17 APPENDICES

17.1 Appendix 1. MACA (2025). Youanmi Process Plant Design Report

Youanmi Gold Project Feasibility Study Report

Youanmi Gold Project

Feasibility Study Report

Prepared for

Rox Resources

November 2025

839-04060-RPT-0001

[redacted]

CONTENTS

1. EXECUTIVE SUMMARY

1.1 Introduction

Rox Resources Limited (Rox) is undertaking a Feasibility Study (FS) on its Youanmi Gold Project, a 1.0 million tonne per annum (Mt/a) sulphide gold project located in the East Murchison Mineral Field of Western Australia. MACA Interquip Mintrex (MIQM) has provided the sections of the FS associated with the processing plant and associated infrastructure.

1.2 Process Plant

1.2.1 Design Basis

The process plant design has been developed from the outcomes of the metallurgical test work conducted during the FS and previous study phases.

The process plant design for the Project is based on a robust metallurgical flowsheet designed for optimum recovery with minimum operating costs.

The key criteria for equipment selection are suitability for duty, reliability and ease of maintenance. The plant layout provides ease of access to all equipment for operating and maintenance requirements whilst maintaining a compact footprint that will minimise construction costs.

The key project and ore specific criteria that the plant design must meet are:

- 1.0 Mt/a of primary ore
- Sulphur feed grade 3.43%
- Gold grade of 4.8 g/t
- Dry plant availability of 70% and wet plant availability of 91.3%
- Flotation mass pull of 13% and 98.4% sulphur recovery
- Albion circuit regrind size of 12 µm, 48 hour residence time and 65% sulphur oxidation
- Intensive Albion product leach residence time of 24 hours and combined Carbon in Leach (CIL) residence time of 24 hours.

1.2.2 Process Plant Description

Ore will be fed from the ROM pad by front-end loader (FEL) into a primary jaw crusher. The crushed product will be fed to a double-deck vibratory screen, with screen oversize from each deck reporting to the secondary and tertiary cone crushers respectively. The screen undersize at a nominal maximum of 14mm will then be conveyed to a fine ore bin, which will provide 16 hours of live storage, as well as an overflow which will be stacked by FEL into a dead stockpile.

Crushed ore will be withdrawn from the fine ore bin and fed to a ball mill in closed circuit with a cluster of hydrocyclones, which will grind the ore to a nominal product size of 80% passing (P80) 75 µm. No gravity recovery equipment is included in the circuit as testwork has indicated that the gravity-recoverable gold is low.

The product from the grinding circuit will then be fed to a bank of rougher flotation cells after conditioning with reagents. The gold-bearing sulphides will be separated into a flotation concentrate with high grades of sulphur and gold. The concentrate will be transferred to an ultra-fine grinding (UFG) circuit and the flotation tailings will be thickened before being fed to the carbon-in-leach (CIL) circuit.

The flotation concentrate will be ground to a product of P80 12µm by an IsaMill in closed circuit with hydrocyclones. This will maximise the exposed surface area of the sulphides for the following oxidation step. The reground concentrate will be fed to a Neutral Albion Leach (NAL) circuit, along with oxygen and limestone. This circuit will consist of six reactors in which the sulphides are reacted with oxygen under neutral pH conditions at high temperature to unlock the contained gold. Following the NAL, the slurry will be thickened and passed through a slurry cooling tower to bring the temperature to an appropriate level for cyanidation.

Cooled NAL product will then be neutralised with lime and leached in two intensive cyanidation tanks for 24 hours ahead of the CIL circuit. The product of the intensive cyanidation circuit will be combined with the thickened flotation tailings in a standard CIL circuit consisting of one leach tank and seven carbon adsorption tanks with a total residence time of 24 hours. The leached slurry will be pumped to the tailings storage facility (TSF).

Carbon loaded with gold will be stripped using a split AARL elution circuit, producing a gold solution. Gold will be recovered from this solution via electrowinning, then smelted to form doré.

1.3 Infrastructure

1.3.1 Water

The water balance estimate has been modelled on steady state conditions at nameplate capacity. This provides a net raw water requirement of approximately 150 m3/h which is expected to be supplied from existing water stocks, mine dewatering and new bore fields.

The site water needs will change as the Project transitions from construction, into ramp-up to a peak and finally reducing to a steady-state. During the construction phase (15 months), the main water requirements will be potable supply to the village, mining, earthworks, dust suppression and concreting. Water demand in this period is expected to be half that required at steady state production.

1.3.2 Power

The power for the mine site and accommodation village will be provided by a dedicated power station located on the mine site. It will include duty/standby capacity. Power will be generated at 11 kV.

Power will be provided under a power supply agreement with a Build Own Operate (BOO) contract. The LNG storage and regasification facility will be built, owned, and operated by the LNG supplier.

1.3.3 Other Infrastructure

The supporting infrastructure required for development of the Project in this scope will include the following:

- Buildings including offices, crib rooms, toilet blocks, plant workshops, warehouse and storage sheds.
- Water storage and reticulation.

1.4 Project Implementation

The Project is intended to be implemented using an engineering, procurement, and construction (EPC) methodology. Under this methodology, Rox will enter into a head contract with a suitably experienced engineering contractor to conduct the following:

- Detailed engineering;
- Procurement, fabrication and delivery to site of all plant, equipment and materials;
- Construction of the facilities;
- Pre, dry and wet commissioning of the facilities; and
- Ore commissioning assistance of the facilities operated by Rox's operations team.

The project schedule has been developed under the assumption that Rox will engage the selected contractor to commence early engineering works in the fourth quarter of 2025. The critical path is driven by the supply of the ultra-fine grinding mill and NAL tanks. It is expected that Rox will engage directly with the vendor, Glencore Technology (GT), for the purchase of this equipment in 2025. During early engineering works, the contractor will obtain fixed and firm pricing for major equipment, with purchasing to commence in Q1 2026 after the Final Investment Decision (FID). On this basis, it is expected that ore commissioning of the plant can commence in July of 2027.

[redacted]

Description	[redacted]
Plant Infrastructure	
Construction Plant & Equipment	
Contractor Indirects	
Temporary Construction Facilities	
Earthworks	
Concrete	
Structural	
Mechanical	
Platework	
Piping	
Pipelines	
Electrical	
INDIRECT COSTS	
Project and Construction Management	
Engineering and Drafting	
Commissioning	
PROVISIONAL COSTS	
Oxygen Plant Ancilliaries	
OWNERS COSTS	
First Fills	
Spares	

[redacted]

- Site access roads
- Airstrip refurbishment
- Accommodation camp
- Plant raw water supply
- Power plant
- ROM pad
- Fuel storage and dispensing facilities
- Gas storage facilities.

[redacted]

1.7 Key Project Risks

Aside from typical risks associated with projects of this nature in Western Australia, some key project-specific risks have been identified.

- Processing:
  - Testwork availability. While the metallurgical testwork is not in the scope of this report, it is possible that the testwork used as the basis for the study may be considered insufficient by an independent technical review. Rox is undertaking further testwork as of Q4 2025 to mitigate this risk prior to FID.
  - Sulphur grade. Part of the DFS mine plan is based on historical metallurgical testwork, which, prior to 2019, did not routinely measure sulphide sulphur grade. As such, sulphur has been inferred based on gold grade. Sulphur grade is key to the operation of the flotation and Albion circuits.
  - No cyanide destruction has been included on the basis that the milling and flotation circuits will receive water from a separate cyanide-free process water circuit to avoid depressing flotation. Depending on TSF water return rates, it may be necessary to add a hydrogen peroxide dosing system to the cyanide-bearing process water system during operation.
- Construction:
  - GT equipment supply and installation cost. The equipment supplied by GT was quoted at ±20% accuracy with insufficient detail to estimate the installation works to the same level of accuracy as the rest of the process plant. The supply cost of the equipment has been removed from the process plant costs to be captured elsewhere by Rox, and the installation cost will be updated once further detail is available from GT during the next phase.
  - Oxygen plant ancillary items. The selected oxygen plant proposal received late in the study by Rox appeared to exclude some costs that were not allowed elsewhere – particularly, the supply of electrical equipment for the oxygen plant, the supply of cooling water, and the supply of a fire suppression system. PC sums have been allowed in the capital cost estimate for each of these items, and it is expected that these items will be in the scope of the oxygen plant supplier in the next phase.
  - Long-lead equipment supply. The schedule of the execution phase is reliant on Rox promptly placing orders for the IsaMill and oxygen plant. While the oxygen plant supply can be mitigated by the temporary use of liquid oxygen for plant startup, any delay in ordering or supply of the IsaMill is expected to delay the completion of the execution works. It should be noted that while not on the critical path, delays in commencement of engineering or order of other long-lead equipment by the selected Contractor will impact the overall schedule.

1.8 Opportunities

Opportunities have been identified during the FS to reduce costs:

- Deferral of one CIL tank due to lower expected initial feed rate.
- Removal of the intensive cyanidation circuit pending the results of ongoing testwork.
- Change in scope of GT supply to include only the equipment (IsaMill, NAL reactors, HyperSparge) to allow efficient supply of structural steel, piping and platework with the remainder of the process plant.
- Future use of calcrete in place of limestone for pH control in NAL circuit.

2. INTRODUCTION

2.1 General

The Youanmi Gold Project (the Project) is a 1.0 Mt/a sulphide gold project in the East Murchison Mineral Field of Western Australia, about 150 km north-east of Paynes Find in Western Australia. The ore is semi-refractory and will be processed using a three-stage crush/ball mill and flotation circuit followed by oxidation by Neutral Albion Leach and cyanidation.

2.2 Project History

Youanmi has been operating sporadically since 1908, with a historical production record of 667,000 oz. The last operator was Gold Mines Australia Limited (GMA). GMA developed the Youanmi Deeps underground mine, with the first ore reported from May 1994. For most of the 1995 calendar year around 5,000 tonnes per month were fed to the mill. From January 1996 to the last feed in November 1997 around 15,000 tonnes per month were fed to the mill (around 180kt/a) at an average head grade of around 11 g/t Au to produce around 4,500 ounces of average Au metal per month. GMA processed the Youanmi Deeps ore through a new 220 kt/a flotation and bacterial oxidation circuit. The operation however ultimately failed to achieve production targets. The mine was closed in November 1997. The current study & process development aims to assess options for re-commencing gold production at the Youanmi Mine.

MIQM was engaged by Rox in May 2025 to complete a Feasibility Study to determine the capital and operating costs for the process plant to an accuracy of ±15%.

2.3 Location

The Project is situated approximately 480km to the northeast of Perth and is around 400km inland from Geraldton. Road access to the Project is around 140km along the Paynes Find Sandstone Road. Paynes Find is 480km from Perth on the sealed Great Northern Highway. The Project has an operating airstrip located on site with flight time from Perth around 90 minutes for most aircraft.

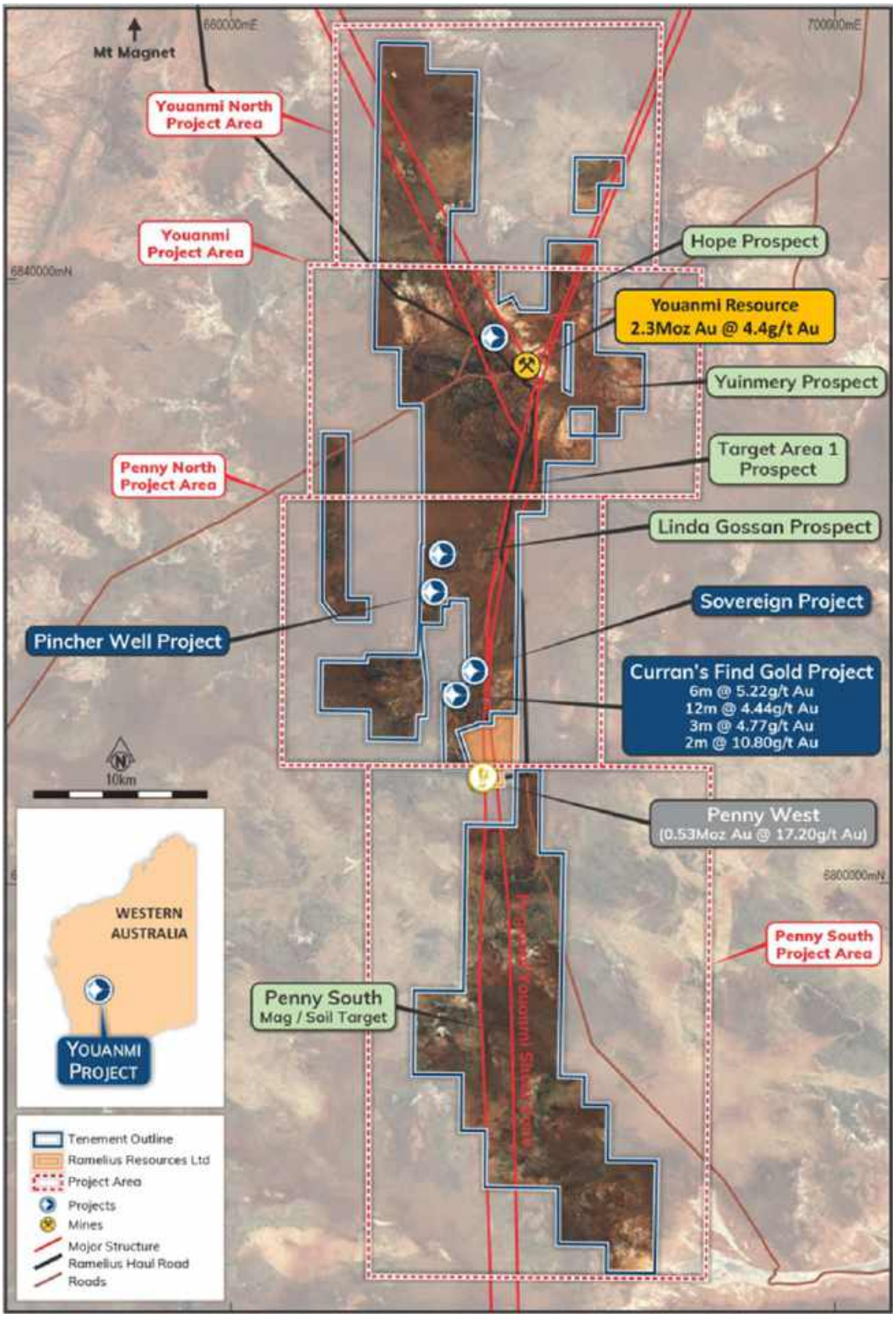


Figure 2-1 : Youanmi Gold Project Location Plan

2.4 Climate

The Project is in a Köppen climate type BWh, or hot desert climate. An arid to semi-arid, sub-tropical to temperate continental regime is experienced by the project area; with hot dry summers with very occasional thunderstorms and sub-tropical depressions, and cool winters with occasional showers associated with frontal weather patterns. Mean average annual rainfall is 245mm. Mean temperature ranges from a maximum mean of 35.8°C in January to a minimum mean of 5.1°C in July; often with extreme diurnal temperature ranges.

2.5 Feasibility Study

Rox has undertaken the Study by engaging a group of consultants to deliver individual subject reports. This report covers only the proposed scope of the Process Plant EPC Contractor, and it will supplement a greater report which will be developed by Rox. MIQM have provided the process design, mass and water energy balances, plant layout and general arrangement drawings, quantity development and operating cost estimation, plant infrastructure design and a FS level engineering study report covering the proposed Process Plant EPC contractor scope.

Rox engaged Minescope as metallurgical consultants to specify and control the FS test work programme. In addition to this work, Orway Mineral Consultants (OMC) and GT have previously undertaken work and studies investigating the use of Albion technology and provided inputs into the FS.

The MIQM scope within the FS focussed on:

- Review and finalisation of the process flowsheet.
- Review and finalisation of the plant layout.
- Development of operating and capital costs at a ±15% accuracy.
- Developing a schedule which includes identification of and planning for early works, long lead equipment items and pre-commitment activities.

2.6 Project Scope of Works

This report addresses only scope items to be managed by the Processing Plant EPC Contractor, which includes:

- Crusher ROM wall area.
- Crushing and ore storage.
- Primary grinding, classification system; and gravity recovery.
- Rougher flotation.
- Concentrate thickening, fine grinding and Neutral Albion Leach plant.
- Oxidised concentrate intensive cyanidation
- Flotation tails and oxidised concentrate hybrid CIL.
- Tailings discharge to the TSF.
- Tailings decant return facility.
- Reagent storage and distribution.
- Process plant utilities (water and air services) and
- Site offices, warehouse and laboratory facilities.

3. PROCESS PLANT

3.1 Process Design

3.1.1 Design Philosophy

The process plant design has been developed from the outcomes of the metallurgical test work conducted during the FS and previous study phases.

The process plant design for the Project is based on a robust metallurgical flowsheet designed for optimum recovery with minimum operating costs. The flowsheet is based upon unit operations that are well proven in industry.

The key criteria for equipment selection are suitability for duty, reliability and ease of maintenance. The plant layout provides ease of access to all equipment for operating and maintenance requirements whilst maintaining a compact footprint that will minimise construction costs.

The key project and ore specific criteria that the plant design must meet are:

- 1.0 Mt/a of primary ore
- Wet plant mechanical availability of 91.3% supported by crushed ore storage, standby equipment in critical areas and on-site generator power supply
- sufficient automated plant control to minimise the need for continuous operator interface and allow manual override and control when required.

The high-level design parameters for the processing facility are summarised in Table 3-1. Detailed information is available in the Process Design Criteria (Appendix 1).

Description	Units	Value	Source
Annual Throughput	t/a	1,000,000	Client
Design Feed Grade	Au g/t	4.8	Client
S^{2-}	%	3.43	Client
Crushing Circuit			
Type		Three Stage Crush	Engineer
Plant Utilisation	%	70	Engineer
Required Crushing Rate	t/h	163	Calculated
Grinding Circuit			
Circuit Type		Single Stage ball mill	
Plant Utilisation	%	91.3	Engineer
Design Treatment Rate	t/h	125	Calculated
Product Size (P_{80})	µm	75	Test Work
Flotation circuit			
Configuration		Rougher only	
Design recoveries			

Description	Units	Value	Source
	Au %	92.5	Client
	S2- %	98.4	Client
	Mass %	13	Client
Fine Grinding and Albion			
Concentrate thickener diameter	m	10	Engineer
Specific energy required	kWh/t	77	GT
Fine grinding P_{80}	µm	12	GT
Albion leach residence time	h	48	GT
Target Oxidation	%	65	GT
O_2 requirement (100% Purity)	t/t	0.40	GT
Limestone requirement (100% $CaCO_3$)	t/t	0.47	GT
NaOH requirement	kg/t	0	GT
Process mass change	%	220	GT
Albion product thickener diameter	m	15	Engineer
Gold Recovery			
Flot tail Thickener Diameter	m	18	Test Work
Flot tail Thickener Underflow Density	% solids	55	Engineer
Albion Product Intensive Leach Tanks	No.	2	Client
Combined Leach Tanks	No.	1	Engineer
Combined Adsorption Tanks	No.	7	Engineer
Intensive Leach Time	Hrs	24	Client
Combined Leach & Adsorption Residence Time	hrs	24	Client
Elution Circuit Size	t	6	Engineer
Elution Schedule	strips/week	6	Engineer
Combined leach CN consumption	kg/t	1.23	Weighted average
Combined leach Lime consumption	kg/t	0.47	Weighted average

Table 3-1 : Design Criteria Summary

3.1.2 Selected Process Flowsheet

The treatment plant design incorporates the following unit process operations:

- Three stage crushing with a single toggle jaw crusher and two cone crushers to produce a crushed product size of 80% passing (P80) of 8 mm.
- Crushed ore surge bin with a nominal 2,000 tonne capacity. Surge bin overflow is stockpiled by front-end loader (FEL). Ore from the dead stockpile is reclaimed by FEL to feed the mill during periods when the crushing circuit is offline.
- Closed circuit single stage ball mill to produce a P80 grind size of 75 µm.
- Flotation of a gold-bearing sulphide concentrate through a rougher circuit.
- Ultra-fine grinding and classification utilising an IsaMill to a product size of 80% passing (P80) of 12µm.
- Dewatering of the ultra-fine concentrate via thickener ahead of oxidation.
- Concentrate oxidation through a neutral Albion circuit with oxygen and limestone addition, with additional dewatering by thickener at the tail end.
- Cooling of the Albion product slurry by slurry cooling tower.
- Intensive cyanidation of Albion product in two stages of open tanks adjacent to the CIL circuit.
- Pre-leach thickener to increase flotation tails slurry density to the carbon in leach (CIL) circuit, minimise CIL tankage, improve slurry mixing characteristics, reduce overall reagent consumption, and provide cyanide free water to the milling and flotation circuits.
- Combined CIL circuit incorporating eight stages, seven of which contain carbon for gold adsorption.
- Split AARL elution circuit with gold recovery to doré via electrowinning and smelting.
- Tailings pumping to the tailings disposal facility.

