

# Project AuSum – Critical Metals with Silver lining and Gold sweetener

Titan Advanced is a project generator specifically oriented towards investing in companies and equities that have sustainability ethos and embody a rigorous path to commercial viability towards a net zero circular economy.

CleanRocks is a collaborative special purpose entity engineered to treat mine rejects and stockpiles from legacy gold mines of the past and intrinsically focused on full recovery of all critical metals and minerals therein, primarily Cu, Zn, Ga, In, Ge, Sn, Sb, Co, Ni in addition to Si, Pb, S, Cd with added high purity precious metals premium from Ag, Au.

The plant is skid-mounted, modular, movable, with a nominal feed rate of 1-100 tonnes of feedstock per day.

## Pro Forma

Base Parameters Used for the Evaluation (1 tonne/day of Feed, 8000 hours/year)\*

Metal	Analysis	Production/t	Price, US\$	Revenue, US/t	Revenue, US/yr
Au	.07 %	22.5 oz	2788/oz	62,752	20.9
Ag	.44%	141.4 oz	33.31/oz	4,713	1.5
Rh	.33%	106.1 oz	4775/oz	506,672	168.9
Pd	.13%	41.8 oz	1104.5/oz	46,169	15.3
Ir	.28%	90.0 oz	4650/oz	418,650	139.5
Pt	.17%	54.6 oz	998/oz	54,553	18.2
Cu	30.11%	0.30 t	9355/t	2,816	.937
Pb	50.6%	0.50 t	1974.15/t	999	.332
Total				1.097M	365.57

## Net Zero \$



Global Financial commitments to Net Zero Initiatives:

**5-88 TRILLION**  
2022<sup>1</sup>

\*legacy gold mine in BC

<sup>1</sup> Glasgow Financial Alliance for Net Zero (GFA)

## Competitive Advantages

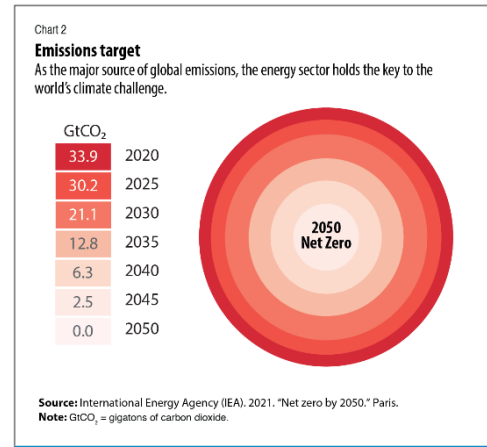
- Disruptive clean critical metals with sustainability ethos.
- Deep operational capability, technology folio and expertise.
- Decarbonization targets, formidable balance sheet, compelling economics.
- Determined leadership, reputational integrity and commercial credibility.
- Doing the right thing

Table 2. Base Summary Recovery Plant\*

Item	
Capex, US\$ million	2.8
Cash cost /oz gold, US\$	242
Variable Opex, US\$ mil/year	13
Fixed Opex, US\$ mil/year	12
Combined Opex, US\$ mil/year	25
Revenue/year, US\$ million	366
IRR (7-year), %	928
NPV (7-year), US\$, million	737

