appear that the capital investment for 2006 as per quarterly reports would be \$16 million and the cost of pre-stripping the Valley pit east wall accounted for at approximately \$37.5 million. I wouldn't doubt that there were 2006 Q1 capital expenditures of several million \$ but that information is not published.

A couple of February 2007 presentations by Teck Cominco executives show the estimated 2013 expansion costs at ~\$200 million. These are on the corporate website.

There are no specific mentions of costs related to re-opening the Highmont orebody - but it is a part of the 2013 expansion so I would assume the costs are somewhere in the \$200 million estimate.

Let me know if this meet your needs.

Highland Valley Copper From: Schroeter, Tom EMPR:EX Sent: February 22, 2007 3:03 PM

To: Cathro, Mike EMPR:EX
Cc: Madu, Bruce E EMPR:EX
Subject: RE: HVC cap costs

Thanks, Mike. Bruce - when you're back could you please check on this. How much (\$) was spent in 2006 related to mine expansion (incl. re-opening/re-development of Highmont orebody, wall pushback, moving in-pit crushers, etc.). Thanks.

Tom
Tom Schroeter, P.Eng./P.Geo.
Senior Regional Geologist
Geological Survey Branch
Mining and Minerals Division
Ministry of Energy, Mines and Petroleum Resources

Direct Telephone 604 660-2812 Messages & Enquiries 604 660-2708 Facsimile 604 775-0313 email tom.schroeter@gov.bc.ca

From: Cathro, Mike EMPR:EX

Sent: Thu, February 22, 2007 3:01 PM

To: Schroeter, Tom EMPR:EX Subject: HVC cap costs

Info from Q4 reproduced below, in red.

I seem to recall a forecast of \$40 million in cap cost from earlier, but I'm not sure if this was for 2006.

Mike Cathro
Regional Director
Mining and Minerals Division
B.C. Ministry of Energy, Mines and Petroleum Resources
162 Oriole Rd., Kamloops, B.C. V2C 4N7

office 250 371-6060 cel 250 318-4202 fax 250 371-6070

Mill throughput at Highland Valley Copper in the fourth quarter was 16% lower than the same period last year

due mainly to the processing of a greater proportion of harder ore. Copper production of 46,800 tonnes in the

quarter declined by 7% compared with a year ago due mainly to the lower throughput partially offset by higher

ore grades.

Copper sales in the fourth quarter were similar to last year, while molybdenum sales decreased by 39% as a result

of lower production levels. Realized molybdenum prices in the fourth quarter were US\$24 per pound compared

with US\$20 per pound a year ago.

Fourth quarter operating profit of \$201 million, including \$23 million of negative final pricing revenue

adjustments, was higher than the \$190 million in the same period last year which had included positive

adjustments of \$27 million.

Highland Valley Copper's operating profit was a record \$1.0\$ billion in 2006, which increased significantly from

\$613 million in 2005 due mainly to record copper prices realized in the year.

The push-back of the Valley pit east wall is progressing on schedule and the relocation of the crusher and

conveyor system is expected to take place in the summer of 2007. Copper production is expected to decrease

during 2007 to 2009 while the east Valley pit is being developed, and production of copper in concentrates in

these years is estimated to average 140,000 tonnes per year. Copper production from 2010 to 2013 is estimated to

average 165,000 tonnes per year.

Following months of extensive study, we announced earlier today (see separate news release) that we decided to

extend the mine life of Highland Valley Copper by an additional six years to 2019. The new mine plan will

require a push-back of the west wall of the Valley pit to produce an average of 125,000 tonnes of copper per year  $\frac{1}{2}$ 

after 2013. Total capital costs of the project are estimated at \$300 million including \$133 million for capital

equipment and the balance in pre-production stripping over the period of 2009 through 2013. Capital

commitments in 2007 are \$50 million for mobile equipment.

11 Teck Cominco Limited 2006 Fourth Quarter News Release

Our feasibility study to determine the viability of the construction of a new CESL hydrometallurgical refinery to

process Highland Valley concentrates was inconclusive. The principle advantages of the CESL process, which are

the efficient, environmentally friendly treatment of lower grade, higher impurity concentrates are less relevant in

the treatment of the readily marketable high grade, clean concentrates that are produced at Highland Valley. We

will continue to evaluate the potential for accessing other, better suited feed sources in the region that could

improve the overall economics and justify the construction of a new refinery.