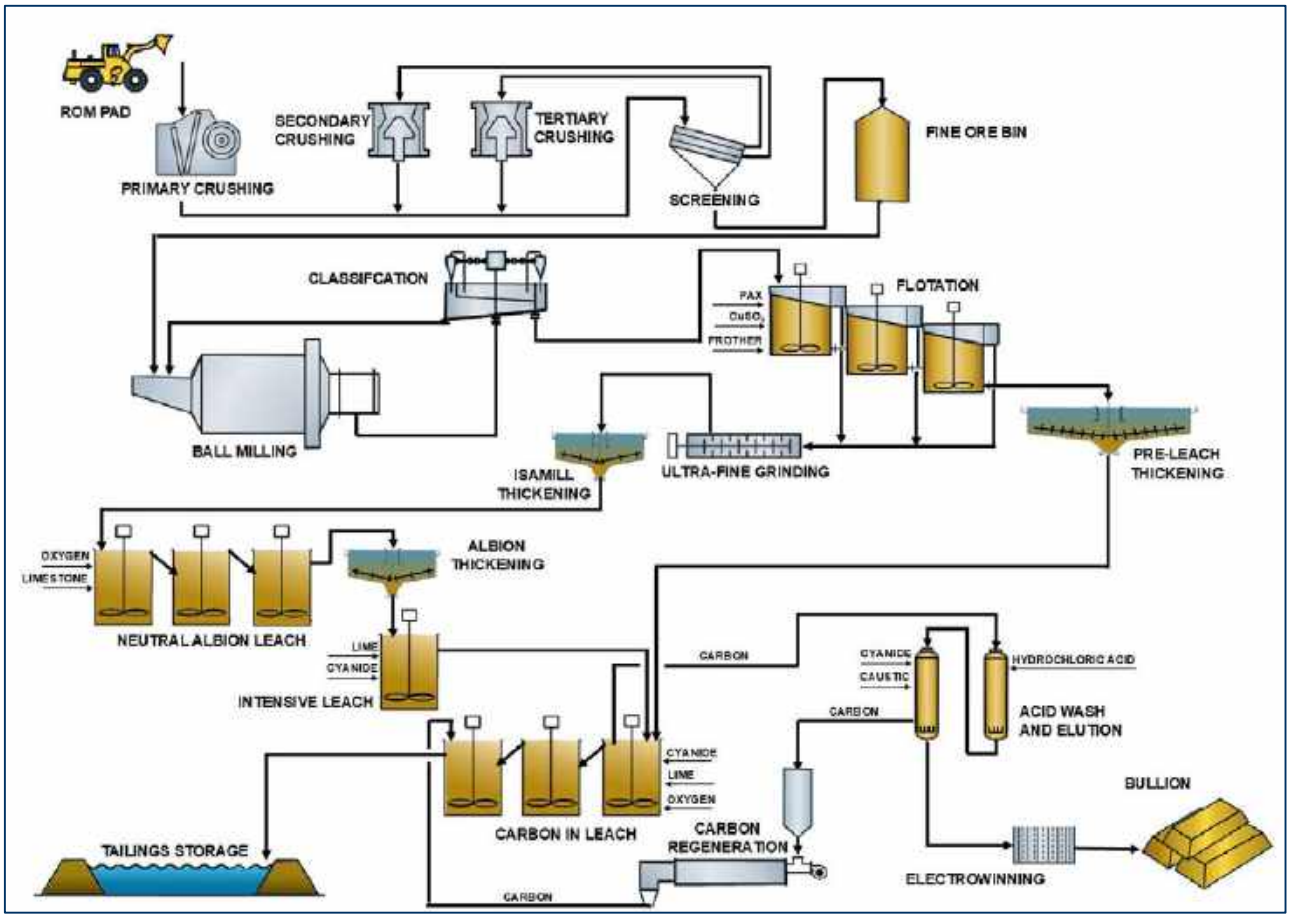


Figure 3-1 - Process Flowsheet

3.2 Process Design Basis

3.2.1 Process Plant

The plant design will have a nominal plant capacity of 1.0 Mt/a when treating primary ore. Due to the location of the orebody little or no oxide ore will be processed.

3.2.2 ROM Pad and Crushing Circuit

The ROM pad will allow blending of feed stocks and provide a consistent feed rate to the plant.

The primary jaw crushing circuit has been sized based on operating 17 hours per day at 70% utilisation at a feed rate 23% above the mill feed rate. Excess ore will be stockpiled so that ore can be fed to the process plant using a FEL via the crushed ore surge bin during periods of crusher maintenance.

A run of mine (ROM) grizzly aperture of 800 mm has been selected to minimise oversize material entering the ROM bin and causing down-stream blockages.

An apron feeder has been selected to draw material from the ROM bin.

A single toggle jaw crusher has been selected for the primary crushing duty due to the moderate UCS values and the moderately abrasive nature of the ore. In addition,

the single toggle crusher has a higher capacity than an equivalently sized double toggle crusher.

Ore discharged from the jaw crusher will be conveyed by the crusher discharge conveyor to a transfer station, where it will discharge onto the product screen feed conveyor. An overhead magnet located on the crusher discharge conveyor will remove magnetic tramp material that may be present in the ore stream.

Crushed ore will then be conveyed to the double-deck product screen. Product screen top deck oversize will report via a surge bin to the secondary cone crusher, whose product will be discharged to the crusher discharge conveyor. Product screen bottom deck oversize will report via a surge bin to the tertiary cone crusher, whose product will be discharged to the crusher discharge conveyor. Each cone crusher feed conveyor will be equipped with a tramp metal magnet and metal detector to avoid damage to the crushers.

Product screen undersize will be conveyed to a fine ore bin. The fine ore bin has been sized for 16 hours of live volume at Rox direction, in order to minimise the amount of FEL rehandling required.

Ore will be withdrawn from the fine ore bin using a variable speed belt feeder that will discharge ore onto the mill feed conveyor. Overflow from the surge bin will rill on to the ground and be picked by an FEL to feed a dead stockpile. During extended periods when the crushing circuit is offline for maintenance, ore will be reclaimed from the dead stockpile by FEL and fed into the emergency feeder to allow mill feed to be maintained.

3.2.3 Milling

A single stage ball mill has been selected to reduce crushed product to the nominal circuit P80 size of 75 µm.

3.2.4 Classification

Relatively large diameter cyclones (250 mm) have been selected for the classification duty to minimise wear and reduce the potential for spigot blockages occurring from coarse ball mill discharge material.

3.2.5 Trash Screening

A vibrating trash screen has been selected to prevent oversize particles from entering the downstream flotation circuit. Although minimal trash is expected from the primary ore, good trash screening will be essential for good control of the flotation circuit.

3.2.6 Flotation

A rougher circuit configuration has been selected to maximise recovery while minimising mass pull. Numerous circuits have been tested, and this configuration achieves good recoveries and final concentrate grades.

The rougher concentrate will be pumped to the concentrate storage tank ahead of the ultra-fine grinding circuit, while the rougher tails will be pumped to the flotation tails/leach feed thickener.

3.2.7 Ultra-Fine Grinding and Albion Circuit

The concentrate storage tank will provide a buffer ahead of the ultra-fine grinding circuit to minimise the impact of fluctuations in flotation mass pull.

An M5000 IsaMill has been selected to mill the flotation concentrate to a P80 of 12 µm. GT have advised that the mill will operate in closed circuit with cyclones in order to maintain temperatures within design levels. The IsaMill product will be thickened by a high-rate thickener and then stored in an ultrafine concentrate storage tank to decouple the IsaMill and Albion circuits.

GT have recommended the use of a Neutral Albion Leach (NAL) to achieve the required sulphide oxidation ahead of the leach circuit, with a residence time of 48 hours across 6 Albion OxiLeach reactors provided by GT. Product leaving the NAL circuit will be hot (>90°C), so the product will be thickened in a high-rate post-NAL thickener, and then pumped through a slurry cooling tower to bring to leaching temperature (45°C).

3.2.8 Pre-Leach Thickening

A high-rate pre-leach thickener ahead of the CIL circuit has been selected to thicken flotation tails to the design CIL circuit feed density of 55% w/w solids. The mixing characteristics of the primary ore will necessitate a constant, relatively high circuit feed density to ensure adequate slurry agitation. In addition, maintaining a relatively high CIL feed density will reduce reagent costs and minimise overall tankage volume required to achieve the target CIL residence time of 24 hours. The water used in the CIL circuit will contain cyanide, which depresses the flotation of gold-bearing sulphides. As a result, the process water systems will be split into cyanide-free and cyanide-bearing process water streams.

3.2.9 Leach and Adsorption Circuit

To date, testwork has only been conducted on flotation tailings and Albion product as separate products. The Albion product leaching testwork has included high cyanide concentrations and a total 48h leach time, while the flotation tailings leach testwork has used more typical reagent concentrations and a 24h leach time. As a result, the adopted circuit includes two tanks wherein the Albion product is leached at a higher concentration of cyanide for approximately 24h. The tailings from this circuit are combined with the flotation tailings to be leached for a further 24h at lower cyanide concentration.

For the purposes of this design a circuit configuration utilising two intensive leach tanks, one standard leach tank and seven adsorption tanks has been adopted. Six adsorption tanks are the minimum number required to maintain reasonable overall stage efficiencies.

The separation of the Albion product means that a slurry cooling step has been included. The leach tanks will ensure a high solution tenor entering the first adsorption tank, allowing higher loaded carbon grades than can be achieved in a conventional carbon-in-leach (CIL) circuit. Higher carbon loadings will minimise the batch size and frequency of carbon elution.

The leach and adsorption tanks will be identical in size with a total circuit residence time of 24 hours at 48% w/w density in the tanks.

3.2.10 Elution

A split AARL circuit has been selected based on Rox advice, as compared to the PFS which utilised a Zadra circuit. Since the PFS, appropriate sources of low-salinity water have been identified that will allow suitable water to be produced by reverse osmosis.

A 6-tonne batch size has been nominated. Based on the calculated carbon movements, a total of six elution cycles are required each week. The goldroom will operate 7 days a week.

Two parallel 12 cathode electrowinning cells are proposed for the goldroom to provide a high pass efficiency (greater than 90%) and ensure a low gold tenor in the spent electrolyte returning to the strip solution tank.

The high cell pass efficiency will ensure a near barren solution is returned to the strip solution minimising the gold returned to the column and minimising the number of elution cycles required to achieve the target barren carbon grade. It is anticipated that the elution electrowinning cycle will be completed in 10 to 15 hours. This will allow additional strips to be conducted during the week, if required.

A sludging cell design has been adopted for electrowinning to simplify the cathode handling process. Sludge will be filtered in laboratory style pressure filters and dried in an oven prior to smelting to produce doré.

3.2.11 Tailings Pumping

Discharge from the final CIL tank will gravitate to the tailings tank and will be pumped to the tailings storage facility using a centrifugal pump.

3.3 Process and Plant Description

The process and plant description should be read in conjunction with the process plant flowsheets and plant general arrangement drawings in Appendices 2 and 3. The mechanical equipment list is attached in Appendix 4.

The overall process flowsheet includes three stage crushing and single stage ball milling in closed circuit with cyclones to achieve the final product size. The cyclone overflow stream will gravitate to a trash screen ahead of the flotation circuit. A rougher flotation circuit will produce a final sulphide concentrate which will be subjected to an ultra-fine grind ahead of a Neutral Albion leach. Oxygen will be injected into the Albion leach tanks which, together with the significant particle surface area of the reground material, will allow an exothermic oxidation reaction to occur. Limestone will be added to maintain the neutral pH. Oxidised slurry will be thickened and intensively leached, then combined with the flotation tailings. Flotation tails will report to a pre-leach thickener and the leach circuit. A conventional carbon-in-leach (CIL) circuit will be used to leach and adsorb gold values from the milled ore onto activated carbon. A split-AARL elution circuit will be used to recover gold from loaded carbon to produce doré. The tailings will be pumped to the tailings storage facility.

3.3.1 Run-of-Mine (ROM) Pad

Haul trucks operating directly from the mine will deliver run-of-mine (ROM) ore to the ROM pad where it will be dumped in blending 'finger' stockpiles arranged by ore gold grade. A front-end loader (FEL) will be used to reclaim and tram ore from the various stockpiles to the ROM bin. Primary ore will be blended under the guidance of mine geologists to maintain a relatively constant feed grade to the process plant.

3.3.2 Crushing Circuit

ROM ore will be loaded into the crushing circuit feed bin (ROM bin) by FEL. A static grizzly will be fitted to the ROM bin to protect the downstream equipment from larger size material. The grizzly will be designed for easy cleaning by the ROM pad front end loader in the event of blockages.

ROM ore will be drawn from the ROM bin at a controlled rate by a variable speed apron feeder and discharge into a single toggle jaw primary crusher.

The crusher product will discharge onto the crusher discharge conveyor feeding to the product screen. A falling-stream electromagnet suspended above the crusher discharge conveyor head pulley will remove magnetic tramp metal from the crushed ore.

The crusher discharge conveyor will discharge onto the screen feed conveyor, which will feed directly onto the double-deck product screen.

Oversize from the top deck of the product screen will report to the secondary crusher feed conveyor. A cross-belt electromagnet suspended above the secondary crusher feed conveyor will remove magnetic tramp metal from the crusher feed. A metal detector suspended above the secondary crusher feed conveyor will stop the conveyor in the event of a significant metal detection as further protection to the secondary crusher.

A secondary crusher surge bin will provide surge capacity allowing the cone secondary crusher to be choke fed by a variable speed vibrating feeder. Secondary crusher product will discharge onto the crusher discharge conveyor feeding to the product screen.

Oversize from the bottom deck of the double deck product screen will report to the tertiary crusher feed conveyor. A cross-belt tertiary crusher electromagnet suspended above the tertiary crusher feed conveyor will remove magnetic tramp metal from the crusher feed. A metal detector suspended above the tertiary crusher feed conveyor will stop the conveyor in the event of a significant metal detection as further protection to the tertiary crusher.

A tertiary crusher surge bin will provide surge capacity allowing the cone tertiary crusher to be choke fed by a variable speed vibrating feeder. Tertiary crusher product will discharge onto the crusher discharge conveyor feeding to the product screen.

Undersize material from the product screen will report to the fine bin ore feed conveyor and will be deposited into the fine ore bin. Under normal operating conditions the crushing rate into the fine ore bin will exceed the rate of withdrawal of ore to the milling circuit. Crushed ore will overflow the fine ore bin and be directed by FEL to a dead stockpile. When required, ore from the dead stockpile will be loaded by FEL into the emergency feed bin to maintain mill feed when the crushing circuit is offline. Ore will be withdrawn from the emergency feed bin via belt feeder onto the mill feed conveyor.

Crushed mill feed will be withdrawn from the fine ore bin at a controlled rate by a variable speed belt feeder and fed onto the mill feed conveyor and fed directly to the grinding circuit. A weightometer beneath the mill feed conveyor will indicate the instantaneous and totalised mill feed tonnage.

Spillage and clean-up will be collected by sumps and subsequently pumped to the mill discharge hopper.

The crushing circuit will be controlled from the main control room. The front-end loader driver will ensure feed is maintained to the crushing circuit and will communicate with the main control room using a two-way radio to supply information on crusher feed operation.

The crushing circuit will be independently, sequentially interlocked for shutdown such that in the event of a single component failure, all components prior to the failed component will automatically shut down.

3.3.3 Grinding and Classification Circuit

The grinding circuit will comprise of a ball mill, cyclone classification system, trash screen, associated conveyors, and ancillary equipment.

Ore will be reclaimed from the fine ore bin by a belt feeder. Reclaimed ore will discharge onto the mill feed conveyor and then into the ball mill feed chute. Water will be added to the mill feed to achieve a mill discharge density of 75% solids w/w.

Flotation reagents will be added to the grinding circuit or flotation feed system as required.

A ball mill has been selected for the primary grinding duty. The ball mill will discharge through a trommel screen. Oversize and scats will report to the ball mill scats bunker. Trommel undersize will report to a cyclone feed hopper and will be pumped to the classification cyclone cluster. Duty and standby cyclone feed pumps will be provided.

The cyclone overflow will be controlled at 35% solids w/w and will gravitate to a vibrating trash screen. Trash screen oversize will report to a bin for disposal. Cyclone underflow will gravitate to a splitter box and will flow back to the ball mill feed chute.

Water will be added to the cyclone feed hopper and ball mill feed chute as required to attain the correct milling densities.

The grinding circuit operating parameters will be remotely monitored and adjusted from the control room.

A slurry sampler will be in the trash screen underflow pipe to cut a flotation feed sample. Trash screen underflow will gravitate to the rougher conditioning tank.

Sump pumps will be provided in the grinding area to collect spillage and clean up and will pump the slurry to the mill discharge hopper or to tails as required.

Fresh mill balls will be added via the emergency feed bin and feeder into the ball mill feed chute.

3.3.4 Flotation

Trash screen underflow diluted by spray water will gravitate into the rougher conditioning tank. The mechanically agitated rougher conditioning tank will allow collector potassium amyl xanthate (PAX) to be mixed with the flotation feed slurry.

Conditioned slurry will gravitate to the first of six rougher flotation cells.

The rougher circuit will comprise of six mechanically agitated, forced air tank cells in series. Six cells in series were selected to minimise losses due to short circuiting. The flotation cell arrangement will be configured with feed box (FB) and 1 to 2 cells, specifically FB-2-2-2. Individual air addition and control valves will be supplied to control the airflow to each of the cells.

The rougher concentrate will report to a concentrate hopper and will be pumped via duty/standby pumps to the concentrate storage tank.

The rougher cell tailings will be pumped to the leach feed thickener.

Sump pumps will be provided for spillage and clean up.

Automatic air flow and level control of the flotation cells will be provided.

3.3.5 Flotation Concentrate Fine Grinding and Oxidation

Concentrate from the flotation circuit will be pumped to the concentrate storage tank, an agitated tank located adjacent to the ultra-fine grinding circuit. This slurry will then report to the IsaMill discharge tank. Refer to Appendix 6 for a full description of the regrind and Neutral Albion leach circuits.

The oxidised product will be alkaline in nature once neutralised, and the solution phase will not contain any components that will be harmful to the cyanide leach circuit.

Oxygen will be supplied by an on-site Vacuum Pressure-Swing Adsorption (VPSA) plant. Crushed limestone will be ground onsite and slurry supplied to the Albion Plant.

The Albion product will be pumped to the slurry cooling tower located adjacent to the circuit. This will allow the product to be cooled to <60°C, appropriate for cyanidation. The slurry cooling tower product will be pumped to the intensive cyanidation tanks.

3.3.6 Flotation Tail Thickening

Flotation tails will be thickened in a high-rate thickener to the nominal density of 55% w/w solids. Thickener underflow will be pumped to the CIL circuit and thickener overflow will gravitate to the process water tank.

Lime slurry can be added to the leach feed thickener to aid with settling or if the process water begins to show a reduced pH due to sulphide oxidation

A bed level measuring device will be installed to monitor the thickener bed depth and a bed pressure device will be installed on the thickener discharge cone to measure bed pressure. The addition rate of flocculant will be controlled according to the bed depth and rake torque. Flocculant will be dosed by one of two dedicated variable speed pumps (one operating, one standby). The thickener will be equipped with two variable speed underflow pumps arranged in a duty/standby configuration to remove thickened underflow and pump it to the leach oxidation tank. The underflow pump speed will be varied to maintain a setpoint thickener bed pressure. A nucleonic density gauge will measure the density of the thickened slurry pumped to the leach oxidation tank.

Thickener torque will be automatically maintained in pre-set ranges via the thickener local control panel which will raise the thickener rakes according to torque readings.

Torque readings and rake status (i.e. running/stopped/fault) will be displayed on the control system. Leach feed thickener overflow will gravitate to the process water tank.

The leach feed thickener area floor will have a sump pump to collect spillage. The leach feed area sump pump will discharge into the leach feed thickener feed box.

3.3.7 Leach and Carbon Adsorption Circuit

The Albion product will be pumped from the slurry cooling tower to the two Intensive Cyanidation tanks located at the head of the CIL circuit. The lower flowrate of the concentrate means that these two tanks will have an approximate residence time of 24 hours. Cyanide and hydrated lime will be dosed to these tanks in order to neutralise the Albion product and to leach the majority of the contained gold. The notional cyanide concentration at the feed of the circuit will be high (~3,000 ppm). The intensive leach circuit will discharge into the leach tank.

The thickener underflow stream from the pre-leach circuit will be pumped to the leach tank, combining with the tailings from the intensive cyanidation tanks. The leach and adsorption circuit will consist of one leach tank and seven carbon-in-leach (CIL) adsorption tanks with a total design residence time of 24 hours.

The leach and adsorption tanks will be interconnected with launders, and slurry will flow by gravity through the tank train. Each tank will be fitted with a dual stage mechanical agitator to ensure uniform mixing.

The CIL tanks will each be fitted with a pumped woven wire intertank screen to retain the carbon. All tanks will be fitted with bypass facilities to allow any tank to be removed from service for agitator or screen maintenance.

Hydrated lime will be made up and added via a ring main to the leach feed distribution box and can be added further downstream in the CIL if required. Unlike conventional plants it cannot be added as quicklime to the mill feed conveyor to achieve a pH suitable for cyanidation as the flotation is carried out at natural pH. Hydrated lime has been selected rather than quicklime as a means of simplifying the reagent make-up process and reducing capital costs.

Sodium cyanide solution will be metered into the feed distributor box via a ring main system. Provision will be made in the design to allow cyanide addition to Tanks 3 and 5 to maintain the desired cyanide profile in the circuit.

Oxygen gas (93% purity) from the VPSA plant will be distributed to the CIL section and sparged down the central shaft of CIL agitators to allow a high dissolved oxygen profile to be maintained in the circuit. This will facilitate rapid and complete dissolution of gold particles within the circuit.

