ASX: ANX **30 AUGUST 2021**

SCOPING STUDY RESULTS DEMONSTRATE OUTSTANDING VALUE AT WHIM CREEK

Anax Metals Limited (ASX: ANX, **Anax**, or the **Company**) is pleased to announce the results of the Whim Creek Project Scoping Study (the **Study**). The Whim Creek Project is 80% owned by Anax with the remaining 20% owned by Venturex Resources Limited (Venturex). The Scoping Study results are reported on a 100% Project basis pre-tax with all currency quoted in AUD, unless otherwise specified.

CAUTIONARY STATEMENT

The Scoping Study referred to in this ASX announcement and accompanying Study Report has been undertaken to assess the potential for the development of the Whim Creek Copper-Zinc Project. It is a preliminary technical and economic study of the potential viability of the Whim Creek Copper-Zinc Project with a nominal margin of error of ±30%. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further evaluation work and appropriate studies are required before Anax Metals Limited will be able to estimate any ore reserves or to provide any assurance of an economic development case. The Scoping Study is based on the material assumptions outlined below. These include assumptions about the availability of funding. While Anax considers all the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the range of outcomes indicated in the Scoping Study, funding in the order of A$50 to 65 million will likely be required. Anax has signed an agreement with Anglo American Marketing Limited (Anglo), a subsidiary of Anglo American PLC, under which Anglo may provide project funding of up to US$20 million for the development of the Project, investors should note that the funding is contingent on technical due diligence to be carried out by Anglo. Investors are therefore cautioned that there is no certainty that the Anglo funding will become available. In addition, there is no certainty that Anax will be able to raise additional funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Anax's existing shares. It is also possible that Anax could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce Anax's proportionate ownership of the project.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

HIGHLIGHTS

- The Study identified a **Production Target (92%** of which is in the **Measured or Indicated Resource Category)** that underpins **mining and processing** for a period of **5 to 7 years**.
- **Particle sorters to upgrade ore** with **pre-concentrate** to be processed through a **320Ktpa concentrator** constructed at Whim Creek**.**
- Development strategy delivers **significant environmental and sustainability benefits** in the form of **reduced emissions, reagent and water consumption**.
- The Study indicates the **concentrator** would produce **saleable product**[1] consisting of:

  33,200 Tonnes Copper; 62,400 Tonnes Zinc; 17,800 Tonnes Lead; 1.6 Moz Silver; 9,900 Oz Gold.
- **Free Cashflow**[1] of **$196M**[a] (Range: **$189M**[b] **and $296M**[c]).
- Pre-production capital cost[1] estimate of $52 million.
- **Internal rate of return**[1] of **77%**[a] (Range: **71%**[b] to **111%**[c]).
- **NPV**[1] **(6%) of $163M**[a] (Range: **$151M**[b] to **$247M**[c]**)**.
- **Positive heap leach test work** expected to deliver further upside.
- **JORC2012 Mineral Resource** for **high-grade Evelyn** deposit **in progress.**
- **Further feasibility studies underway**.
- Potential for **regional processing** and **asset consolidation** being assessed**.**
- **Near mine exploration** delivering base and precious metal targets**.**

The Company's Managing Director, Geoff Laing, commented: *"The Anax team continues to deliver on the Company strategy, to acquire, and to monetise base and precious metal assets through the application of smart technology. We are delighted with the outcomes of the study which demonstrate the leverage and flexibility the strategy delivers. In just over a year, we have acquired an 80% interest in a strategic Pilbara copper asset, become a Joint Venture Partner to Venturex Resources Ltd and attracted the interest and support of Anglo American Marketing Ltd. The study demonstrates the potential value the Whim Creek Project has applying Anax's strategy. We expect to deliver further upside to the project through resource growth, definition of the bioleach potential and capital optimisation through the application of further plant modularisation. We are proud to be at the forefront of technology integration that will deliver sustainable and robust project and environmental outcomes – the path ahead is exciting."*

[1] Reported on a 100% Project Basis. Anax has an 80% interest in the project and will contribute 80% of costs and receive 80% of financial outcomes
[a.] Base Case (medium-term) price assumptions: $8,550/t Cu; $2,300/t Zn, $2,100/t Pb, $25/oz Ag, $1,750/oz Au, US$1.00 = AU$0.73
[b] Long-term price assumptions: $7,700/t Cu; $2,500/t Zn, $2,000/t Pb, $25/oz Ag, $1,750/oz Au, US$1.00 = AU$0.73cx[b] Spot price assumptions (at 19
[c] Aug 2021): $8,900/t Cu; $2,940/t Zn, $2,490/t Pb, $23.25/oz Ag, $1,785/oz Au, US$1.00 = AU$0.715

1. PROJECT DESCRIPTION AND DEVELOPMENT STRATEGY

Introduction

The Study investigated mining of currently defined Mineral Resources at the Mons Cupri, Whim Creek and Salt Creek deposits that form part of the Whim Creek Copper-Zinc Project (**Project**), located 115km southwest of Port Hedland in the West Pilbara Region of Western Australia and 3km south of the historic Whim Creek Hotel.

The Whim Creek Project is accessed primarily by the North-West Coastal Highway that runs between Karratha and Port Hedland, which provide airport and seaport facilities.

The Whim Creek Project comprises four prospects, Whim Creek, Mons Cupri, Salt Creek and Evelyn deposits. The prospects are clustered within a radius of 25 km as illustrated in Figure 1. The Dampier Gas Pipeline runs parallel to the North-West Coastal Highway and a spur pipeline has been installed to Whim Creek mine site for the purpose of power generation (not currently in use).

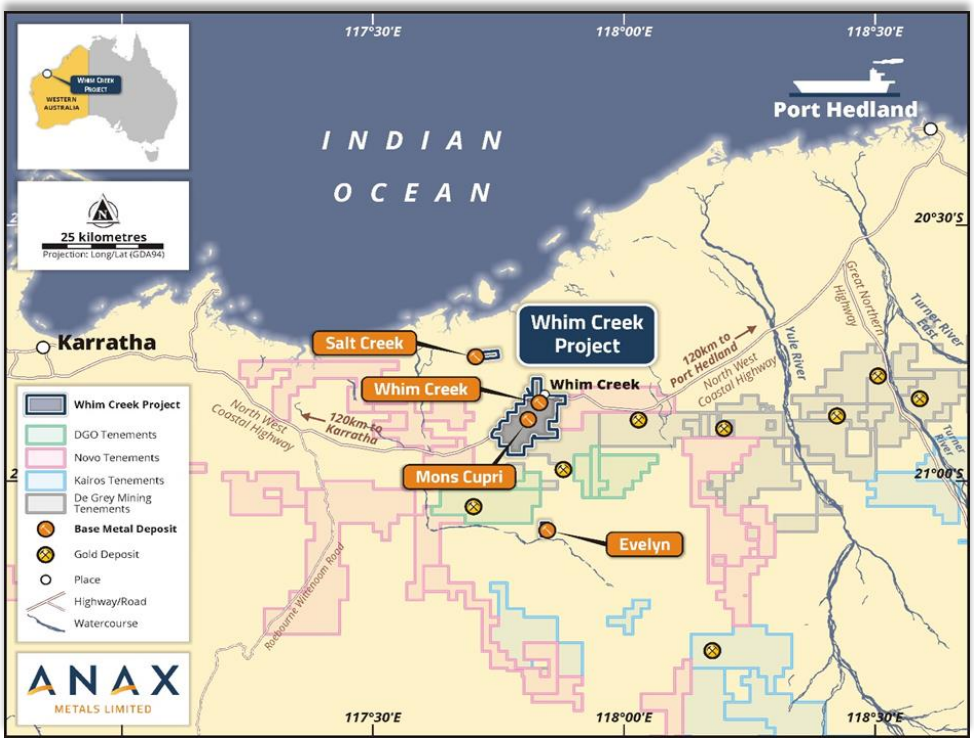

Figure 1: Whim Creek Project Location

Existing Infrastructure

Straits Resource Limited (Straits) previously mined and treated oxide ore from Mons Cupri and Whim Creek through a heap leach and associated process infrastructure located approximately halfway between the Whim Creek and Mons Cupri deposits. The heap leach facility located at the Project is currently subject to an Environmental Protection Notice (EPN). Upgrades to process ponds and containment infrastructure aimed at addressing the requirements of the EPN is currently in progress and expected to be completed by the end of 2021.

Subject to meeting EPN requirements and obtaining all necessary regulatory approvals, the Company intends to use the existing infrastructure to allow the development of both a crushing and sorting operation along with a heap leach operation and aggregate recovery operations

The Whim Creek Hotel is owned by the local Ngarluma people and has historically included a mine camp with the potential to accommodate over 200 people. A temporary camp is currently in place at the mine to accommodate a small staff of caretakers monitoring the inactive heap leach facility and associated infrastructure.

Water supply is available through existing bores. Other site infrastructure includes offices, workshops, process and stormwater ponds, production bores and haul roads.

Development Strategy

The development strategy focusses on utilising significant natural variability that occurs within the VMS deposits, to produce valuable high grade preconcentrates and lower grade feedstock for a heap leach operation. The Anax plan is to focus on upside leverage and risk mitigation for each stage of the development.

Integrating sorting technology facilitates significant reductions of mined material (preconcentration) prior to downstream processing. The processing rate can be set such that metal unit production is optimised for the capital deployed. The flowsheet is inherently robust allowing for the optimal combination of preconcentration and leaching to deliver the preferred outcome (Figure 2).