From:

Stewart, Janet PAB:EX

Sent:

Tuesday, March 21, 2006 9:43 AM

To:

Banera, Neil EMPR:EX; Bates, Stirling M. EMPR:EX; Brown, Derek EMPR:EX; Callbeck, Doug ECDV:EX; Carter, Michael T AL:EX; Costa, Frank EMPR:EX; Dragushan, Jean EMPR:EX; Freer, Geoff EMPR:EX; Frisch, Ellen EMPR:EX; German, Gerald EMPR:EX; Gibson, Heidi ENV:EX; Green, Dan L EMPR:EX; Hermann, Fred EMPR:EX; Jacobs, Jake PAB:EX; Jani, Andy EMPR:EX; Jonsson, Corey OGC:EX; Kittleson, Christian D FIN:EX; Koncohrada, Karen EMPR:EX; Lefebure, Dave EMPR:EX; LeGuilloux, Marg MCF:EX; Lewis, Cameron F EMPR:EX; Little, Tamara M PAB:EX; Logan, Claudia EMPR:EX; Lu, Jennifer ECDV:EX; Marcy, Norman EMPR:EX; McCandless, Kaisa M EMPR:EX; McLaughlin, Roger EMPR:EX; Mills, Shane SMIN:EX; Morii, Sachie EMPR:EX; Murphy, Shelley EMPR:EX; Nash, Laurel EMPR:EX; Nelson, Deanna G OGC:EX; O'Rourke, Patrick EMPR:EX; Ostergaard, Peter EMPR:EX; Panter, Catherine ABR:EX; Piccinino, Ines EMPR:EX; Poole-Moffatt, Natalie EMPR:EX; Powell, Charlotte FIN:EX; Reimer, Greg A EMPR:EX; Schmid, Yvette EMPR:EX; Schroeter, Tom EMPR:EX; Shanks, Lee PAB:EX; Sharma, Muneesh S SMIN:EX; Sibbeston, Stephanie EMPR:EX; Skauge, Clara M LASS:EX; Smyth, Ron EMPR:EX; Sparks, Colleen EMPR:EX; Stewart, Barbara PAB:EX; Stewart, Janet PAB:EX; Sweet, Colleen M EMPR:EX;

Liz PAB:EX; Yeh, Will EMPR:EX

Subject:

Possible copper refinery could mean more jobs in B.C. Interior – CBC Radio – 7:30 AM March

Verhagen, Jessica EMPR:EX; Wells, Yvette EMPR:EX; Wieringa, Paul EMPR:EX; Wouters,

21, 2006

Possible copper refinery could mean more jobs in B.C. Interior - CBC Radio - 7:30 AM March 21, 2006

Teck Cominco is talking about opening a copper refinery in the B.C. Interior. The price of copper hit a record high of US\$2.36 a pound last week. The record price could translate into jobs for people in the Nicola Valley.

Reporter: Right now copper extracted from the Highland Valley mine near Logan Lake is exported to be refined, but that could change. Mike Lipkewich [is] a senior vice president of operations for Teck Cominco, which runs the mine. He says Teck is considering expanding its operations.

Mike Lipkewich: If the price of copper remains high, and if we make a decision to expand again, we will be looking at refining copper at the site, and the probability of doing that is fairly high.

Reporter: For years copper stagnated well below a dollar a pound. Teck even considered closing the Highland Valley mine by 2008, but last year copper prices rose and a commitment was made to keep the mine running until 2013. Lipkewich says high prices may extend Highland Valley's life even further.

Mike Lipkewich: We have a plan in place for 2013. That gives us a lot of time to reassess what our future potential for expanding the life over and beyond that is, and of course it will depend on what future copper prices are.

Reporter: Lipkewich says copper is just one of the minerals hitting the stratosphere. Historically molybdenum traded around \$3.00 a pound; now it's in the \$25 - \$30 range. Even lowly zinc sells for