Barren carbon will enter the circuit at CIL Tank 7 and will be advanced counter-current to the slurry flow by pumping slurry and carbon from CIL Tank 7 to CIL Tank 6. The intertank screen in CIL Tank 6 will retain the carbon and the slurry will flow by gravity back to CIL Tank 6. This counter-current process will be repeated until the carbon eventually reaches CIL Tank 1, the first adsorption tank. A recessed impeller pump will be used to transfer slurry to a loaded carbon recovery screen mounted above the acid wash column in the stripping plant. The carbon reporting as screen oversize will gravitate to the acid wash column and the slurry will return to CIL Tank 1.

Discharge slurry (leach tails) from the last CIL tank will gravitate to the tailings hopper

Barren carbon returning to the adsorption circuit from the carbon regeneration kiln will be screened across an inclined deck vibrating screen to remove fine carbon. The sized and regenerated carbon will be pumped by recessed impellor pump to CIL tank 7.

The tanks will be constructed on ring beams in a bunded area with a sloping concrete floor. Any spillage from the circuit will report to one of two sumps and can be pumped back to the circuit or to the carbon safety screen.

3.3.8 Stripping Plant and Goldroom Operations

The following operations will be carried out in the stripping and goldroom areas:

- Acid washing of carbon.
- Stripping of gold from loaded carbon using the split-AARL method.
- Electrowinning of gold from pregnant solution.
- Smelting of electrowinning products.

The stripping and goldroom areas will operate 7 days per week, with most of the loaded carbon preparation and stripping occurring during day shift. The split-AARL stripping circuit will consist of separate acid wash and elution columns.

Acid Wash
Loaded carbon will be recovered on the loaded carbon recovery screen and directed to the acid wash column. Transfer and fill operations will be controlled manually. All other aspects of the acid wash and the pumping sequence will be automated.

Acid washing of the carbon will commence after carbon transfer is complete.

The acid wash solution, 3% w/w HCl in raw water, will be prepared prior to use and stored in the dilute acid mixing / storage tank.

During acid washing the dilute solution of hydrochloric acid will be circulated through the column in an up-flow direction to remove contaminants, predominantly carbonates, from the loaded carbon. This process improves the elution efficiency and has the beneficial effect of reducing the risk of calcium-magnesium 'slagging' within the carbon during the regeneration process.

After an acid circulation period the carbon bed will be rinsed with water. Four bed volumes of raw water will be pumped through the column to displace any residual acid from the carbon. Dilute acid and rinse water will be disposed of in the tailings hopper.

Elution and Electrowinning
Sodium hydroxide and sodium cyanide will be metered into the strip solution pump suction. The strip solution will then be pumped through a recuperative heat exchanger and a gas fired in-line heater before entering the base of the elution column.

The recuperative heat exchanger recovers heat from the return eluate and preheats the incoming barren strip solution. The diesel fired in-line solution heater raises the temperature of the incoming barren solution to 130°C.

The heated, barren strip solution will flow upwards, in a plug flow regime, through the bed eluting gold and silver from the loaded carbon. The pregnant solution exiting the

top of the column will be cooled through the recuperative heat exchanger and in the process pre-heating the incoming barren strip solution.

The first half of the elution process will utilise the 'intermediate' solution generated by the previous elution. The eluate from this stage will report to one of two pregnant eluate tanks. Two tanks are included to allow the option for stripping to take place in parallel to the electrowinning of the previous elution.

The latter half of the elution process will utilise fresh potable water generated by the reverse osmosis plant. The eluate from this stage will report to the intermediate solution tank, to be used for the next elution.

Once the elution process is complete, pregnant solution is pumped to two parallel electrowinning cells. Both cells will contain 12 cathodes to provide a high cell pass efficiency to ensure a minimum gold tenor in the spent electrolyte returning to the pregnant solution tank by gravity. The electrowinning cycle will continue until the solution exiting the electrowinning cells is depleted of gold and silver values. At this stage, the now-barren solution will be pumped to the head of the CIL circuit over the course of several hours to minimise dilution of the slurry.

Goldroom
The electrowinning cells will be of stainless-steel construction and will be located within the security area of the goldroom. Rectifiers, one per cell, will be in a non-secure area below the cells allowing maintenance access without going through security. Rectifier remote indication and controls will be located adjacent to the electrowinning cells.

The electroplated silver and gold will be removed from the cathodes by washing with high pressure water jets. The resulting sludge will be filtered in laboratory style pressure filters and the solids then dried in an oven. The sludge will then be direct smelted with fluxes in a diesel-fired furnace to produce doré bars. Slag from smelting operations will be returned to the milling circuit.

Fume extraction equipment will be provided to remove gases from the cells, oven, and barring furnace.

Carbon Regeneration
After completion of the elution process, the barren carbon will be transferred from the acid wash and elution column to the carbon dewatering screen to dewater the carbon prior to entering the feed hopper of the horizontal carbon regeneration kiln. In the kiln feed hopper, any residual and interstitial water will be drained from the carbon before it enters the kiln. Kiln off-gases will also be used to dry the carbon prior to entering the kiln.

The carbon will be heated to 650 - 750°C and held at this temperature for 15 minutes to allow regeneration to occur. Regenerated carbon from the kiln will be quenched and sized on a carbon sizing screen. The screen oversize (regenerated, sized carbon) will report to the quench tank, from where it will be pumped to the CIL circuit. The quench water and fine carbon will report to the carbon safety screen for disposal in the tails dam.

3.3.9 Tailings Disposal

CIL tailings will gravitate through the carbon safety screen to the tailings hopper. Oversize carbon will be collected in a drained carbon collection bulk bag. Tailings and

other miscellaneous sump pump streams from the process plant will be combined in the tailings hopper and pumped to the tailings dam using two centrifugal pumps operating in series.

3.3.10 Reagents

Hydrated Lime
Provision has been made for hydrated lime to be delivered in bulk and stored in a 75-tonne silo. The lime will be used to control pH in the leaching circuits. Hydrated lime will be stored in a silo, then discharged via screw feeder into a mixing tank. The hydrated lime will be made up to a 20% slurry using raw water in the lime mixing tank fitted with an agitator. Lime slurry will be stored in the lime storage tank and pumped into a ring main by a duty/standby centrifugal lime distribution pump. The hydrated lime will be dosed to the following locations:

1. Intensive cyanidation feed distribution box
2. Leach feed distribution box
3. Leach feed thickener feed box
4. Various intensive cyanidation and CIL tanks

Collector – Potassium Amyl Xanthate (PAX)
PAX will be used as a collector in the flotation circuit. The reagent will be delivered to site in bulk bags. It will be mixed to a 20% w/v solution in a mixing tank and then pumped to a storage tank. PAX will be distributed to the flotation circuit via dedicated variable speed dosing pumps. The PAX mixing area will be a hazardous area zone (explosion proof). A level indicator will provide continuous level readings of the storage tank to the control system.

PAX will be dosed to the following locations:

- Rougher conditioning tank
- Rougher flotation cell 3

Frother
Frother reagent will be delivered to site in intermediate bulk containers (IBC). Frother will be pumped from the IBC to a storage tank by an air powered pump. Frother will be distributed neat to the flotation circuit via dedicated variable speed dosing pumps. A level indicator will provide continuous level readings of the storage tank to the control system.

Frother will be dosed to the following locations:

- Rougher flotation cell 1
- Rougher flotation cell 3

Sodium Cyanide
Sodium cyanide solution will be delivered to site by road train (1 x 20t load). The trailer will be unloaded to the cyanide storage tank.

The cyanide solution will be circulated in a ring main, using separate control valves and flowmeters to regulate the addition of cyanide to following locations:

1. Intensive cyanidation feed distribution box
2. Leach feed distribution box
3. Various intensive cyanidation and CIL tanks
4. Strip solution pump suction

Sodium Hydroxide
Sodium Hydroxide (49% w/w) will be delivered in bulk to the site storage tank. Sodium Hydroxide will be circulated in a ring main, using separate control valves and flowmeters to regulate the addition of sodium hydroxide to the acid wash column.

Hydrochloric Acid
Hydrochloric acid (32% w/w) will be delivered in bulk to the site storage tank. Acid will be dosed to the acid wash column via a variable speed pump where it will be diluted and mixed with fresh water to a concentration of 3% by weight for acid washing of the loaded carbon.

Activated Carbon
Activated carbon will be delivered in 600 kg bulk bags. Carbon may be added directly to the last adsorption tank as required for carbon make-up or via the regeneration kiln to allow fines removal on the sizing screen.

Ball Mill Grinding Media
Mill grinding balls will be delivered by truck and transferred into the ball bunker. The balls will be added directly to the emergency feeder by a FEL to maintain the ball charge in the ball mill.

Flocculant
Flocculant for use in the thickeners will be delivered to site in 25 kg bags. Flocculant will be added to the flocculant plant storage hopper manually. The vendor supplied package flocculant mixing plant will automatically mix batches of flocculant and transfer the mixed flocculant to the aging tank after each mixing cycle is complete. Flocculant will be distributed to the pre-leach, IsaMill and NAL thickeners using variable speed positive displacement dosing pumps.

Copper Sulphate
Copper sulphate will be used as an activator in the flotation circuit. The reagent will be delivered to site in 800 kg bulk bags. It will be mixed to a 20% w/v solution in a mixing tank and then pumped to a storage tank. Copper sulphate will be distributed to the flotation circuit via duty/standby variable speed dosing pumps.

Antiscalant
Antiscalant will be added to the discharge of both process water pumps to inhibit the formation of gypsum (CaSO4) on pipes from reclaimed process water. The antiscalant will be supplied as a solution in 1,000 litre bulk boxes or 200 litre drums.

Antiscalant will be distributed undiluted to the discharge of process water pumps via variable speed positive displacement dosing pumps in the following areas:

- Raw water.
- Cyanide-free process water.
- TSF water.

Limestone
Limestone will be delivered to site by 68 tonne triple road trains as -14 mm pebbles, which will be stockpiled and fed into a package limestone plant. The plant will grind the limestone and classify to 80% passing 75µm. The classified product will be stored at 35% w/w solids in the limestone storage tank and reticulated by ring main to the Albion circuit reactors, where it will be used to maintain a relatively neutral pH.

3.3.11 Services

High Pressure Air
Plant high pressure air requirements and instrument air will be met by two air compressors operating on a lead-lag regime. Air will be distributed from the plant air receiver and an instrument air dryer will dry the air prior to distribution from the instrument air receiver.

Low Pressure Air
Flotation air will be supplied from two flotation air blowers (one duty, one standby) and will be distributed to the flotation cells at the required volume and pressure by pressure reducing control loops.

All air compressor status and circuit air pressure data will be displayed on the process control system.

Cyanide Free Process Water
Cyanide-free process water requirements will be met by raw water, recycled water from the thickeners and RO reject water. Cyanide free process water will be stored in a dam which is equivalent to a 24h supply. Process water distribution to the plant will be by dedicated pumps (one duty, one standby).

A separate circuit has been allowed to avoid depression of flotation by cyanide.

Process Water
Process water requirements will be met with recycled water from the tailings storage facility decant. Process water will be stored in a tank sized for 6 hours of use. Process water distribution to the plant will be by dedicated pumps, (one duty, one standby). When the decant water exceeds the process water requirement, the process water will overflow to the cyanide free process water pond.

Raw Water
Raw water will be sourced from the mine dewatering system, surface storm water collection and bores and stored in the raw water pond. A covered bore water tank will receive the bore water and supply water to the reverse osmosis (RO) plant, while the overflow reports to the raw water pond. The tank will provide dedicated storage for the RO plant and the pond for fire water in the event of a bore field outage.

The water stored in the raw water pond will be distributed by raw water pumps to the plant for make-up water, reagent mixing, and gland water. A level indicator will provide continuous level readings on the control system.

Fire Water
Fire water for the process plant will be drawn from the raw water pond. Suctions for other water services fed from the raw water pond will be at an elevated level to ensure a fire water reserve always remains in the raw water pond.

The fire water pumping system will contain an electric jockey pump to maintain fire ring main pressure, an electric fire water delivery pump to supply fire water at the required pressure and flowrate and a diesel driven fire water pump that will automatically start if power is not available for the electric fire water pump. Fire hydrants and hose reels will be placed throughout the process plant, power station and diesel storage area at intervals that ensure complete coverage in areas where flammable materials are present.

Potable Water
Raw water from remote bore fields will be stored in a tank ahead of the potable water treatment plant. The raw water will be pumped to a water treatment facility consisting of filtration, carbon contacting, ultra-violet sterilisation and chlorine and peroxide treatment. The treated potable water will be stored in the plant potable water tank and will be reticulated to the elution circuit, site ablutions, safety showers and other potable water outlets.

Oxygen
A VPSA oxygen plant will be provided by an oxygen vendor, to supply oxygen to the plant. This facility will be operated by the oxygen vendor, and may include a liquid oxygen storage backup.

3.3.12 Drainage

Plant areas subject to possible contamination from chemical or slurry spills will generally have concrete slabs and bunds capable of containing 110% of the capacity of the largest tank within the bunded area. Bunded areas will be equipped with sump pumps to recover any spilled material or rain falling on the slabs, for reclaim to the process.

Rainfall run-off from non-bunded areas within the main plant area will be collected in a run-off collection dam (event pond) from which it will be reclaimed by portable pump.

Run-off from areas not subject to possible contamination will be diverted around the plant area to rejoin natural watercourses.

3.4 Plant Layout and Design Considerations

Layout drawings for the site have been prepared and are included in Appendix 3.

The layout of the plant roads and equipment has considered the need for access to perform maintenance activities. Utilisation of mobile cranes for maintenance has been maximised.

Given the remoteness of the site, consideration has been given to the following:

- Selection of well proven equipment suitable for the process requirements
- Ease of maintenance
- Where possible, commonality of equipment, hence minimising of spares

3.5 Electrical Design

Electrical design has been undertaken by MIQM and assumes that an 11 kV supply is available from an on-site power station. The load list and maximum demand calculation are provided in Appendix 5.

3.5.1 Plant Electrical Distribution

Plant electrical distribution is based on 11 kV to the Ball Mill drive and oxygen plant, while the remainder of the plant is stepped down to 415 V. Each area is supplied separately, with the 11 kV feeding into the HV switchboard in the Process Plant HV Switchroom and Mill.

3.5.2 Electrical Buildings / Switchrooms

The following switchrooms have been allowed:

- HV switchroom
- Crushing switchroom
- Grinding and flotation switchroom
- Regrind switchroom
- NAL switchroom
- CIL and elution switchroom
- Water services switchroom

3.5.3 Transformers and Compounds

Transformers have been included for the following areas:

- Crushing – 1,500 kVA
- Grinding and flotation – 1,500 kVA
- Regrind area – 2,500 kVA
- NAL Area – 1,500 kVA
- CIL and elution – 1,500 kVA
- Water services – 500 kVA
- NPI Area – 500 kVA

3.5.4 Motor Control Centres

Motor control centres have been allowed in the following areas:

- High voltage – ball mill and oxygen plant
- Crushing
- Grinding and flotation
- Regrind
- NAL area
- CIL and elution
- Water services

3.5.5 Variable Speed Drives

Variable speed drives have been allowed for as required by the equipment list.

3.6 Control System

The process plant control system will be a PLC based system. The human machine interface (HMI) will utilise standard personal computers running Citect SCADA software to facilitate control. The process facility will be controlled from the centrally located main control room in the plant area.

4-20 mA analogue I / O signals will predominantly be associated with the process instrumentation and control, including flow, pressure, density and the control of modulating valves and actuators, and variable speed drives.

Digital I / O will generally be based on 24 VDC hardwired signals, typically associated with the status and control of drives, valves and actuators and mechanical plant.

In each area the I / O associated with the MCC will be installed in one or more tiers of the MCC and will be hard wired to the starter modules within the MCC. The digital and analogue I / O associated with the process instrumentation will be wired to Process Control Cubicles (PCCs).

Two visual display units (VDUs) will be installed within the control room to provide the operators with HMI. These units will present graphical process information in the form of trends, mimic pages, alarm summaries, logs and reports. This HMI will also enable the operator to start and stop equipment remotely, control variable speed drives and alter process set-points.

The adjustment of controller parameters will be made from the controller face plate and it will be possible to password protect this adjustment to prevent unauthorised adjustments. Display screens will be configured for the trending of individual or related parameters and alarm pages will be developed to facilitate the setting of alarm points specific to various parameters. All analogue input signals including outputs from flow, pressure, temperature and weighing instruments will be displayed appropriately on mimic pages. A short-term trend plot for each input and output from the system can be provided where required on the mimic pages.

The analogue and digital I / O associated with the plant instrumentation will be cabled to one or more PCC within the plant areas. These units will be located within the area switch-rooms and will house the PLC racks, instrumentation power supplies and communication hardware. Communications between these units and the control system HMI will be via ethernet and will be by fibre optic or copper cable as appropriate.

External and emergency communication will be available in the control room.

3.7 Metallurgical Accounting

A weightometer on the fine ore bin feed conveyor will measure primary crushed ore tonnage.

A weightometer on the mill feed conveyor will determine mill feed tonnes.

A density and flow meter on the tailings line will allow the dry tonnage of solids pumped to the tailings dam to be determined as a cross check on the mill feed tonnage determined from the mill feed weightometer.

Regular sampling of the leach feed stream and the final leach tailings will give reliable samples for leach head grade and tails solution and residue grades.

Regular 'gold and silver in circuit' surveys will allow reconciliation of precious metals in feed compared to doré production.

4. INFRASTRUCTURE

4.1 Introduction

The supporting infrastructure required for operation of the processing plant will include the following:

- Access roads.
- Accommodation village.
- Aerodrome.
- Internal operations roads and tracks.
- Bulk earthworks for the process plant site and infrastructure that includes the internal roads, dams, aerodrome, village, explosive magazine storage and mine service areas. Activities will include clearing all required areas, topsoil stockpile, installation of drains and culverts, box cuts, back fill, hard stands, dams, drains, catchments, services trenching and water storage dams.
- Communications network.
- Transportable buildings including site offices, crib rooms and ablutions.
- Steel-framed buildings including workshops, warehouse and reagent store.
- Fuel storage and distribution facility.
- Electrical power generation.
- Power reticulation across the project site.
- Water supply including borefield providing water for processing and potable supplies.
- Potable water treatment.
- Wastewater treatment.

4.2 Client Scope

Project infrastructure outside the direct vicinity of the processing plant has been excluded from the scope of works. Rox will build an owner's team to manage the design and construction of the following infrastructure items:

- Access Roads:
  - Main Access Road.
  - Mine and TSF access roads.
  - Camp Access Road.
- Aerodrome.
- Accommodation Village.
- Laboratory.
- Mine Infrastructure including:
  - ROM Pad.
  - Heavy Vehicle Workshop and Fuelling.
  - Explosives Storage Magazine.
  - Power Station.
- Non-Mining Mobile Equipment.
- Communications including:
  - Microwave Link.
  - Radio System.
- All bulk earthworks except for the process plant pads and water ponds.
- Electrical power generation.
- Water supply.
- Wastewater treatment.

4.3 Layout Design Criteria

The following criteria were applied to optimise the site infrastructure locations and layouts.

4.3.1 Processing Plant Layout

Layout of the processing facilities incorporated several guidelines established as part of the Study:

- The process plant and ROM pad will make use of the natural lay of the land to minimise earthworks costs.
- Suitably low gradients following the natural topography, will be used when forming the plant site earthworks to minimise the generation of concentrated stormwater flows.
- Reagents and fuel storages will be located to minimise the density of heavy vehicle traffic around the process plant.
- The combined warehouse and plant workshop will be located close to the processing plant.
- Site office, crib room and ablution block will be located close together.
- Internal plant roads will be made wide enough to accommodate a 50 t mobile crane set up.

4.4 Site Buildings

There are two types of buildings being proposed for the project: the steel portal frame type, and the prefabricated modular construction type. The portal frame buildings will consist of steel members assembled in portal frames with insulated or plain steel sheeting panels serving as both side cladding and roof cladding. The steel frames will be built on reinforced concrete foundations with concrete floor slabs where the thickness of the floor will vary depending on the loads associated with the use of the building. Equipment footings and structure will be independent to the rest of the building. The choice of portal frame construction was based on its ability to offer open and internal column free spaces necessary for typical storage and workshop areas. Structures within the buildings will be independent of the building structures themselves

The prefabricated modular buildings consist of modular panel walled units with pitched roofs supported by concrete floors. The building construction type was chosen for its cost effectiveness and rapid assembly. The use of this building type is for some of the inhabited buildings on the site such as offices, accommodation and ablutions.

The buildings outlined below will be of the steel portal frame type erected on site:

- Plant store and workshop.
- Reagents store

All other buildings will be of the transportable prefabricated type:

- Administration building, including first aid room.
- Central Control Room.
- Plant Toilet Block.
- Plant Stores Office.
- Process Plant Office.
- Process Plant Crib Room (and breezeway).
- Plant laboratory.

4.5 Water

4.5.1 Water Supply

The process plant will require approximately 1,170,000 m3/annum of raw water make up, if 310,000 m3/annum is returned from the TSF.

Given the arid location of the mine site, the plant water supply will be required to be independent of the local rainfall. Surface water run-off has not been considered as a water source for the operational phase of the project. Groundwater will be the main source of raw water.

Water for the processing and mining operations will be obtained from the following sources listed preferentially in order of use:

- Groundwater and surface water accumulating within the pit.
- Tailings return water.
- Raw water from the borefield.
- Stored water from pit dewatering.

There will not be any return water from the TSF or from the pit dewatering process for approximately the first 8 weeks of production. Therefore, the raw water supply from the bore fields and pit dewatering will need to be adequate to supply the processing facility requirements in its entirety. Once the other sources become available, the number of operating bores will be reduced.