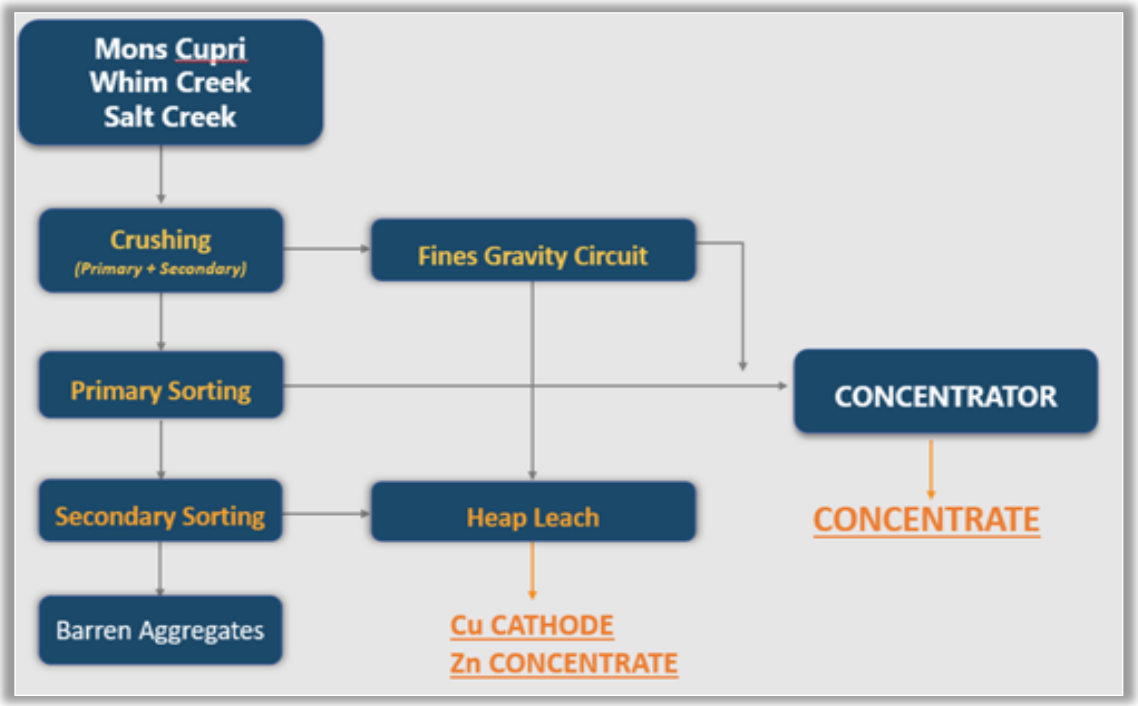

Figure 2: Whim Creek Project Conceptual Flowsheet

The proposed project development includes:

- **Mining** – sequential open pit mining at Mons Cupri, Whim Creek and Salt Creek and a small underground operation towards the end of the mining schedule at Salt Creek. The open pit mining will focus initially on extracting the high-grade domains in the upper portion of the Mons Cupri deposit followed by medium-grade stringer zones. Mining production rates have been selected to maximise efficiency and minimise operating costs.
- **Preconcentration** – including crushing and screening utilising the existing infrastructure and two stage X-ray transmission ("XRT") ore sorting. Fines (particles below the sorting size threshold) will be treated in a gravity circuit to achieve a similar level of upgrade. The sorting and gravity upgrade process will generate both high-grade (primary ore sorting) and medium grade (secondary ore sorting) products along with final rejects of sub-economic grade.

  Preconcentration decouples mining from processing and provides optionality with respect to the downstream processing. The option evaluated in the Study is a small purpose-built concentrator to be located at Whim Creek. However, preconcentration also provides the option of upgrading ore more aggressively which may enable processing of preconcentrates through a plant located in the Pilbara, or a remote processing concentrator outside the Pilbara.
- **Processing of preconcentrates** in a conventional 320 kilo tonnes (Kt) per annum three-stage polymetallic concentrator for the recovery of copper zinc and lead concentrates. The strategic base case is to build a concentrator at the Whim Creek site. The capacity of this facility has been selected to deliver both capital and operating efficiencies achievable because of the significant benefit derived from preconcentration. The concentrator facility will have a capacity of 320 kilo tonnes per annum (Ktpa) which is only 40% of the planned mining rate but will deliver greater than 80% of the mined metal units and has been sized to allow for modular construction.
- **Existing Heap Leach** infrastructure at the site will be utilised to process secondary sorting products and fines gravity circuit rejects to maximise the recovery of metal units and provide added robustness and flexibility to the circuit. Secondary sorting of the primary sorting rejects provides control over the material that is directed to the heap and the grade of the final rejects.
- **Infrastructure** - the extensive existing infrastructure at this brownfields site will be utilised to the largest extent and is expected to provide significant capital costs benefits (Figure 3).

Anax's strategy centres around de-risking the development of Whim Creek. This is achieved by:

- High grade polymetallic mineralisation with a high degree of natural variability.
- Brownfields project with existing infrastructure and near-term production potential.
- Simple open pit mining for the majority of the project.
- Production schedule underpinned by highest grade material being acquired at the beginning.
- Almost exclusively primary sulphides which simplifies metallurgy.
- Capacity to upgrade all size fractions of material including the fines.
- Capacity to recover metal units from the reject stream.

Figure 3: Existing Whim Creek Crushing Circuit

2. GEOLOGY AND RESOURCES

The base metal deposits that comprise the Project all occur within the Whim Creek Greenstone Belt which forms part of the Archaean-aged Pilbara Craton, a granite-greenstone terrane that formed between 3,600 Ma and 2,800 Ma. The Mons Cupri, Whim Creek and Salt Creek deposits are interpreted to be of the Volcanogenic Massive Sulphide (VMS) style. These deposits are interpreted to form in close association with submarine volcanism through the circulation of hydrothermal fluids and subsequent exhalation of sulphide mineralisation on the ancient seafloor, similar to present-day black smokers.

The Mineral Resources that underpin the Production Target has been prepared by a competent person in accordance with the 2012 edition of the JORC Code. The Mineral Resources that form the basis of the Study are shown in Table 1 and Table 2.

A **JORC 2012 Mineral Resource** is also currently being completed for the **high-grade Evelyn deposit**. Anax intends to complete mining studies to investigate whether Mineral Resources from the Evelyn deposit could be added to the **Production Target**. An **updated Scoping Study** will be released if a material change to the Production Target is confirmed**.**

Table 1: Whim Creek Project Global Copper Dominant Mineral Resource (0.40% Cu Cut-off).

Deposit	Classification	Kt	Cu %	Zn %	Pb %	Ag ppm	Au ppm
Mons Cupri[1]	Measured	990	1.62	1.42	0.61	38	0.28
	Indicated	3,130	0.84	0.47	0.20	16	0.09
	Inferred	400	0.60	0.22	0.10	10	0.03
Salt Creek[1]	Measured	-	-	-	-	-	-
	Indicated	850	1.40	1.12	0.24	8	0.11
	Inferred	460	1.15	2.41	0.60	27	0.16
Whim Creek[2]	Measured	-	-	-	-	-	-
	Indicated	1,750	1.10	0.63	0.16	6	0.04
	Inferred	660	0.56	0.17	0.08	2	0.02
COMBINED[2]	Measured	990	1.62	1.42	0.61	38	0.28
	Indicated	5,730	1.00	0.61	0.19	12	0.08
	Inferred	1,530	0.75	0.86	0.24	12	0.07
TOTAL Cu Resources	**Combined**	**8,250**	**1.03**	**0.76**	**0.25**	**15**	**0.10**

Note: Appropriate rounding applied.

Table 2: Whim Creek Project Global Zinc Dominant Mineral Resource (≥ 2.0% Zn; < 0.40% Cu)

Deposit	Classification	Kt	Cu %	Zn %	Pb %	Ag ppm	Au ppm
Mons Cupri[1]	Measured	70	0.16	4.56	1.79	53	0.23
	Indicated	340	0.09	3.56	1.01	38	0.07
	Inferred	150	0.08	4.84	1.96	27	0.04
Salt Creek[1]	Measured	-	-	-	-	-	-
	Indicated	170	0.18	14.15	4.23	85	0.53
	Inferred	380	0.12	8.75	2.57	62	0.25
Whim Creek[2]	Measured	-	-	-	-	-	-
	Indicated	120	0.12	3.22	0.44	12	0.08
	Inferred	45	0.13	2.46	0.40	9	0.04
COMBINED[2]	Measured	70	0.16	4.56	1.79	53	0.23
	Indicated	630	0.12	6.34	1.77	46	0.19
	Inferred	575	0.11	7.22	2.23	48	0.18
TOTAL Zn	**Combined**	**1,275**	**0.12**	**6.63**	**1.98**	**47**	**0.19**

Note: Appropriate rounding applied.

The Mineral Resource estimates for Mons Cupri and Salt Creek were first announced by Venturex in accordance with ASX Listing Rule 5.8 in its announcement of 23 March 2018 and reported by Anax in its recompliance prospectus released on 18 September 2020.[3] The Mineral Resource estimate for Whim Creek was first reported by Anax in accordance with ASX Listing Rule 5.8 in its announcement of 25 May 2021. The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous announcements and that all material assumptions and technical parameters underpinning the Mineral Resource estimate in the previous announcement continue to apply and have not materially changed.

3. MINING

Orelogy Consulting Pty Ltd (Orelogy) was commissioned by Anax to conduct the mining component of the Study, with the objective of producing a consolidated schedule. The proposed mining operation uses conventional load and haul mining methods for the open pits at Whim Creek, Mons Cupri and Salt Creek and the Modified Avoca method for the underground (UG) component at Salt Creek.

Pit Optimisations

Geotechnical Consultancy, Pells Sullivan Meynink (PSM), completed a pre-feasibility level geotechnical assessment for Mons Cupri, with overall slope angles used for pit optimisations at Mons Cupri based on the recommendations from the study. PSM also reviewed available data for Salt Creek and provided a recommendation of pit slopes angles. At Whim Creek, where a cut-back of the northern wall is proposed, the pit angles used were similar to the current overall pit slopes, with an additional allowance for a ramp (Table 3).

Table 3: Summary of Overall Slope Angles used in the pit optimisations

Parameter	Unit	Min	Max
Mons Cupri Oxide	deg	29	34
Mons Cupri Fresh	deg	36	52
Whim Creek Oxide	deg	24	42
Whim Creek Fresh	deg	36	50
Salt Creek	deg	42	42

Mining costs were developed by Orelogy using first principals for a contract mining strategy assuming a mining rate of ~9 million tonnes per annum (Mtpa) to feed the crusher at a rate of 800 Ktpa. A summary of parameters used in pit optimisations are shown in Table 4.

A summary of recovery factors used in pit optimisations is shown in Table 5. Yields, sorting recoveries and concentrator recoveries were assigned based on sorting and metallurgical test work, both historic and recent, completed on different zones.

