

# AVANTI MINING INC. KITSAULT MINE

FEASIBILITY STUDY UPDATE  
JANUARY 2011





## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION

This presentation contains certain forward-looking information concerning the business of Avanti Mining Inc. (the "Corporation"). All statements, other than statements of historical fact, included herein including, without limitation; anticipated dates for receipt of permits and approvals, construction and production, and other milestones; anticipated mine design or life of mine; anticipated results of drilling programs, feasibility studies and other analyses; estimated timing and amounts of future expenditures, and the Corporation's future production, operating and capital costs, internal rate of return, tax rates, anticipated timing to pay back capital investments, operating or financial performance, are forward-looking statements. These forward-looking statements are based on the opinions of management at the date the statements are made and are based on assumptions and subject to a variety of risks and uncertainties and other factors that could cause actual events to differ materially from those projected in forward-looking statements. Important factors that could cause actual results to differ materially from the Corporation's expectations include fluctuations in commodity prices and currency exchange rates; uncertainties relating to interpretation of drill results and the geology, continuity and grade of mineral deposits; uncertainty of estimates of capital and operating costs, recovery rates, production estimates and estimated economic return; the need for cooperation of government agencies and native groups in the exploration and development of properties and the issuance of required permits; the need to obtain additional financing to develop properties and uncertainty as to the availability and terms of future financing; the possibility of delay in exploration or development programs or in construction projects and uncertainty of meeting anticipated program milestones; uncertainty as to timely availability of permits and other governmental approvals; and other risks and uncertainties disclosed in the Corporation's Annual Information Form dated July 2, 2010, which is available at [www.Sedar.com](http://www.Sedar.com). The Corporation is under no obligation to update forward-looking statements if circumstances or management's opinions should change, except as required by applicable securities laws. The viewer is cautioned not to place undue reliance on forward-looking statements.

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# Kitsault Highlights



**One of the top five primary moly development assets in the world**

**High-Grade Resource**

**Existing Infrastructure**

**Past Producer**

**Advanced Discussions with Local Communities**

**Rapid Development Plan**

# Management of Avanti



**Craig J Nelsen**  
President & CEO

- 30 years exploration and development experience
- Previously with Gold Fields, Metallica Resources and Lac Minerals
- Director of New Gold

**A J Ali**  
CFO

- 35 years mining financial experience
- Previously with Denison Mines, Vista Gold, EuroZinc and Centenario Copper
- Director of Explorator

**Kenneth W. Collison**  
SVP Project Development

- Former COO of Thompson Creek Mining
- 30 years experience in operations and project development with Rio Algom Ltd. and Coeur d'Alene Mines

**Robert Blair**  
VP Exploration

- Previously with Cyprus - Amax, Climax, Getty Minerals and Coeur d'Alene
- 40 years Exploration and Development experience

**Robert Jacko**  
G M, Projects

- Former Vice President Projects of Thompson Creek Metals – Endako and Mt. Emmons studies
- Over 20 years with Teck and Teck Cominco – Northern Operations

# Directors & Strategic Advisors



## Board of Directors

### James Arnold

SVP and COO  
Romarco Minerals  
Inc

Previously VP  
Colorado Operations  
with Freeport  
McMoRan in charge  
of Henderson Mine  
and Climax Project

### Peter Barnes

President and CEO  
of Silver Wheaton  
Corp

Previously Exec VP  
and CFO of  
Goldcorp and CFO  
Silver Wheaton  
Minerals

### Ryan T Bennett

Partner, Resource  
Capital Fund

Previously with NM  
Rothschild & Sons

### Robert Cross

Founder, Chairman  
of Bankers  
Petroleum Ltd

Ex-Chairman of  
Northern Orion  
Resources Inc

Director of B2 Gold

### Craig J Nelsen

30 years exploration  
and development  
experience

Previously with Gold  
Fields, Metallica  
Resources, Lac  
Minerals

Director of New Gold

### Mark A Smith

Presently CEO and  
Director of Molycorp  
Minerals LLP

Previously President  
of Chevron Mining  
Inc and Unocal with  
long association to  
the Questa Mo mine

## Strategic Advisors

### Ed Flood

Chairman of Western Uranium Corporation,  
Director of Asian Gold Corp, and Director of  
Jinshan Gold Mines

Former Deputy Chairman and President of  
Ivanhoe Mines and Director of Ivanhoe  
Energy

### Pierre Lassonde

Chairman Franco-Nevada

Former Vice-Chairman Newmont Mining,  
Chairman of the WGC;

Former President Newmont Mining Corp,  
Co-CEO of Franco-Nevada, President &  
CEO of Euro-Nevada Mining and Director of  
Normandy Mining

