

# HALLGARTEN + COMPANY

## Initiation of Coverage

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## Almonty Industries

(TSX: AII | ASX: AII | OTCQX: ALMTF | FSE: ALI)

Strategy: LONG

### Key Metrics

Price (CAD)	\$2.33
(AUD)	\$2.40
12-Month Target Price (CAD)	\$3.82
Upside to Target	64%
12mth high-low (CAD)	\$0.62 to \$2.61
Market Cap (CAD mn)	\$649.79
<b>Shares Outstanding (mns)</b>	278.9
<b>Fully diluted</b>	352.0

# Almonty Industries

## Well Ahead of the Tungsten Pack

- + Almonty shall shortly be the largest Tungsten producer outside China when its Sangdong mine in Korea starts up
- + Almonty is also the largest producer of Tungsten in Portugal, will likely be opening its Los Santos mine in Spain, regaining the lead as largest Tungsten producer in Europe, and then it has a further project, Valtreixal, in Spain to advance
- + Tungsten's essential uses in industrial and military applications is driving the resurgence of interest, particularly from Western governments
- + Almonty has been the main vehicle for rebalancing Tungsten production away from China over the last 15 years
- + The long slack period in prices since 2014 ravaged the listed players and reduced exploration to almost nil leaving Almonty with a clear advantage over wannabes
- + The Tungsten price has the potential to move above \$400 per MTU of APT over the next twelve months
- + Sangdong also has the potential to launch the company into the Molybdenum space and Valtreixal should position it as one of Europe's few Tin producers
- + Redomiciling to the US puts Almonty firmly on the radar of the Pentagon
- × The Tungsten (APT) price at ~US\$355 per MTU has not moved dramatically in response to Chinese restrictions on dual-use W exports to the US
- × The Chinese export ban (and associated sabre-rattling) failed to achieve the desired panic due to rising non-Chinese production
- × China still has the firepower to cause damage by predatory actions (e.g. on price) to the downside

### The Champion of the Tungsten Fightback

We have covered this company for over ten years now. Almonty's survival and expansion, through the dire years of low Tungsten pricing, was initially encouraged by European machine tool makers prepared to pay over the "market" price for APT to ensure that Almonty survived and prospered as an alternative to the inevitable Chinese near-monopoly if it had gone under.

As a result of this early sponsorship and a series of astute buys, Almonty is now by far the leading non-

Chinese producer and looks set to extend that lead when its “new” mine, Sangdong, in Korea gets into its stride. Almonty’s management claims that this mine has the potential to produce 50% of the world’s Tungsten supply (ex-China output).

A key differentiator between Almonty and some of the other players is that Almonty has not pursued a vertical integration strategy. At least not thus far.

In this Initiation of Coverage, we shall review the projects that Almonty is advancing and where it is on the continuum towards production at this point.

### **Tungsten Returns to its Place in the Sun**

Long known for its role in lighting filaments, drill bits and cutting and machining tools, the military side of Tungsten’s usage has been seldom trumpeted... that is, until now.

If we had to choose a metal to crown as the military metal *par excellence* it would undoubtedly be Tungsten for its usage in shells and in armour-plating to resist said shells. Tungsten’s essential industrial and military place has been well known since the 1940’s. During WW2, Sweden, Canada and Iberia were important producers of the critical military metal.

### **Loosening China’s Grip on Tungsten**

Tungsten, in theory, should be a bellwether of industrial activity, more than virtually any other metal, as it is directly levered into machine-tool manufacturing as the swing factor in its demand (the relatively non-variable part being lighting uses). However, the “spoiler” here is China which has long distorted the Tungsten market, much as it has distorted the pricing mechanisms in so many other metals.

Now we have a situation where military and industrial demand is recovering making it harder for China to maintain low prices (to maintain its dominance). Moreover, China’s attempts to overrun the machine tool sector through its Tungsten dominance put Western manufacturers of this equipment on notice that they need guaranteed non-Chinese supplies to evade predatory Chinese manoeuvres. New protection measures such as tariffs and import restrictions by the U.S. should help protect domestic production.

Paradoxically, aggressive Chinese waving of the “big stick” of export controls shall probably backfire in heightening Western awareness that it needs to proactively counteract these malign actions.

### **Tungsten Producers – The Dead & Walking Wounded**

By the time the APT price started to turn upwards in 2019, there were only a few survivors of the Tungsten slump that had ravaged the subsector since the start of the decade. Now, Tungsten has been highlighted by the EU, Canada and the USA as a strategic mineral. Tungsten’s status as the prime military metal has prompted sharply renewed interest in restocking supplies and reestablishing non-Chinese supply-lines in this critical metal for Western defense and industry.

Post-2011, the slumping price of Tungsten wrought destruction upon both the explorers AND the producers (with two major Western producers going under). The explorers disappeared or changed exploration focus. Meanwhile, consolidators like Almonty Industries and EQR snapped up failing producers as part of its global roll-up strategy and a few determined explorers made the sacrifices necessary to remain in business.

### **The Battle for the Machine Tool Market**

Western machine tool makers are particularly vulnerable to supply disruptions as it is up against China, making a major push into the tool space and thus we might tactfully say that it would be to the benefit of Chinese toolmakers to have foreign competitors experience supply problems from the Chinese Tungsten mines. If any investors doubt that that might happen then they would be naive indeed.

As the (potential) prime victims for a Chinese grab at the machine tools, drills and general tools market the Germans and the Swedes had a vested interest in seeing the Chinese kept from global domination of Tungsten mining. The Western end-users in the tool space, breaking with orthodoxy, decided to pay more for “secure” Tungsten supplies than the “market” price which the Chinese set.

This was accompanied by specified targeted support for up-and-coming players like Wolf Minerals and Almonty Industries. The support also manifested itself with Wolfram Bergbau backing King Island Scheelite and Chronimet backing Mt Carbine.

The strategy had its shortcomings with Wolf (sometime owner of the ill-starred Hemerdon) and King Island Scheelite going under (as did some other players like Ormonde). Mt Carbine (now embedded in EQ Resources) has turned out to be a very long-fuse transaction.

Through close cooperation with the upcoming producers and consolidators, the end-users managed to dodge the Chinese bullet and not at a particularly high price to themselves. This shows that a symbiotic relationship can be developed between miners and users. Not that we ever doubted that...

It is also an interesting to contrast the European approach to the way in which the Japanese and Korean industrial sectors just rolled over and played dead in the face of Chinese onslaughts on their strategic industries. One can note though that some effort was made to try and “pick winners” such as Korea Zinc with Woulfe Mining and Sojitz acquiring Panasqueira, but both of those efforts ended in tears. All indications are though that Koreans are warming to the potential of once again having their own vertically integrated Tungsten industry.

### **The Back Story at Almonty**

Usually, we leave discussion of the management to the end of the note and there is indeed the usual elaboration near the end of this review. The team currently running Almonty has “form”, as they say in

the racing world. Prior to getting Almonty off the ground, early last decade, they had done the whole thing before with a company called Primary Metals. That TSX-V listed entity had acquired the Panasqueira mine in Portugal, from Avocet Minerals at a time Avocet was in retreat from a number of its activities.

The Panasqueira Tungsten mine produced high-quality wolframite concentrates containing quantities of Tungsten Trioxide per annum that made it one of the major producers of high-grade Tungsten concentrates outside China.

Primary Metals was taken over in 2007 by Sojitz Corporation, one of Japan's leading trading companies, for US\$54mn and thus disappeared from the public eye, and access for investors wanting a pure play. The principals hunted around for a new opportunity to re-enter the Tungsten producing space and found it in the form of the Los Santos mine.



### **Los Santos**

Almonty originally was synonymous with the Los Santos open-pit mine, which is located approximately 50 kilometres from Salamanca in western Spain. The Los Santos Project was acquired by Almonty in September 2011 from ASX-listed Heemskirk Consolidated (HSM.ax). The mine was originally opened in

2008, commissioned in July 2010, and represented the QT for the listing of Almonty on the TSX-V.

The Los Santos mine (which we visited and [wrote up](#) in 2015) came to the end of its (open pit) mine-life recently. Potential exists for underground expansion and tailings reprocessing at the site. Ergo, the processing facilities are being kept on Care & Maintenance.

### **Panasqueira**

In the run-up to the opening of Sangdong, Almonty's main operation has been the aforementioned Panasqueira mine in Portugal since Los Santos was shuttered.

As mentioned earlier, Panasqueira is on its second go-around with the current management team, having been bought and sold once before in a different vehicle, Primary Metals. That TSX-V listed entity had acquired the Panasqueira mine in Portugal, from Avocet Minerals at a time Avocet was in retreat from a number of its activities.

Primary Metals was taken over in 2007 by Sojitz Corporation, one of Japan's leading trading companies, then, in January of 2016, the opportunity arose to acquire the mine again for Almonty from Sojitz.

### **Sangdong**

The Almonty Korea Tungsten deposit (aka the Sangdong Mine) hosts one of the largest Tungsten resources in the world. However, before Almonty there was Woulfe Mining Corp. which had, in 2006, secured title of the property which was historically the largest tungsten producer in South Korea. Those with long memories will remember our coverage of that entity.

Almonty picked up the mine via a takeover, in 2015, of the smoking corporate ruins of the over-extended Woulfe. Since then, it has been on a path to reactivation of the storied mine, but that process was stymied (as it was for so many others) by the lingering torpid pricing in the Tungsten market.

The pace of construction/development has picked up since Tungsten's turn for the better two years ago. The return to production is imminent (expected in 1H25). The Sandong operation, when it gets going, might account for 5% of global production and fully 31% of ex-China output.

### **Valtreixal**

The Valtreixal Sn-WO<sub>3</sub> project is located in the northwestern Spanish province of Galicia, approximately 250km from the Los Santos mine. It is quite common that tin occurs alongside Tungsten in Spanish Tungsten deposits.

This property came into Almonty's hands in March 2013 when it entered into an option agreement to acquire a 51% interest in, and be the project operator, for total consideration of Euros 1.4 million. Almonty had the option to acquire the remaining 49% interest in the project for an additional Euros 2 million at the end of the 24-month period, which was exercised.

The company is keeping its powder dry thus far on the greenfield Valtreixal mine/project which is relatively near to Los Santos, thus offering synergies.

### Other Comings & Goings

Over Almonty's life it has shown itself to be opportunistic. At one point it held the Wolfram Camp asset in the Australian state of Queensland. The Wolfram Camp Mine was a tungsten and molybdenum mine in Queensland, Australia that was acquired by Almonty Industries in 2014. Almonty placed the mine into voluntary liquidation in 2018 after deciding to stop refurbishing the mill in the poor Tungsten pricing scenario reigning then. The asset is being pursued by EQ Resources, that has another facility nearby.

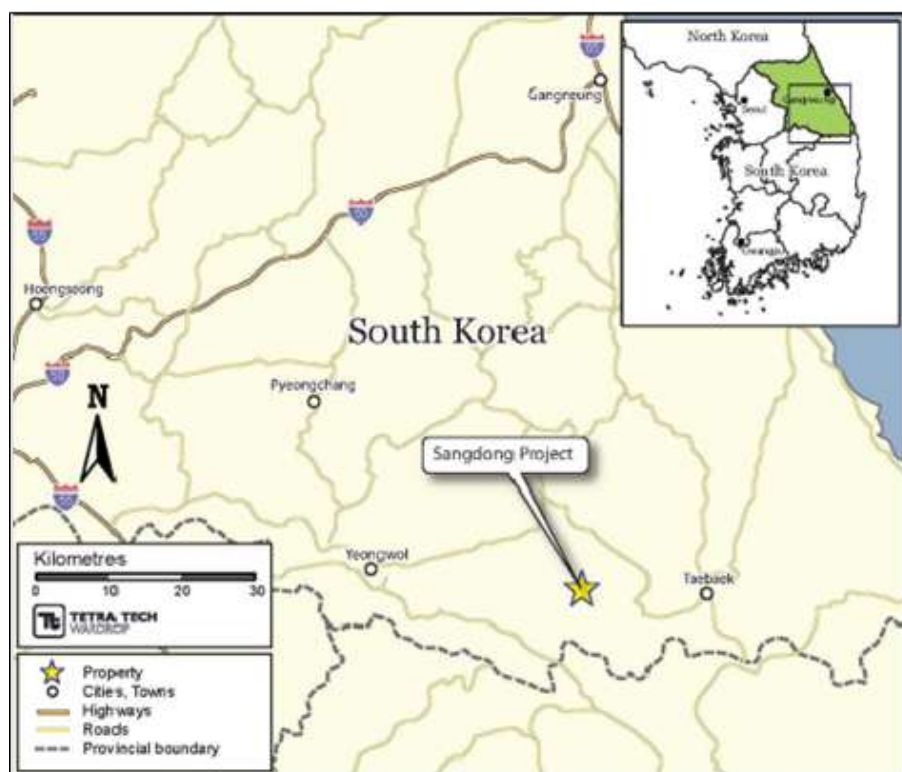
Then in August 2013 Almonty made overtures towards the London-listed Ormonde Mining plc with a view to securing the Barruecopardo mine. While being in close proximity to the Los Santos mine there were logistical attractions, Almonty ultimately desisted, citing inadequacies in the access to information to enable it to make a fully-informed decision before launching a formal offer. It indeed looked like Almonty dodged a bullet as Ormonde ultimately came to grief with the mine passing to a PE-entity, Saloro, and then to EQ Resources.

### The Sangdong Tungsten-Molybdenum Project

Arguably Almonty's principal asset is the 100%-owned Sangdong Tungsten/Molybdenum project located in South Korea, even though it is on the cusp of production while Panasqueira remains the leading producing asset for the moment.

The Sangdong mine is located 187km southeast of Seoul. The property is comprised of 12 Mining Rights with an aggregate area of 3,173 hectares.

The Almonty Korea Tungsten deposit (aka the Sangdong Mine) hosts one of the largest Tungsten resources in the world.