Table 4: Key Assumptions (fixed) used in Pit Optimisations

Parameter	Unit	Value
Copper Price	US$/t	7,700
Zinc Price	US$/t	2,500
Lead Price	US$/t	2,000
Silver Price	US$/oz	25
Gold Price	US$/oz	1,750
Exchange Rate	USD: AUD	0.77
Dilution	%	5%
Ore loss	%	5%
OP Mining Cost (Ave)	$/t	3.67
Crush and Primary Sort	$/t	6.00
Secondary Sort Haul/Crush/Sort/Stack on Heap	$/t	5.00
Pre-Concentrate Haulage (Regional Option only)	$/t	15.00
Concentrator Process Cost	$/t	45.00
Heap Leach Process Cost	$/t	30.00
Heap Leach Recovery - Cu	%	55%
Heap Leach Recovery - Zn	%	75%
Royalties (Cu, Pb, Zn Concentrate)	%	5.0
State Royalties (Metals)	%	2.5
Anglo American Royalty	%	0.8

Table 5: Assumptions (variable) used in Pit Optimisations

Variable	Min	Max
Primary Sort Yield	30%	90%
Primary Sort Recoveries	55%	99%
Secondary Sort Yield	25%	50%
Secondary Sort Recoveries	50%	90%
Concentrator Recovery (Cu)	85%	90%
Concentrator Recovery (Zn)	75%	85%
Concentrator Recovery (Pb)	70%	70%
Concentrator Recovery (Ag)	50%	60%
Concentrator Recovery (Au)	50%	60%

Pit optimisations were completed for all three deposits. Cut-off grades were based on a mine gate value calculation, with "ore" defined by blocks where the mine gate value is greater than $0. Results for Pit Optimisations are shown below in Table 6.

Table 6: Pit Optimisation Results

Parameter		Units	Mons Cupri	Whim Creek	Salt Creek	Total
Physicals	Total Undil Ore	Kt	2,200	670	230	**3,100**
	Cu	%	1.25	1.58	0.22	**1.24**
	Zn	%	1.66	1.17	14.78	**2.51**
	Ag	g/t	34	7	159	**37**
	Au	g/t	0.22	0.06	0.6	**0.21**
	Pb	%	0.71	0.16	4.71	**0.88**
	Measured	%	42%	-	-	**30%**
	Indicated	%	54%	100%	53%	**64%**
	Inferred	%	3.3%	-	47%	**6%**
	Waste	Kt	15,300	5,200	11,300	**31,900**
	Total	Kt	17,500	5,900	11,600	**35,000**
	Strip Ratio	W:O	7.0	7.8	50.1	**10.3**
Mine Life		Years	2.7	0.8	0.3	**3.9**

Note: Appropriate rounding applied.

Underground Mining – Salt Creek

The underground component at Salt Creek is based on development of a decline from within the open pit. The open pit eliminates the need for a box-cut and recovers the upper-level material located in poor ground conditions that previous studies identified as possibly requiring to be mined using the high-cost underhand cut and fill method. For Modified Avoca mining a minimum stope drill width of 2.0 m was utilised with a 0.5 m dilution width on each wall for a minimum finished stope width of 3.0 m. A factor of 6 tonnes per drill metres was utilised and is inclusive of longhole slots for stope establishment. Mine waste will be used for fill.

The underground component identified a Production Target consisting of high-grade mineral resources at an average underground mining cost, inclusive of overheads of $65.60/t.

Combined Annual Schedule

Orelogy developed a production schedule based on the Production Target identified through pit optimisations and underground mining studies. Mining would commence at Mons Cupri, followed by Whim Creek and Salt Creek.

Potentially un-mineable portions were removed from the pit shells and the remaining Mineral Resources inside the pit shells were combined with the potentially economic underground Mineral Resources into a schedule using Maptek's Evolution Software. The schedule was constrained by a vertical advance limit of 80m, in bulk waste zones and 60m once in ore.

Mons Cupri was split into two stages, with Stage 1 being an initial cut-back which enables early access to high-grade ore (Figure 4).

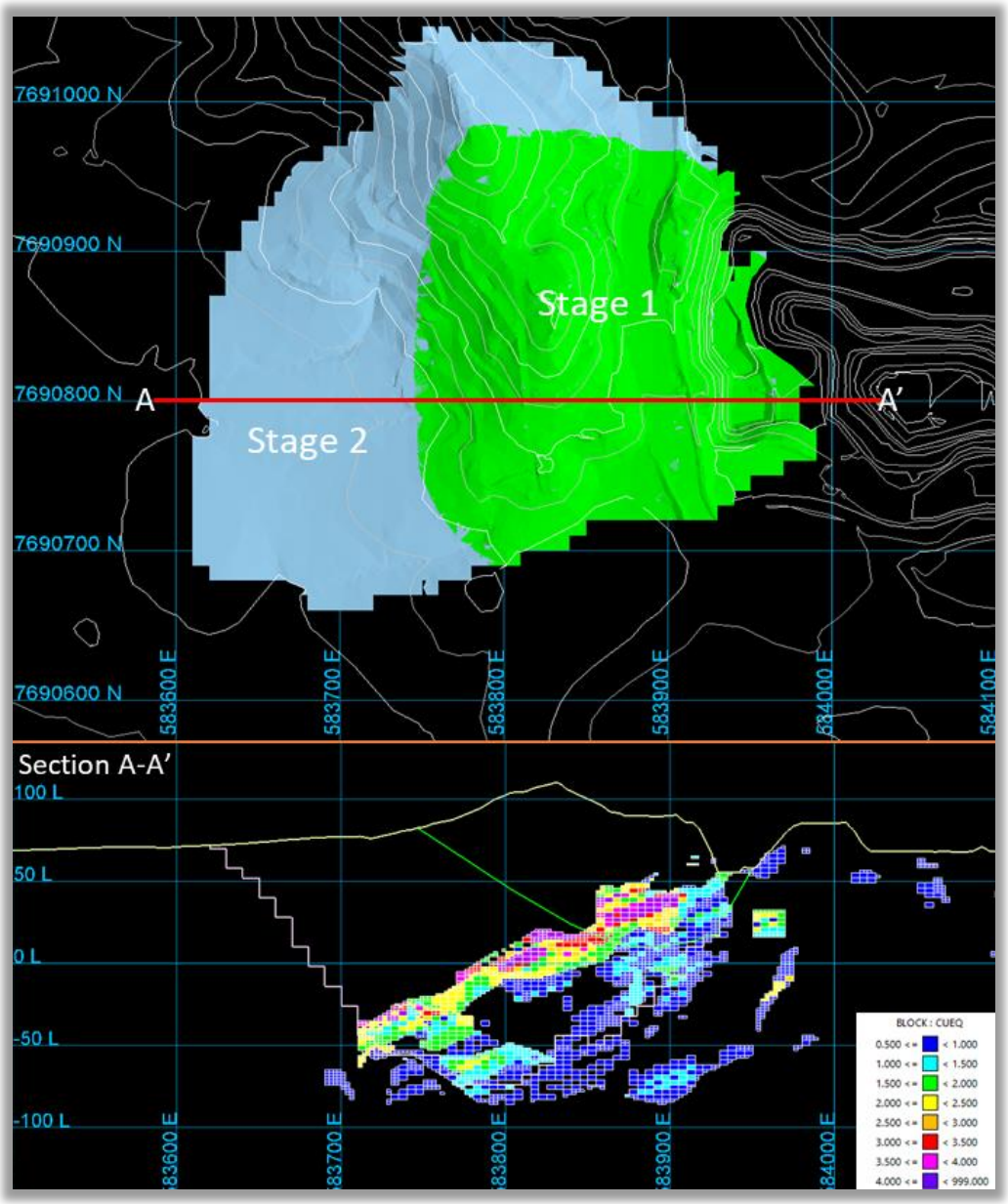

Figure 4: Mons Cupri Open Pit stages

Whim Creek is proposed to be mined as a single stage consisting of a cut-back of the northern wall of the existing pit (Figure 5).

The proposed Salt Creek pit is comprised of two circular pits of similar size and depth. The Salt creek pit has a high strip ratio and whilst it generates good value due to the high-grade nature of the ore mined, there is only sufficient ore for 3 months of processing through the sorting plant. The proposed Salt Creek open pit would provide the take-off point for the decline and ventilation adit/portal for an underground mine.

The western stage of the Salt creek pit was selected as the preferred site for the decline due to the location of the viable stopes.