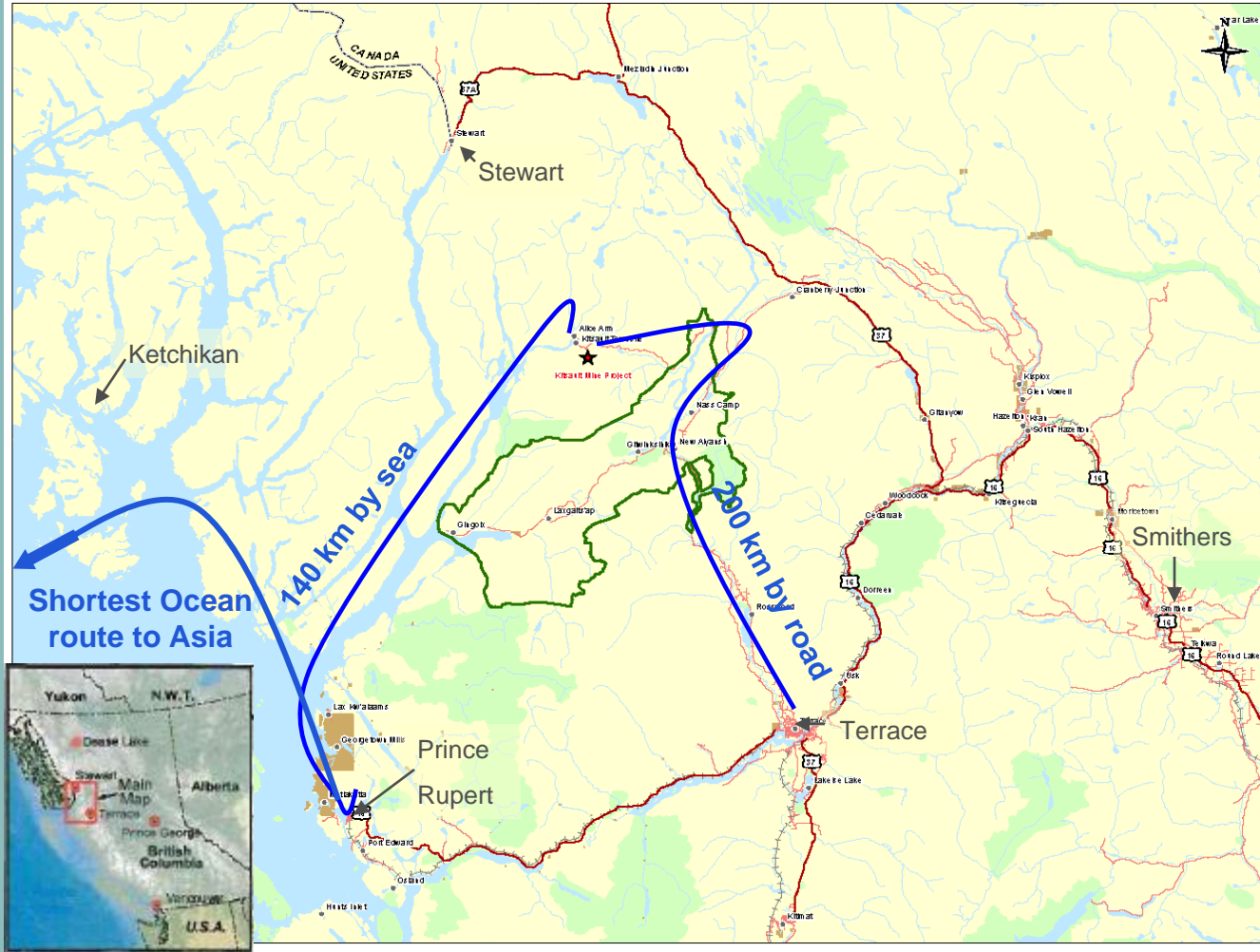
### Chris Thompson

Director of Teck-Cominco

Former Chairman & CEO of Gold Fields  
and Chairman of the WGC

Founder of Castle Group and Ventures  
Trident and Emerging Markets Gold  
Funds

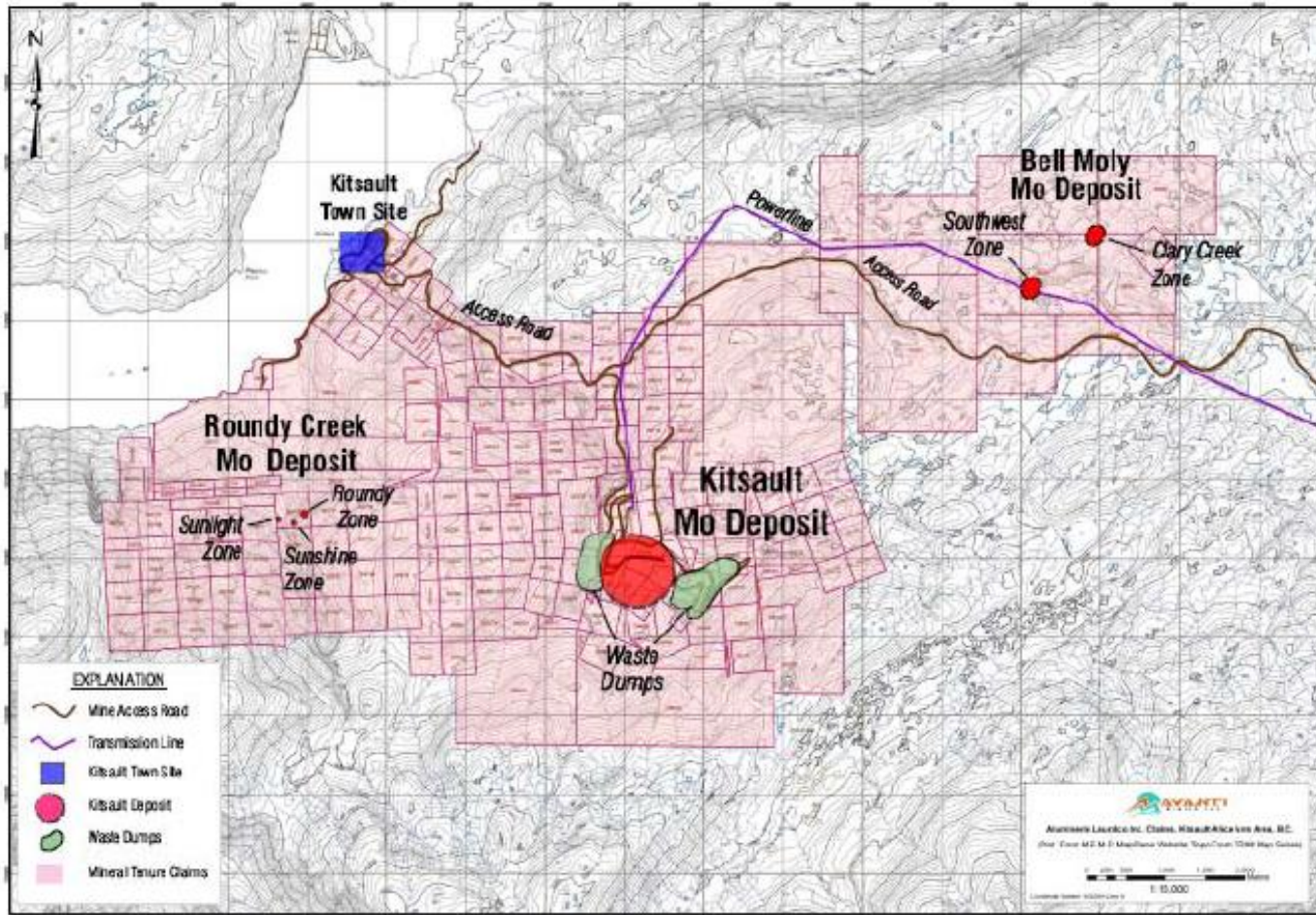
# Location of Kitsault Mine



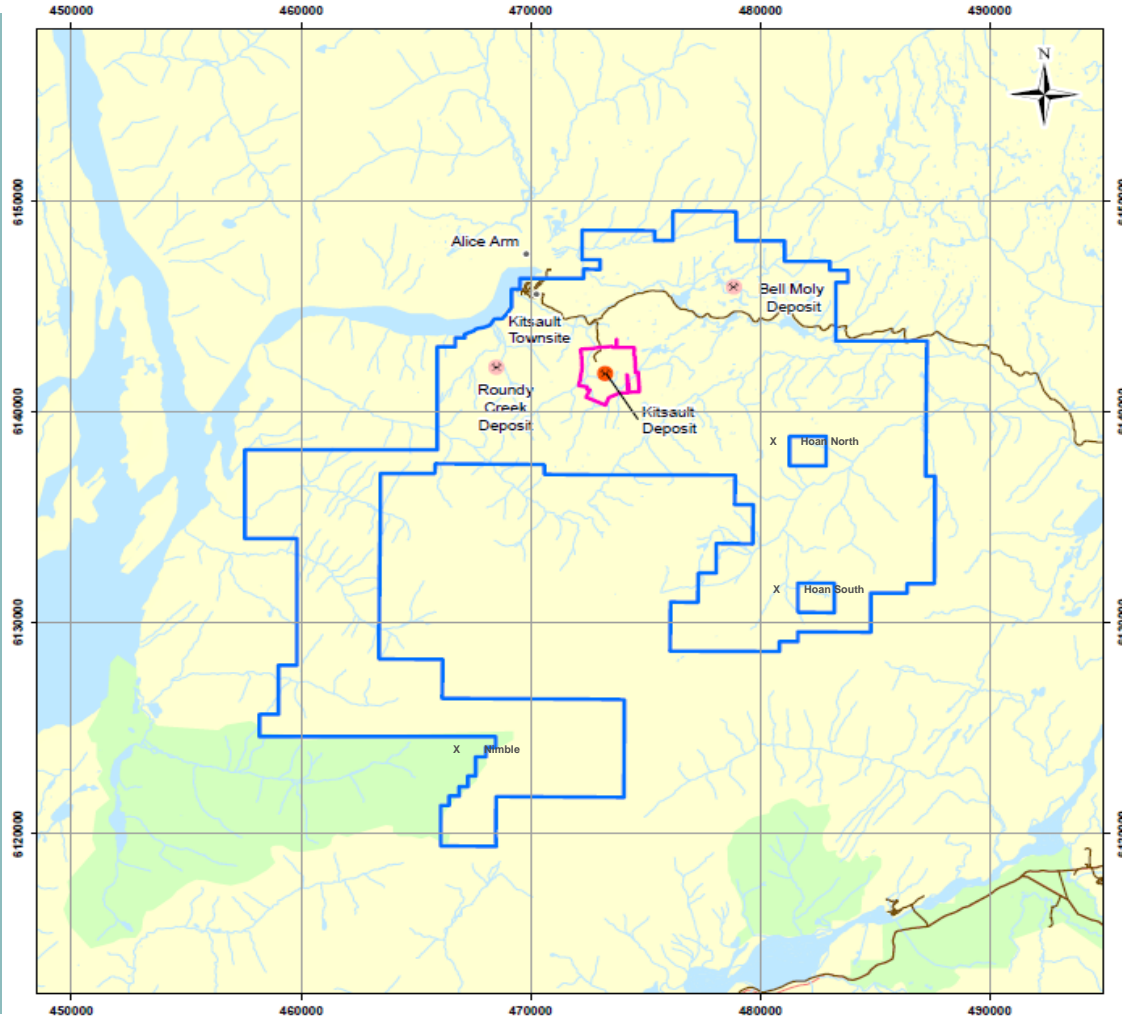
# Kitsault Mine – Current view



# Kitsault Land Map



# Mineral Claims and Leases



# Kitsault Reserves



Category	Tonnage (Mt)	Mo (%)	Contained Mo (MLb)
<b>Proven</b>	<b>69.7</b>	<b>0.097</b>	<b>148.5</b>
<b>Probable</b>	<b>162.8</b>	<b>0.075</b>	<b>267.3</b>
<b>Total Proven and Probable</b>	<b>232.5</b>	<b>0.081</b>	<b>415.8</b>

## Notes:

1. Mineral Reserves The Kitsault mine Mineral Reserves have been prepared in accordance with NI 43-101 standards and CIM Definition Standard (2010). This statement has been prepared by Mr. Ryan W. Ulansky (P.Eng.) of AMEC, a QP as defined in NI 43-101.
2. Mineral Reserves are defined within a mine plan, with pit phase designs guided by Lerchs–Grossmann (LG) pit shells, and reported at a 0.026% Mo cut-off grade, after dilution and mining loss adjustments. The LG shell generation was performed on measured and indicated materials only, using a molybdenum price of Cdn\$13.58/Lb, an average mining cost of Cdn\$1.94/t mined a combined ore based cost of Cdn\$5.84/t milled, and a selling cost of \$1.24 /lb of Mo sold. Metallurgical recovery used was a function of the head grade, defined as  $\text{Recovery} = 7.5808 * \ln(\text{Mo } \%) + 108.63$  with a cap applied at 95%. Overall pit slopes varied from 42 to 48 degrees.
3. Dilution and Mining loss have been accounted for based on a waste neighbour analysis. 1.5Mt of measured and indicated material above cut-off was routed as waste. 1.9Mt of measured and indicated material below cut-off has been included as dilution material. An additional 0.2Mt of inferred dilution material with grades set to zero is included in the mine plan as millfeed.
4. Tonnages are rounded to the nearest 1,000 tonnes, grades are rounded to three decimal places for Mo.
5. Rounding as required by reporting guidelines may result in apparent summation differences between tonnes, grade and contained metal content
6. Tonnage and grade measurements are in metric units; contained molybdenum is in imperial pounds.
7. The life of mine strip ratio is 0.77