## History

Tungsten mineralisation was discovered on the 1916, during the Japanese control period with mining taking place at two locations for several years but then ceased. Operations at both locations recommenced in 1933 and the main Sangdong deposit was discovered during the period 1939 to 1940. The Sangdong Mine was operated during World War II by Sorim Resources Co.

After the Second World War, and the ousting of the Japanese, the mine was worked from 1946 to 1949, under the jurisdiction of the United States military government office.

In 1949 the Korean Tungsten Mining Company, a government agency, assumed control and operated the mine until 1951. In 1952, the Korean Tungsten Mining Company changed its name to Korea Tungsten Mining Co. Ltd. (KTMC) and resumed mining, producing Tungsten and scheelite, Bismuth, and Molybdenum concentrates.

The mine operated until 1992, with annual rates of production of up to 600,000 tonnes per annum of ore, mainly from the six-meter thick Main Vein. By the time of closure, the mine had been developed on 20 levels, between the elevations of 242 and 755masl, with a cumulative length of 20km of workings in addition to six inclines totalling 3.8 km, a ventilation incline and a 450m vertical shaft (Lee, 2001). The mine had tracked haulage ways.

Historical mining employed underground room and pillar methods and concentrated on four main Tungsten horizons: the Upper (H1), Main (M1), Lower II (F2), and Lower III (F3) listed in stratigraphic order. Mining occurred mostly on the M1 horizon, with lesser operations on H1, and only very minor workings on F2 and F3. The mine was the leading global Tungsten producer for more than 40 years.

At one point it contributed more than 50% of the country's export revenue. However, as with almost all other metallic mines in South Korea, it closed in the 1990's primarily due to low commodity prices (special thanks to China... again), and rising wage costs at a time when South Korea was emerging as a manufacturing powerhouse with companies such as Hyundai, LG, Samsung and POSCO on the rise.

The mining industry was relegated to an insignificant corner of the economy, now contributing less than 0.5% of the GNP. In fact, in recent years, there appears to be a widespread perception in South Korea that the former mines were fully exploited, never to be re-opened. The former owner of the Almonty Korea Tungsten mine, Korea Tungsten Co., evolved into Korea's largest manufacturer of Tungsten cutting tools and hard metal tools with the only integrated Tungsten production plant in the world, known as TaeguTec Ltd (owned by Berkshire Hathaway).

## The Woulfe Period

In late 2006, an entity called Oriental Minerals Inc. entered into an agreement with Se Woo Mining Co. Ltd., a private Korean company based in Seoul, Republic of Korea, to earn up to 100% interest in 23 Mining Rights with a total area of 5,924ha (59.24 km<sup>2</sup>). Ownership of the 23 mining rights were transferred to a Korean subsidiary of Oriental upon closing of Sangdong Purchase Agreement and



acceptance by the TSX-V in January of 2007.

In February of 2010, Oriental Minerals Inc. changed its name to Woulfe Mining Corp. and was under the management of Australian-based former South Africans, which might be called the Wesson interests.

Subsequently the project area was reduced to 12 mining rights with an aggregate area of 3,173ha.

### **The Deal**

In late January of 2015 it was announced that Almonty had entered into an agreement with Woulfe Mining to merge the businesses of the two companies. Those with longer memories will recall we have covered Woulfe several times in the past, with fluctuating sentiments towards management, but never wavering in our interest in the asset itself.

The first approach was a non-binding letter of intent in early 2015 to combine the businesses of the two companies and create what Almonty claimed, at the time, to be the leading Tungsten company outside of China. Almonty terminated those talks. Woulfe then became the subject of a management realignment precipitated by the Dundee Resources asset management group of Ned Goodman, that removed the entrenched Wesson interests. Almonty then returned in mid-2015, with an agreement with Dundee in hand to merge the two groups.

Almonty acquired all of the outstanding common shares of Woulfe at a price of CAD\$0.08 per share with each Woulfe share being exchanged for a fraction of an Almonty common share. This placed a value of ~CAD\$28mn on Woulfe. Upon completion of the merger, Woulfe shareholders owned ~43% of the merged entity.

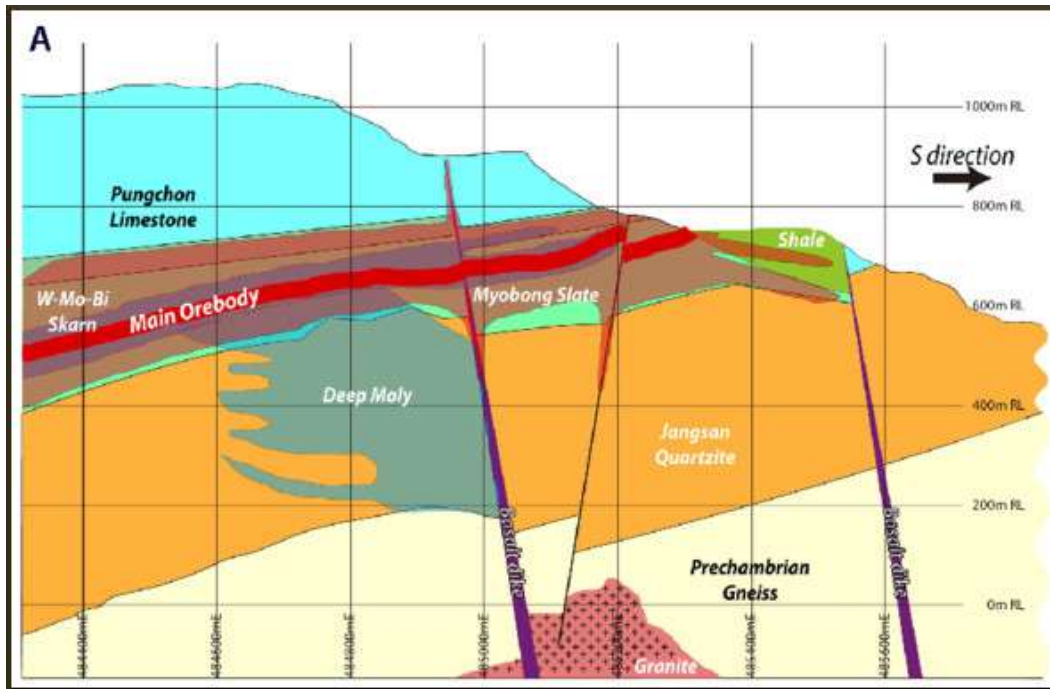
This represented a very generous deal for the shareholders of the beaten-down Woulfe. Most prominent amongst these was the Dundee group.

The Israeli company, International Metalworking Companies B.V. (part of Berkshire Hathaway), had entered into strategic agreements with Woulfe to bring IMC's manufacturing skills to bear on any future development of Sangdong into the value-added mid- and downstream. It was said that IMC at one time held a right to purchase a 25%-ownership interest in Sangdong for US\$35mn, which they later chose not to exercise.

### **Geology**

The project is situated on the southern limb of the east-west orientated Hambaek Syncline. Cambro-Ordovician limestone, shale, and quartzite of the Chosun System unconformably overlie the Pre-Cambrian Taebaeksan schist and gneiss.

The Tungsten mineralisation at Sangdong is contained in several tabular, bedding conformable skarns in the Myobong Shale; these skarns have been interpreted as comprising carbonate-bearing horizons that were altered and mineralised by fluids ascending from the underlying Sangdong Granite.



From uppermost to lowermost, these horizons are termed the Hangingwall, Main, and Footwall horizons with calc-silicate layers developed on the upper and lower contacts of the Main and Footwall horizons.

The Hangingwall horizon is located near the upper contact of the Myobong shale and varies in thickness from approximately 5m to 73m because of the irregular boundary of the shale with the overlying Pungchon Limestone. This zone has a strike length of about 1300m and a down-dip extent of about 1430m. Above the most highly-altered portion of the Main horizon, the Hangingwall horizon is not tabular, but extends steeply and irregularly into the overlying limestone. The base of the Hangingwall horizon is approximately 14m above the upper contact of the Main horizon.

The Main horizon strikes about 100° and dips northerly between 15° and 30°. The strike length is in excess of 1,300m and thickness varies from 5-6m. Alteration (skarnification) within the Main horizon forms three concentric, roughly circular zones.

The Footwall horizons comprise multiple layers: Footwall Zone 1 (F1) normally occurs 1m below the Main horizon and is approximately 2m thick; Footwall Zones 2 and 3 (F2, F3) are situated approximately 35 to 40m below the Main horizon and are less than 1m thick. Further Footwall Zones have been identified beyond F3 and are collectively referred to as F4.

### Studies

A scoping study prepared by Woulfe Mining indicated that the property had over 40 years of mine life remaining. Substantial underground infrastructure was in place and Woulfe reopened the mine to a distance of 1.4 km. The above-ground infrastructure included access to roads, water and power.

As mentioned earlier, Woulfe commissioned a de-risking review from AMC on the Feasibility Study prepared by Tetrattech in 2012 on the Sangdong project.

As for the project economics, AMC estimated:

- Average annual revenue  $WO_3$  concentrate of US\$62.1mn
- Earnings Before Sustaining Capital - Annual Average of US\$31.8mn
- Pre-tax IRR of 26%
- Project Total NPV @ 5% discount rate of US\$156mn

### **The By-Product Components**

Drilling conducted by KORES in 1980-1987 discovered a deep Molybdenum deposit below the remaining tungsten skarn resources. The Molybdenum content in the Sangdong Tungsten structures (as distinct from the deep Moly zone) ranges from 0.04% to 0.06%  $MoS_2$  and an additional zone of Molybdenum mineralization, as outlined by historical drilling, lies below the Sangdong mineralized zones. This extra opportunity is discussed in more detail in Appendix III.

There is also Bismuth (a metal currently subject to Chinese export bans) in the main Tungsten skarn structures. There is also gold, silver and quartzite in the deposit. The historical Gold production was around 25 kg of Au per year, though in some years it was more. In the mine's previous heyday up to 8% of revenues were generated by such by-product streams.

These other potential product streams are not accounted for in the company's economic models.

The mine development waste is never totally barren as there are multiple smaller discontinuous Tungsten skarns and irregular quartz veins that add to the rock an amount of Tungsten (and molybdenum) that sometimes is substantial. The content in wolframite is notorious in many veins and especially visible when the host rock is quartzite. The visual estimation for the mine development waste is almost without exceptions above 0.05%  $WO_3$  and very probably around 0.1%  $WO_3$ . This mineralization is by rule from coarse to very coarse scheelite and there are plans to do ore-sorting tests as the potential is obvious. This future eventual ore-sorting circuit would require a crushing screening circuit that would also produce screened aggregates with commercial value.

Recent visual evaluation with mineralight to the historical waste dumps exposed interesting Tungsten values that will be investigated in the future. The historical cut-off was 1%, meaning that all that was below that grade was discarded to the old waste dumps.

### **The Resource**

There have been various resource estimates on this deposit since Woulfe's initial listing in Canada. After the Dundee interests ousted the management group it went through the usual "blame the outgoing management" routine and determined: "after a detailed review during the calendar year 2013 that it

was urgent and necessary to reassess and de-risk the 2012 TetraTech Feasibility Study of the Sangdong Project". The company then commissioned AMC Consultants Pty Ltd. of Melbourne in August 2014 to undertake a Mineral Resource Update. The company commissioned Adam Wheeler in 2016 to undertake a resource/reserve revision.

The following table, extracted from the Wheeler report, shows the Mineral Resource and metal content for the Sangdong Property as of 31 July 2016 at various cut-off grades of WO<sub>3</sub>.

<b>Sangdong Resource</b>						
<b>WO3 Cut-off</b>	<b>Category</b>	<b>Tonnes Ore</b>	<b>WO3 %</b>	<b>MoS2 %</b>	<b>Contained WO3</b>	<b>Contained MoS2</b>
0.15%	Indicated	8,029,000	0.51	0.06	40,948	4,817
	Inferred	50,686,000	0.43	0.05	217,950	25,343
0.20%	Indicated	7,864,000	0.51	0.06	40,106	4,718
	Inferred	47,630,000	0.44	0.05	209,572	23,815
0.30%	Indicated	7,316,000	0.53	0.06	38,775	4,390
	Inferred	36,466,000	0.50	0.06	182,330	21,880

The reserve statement as at the same date can be seen to the right showing reserves at 7.89mn tonne grading 0.45% WO<sub>3</sub>, equivalent to 37.1kt contained WO<sub>3</sub>.

#### **The Road to Production**

Sangdong is expected to be one of the largest capacity specialty metal mine projects built in recent years. It has a design capacity of nearly 3.6k tpa of contained W.

<b>Sangdong Probable Reserves</b>		
	<b>Tonnes</b>	<b>WO3%</b>
<b>HW</b>	3,759,000	0.47
<b>Main/F1</b>	1,328,000	0.34
<b>F2</b>	1,495,000	0.48
<b>F3</b>	1,249,000	0.46
<b>F4</b>	65,000	0.33
<b>Total</b>	<u>7,896,000</u>	<u>0.45</u>

The initial scoping study on the Sangdong project was completed by Wardrop in March 2010. This signalled an NPV of US\$462mn at an APT price of US\$250 per MTU. The scoping study was to an accuracy of approximately 30% and confirmed the project's economics at that lower Tungsten price. That was then followed up by the 2012 Feasibility Study to which we have already referred.

After the scoping study Woulfe's then management started moving forward aggressively with project construction plans. The crushing and grinding sections of the process plant were well advanced at the time we wrote our last major note on Woulfe in December 2012.