The Study has assumed that raw water required for sustained mill operation and operational personnel needs is available at discharge into the raw water pond.

4.5.2 Process Plant Water Balance and Dams

The following ponds and tanks will be used for the management of water within the process plant:

- The bore water tank receives water from the borefield, and directs it to the RO Plant, with overflow reporting to the raw water dam.
- Raw water pond receives the water from the borefield.
- The cyanide-free process water pond will receive raw water as make-up. Water from the NAL and leach feed thickeners will report to overflow tanks and will be returned by pump to the dam. Overflow from the Albion thickener will report to an overflow tank and is expected to be returned to the feed of the Albion circuit to retain heat.
- Process water returning from the TSF decant will report to a process water tank. This allows separation of water that may be contaminated with cyanide from uncontaminated water that is used in the flotation plant. If spikes in cyanide occur, then the process water taken from the process water tank can be treated with hydrogen peroxide to oxidise any cyanide present ahead of it being pumped as make-up into the cyanide free process water dam.
- Various parts of the process are supplied with cyanide-free process water, with the majority reporting to the mill area and reagent make-up.
- Process water potentially containing cyanide will be used to dilute the leach feed and for screen sprays and service points in the leaching and elution areas.
- The site drainage pond collects run off water from the process plant area.

A lined 1,000 m³ (inclusive of the fire water reserve of 200 m3) raw water dam will also be constructed in the process plant area as part of the site earthworks. The dam capacity will allow for approximately 24 hours of steady state storage. This assumption should be revisited in detailed design when the raw water source is confirmed.

4.5.3 Fire Water

This system will draw water from the fire water reserve within the raw water dam. Suction lines for the fire water pumps will be set below the raw water pump suction lines to ensure that the fire water reserve is maintained at low dam levels.

4.5.4 Potable Water

Potable water for the mine site and accommodation village will be supplied by an RO plant, located at the raw water dam. The RO plant will have the capacity to produce 300 m3/day of potable water. This plant will supply potable water for use in the plant, including fresh water for use in the elution circuit.

Potable water will be stored in a tank and circulated around a ring main, providing potable water to the site offices and control room, ablutions and to the safety shower network.

A separate RO plant will be installed at the accommodation village. A chlorinator and UV steriliser unit will be located at the village potable water storage tank to ensure that the quality of drinking water is maintained. It will be possible to direct water from either potable water system to the other in case of plant downtime.

4.6 Workforce Accommodation

Accommodation for the construction and permanent workforces will be provided by Rox.

4.7 Roads

The majority of required roads and access are already in place from previous operations, requiring only minor earthworks, signage and delineator installation.

Site internal roads refer to all roads within the plant operational areas but exclude mine haulage and heavy vehicle roads. These roads have been designed to accommodate double trailer road trains and the relevant reagent delivery vehicles. All roads have been designed with a 3% two way cross fall and a 10 m width suitable for trucks and light vehicles to pass.

Road access to the Project is around 140km along the Paynes Find Sandstone Road.

4.8 Waste Treatment and Disposal

The principal non-production wastes that will be generated during the site establishment, construction stage and subsequent operations will include the following:

- General domestic/putrescible type wastes from the on-site offices, shower blocks, workshop and processing facilities and routine maintenance consumables (cardboard, rags, etc.).
- Maintenance waste including waste oil and tyres.
- Sewage.
- Scrap steel, wear items and components arising from equipment maintenance.

Sewage production will be assumed to match the personnel potable water consumption and will be treated in a modular wastewater treatment plant (WWTP) provided by Rox located near the accommodation village and sewage will be pumped from the mine site and processing plant for treatment.

Maintenance waste including waste oil and any hazardous materials will be removed from site using a licensed contractor.

4.9 Fuel Storage and Distribution

Fuel will be part of shared facilities, with access for light vehicles and fuel tankers.

4.10 Power Supply and Distribution

Site power generation is assumed to be from a power station utilising trucked gas, owned and operated by a power supply contractor. The system includes some diesel power for emergency. The installed load for the process plant is 16,100 kW. The process plant estimated power requirement is 10,800kW peak continuous draw.

5. PROJECT IMPLEMENTATION

5.1 Introduction

This section details the implementation plan that Rox will use to develop the Project. The project implementation plan assumes an EPC based project implementation strategy, which is consistent with the approach used in development of the Project capital cost (CAPEX) estimate.

5.2 Project Scope

The Project scope is outlined in detail in the relevant parts of the FS report. The operation will produce gold doré using the following unit processes:

- Three stage crushing.
- Crushed ore storage and reclaim.
- Comminution circuit incorporating a single stage ball mill.
- Flotation.
- Sulphide oxidation by fine grinding and Neutral Albion Leach (NAL)
- NAL product intensive cyanidation
- Flotation tails and NAL product carbon in Leach (CIL) circuit.
- Split AARL Elution, acid wash and carbon regeneration.
- Storage of tailings in a tailings storage facility (TSF).

The infrastructure component of the Project includes all non-mining facilities outside the processing plant that are required to support the operation. Infrastructure items include the following:

- Mine access road.
- Airstrip.
- Accommodation village.
- Borefield.
- Internal roads.
- Site buildings including:
    - Main administration and training building.
    - Plant crib room.
    - Process plant office.
    - Process plant ablutions.
    - Process plant control room.
    - Site laboratory.
    - Process plant workshop.
    - Main warehouse.
    - Reagents storage building.
    - Mining heavy vehicle workshop (incorporating tool store, workshop, ablutions, refuelling facility, tyre changing facility, vehicle wash down).
    - Site electrical substation buildings.
- Water collection and storage dams.
- Sewage and waste disposal facilities.

5.3 Implementation Plan

A preliminary implementation plan has been developed as part of this FS. The focus of the plan is to detail the sequence of events comprising the Project to define the following:

- Overall project development duration.
- Project critical path(s).
- Requirements for early works and commitments.
- Areas where significant risk of schedule over-runs exist.

Optimisation of the delivery methodology, particularly in respect to interfaces between construction work packages, will be investigated early in the implementation phase of the Project.

The proposed implementation methodology addresses the following key issues:

- Scheduling of the mining and infrastructure works to integrate with the construction of the process plant.
- Scheduling of the process plant works to ensure the plant is commissioned in line with ore availability and development of the mine.
- Definition of the contracting structures to be employed.
- Assessment and definition of resourcing levels required to complete the design and construction of the Project facilities in compliance with the adopted schedule.

5.4 Development Methodology

The development methodology is intended to incorporate an EPC Contractor's (Contractor) scope of works and an Owner's scope. Under this methodology, Rox will enter a head contract with a suitably experienced Contractor for a lump sum price to undertake construction of the main process plant and directly associated infrastructure. In addition, Rox will use their own project management team to complete a smaller scope of ancillary works.

5.5 Contractor Scope

The successful EPC contractor will be responsible for delivering the following for the main processing facilities and related infrastructure:

- Detailed engineering.
- Procurement, fabrication and delivery to site of all plant, equipment and materials.
- Construction of the facilities.
- Pre-commissioning together with dry and wet commissioning of the facilities, where appropriate.
- Assisting the owner's operations team with ore commissioning of the processing plant facilities.

5.6 Owners Scope

Some of the Project scope will be delivered outside of the main EPC contract, although the works may still be managed by the contractor. The works contemplated for delivery outside the main EPC contract will include:

- Supply and installation of the site accommodation village.
- Establishment of the communications network.
- Establishment of key operations supply and services contracts.
- Procurement of mobile fleet for the mining and processing plant operations.
- Establishment of mining contractor's area including heavy vehicle workshop.
- Establishment of the plant power station.
- Establishment of raw water supply to the process plant area.
- Establishment of the on-site laboratory.

- Establishment of the BOO oxygen facility, noting that concrete supply and installation will be provided by the EPC Contractor.

Rox will engage suitable contractors for the provision of mining services for the Project. The successful contractor will be mobilised to site in time to enable planned early works to be completed. The required early works include the following tasks:

- Preliminary earthworks (clearing and grubbing).
- Airstrip refurbishment (if required).
- Site access roads (to the mine gate).
- Bulk earthworks for the TSF embankment construction.

5.7 EPC Contracting Plan

5.7.1 Engineering

The Contractor will undertake all engineering design services required to construct the Project facilities. Where required the contractor will engage specialists to provide support in the following areas:

- Vendor design and construct building packages.
- Hydrogeology.
- Hydrology.
- Geotechnical test work and recommendations.
- Communications.
- Vendor packages including fine grinding, NAL and elution heating systems.

To ensure quality and consistency in design and delivery of the Project, engineering will be carried out in line with the Contractor's standard procedures as amended to incorporate the requirements of Rox's policies and procedures.

5.7.2 Construction Packages

It is anticipated that the bulk of the site installation work for the processing plant will be performed directly by the Contractor. Specialist subcontractors may be engaged to perform portions of the works requiring specialist equipment and experience.

Tasks where specialist subcontractors may typically be employed include:

- Transport/freight services.
- Bulk earthworks.
- Concrete batching.
- Concrete installation.
- Large process tankage erection (NAL, CIL).
- Mill liner installation.
- High voltage overhead power line.
- Transportable buildings.
- Steel framed buildings.

The remainder of the works, including the connection of services to the site buildings, will be performed directly by the Contractor. The Contractor will also typically supply cranes, construction equipment and tooling required to complete the construction works.

5.7.3 Concrete Supply

For the FS, it has been assumed that concrete will be supplied by the EPC Contractor from a batching plant established on the site.

5.7.4 Equipment and Material Supplies

Equipment and material supply packages will be competitively tendered to several reputable vendors except where Rox specifies a particular supplier or make of equipment.

Tender packages for items of equipment will be issued to reputable suppliers, with the tender submissions evaluated and awarded based on technical, schedule and commercial compliance and price. The procurement of long lead items identified by the project schedule critical path will be prioritised.

Packages for the procurement of materials and fabricated items such as platework and structural steel will be sourced locally where costs are acceptable to minimise schedule risk. Supply packages will be tailored to suit construction schedule requirements and capacities of the selected fabricators.

5.7.5 Construction Equipment

Major construction equipment will be sourced from local equipment rental providers. It is anticipated that the construction equipment listed below will be required:

- 350 t crawler or hydraulic crane for mill installation.
- 160 t hydraulic crane x 2.
- 80 t hydraulic crane x 2.
- 25 t mobile cranes x2.
- 20t mobile cranes x2
- Telescopic handlers.
- Elevated work platforms.
- Site buses.
- Welding machines.
- Construction vehicles.
- Fixed and mobile scaffolding.

5.7.6 Cranes

To confirm the capacity and number of cranes required for the construction works, a constructability and lift review will be undertaken during the next phase of the Project. The FS investigations determined that most of the plant construction could be achieved with ‘typical’ cranes for a project of this scale. Lift loads and access to the lift site were considered normal. A 350-t crane has been included specifically for the installation of the ball mill.

Adequate allowance has been made in the preliminary plant layout for siting the 350t crane during the mill installation.

5.7.7 Logistics

Equipment and fabricated items required to construct the Project facilities will be sourced from local, interstate, and international suppliers.

International Supply
All sea freight will be received at the Fremantle port and cleared through customs before being loaded onto trucks for transport to site or moved to a consolidation yard in Fremantle prior to delivery to site. Payment of any import duties and taxes on these goods has been excluded from the Contractor's scope and will be managed by Rox.

Interstate Supply
Fabricated items and equipment sourced from interstate will either be transported by road directly to site or transported to the consolidation yard in Fremantle prior to delivery to site.

A single logistics provider will be contracted for each major interstate area where goods will be sourced. Regular couriers and transport providers may provide smaller one-off interstate deliveries.

Local Supply
A local freight carrier will be used to transport materials and equipment to site from locations within Western Australia. Where applicable, loads will be consolidated in the freight carrier's yard in Fremantle prior to transport to site.

This local freight carrier will also be used for the transport of internationally supplied goods from Fremantle to site.

Large items such as the mill shells, thickeners and tanks will be designed with component sizes that will facilitate ease of transport to the site and installation.

Site
All equipment and materials will be received and stored on site in dedicated laydown areas. A management system will be implemented to receive record and store materials delivered to site and to facilitate the location and issue of these materials when required.

5.7.8 Construction Temporary Facilities and Services

Prior to commencing work on site, the Contractor will mobilise and establish transportable type construction offices. The temporary facilities will be established close to the processing plant construction site and adjacent to the materials laydown area. Upon completion of site works, the construction offices will be demobilised from site.

Temporary facilities will consist of the following:

- Transportable site offices.
- Transportable crib rooms.
- Transportable ablutions buildings.
- Building services will be supplied as follows:
- Power supply will be from temporary diesel generating sets.
- Potable water will be delivered to a dedicated storage tank and will be reticulated to the temporary facilities by the contractor.
- Wastewater will be collected in septic tanks, which will be emptied by an appointed contractor to an offsite local disposal area on a regular basis.

5.7.9 Health Safety and Environment

Health, safety, and environmental considerations are of paramount importance in the development of the implementation strategy. All work shall be designed and performed in accordance with relevant government, environmental and health and safety regulations. The Contractor will commit to a 'no harm, no incident' culture utilising and employing their own safety management systems back-to-back with Rox's safety systems and policies.

A construction safety management plan will be developed as part of the project execution. This plan will identify the project requirements and the management of safety for the project. Specifically, items such as classified plant, inductions, rigging equipment, scaffolding, verifications of competency, licences etc. will be logged and registered. The construction manager will be responsible for maintaining these registers in conjunction with the site-based safety officers.

Work will be planned to ensure that it is performed in a systematic and controlled manner, minimising the risk of injury and damage to the environment. Spillage of construction fluids, particularly hydrocarbons, from storages or during construction has been identified as the key environmental risk for construction. Proven procedures and equipment will be utilised to prevent such an occurrence.

Safety audits will be conducted periodically throughout the duration of the construction works by the Contractor's safety personnel.

5.7.10 Project Controls, Planning and Scheduling

Project controls procedures will be implemented with two primary objectives:

1. To monitor progress against expectations and provide guidance for when corrective action is required.
2. To control and manage change to the contracted scope of works to the core Project objectives.

Upon commencement of the Project, the contractor will generate a detailed design and construction schedule for the works. The Project scope, contract value and schedule shall form the baseline against which progress will be measured. Progress will be monitored and earned value management principles used to generate a progress S-curve based upon actual cost, planned value, and earned value.

Progress will be measured against the key deliverables, with the method of measurement being dependent upon the nature of the deliverable. The engineering portion of the work will be monitored against the generation of design deliverables including development models and the issuing of drawings and design documents 'Approved for Construction.' Progress of the procurement works will be measured against key milestones for each package such as the issue of tenders, package award and receipt of goods. Progress of the construction works will be measured against physical quantities of material installed, subjective estimates of installation progress and actual construction man hours.

Changes to the project baseline will only occur as variations to the original contract are issued in accordance with the contractor's variation management procedure. Regardless of which party instigates the proposed change, the impact on scope, cost and schedule will be fully quantified and the variation agreed by both parties before proceeding.

A construction risk assessment workshop will be held prior to the commencement of site works to identify, quantify, and mitigate potential issues.

5.7.11 Organisational Structure

The Contractor's organisational structure provides the framework for managing the execution of the various work packages that comprise the scope of works. The organisational structure adopted will be largely defined by the contracting model employed, project phase, project size and nature of the work involved. The organisational structure will be customised from generic models to meet the unique challenges and requirements of the work package. To ensure the Project is successfully delivered, competent personnel with relevant skills and experience will be identified and engaged on the project.

Engineering Design and Management
Engineering design and management will be performed by a multidisciplinary team arranged in a matrix structure under the guidance of the Project Manager. The Design Manager will direct the technical and resourcing aspects of this portion of the work in conjunction with the Project Manager. Functional managers will provide high level technical support as required.

Construction
The Construction Manager will assume responsibility for the construction phase of the work under the guidance of the Project Manager. Site support services for the construction team will be provided by safety and administration personnel. A team of discipline specific supervisors will support the Construction Manager, each leading crews of construction personnel. The Owner's project management team will monitor the Contractor's performance and undertake independent quality audits of the works.

The Contractor's site supervision team will typically comprise of the following resources:

- Construction Manager.
- Project engineers.
- Discipline based supervisors.
- Safety officer.
- Materials controller.
- Site clerk.

Commissioning and Handover
Commissioning involves bringing multiple pieces of plant online in a pre-determined sequence whilst ensuring all safety systems are operational and controls and functionality are correct. A separate commissioning team led by the Contractor's Commissioning Manager will be established to perform this work.

The Contractor's Commissioning Manager will complete the pre-commissioning, the dry and wet phases of the commissioning process prior to practical completion of the Project being achieved. The Contractor's commissioning team will then provide support for the ore commissioning of the facilities conducted by Rox's Commissioning Manager and the operations team.

The commissioning organisational structure will consist of the Commissioning Manager operating under the guidance of the Contractor's Project Manager and in coordination with the Construction Manager. Multidisciplinary commissioning teams

will be established, consisting of process and discipline engineering personnel used in the design phase of the Project. The commissioning team will also utilise vendor commissioning representatives to ensure vendor equipment is effectively commissioned and warranty terms and conditions are adhered to.

Pre and Dry Commissioning
Pre-commissioning involves ensuring all equipment and services are fully installed and mechanically and electrically complete, ready to be run and tested. This includes performing all alignment checks, pressure tests, wiring tests, ensuring that emergency stops, and control limits are set and that the control system functions as intended. It also requires ensuring that all drawings, manuals, functional descriptions, and other pertinent data required for equipment no-load commissioning are available (and certified). Finally, 'No Load' testing is performed to prove the integrity of the systems.

Wet Commissioning and Practical Completion
Wet commissioning will be required to demonstrate the integrity of the circuits at 'steady state' prior to the introduction of ore. Wet commissioning involves the operation (where possible) of all process circuits with water and with all interlocks and control systems in normal operating mode.

Once pre, dry and wet commissioning phases are complete and all required documentation has been provided by the engineering contractor to Rox, the Project will be considered to have reached practical completion.

Commissioning and practical completion will be staged across various plant areas to facilitate ongoing construction activities.

Handover and Ore Commissioning
Following practical completion, sequenced ore commissioning of the facilities will commence under the control of the Contractor with assistance from Rox's operations team. The facilities will be handed over to Rox's operations team following successful ore commissioning.

Once the process is stabilised, throughput will be progressively increased until nameplate capacity is achieved, and product quality requirements are met.

Rox personnel will be involved in the commissioning process to gain experience in the operation of the plant.

5.8 Owners Scope

5.8.1 Aerodrome

The project aerodrome is already established and is suitable for landing small aircraft. Larger aircraft will land at the Penny airstrip 20km to the south. This will enable Rox staff and project contractors to access site safely and easily.

5.8.2 Accommodation

New and refurbished site accommodation facilities will be constructed by Rox as part of the early works.

5.8.3 Communications

The site-based communication system will be established by Rox prior to commencement of the Contractor's works.

5.8.4 Water Supply

Rox will establish the supply of raw water as part of the early works in order to provide adequate construction water.

5.8.5 Power Supply

Rox will establish the power supply prior to completion of the processing plant works.

5.8.6 Mining Facilities

Mining Contractor will establish mining facilities prior to commencement of pre-strip and development activities.

5.8.7 Site Laboratory

Rox will establish the site laboratory as part of the early works.

5.8.8 Oxygen Plant

Rox will engage directly with their selected vendor for the oxygen plant to be constructed in parallel with the processing plant. The EPC Contractor will install the concrete associated with the oxygen plant.

5.8.9 Owner's Management and Interfaces

Rox will establish a project Owner's team to monitor all aspects of Project development and implementation, as well as deliver the Owner's scope of works.

The Rox project team will work with the Contractor's project management team to ensure the Project is completed on time and in accordance with the agreed scope and project requirements. These groups will meet regularly to discuss progress and key issues.

During the early works phase, it is recommended that Rox have a representative located in the contractor's office to monitor progress and facilitate the fast and efficient resolution of queries and required client approvals.

For detailed design and site works the Contractor will autonomously ensure that work progresses in a timely and safe manner, to the required standards, as detailed by the Project scope.

With regards to safety, the Contractor's safety personnel will monitor and ensure compliance with the adopted safety procedures and requirements.

5.9 Project Schedule

The preliminary implementation schedule has been based on the execution methodology and design presented in the FS report. This schedule outlines the delivery of the various aspects of the Project described in the scope of work.

5.9.1 Assumptions and Basis

The preliminary schedule has been based on the following assumptions:

- The schedule commences at Contract Award for the detailed design and construction phase. It is assumed that Rox will engage the selected EPC contractor for early engineering works ahead of FID.
- Construction personnel will work on a two week on and one week off roster.
- Work on site will be carried out on a notional 12 hour day, 13 days per fortnight basis.
- Processing operations will commence approximately 19 months after contract award, with ramp-up to 80% of full production over a period of approximately 4 weeks; 100% of full production will be achieved over the subsequent 6 weeks.
- Site power distribution will be required to be completed two months prior to ore commissioning, to allow a suitable period for pre-commissioning and wet commissioning.

5.9.2 Early Works Plan

Rox will commence early works prior to contractor mobilisation to site. These activities will be accelerated to minimise the Contractor's time on site and accelerate the overall project delivery. Rox's early works will include the development of:

- Site access roads.
- Accommodation village.
- Site communications.
- Airstrip.
- Water supply.

The project schedule assumes that these activities will be completed prior to the mobilisation of the EPC contractor to site.

5.9.3 Schedule Details

The full schedule detailing the critical path is provided in Appendix 7.