# Resources



## Kitsault Deposit 43-101 Compliant Resources\* – November 8, 2010

Category	Volume Mm <sup>3</sup>	Density g/cm <sup>3</sup>	Tonnage Mt	Mo <sup>**</sup> %	Mo MLb	Ag Ppm	Ag Moz
<b>Measured</b>	27.6	2.65	73	0.093	150.3	4.28	10
<b>Indicated</b>	84.9	2.66	225.8	0.065	322.2	4.17	30.3
<b>Measured + Indicated</b>	112.4	2.66	298.8	0.072	472.5	4.2	40.3
<b>Inferred</b>	58.8	2.66	157.1	0.05	172.2	3.65	18.4

\*Mineral resources are inclusive of mineral reserves. Mineral resources are not mineral reserves and do not have demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates. The cut-off grades are based on metal price assumptions of CND\$15.62/lb of molybdenum, and a metallurgical recovery of eighty-nine percent of molybdenum. Silver was not used in the pit optimization. The resource estimate was prepared under the supervision of Greg Kulla, P.Geo, an independent Qualified Person (QP), as this term is defined in NI 43-101.

\*\*Reported as a cut-off grade of 0.021% Molybdenum contained within a potentially economically mineable open pit. Cost for this pit included Process cost of CND\$5.84/t and selling cost of CND\$1.24/lb

## Historical Resources

Deposit	Resource Classification	Ore <i>mm tonnes</i>	Grade	Contained Metal	Source
			Mo %	Mo <i>mm lbs</i>	
Kitsault Mine	Proven and Probable Reserve	104.3	0.120%	275.4	Amax 1985 10K and BC Minfile Report
Bell Moly	Unclassified Amax Resource	96.4	0.054%	115.1	Amax Jan 1979 report
Roundy Creek	Unclassified Resource	7.0	0.066%	16.9	Woodstock and Carter, CIM Sp 15, 1976
Included in Roundy Creek	Sunlight Zone	0.04	0.401%	0.3	Woodstock and Carter, CIM Sp 15, 1976
	Sunshine Zone	1.35	0.208%	6.2	Woodstock and Carter, CIM Sp 15, 1976

Note: Historic resource estimates do not comply with the CIM terminology under Canadian Securities Administrators NI 43-101 guidelines. The reader is cautioned that these estimates are not mineral reserves and should not be relied upon. Avanti considers these resources as relevant and they were reported by Dr. Roger C. Steininger, CPG an independent qualified person (QP) under 43-101, in the above report. Dr. Steininger is responsible for the technical aspects of these historical resources and all other information excluding resources in the Aug 5, 2008 43-101 Technical Report on Resources.

# Feasibility Study Results



**High-grade  
mine with a 16  
year life**

232.5 million tonnes of Reserves

Grading 0.081% Mo  
(First five years averages 0.101% Mo)

374 million pounds of Molybdenum  
(23.4 million pounds/yr)  
(First five years average 29.6 m lb/yr)

Strip Ratio of 0.77:1

Averaging 40,000 tpd

Metallurgical Recovery average 89.9%

# Feasibility Study Financial Results



**Positive  
Economics at  
an average  
LOM moly  
price of  
\$16.76/lb**

Capital Costs of US\$795 million (CND\$837 million)

Operating Costs (Mine Site) of US\$4.76/lb of payable Mo – Total Cost of US\$5.47/lb