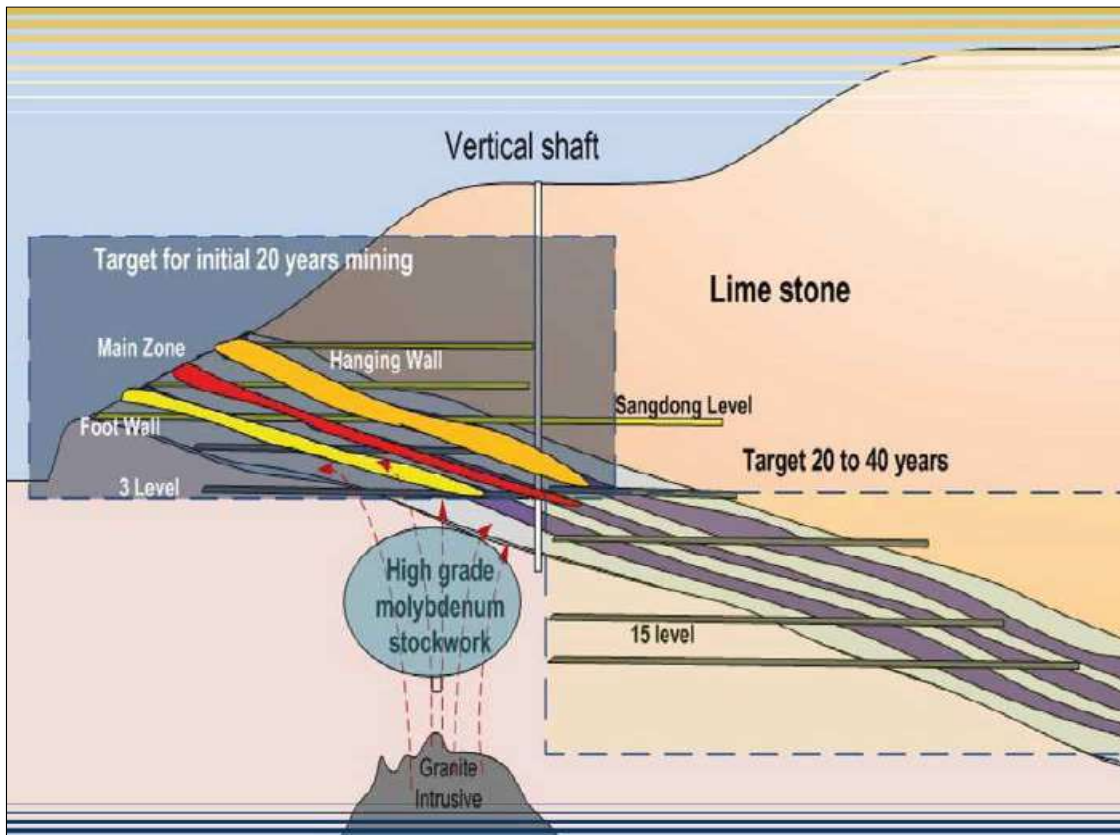


**Building D: Flotation Area**  
Scheelite rougher & Scavenger tank cell,  
Scheelite cleaner tank cell,  
Sulphide rougher tank cell

**Building C: Grinding Area**  
- Ball Mill, SAG Mill, and Classifiers

**Building B: Ore Shed**  
- Stockpile area (Ore stockpile, pebble crusher)

**Building A: Crushing Tower**  
1st Crusher; Apron feeder, Jaw crusher,  
and Cone crusher



The crusher has an initial milling capacity of 1.2 million tonnes per annum.

The flow sheet adopted was conventional, with two-stage crushing followed by rod mill grinding and flotation, and Tungsten concentrate further processed to produce APT.

A portal on the Sangdong level was excavated in Woulfe's time. In 2018 the mine development was restarted and has been carried out in a more or less constant manner since that time with the opening of a lower exploitation and haulage level in the -1 Level that is accessed through a new mine portal close to the processing plant (called Monty B Portal). This -1 level gives access to the Hangingwall ore zone, as well as the vertical shaft (ventilation, services and water supply), the mine drainage gallery (drainage and escape route) and the Main ore body. In this zone the construction of the access ramp to the upper Taebaek level has been started.

The ramp that connects the two initial mine levels (Sangdong and -1) is also a stope access ramp with stopes in the several Footwall ore zones already prepared (F2, Hallo and F3 ore structures). These preparations were undertaken in a way to allow access to the other Footwall mineralized structures (F4 and F5) that are still not in reserves but that with additional exploration drilling will, in the future included in reserves. The mine development work cut through, several times, those F4 and F5 structures

and confirmed that they have similar characteristics and grade to the other footwall structures.

The Sangdong level already contained much of the final infrastructure (namely power and telecommunications). The access to the upper levels of this zone of the mine was already started and this level's gallery also gives access to another two stope access ramps.

This level of advancement is why Almonty agreed to pay such a high price, in dilution, to get its hands on this project. While not exactly "plug-n-play" it was pretty near to being so, with a lot of the capex already having been expended at the time Dundee moved in to oust the Wesson-led management team.

### Mining

The 2012 TetraTech Feasibility Study produced mineral resource estimates at a cut-off grade of 0.15% WO<sub>3</sub> based on the bulk mining approach that the Wessons decided to pursue. However, the AMC study, used a cut-off grade of 0.4% WO<sub>3</sub> based on a more selective mining approach being considered.

Under the new scheme, the first phase of development of the Sangdong mine would be focused between Level -1 to the Taebaek Level which are three immediately reachable levels above a further 15 levels to be de-watered progressively after start-up of operations. The mine is anticipated to produce 450,000 tonnes of ore in Year 1 of production and reach the mooted 12 yr life of mine capacity of 640,000 tonnes per year, in Year 2. The reality though is that the mine-life could stretch out for decades.

The main parameters of the proposed mining operation are:

Sangdong - Metrics of the Phases			
	Phase 1	Phase 2	Phase 2 + Tungsten Oxide Plant
Expected start of production	2025	2026/2027	2026/2027
WO <sub>3</sub> production	~2,300 MTU	~4,750 MTU	Tungsten oxide will be produced from Sangdong concentrate
Recovery	85%	85%	97%
Revenue p.a. (@APT \$350/mtu)	~US\$64mn	~US\$130mn	~US\$291mn
Operating Expenses (OPEX) p.a.	~US\$27mn	~US\$53mn	~US\$204mn
Post-Tax Cash Flow p.a.	~US\$24.1mn	~US\$54.7mn	~US\$63.7mn
Initial Capex	~US\$75mn	~US\$65mn	~US\$136.5mn







## Offtakers

In March 2018, Almonty entered into a 10-year offtake agreement for Tungsten concentrates from Sangdong with US-based Global Tungsten & Powders, a shareholder of the company.

## Project Financing

In 2020, Almonty received a binding commitment letter for US\$76mn from KfW IPEX-Bank to finance the company's Sangdong mine project in South Korea.

The general terms of the binding commitment approval include a term of 6.25 years with repayments to begin in quarterly installments two years after the initial draw-down, interest rate at the three-month LIBOR plus 2.5%, and Oesterreichische Kontrollbank committing to provide an import credit scheme cover guarantee based on the previously announced 10-year offtake agreement.

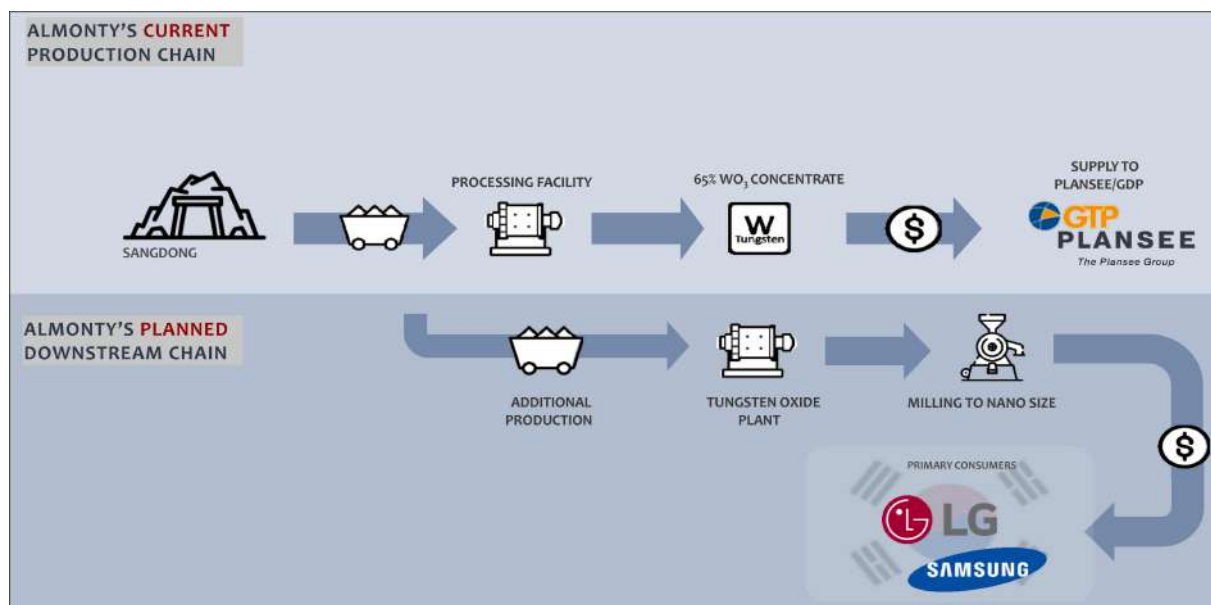
## Further Development – Phase 2 & the Tungsten Oxide Plant

The permitting for Sangdong Phase I allows for the extension of Phase II.

The metrics above include the possibility of capturing more of the downstream value-added via the construction of a Tungsten Oxide plant as part of the Phase 2 expansion. This offers an opportunity to organically expand production capacity from approximately 640k tonnes to 1.2 million tonnes within 2-3 years of initial production.

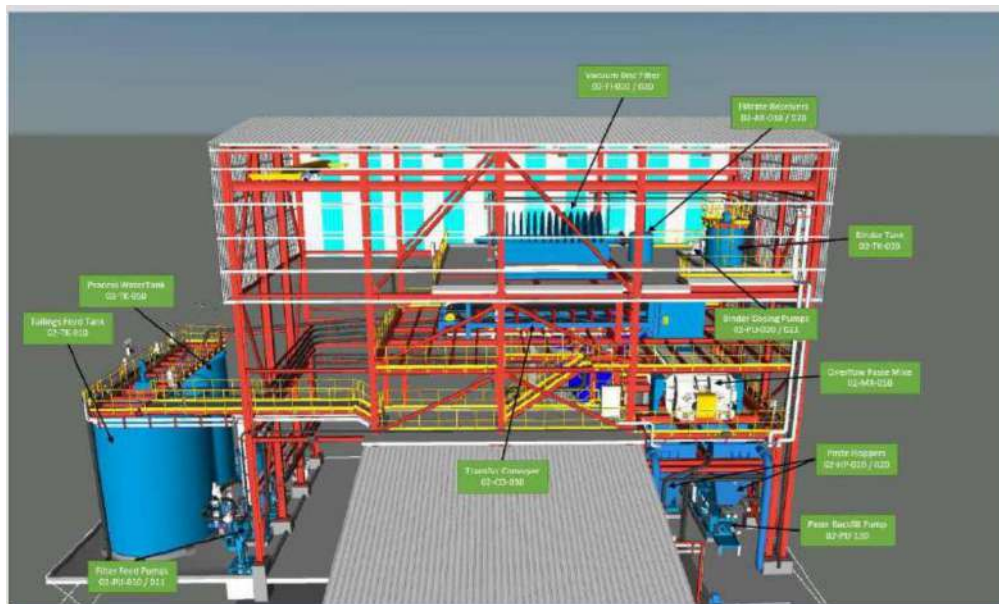
Preliminary indications are that the expansion will require limited capex (less for doubling capacity than the Phase 1 cost) which should further enhance the overall economics of the project.

The flowchart of the downstream is envisaged as:



As the expansion will integrate seamlessly into existing infrastructure and operations, risks will be significantly lowered.

The envisioned downstream would be a 4,000 tonne p.a. vertical nano tungsten oxide plant with equipment/plant sourced from Metso Outotec (Finland), Inductotherme Europe (UK) and Pfeiffer (Austria).



The rationale for expanding into the downstream is largely driven by in-country considerations, but that does not imply that export of  $WO_3$  is not foreseen.

However, the South Korean market is low-hanging fruit considering that it is the largest per capita consumer of Tungsten worldwide, yet it imports 94.7% of Tungsten used with 92.8% of its Tungsten oxide being sourced from China

- South Korea consumes ~40% of Tungsten Hexafluoride ( $WF_6$ ), which is used in semiconductor production. South Korean semiconductor market accounts for 20% of the supply, where exports rose in 2021 by 28.4%
- Semiconductors & electronics from the automotive, industrial and consumer electronics industries powered by constant digitalization of all industries and daily life
- The expanding electric vehicle (EV) market is driving advancements in battery technologies, including the development of Niobium Tungsten Oxide (NWO) batteries and upgrades to existing ones. The use of nano tungsten oxide Powder, known for its high intrinsic density, rich framework diversity, and exceptional heat resistance, contributes to increased safety features.
- South Korea ranks in the leading ten defense manufacturers and is continuing to extend its

production

As far as financing the further phases is concerned a LOI was signed with KfW IPEX-Bank in January 2022, while discussions have been held over potential debt financing of up to US\$50mn for the downstream component.

### **Panasqueira**

This mine is currently Almonty's main producing asset. It is located within the Castelo Branco district, near the Estrela Mountains (Serra da Estrela), and some 8 kms northwest of the village of Silvares.

At Panasqueira, Tungsten mining has around 136 years of uninterrupted exploitation. It has been, at varying times, one of the leading Tungsten sources in Portugal and historically has been the largest producer as it outlasted all its competitors.

At times, small amounts of tin and copper have also been extracted.

The history of this mine is closely intertwined with the Tungsten trajectory of Almonty's management group as previously related. This meant that management were well acquainted with management and personnel at the mine when it came back under their control in January 2016.



### **Geology**

The geology of the Panasqueira area is dominated by a thick sequence of pre-Ordovician metasediments to the west, cut by an equally extensive development of Hercynian granitic rocks to the east. The Panasqueira mineralisation is hosted by a series of quartz veins cutting the pre-Ordovician sediments.

These sediments comprise a sequence of slates, sandy-shale, sub-greywackes and fine grained quartzites. From the sequence observed at the mine, the sediments appeared to be evenly and finely bedded with graded bedding being the only readily recognisable sedimentary structure.