The nominated critical path for the project implementation comprises the specification, procurement, installation, and commissioning of the IsaMill. The purchase order for supply of the mill is scheduled to be placed within two weeks of commencement of early engineering works. Lead time for the Isamill, from contract award to completion of the installation is approximately 73 weeks.

Mobilisation to site has been scheduled to suit the installation of the site-erected welded tanks and to allow sufficient time for mobilisation, site preparation, bulk earthworks, civil installation, and concrete curing prior to commencement of installation of the mill and other equipment.

The overall schedule for the project is 84 weeks, with 66 weeks on site.

5.9.4 Critical Path

The project critical path revolves around the delivery of the IsaMill. In order to minimise the time to the plant being available for operation, Rox has advised that they will commence execution works prior to final investment decision (FID) in mid-Q1 2026. It is assumed that Rox will engage their selected EPC contractor for early engineering works in December 2025, with final EPC contract to be placed immediately after FID.

The Project schedule assumes that the IsaMill and VPSA Oxygen plant contracts will be awarded within 4 weeks of the commencement of the early engineering works, by the end of CY2025.

The schedule assumes that vendors for long lead items selected during the FS will be contacted for fixed and firm pricing on award of the EPC contract. Vendor data will be purchased in early 2026 prior to FID, with orders placed for equipment immediately after FID.

The Isamill lead time as advised by GT is 50-60 weeks, with an additional 12 weeks allowed for delivery of the equipment to site from the factory Germany. For the purpose of the schedule, a fabrication time of 55 weeks has been adopted. The critical path then runs through the mechanical installation of the mill, the subsequent finalisation of piping and electrical works in the area, then through commissioning.

The vendor-supplied BOO oxygen plant will also impact the overall project schedule: based on information provided by the vendor, it is expected that commissioning of the oxygen plant will take place after the rest of the processing plant is completed. However, this has been mitigated by the inclusion of liquid oxygen as a backup system. In the initial period before the oxygen plant is operational, liquid oxygen will be used to commission and operate the plant. From a financial perspective, it is important that this contract be placed early to minimise the time in which liquid oxygen is used, as it is substantially higher cost than generated oxygen.

5.9.5 Opportunities/Risks

MIQM has identified the following opportunities which may accelerate delivery of the works:

- Early commitment to long lead procurement items including (namely the Isamill and Oxygen plant).
- Commencement of front end engineering design/detailed design prior to EPC award.
- Early purchasing of certified vendor data from selected vendors prior to FID.
- Early training of operations personnel during commissioning.
- The following risks may negatively impact the Project delivery schedule:
    - Late ordering or delays on delivery of the Isamill.
    - Impact of major weather events beyond the normal seasonal expectations.
    - Environmental and mining approvals process.
    - Delay to funding preventing completion early works.

It should be noted that while engineering is not on the critical path, delay in commencement of engineering and procurement of other long-lead items by the selected Contractor is likely to impact the completion date of the project.

5.9.6 Personnel Levels

Head Office
The Contractor's head office team will consist of the following personnel:

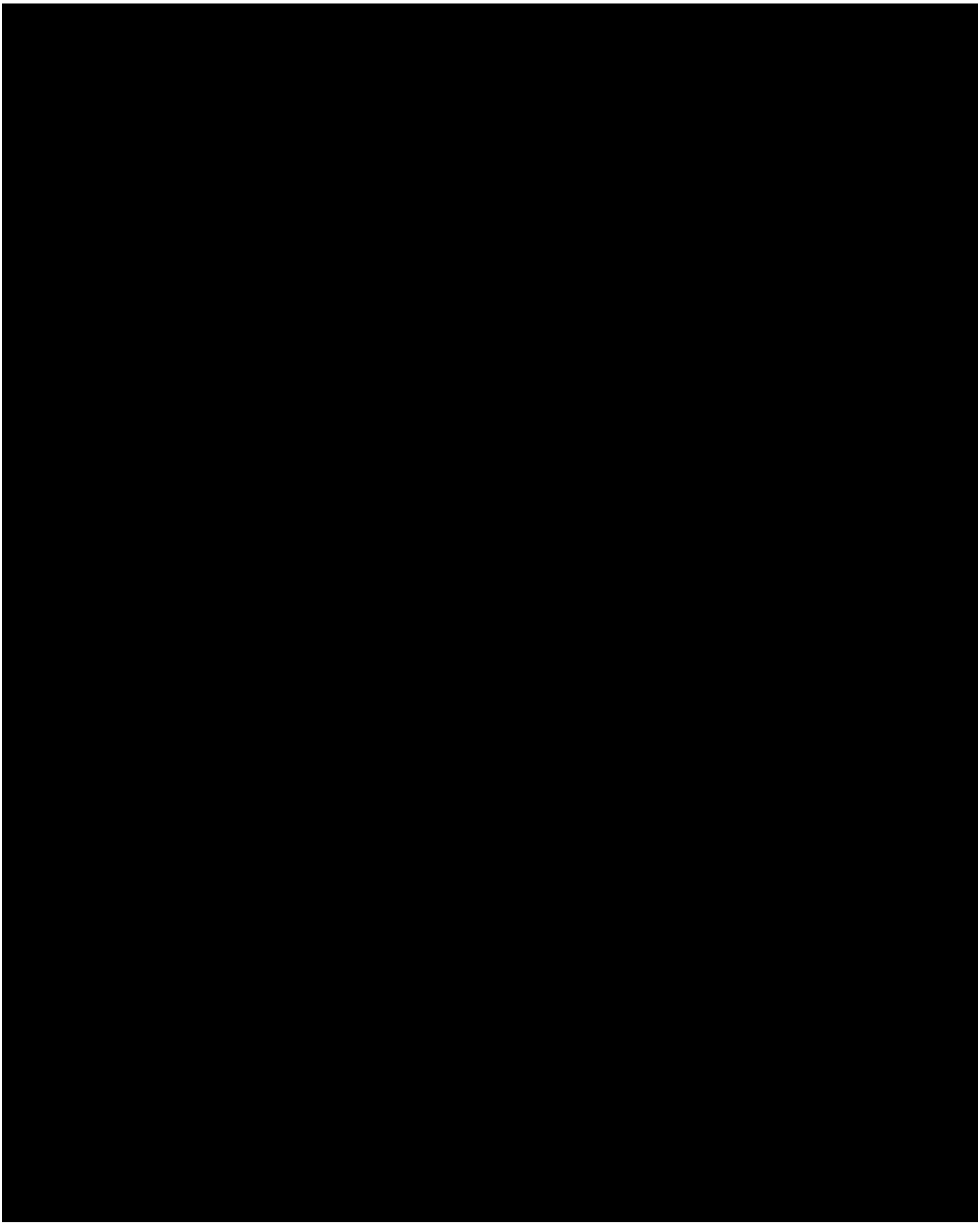
- Project management and engineering.
- Procurement and logistics.
- Accounting and cost control.
- Engineering management.
- Discipline engineering (process, civil, structural, mechanical, and electrical).

- Drafting.
- Project support.

Site

Preliminary peak personnel levels for construction activities on site have been calculated from the estimated installation hours and the scheduled durations for these activities. Personnel numbers are based on a work roster of two weeks on and one week off, with work on site carried out for 12 hours per day, 13 days per fortnight.

Construction staffing for the processing plant and mine infrastructure will peak at approximately 150 personnel, inclusive of all construction management, supervision, and equipment operators. Personnel levels for the mining contract and TSF construction works have not been included in these construction numbers. A construction personnel histogram is provided in Appendix 10.



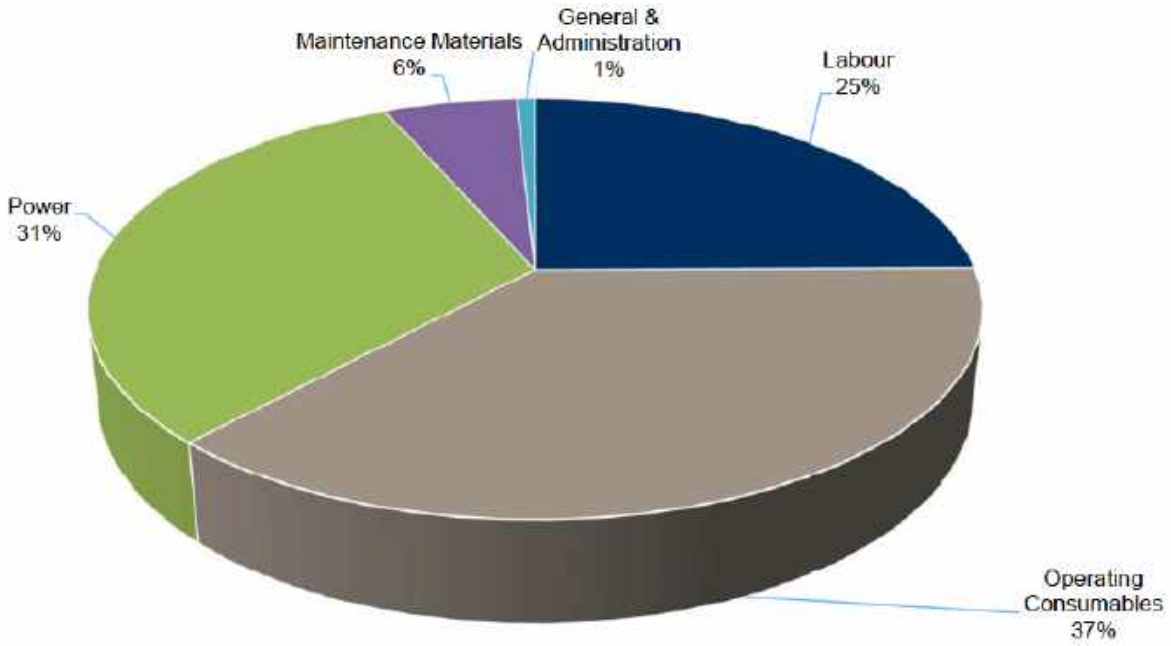


Figure 6-1 : Operating Cost Estimate Summary (A$, 4Q25, ±15%)

Area	[redacted]
Power	
Crushing	
Milling and Classification	
Flotation	
Fine grinding	
Albion	
Leaching / CIL	
Elution and Goldroom	
Reagents	
Water, Fuel & Air Services	
Workshops / Plant Buildings	
Miscellaneous	
Sub Total - Power	
Consumables	
Crushing	
Grinding	
Flotation	
Fine grinding	
Albion	

Area	
	Leaching / CIL
	Elution and goldroom
	Remaining Consumables
	Sub Total - Consumables
Maintenance	
General and Administration	
Labour	
TOTAL	

[redacted]

Table 6-2 : Operating cost by area

6.2 Qualifications

The processing cost estimate presented in this section is exclusive of:

- all head office costs and admin labour costs, which are captured by Rox elsewhere
- taxes; import duty on consumable cost is included
- any impact of foreign exchange rate fluctuations
- any escalation from the date of the estimate
- any contingency allowance
- any land or crop compensation costs
- any rehabilitation or closure costs
- any licence fees or royalties
- ROM Stockpile rehandling costs
- tailings storage costs, including future lifts and rehabilitation
- government monitoring / compliance costs.
- all costs associated with areas beyond the battery limits of the study.

6.3 Fixed and Variable Costs

The fixed and variable cost allocation as shown in Table 6-1 has been made according to whether the cost is directly proportional to ore throughput (e.g. grinding power and cyanide dose) or independent of throughput (e.g. agitator power and labour costs). This analysis is applicable for throughput variations within ±30% of the base case; for variations greater than this, different sized equipment or more or fewer operators would typically be required, leading to a different fixed cost.

No correlation has been made with the head grade of the ore fed to the plant. If this decreases, the recovered gold production will fall. Processing costs that would typically be variable, such as elution and electrowinning costs, have been left as fixed.

6.4 Power

Power will be provided to the plant via reticulated power from a site-based power station. Power cost has been calculated based on [redacted]

The power summary for the process plant and administration is provided in Table 6-3

Power associated with the accommodation village, mine services and mining, and plant aerodrome are all excluded from this estimate.

6.5 Operating Consumables

Reagents and consumables include the following cost elements:

- Crusher wear liners.
- Wear liners for the grinding mill.
- Grinding media for the grinding mill and Isamill.
- Screen deck and filter cloth replacements.
- All reagents used in the process.
- Fuel for mobile equipment assigned to the processing or maintenance groups.
- Lubricants, operating tools and equipment, general and operator supplies.

Reagent consumptions have been calculated from the laboratory testwork results, first principles or taken from MIQM's database of similar projects. Reagent costs have been sourced from budget quotations.

Operating Consumable		
Crusher Liners		
Jaw Crusher	Fixed Jaw	
Jaw Crusher	Moving Jaw	
Cone Crusher	Bowl	
Cone Crusher	Mantle	
Screen Consumables		
Top Deck		
Bottom Deck		
Mill Liners		
Ball Mill	Rubber	
Grinding Media		
Ball Mill Balls		
Reagents - Flotation		
Activator	$CuSO_4$	
Frother	W22	
Collector	PAX	
Reagents and consumables - Albion		
IsaMill Media		
Oxygen	O_2	Cost accounted for by labour and power
Limestone	$CaCO_3$	
Hydrated Lime		

[redacted]

Operating Consumable		
Sodium Hydroxide	NaOH	
Flocculant		
Reagents - CIL		
Cyanide		CIL
Hydrated Lime		CIL
Activated Carbon		
Reagents - Elution		
Cyanide		Elution
Sodium Hydroxide	NaOH	Elution
Hydrochloric Acid	HCl	Elution
Reagents - Thickening		
Flocculant	Basic Duty	Isamill Thickener
Flocculant	Basic Duty	Tailings Thickener
Electrowinning - CIL		
Stainless Steel Stocking		
Gold Room		
Goldroom Consumables		
Fuel		
Diesel		Mobile Equipment
LPG		Elution
LPG		Regeneration
LPG		Smelting
Water		
Antiscalant		

[redacted]

Operating Consumable		
General		
Mill Lubricants	Allowance	
General supplies	Allowance	
Operator Supplies	Allowance	
TOTAL		

[redacted]

Table 6-4 : Summary consumables costs

6.6 Maintenance

Maintenance materials costs for the operation have been factored from the capital cost estimate, using factors from the MIQM database.

The allowance covers mechanical spares and wear parts, but excludes crushing and grinding wear components, media and general consumables. The maintenance costs exclude all payroll maintenance labour (covered in plant labour).

Area	[redacted]
Plant Maintenance	
CRUSHING	
MILLING & CLASSIFICATION	
FLOTATION	
THICKENING	
FINE GRINDING	
ALBION	
LEACHING & CIL	
TAILINGS	
ACID WASH & ELUTION	
REAGENTS	
SERVICES	
Mobile Equipment	
Maintenance General	
Maintenance software (SAP etc)	
Maintenance manuals	
Maintenance training	
TOTAL	

Table 6-5 : Summary maintenance costs

6.7 Labour

Unit rates for labour have been based on information from operations located in the same region of WA as Youanmi.

The advised labour rates are exclusive of all overhead costs (i.e. costs added to the individuals' base salary to cover such items as worker's compensation, death and disability insurance, leave provisions and superannuation contributions). The overhead costs have been calculated to be 26.8% of the base annual salary.

A short term incentive bonus of 10% has been allowed to attract personnel to the operation, and a shift allowance of 10% has been included for those staff working shifts.

The estimate of the labour contingent has been based on a 4 roster operation (2 shifts working 12 hours per day, on an 8/6 rotation), to provide continuous coverage for the plant operation with allowance for leave and absenteeism coverage. Provision has been made for 4 weeks leave and 2 weeks sick leave per year per person.

Staff will be flown to site and bussed to the camp. Travel costs have not been included in this estimate

The labour cost provided in Table 6-6 excludes the following personnel as they are captured elsewhere by Rox:

- All administration and mining labour
- Process manager
- Senior metallurgist
- Plant maintenance manager
- Security
- Laboratory staff

All workers will be housed in an accommodation village near site. An experienced catering company will manage the village. Camp operating costs have been excluded in this estimate.

Area	Employees	Total
		A$/year
Administration – Warehouse	6	1.0
Process Plant Operations	35	6.5
Process Plant Maintenance	44	9.5
Total	**85**	**17.0**

Table 6-6 : Process labour costs

6.8 Laboratory

The onsite laboratory has been captured elsewhere by Rox. Allowance has been made for a small portion of laboratory tests to be conducted externally.

6.9 General and Administration

Administration salaries have not been allowed for in this cost estimate. Several PC sums have been allowed for administration costs as shown in Table 6-7. Other administration costs have been captured elsewhere by Rox.

Item		[redacted]
Personnel		
	Safety Clothing	
	Training	
General		
	Site Laboratory	
	Miscellaneous	
TOTAL		

Table 6-7 : General and Administration costs

6.10 Pre-Production and Working Capital

The costs incurred by the operations during the latter stages of construction and commissioning are included in the capital cost estimate but are derived in this estimate.

6.10.1 First Fill Reagents

Costs have been allowed to purchase the consumables and reagents required to fill the reagent tanks, charge the mills with media, and provide the initial stocks of materials until production commences.

6.10.2 Vendor Representatives and Training

No allowance has been made for training.

6.10.3 Working Capital

No allowance has been made for working capital.

7. CAPITAL COST ESTIMATE

7.1 Introduction

The Project Capital cost estimate developed for the feasibility study (FS) is based upon an Engineering, Procurement and Construction (EPC) approach for the process plant and infrastructure.

The estimate includes all the costs associated with process engineering, design engineering, drafting, procurement, construction and commissioning of the process facility and associated infrastructure, first fills of plant reagents and consumables, and spare parts to design, procure, construct and commission all the facilities required to establish the Project.

The estimate is based upon preliminary engineering, quantity take-offs, budget price quotations for major equipment and bulk commodities. Unit rates for installation were based on market enquiries specific to the Project and benchmarked to those achieved recently on similar projects undertaken in the Australian minerals processing industry.

The estimate pricing was obtained during fourth quarter 2025 (4Q25) and is in Australian dollars (A$). Where pricing was received in a foreign currency, it was converted to A$ at the foreign exchange rates set at 4Q25. The estimate accuracy is ±15% based on the following:

- Developed engineering quantities from calculations and design drawings.
- Budget quotations obtained for major items and site-based contract works.
- The capital cost estimate was broken down using a conventional work breakdown structure (WBS) with plant areas (i.e. crushing, milling, flotation, product handling etc.) as sub- categories.
- The capital cost estimate was broken down into commodity components (i.e. equipment, steel, concrete etc.).

7.2 Capital Estimate Summary

The capital cost estimate includes all costs before the commencement of production except for mining related pre-production costs which are included elsewhere. The capital costs are summarised in Table 7-1 and further details of the capital cost estimate are included in Appendix 9. It should be noted that the supply costs for equipment supplied by Glencore Technologies relating to the regrind and NAL areas has been excluded – Rox will include this cost in their cost model and free-issue to the EPC Contractor. Installation costs in these areas are included.

Description	Total (AUD)
DIRECT COSTS	162.1
Construction Overheads	5.4
Plant Infrastructure	2.4
Construction Plant & Equipment	8.9
Contractor Indirects	2.8
Temporary Construction Facilities	0.4
Earthworks	2.2
Concrete	18.8
Structural	13.3

Description	[redacted]
Mechanical	
Platework	
Piping	
Pipelines	
Electrical	
INDIRECT COSTS	
Project and Construction Management	
Engineering and Drafting	
Commissioning	
PROVISIONAL COSTS	
Oxygen Plant Ancillaries	
OWNERS COSTS	
First Fills	
Spares	
PROCESS PLANT GRAND TOTAL	

Table 7-1 : Capital cost estimate summary

The following allowances are not included in the cost estimate set out in Table 7-1:

- Communications costs.
- Owner's contingency.
- Escalation of supply and contractor prices from the base date.
- Financing costs and interest.
- Foreign currency exchange rate fluctuation.
- Goods and Services Tax (GST) or Value-added Tax (VAT) (it is expected not to apply).
- The sunk costs incurred by the owner prior to project implementation.

7.3 General Estimating Methodology

The capital cost estimate is based on the design, construction and commissioning of a new processing plant and associated infrastructure and facilities.

From the design criteria and flowsheets developed for the Project, preliminary plant equipment selections were made and plant layouts were developed for each process area of the plant. Sufficient engineering design was undertaken to ensure the constructability and operability of the layouts were considered, sufficient detail in the equipment specifications were established, and to enable material quantities to be estimated to the nominated level of accuracy for the FS.

The estimate has been prepared on a commodity basis and reported by area. Details of the structure of the estimate are provided by commodity in this section.

Competitive market pricing was sought for equipment, labour and bulk supply rates which have all been incorporated into the estimate. The installation rates include all charges and costs necessary to deliver the Project.

7.3.1 Earthworks

The earthworks have been estimated for the process plant site only. This includes the water storage ponds and pads for the process plant area but does not include plant access roads or any further bulk earthworks associated with the Project, which are estimated elsewhere.

7.3.2 Concrete

The concrete quantities were calculated for each area from the general arrangement drawings, layout drawings and preliminary designs developed for the Project.

Rates from the MIQM database of similar projects in the region were then applied for concrete supply and installation. The rates obtained reflect all-inclusive site concrete supply and install.

The duration to complete concrete works was estimated by MIQM and person-hours applied within the estimate. Rates are inclusive of equipment, labour, fuel, consumables, materials, indirect costs, and margin.