After tax NPV (8%) = US\$794 million

IRR of 26.8%

After tax net cash flow of US \$2 billion

Pay back in 2.6 years

300 direct jobs during operations  
Up to 700 jobs during 2 year construction

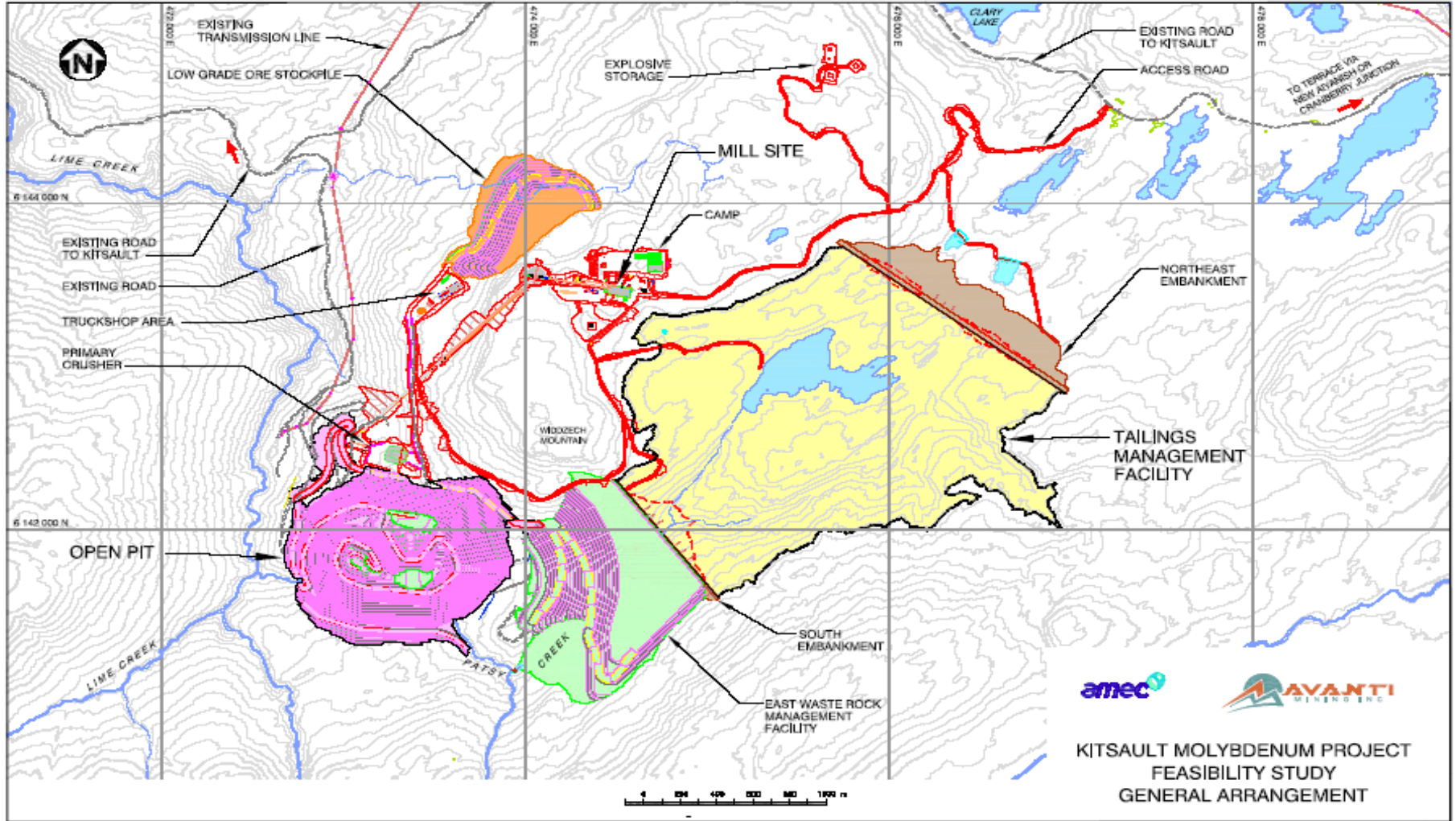
# Current Contractors / Consultants



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Debt Advisor/ Arranger	Lenders Independent Engineer	TSF Design Site Water Balance	Reclamation ARD Assessment Pit Geotechnical	Strategic Planning First Nations Consultation
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# Site Arrangement



KITSALT MOLYBDENUM PROJECT  
FEASIBILITY STUDY  
GENERAL ARRANGEMENT

# FS Improvements to PFS



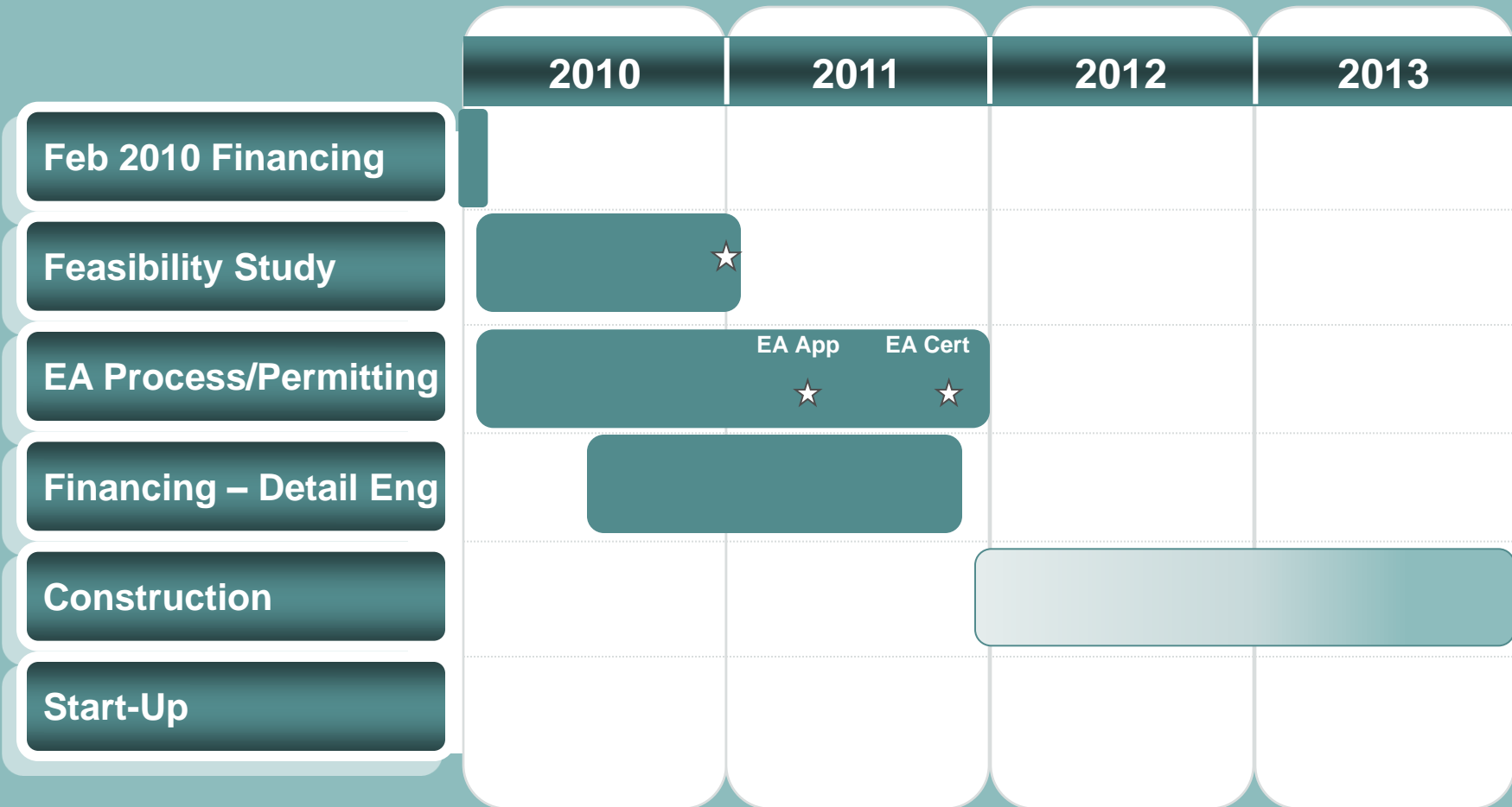
- Reduction in overall capital cost (initial + sustaining) from US\$ 1.08 billion in PFS to US\$873 million in FS
- Lower concentrate roasting costs over mine life – MolyMet LOM contract
- 2010 CPM Mo market study improves revenues from 2009 study used in the PFS
- Net improvement of \$240 million in NPV(8%) to US\$794 million
- Post FS potential bi-product revenue from silver – may achieve 35% with target of 50% through additional test work during 2011