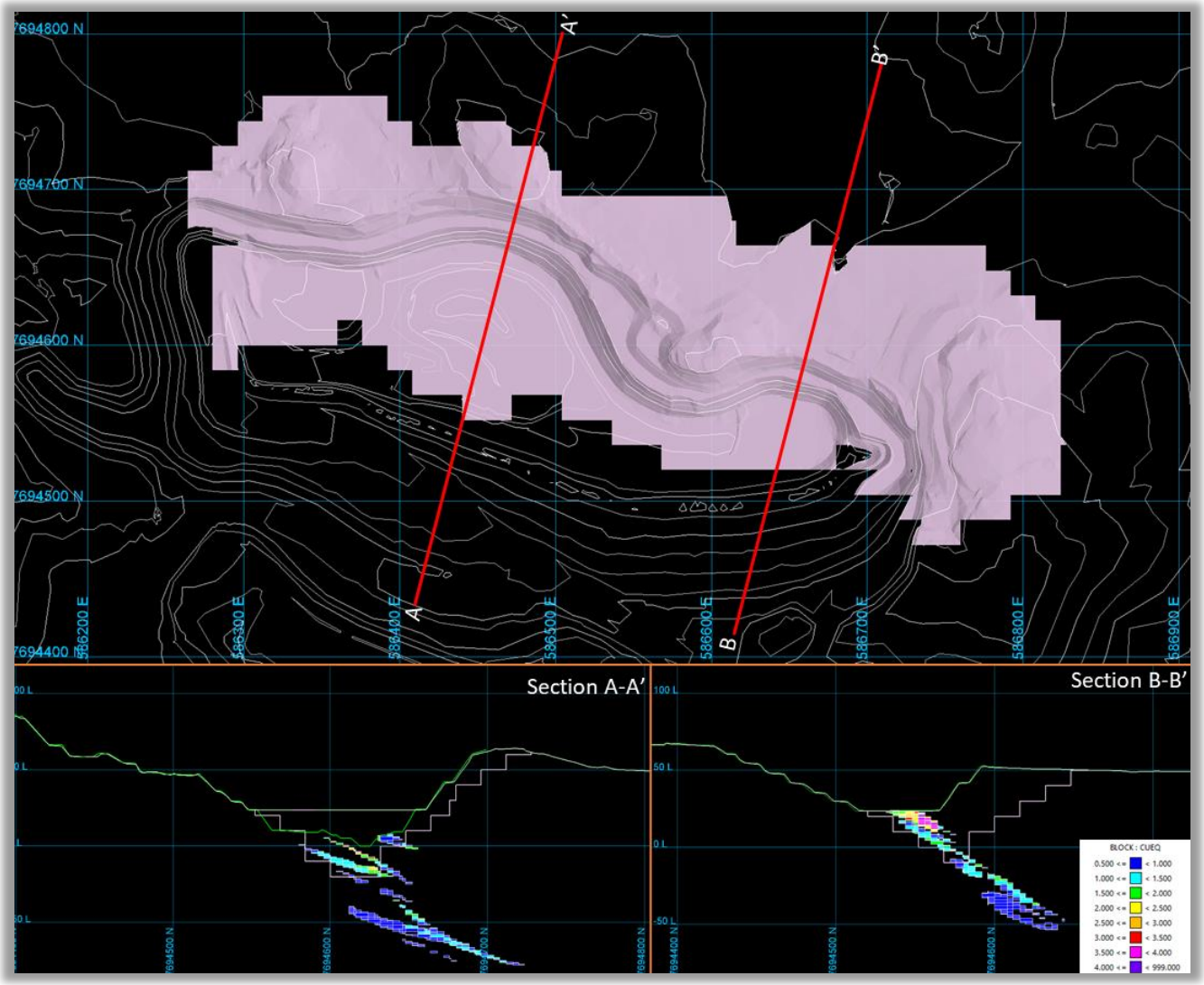

Figure 5: Whim Creek Open Pit

The Production Target by resource classification is shown below in Table 7. Approximately **92% of the Production Target are in the Measured or Indicated** category, with the remaining 8% of the Production Target based on an Inferred Mineral Resource. The Inferred Mineral Resources are in the last ~1.5 years of the schedule. The Inferred Mineral Resources are not the determining factor in project viability and does not feature as a significant proportion early in the mine plan. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources, or that the Production Target itself will be realised.

Additional allowances for dilution were applied to the Production Target, which resulted in a slight increase in tonnes and a decrease in overall grades.

Table 7: Production Target Resource by Category

Deposit	ResCat	Tonnes	Cu %	Zn %	Pb %	Ag (g/t)	Au (g/t)
MONS	Measured	978,000	1.47	1.58	0.67	36	0.27
	Indicated	1,353,000	0.95	1.32	0.53	26	0.15
	Inferred	94,000	0.75	4.36	2.22	49	0.23
	Sub-total	**2,424,000**	**1.15**	**1.55**	**0.65**	**31**	**0.20**
WHIM	Indicated	696,000	1.54	1.17	0.15	7	0.06
	Sub-total	**696,000**	**1.54**	**1.17**	**0.15**	**7**	**0.06**
SALT	Indicated	81,000	0.25	18.56	5.42	115	0.66
	Inferred	96,000	0.18	11.90	4.15	190	0.46
	Sub-total	**177,000**	**0.21**	**14.95**	**4.73**	**156**	**0.55**
SALT UG	Indicated	150,000	1.50	4.87	1.01	19	0.22
	Inferred	100,000	1.45	4.51	1.13	19	0.23
	Sub-total	250,000	1.48	4.73	1.05	19	0.22
TOTAL		**3,547,000**	**1.20**	**2.34**	**0.78**	**32**	**0.19**

Note: Appropriate rounding applied.

A summary annual mining and processing schedule is presented in Table 8, while a summary quarterly mining schedule is presented in Figure 6.

Table 8: Combined Annual Mining and Production Schedule for the Whim Creek Project

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	TOTAL
Total Ore Mined (t)	388,000	820,000	1,557,000	528,000	255,000	-	-	**3,547,000**
Total Ore Feed (t)	225,000	415,000	484,000	583,000	638,000	1,034,000	169,000	**3,547,000**
Cu (%)	2.10	1.66	1.85	1.39	1.19	0.52	0.59	**1.20**
Zn (%)	2.91	3.07	1.81	3.28	4.22	0.79	0.54	**2.34**
Pb (%)	1.38	1.28	0.60	1.08	1.07	0.28	0.14	**0.78**
Ag (g/t)	63	49	29	44	31	17	11	**32**
Au (g/t)	0.48	0.30	0.21	0.22	0.21	0.08	0.06	**0.19**
Waste Mined (t)	6,079,000	7,731,000	7,037,000	5,882,000	754,000	-	-	**27,484,000**
Overall Totals (t)	6,467,000	8,551,000	8,594,000	6,410,000	1,009,000	-	-	**31,031,000**

Note: Appropriate rounding applied.

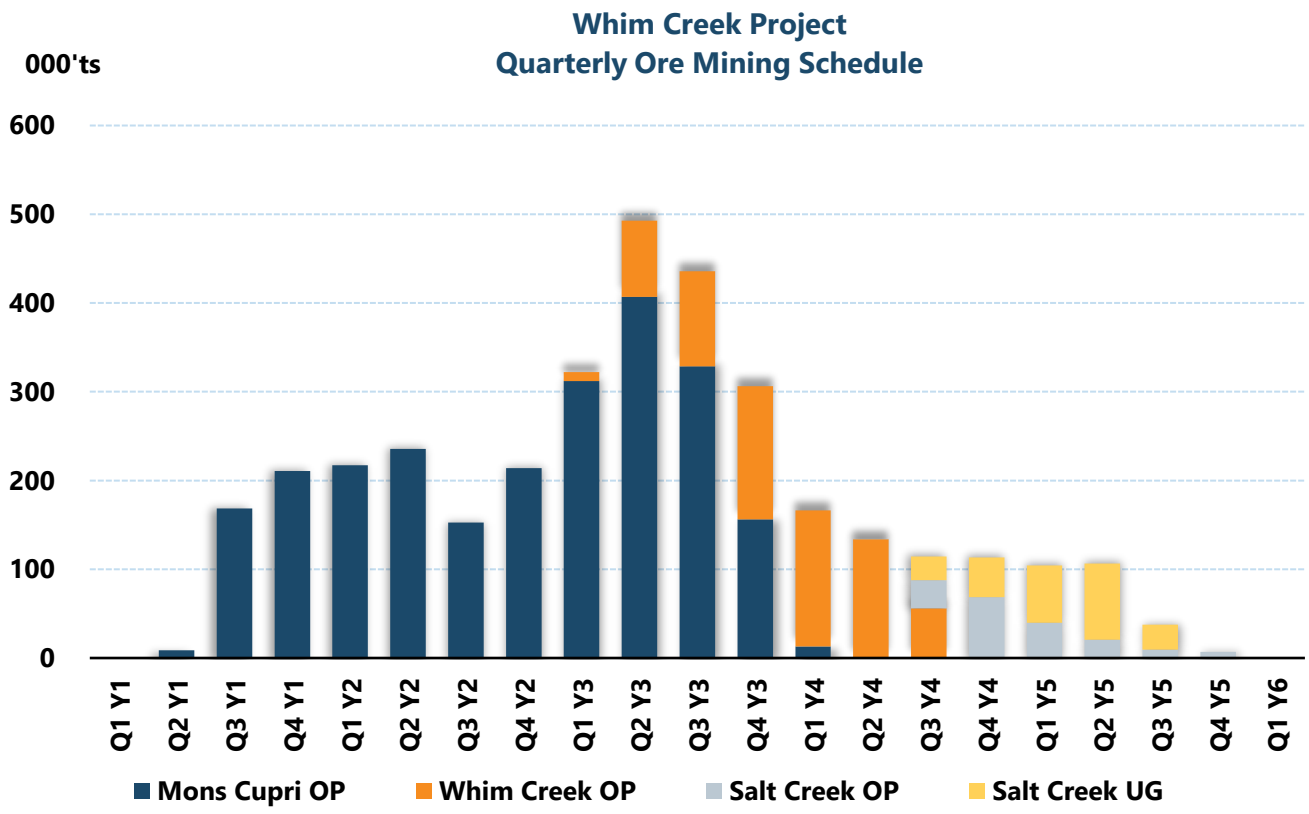

Figure 6: Whim Creek Project Quarterly Ore Mining Schedule

4. METALLURGY

Metallurgical Testwork Overview

Successful upgrade of the Whim Creek ore from the various ore bodies using ore sorting technology is the central theme and driver of the Whim Creek redevelopment project. Figure 7 illustrates the Phase 2 test work undertaken (after initial Phase 1 small scale tests).

The primary aim of the test work programme was to confirm the viability of using ore sorting to efficiently upgrade the Whim Creek ore into high grade pre-concentrates. Once the level of ore sorting upgrade achievable had been established, the secondary aim of the test work program is to evaluate the full flowsheet components which includes:

- Comminution and flotation of high-grade primary ore sorter concentrates.
- Heap leaching of secondary 'middlings' ore sorter concentrates.
- Upgrade of <8mm fines to produce high grade and middlings concentrates.