7.3.3 Structural Steelwork

Steelwork quantities were calculated on an area-by-area basis from the general arrangement drawings, layout drawings and preliminary designs developed for the Project.

Rates from recent quotes by Asian structural steel suppliers were then applied for structural steelwork (across three separate mass classifications) including conveyor gantries and separate rates for grid mesh flooring, hand railing and stair treads. Asian steel supply rates have been utilised due to the expected reduction in capital cost.

The steel supply rates include materials supply, shop detailing, fabrication, surface preparation, final painting in the shop, identification tagging, overheads and margin.

7.3.4 Equipment

The process design criteria were used to develop the mechanical equipment list that defines the requirements and sizes of all the mechanical equipment, platework and tank items. Specifications and data sheets were developed for all major equipment.

Budget quotations, accompanied by engineering specifications and data sheets, were requested from recognised suppliers for the major equipment categories shown in Table 7-2.

Package number	Package Description
7010	Air Compressors
7015	Agitators
7050	Conveyor Components
7020	Analysers
7040	Belt Weighers
7080	Electrowinning Cells
7141	Crusher - Primary

Package number	Package Description
7142	Crushers - Secondary / Tertiary (Cone)
7155	Dust Collector
7161	Cyclones - Classifying
7230	Flocculant Mixing Plant
7240	Flotation Cells
7246	Acid Wash Column
7247	Elution Column
7341	Crane - Motorised Hoist
7380	Pumps - Water
7381	Pumps - Slurry
7382	Pumps - Reagent
7430	Sampler (Slurry)
7440	Screens Wet
7441	Screens Interstage
7442	Screens Dry
7480	Thickener
7490	Tramp Iron Magnet
7540	Feeder - Vibrating
7546	Feeder - Belt
7545	Feeder - Apron
7640	Metal Detector
7770	Elution Heater
7780	Regeneration Kiln
7790	Mill - Ball
7820	Rockbreaker
7840	Hydrated Lime System
7841	Limestone System
7850	Reverse Osmosis Plant
7980	Slurry Cooling Tower
7981	Isamill Package
7982	Albion Package

Table 7-2 : Quoted equipment packages

While a budget supply quotation was received for the Isamill Package and Albion Package from GT, this cost has been excluded from the capital cost estimate at this stage. Rox will directly purchase the equipment from the vendor and free-issue to the EPC contractor, in order to commence fabrication as early as possible. Rox has

captured this cost elsewhere. Installation for this equipment is included in this estimate.

7.3.5 Platework

The process design criteria were used to develop the fabricated plate work component list that defines the requirements and sizes of all the tanks, bins, chutes, and launders. Quantities were calculated by MIQM on an item-by-item basis from the requirements specified in the equipment list, as well as platework items depicted in the layout drawings and/or developed from platework used for similar applications on previous projects.

Rates from recent quotes by Asian and local fabricators were utilised in the estimate. These rates include materials supply, fabrication, surface preparation, final painting in the shop, overheads, and margin. Asian platework supply has been allowed for mechanical platework due to the expected reduction in capital cost. Site-erected platework is generally local supply, with the exception being the Albion tanks provided by GT.

7.3.6 Piping

Piping has been estimated using factors from similar process plants.

7.3.7 Electrical and Instrumentation

The electrical, instrumentation and control quantities have been compiled from the Project scope, layouts, equipment list and load list.

Cable and material quantities were estimated based on layout, switch room locations, equipment specific requirements and drive requirements.

Budget pricing was obtained for all major electrical components (i.e. transformers, switch rooms, motor control centres (MCCs), variable speed drives (VSDs), medium voltage switchgear). Rates are inclusive of materials, overheads, and margin.

7.3.8 Installation Labour

Estimates for installation labour is based on estimated person-hours associated with the equipment and fabricated items to be installed in each area of the plant. The estimated hours for installation reflect the labour force productivity for Australian construction sites for the minerals industry and the application of industry standard labour rates for the type of work involved. The rates were developed with consideration to the rates achieved on recent similar minerals processing projects.

Labour crew rates were built up to include an appropriate mix of supervision, skilled and unskilled personnel. Each crew rate included the costs of mandatory meetings and breaks, small tools, statutory labour costs, personal protective equipment, clothing, supervision, indirect costs, and margins.

The construction labour rates for structural, mechanical, and piping (SMP) and electrical, instrumentation and control (E&IC) are based on the current MIQM site installation rates and employment conditions. Travel has been included, but accommodation has not.

In the NAL area, installation hours have been estimated based on bulk quantities of platework and structural steel supplied by GT. Allowance has been made for the

additional hours and consumables associated with the welding of duplex stainless steel on site.

In the IsaMill area, installation hours for platework and structural steel have been estimated based on quantities from previous similar projects, as the design and supply of the area is by GT and no bulk quantities were available.

7.3.9 Cranage and Equipment Costs

Estimates for cranes and equipment costs are based on the estimated hours of utilisation for major cranes and equipment items associated with installation in each area of the plant, and the application of industry standard charge-out rates for the various cranes and equipment types involved. The applied rates do not include fuel.

The charge rates were developed from in-house construction equipment hire data.

7.3.10 Project Spares

The project spares capital cost has been allowed as a percentage of mechanical equipment supply costs.

7.3.11 Initial Fills

Allowances for first fills include operating spares and the supply of consumables, grinding media, reagents, and lubricants. The first fill quantities have been derived from the process design criteria.

7.3.12 Plant Services and Infrastructure

The capital cost estimates compiled for the plant services/infrastructure components of the Project are based on requirements dictated by the current process plant design/capacity and plant layout.

The main scope of work items covered by the capital cost estimate are summarised as follows:

- Administration and plant buildings including plant site office complex, plant site change room building and plant site crib room.
- Plant control room and associated facilities.
- Combined plant site workshop and stores building complete with portable offices.
- Reagent store.

Building costs were based on recent quotes for similar projects in the region.

7.3.13 Indirect On-Site Costs

Mobilisation and demobilisation costs have been estimated based on recent experience with similar sized projects. Costs for the establishment and operation of temporary construction facilities were based on recent experience with similar sized projects.

Provision has been made for all on-site offices, stores, workshops, communications, ablution, and crib facilities. In addition, allowance for all on-site transport for construction crews and management has been included.

Flights, meals, and accommodation have been excluded from the estimate, as these have been captured elsewhere by Rox.

7.4 Engineering, Procurement and Construction Management

The estimate for the engineering, procurement and construction management portions of the EPC Contract are based on a project delivery team consisting of the disciplines required to perform all activities associated with the Project for the project duration. The involvement of each discipline was estimated based on the complexity of the tasks and costs incurred on recent similar projects.

Rates used to generate the estimate are an estimate of costs applicable for 2025. The rates are consistent throughout the estimated implementation program and no allowance has been made for any escalation of these rates.

7.5 Contingency

Contingency commensurate with the level of design and estimating confidence has been included. The allowances are based on the Project outlined in this study and do not include for changes to the process flow sheet, process plant design or major equipment selections.

Contingency in the estimate vary for different types of costs according to the level of accuracy associated with equipment/materials pricing, estimates of material quantities, estimates of equipment and labour requirements and site costs.

There has been no provision made in the estimate for owner's contingency. This would typically include items such as unknown geotechnical conditions, weather delays, industrial actions, incident management, scope changes due to unforeseen events or changes etc.

7.6 Owner's Project Management Team Costs

Owner's costs have not been included in the estimate.

7.7 Owner's Contingency

Owner's contingencies and/or risk amounts have not been included in the estimate.

7.8 Escalation

Escalation has been excluded from the estimate. The base date for all obtained pricing is 4Q25.

7.9 Capital Cost Estimate Clarifications

The following qualifications apply to the capital cost estimate presented in this FS:

- The estimate is based on an EPC project delivery strategy inclusive of contractor margin on design, engineering, materials, freight, installation and commissioning.
- The supply cost for the Isamill area equipment, structure, platework piping and instrumentation is excluded from this estimate. Rox have estimated this separately and will free-issue to the EPC contractor.
- The supply cost for the NAL area equipment, structure, platework, piping and instrumentation is excluded from this estimate. Rox have estimated this separately and will free-issue to the EPC contractor.
- Earthworks inclusive of plant pads, diversion drains and ponds are included.

- The estimate excludes the ROM pad. The ROM pad will be constructed from waste or low-grade material from the underground mining operation as part of development mining costs.
- Concrete batching, delivery and installation will be completed as a single contract encompassing all material supply, wastage allowance, installation and finishing.
- There is no allowance for concrete additives or surface treatments for the concrete works as the process does not deem it necessary.
- Suitable and good quality construction water for civil and concreting works will be provided to the contractors at a nominated point.
- Structural steel and plate surface treatments are as per MIQM specification by process area.
- Port of Fremantle will be the port of receipt for internationally supplied equipment. Freight costs will cover unloading, handling and port charges.
- Land freight has been estimated based on a factor.
- Construction will be completed on a two week on one week off roster with flights, meals and accommodation costed on this basis.
- Construction facility and equipment hire rates are reflective of the market at 4Q25.
- Site and mine access roads are excluded
- Mining facilities are excluded.
- Airport facilities are excluded.
- Raw water harvesting is excluded
- The power station is excluded, along with associated gas storage facilities.
- The TSF is excluded.
- The laboratory is excluded – a concrete pad has been allowed.
- The VPSA oxygen plant is excluded – this has been costed elsewhere as a Build-Own-Operate contract (BOO). Allowance has been made for the concrete footings for the plant.
- The fuel storage and dispensing facility has been excluded.
- The ROM pad FEL cost will be included in the mining cost.
- The estimate does not include allowances for an owner's team and the associated overheads.

8. RISKS AND OPPORTUNITIES

8.1 Introduction

A formal risk assessment has not yet been undertaken for the Project and will be required in the next phase. The risks outlined in this section are generic for projects of this nature and provided in a qualitative manner.

8.2 Key Project Risks

8.2.1 Safety and Health Risks

The safety risks and control measures identified included several typical operational risks and control measures, such as: working at heights, falling objects, and equipment guarding. Typical operational risks will be mitigated by applying proven industry designs and management controls. Specific safety risks associated with the Project include:

- Road travel safety associated with access to and from the operation. Road safety will be included in the traffic management plan which is to be developed at the detailed design stage.
- Air travel associated with the operation being fly in – fly out (FIFO). Air travel safety will be included in the site safety management plan.
- Project personnel not presenting fit for work. A fitness for work system will be developed and in place for construction and will transition into the commencement of plant operations.
- Lightning strike to personnel and equipment during a storm event. A procedure covering the event of a lightning storm will be in place during construction and will transition into commencement of operations.
- The interaction between heavy vehicles and light vehicles has potential for collision incidents resulting in equipment damage and/or personnel injury. A traffic management plan will be implemented during construction and prior to the commencement of mining activities.
- Exposure to dust during mining, plant operations and maintenance of the plant. Dust monitoring and operating procedures will be developed and implemented. Dust suppression systems will be incorporated into the ore handling and plant design. Occupational Health, Safety and Environment (OHS&E) consultants will be engaged during the next phase to confirm the approach to personnel workplace safety around handling of lead ore and concentrate.
- Exposure of the public to dust. The site is remote with no nearby towns or residential premises. Concentrate will be transported from site in sealed steel containers which will be washed and inspected prior to departure. Trucks will travel on sealed main roads to the Port of Geraldton.
- Employee absenteeism and recruitment. The resources sector is currently operating at a high-level absenteeism and low level of experience. Difficulty recruiting suitably skilled employees is a challenge and human resource issues with untrained or inexperienced personnel may have a flow-on effect into safety.

8.2.2 Processing Risks

The key processing risks and control measures identified include:

- The current level of metallurgical testwork is limited compared to a typical DFS. Further testwork is planned by Rox to provide further validation of the study assumptions, however this is unlikely to be available prior to the start of detailed

design. As a result, there is a risk that the selected process equipment will not be the optimum size, or of rework in the detailed design phase.

- The mine plan for the DFS does not generally have accurate measurement of sulphur, as much of the basis is historical assays that did not measure this. Sulphide sulphur has been estimated as a ratio of contained gold. Given the nature of the plant, understanding and control of sulphur grade will be critical for the design and operation.
- Cyanide Destruction. The PFS included provision for an Air/SO2 cyanide destruction circuit after the cyanide leach circuit. This was done to mitigate two risks: cyanide depression of sulphide flotation, and high levels of WAD cyanide in the TSF. From the testwork, the cyanide concentration in the CIL is expected to be similar to typical free-milling gold plants, meaning that cyanide destruction would not be necessary from an environmental perspective. In the FS, the water circuits have been further separated to include a cyanide-free process water circuit. As a result, the cyanide destruction circuit was removed to reduce capital costs. The cyanide-containing process water returning from the decant circuit will generally be used only in the leaching areas. However, the decant return rate will vary through the year. If the decant rate exceeds the process water demand, cyanide-containing water will overflow to the cyanide-free circuit. If this is found to impact flotation of target sulphide minerals, then a hydrogen peroxide dosing system can be added to the water returning to the cyanide-free process water system.
- Process plant availability. Plant availability is a key driver for maintaining revenue while stabilising operating costs. Uncontrolled downtime from major equipment failure is a significant risk that will be mitigated by comprehensive and agile maintenance planning systems. Adequate spare parts and critical insurance spares are to be stocked in the warehouse. Equipment will be sourced from reputable suppliers with proven records and reference lists of similar installed equipment. Where possible, common equipment (i.e. pumps) will be installed and adequate surge will be incorporated in the design.
- Fire, including conveyor belt fire. Conveyor belt fires are typically caused by failure of pulleys and idlers and may be avoided through the implementation of sound preventative maintenance practices. Hot work over conveyor belts will be controlled by hot work permits. A fire water and hydrant system will be installed in the process plant.
- Suboptimal plant operation. Inexperienced, inadequately trained or inadequately supervised personnel have the potential to cause unplanned plant stoppages and recovery losses. A comprehensive operator training scheme will be implemented prior to the commencement of production and ongoing scheduled training provided. An operator's manual will be provided for specific operational areas of the plant.

8.2.3 Environmental Risks

The key environmental risks and control measures identified include the following:

- Bush fire. Surface fires can be initiated from project activities or may occur naturally from lightning strikes. Suitable surface firefighting equipment will be in place and hot work procedures will be established to prevent accidental ignitions.
- Spillage of hydrocarbons. Hydrocarbon management will be achieved using designated service areas, containment, waste product recycling and handling procedures. Used hydrocarbons will be stored and removed from site to be disposed of at the appropriate commercial facility.
- Acid Mine Drainage (AMD). Seepage and water flow from potential acid forming waste material has the potential to generate acidic water. Baseline analysis is

required to confirm that tailings and mine waste to be non-acid forming. Ongoing monitoring will be undertaken on groundwater beyond the mine infrastructure. Groundwater recovery will be required if monitoring identifies AMD in surrounding groundwater.

- Dust emissions. Dust will be monitored and managed using dust collection and suppression systems within the plant design.
- Improper disposal of process tailings and other effluent waste stream. This risk will be controlled using proven design systems. Spillage, seepage, and run-off will be managed using containment bunds, drains and dams. Site sewerage will be processed through a purpose-built sewerage management system. All site sewerage will report to that system.
- General waste management. General waste will be disposed of in an on-site, approved, landfill. Waste types not able to be disposed on-site will be removed to an appropriately licenced facility. Reusable plastic crib containers and cutlery will be issued to all employees to minimise plastic waste disposal to landfill.
- Failure to achieve closure criteria because the rehabilitated mine landscape is not deemed safe, stable, non-polluting and capable of self-sustaining.

8.2.4 Organisational and Project Risks

Organisational and project risks and the control measures identified include:

- Project approvals. A delay in gaining the necessary government approvals may have a significant impact on the Project start up timing and effect forecasting or project economics. At the time of completion of the FS, this risk is being controlled by working to a detailed plan for the preparation and submission of the necessary applications to secure the required approvals in a timely manner within a realistic timeframe.
- Construction delay. A delay in the construction, commissioning and performance testing of major infrastructure items will delay project ramp-up and may put revenue associated with concentrate and doré sales at risk. Failure to meet production targets could have flow-on implications associated with various sales agreements. Construction and production plans will be developed and implemented with suitable contingencies. Long lead equipment will be expedited early in the execution phase of the Project to prevent unexpected delays.
- Poor safety performance. High levels of reportable incidents may result in works stoppages and delays. Safety will have the highest priority during both construction and operations. A safety management plan will be developed and implemented during construction. Other mitigating controls will include the recruiting of an experienced and appropriately trade-certified workforce and the use of reputable engineers / contractors with experience in the mining industry.
- Damage to buried services caused by unauthorised excavation works. Controls to mitigate this risk include engaging a qualified and experienced surveyor during the early execution phase to accurately locate and map all buried services. The surveyor will also develop and implement an excavation procedure and permit system.
- Severe injury or fatality during construction and commissioning. All construction work and commissioning will be fully risk assessed prior to commencement using a Construction Risk Assessment Workshop (CRAW), which will generate a risk management system, procedures and controls to mitigate the risk of personal injury during these activities. Emergency response and crisis management teams will be appointed and an emergency response plan will be developed and implemented prior to the commencement of construction activities and operation. All construction and commissioning work will be managed, supervised and

undertaken by qualified, trained and experienced staff, using established procedures and control measures.

- Community interaction. Controls will include ongoing community engagement through communication and consultation, employment offers to local residents where possible, implementation of health and safety procedures for personnel and vehicles entering and exiting the operation, sealed containers for product transport.
- TSF embankment fails during operation due to overtopping, piping or embankment failure. This will be controlled initially by using experienced tailings dam engineers to design the facility, followed by site supervision of construction works by a qualified engineer, a QA/QC testing program and annual audits during operation. The TSF will be constructed to minimise seepage. Recovery of supernatant water from the TSF will be maximised.
- Delay of long-lead item procurement. The critical path for the project execution runs through the supply of the GT IsaMill. Further, Glencore have advised a lead time of 50-60 weeks: the study has adopted a fabrication period of 55 weeks, meaning that there could be a month of variation in either direction once the supply contract is finalised. In order to meet Rox's schedule, Rox will purchase the equipment directly from the vendor and then free issue to the EPC Contractor once FID has been made for the project early in 2026. This also exposes Rox to cost and schedule risk associated with directly purchasing the equipment.
- Delay in availability of oxygen. The lead time for large VPSA oxygen plants is long, with fabrication timeframes exceeding 18 months. The schedule currently assumes that Rox will engage with a vendor for a BOO contract in December 2025 to accelerate this process as far as possible. Even so, the oxygen plant will be completed after the rest of the plant has been commissioned. In order to mitigate this risk, the BOO contract will include provision for a liquid oxygen standby (LOX). This LOX system will be available well in advance of the VPSA plant, allowing the plant to start on LOX if required. Using LOX will substantially increase operating cost for the Albion area, so it is recommended that Rox engage with the oxygen suppliers as early as possible.

8.2.5 Financial Risks

The key financial risks and control measures identified include:

- Insufficient working capital resulting from delays in receipt of product sales and/or the capital expenditure requirement not being estimated correctly causing a funding shortfall. The Project will have a cashflow forecast and working capital requirements based on typical product payment terms and durations.
- Gold prices reduce to below the cash cost of production which may be driven by market forces outside the owner's control. Financial risk mitigation strategies will be considered as deemed appropriate by the Board (including hedging).
- Operating and capital cost overruns. An increase in the general cost of third-party services and consumables is a risk. In the case of power, this risk is mitigated by executing a power purchase agreement with an independent power provider who can demonstrate experience in design, installation, integration, commissioning and operating renewable power sources with an off-grid conventional power station.

8.3 Opportunities

The key opportunities identified were as follows:

- The mine plan for the DFS indicates that after a ramp-up period, the yearly ore treatment rate is closer to 900 kt/a than 1 Mt/a. In detailed design, a smaller plant design could be considered to reduce capital cost. Alternatively, further exploration may increase the available ore for treatment.
- The mine plan for the DFS indicates that the treatment rate for the first year will be equivalent to around 700 kt/a. It may be possible to defer upfront capital for one of the seven CIL tanks and install in the future once throughput increases and plant-level recoveries have been tested.
- The inclusion of an intensive cyanidation step has been required by the lack of standard cyanidation testwork on the Albion product. Further testwork leaching the Albion product and flotation tails product may result in the removal of this circuit, leading to cost savings.
- The IsaMill and Albion areas have been quoted by GT for the purpose of the study – this includes platework, steelwork, instrumentation and ancillary equipment (IsaMill area pumps, cyclones, screens). It is likely that cost could be saved by buying only the necessary equipment from Glencore (IsaMill, NAL reactors, agitators, hypersparges) and moving the other equipment into the EPC contractor's scope.
- Use of local calcrete in place of trucked limestone. Limestone is used as a source of calcium carbonate to maintain neutral pH in the NAL circuit. Calcrete also contains calcium carbonate, though at a lower grade. Rox has identified a nearby source of calcrete. It is possible that mining and crushing this calcrete near site will be cheaper than trucking limestone from elsewhere into site, as the majority of the limestone cost is associated with transport from the quarry. The NAL circuit has been sized to suit the use of calcrete.
- Reagent regime. The test work results need to be confirmed and expanded to optimise the reagent regime, evaluate subsequent savings and determine if the reduction is applicable across the various geo-metallurgical domains of the deposit.
- Detailed plant design pre-production. Further detailed test work, associated with pre-production engineering may identify savings in additional areas including grinding power, regrind mill size selection, flotation equipment requirements and dewatering equipment requirements.
- Project energy costs. Increased renewable energy penetration (solar and wind) could be investigated to reduce power generation costs.
- Automation. Advances in robotics and the integration of automated technologies into the workplace presents opportunities to improve safety, reduce human errors, improve output quality, increase productivity and in some cases reduce operating costs associated with high fixed costs of labour.
- Oxygen plant ancillaries. The BOO offer for the oxygen plant was received near the end of the study and excluded cooling water systems, fire suppression systems and electrical equipment and installation. High-level PC sums have been allowed in the capital cost estimate for each of these items, however in the next phase these items could be included in the BOO scope, for a possible reduction in upfront capital cost.