# POST FEASIBILITY STUDY UPSIDE



- Silver bi-product revenue - test work completion 2011
- Kitsault deposit :
  - Potential resource extension - Drilling planned in 2011
  - Convert inferred material - Long term
- Roundy Creek
  - Historical high grade resource
  - 2010 drilling very encouraging
  - 2011 planned additional drilling for upgrading to 43-101 level resource
- Bell Moly
  - Historical medium grade resource
  - In 2010 recovered old core and re-sampled 20% of core during year
  - Average grade at 0.05% Mo is similar to Endako Mine.
  - Drilling planned for 2016 with additional environmental work required because Clary Creek is fish bearing

# Estimated Project Timeline



# Kitsault Financing



- Require \$800 million total funding
- Debt target 70% or \$560 million-West LB arranger from :
  - Asian development banks
  - Export Credit Agencies
  - Equipment lease finance
  - Project finance
- Equity target 30% or \$240 million. Sourced from:
  - Strategic partner- SeAH 20% - PP in Dec 2010, LOI imminent
  - Another Asian Steel maker – 10% - LOI signed
  - Two other interested parties
  - Structure is LP at Kitsault level
  - Public equity if necessary

# Development Project Comparison



## Estimate of Long Term Molybdenum Prices for Select Primary Development Projects

Project	Cash Cost (net by-product credits) (US\$/lb Mo)	Initial Capital Cost (M US\$)	Mine life (Years)	Annual Mo Production (M lbs.)	Long-term Mo price needed for 15% IRR (US\$/lb)
Climax	3.50	700.0	20 <sup>1</sup>	30.0	7.23
El Creston <sup>2</sup>	4.12	655.9	13	23.9	9.03
Merlin	3.16	212.5 <sup>3</sup>	9	11.7	6.97
Mineral Park	8.08	~211.5	25	10.3	11.26
Mount Hope	5.23	1,039.0	44	29.5 <sup>4</sup>	10.52
Kitsault <sup>5</sup>	4.76	770.0	16	23.4	10.26
Ruby Creek	9.75	548.5	21	10.0	18.43
Spinifex	8.30	559.6	24	10.8	16.35

<sup>1</sup> No public data available, based on CPM Group assumptions.

<sup>2</sup> Based off of the December 2010 El Creston Preliminary Economic Assessment.

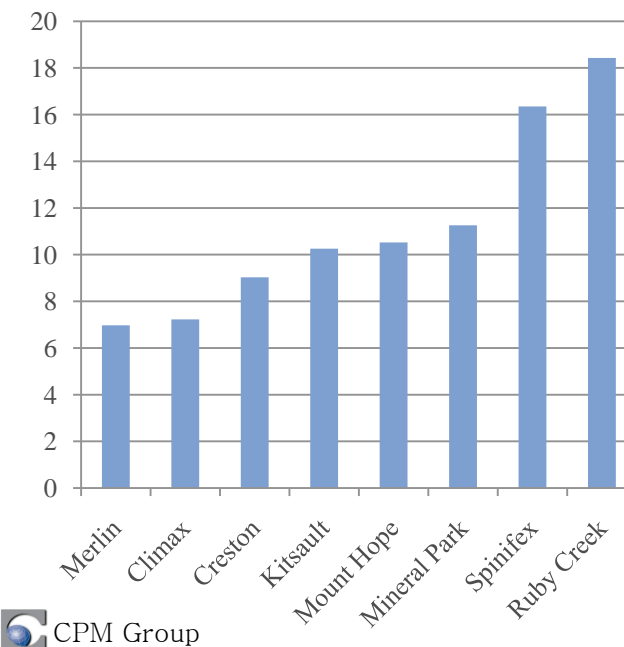
<sup>3</sup> Includes company's estimated initial capital cost reduction from the acquisition of the Osborne complex.

<sup>4</sup> Based on reserves and open pitting operations reported in the 2007 Mt Hope feasibility study.

<sup>5</sup> Based off of the December 2010 Kitsault Feasibility Study.

Source: MEG, company documents and CPM Group

Long-term Mo price needed for 15% IRR (US\$/lb)