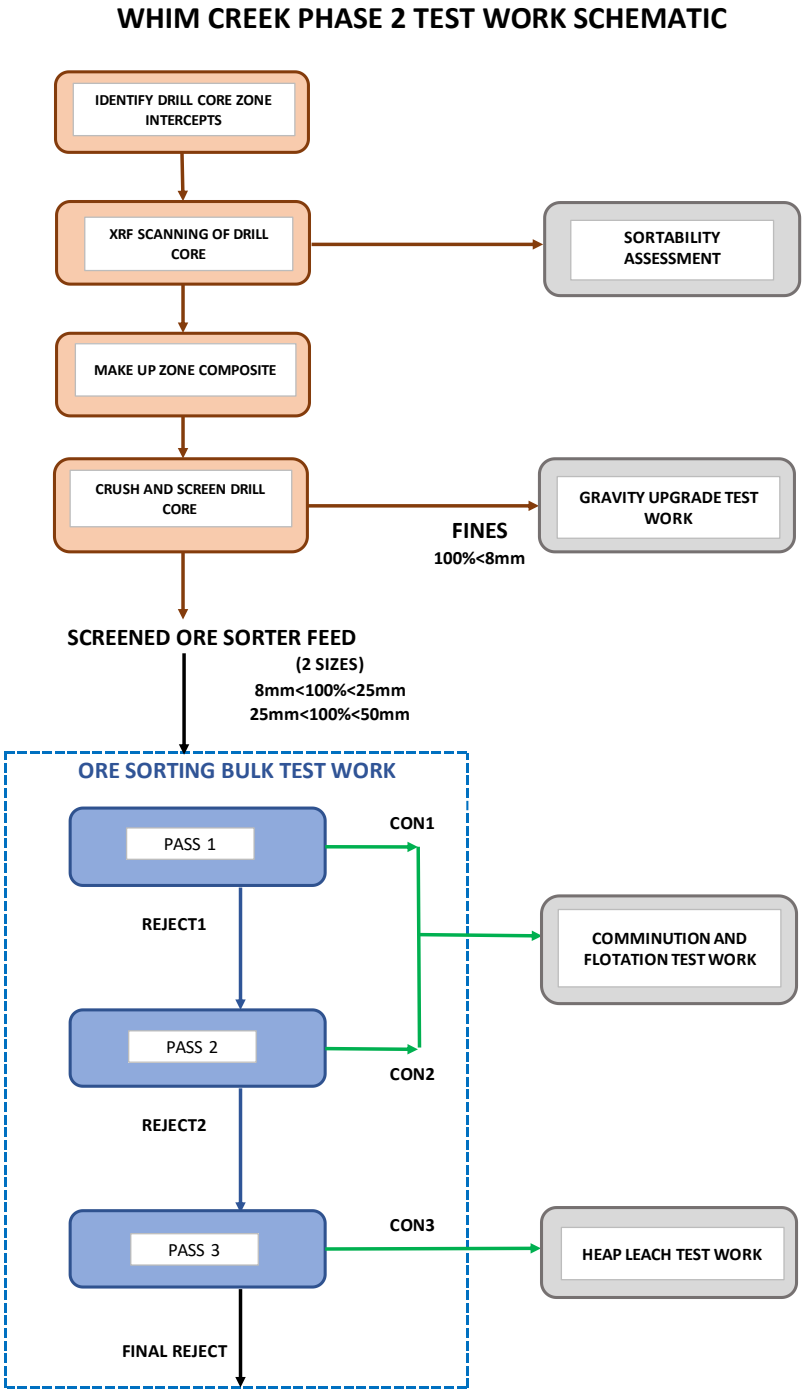

Figure 7: Phase 2 Ore Sorting Test Work

Ore Sorting

Bulk ore sorting test work focussed on generating upgraded ore to reflect the proposed two-stage sorting process to treat the ore from Mons Cupri and Whim Creek. High grade pre-concentrates were generated in the first passes and lower grade 'middlings' products were generated in the final pass, with the final reject targeting sub-economic grades. The three-pass ore sorting runs enabled Yield - Recovery curves to be generated for targeted metals for each ore type tested. For Salt Creek, Yield-Recovery curves were used based on Phase 1 testing completed in late 2020.

The sorter settings to be targeted in a future operation (and used in the Scoping Study modelling undertaken by Anax) have been optimised to achieve the appropriate balance between grade and recovery. There is scope to increase the efficiency of ore sorting with further development of the ore sorter algorithms and scanning signal responses.

For full details and results of the bulk ore sorting test work, refer to the ASX announcements of 28 April 2021[5] and 15 December 2020.[6]

Gravity Upgrade of <8mm Fines

Gekko Systems Pty Ltd (Gekko) was engaged to complete standard Gekko gravity amenability tests on fines from Mons Cupri composites used for ore sorting. The amenability test procedure has been developed by Gekko to provide predictive operational data for the operation performance of the Gekko in-line pressure jig (IPJ). The data from the tests across the 0mm to 8mm size range has been used by Gekko to predict the IPJ performance with this size feed.

The IPJ test work generated Yield-Recovery curves that are very similar to those generated by ore sorter recovery versus mass yield curves, confirming that the efficiency of upgrade of the <8mm fines using the IPJ will be similar to that achieved in the ore sorter treating the +8mm -25mm feed for the same zones.

No specific testwork has been completed on material from the Whim Creek and Salt Creek deposits. It is expected however that fines from these deposits will deliver similar results to sorting tests conducted to date.

Comminution and Flotation Tests

Extensive comminution and flotation testwork have been carried out by previous operators, including Venturex and Straits on Mons Cupri, Whim Creek and Salt Creek. Assumptions used in the Study were based on the results from the historical testwork. In addition, Anax has completed comminution and flotation test work on pre-concentrates generated by ore sorting from Mons Cupri.

Comminution work included standard Bond Ball Mill Work Index and Abrasion Index tests conducted on splits from pre-concentrates generated by ore sorting. Results indicated that the individual high-grade Mons Cupri pre-concentrates appear to have similar comminution characteristics to the Mons Cupri bulk ore samples previously tested by Venturex in 2012.

Extensive **flotation** laboratory test work was undertaken by Venturex on Mons Cupri ore samples as part of the 2012 Venturex Pilbara Cu-Zn Project Definitive Feasibility Study. This test work included numerous locked cycle tests.

The Venturex flotation circuit regime, reagent additions and predicted recoveries and concentrate grades have been used as the basis for the Study flotation circuit design and predicted performance, notwithstanding the pre-concentrates from ore sorting will generally be of a higher grade.

Anax has commenced flotation test work using ore sorter pre-concentrates from the various zones at Mons Cupri. Initial results indicate that higher recoveries and concentrate grades may be achieved when higher-grade preconcentrates are used as feed.

Heap Leach testwork

Anax has initiated bacterial heap leach testwork with key technology providers. Using material from Mons Cupri, the heap leach test work primarily targets copper recovery from chalcopyrite, and as such requires a biological leaching process to achieve economic copper recoveries. Zinc recovery via precipitation/crystallisation from leach solutions is also being investigated as the sphalerite leaches under conditions anticipated for biological heap leaching.

Diagnostic leaches have been completed and amenability testwork is currently in progress. While initial results from amenability tests are promising with high Zn and Cu recoveries achieved, the work is at an early stage and column tests are required to verify the recoveries and operating costs. No test work has been completed on ore from Whim Creek or Salt Creek.

Provision has been made in the financial model for placement of secondary sorting products on the heap and associated capital and operational expenditure. However, due to the early-stage nature of testwork, no value has been placed on the metal production. Heap leach testwork is continuing and depending on results may significantly enhance the economics of the Project.

5. PROCESSING

Crushing, Screening, Ore Sorting and Agglomeration

Anax engaged Nexus Bonum Pty Ltd (Nexus) to investigate the equipment, capital and operating costs for an 800,000 tonnes per annum feed to the crushing, screening, ore sorting and fines upgrade circuits. Nexus also completed a preliminary assessment of existing equipment and provided commentary as to the suitability of refurbishing the crushing plant.

Figure 8 present the process flow diagram for the crushing, screening, gravity upgrade, sorting and agglomeration components.

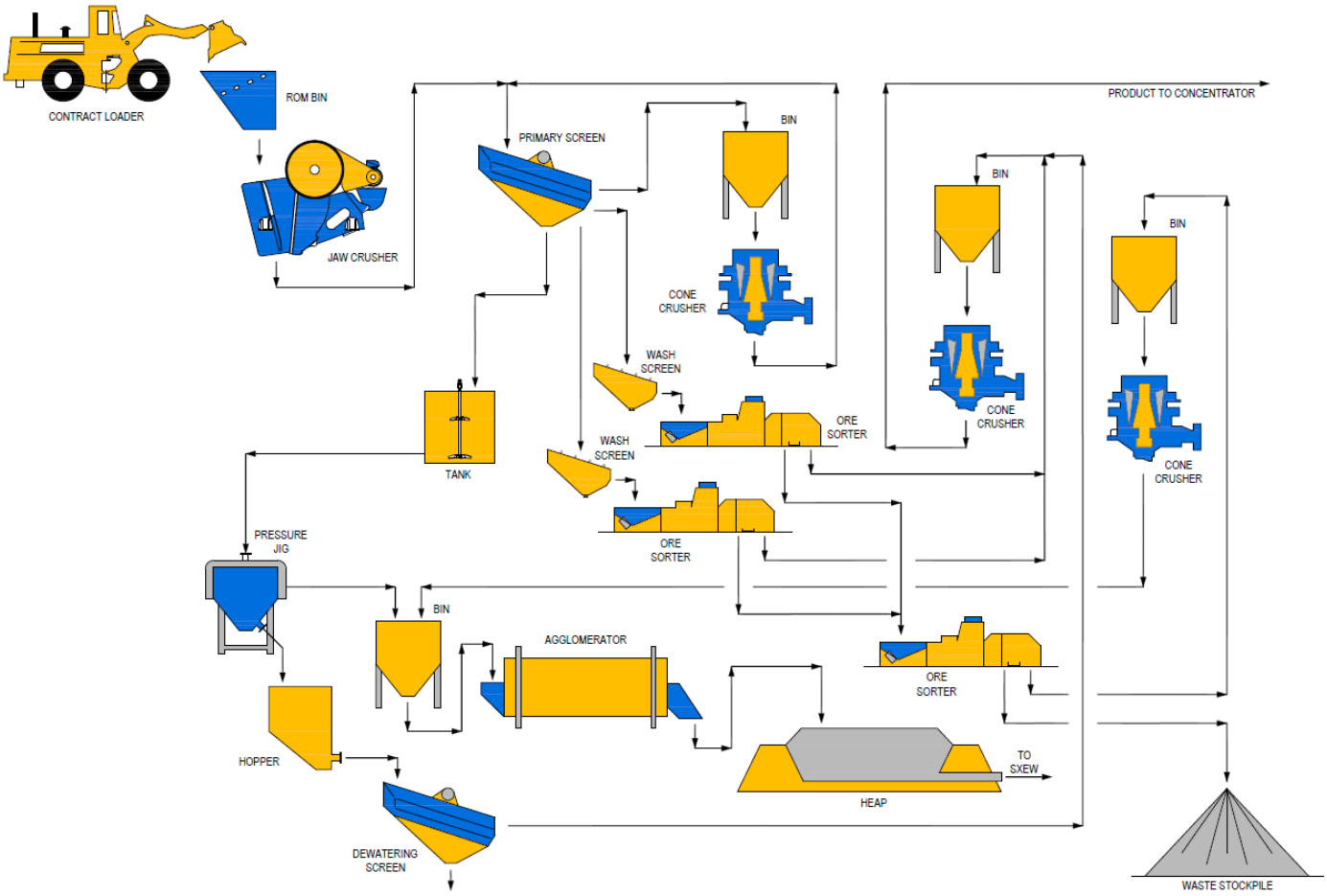

Figure 8: Crushing, Screening, Gravity upgrade, Sorting and Agglomeration Process Flow

The estimated capital cost[1] for the Crushing, Screening, Ore Sorting and fines gravity upgrade infrastructure is $12.7M.