\*9yr run, subject to feedstock, price fluctuation

## THE NET ZERO IMPERATIVE

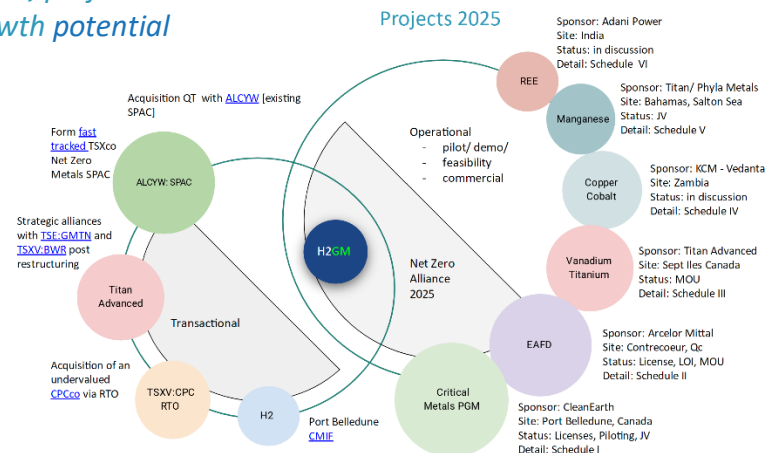


## THE OPPORTUNITY

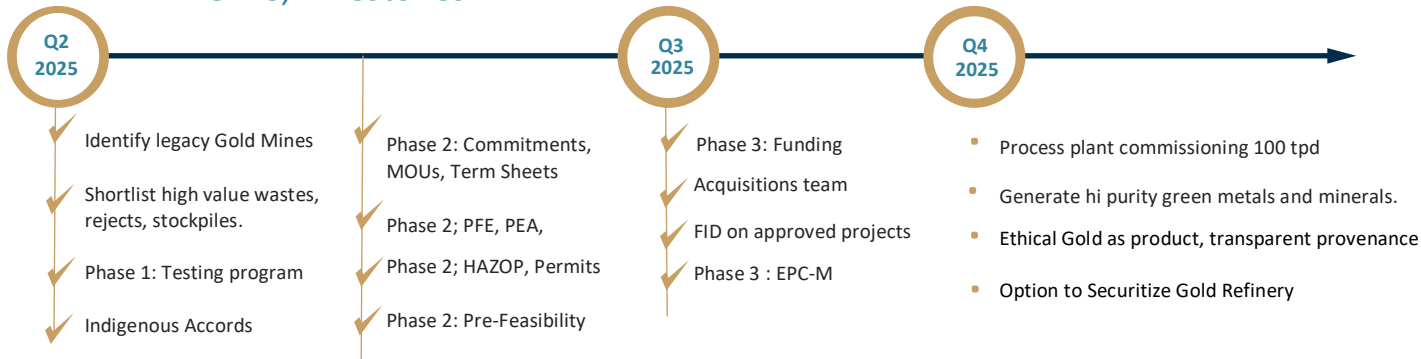


*"We identify and invest in companies, people, projects and initiatives that have demonstrable growth potential and embody character & integrity."*

Kelly Hyslop MD, Co-Chair



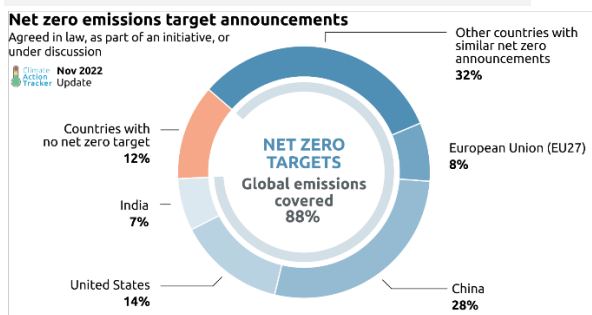
## Timeline, Milestones:



## Current Global Net Zero Commitments:

"Government or private sector commitments to net-zero cannot be a mere public relations exercise."

ANTÓNIO GUTERRES, United Nations Secretary-General,



## Responsible Ethical Gold, PGM, Critical Metals

Each Project AuSum plant generates pure, clean, ethical gold, silver, PGM and ancillary metals. No greenwashed 'recycled gold', zero toxic residues, no harmful mercury contamination, no hazardous cyanidation, no dangerous corrosive aqua regia, fully transparent chain of custody, traceable provenance from start to finished product.



## Project Team

**Andrew Zemek:** Widely acknowledged for his expertise in commodities metals, Andrew has over 35 yrs experience in metals mining trading copper silver, capital markets, consultant for World Bank, UNCTAD, UNEP, McKinsey & Co.

**Bryn Harris PhD:** Dr. Harris brings unparalleled expertise in the treatment and assessment of metalliferous ores, metals extraction and materials processing in the mining and refining industries.

**Evgeny Bareev:** GM Bareev is a world-renowned International Grandmaster FIDE (Fédération Internationale des Échecs) and acknowledged expert in behavioral heuristics of decision making under risk.

**Marc Perreault:** Marc is a seasoned M&A team lead and negotiator with deep skillset in financial modeling and risk mitigation honed during sojourn at MDA, a Canadian space mission payload specialist.

**Mike Dry PhD:** Dr. Dry is the preeminent metallurgical process expert in the world today specializing in mass energy balance and use of quantitative data reconciliation, critical to transition between Design-Build-Operate phases of a Mining Project.

**Carl W. White:** Carl is widely acknowledged as a world leader in quantitative metallurgy. As technical advisor to Noranda R&D team, his fields of endeavor focused on extractive metallurgy circuits and purification units.

**Jon Park:** Jon is at the helm of a new generation of game theorist innovator-entrepreneur, who prefer to be at the front and center of their risk constructs. He currently leads commercialisation of Titan Advanced's extensive IP portfolio.

**Michaël Barcet** Michaël is versed in civil, commercial litigation and intellectual property assertion. Me. Barcet has represented successfully before the Quebec Superior Courts, Courts of Appeal, as well as various tribunals.

**Kelly Hyslop MD:** Following a storied career in clinical practice and as professor of Clinical Medicine at UBC, Kelly has been involved in multiple companies in Earth Sciences, Biotech, and has served on the Boards of 12+ companies with a focus on finance.

**Devin Stephenson:** As Ops team leader with well over a decade of hands-on specialised technology operational skills, Devin brings broad experience in multi discipline process knowledge and extensive mechanical and metallurgical expertise for varied hydrometallurgical applications.

**Bruce Sifton:** Deeply immersed in Clean Tech, Bruce has founded several material tech companies and holds a BSc. (Chemistry) and MSc. Eng from the U. of New Brunswick.

**Harry Vernon:** Harry brings 15 years' experience financing resources, energy, sustainability, and infrastructure sectors, with expertise in private, equities and governments encompassing acquisition, joint venture, and niche funding.

**Steve Baker:** Steve is responsible for Titan Advanced commercial roll out worldwide. Previously VP Operations for Shaw Communications, he is directly involved in major projects and M&A activities.