APPENDIX 1–PROCESS DESIGN CRITERIA, MASS AND WATER BALANCES

MACA Interquip
mintrex

Process Design Criteria

Project Name:	Youanmi Refractory Plant
Project Phase:	FS
Client Name:	Rox Resources
Project Number:	839
Doc. No:	839-06020-DCR-0001

[redacted]

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
1.0	**LOCAL CONDITIONS**							
		Location			Youanmi, Western Australia	Client	A	
		Elevation		mASL	376	Calculated		
		Minimum - Maximum Temperature Range		°C	-1.6 to 47.8	Reference	B	https://www.weatherzone.com.au/station/ISITE/12314/climate
		Mean Pan Evaporation		mm	2400-2000	Reference	B	http://www.bom.gov.au/watl/evaporation/
		Mean Annual Rainfall		mm	254.1	Reference	B	https://www.weatherzone.com.au/station/ISITE/12314/climate
		Prevailing Wind Direction			E	Reference	B	Leinster Airport Wind Forecast, WA - WillyWeather
		Mean Monthly Rainfall Range		mm		To be advised	A	
		Annual Evaporation rate		mm		To be advised	A	
2.0	**MATERIAL CHARACTERISTICS**							
2.1	**General**							
		Annual Throughput		t	1,000,000	Client	A	
		Solids SG (Fresh) measured			2.85	Testwork	B	Average testwork value from 2022 and 2025 testwork is 3.02. Reference 6
		- Range			2.74 - 3.67	Test work	B	Reference 6
		Design Solids SG			2.85	Client	B	Client advised lower SG based on drilling testwork
		Liquid SG			1.01	Assumed	A	
		Bulk Density - Compacted		t/m³	1.8	Assumed	A	
		- Loose		t/m³	1.5	Assumed	A	
		Moisture Content (Max)		%	2.5	Assumed	A	Assumed by MIQ
		Maximum Lump Size		mm	800	Client	B	Reference 6 - Client PDC review
		ROM Ore Angle of Repose		Degrees	38	Assumed	A	
2.2	**Comminution design basis**							
		Crushing Work Index - Range		kWh/t	5.83-15.3	Testwork	B	Reference 6 - 2025 CWi testwork
		Bond Ball Mill Work Index - Design		kWh/t	17.1	Test work	B	Reference 6 85th percentile of 2021, 2022, 2025 testwork
		Abrasion Index - Design			0.270	Test work	B	Reference 6 85th percentile of 2021, 2022, 2025 testwork
		SMC A x b			27.1	Reference	B	Reference 6 15th percentile of 2021, 2022, 2025 testwork
		Specific Primary Mill Power Consumption		kWh/t	15.90	To Be Advised	A	Orway Mineral Consultants Report 7504 Sept 2022
		Target Grind Size (P_{80})		µm	75	Calculated		
2.2	**Elemental Composition**							
		Gold Head Grade - Sulphide	Nominal	g/t	4.55	Reference	A	Reference 3 - Minescope Mine Plan Review - LOM
		Gold Head Grade - Sulphide	Design	g/t	4.80	Reference	A	Reference 3 - Minescope Mine Plan Review - Based on Mass Pull
		S-total	Nominal	%	3.09	Reference	A	Reference 3 - Minescope Mine Plan Review
		S-sulphide	Nominal	%	3.09	Assumed	A	
		S-total	Design	%	3.43	Reference	A	Reference 3 - Minescope Mine Plan Review
		S-sulphide	Design	%	3.43	Assumed	A	
		Silver		g/t	<2	Assumed	A	
		As		ppm	2,800	Reference	A	Reference 3 - Minescope Mine Plan Review
2.3	**Ore Mineralogy**							
		Al		%	5.92	Test work	A	Reference 2 - Bulk Composite Head Assays. Client noted that subsequent to this, composites were modified to bring sulphur and gold grade in line with expected plant feed
		C-total		%	0.96	Test work	A	
		C-organic		%	<0.03	Test work	A	
		Ca		%	3.85	Test work	A	
		Mg		%	2.04	Test work	A	
		Fe		%	7.08	Test work	A	
		Na		%	1	Test work	A	
		Si		%	24.50	Test work	A	
		Cd		ppm	<5	Test work	A	
		Co		ppm	40	Test work	A	
		Bi		ppm	<10	Test work	A	
		Ba		ppm	250	Test work	A	
		Be		ppm	<5	Test work	A	
		Cr		ppm	100	Test work	A	
		Cu		ppm	100	Test work	A	
		Li		ppm	90	Test work	A	
		Mn		ppm	1,050	Test work	A	
		Mo		ppm	10.00	Test work	A	
		P		ppm	1,500	Test work	A	
		Pb		ppm	20	Test work	A	
		Hg		ppm	<0.1	Test work	A	
		K		%	2.10	Test work	A	
		Sb		ppm	308.00	Test work	A	
		Sr		ppm	100	Test work	A	
		Te		ppm	1.10	Test work	A	
		Ti		ppm	7,500	Test work	A	
		V		ppm	215	Test work	A	
		Y		ppm	<100	Test work	A	
		Zn		ppm	113	Test work	A	
		Ni		ppm	228	Test work	A	
2.4	**Water**							
		Source			Raw Water	MIQM	B	
		pH			TBC	To Be Advised	B	Client to advise
		Specific Gravity	Design		TBC	To Be Advised	B	Client to advise
		Analysis	TDS	mg/L	TBC	To Be Advised	B	Client to advise
			TSS	mg/L	TBC	To Be Advised	B	Client to advise
			Ca	mg/L	TBC	To Be Advised	B	Client to advise
			Mg	mg/L	TBC	To Be Advised	B	Client to advise
			Chloride, Cl	mg/L	TBC	To Be Advised	B	Client to advise
			Sulphate, SO_4	mg/L	TBC	To Be Advised	B	Client to advise
			Sulphur, S	mg/L	TBC	To Be Advised	B	Client to advise
			Potassium, K	mg/L	TBC	To Be Advised	B	Client to advise
			Sodium, Na	mg/L	TBC	To Be Advised	B	Client to advise
			Aluminium, Al	mg/L	TBC	To Be Advised	B	Client to advise
			Antimony, Sb	mg/L	TBC	To Be Advised	B	Client to advise
			Arsenic, As	mg/L	TBC	To Be Advised	B	Client to advise
			Iron, Fe	mg/L	TBC	To Be Advised	B	Client to advise
			Soluble Strontium, Sr	mg/L	TBC	To Be Advised	B	Client to advise
			Soluble Zinc, Zn	mg/L	TBC	To Be Advised	B	Client to advise
2.5	**Overall Plant Product Recovery**							
		Overall Gold		g/h	932.7	Calculated		
				%	89%	Calculated		
			CIL	g/h	932.7	Mass Balance		
			Table concentrate	%	0%	Calculated		
			Flotation Concentrate	%	0%	Calculated		
			CIL	%	89%	Calculated		
2.6	**Overall Plant Production**							
		Overall Gold	Nominal Head Grade	oz/a	129,870	Calculated		
			Design Head Grade	oz/a	137,005	Calculated		
3.0	**OPERATING SCHEDULE**							
3.1	**General**							
		Total Days		d/a	365	MIQM	A	
			Special Holidays	d/a	0	MIQM	A	
			Inclement Weather	d/a	0	MIQM	A	
		Working Week		d/w	7	MIQM	A	
		Maintenance		d/a	0	MIQM	A	
		Annual Operating Days		d	365	Client	A	
		Operating Shifts per Day		#	2	Client	A	
		Shift Duration		h	12	Client	A	
		Wet Plant Utilisation		%	91.3	Client	A	
		Annual Operating Hours		h	8,000	Industry Standard	A	
		Daily Throughput		t/d	2,740	Calculated		
3.2	**Crusher Operating Schedule**							
		Crushing Plant Availability		%	70	MIQM	A	
		Daily Operating Hours		h	24	MIQM	A	
		Effective Annual Operating Hours		h	6,132	Calculated		
3.3	**Milling, Gravity, Flotation, Albion and CIL Schedule**							
		Annual Grinding Days		d	365	MIQM	A	
		Daily Grinding Shifts		#	2	MIQM	A	
		Grinding Shift Duration		h	12	MIQM	A	
		Plant Availability		%	91.3	Calculated		
		Operating Hours per Day		h	24	MIQM	A	
		Effective Annual Operating Hours		h	8,000	Industry Standard	A	
4.0	**CRUSHING**							
4.1	**General**							
		Required Crushing Plant Throughput		t/h	163	Calculated		
		Design Crushing Plant Throughput		t/h	163	Calculated		
		Final Crushing Circuit Product Size P100		mm	14.0	Calculated		Bruno model
		Final Crushing Circuit Product Size P80		mm	8.3	Calculated		Bruno model
4.2	**ROM Bin**							
		Ore Delivery Method			Front End Loader	To Be Advised	A	
		Storage Capacity @ Design Crushing Rate		min	29	Calculated		
				t	80	MIQM	A	
		ROM Ore F100		mm	800	MIQM	A	
		(Bruno Simulation for 800mm (coarse) PSD)		mm	800 x 800	MIQM	A	
		Static Grizzly Aperture		mm	371	Process Simulation	A	REFERENCE 1
		ROM Ore F80		m³/h	3	Assumed	A	
		Dust Suppression Water						
4.3	**Primary Feeder**	Make/ Model			Metso/ AF5-1524 or equivalent	Consultant/Vendor Advice	C	
		Type			Apron feeder	MIQM	A	
		Size (width x length)		mm	Metso/ AF5-1524 or equivalent	Consultant/Vendor Advice	C	
		Design Feed Rate		t/h	163	Calculated		

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
4.4	**Primary Crusher**							
		Make/ Model			Metso : Outotec C130	Consultant/Vendor Advice	C	REFERENCE 1
		Type			Primary Jaw Single Toggle	Process Simulation	A	REFERENCE 1
		Crusher Size (Closed Side Setting)		mm	110	Process Simulation	A	REFERENCE 1
		Installed Power		kW	185	Process Simulation	A	REFERENCE 1
		Primary Crusher Throughput		t/h	163	Process Simulation	A	REFERENCE 1
		Feed Size F100		mm	800	Process Simulation	A	REFERENCE 1
		Feed Size F80		mm	495	Process Simulation	A	REFERENCE 1
		Product Size P100		mm	208	Process Simulation	A	REFERENCE 1
		Product Size P80		mm	113	Process Simulation	A	REFERENCE 1
4.5	**Secondary Crusher Surge Bin**							
		Feed Rate		t/h	185	Mass Balance		
		Capacity		m^3	54	MIQM	B	
				t	98	Calculated		
				min	28.0	Calculated		
4.6	**Secondary Crusher**							
		Make/ Model			Metso : Outotec HP350e Standard Coarse	Process Simulation	A	REFERENCE 1
		Type			Cone Crusher	Process Simulation	A	REFERENCE 1
		Crusher Size (Closed Side Setting)		mm	28	Process Simulation	A	REFERENCE 1
		Installed Power		kW	220	Process Simulation	A	REFERENCE 1
		Secondary Crusher Throughput		t/h	185	Process Simulation	A	REFERENCE 1
		Product Size P80		mm	27.0	Process Simulation	A	REFERENCE 1
		Product Size P100		mm	46.0	Process Simulation	A	REFERENCE 1
4.7	**Tertiary Crusher Surge Bin**							
		Feed Rate		t/h	121	Mass Balance		
		Capacity Tonnes		m^3	35	MIQM	B	
		Capacity Tonnes		t	56	Calculated		
		Capacity Minutes		min	27.8	Calculated		
4.7	**Tertiary Crusher**							
		Make/ Model			Metso : Outotec HP350e Standard Fine	Process Simulation	A	REFERENCE 1
		Type			Cone Crusher	Process Simulation	A	REFERENCE 1
		Crusher Size (Closed Side Setting)		mm	16	Process Simulation	A	REFERENCE 1
		Installed Power		kW	220	Process Simulation	A	REFERENCE 1
		Tertiary Crusher Throughput		t/h	121	Process Simulation	A	REFERENCE 1
		Product Size P80		mm	12.0	Process Simulation	A	REFERENCE 1
		Product Size P100		mm	22.0	Process Simulation	A	REFERENCE 1
4.8	**Sizing Screen**							
		Make/ Model			Metso 2461	Consultant/Vendor Advice	C	
		Dimension (W x L)		m	2.4 x 6.1	Consultant/Vendor Advice	C	
		Top Deck Aperture		mm	30.0	Consultant/Vendor Advice	C	
		Bottom Deck Aperture		mm	14.0	Consultant/Vendor Advice	C	
		Top deck oversize mass		% crusher feed	113.5	Process Simulation	A	REFERENCE 1
		Bottom deck oversize mass		% crusher feed	74.2	Process Simulation	A	REFERENCE 1
		Product Size P80		mm	8.3	Process Simulation	A	REFERENCE 1
		Product Size P100		mm	14.0	Process Simulation	A	REFERENCE 1
4.9	**Conveyor - CV 1 - Primary Crusher Discharge**							
		Capacity	Design	dry t/h	163.1	Mass Balance		
				wet t/h	167.3	Mass Balance		
		Bulk Density		t/m³	1.80	Calculated		
		Maximum Lump Size		mm	208	Process Simulation	A	
4.10	**Conveyor - CV 2 - Sizing Screen Feed**							
		Capacity	Design	dry t/h	469.2	Mass Balance		
				wet t/h	490.9	Mass Balance		
		Bulk Density		t/m³	1.80	Calculated		
		Maximum Lump Size		mm	208	Process Simulation	A	
4.11	**Conveyor - CV 3 - Secondary Crusher Feed**							
		Capacity	Design	dry t/h	185.1	Mass Balance		
				wet t/h	193.3	Mass Balance		
		Bulk Density		t/m³	1.80	Calculated		
		Maximum Lump Size		mm	208	Process Simulation	A	
4.12	**Conveyor - CV 4 - Tertiary Crusher Feed**							
		Capacity	Design	dry t/h	121.1	Mass Balance		
				wet t/h	126.4	Mass Balance		
		Bulk Density		t/m³	1.80	Calculated		
		Maximum Lump Size		mm	30	Process Simulation	A	
4.13	**Conveyor - CV 5 - Crushed Ore Bin Feed**							
		Capacity	Design	dry t/h	163.1	Mass Balance		
				wet t/h	170.3	Mass Balance		
		Bulk Density		t/m³	1.80	Calculated		
		Maximum Lump Size		mm	8	Process Simulation	A	
5	**Ore Storage and Reclaim**							
5.1	**Crushed Ore Bin**							
		Storage Method			Fine Ore Bin	MIQM	A	
		Feed Rate		t/h	163	Calculated		
		Capacity Tonnes		t	2,000	Client	B	Reference 6
				m^3	1,269	Calculated		
		Capacity Hours		h	16.00	Calculated		Based on Mill feed
5.2	**Reclaim Feeder**							
		Type			Belt	Industry Standard	A	
		Number of Feeders Installed / Additional Outlet			1	MIQM	A	
		Capacity - Nominal	Dry	t/h	125	Calculated		
			Wet	t/h	131	Calculated		
		Capacity - Design	Dry	t/h	150	MIQM	B	
			Wet	t/h	157	Calculated		
		Bulk density		t/m³	1.8	MIQM	C	
		Maximum lump size		mm	14	MIQM	C	
5.3	**Conveyor - CV 1 - Fine Ore Bin Discharge**							
		Capacity	Design	dry t/h	125.0	Mass Balance		
				wet t/h	130.5	Mass Balance		
		Bulk Density		t/m³	1.80	Test work	B	
		Maximum Lump Size		mm	121	Process Simulation	A	
5.4	**Conveyor - CV 2 - Milling Circuit Feed**							
		Capacity	Design	dry t/h	125	Calculated		
				wet t/h	131	Calculated		
		Bulk Density		t/m³	1.8	Calculated		
		Maximum Lump Size		mm	121	Calculated		
5.4	**Dead Stockpile**							
		Capacity		hours	24	Assumed	A	Stocked and reclaimed by loader
				dry t	3,000	Calculated		
				wet t	3,133	Mass Balance		
	Type				Belt	Industry Standard	A	
	Reclaim Method				Front End Loader	Industry Standard	A	
	Capacity - Nominal			t/h	125	Calculated		
	Capacity - Design			t/h	150	MIQM	A	
6	**GRINDING AND CLASSIFICATION**							
6.1	**General**							
		Required Grinding Throughput		t/h	125	Calculated		
		Design Circuit Throughput		t/h	125	Calculated		
		Configuration			Ball mill	MIQM	A	
		Feed Size F_{100}		mm	14.0	Calculated		
		Feed Size F_{80}	Nominal	mm	8.3	Calculated		
		Feed Size F_{80}	Design	mm	12	Client	B	Reference 6
		Product Size P_{80}		µm	75	Testwork	A	
6.2	**Primary Grinding Mill**							
		Type			Overflow Ball Mill	MIQM	A	
		Duty			Closed Circuit	MIQM	A	
		Nominal Dimensions (Dia. x EGL)		m	Ø 5.0m x 8.0m EGL	Reference	C	Ref 13 OMC
		Power Required at Pinion						
			Duty	kW	2,884	Reference	C	Ref 13 OMC
			Gross	kW	3,203	Reference	C	Ref 13 OMC
		Installed Motor Power		kW	3,350	Reference	C	Ref 13 OMC
		Mill Speed		%	75	Reference	C	Ref 13 OMC
		Duty Ball Charge		%vol	25.0	Reference	C	Ref 13 OMC
		Make-Up Ball Size		mm	100	Reference	C	Ref 13 OMC
		Discharge Method			Overflow	Reference	C	Ref 13 OMC
		Liner Material			Rubber	Consultant/Vendor Advice	C	
		Mill Discharge Density		%w/w	75.0	MIQM	A	
		Mill Feed Water Addition		m³/h	33.78	Mass Balance		
6.3	**Mill Screen**							
		Mill Discharge Screen Type			Trommel	MIQM	A	
		Screen Aperture		mm	12 x 25mm	Consultant/Vendor Advice	C	
		Mill Screen Spray Water Addition		m³/h	28	Reference	C	Ref 13 OMC
		Mill Discharge Hopper Volume - Calculated		m³	13	Calculated		Calculated
		Mill Discharge Hopper Max Residence Time		sec	90	MIQM	A	
		Installed Screens		#	1	Industry Standard	A	
		Operating Screens		#	1	Industry Standard	A	
		Screen Feed Rate - Total		m³/h	363	Mass Balance		
		Screen Oversize Split - Solids		t/h	0	MIQM	C	No scats expected
		Oversize Percent Solids		% sol	98.5	MIQM	C	No scats expected
6.4	**Classification**							