Table 9: Crushing, Screening, Sorting and Fines Capital Cost Estimate

Description	Estimate ($M)
Process Plant and Equipment	$6.4
Ancillaries / Infrastructure Equipment	$0.6
Electrical and Instruments (Key Supply)	$1.6
Bulk Supply	$0.6
Freight	$0.4
Site Works	$2.0
EPCM Services: based on "self-perform"	$1.1
TOTAL	**$12.7**

[1]Reported on a 100% Project Basis. Anax has an 80% interest in the project and will contribute 80% of costs and receive 80% of financial outcomes

The basis for the calculation of the Operating costs are as follows:

- 800,000 tonnes per annum ROM feed direct from the haulage unit to the ROM bin.
- The power is "over the fence" at a predetermined 27c / kw/hour.
- The labour costs included are direct labour only, operators and process lead.
- The Maintenance costs are determined by a factor on total direct capital at 5% for spares and maintenance labour.
- Costs estimated to a +/-30% accuracy level

The Operating Cost[1] estimate determined by Nexus is summarised below in Table 10.

Table 10: Crushing and Sorting Operating Costs Estimate

Description	Per Tonne
Power	$2.60
Labour	$1.00
Maintenance	$0.50
Handling Provision	$0.10
Total	**$4.20**

In the Study, crushing and sorting costs of $4.00 per tonne of feed were assigned. An additional cost of $5.00 per tonne was assigned for crushing, agglomeration and placement of secondary sorting product which reports to the heap. In addition, a cost of $1.00 per tonne was assigned for transport and placement of secondary sorting rejects.

Concentrator

Anax commissioned GR Engineering Services Limited (GRES) to conduct a scoping study level investigation for a polymetallic sulphide concentrator to be located at Whim Creek. The concentrator plant was designed to process approximately 320,000 tonnes of ore per year. The proposed concentrator flowsheet is based on a poly-metallic, sequential flotation approach (Figure 9).

The feedstock for the concentrator will be preconcentrate from primary ore sorting and upgraded fines from the gravity circuit.

Ore will be delivered from the crushing and pre-concentration circuits to a fine ore bin. The ore will then be fed to a ball mill grinding circuit closed with hydrocyclones to achieve a product grind size of 80% passing (P80) 75 microns (µm). Comminution and classification will be followed by sequential flotation of the copper, lead and zinc minerals to produce separate sulphide concentrates. The concentrates will be thickened and filtered prior to transport from site by trucks.

[1]*Reported on a 100% Project Basis. Anax has an 80% interest in the project and will contribute 80% of costs and receive 80% of financial outcomes*

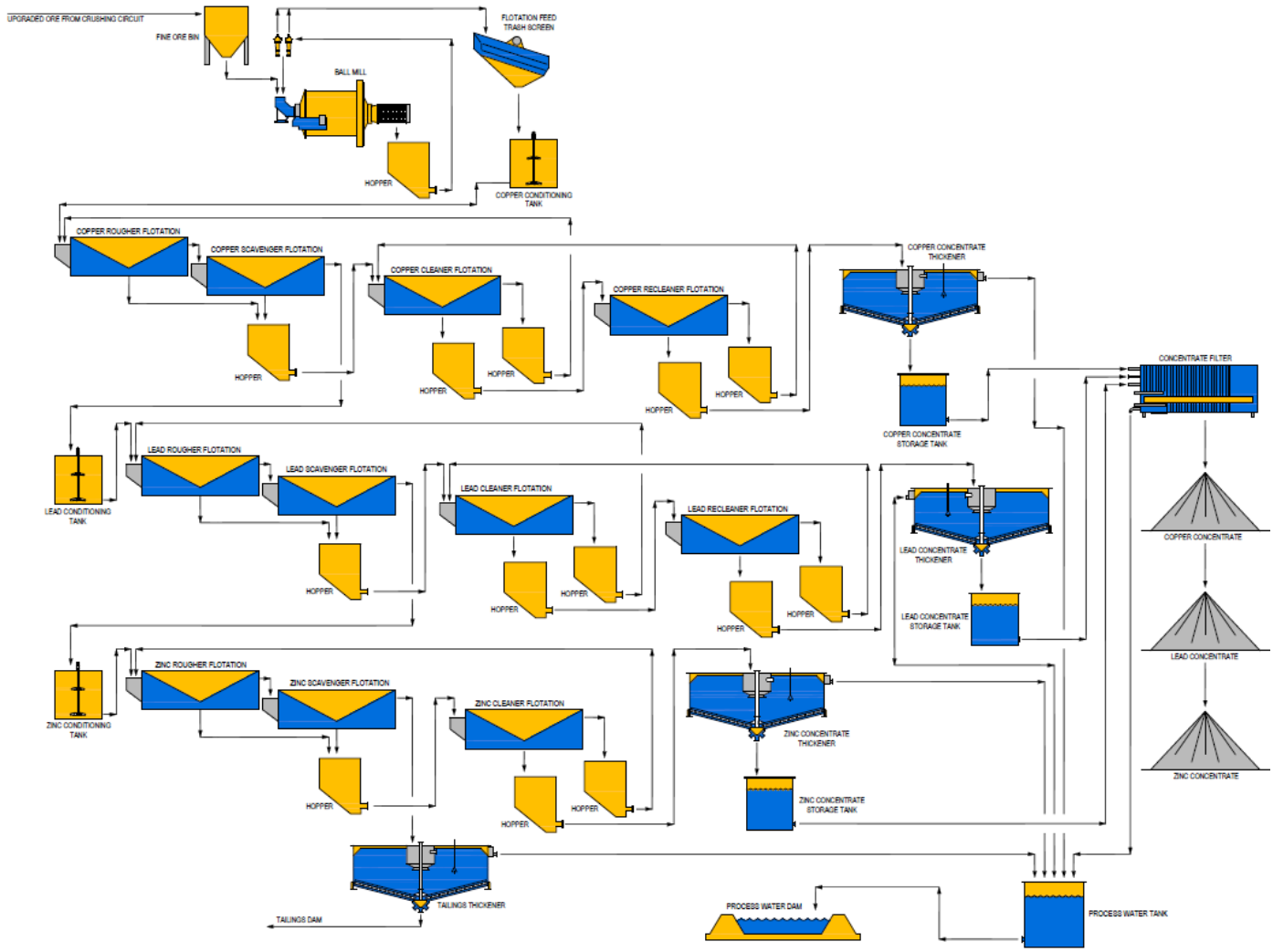

Figure 9: Overall concentration flowsheet

Process tailings will be thickened and then pumped to a Tailings Storage Facility (TSF), currently assumed to be the Mons Cupri Northwest Pit.

Raw water for the process will be supplied predominantly from bore and dewatering water, to be used for reagent mixing and wash water on the concentrate filter. Bore water will also provide feed water for the potable water system (by others).

The **capital costs**[1] for the concentrator have been estimated at **$34.2M** (Table 11).

[1]*Reported on a 100% Project Basis. Anax has an 80% interest in the project and will contribute 80% of costs and receive 80% of financial outcomes*

Table 11: Process Plant Capital Cost Estimate

Item	Cost ($M)
Ore Storage	1.8
Grinding and Classification	3.6
Flotation	3.4
Concentrate Thickening	4.1
Concentrate Storage	0.3
Reagent	0.9
Power Reticulation - Plant	3.6
Plant Piping	2.6
Tailings Disposal, decant & return water	0.7
Project Management	1.8
Engineering and Drafting	2.1
Site Supervision and Management	2.2
Site Construction Cranes & Equipment	1.7
Site Construction Facilities	0.4
Commissioning	0.8
Initial Fills	0.6
Spare Parts	0.2
Mobilisation / Demobilisation / Indirect Costs	1.8
Contractor Indirect Costs	1.6
TOTAL	**34.2**

The capital estimate[1] has been developed with an accuracy level of ±30% using costs based on an historical GRES database for similar projects. EPCM costs have been estimated as a percentage of direct costs with due consideration made for the additional engineering and drafting complexity of brownfields project execution.

Operating cost[1] estimates have been compiled in accordance with guidelines for a Class 5 (Scoping Study) estimate, with a nominal accuracy of ± 40%. Table 12 provides a summary of the operating costs by activity.

Table 12: Process Plant Operating Cost Estimate – Summary by Cost Centre

Cost Centre	Unit Cost ($/t)
Power	13.60
Maintenance Spare Parts and Consumables	4.90
Operating Consumables	8.10
Labour	5.90
Other	1.10
Total	**33.50**

[1]Reported on a 100% Project Basis. Anax has an 80% interest in the project and will contribute 80% of costs and receive 80% of financial outcomes

Heap Leach

Provision has been made in the financial model placement of secondary sorting products on the heap. Due to the early-stage nature of testwork, operating costs have been assigned in the financial model so that the heap produces no free cash. While capital costs for process infrastructure related to the heap have been calculated, these costs were left out of the capital estimate.

Other Infrastructure

Significant infrastructure currently exists at Whim Creek (Figure 910). Provision has been made in the Study for construction of a camp to be located at Whim Creek, as well as the purchase and installation of additional non-process infrastructure including gensets, a laboratory and water treatment plant.

In addition, provision has also been made for the construction of a new 10.3km haul road to Salt Creek which will be constructed before mining at Salt Creek commences.

Figure 10: View of existing process and stormwater infrastructure from eastern edge of the heap

6. CAPITAL COST ESTIMATE

A summary of the capital costs[1] used in the Study are shown in Table 13. In addition, a provision for environmental rehabilitation of the site to the value of $15M has been made. The capital cost estimate is ±30% and as such does not include a contingency provision. Anax will define project contingencies through future study phases.

[1]Reported on a 100% Project Basis. Anax has an 80% interest in the project and will contribute 80% of costs and receive 80% of financial outcomes

Table 13: Summary of capital costs used in the Study

Parameter	Value ($M)	Source
Crushing, Screening and Ore Sorting	12.7	Nexus
Concentrator	34.2	GRES
Camp	2.6	Nexus
Gensets and other non-process infrastructure	1.8	Nexus
Surface Mine Establishment and mobilisation	1.0	Orelogy
TOTAL Pre-production Capital	**52.3**	
Salt Creek Access Road	1.9	Nexus, Civil Contractor
Underground Mine Establishment	2.7	Orelogy
TOTAL Capital	**56.9**	

Salvage values of $10M for the concentrator and $5M for crushing, screening and sorting infrastructure have been included in the financial model.