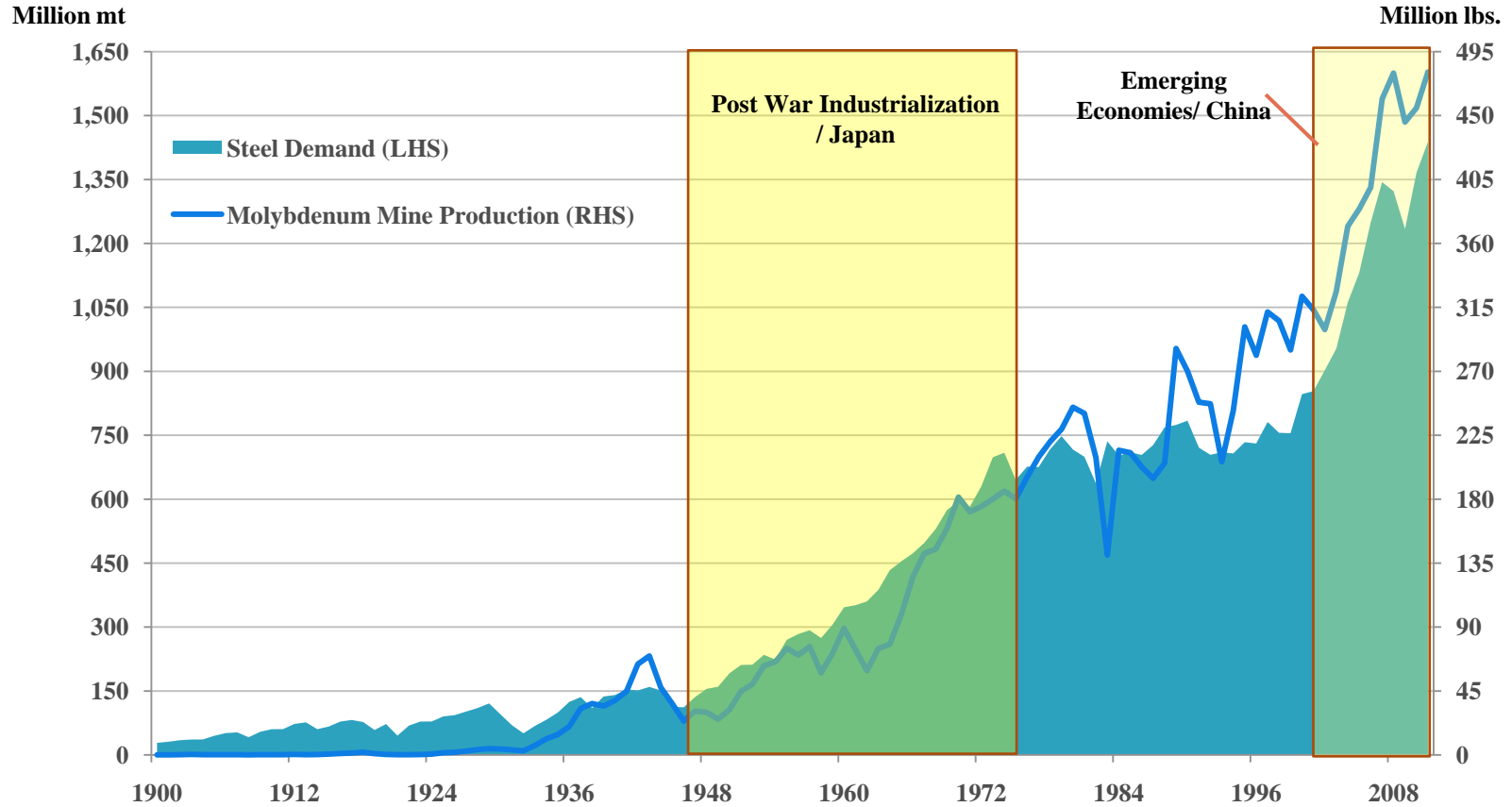
 CPM Group

# Moly and Steel Consumption



## Apparent Steel Consumption and Molybdenum Mine Production

1900 - 2011p



# Moly Market Supply

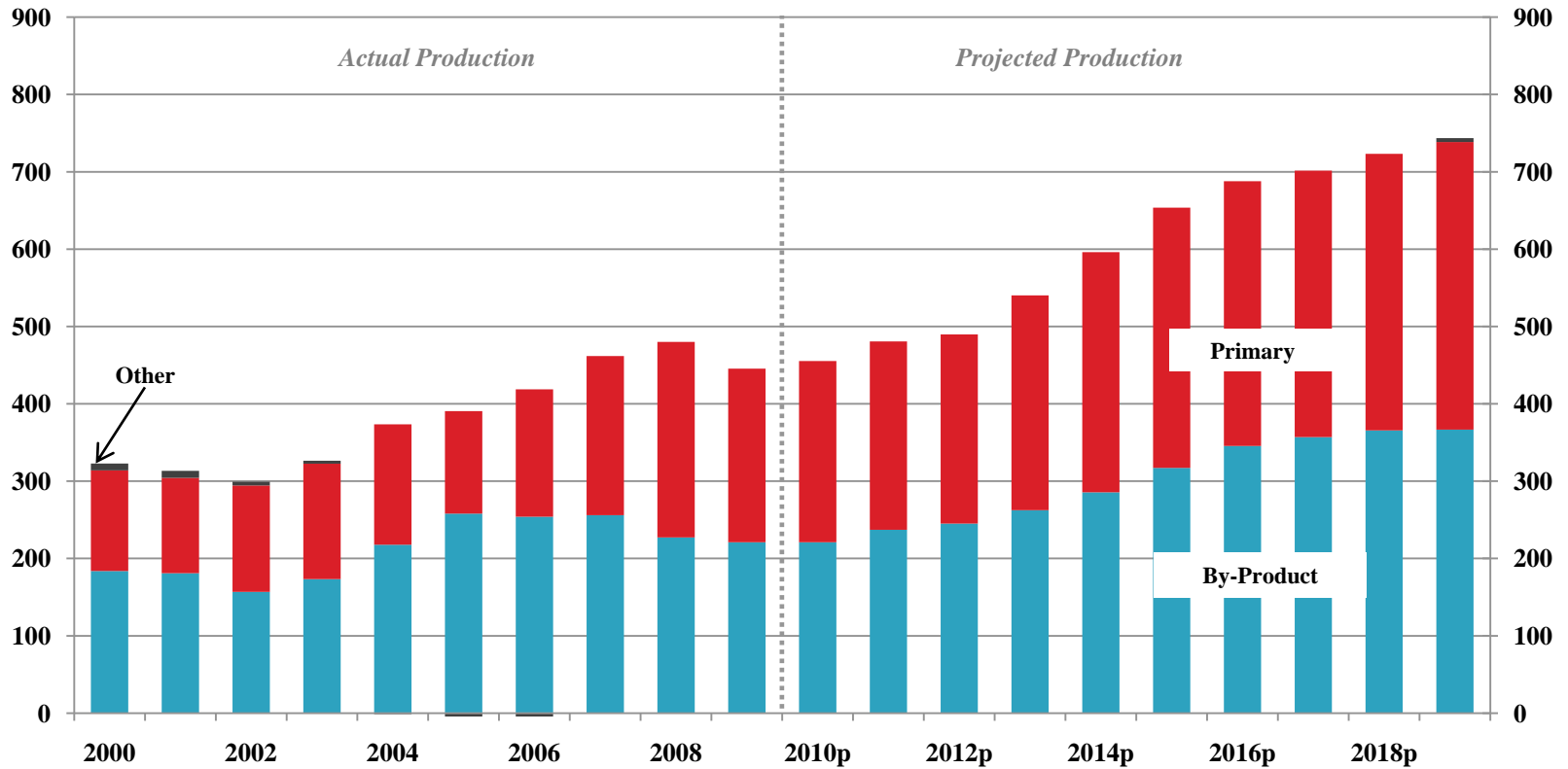


## Mine Production of Molybdenum

Annual, Projected through 2019p

Million Lbs.