Ore mineralisation at the Panasqueira Mine is contained within a series of parallel to sub-parallel quartz veins that form a subhorizontal vein swarm. The thickness that is mineralized is immense with veins starting in Vale das Freiras, above 1000m, and extending until the deepest drills more than 800m below. This zone, along its northern margin, outcrops with an east-west strike and dips to the south at around 15°. It has an elliptical outline with known lateral dimensions of some 2000 x 1400 m in the north-south and east-west directions respectively.

The vein swarm consists of hundreds of co-planar quartz veins that are overlapping and connected laterally over large distances. Meanwhile, the sedimentary rocks in the mine area are predominantly finely laminated slates with lesser fine quartzites. Both facies are laminated on a 0.5 to 2 mm basis with rare bands up to 2 cm thick.

The economically extractable veins average 30 cm in thickness, using a 18 cm cut-off. The veins found outside of the economic zone are still mineralised but are usually too thin and sparse to extract.

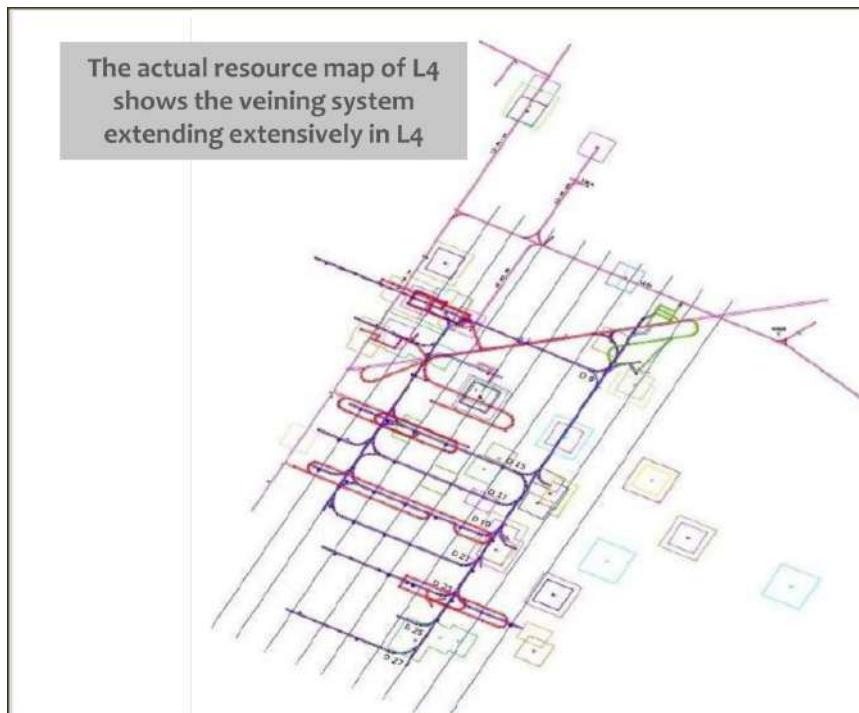
### **The Mine Operation**

Although current production levels remain steady, management has perceived that access to the so-called Level 4 (L4) zone is crucial for safeguarding against potential future declines. By strategically unlocking L4, the production team aims to enhance the overall project returns, ensuring its long-term profitability.

The focus of the company now is upon its L4 project, essentially deepening existing mining infrastructure by 120 meters and strengthening crucial elements: drainage, ventilation, and surface environmental facilities. Key observations are: A Scoping study has been completed, ready-to-be-built after completion of financing

- Existing surface infrastructure is sufficient for expansion, only underground infrastructure to be built
- Higher throughput and access to higher grade material will almost double the WO<sub>3</sub> production
- Yearly production of ~124,000 MTU WO<sub>3</sub> has been forecast, after the expansion
- L4 could extend production by more than 20 years

The new push has a low risk profile due to usage of the existing surface equipment and following the orebody to depth.



The advancement to L4 will allow access to new deeper richer virgin vein zones and the transfer of most of the production from the upper levels lower grade zones to the new richer deeper zones. While the current upper-level mining grade stands at approximately 0.13% WO<sub>3</sub>. The goal is to prioritize highest-grade stopes to achieve a 0.19% WO<sub>3</sub>, or higher, head grade. In contrast, L4 grades of around 0.20% WO<sub>3</sub> are expected to significantly boost production and economics.

The goal is to achieve the L4 extension within three years from start, without disrupting ongoing mine production.

Panasqueira - L4 Project			
	2024F	2027 F After extension	Change
ROM per annum	580,000	800,000	38%
Avg. Grade WO <sub>3</sub>	0.13%	0.19%	46%
Recovered Metal (MTU of WO <sub>3</sub> )	56,000	124,000	105%
Revenue (USD)	\$16.3mn	\$36.3mn	80%
OPEX (USD)	\$13.5mn	\$19.5mn	
OPEX as % of revenues	82.8%	53.7%	-35%
EBITDA - Margin	20%	35%	75%
Exp. CAPEX (USD)	\$35.4mn		
NPV(7.5%) (USD)	\$47.2mn		
Payback	~ 2 years		

Another aspect of the mine that interests us is that the Panasqueira Deep is rich in Tin. Additionally, the possibility of recovering several metals contained in the slime dams, especially Tungsten, Tin and Copper is currently being investigated.

### **Los Santos – The Reactivation**

Los Santos has been in planned care and maintenance since 2020. Since that time, Almonty has been undertaking studies into the re-commencement of production from Los Santos via the retreating of tailings, utilizing Almonty's flotation technology developed for the Sangdong Tungsten Mine.

It should be remembered that Los Santos was an open-pit mine and that the future is in the underground (and the aforementioned tailings).

In May of 2023 the company announced that plans were then well-advanced to reopen Los Santos mine.

Management estimated that re-opening will be effective from 3Q23 depending on the delivery times of some floatation plant items. Under normal conditions these items are readily available. The Company intends to retreat the tails to capture the more than 800,000 MTUS of W<sub>3</sub> contained within our sands and torta. The overall average grade of the tails is 0.14% and was published in our latest JORC report.

At the time management stated that it expected that earnings from reopening of the Los Santos Mine would be similar to the earnings at the Panasqueira production mine in Portugal. Capital expenditure for this reboot was expected to be ~US\$1.3mn.

### **Valtreixal**

As noted at the beginning of this review, the Valtreixal Sn-WO<sub>3</sub> project is located in the northwestern Spanish province of Galicia, approximately 250km from the Los Santos mine. The deposit had been mined (underground) for Tin in the past with some extant adits, but the future plans envision an open pit development with production of both metals.

This property came into Almonty's hands in March 2013 when it entered into an option agreement to acquire a 51% interest from SIEMCALSA and be the project operator. It later moved to 100% ownership.

A historical resource estimate (not NI43-101 compliant) for the Valtreixal property existed at the time of 8.65 million tonnes of mineralization at a grade of 0.23% Sn+W<sub>3</sub> (0.10% Sn + W<sub>3</sub> cut-off). This was prepared on the basis of the applicable mineral resource standards in Spain. This historical estimate was based on preliminary exploration work carried out by SIEMCALSA (the same parties that vended Los Santos to Heemskirk) from 2007 to date and includes the analysis of 884 samples taken from 22 trenches comprising 2,740 metres of trench work; 206 samples from 6 drill holes over 1,227 metres; and 180 samples taken from 28 galleries covering 1,072 metres. The bulk samples, comprised of 410 kg of material, were analyzed by Wardell Armstrong International Laboratories on behalf of the Spanish owners.

At the time of the acquisition Almonty commented that it had reviewed the data on which the historical estimate was based and believed that the data was relevant and could be relied upon. Almonty intended to carry out additional exploration activities on the project with a view to aggregating sufficient data to complete a NI 43-101 resource estimate.

- Permitting process underway with progress expected soon
- Current study status – a Pre-Feasibility dating from October 2015
- Anticipated 20+ years life of mine with a constant high-quality production of WO<sub>3</sub> and Tin

<b>Valtreixal Metrics</b>	
Life of Mine (PFS)	5 years
Potential Mine Life	20 + years
Throughput	500,000 tpa
Avg. Headgrade	0.34% WO <sub>3</sub> Eq.
Annual WO <sub>3</sub> Production	~600-800 tons WO <sub>3</sub>
Annual Tin Production	~400 tonnes Sn
Recovery Rate for WO <sub>3</sub> / SN	55%/65%
Initial Capex	~US\$42mn
Revenue p.a. (@APT \$370/mtu)	~US\$21-24mn
Operating Expenses (OPEX) p.a.	~US\$11mn
Pre-Tax Cash Flow (5 years; cumulated)	~US\$38.7mn

The company is keeping its powder dry thus far on the greenfield Valtreixal mine/project which is relatively near to Los Santos, thus offering potential cost savings through synergies with Los Santos.

When operational Valtreixal will be Almonty’s third mine, further enhancing Almonty’s lead over the rest of the Tungsten “pack”.

### **The ADI PartnerShip**

In mid-March of 2025, the company announced that it had entered into a strategic partnership agreement with American Defense International, Inc. (ADI), a prominent government relations and business development firm based in Washington, D.C. ADI was founded in 1995 and consists of a team of former senior government officials, military officers, and congressional aides. It represents over 100 organizations to government, including companies such as SpaceX, across 11 countries.

This arrangement clearly represents a significant strengthening of Almonty’s strategy of positioning itself to support the U.S. Federal government as well as the American defense and technology industries. The collaboration with ADI should enhance Almonty’s positioning to harvest the growing demand for reliable (and non-Chinese) Tungsten and Molybdenum supply chains to supply the needs of the U.S. defense and



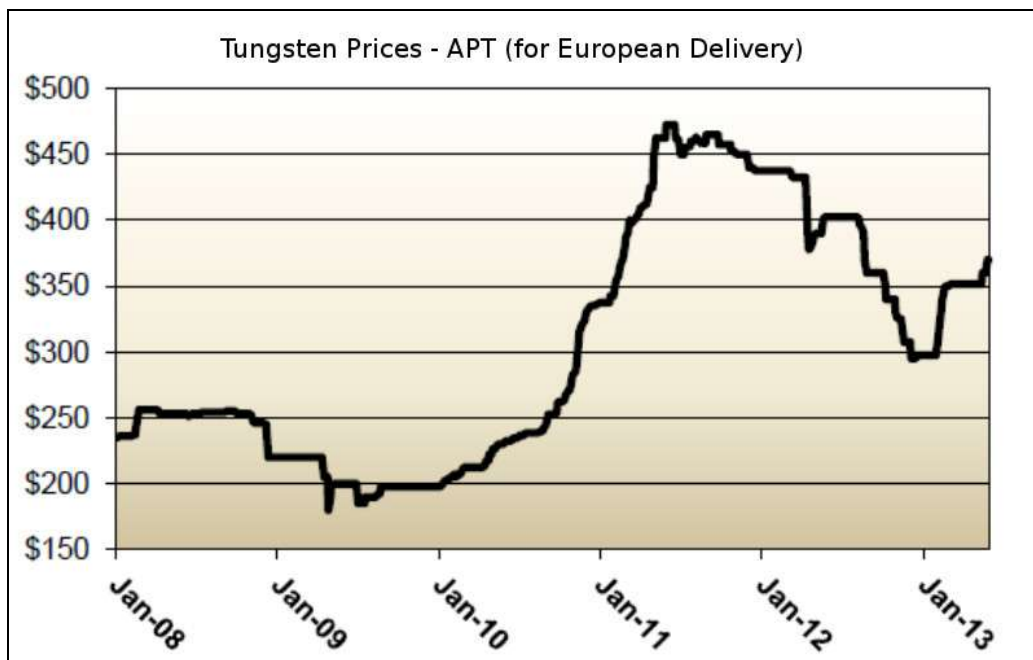
technology sectors.

### Pricing

The average annual price of Tungsten since 1950 has fluctuated between a nadir of US\$10 per metric ton unit in 1963 and a peak of US\$175 in 1977. After that point it sagged back to trade in a \$50-75 band for several decades before its revival in the new century.

The trade in concentrates diminished and the market relied more and more upon the APT quotation as a price guide since APT is the product traded in the largest quantity. Prices are mainly based on the quotations published twice a week by Fastmarkets, although other trade journals also publish quotations or indicative prices.