7. OPERATING COST ESTIMATES

Table 14 summarises costs used in financial modelling.

Table 14: Summary of costs used in financial modelling

Parameter	Unit	Value	Source
OP Mining Cost (Ave)	$/t	3.67	Orelogy
UG Mining Cost (Ave)	$/t	65.60	Orelogy
Crush and Primary Sort	$/t	4.00	Nexus
Secondary Sort/Crush/Agglomerate/Stack	$/t	5.00	Nexus, Anax
Concentrator Process Cost	$/t	33.50	GRES
Site Administration	$/t	10.00	Nexus
Concentrate Transport cost	$/t	$100	Conrad
Treatment Charge (Cu)	US $/t	75	Conrad
Treatment Charge (Zn)	US $/t	250	Conrad
Treatment Charge (Pb)	US $/t	146	Conrad
Refining Costs (Au)	US$/oz	5.00	Conrad
Refining Costs (Ag)	US$/oz	1.50	Latest contract prices
Reject Handling Cost	$/t	1.00	Anax
State Royalties (Cu, Pb, Zn Concentrate)	%	5.0	WA State Government
State Royalties (Au, Ag)	%	2.5	WA State Government
Gascoyne Royalty (Whim Creek Au and Ag only)	%	4.0	ANX Prospectus
Anglo American Royalty	%	0.8	Royalty Agreement

8. MARKETING AND LOGISTICS

Anax commissioned Conrad Partners (Conrad), a specialised commodity marketing agency, to review, analyse and assess the marketability of the Whim Creek Project copper, zinc and silver concentrates. Conrad has provided recommendations including indicative concentrate pricing, potential penalties arising from impurities and treatment and refining charges (TC/RCs). In addition, Conrad has also provided recommendations and costings relating to concentrate handling, transport and shipping.

Based on the available data, Conrad considers all three concentrates as saleable that can be readily accepted by smelters throughout China, Japan, South Korea, Philippines (copper and zinc concentrates), as well as the Port Pirie smelter in South Australia (lead concentrate).

Conrad has recommended the price and treatment charge assumptions shown below in Table 15 and Table 16 for the period 2021 to 2025. Anax has adapted these assumptions for the "base-case" medium term pricing. Also shown in the tables are long-term price assumptions and associated TC/RCs assumed by Anax in its financial model.

Table 15: Base-case (medium-term) and long-run commodity prices used in the financial model

Commodity	Unit	Medium Term (US$)	Long Term (US$)
Copper	$/t	8,550	7,700
Zinc	$/t	2,304	2,500
Lead	$/t	2,099	2,000
Silver	$/oz	25	25
Gold	$/oz	1,750	1,750

Table 16: Treatment charges used in the financial model

Commodity	Unit	Medium Term (US$)	Long Term (US$)
Copper	$/t concentrate	75	67
Zinc	$/t concentrate	250	215
Lead	$/t concentrate	146	146

9. SENSITIVITY ANALYSIS

A number of key model parameters were flexed in order to investigate the Project's sensitivity[1] to changes in costs and revenue assumptions.

The proposed Project is most sensitive to changes in the Exchange Rate, with a 10% movement in the AUD-US exchange rate from the base value of AUD$0.73:US$1.00 capable of affecting cashflows in the order of $60M to $70M.

The Project is also sensitive to the copper price, mined copper grade and operating costs, while less sensitive to zinc and lead prices and mined grades. The project is not particularly sensitive to the capital costs or the lead price (Figure 11).

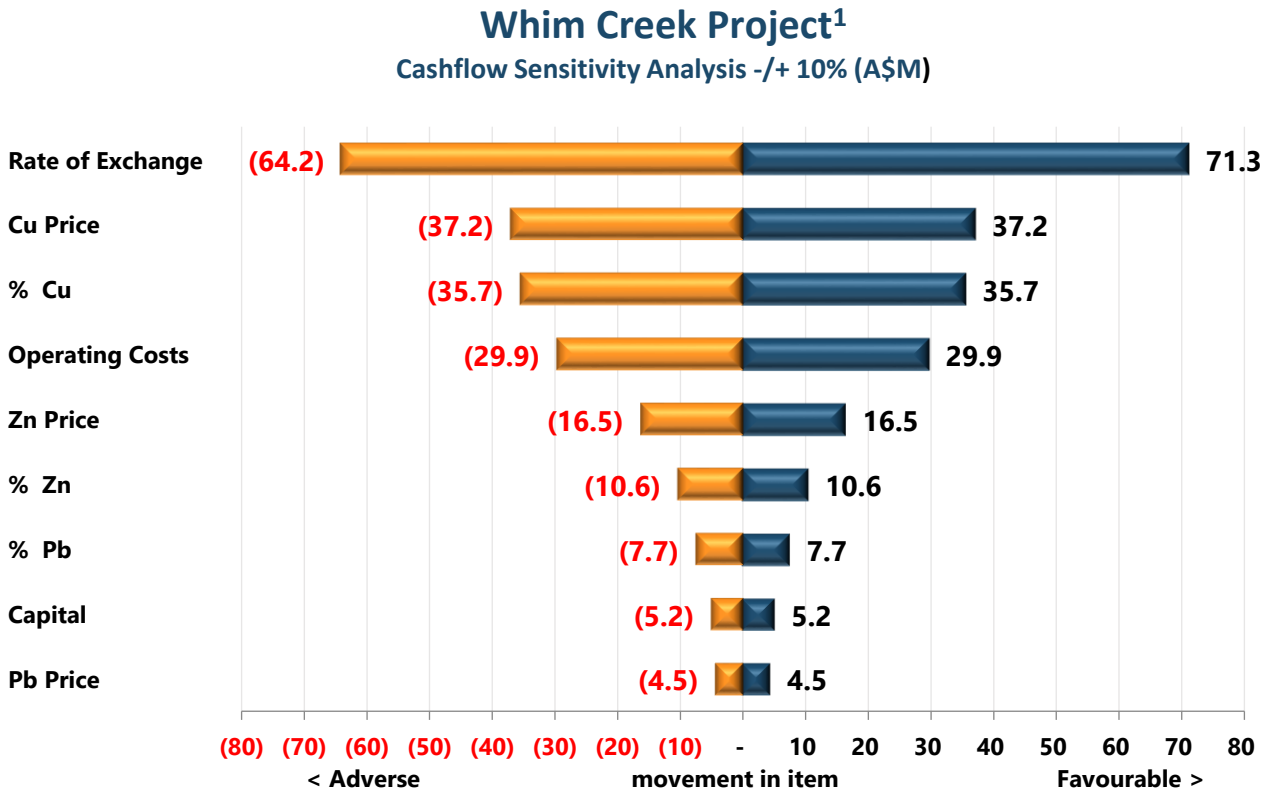

Figure 11: Whim Creek Copper Project cashflow sensitivities – Medium Term Assumptions

[1]Reported on a 100% Project Basis. Anax has an 80% interest in the project and will contribute 80% of costs and receive 80% of financial outcomes

10. SCOPING STUDY RESULTS

The Scoping Study has identified a Production Target **3.55 Mt** at an average grade of **1.20% Cu and 2.34% Zn**. A summary of saleable metals in concentrate is shown below in Table 17.

Table 17: Summary of Scoping Study outputs[1]

Parameter	Value
Ore Mined	3.55 Mt
Cu	1.20%
Contained Cu	42,700 T
Saleable Cu in Concentrate	33,200 T
Zn	2.34%
Contained Zn	83,100 T
Saleable Zn in Concentrate	62,400 T
Pb	0.78 %
Contained Pb	27,500 T
Saleable Pb in Concentrate	17,800 T
Ag	32 g/t
Contained Ag	3,651 Koz
Saleable Ag in Concentrate	1,605 Koz
Au	0.19 g/t
Contained Au	22,000 oz
Saleable Au in Concentrate	9,900 oz

Copper cathode and zinc sulphate production from heap leaching may provide additional saleable product but has been excluded from the current Study. Amenability test work has demonstrated encouraging recoveries for Zn and Cu and may add substantial further value to the Project.

A financial model was developed by AnLar Consulting. Revenue assumptions used in financial modelling are shown below in Table 18.

Table 18: Summary of price assumptions used in financial modelling

Parameter	Unit	Medium Term	Long Term	Spot (at 19/08/2021)
Copper Price	US$/t	8,550	7,700	8,900
Zinc Price	US$/t	2,300	2,500	2,940
Lead Price	US$/t	2,100	2,000	2,490
Silver Price	US$/oz	25.00	25.00	23.25
Gold Price	US$/oz	1,750	1,750	1,785
Exchange Rate	AUD: USD	0.73	0.73	0.715

[1] *Reported on a 100% Project Basis. Anax has an 80% interest in the project and will contribute 80% of costs and receive 80% of financial outcomes*

Key financial results from modelling are shown below in Table 19.

Table 19: Summary of outputs from financial modelling[1]

Parameter	Medium Term	Long Term	Spot
Net Revenue	$ 570M	$ 556M	$ 671M
Operating Costs	$ 299M	$ 299M	$ 299M
Cashflow (after financing)	$ 196M	$ 189M	$ 296M
C3 Total Cost of Production ($/t Cu mined)	$3,477	$3,463	$3,463
IRR	77%	71%	111%
Cashflow positive	7 months	8 months	7 months
Payback	22 months	23 months	17 months
NPV (6%)	**$ 163M**	**$ 151M**	**$ 247M**

Copper makes up over 50% of the revenue of the Project followed by zinc at around 25%. The remaining revenue sources are lead and silver, followed by gold (Figure 12).