Million Lbs.



# Moly Market Supply-Demand

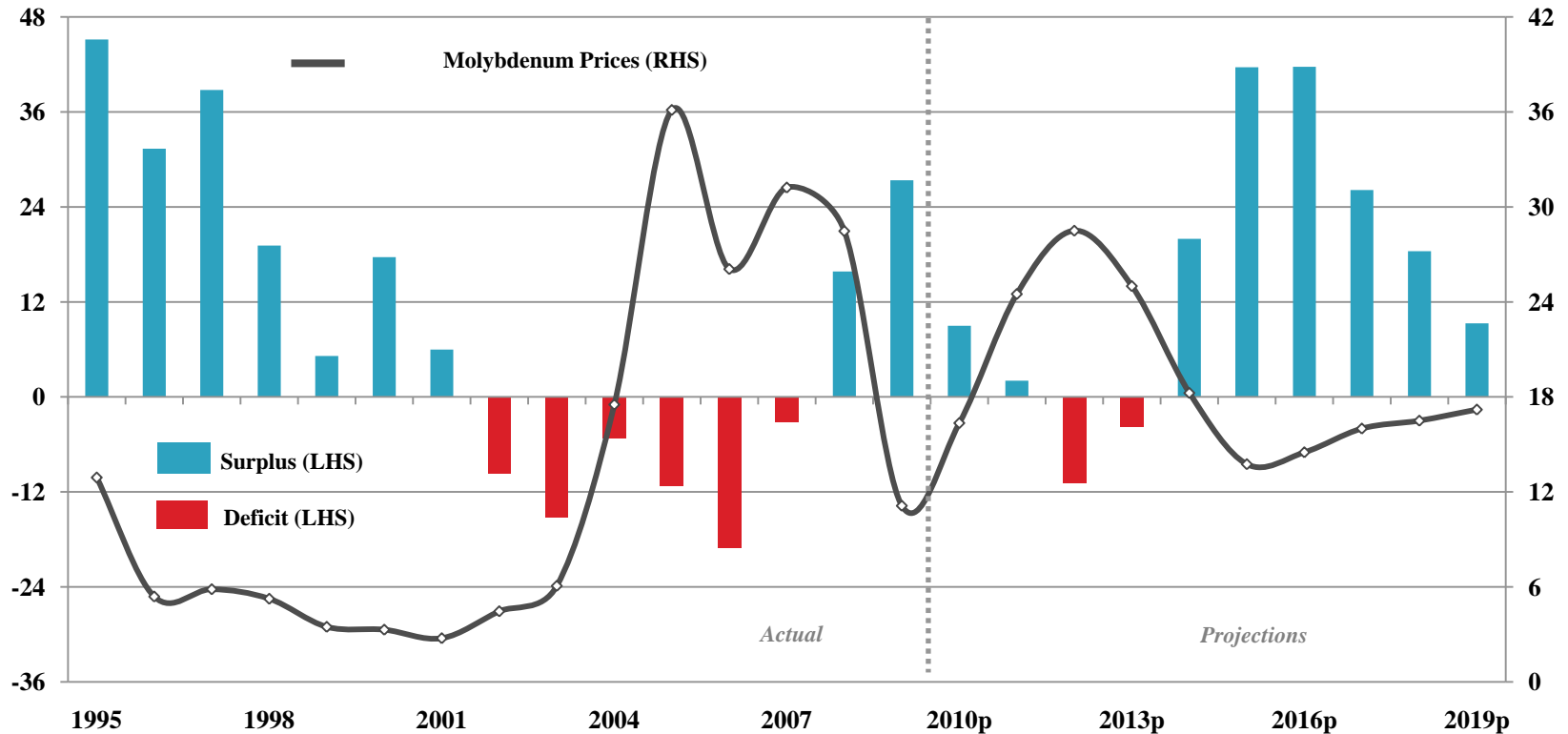


Base Case: Real Molybdenum Prices and World Supply and Demand Balance

Annual, Projected through 2019p

Million Pounds

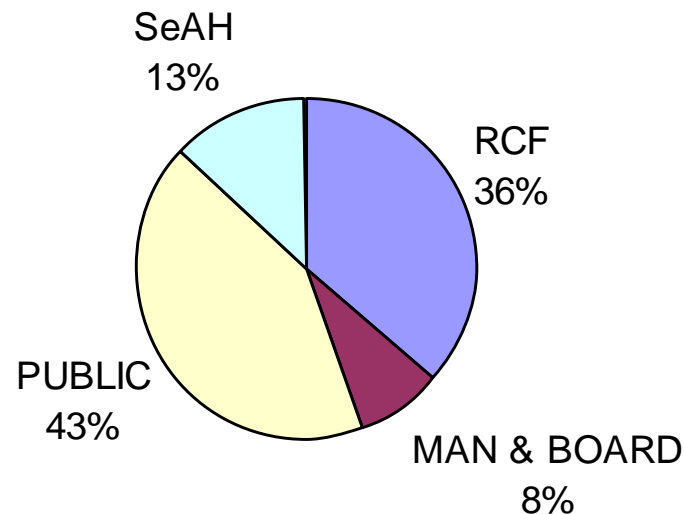
US\$/Lb.



# Company Capital Structure



- Listed on TSX-V: “AVT”
- 416.8 million shares outstanding
- 518 million fully diluted (excluding convert)
  - 14.5 million options at C\$0.10 to C\$0.56
  - 86.7 million warrants at C\$0.20 to C\$0.30
- US \$5 million convertible debenture
  - converts into units (1 share + ½ warrant) at C\$0.20
  - warrant strike price C\$0.27
  - payable any time but matures on June 15, 2012
- US\$ 18.0 million Cash on hand at Dec 31, 2010



# Conclusion



- High-quality, world class deposit that can be quickly developed
- Catching up to major projects that have been curtailed
- Robust economics
- Well known mining jurisdiction
- Advanced discussions with local communities
- Proven management and board of directors

# BUILDING A MOLY PRODUCER

[www.avantimining.com](http://www.avantimining.com)

TSX-V: AVT