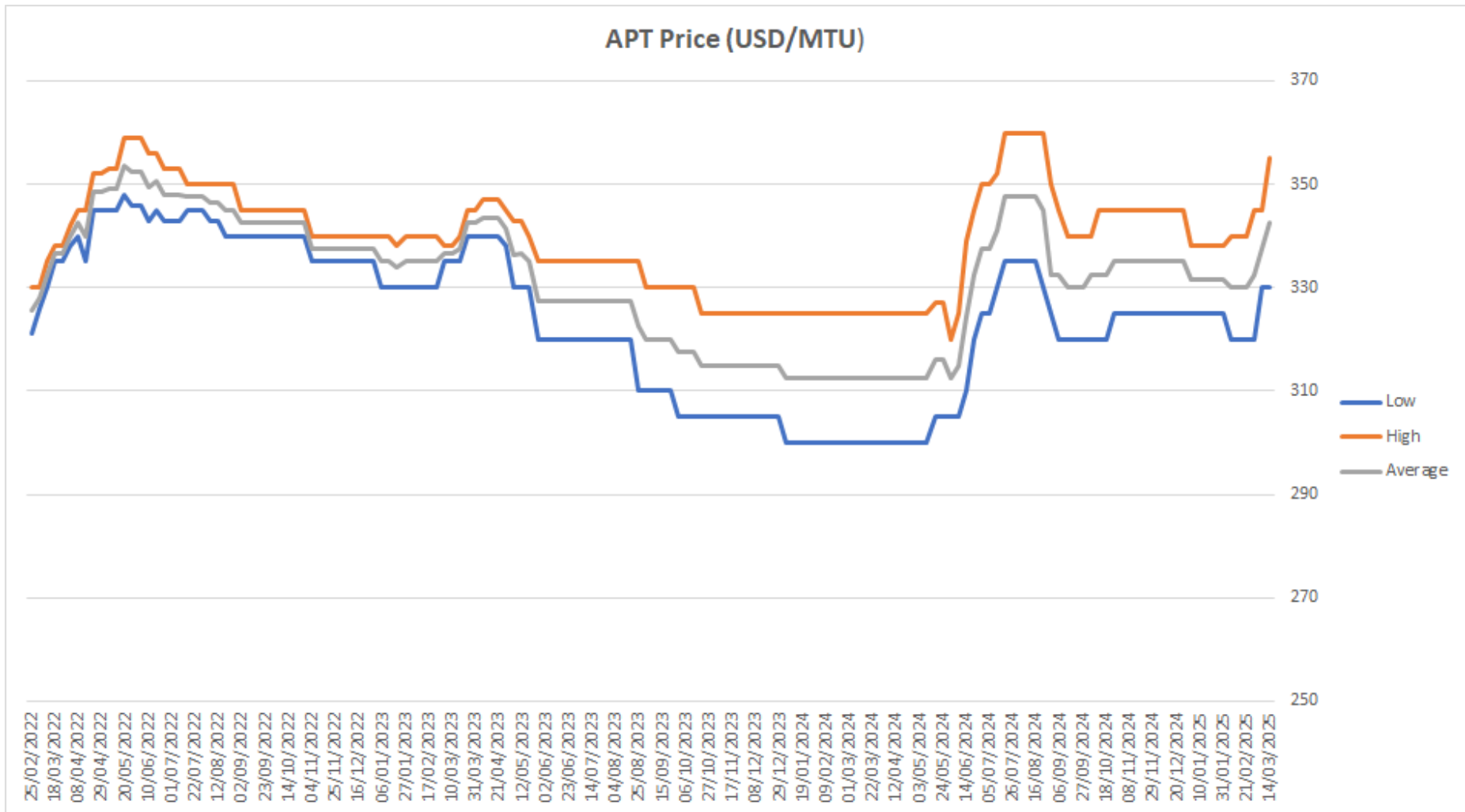
The chart below shows the price trends for APT during its “boom” period post-2009.



The Tungsten price was blissfully boring in 2023 as all around it wilted in the backwash from China’s abandonment of the Zero Covid policy. The lack of a “spike & dump” meant that few were attracted into the space and those that are already in the space, pursue their projects *sotto voce*, or wither on the vine.

There is little probability of a Rare-Earth/Lithium-style promotorial surge, particularly as the carpetbaggers *du jour* are busying themselves with Antimony.

The chart on the following page shows that Tungsten has recently awoken from a long static period and is challenging the highs of this decade.



Source: Fastmarkets/Almonty Industries

Increased Tungsten usage by military and industrial users should lead to increased competition for Tungsten concentrates in the global market between Chinese and non-Chinese processors and consequently result in an improving price structure for Tungsten and its products in the future. A jump in the price of APT to over \$400 would not be unthinkable.

Our latest projections are shown in the table at the right:

It is worth noting though that these prices are still way below the nearly US\$470 per MTU of Ammonium Paratungstate that was achieved in the first half of 2011. While the wild gyrations pushed APT prices to levels which fired up the industry it was those movements which ultimately ended most of the players in the space.

<b>Year end</b>	<b>MTU (US\$)</b>
2023	\$312
2024	\$330
2025e	\$415
2026e	\$460

### **Earnings**

The table on the following page shows Almonty's sales revenues and earnings in recent years with a brief look forward to the full year for FY24. The dilemma in projecting further forward is that Almonty does not publish volume numbers or unit costs, thus making projecting forward using past volumes is impossible. To further muddy the waters the past includes Los Santos output which is now terminated (though with Care & Maintenance charges, as the mine is likely to reopen in an underground scenario with tailings reprocessing also a possibility).

Other considerations of note are:

- The potential onset of production at Sangdong in the first half of 2025
- The potential to substantially increase production while decreasing OPEX per unit of volume under the L4 plan for Panasqueira
- The still unknown effect on prices of various actions being taken by China (et al.) at the current time
- Will price rises be exponential or geometric (as we have seen in Antimony)?

The price rise in recent times should trigger warrant exercise which will enhance the cash balance but also potentially reduce the Loss on Warrant Liability line item.

## Almonty Industries

FY ended December

CAD mns

	FY24e	3Q24	2Q24	1Q24	FY23	4Q23	3Q23	2Q23	1Q23	FY22	FY21
Revenue	31.200	6.794	7.938	7.824	22.510	5.421	4.459	5.533	7.097	24.796	20.847
Cost of Mining	24.600	5.607	6.169	6.665	19.328	4.743	3.572	5.285	5.728	19.987	19.565
Depreciation/Amortization	1.240	0.266	0.294	0.290	1.077	0.280	0.312	0.235	0.250	1.298	1.783
Care & Maintenance	1.060	0.265	0.264	0.263	1.022	0.258	0.255	0.254	0.255	0.964	0.848
Impairment reversal											(4.136)
Gross Profit	4.300	0.656	1.211	0.606	1.083	0.140	0.320	(0.241)	0.864	2.547	2.787
Selling/General/Admin. Expenses	5.600	1.339	1.533	1.475	5.816	1.628	1.038	1.461	1.689	6.145	6.380
Non-cash compensation	3.100	1.464	0.543	0.392	1.141	0.835	0.024	0.180	0.102	3.811	1.513
Interest Expense (Income)	4.500	1.048	1.128	1.423	4.305	1.194	1.112	1.032	0.967	3.863	3.487
Financing fees					0.739	-			0.739	0.742	
Gain on derivative liabilities	0.420	0.334	(0.079)	0.081	(0.432)	(0.052)	(0.165)	(0.092)	(0.123)	(0.521)	(0.133)
Loss on warrant liabilities	0.550	0.710	(0.515)	0.109	(1.227)	(0.074)	(0.456)	(0.268)	(0.429)	(0.293)	
Forex loss (Gain)	2.300	0.702	0.394	0.903	(0.489)	(0.227)	0.592	(1.086)	0.232	2.934	(0.215)
Total Operating Expense	43.370	5.597	3.004	4.383	9.853	3.304	2.145	1.227	3.177	16.681	11.032
Operating Income	(12.17)	(4.94)	(1.79)	(3.78)	(8.77)	(3.16)	(1.83)	(1.47)	(2.31)	(14.13)	(8.25)
Loss (Gain) on Sale of Assets											
Income Before Tax	(12.17)	(4.94)	(1.79)	(3.78)	(8.77)	(3.16)	(1.83)	(1.47)	(2.31)	(14.13)	(8.25)
Income Tax	0.450	0.378	-	0.005	0.067	(0.008)	0.045	(0.073)	0.103	0.356	(0.492)
Income After Tax	(12.62)	(5.32)	(1.79)	(3.78)	(8.84)	(3.16)	(1.87)	(1.40)	(2.42)	(14.49)	(7.75)
Weighted Average Shares (mns)	251.50	258.61	255.21	243.30	226.67	226.67	228.03	223.26	218.44	213.14	226.67
EPS (CAD)	-0.050	-0.021	-0.007	-0.016	-0.039	-0.014	-0.008	-0.006	-0.011	-0.068	-0.034

## Almonty Industries - Balance Sheets

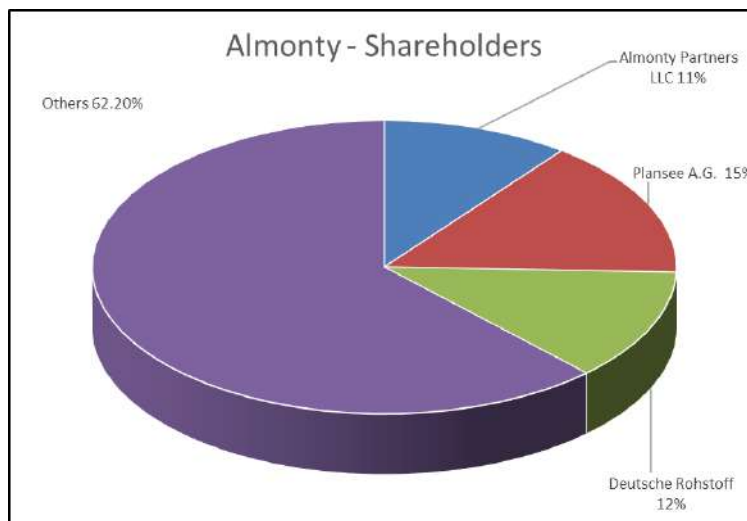
(in 000's of Canadian dollars)

	30/09/2024	31/12/2023
<b>Assets</b>		
<b>Current Assets</b>		
Cash	12,866	22,019
Trade receivables	3,318	2,679
Taxes recoverable	643	661
Inventories	6,696	7,832
Prepaid expenses and other current assets	2,749	3,049
<b>Total Current Assets</b>	<b>26,272</b>	<b>36,240</b>
Mining assets	194,446	165,681
Tailings inventory	31,289	30,355
Deferred tax assets	2,629	2,551
Other assets	644	507
	<b>229,008</b>	<b>199,094</b>
<b>Total Assets</b>	<b>255,280</b>	<b>235,334</b>
<b>Liabilities</b>		
<b>Current Liabilities</b>		
Accounts payable and accrued liabilities	22,985	31,469
Deferred revenue	118	1,062
Current portion of long-term debt	36,470	34,167
<b>Total Current Liabilities</b>	<b>59,573</b>	<b>66,698</b>
Warrant liabilities	2,588	958
Long-term debt	113,278	95,900
Restoration provision and other liabilities	24,167	23,256
Deferred tax liabilities	14	14
	<b>140,047</b>	<b>120,128</b>
<b>Total Liabilities</b>	<b>199,620</b>	<b>186,826</b>
<b>Shareholders Equity</b>		
Share capital	142,334	127,359
Equity portion of convertible debentures	1,241	1,241
Contributed surplus	15,351	12,302
Accumulated other comprehensive income	11,551	11,529
Deficit	(114,817)	(103,923)
<b>Total Share holders' Equity</b>	<b>55,660</b>	<b>48,508</b>
<b>Total Liabilities and Shareholders' Equity</b>	<b>255,280</b>	<b>235,334</b>

## Shareholders & Financing

The current state of the shareholder base is shown in the pie chart below:

The company's most recent financing was undertaken between December 2024 and the end of January 2025 with commitments of 3,333,333 Placement Chess Depository Units (CDI Units) from long-standing shareholders for gross proceeds of ~AUD\$18.45mn. This will result in the issuance of 4.53 million Canadian units and 15.41 million CDI Units at CAD\$0.82 per Canadian unit and AUD\$0.90 per CDI Unit.



Each Canadian unit and CDI Unit participant will be issued with one warrant for every common share issued and one free unlisted option for every one CDI issued, exercisable at CAD\$1.14 and AUD\$1.25, respectively, with an expiry date of three years from the date of closing.

It is also useful to look at the warrant situation:

<b>Pre-existing Warrants as at 30 September 2024</b>				
	<b>Exercise Price</b>	<b>Number Outstanding</b>	<b>Weighted Av. Remaining Contractual Life</b>	<b>Weighted Av. Exercise Price</b>
	\$0.45-0.59	2,222,222	2.07 yrs	\$0.45
	\$0.60-0.75	9,688,160	1.62 yrs	\$0.70
	\$0.76-\$1.15	16,322,617	0.82 yrs	\$0.99
		<b>28,232,999</b>	<b>1.19 yrs</b>	<b>\$0.85</b>
<b>Warrant Issuance in January 2025</b>				
CDI Units	AUD\$1.25	15,410,000	3 yrs	
CAD Warrants	CAD\$1.14	4,530,000	3 yrs	

The recent share price surge has put the outstanding warrants either strongly or massively in the money.

## Board & Management

**Lewis Black** is a Director, the President and Chief Executive Officer of Almonty. He is a Partner of Almonty Partners LLC and has extensive experience in the tungsten mining industry. From June 2005 to December 2007, he was Chairman and Chief Executive Officer of Primary Metals, and he was formerly head of sales and marketing for SC Mining Tungsten Thailand. He is a former Vice President of the International Tungsten Industry Association.

**Daniel D'Amato**, a director, is also a Partner of Almonty Partners LLC and has over 20 years of experience in the finance industry specializing in portfolio management and private equity. He began his career on Wall Street with Bear Stearns where over nearly a decade he became Managing Director. In 2005, with business partner Lewis Black, he co-founded Almonty. From June 2005 to June 2007, he served on the board of directors of Primary Metals Inc., of which Almonty was the majority owner.

**Mark Trachuk**, a director, is a lawyer and is a Partner at Osler, Hoskin & Harcourt LLP in Toronto. He practices in corporate and securities law with an emphasis on mergers, acquisitions and strategic alliances. He heads Osler's International Practice Group. He holds a B.A. from Carleton University, an LL.B. from the University of Ottawa and an LL.M. from the London School of Economics. He also holds the ICD.D designation from the Institute of Corporate Directors.

**Dr Thomas Gutschlag**, non-executive director, Dr. Thomas Gutschlag. Dr. Gutschlag joined the Board as a Non-Executive Director in September 2015. He is the CEO of Deutsche Rohstoff AG, a publicly listed company on the Frankfurt Stock Exchange, and is a qualified economist with a doctorate from the University of Mannheim. His financial acumen and leadership in resource investment provide valuable insights into the company's operations and strategy.

**Andrew Frazer**, a non-executive Director since May 2021. He has over 30 years of experience in capital markets and is the founder of Lazarus Corporate Finance Pty Ltd. He has held senior roles at firms such as Morgan Stanley and Patersons Securities. He is a CFA charterholder and holds degrees in Commerce and Law from the University of Western Australia. His background in equity capital markets and corporate finance provides critical support to the company's growth initiatives.