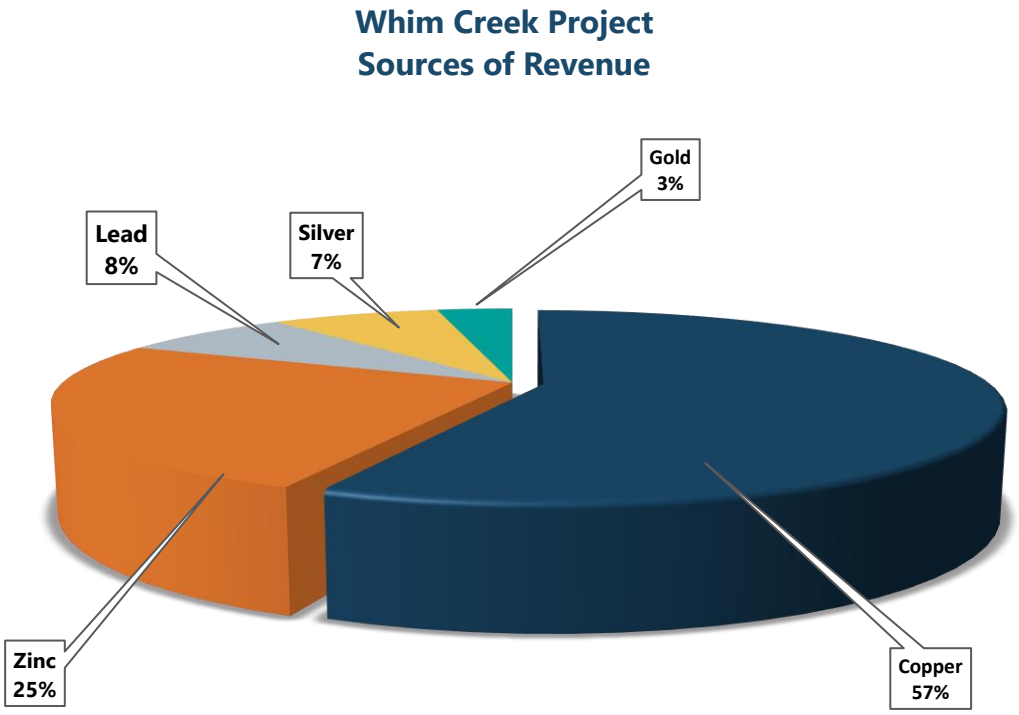

Figure 12: Whim Creek Project Revenue Sources – Medium Term assumptions

The bulk of the operating costs are made up of mining, followed by treatment and refining costs, followed by processing cost. The remaining costs are made up of concentrate shipping, crushing and sorting costs and other unspecified costs. (Figure 13).

[1]*Reported on a 100% Project Basis. Anax has an 80% interest in the project and will contribute 80% of costs and receive 80% of financial outcomes*

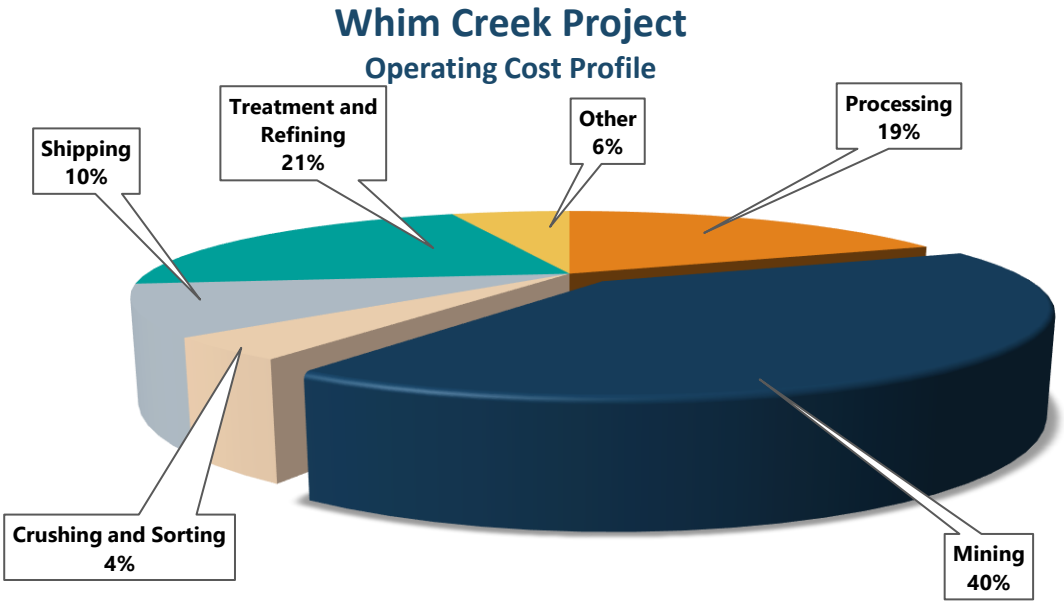

Figure 13: Whim Creek Project Operating Cost Profile – Medium Term assumptions

11. PERMITTING

To allow for production to commence as soon as possible, Anax intends to submit applications for regulatory approvals only for Mons Cupri initially. Additional baseline environmental work will commence at Whim Creek and Salt Creek in early 2022, with applications for regulatory approvals for Whim Creek to be submitted in 2022, followed by Salt Creek in 2023.

Considerable baseline environmental studies have been completed by previous operators. These studies continue to significantly contribute to the environmental impact assessment process. Additional studies conducted by Anax in 2021 to complement the existing Mons Cupri dataset cover the following areas:

- Flora and vegetation desktop assessment **(Completed)**
- Terrestrial fauna Level 1 and targeted surveys **(Completed)**
- Hydrogeological assessment **(Completed)**
- Surface water impact assessment (In Progress)
- Mineral waste characterisation (In Progress)
- Tailings Characterisation (In Progress)

The Mons Cupri Project lies within the Native Title Determined Area of the Ngarluma people. The entire Mons Cupri Northwest Open Pit and Mons Cupri Northwest Waste Rock Landform (WRL) lies within the buffer zone of a registered ethnographic site associated with Mons Cupri Hill (Site Number P07601). Appropriate clearances were granted under Section 18 of the Aboriginal Heritage Act 1972 to disturb this heritage site.

Key legislation and associated permits relevant to the Mons Cupri Project are defined Table 20. Anax has commenced the preparation of State statutory permits in parallel with scoping and feasibility studies to enable development of the Project in late 2022.

Table 20: Primary health, safety and environmental approvals and permitting for Mons Cupri

Legislation	Permit	Department	Description	Estimated submission
Aboriginal Heritage Act 1972	Section 18	Department of Planning Lands and Heritage	Enables the use of the land within a heritage site.	**Completed**
Environmental Protection Act 1986	Part V Works Approval and Licence	Department of Water and Environmental Regulation	Prescribed activities licence to enable on site processing of ore	Q1 2022
	Part V Native Vegetation Clearing Permit	Department of Mines, Industry Regulation and Safety	Authorises the clearing of native vegetation for project development	**Submitted**
Mining Act 1978	Mining Proposal	Department of Mines, Industry Regulation and Safety	Approval for the construction of mine infrastructure and undertaking mining activities	Q4 2021
	Mine Closure Plan	Department of Mines, Industry Regulation and Safety	Defines rehabilitation and closure prescriptions and accompanies the Mining Proposal	Q4 2021
Mines Safety and Inspection Act 1994	Project Management Plan	Department of Mines, Industry Regulation and Safety	Project safety plan approval	Q2 2022
Rights in Water and Irrigation Act 1914	26D Licence to Construct a Well	Department of Water and Environmental Regulation	Enables the construction of a water supply bore/s	Q2 2022
	5C Licence to Abstract Water	Department of Water and Environmental Regulation	Enables the abstraction and use of water from supply bore/s	**Completed**

Consultation with relevant stakeholders has commenced and Anax looks forward to working closely with landholders to deliver benefits through the development and operation of the project.

12. PROJECT EXECUTION AND FINANCING

It is estimated that concentrate could be produced within 10 months from the project execution date, which is contingent on receiving all required statutory approvals and financing (Figure 14).

DESCRIPTION	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10
NON-PROCESS INFRASTRUCTURE										
Initial Camp										
Camp Expansion										
Other Services										
MINING										
Mobilisation, Site Establishment										
Mine Development										
Ore to Rom Pad										
PROCESS PLANT AND FACILITIES										
Crushing, Screening and Ore Sorting										
Engineering FEED										
Procurement Services Delivery										
Installation										
Commissioning Area 300										
Commissioning at full load										
Concentrator										
Engineering FEED										
Procurement: Services										
Installation										
Commissioning										
Commissioning at full load										

Figure 14: Whim Creek Project Execution Schedule

To achieve the range of outcomes indicated in the Scoping Study, funding of in the order of A$50 to 65 million will likely be required. Anax has signed an agreement with Anglo American Marketing Limited (Anglo), a subsidiary of Anglo-American PLC, under which Anglo may provide project fining of up to US$20 million for the development of the Project, investors should note that the funding is contingent on technical due diligence to be carried out by Anglo. Anax is continuing to investigate additional sources of funding, including debt and equity.

13. NEXT STEPS

The Whim Creek Scoping Study has outlined a potentially robust project consisting of open pit mining at the Mons Cupri, Whim Creek and Salt Creek deposits and a small underground operation at the Salt Creek deposit. The Project has the potential to provide excellent returns, with a **Net Present Value** at a discount rate of 6% and using medium-term price assumptions of **$163 million** (range of **$151** to **$247 million**).

Anax has commenced calculation of a **JORC 2012 Mineral Resource** for the **high-grade Evelyn deposit**, which is expected to be finalised in September 2021. Pit optimisations will be completed, and results will be included in **an updated Scoping Study**, expected to be released shortly. Assessment of **heap leach** recoveries and operating costs are continuing and **may provide significant additional upside**. Additional work aimed at upgrading Inferred resources at Salt Creek have also commenced.

With several studies already surpassing scoping level assessments, Anax have commenced further feasibility studies on the Whim Creek and Mons Cupri deposits.

Upgrades on heap leach infrastructure aimed at addressing the EPN requirements are well advanced, with works expected to be completed by Q4, 2021. In addition to addressing the EPN requirements, infrastructure will also be upgraded to current environmental standards, which would allow for infrastructure to be utilised in future operations.

Authorised for ASX release by the Board of Directors.

For Further Information, please contact:

Anax Metals Limited
20 Kings Park Road, West Perth WA 6005
Telephone: 08 6143 1840
info@anaxmetals.com.au

References

The information provided in the announcement refers to the following announcements to the ASX:

1. *Whim Creek Project Resource Update, 23 March 2018 (ASX: VXR)*
2. *Whim Creek Project Copper Tonnes Increase by 37%, 25 May 2021 (ASX: ANX)*
3. *Recompliance Prospectus, 18 September 2020 (ASX: ANX)*
4. *Anax signs Whim Creek Royalty Agreement with Anglo American, 4 June 2021 (ASX: ANX)*
5. *Sorting tests unlock Whim Creek value, 28 April 2021 (ASX: ANX)*
6. *Ore sorting testwork upgrades Whim Creek – Key to unlock value, 15 December 2020 (ASX: ANX)*