**David Hanick**, non-executive director, has served as a Non-Executive Director of Almonty Industries since June 2023. He is the Chief Legal Officer at Starlight Investments, overseeing CAD 28 billion in assets. With over 20 years of experience in corporate governance, mergers and acquisitions, and capital markets, he previously co-headed the Mining and Natural Resources Group at Osler, Hoskin & Harcourt LLP. Mr. Hanick holds an MBA from the Schulich School of Business and an LL.B. from Osgoode Hall Law School.

## Risks

The risks for the Tungsten space in general. These are:

- × A reduction in global geopolitical instability

- × A return to a weak Tungsten price
- × Weakened global industrial demand (particularly in tools) that would soften price & volumes
- × China manipulating the market in some way to again create distortions in price and trade patterns
- × A tough financing market for junior explorer/developers

Most of these risks are different sides of the same price prism, with the exception of the market's perception/disinterest in Tungsten.

China is not alone in creating scenarios in which prices will move higher (or lower). US tariffs are being used to make non-Chinese production of Tungsten more attractive. Many feel that China may look to restrict exports of tungsten, as they did with Antimony, for strategic reasons.

Financing remains difficult and dilutive when it takes place. The only way to harvest the more attractive price is to be in production and the only way to do that is to finance mine-builds/reactivations.

### **Investment Theses**

Almonty could be called the Great Consolidator... It spent the long winter in the Tungsten market carefully managing its pennies so that it could do bargain buys when nobody else was around (or daring enough) to make a run at some of the worthy but stricken plays in the Tungsten space. If ever the expression "buying straw hats in winter" was made for someone it was for Lewis Black and his team at Almonty. When the predator's fin appeared in the water it was usually "game over" for the luckless Tungsten wannabe.

Historically, Tungsten is one of those metals where the fluctuating price makes it hard to plan a company's trajectory for more than a couple of years. The wild ride in pricing since 2008 made it particularly difficult to chart these waters. Now the trend is turning positive again with a firming price meeting a marketplace that has been deprived of new projects and seen most of the explorers vaporize. Even though the recovery is now in place, Tungsten is a metal that has failed to capture the market's interest due to generalized ignorance of Tungsten and its supply/demand dynamics. With the slow steady recovery in the price since mid-2017 there now exists a window of opportunity for Tungsten plays in the Western World as end users look to secure alternative and more reliable sources of supply than China.

The mantra now though is Production, Production, Production. Having projects that are on the drawing board, and unlikely to leave it, does not charm funding out of the military in ANY country. This sets up a scenario where the non-serious will hopefully be relegated to a distant second place in the attentions of the markets.



The brutal market over the last decade resulted in “ethnic cleansing” of the listed Tungsten space with few survivors. This means that, despite the strong rise in the Tungsten price, there are few projects in the pipeline and little sign of newcomers joining the fray.

The broader economic recovery should lead eventually to increased competition for Tungsten concentrates in the global market between Chinese and non-Chinese processors and consequently result in an increasing price structure for Tungsten and its products in the future. A rise in prices of APT to over \$400 in 2024 is not unthinkable and indeed likely if China restricts Tungsten exports.

Fortunately, Tungsten offtakers are proactive participants in the development of producing assets in this metal in a way that is not evident in other specialty metals.

In light of the attractive, and most probably lasting, confluence of events in the Tungsten space, Almonty finds itself in the right metal, in the right place at the right time, a rare occurrence.

### **Rating & Target**

The share price of Almonty went vertical in the first two months of 2025, taking it to a place that some might view as nose-bleed territory. Almonty has been a constituent of our Model Resources Portfolio for many years now and the price move and recognition it affords is exactly why we, and the company’s hard-core of shareholders, have persisted through thick and thin.

What premium should be afforded to being the leading non-Chinese producer on the cusp of major volume expansion, at a moment of rising international military tensions? One could pursue “cheaper” and less prospective names, but what would be the point? Like MP Materials in the Rare Earths space, leadership brings a special position. Also, like MP Materials, a virtuous circle can evolve of a higher price/market capitalisation making the company more investable for US institutions (particularly as Almonty is on the verge of redomiciling to the US) thus leading to an even high price. This in turn makes it more attractive for the US DoD to anoint it as its Tungsten champion, in a thin field. Then the higher price brings all the warrants into the money and lowers the likelihood of financings. Overlaid on all this is the potential for APT prices to breach the \$400 mark.

We hereby reiterate our **LONG** rating while upgrading our 12-month target price to **CAD\$3.82**.



# APPENDIX I:

## Tungsten – The Military Angle

### Tungsten as THE Military Metal

If we had to choose a metal to crown as the military metal *par excellence* it would undoubtedly be Tungsten for its usage in shells and in armour-plating to resist said shells. Tungsten's essential industrial and military place has been well known since the 1940's. During WW2, Iberia (Spain & Portugal), Sweden and the US were important producers of the critical military metal.

While Tungsten means "heavy stone" in Swedish, its main source since its rise to industrial usage has been the Iberian peninsula. This produces an interesting history which has relevance today because it is the back-story to the massive tug of war over Portugal and to a lesser extent Spain during WW2. In this story lies some good examples of our "supply & deny" watchwords.

Following the invasion of the Soviet Union, Germany became dependent on Portugal and Spain for their Tungsten supplies, due to its value in producing war munitions. To maintain its neutrality, Portugal set up a strict export quota system in 1942. This concept of neutrality through equal division of products supplied to belligerents was different from that of the Northern European neutrals who worked on the basis of "normal pre-war supplies". However, in January 1944, the Allies began pressuring the Portuguese dictator Salazar to embargo all Tungsten sales destined for Germany. Portugal resisted, defending their right as a neutral state to sell to anyone and fearing that any reduction in their German exports would prompt Germany to attack Portuguese shipping.

Despite the seeming closeness of Franco to Hitler, he was also a fence-sitter and had to do an even more perilous balancing act, thinking forward to what might happen if he was unequivocally seen as tied to the Nazis should they not win. At the top end of Europe, Hitler had neutral Sweden blackmailing him over iron ore supplies and to the East he had to contend with a "friendly" Romania over oil supplies. Such is the dilemma, writ small, that China will have if it ever decides to go ballistic (pardon the pun).

What makes Tungsten, the key military metal?

- It is used in making bulletproof vehicles, armored tanks, and other kinds of protective equipment designed to withstand the high-speed impact of bullets. This is due to the hardness of Tungsten. And this property, as well as others, can be enhanced through alloying to yield stronger composite materials.

- It is used in making armor-piercing rounds. These are designed to pierce through protective armor and vehicles designed to be bulletproof. Tungsten can tolerate high levels of shock and does not easily shatter.
- It is used in making high-speed cutting tools. These tools are usually made of high-speed steel, and they cut much quicker than ordinary carbon steel. Tungsten's ability to withstand high temperatures makes it indispensable in fabricating these tools and when cutting at such high speeds.
- Tungsten is also used in the manufacturing of rocket and aircraft parts. It is instrumental in manufacturing parts like engines because of the high temperatures they have to withstand. Tungsten has a high thermal resistance and can withstand high temperatures without defect.

Tungsten is one of those metals where the fluctuating price makes it hard to plan a company's trajectory for more than a couple of years. The wild ride in pricing since 2008 made it particularly difficult to chart these waters. Now the trend is turning positive again with a firming price meeting a marketplace that has been deprived of new projects and seen most of the explorers vaporize. Even though the recovery is now in place Tungsten is a metal that has failed to capture the market's interest due to generalized ignorance of Tungsten and its supply/demand dynamics.

### **The History of the US Government & Tungsten**

In 1939, the United States Congress enacted the Strategic and Critical Materials Stock Piling Act, a federal law providing for the acquisition and retention of stocks of certain strategic and critical materials that supply the military, industrial and essential civilian needs of the United States for national defense.

Then in 2021 the US government announced plans to recapitalize and restore the National Defense Stockpile of critical minerals and materials, following findings from the reviews directed under Executive Order 14017. In March 2022, the Departments of Energy, State and Defense executed a memorandum of agreement to launch an effort to include critical minerals necessary for the transition to clean energy alongside those needed for defense purposes.

### **The Tungsten Tariff**

On the 14th of May 2024, the Biden Administration announced a 25% tariff on Chinese tungsten imports with effect from the 1<sup>st</sup> of August 2024.

This measure resulted in a bifurcation of viewpoints. One school of thought (to which we pertain) saw the measure as further increasing the attractiveness of U.S.-mined and processed tungsten and as a further prod to reboot Tungsten production outside of China.

However, industrial interests (and permacritics of the President Biden) saw the decision "to slap a steep 25% tariff on tungsten and its products from China..... as nothing short of disastrous". Of course, this latter group of the "Cheap Rules!" school of thinking have been in the ascendancy for 40 years and have

singularly done nothing to encourage or fund Tungsten supply chains independent of China.

The difference is poignant, between those in the tool industries in Europe that paid over the market rates for W, from the likes of Almonty, to sustain a non-Chinese supply chain in this critical metal, and those industrial users in the US that pandered to China's hegemonic tendencies in this and other strategic metals due to solely "bottom-line" considerations.

This strengthens the need for onshoring production of Tungsten in the U.S. This is, however, easier said than done. Almonty's response has been to redomicile to Delaware. Interestingly, the recent price uplift makes listing Almonty on either the NYSE-American or the NASDAQ that much more doable.

### **Wielding the Big Stick – the Dual-Use Ban**

The latest Chinese measures have roiled sentiments, but not necessarily prices, in the Tungsten market. Certainly, compared to the Antimony measures, the Chinese feint in Tungsten may be seen as rather a damp squib. When the history books are written the measures may be seen as a longer-term driver of Tungsten prices (yet having flopped in the first instance) and may also be seen as a catalyst for the eclipse of China as the sole decisive factor in the Tungsten.

On the 3<sup>rd</sup> of December 2024, China announced stringent export restrictions on "dual-use" technologies for both civilian and military use, specifically targeted at the United States, including tungsten, gallium, germanium, and antimony.

The latest Chinese export bans extend to super-hard materials, including tungsten, which is indispensable for weapons manufacturing, cutting tools, and aerospace technologies.

The new restrictions had two notable aspects:

- It was the first time Chinese critical minerals export restrictions were targeted at the United States rather than all countries
- It was the first time restrictions on critical minerals were a direct response to restrictions on advanced technologies

These restrictions have significantly disrupted global supply chains, amplifying the urgency for Western nations to secure independent sources of critical minerals. China's dominance in critical mineral production, bolstered by subsidies and control over key raw materials from Africa, and to a lesser extent Latin America, continues to pose challenges for nations reliant on these essential resources for advanced technologies, including semiconductors, defense applications, and clean energy solutions.

Some interpreted the export bans/restrictions as a sign that critical mineral security was now intrinsically linked to the intensifying tech trade war. However, we regarded the Gallium/Germanium

measures in 2023 as specifically linked to tech (namely semi-conductors), while we have interpreted the dual-use ban on Tungsten as distinctly military-linked.

Interestingly though the most recent USGS Tungsten Review states that import sources (2019–22) for the US of ores, concentrates, and other forms were: China at 27%; Germany at 12%; Bolivia at 9%; Vietnam at 8%; and others at 44%. In light of rising non-Chinese production, the dual-use ban might only serve to accelerate the erosion of China’s market share and thus dominance.

### **The EU (and UK) – Where Circularity becomes Reality**

The EU categorized Tungsten as a “critical raw material” and yet it did the same with a swathe of other metals. The rubber rarely meets the road in Brussels as there is, too often, a triumph of form over content. The sourcing of such critical metals was overlaid by the delusion of the “circular economy” and pandering to rampant NIMBYism.

The irony is that Europe is way ahead of the US in Tungsten production with mining operations in Portugal, Spain and Austria. None of this is by design, we might note, but rather historical momentum. The potential to turn back on substantially more production in the Iberian Peninsula (and the UK) is particularly poignant. One might almost say that the closest that Europe comes to achieving a circular economy in any critical metal is in Tungsten.

### **The US – Back into the Fray**

The sad state of the Tungsten space in the US is evidenced by the fact that the metal has not been mined commercially in the United States since 2015.

According to the USGS’s latest publication on Tungsten, approximately six U.S. companies had the capability to convert Tungsten concentrates, ammonium paratungstate (APT), Tungsten oxide, and (or) scrap to Tungsten metal powder, Tungsten carbide powder, and (or) Tungsten chemicals.

As for applications, an estimated 60% of the Tungsten consumed in the United States was used in cemented carbide parts for cutting and wear-resistant applications, primarily in the construction, metalworking, mining, and oil- and gas-drilling industries. The remainder was used to make various alloys and specialty steels; electrodes, filaments, wires, and other components for electrical, electronic, heating, lighting, and welding applications; and chemicals for various applications. The percentage of those two categories that ultimately end up in military-linked applications was not revealed.

The worm has turned though and the Department of Defense (DoD) in the US has seen the error of its ways in allowing its suppliers to become China-dependent in their sourcing. The war in the Ukraine and Chinese sabre-rattling over Taiwan and the South China Sea have accentuated the concern.

This has prompted a funding program for the development of onshore Tungsten sources.

### **The DoD Strikes Back**

From the start of January 2027, the Department of Defense (DoD) will implement a final rule under Section 844 of the FY 2021 National Defense Authorization Act (NDAA) and Section 854 of the FY 2024 NDAA. This rule expands existing restrictions on sourcing critical materials like tungsten, tantalum, and certain magnets from “covered countries,” including Iran, Russia, North Korea and China. These restrictions will prohibit not only the melting and production of such materials in covered countries but also their mining, refining, and separation at any stage of the supply chain. This marks a significant shift, aligning with US efforts to bolster the domestic industrial base for critical minerals and reduce dependency on adversarial nations.

The rule also tightens exemptions for commercially available off-the-shelf items, reducing flexibility for the private sector in sourcing these critical materials.

Adding to these challenges, the United States announced mid-September 2024 the finalized Section 301 tariff increases on imports from China, further complicating the supply chain landscape for critical materials.

### **Sangdong to the Rescue**

Sangdong Mine is uniquely positioned to address these supply chain challenges. Almonty’s development of Sangdong represents a significant step toward reducing reliance on China while contributing to the global effort of “friendshoring” critical minerals. Notably, 45% of Sangdong’s potential long-term tungsten output is already committed to the United States through a long-term supply agreement with Global Tungsten & Powders who are based in Pennsylvania.

With production expected to ramp up by mid-2025, Sangdong is poised to serve as a cornerstone for Western tungsten supply chains, ensuring greater stability and security in the face of rising demand and geopolitical uncertainty.

### **Changing the National Spots**

In a very interesting and strategic development, on the 20<sup>th</sup> of January 2025, Almonty announced it was in the throes of changing its jurisdiction of incorporation from Canada to the State of Delaware while maintaining its listings for now on the Toronto Stock Exchange and the Australian Securities Exchange.

The company refer to this transaction as a “US domestication” in its press release. The US domestication

reflects the growing importance of the United States in Almonty's strategic positioning. With its robust regulatory framework for critical materials like Tungsten and Molybdenum and the evolving global economic landscape, the United States presents a compelling jurisdiction for our incorporation. We might add the heightened potential to tap into US government (i.e. DoD) funding and support.

The State of Delaware, in particular, was chosen as our new domicile because the Delaware General Corporation Law (DGCL) expressly accommodates continuances under Section 192 of the Canada Business Corporations Act and is recognized for its extensive body of corporate law. Supported by decades of case law in Delaware courts, the DGCL provides well-defined guidance on the duties and obligations of directors and officers, offering legal clarity that is expected to benefit both the company and its shareholders.

The company's management justified the change in its base of operations and jurisdiction of incorporation from Canada to the United States, as it represented an alignment of its corporate structure with the location of a significant portion of the shareholder base, whilst enhancing the company's ability to access key US markets.



## APPENDIX II:

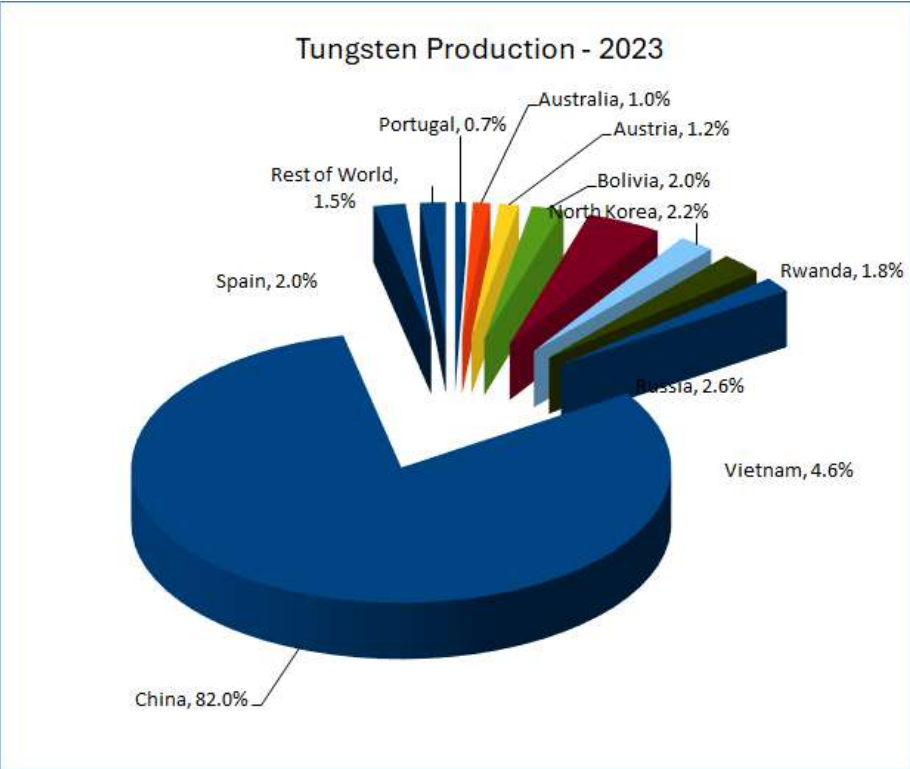
# Tungsten – Supply Dynamics & Players

### **Shifting Production**

In the past we have focused where production has been with some mentions of the stalled projects for the future (maybe). Now we can see that there is potentially a major sea-change in the balance between China and ROW, and where in the ROW the production comes from, particularly as China was expected to be a net Tungsten importer by the mid-2020s (which did not occur).

For the last decade primary supply has lagged some way behind demand, enabling large stockpiles to be drawn down and also requiring considerable supply of secondary Tungsten to meet demand. China accounts for a substantial proportion of primary supply, accounting for ~82% in 2023. A number of large state-owned mines were facing depleting ore grades, which is likely to lead to lower output from existing operations over the next decade. When they still existed, the consultants Roskill anticipated that China's market share to drop to below 72% by 2029, unless new operations can come online to offset the fall from depleted assets.

Countries that have faded long ago, like Australia and South Korea have the potential to become major producers, while some that produced in recent times, like Canada and Peru are sidelined, and major producers from further back, like Spain and Portugal, are getting a second wind. Indeed, the latter two countries should dominate non-Chinese production from now for at least the next decade.



Source: USGS

This moving feast means that, besides China and Russia, other principal producing countries are Austria, Bolivia, Portugal, Spain, Rwanda and Vietnam whilst mines have closed since the turn of the century in Australia, Brazil, Canada, France, Japan, Peru, South Korea, Sweden, Thailand and the USA. The price slump post-2011 knocked players like Canada, Peru and Australia out of the running. The UK has been sometimes producing and sometimes not due to the travails of Hemerdon.

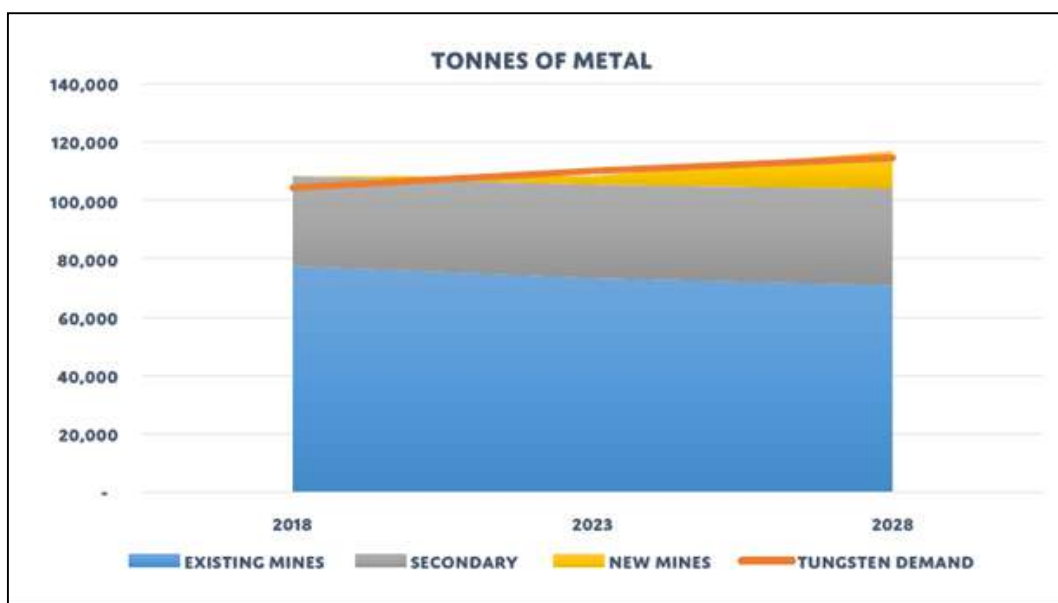
The latest assessment of the USGS (from 2023) is that China has 52% of global Tungsten resources (down from 61% in 2016), Canada had 9% in 2016 and now is not even shown, while Australia is credited with 13% lately and Russia with 9%. However, it is not which country currently has the resources that matters but the country that gets into production first. Thus, Portugal currently has more going on in the Tungsten space than Canada does, while South Korea currently has no production but when Almonty get their Sandong operation going it should return to the producers' table. Curiously Korea does not figure in the USGS's ranking of major resource holders (despite its putative mine once being the world's largest).

Two large-scale Tungsten mines in Spain came online in 2019, these were La Parrilla (controlled by W Resources) and Barruecopardo (then owned by Ormonde and later controlled by Saloro). The former came to grief and the latter is now owned by EQ Resources. Both were looking to ramp up production in the following years, with output expected to peak in the mid-2020s. Production from both operations

was scheduled to contribute over three thousand tonnes per annum of contained Tungsten. But reality intervened and the Grim Reaper cast these aspirations aside.

Factors militating against a ramp up in production included:

- ✗ long lead times between exploration and new mine openings
- ✗ the steep rise in mine development and operating costs
- ✗ the very limited availability of high-grade deposits (i.e. greater than 0.4% WO<sub>3</sub>)



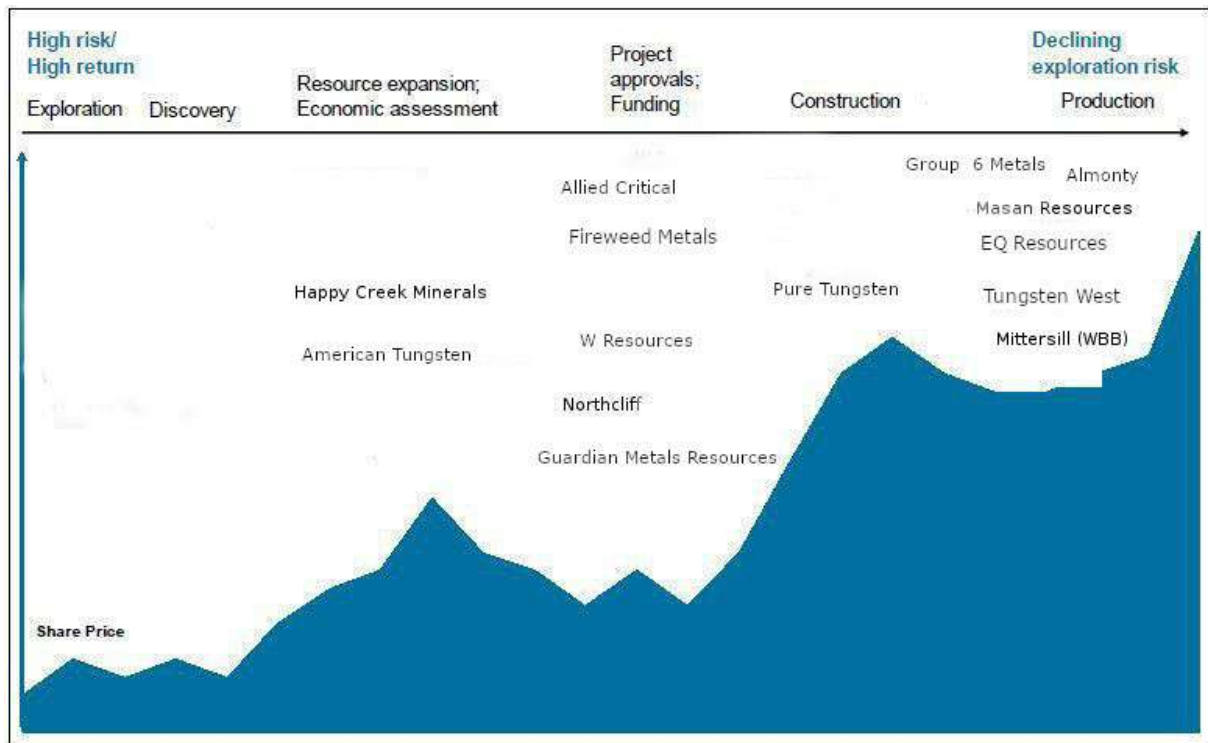
Source: Northcliff

The rising tide of new producers (mainly in Iberia) and, in particular, Almonty's Sangdong mine in South Korea are toppling Chinese dominance in this metal that they had hoped to use to clobber the West German machine tool industry with.

The metal's potential sources are quite geographically diversified with Tungsten (or Wolfram) resources located in China, Canada, Russia and the United States, at least in the official versions. And yet the largest sources of production outside China are Spain/Portugal, Australia and, shortly, South Korea.

### The Tungsten Lifecycle Chart

Our all-purpose Lifecycle chart, below, serves particularly well, in the case of Tungsten, to show the state of progress of the various players vis-à-vis each other on the exploration-production continuum.



Unlike past charts, where some of the players were not serious about getting to production, the culling of the ranks has left only the most devoted Tungsten players. Moreover, it is very rare that we end up with so many at the production end of the continuum that we run out of space.

### A Final Word on Scrap

Scrap has been an issue with a high X factor in unknown levels of stocks awaiting the right price to be mobilized. Pricing services/consultants have noted that there are reports of the existence of sizeable scrap stockpiles.

## APPENDIX III:

# Molybdenum – Sangdong’s Second String

### The Moly Angle

The moly deposit is not truly a deep moly but a more proximal moly. It is located predominantly below but it partially overlaps the Tungsten structures and the upper part can be easily accessed through the access infrastructure of the Tungsten zones. Also, the Tungsten structures contain some Mo but at lower grades than the underlying moly, which is located 150m below the Tungsten orebody.

As the price of Moly spent all of the last decade in a vale of tears, after a stellar run in the Commodity Super Cycle of the first decade of the new century, so it was understandable that neither Woulfe nor Almonty trumpeted or prioritised this aspect. The price broke out of its swoon in the last two years and promptly soared, this time reaching more sustainable levels than it had done pre-2008. It has however given back most of those gains, of late.



In 2011 we wrote “The simplest way to describe the dynamic of Moly in the upcoming years is that,

assuming a rather modest 4% growth in demand, an extra 107mn lbs of annual capacity will be needed. Real growth has been romping along at 6-7% in recent years so demand could potentially be higher”.

How wrong can one be....

This was the last gasp of Molybdenum.. until now... Indeed, the truism of a “lost decade” became true indeed. Moly joins Uranium in the ranks of massive underperformers since 2010. Now Moly has become the word on everyone’s lips making a Lazarus-like revival from the depths of despair.

But what are the dynamics of Moly and how could we have been so wrong?

The product categories that utilize Moly reads like a list of the sectors most closely linked to global economic growth. This is particularly true of specialist construction steels and stainless steel. This relationship is what produced the precipitous price fall in 2008 and then prolonged the agony for Moly.

However, the Moly bulls would argue that a significant component of the construction steel demand comes from infrastructure investment (desalinization plants, natgas pipelines, OCTG, marine applications like rigs), which is continuing to be a priority despite flaccid global economies. In one particular twist one of the highest ratios (7%) of moly usage in alloys is in steels for nuclear power plants.

Moly alloys, because of their resistance to sulphur, are also prominently used in cracking plants at oil refineries. Increased usage of heavy crudes (with their high-sulphur content) increases demand even more. When oil (and natgas) prices are high then investment demand should be strong particularly in pipelines and well-casings that have a heavy Moly component. Moly is thus linked into high-tech applications of high-nickel stainless, not into run-of-the-mill construction steels, automotive uses and whitegoods that are highly recession-sensitive.

Looking forward, Molybdenum is expected to continue to make strong contributions in global power generation and infrastructure projects as countries begin to prioritize climate change.

It’s worth noting that Molybdenum is recycled as a component of catalysts, ferrous scrap, and superalloy scrap. The amount of Molybdenum recycled as part of new and old steel and other scrap may be as much as 30% of the apparent supply of Molybdenum.

### **The Price Surge**

Standard & Poor’s attributed the price rise in recent times to four factors:

- ✗ Demand volatility - demand for moly-bearing carbon steel from the offshore drilling sector has stayed strong, as offshore drilling activity has remained high due to elevated oil prices
- ✗ Supply deficits – caused by the lack of production pipeline due the failure/disappearance of so many players over the last decade (discussed anon)

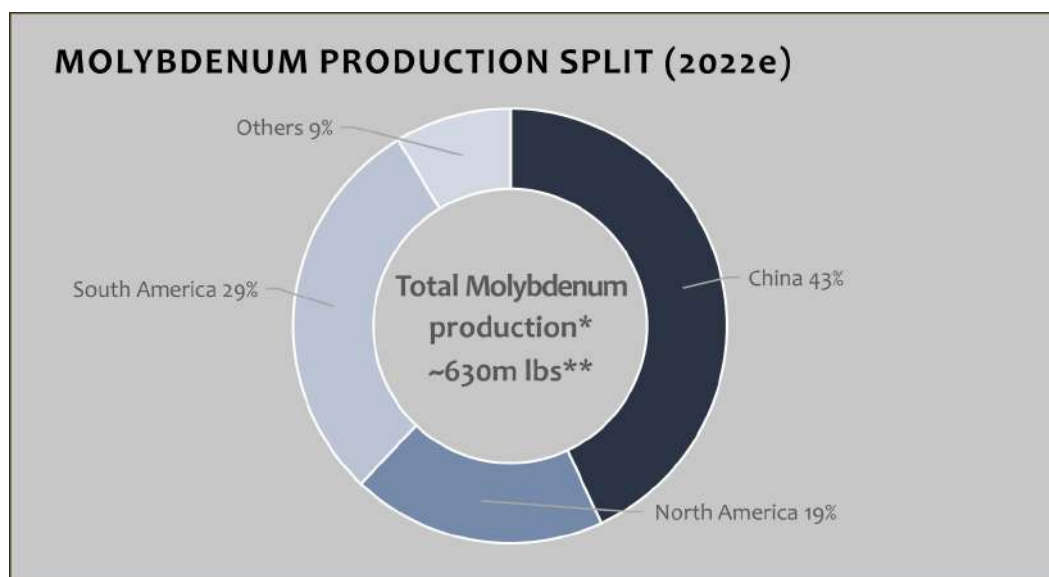
- ✗ Disruptions at key mines, principally Las Bambas in Peru, due to popular uprisings, as well as at the Antapaccay mine of Glencore in the same country
- ✗ Production issues in Europe, particularly at the Climax Moly Refinery of Freeport in Rotterdam

Molybdenum producers in China, in the USGS's opinion, continued to face difficulties owing to tightening of environmental regulations making it more difficult to obtain mining permits. Molybdenum prices in China reached decade-high levels as Molybdenum-bearing steel consumption remained high. In Chile, Molybdenum producers continued to struggle with persistently lower ore grades.

### Production

According to the USGS, global Molybdenum production in 2022 was essentially unchanged compared with that in 2021.

In descending order of production, China, Chile, the United States, Peru, and Mexico provided 93% of total global production.



### US-sourced Molybdenum

According to the USGS's annual summary for 2023 (well, really for 2022) the total U.S. mine production of Molybdenum concentrate increased slightly to 42,000 tons of contained Molybdenum in 2022 compared with 41,100 tons in 2021. This is interesting as it shows that the US is in that rare position of being in a top producer category for a metal. Somewhat of a rarity.... In fact, the US exports substantially more than it imports.

Molybdenum concentrate production in 2022 at primary Molybdenum mines continued at two U.S.

operations in Colorado, accounting for 33% of total U.S. Molybdenum concentrate production.

Molybdenum concentrate production from mines where Molybdenum was a byproduct continued at seven U.S. operations (four in Arizona and one each in Montana, Nevada, and Utah), accounting for 67% of total U.S. Molybdenum concentrate production. Three roasting plants converted molybdenite concentrate to molybdic oxide, from which intermediate products, such as Ferro-Molybdenum, metal powder, and various chemicals, were produced.

### **Moly Players – Thinned Ranks**

When price rises like this occur a flood of companies suddenly “find religion” (or rather Moly) hidden in their ignored assay results or darker corners of their NI43-101s. How to capitalize on Moly’s rise if the metal is well-buried in a deposit that is unlikely to be developed?

Standard & Poor noted that no significant secondary Molybdenum production from primary Copper mining had come online since Las Bambas in Peru began producing in early 2016. There are no new mines in any advanced state of planning or permitting, let alone under construction.

Equity investors used to be able to leverage fairly well to Moly via US-based Thompson Creek Metals (TSX:TCM), which we covered back in the day. However, by the time that Centerra Gold (TSX:CG) acquired Thompson Creek, in October 2016, thru a US\$1.1bn deal, the Moly component had been heavily watered down via TCM having diversified into Mount Milligan, a mine in British Columbia with reserves (at that time) estimated at around 5.7 million ounces of gold and 2.2 billion pounds of copper.

Centerra’s Moly unit now consists of two primary Molybdenum mines (which are currently on care and maintenance), the Thompson Creek Mine in Idaho and the Endako Mine in British Columbia. Its Langeloth Metallurgical Facility, located in Pennsylvania, operates as a toll processor and a purchaser of Molybdenum concentrates producing a suite of premium Molybdenum products.

Since that time, other exposure potential to Moly has shriveled. There used to be Creston Moly (a developer in Mexico which we covered until it was taken over by Mercator Minerals in 2011, Mercator going under in 2014), Adanac Moly (of unfond memory) and General Moly (declaring Chapter 11 in 2020) to name but a few. On the larger side there has long been the Climax Mine in Colorado, embedded within Freeport, that used to sometimes threaten to return to production, but became like many others the victim of the extended Moly price doldrums.

Despite having rather prosaic and low-key usages Molybdenum is now viewed as a critical material essential to numerous industries especially including defense, green energy technologies and advanced manufacturing.

### **The Sangdong Molybdenum Project**

Notwithstanding Almonty sotto voce approach to its molybdenum potential at Sangdong, it has spent years working on a strategic plan with a view to addressing the increasing Western demand for

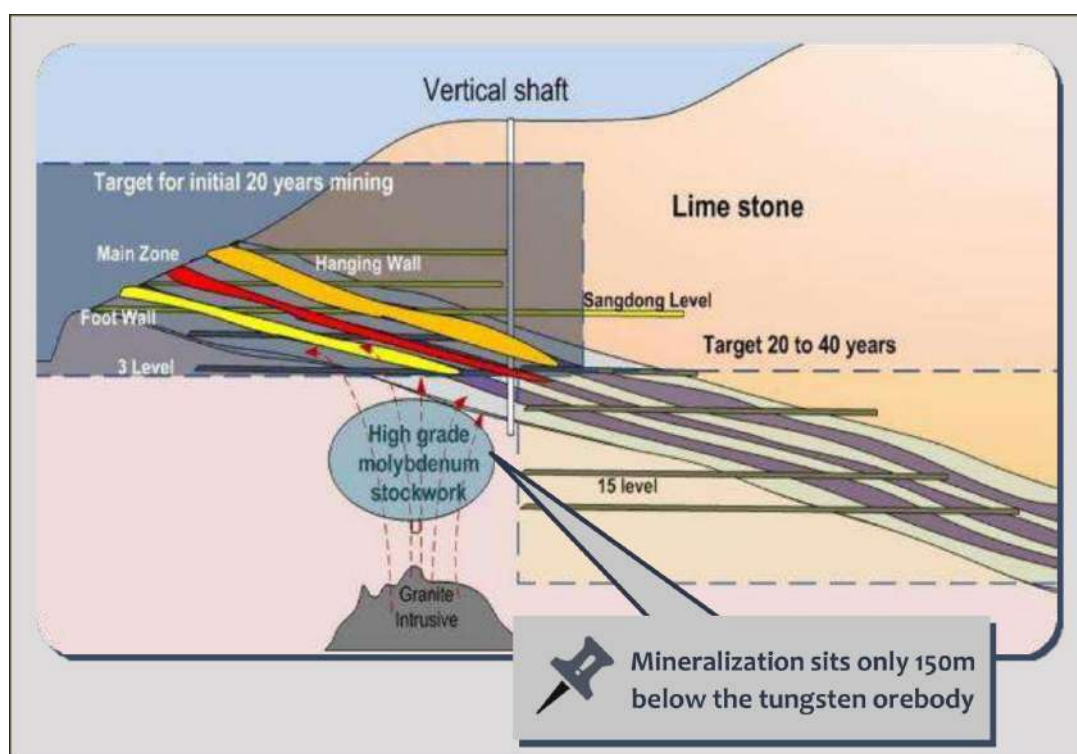


molybdenum.

The Sangdong Molybdenum Project, which is being developed by Almonty's wholly owned subsidiary, Almonty Korea Moly Corp., is already fully permitted (Mining and Environmental) and is expected to begin producing by the end of 2026 with an anticipated life of mine of 60 years based on historical Korean Government data.

When operating at full capacity, the mine will produce approximately 5,600 tons of molybdenum annually.

The proximity of the Sangdong Molybdenum Project to the Sangdong Tungsten Project is approximately 150 metres, which will allow for significant synergies that enhance logistical efficiency, reduce costs, and leverage shared infrastructure and expertise.



## Resource

The independently calculated Maiden Molybdenum Mineral Resource Estimate estimated an Inferred resource of 21.48mn tonnes @ 0.26% MoS<sub>2</sub> (at the 0.19% MoS<sub>2</sub> cut-off), for a total contained 55.9k tonnes of MoS<sub>2</sub>.

## The Upside

The project is quite open in terms of potential. From the NI43-101 we would note that Mineral Resource

definition drilling is the only form of exploration that has been completed by Woulfe on the Sangdong property since becoming operators in 2006, and there is no record of exploration other than drilling by previous operators. An aeromagnetic map of the area was reproduced in a scoping report in 2007, but the origin of this is unknown.

Since the drilling work completed in 2008, there have been no further exploration activities directed at the Sangdong Molybdenum (SDM) resources.

A review of underground drilling undertaken from 1980–1986 was completed in 2008 by Kennex Knowledge Systems (KKS). This review covered 21 holes for 12,340m in the SDM Stockwork, and identified Mo, Cu, Zn, Bi, W within a quartzite veinlet, stockwork or network type structure. A rudimentary Molybdenum wireframe and inferred resource was produced from which they inferred that additional drillholes on some sections could dramatically increase the tonnage and understanding of the geometry of the mineralised zone.

These also suggested that the deep Molybdenum zone may continue to the northeast towards Sangdong East, where significant MoS<sub>2</sub> was intersected in historic surface exploration hole 83-3. The zone may also continue to the northwest where it also remains open and to the north where MoS<sub>2</sub> has been intersected with the SD-30. It is apparent from the sections that zones of higher grade (above 500ppm MoS<sub>2</sub>) do occur, but insufficient drilling has been carried out to properly assess the grade distribution.

The U-shaped geometry of the mineralised zone in plan and section was also notable.

### **Offtakes Start to Form Up**

In late January of 2025, the company announced that it had entered into an exclusive offtake agreement with SeAH M&S, the largest processor of molybdenum products in South Korea and the second largest Molybdenum oxide smelter in the world, pursuant to which SeAH has agreed to purchase 100% of the material produced from the Sangdong Molybdenum Project for life of mine.

SeAH is building a US\$110 million metals and fabrication facility in Temple, Texas, that is slated to provide fabricated metal products to Space Exploration Technologies Corp. (SpaceX) and to the U.S. defense and civilian aerospace sectors.

The offtake includes a hard floor price of US\$19.00/lb (prior to the deduction of treatment charges) to ensure financial stability and a predictable revenue base as Almonty advances this transformative project. The current price of molybdenum is approximately US\$22/lb.

South Korea has a large metals and shipbuilding industries which is currently almost entirely dependent on imported molybdenum, with China being the largest single source of the metal. By supplying material from the Sangdong Molybdenum Project to SeAH, South Korea's domestic supply chain will be strengthened with reduced dependence on foreign imports, which should strongly benefit domestic manufacturers.

## **Thesis**

Almonty received a bonus in the Moly component of Sangdong when it acquired Woulfe. At the time the long moribund Moly price made this look somewhat trivial and indeed and half a decade passed before Moly awoke from its comatose state.

Production deficiencies at several major players (notably in Chile) and enhanced demand from fast-growing new applications (particularly in space) make the advent of Almonty in the Moly production arena, very timely indeed.

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### **Important disclosures**

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