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
		Type			Hydrocyclones	MIQM	A	
		Size (Diameter)		mm	250 CVX10	MIQM	A	
		Number of Clusters		#	1	MIQM	A	
		Operating Cyclones		#	8	To Be Advised	A	
		Standby Cyclones		#	2	MIQM	A	
		Spare outlets		#	2	MIQM	A	
		Feed Density		% sol	58.3	Mass Balance		
		Mill Discharge Hopper Dilution		m^3/h	159	Mass Balance		
		Feed Solids Rate		t/h	360	Mass Balance		
		Slurry Feed volume		m^3/h	329	Mass Balance		
		Overflow solids content		% w/w	35.0	MIQM	A	Selected to make the water balance work with the gravity concentrator
		Overflow solids mass		t/h	125	Mass Balance		
		Overflow slurry volume		m^3/h	274	Mass Balance		
		Underflow solids content		% w/w	75.0	MIQM	A	
		Underflow solids mass		t/h	375	Mass Balance		
		Underflow slurry volume		m^3/h	273.7	Mass Balance		
		Transfer Size (P_{80})		µm	75	Calculated		
		Circulating Load		%	300	MIQM	C	
		Operating Pressure		kPa	86	Consultant/Vendor Advice	C	
		Overflow Destination			Trash Screen	Industry Standard	A	
		Underflow Destination			Mill Feed	Industry Standard	A	
		Hopper Dilution water		m^3/h	159	Calculated		
6.5	Trash Screen							
		Feed Source			Cyclone Overflow	Industry Standard	A	
		Type			Horizontal Vibrating	Industry Standard	A	
		Installed Screens		#	1	Industry Standard	A	
		Operating Screens		#	1	Industry Standard	A	
		Screen Feed Rate - Total		m^3/h	330	Calculated		Calculated (excluding spray water)
		Screen Width		m	1.8	Consultant/Vendor Advice	C	
		Screen Length		m	3.6	Consultant/Vendor Advice	C	
		Screen Area - Each		m^2	6.5	Calculated		
		Screen Area - Total		m^2	6.5	Calculated		
		Specific Screening Duty - Each		$m^3/m^2.h$	35.5	Calculated	A	
		Screen Aperture		mm	0.83 x 12.1	Industry Standard	B	Cross flow
		Screen Cloth Material			Polyurethane	Industry Standard	A	
		Screen Spray Water Volume		m^3/h	24.00	Consultant/Vendor Advice	C	
		Screen Oversize Split		%	0.01	Assumed	A	
		Screen Oversize Split - Solids		t/h	0.00	Calculated		
		Oversize Percent Solids		% sol	95	Assumed	A	
7.0	Flotation							
7.1	Residence times				Actual Time min			
		Lab Time	Conditioning	min	7	Testwork	A	Reference 4
			Roughing	min	18	Client	B	Reference 6 - Client advised lower roughing time to account for bulk flotation test
		Scale Up factor	Conditioning	factor	1	MIQM	A	Typical for industry
			Roughing	factor	2.5	Client	B	Referebce 5 - Client advised
		Design Time	Conditioning	min	7	Calculated		
			Roughing	min	45	Calculated		
		Actual Time	Conditioning	min				
			Roughing	min				
7.2	Froth Factors (Pumps)							
		Flotation Tailings		Factor	1	MIQM	C	Typical for industry
		Rougher Concentrate		Factor	2	MIQM	A	Typical for industry
7.3	Air Hold Up							
		Roughers		%	10	MIQM	A	Typical for industry (Peter Bourke)
7.4	Flotation Mass Pulls							
		Nominal						
			Rougher Cells	% flotation feed	11.90	Testwork	B	Reference 3 - Based on PFS Mine Plan
		Design (Max based on expected high grade ore packets)						
			Rougher Cells	% flotation feed	13.00	Testwork	A	Reference 3 - Based on PFS Mine Plan. Bulk rougher mass pull ~9.5% R4A/B. Variability mass pull 4-50% R7.
7.5	Flotation stream solids contents							
		Rougher Conc		% Solids	25	Assumed	C	
7.6	Flotation stream solids SG							
		Rougher Conc		t/m^3	3.5	Assumed	A	
7.7	Concentrate Launder water addition							
		Rougher		m^3/h	5	Assumed	A	
7.8	Flotation recovery							
		Nominal - gold						
			Rougher Cells	% flotation feed	92.45	Testwork	A	Reference 4 - Average of 2025 Rougher-only Bulk Comps
		Design (Max based on expected high grade ore packets) - gold						
			Rougher Cells	% flotation feed	92.45	Testwork	A	Reference 4 - Average of 2025 Rougher-only Bulk Comps
		Nominal - arsenic						
			Rougher Cells	% flotation feed	90.95	Testwork	A	Reference 4 - Average of 2025 Rougher-only Bulk Comps
		Design (Max based on expected high grade ore packets) - gold						
			Rougher Cells	% flotation feed	90.95	Testwork	A	Reference 4 - Average of 2025 Rougher-only Bulk Comps
		Nominal - sulphur						
			Rougher Cells	% flotation feed	98.40	Testwork	A	Reference 3 - Based on PFS Mine Plan. Bulk rougher sulphur recovery ~88% R4
		Design (Max based on expected high grade ore packets) - sulphur						
			Rougher Cells	% flotation feed	98.40	Testwork	A	Reference 3 - Based on PFS Mine Plan
7.9	Final Concentrate							
		Mass		t	16.25	Calculated		
		Au		g/t	34.14	Calculated		
		S		%	25.97	Calculated		
		As		%	1.96	Calculated		
8.10	Conditioning Tank							
		Number of Tanks		#	1	MIQM	A	
		Type			Agitated Tank	MIQM	B	
		Flotation Feed Solids Flow		t/h	125	Mass Balance		
		Flotation Feed % Solids Target		%w/w	30	Test work	A	
		Flotation Feed Volume		m^3/h	333	Mass Balance		
		SG of solids		t/m^3	2.85	MIQM	A	
		Conditioning Tank 1 Residence Time		min	7.00	MIQM	A	
		Capacity Required		m^3	38.80	Calculated		
		Capacity Selected		m^3	39.00	Calculated		
8.11	Reagent addition	$CuSO_4$ Reagent Strength		%w/w	10.00	MIQM	A	
		pH Modifier			Hydrated Lime Slurry	MIQM	A	
		Target pH			Natural	Test work	A	
		Lime Addition Rate		kg/t	0	Test work	A	
		Collector Dose Rate		g/t	100	Test work	A	Reference 4, 7 - 2025 rougher-only testwork
		Copper Sulphate Dose Rate		g/t	60	Test work	A	Reference 4, 7 - 2025 rougher-only testwork
		Frother (W24) Dose Rate		g/t	20	Assumed	A	Frother TBC - Prefer not to use MIBC
8.12	Roughe Flotation							
		Cell Feed Rate		m^3/h	333	Mass Balance		
		Cell Volume Required		m^3	274	Calculated		
		Cell Type			TC-450	MIQM	B	Metso Outotec Tank cell, 18 Am3/min Air, 36 kPa, 75 kW
		Cell Nominal Volume		m^3	50.0	Consultant/Vendor Advice	C	
		Number of Cells	Calculated		5.5	Calculated		
		Number of Cells	Selected		6	Consultant/Vendor Advice	C	
		Cell Configuration			F-2-2-2-D	Consultant/Vendor Advice	C	
		Cell Air Flow Requirement	Maximum	$Am^3/h/cell$	950	Consultant/Vendor Advice	C	
		Total Rougher Air Flow Req'd	Maximum	Am^3/h	5,700	Calculated		
		Flotation Air Pressure		kPa	33	Consultant/Vendor Advice	C	
		Launder Arrangement			Peripheral	Consultant/Vendor Advice	C	
		Tailings hopper feed rate		m^3/h	281	Mass Balance		
		Tailings hopper residence time		s	90	MIQM	A	
		Tailings hopper live volume		m^3	7.03	Calculated		
		Concentrate hopper feed rate		m^3/h	53	Mass Balance		
		Concentrate hopper residence time		s	90	MIQM	A	
		Concentrate hopper live volume		m^3	2.65	Calculated		

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
9.0	**Concentrate Handling**							
9.1	Concentrate Trash Screen							
		Type			Vibrating, Horizontal	MIQM	A	
		Deck			Polyurethane	MIQM	A	
			Number Operating	No.	1	MIQM	A	
			Number Spare	No.	0	MIQM	A	
			Total Screens	No.	1	MIQM	A	
		Aperture		mm	1 x 18 mm	MIQM	A	
		Flowrate		m^3/h	57.9	Mass Balance		
		Screen Size	Width	m	0.60	Consultant/Vendor Advice	C	
		(Actual Deck Area)	Length	m	1.80	Consultant/Vendor Advice	C	
			Area	m^2	1.1	Calculated		
		Water Addition Rate	Per Screen	m^3/h	4.8	Consultant/Vendor Advice	C	
10.0	**FINE GRINDING**							
10.1	Fine Grinding Fresh Feed Storage tank							
		Number of Tanks		#	1	MIQM	A	
		Vessel Type		-	Agitated Tank	MIQM	B	
		Sizing Basis			Residence time	MIQM	A	
		Design Total Retention Time		h	12	Assumed	A	
		Actual Total Retention Time		h	7	Calculated		
		Nominal Tank Feed Rate		m^3/h	58	Mass Balance		
		Design Tank Feed Rate		m^3/h	60	Calculated		
		Nominal Live Volume / Tank		m^3	834	Calculated		
		Actual Live Volume / Tank		m^3	400	MIQM	C	To match GGT Storage Tank
10.2	Concentrate Trash Screen							
		Type			Vibrating, Horizontal	MIQM	A	
		Deck			Polyurethane	MIQM	A	
			Number Operating	No.	1	MIQM	A	
			Number Spare	No.	0	MIQM	A	
			Total Screens	No.	1	MIQM	A	
		Aperture		mm	1 x 18 mm	MIQM	A	
		Flowrate		m^3/h	57.9	Mass Balance		
		Screen Size	Width	m	0.90	MIQM	A	
		(Actual Deck Area)	Length	m	1.80	MIQM	A	
			Area	m^2	1.6	Calculated		
		Water Addition Rate	Per Screen	m^3/h	2	Assumed	A	
10.3	Fine Grinding Mill							
		Type			ISAMILL	Consultant/Vendor Advice	C	
		Operation			Closed Circuit	Consultant/Vendor Advice	C	Ref 14
		Feed solids	Nominal	% solids w/w	50	Consultant/Vendor Advice	C	Ref 14
			Maximum	% solids w/w	55	MIQM		
		Feed Size - F_{80}		µm	75	Calculated		
		Product Size - P_{80}		µm	12	Consultant/Vendor Advice	C	
		Specific energy required		kWh/t	77	Consultant/Vendor Advice	C	Ref 14
		Power drawn		kW	1,251	Calculated		
		Selected IsaMill			M5000	Consultant/Vendor Advice	C	Ref 14
		Installed motor		kW	1,500	Consultant/Vendor Advice	C	Ref 14
		IsaMill Gland Seal Water Demand		m^3/h	5.04	Consultant/Vendor Advice	C	Ref 14, includes continuous gland and flush water
		IsaMill Flush Water Demand	Intermittent flow	m^3/h	TBA	Assumed		
10.4	IsaMill Cyclones							
		Type			Hydrocyclones	Consultant/Vendor Advice	C	Ref 14
		Size (Diameter)		mm	TBC	To Be Advised	C	
		Number of Clusters		#	TBC	To Be Advised	C	
		Operating Cyclones		#	TBC	To Be Advised	C	
		Standby Cyclones		#	TBC	To Be Advised	C	
		Spare outlets		#	TBC	To Be Advised	C	
		Feed Density		% sol	30.0	Consultant/Vendor Advice	C	Ref 14
		Mill Discharge Hopper Dilution		m^3/h	45	Mass Balance		
		Feed Solids Rate		t/h	58	Mass Balance		
		Slurry Feed volume		m^3/h	177	Mass Balance		
		Overflow solids content		% w/w	10.2	MIQM	C	Selected to make the water balance work with the gravity concentrator
		Overflow solids mass		t/h	16	Mass Balance		
		Overflow slurry volume		m^3/h	111	Mass Balance		
		Underflow solids content		% w/w	50.0	MIQM	C	
		Underflow solids mass		t/h	52	Mass Balance		
		Underflow slurry volume		m^3/h	66.3	Mass Balance		
		Transfer Size (P_{80})		µm	Vibrating, Horizontal	Calculated		
		Circulating Load		%	320	Consultant/Vendor Advice	C	
		Operating Pressure		kPa	TBC	To Be Advised	C	
		Overflow Destination			IsaMill Thickener	Industry Standard	C	
		Underflow Destination			Isamill Feed	Industry Standard	C	
		Hopper Dilution water		m^3/h	0	Calculated		
10.5	Isamill Thickening							
		Type			High Rate	MIQM	A	
		Capacity		$t/m^2/h$	0.25	Consultant/Vendor Advice	C	Ref 14
		Size	Minimum Area	m^2	65	Calculated		
			Minimum Diameter	m	10.0	Calculated		
			Max Area Throughput	% inc	20	MIQM	A	
			Thickener Area at Max Throughput	m^2	78	Calculated		
			Thickener Diam at Max Throughput	m	10.0	Calculated		
			Selected Thickener Diameter	m	10	MIQM	A	
			Selected Thickener Area	m^2	79	Calculated		
		Thickener Feed	Solids	t/h	16.2	Mass Balance		
		(Includes Flocculant Dilution)	Water	t/h	109.9	Mass Balance		
			Slurry	total t/h	126.1	Calculated		
			Slurry	m^3/h	113.4	Mass Balance		
			Slurry	% solids	12.9	Calculated		
			Slurry	SG	1.11	Calculated		
		Thickener Underflow	Solids	t/h	16.2	Mass Balance		
			Water	t/h	30.2	Calculated		
			Slurry	total t/h	46.4	Calculated		
			Slurry	m^3/h	34.5	Mass Balance		
			Slurry	% solids	35.0	Assumed	C	Ref 14
			Slurry	SG	1.34	Calculated		
		Thickener Overflow	Water	m^3/h	70	Mass Balance		
		Thickener Overflow Tank	Retention Time	minutes	5	Consultant/Vendor Advice	C	Ref 14
			Minimum Capacity	m^3	7	Calculated		
10.6	Flocculant Addition		Nominal	g/t thick feed	40.0	Consultant/Vendor Advice	C	Ref 14
			Range	g/t thick feed				
			Nominal	kg/h	0.85	Calculated		
			Mix Concentration	%w/v	0.25	Calculated		
			Dosage rate	m^3/h	0.28	Calculated		
			Diluted Concentration	%w/v	0.025	Calculated		
			Dilution Water	m^3/h	2.34	Calculated		
10.4	Fine Grinding Mill product tank	Number of Tanks		#	1	MIQM	A	
		Vessel Type		-	Agitated Tank	MIQM	B	
		Sizing Basis			Residence time	MIQM	A	
		Design Total Retention Time		h	12	MIQM	A	For discussion
		Actual Total Retention Time		h	7			
		Nominal Tank Feed Rate		m^3/h	58.7			
		Design Tank Feed Rate		m^3/h	70			
		Nominal Live Volume / Tank		m^3	704			
		Actual Live Volume / Tank		m^3	398	Consultant/Vendor Advice	C	Ref 14

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
11.0	**Albion Process**							
11.1	**Albion leach**							
		No of leach tanks			6	Consultant/Vendor Advice	C	Ref 14
		Arrangement			in series	Consultant/Vendor Advice	C	Ref 14
		Vessel Type			Insulated OxiLeach vessel with closed top an	Consultant/Vendor Advice	C	Ref 14
		Intertank connections			inclined pipe launders	Consultant/Vendor Advice	C	Ref 14
		Design total retention time		h	54	Consultant/Vendor Advice	C	Ref 14 at nominal feed rate
		Albion Solids Density		% w/w	30	Consultant/Vendor Advice	C	Ref 14 noting that actual control will be SG
		Tank feed rate		m^3/h	62	Mass Balance		
		Volume per tank		m^3	622	Consultant/Vendor Advice	C	Ref 14
		Agitation Type			High Shear Agitators	Consultant/Vendor Advice	C	
		Heating Medium			Naturally heated	Consultant/Vendor Advice	C	
		Feed Rate		t/h	15	Mass Balance		
		Sulphur Grade		%	8	Mass Balance		
		Sulphur Feed Rate		t/h	8.2	Mass Balance		
				t/d	92	Mass Balance		
		Target Oxidation		%	65.0	Consultant/Vendor Advice	C	Ref 14
		Oxygen requirement		t O2/t feed	0.40	Consultant/Vendor Advice	C	Ref 14, calculated from oxygen demand total on 100% O2 basis
				t/h	6.48	Consultant/Vendor Advice	C	Ref 14, calculated from oxygen demand total on 100% O2 basis
		Oxygen plant size		t/d	160	Consultant/Vendor Advice	C	Allows for oxygen feed to leach and cyanide detox
		Limestone requirement		t CaCO3/t conc	0.47	Consultant/Vendor Advice	C	Advised by GT
		Limestone Reactivity		t CaCO3/t limestone	0.75	Consultant/Vendor Advice	C	Advised by limestone vendors
				t/h	10.11	Calculated		
		Limestone plant size		t/d	243	Calculated		
		Caustic requirement		kg NaOH/t conc	0.00	Consultant/Vendor Advice	C	Excluded per GT advice
				t/h	0.00	Calculated		
				t/d	0.00	Calculated		
		Albion process mass change		%	220	Consultant/Vendor Advice	C	Ref 14, to suit calcrete flowrates
		Albion Tailings SG			2.66	Consultant/Vendor Advice	C	Ref 14, calculated
		Albion Lime Addition Rate		kg/t	10.90	To Be Advised	C	
11.2	**Albion product Thickening**							
		Type			High rate	MIQM	C	
		Target Underflow Density		% w/w solids	45.0	To Be Advised	C	TBA
		Capacity		t/m²/h	0.25	Consultant/Vendor Advice	C	Advised by GT
		Size	Minimum Area	m^2	143	Calculated		
			Minimum Diameter	m	13.5	Calculated		
			Area - Design + 20%	m^2	172	Calculated		
				m	14.8	Calculated		
			Selected Thickener Diameter	m	15	Consultant/Vendor Advice	A	
			Selected Thickener Area	m^2	177	Calculated		
			Increase in Throughput at Design Settling	%	23.4	MIQM	A	
		Thickener Feed (Includes Flocculent +Dilution)	Solids	t/h	36	Mass Balance		
			Water	t/h	73	Mass Balance		
			Slurry	total t/h	109	Calculated		
			Slurry	m^3/h	96	Mass Balance		
			Slurry	% solids	32.8	Calculated		
			Slurry	SG	1.27	Calculated		
		Thickener Underflow	Solids	t/h	36	Calculated		
			Water	t/h	44	Calculated		
			Slurry	total t/h	80	Calculated		
			Slurry	m^3/h	57	Calculated		
			Slurry	% solids	45	Calculated		
			Slurry	SG	1.40	Calculated		
		Thickener Overflow	Water	m^3/h	30	Calculated		
11.3	**Flocculant Addition**		Nominal	g/t ore	40	Consultant/Vendor Advice	C	Advised by GT
			Range	g/t ore				
			Nominal	kg/h	1.4	Calculated		
			Mix Concentration	%w/v	0.25	MIQM	A	
			Dosage rate	m^3/h	0.57	Calculated		
			Diluted Concentration	%w/v	0.025	MIQM	A	
			Dilution Water	m^3/h	5.2	Calculated		

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
10	**LEACH FEED THICKENING**							
11.4	Leach Feed Thickening							
		Type						
		Target Underflow Density		% w/w solids	55.0	Test work	B	Reference 8 - Flotation Tail thickening testwork achieved 55.6% UF density with 17 g/t floc, 0.6 t/m2/h flux rate
		Capacity		t/m²/h	0.60	Test work	A	Reference 8 - Flotation Tail thickening testwork achieved 55.6% UF density with 17 g/t floc, 0.6 t/m2/h flux rate
		Size	Minimum Area	m²	181	Calculated		
			Minimum Diameter	m	15.2	Calculated		
			Area - Design + 20%	m²	217	Calculated		
				m	16.6	Calculated		
			Selected Thickener Diameter	m	18	Consultant/Vendor Advice	C	
			Selected Thickener Area	m²	254	Calculated		
			Increase in Throughput at Design Setting	%	40.4	MIQM	A	
		Thickener Feed (Includes Flocculant +Dilution)	Solids	t/h	109	Mass Balance		
			Water	t/h	250	Mass Balance		
			Slurry	total t/h	359	Calculated		
			Slurry	m³/h	287	Mass Balance		
			Slurry	% solids	30.3	Calculated		
			Slurry	SG	1.25	Calculated		
		Thickener Underflow	Solids	t/h	109	Calculated		
			Water	t/h	89	Calculated		
			Slurry	total t/h	198	Calculated		
			Slurry	m³/h	127	Calculated		
			Slurry	% solids	55	Calculated		
			Slurry	SG	1.55	Calculated		
		Thickener Overflow	Water	m³/h	161	Calculated		
11.5	Flocculant Addition		Nominal	g/t ore	17	Test work	A	Reference 8 - Flotation Tail thickening testwork achieved 55.6% UF density with 17 g/t floc, 0.6 t/m2/h flux rate
			Range	g/t ore				
			Nominal	kg/h	1.8	Calculated		
			Mix Concentration	%w/v	0.25	MIQM	A	
			Dosage rate	m³/h	0.74	Calculated		
			Diluted Concentration	%w/v	0.025	MIQM	A	
			Dilution Water	m³/h	0.7	Calculated		
12	**LEACH AND ADSORPTION**							
12.1	Circuit Performance							
		CIL Circuit Performance						
		Albion tails CIL Circuit Extractions	Gold	%	92.2	To Be Advised	C	Reference 15 - Average of LB44 and LB45 cyanidation recovery
			Silver	%	90.93	To Be Advised	C	Reference 16 - Average of LB44 and LB45 cyanidation recovery
			Cyanide Soluble Copper	% $Cu_{cn\ sol}$	-			
		Flotation tails CIL Circuit Extractions	Gold	%	51.6	To Be Advised	B	Average of Ref 10 JT Metallurgy report after 24h, Ref 11 2025 tests after 24h for Master comps
			Silver	%	51.6	Assumed	A	
			Cyanide Soluble Copper	% $Cu_{cn\ sol}$	-			
		CIL Adsorption Efficiencies	Gold	%	99.6	MIQM	A	
			Silver	%	-			
			Cyanide Soluble Copper	% $Cu_{cn\ sol}$	-			
		Overall Performance - nominal						
		Overall Recovery	Gold	%	98.8	Calculated		
		Plant feed	Gold	g/h	600.0	Calculated		
		Extracted Metal - CIL	Gold	g/h	592.7	Calculated		
		Overall Performance - CIL design						
		Overall Recovery - no gravity	Gold	%	89.1	Calculated		
		Extracted Metal - CIL	Gold	g/h	534.8	Calculated		
		CIL Feed Head - nominal	Gold	g Au/t	4.2	Calculated		
		CIL Feed Head - design	Gold	g Au/t	4.2	Calculated		
12.2	Intensive Leach Feed							
		Temperature of Albion tails slurry		°C	45.00	Consultant/Vendor Advice	C	Post-cooling tower per GT Ref 14
		Temperature of flotation tails slurry		°C	25.00	Assumed	C	
		Feed to Intensive Leach max		°C	60.00	Client	B	To be confirmed
		Feed Rate (Albion Tails)	Solids	t/h	36	Mass Balance		
			Water	t/h	45	Mass Balance		
			Slurry	total t/h	81	Mass Balance		
			Slurry	m³/h	56	Mass Balance		
			Slurry	% solids	44	Mass Balance		
			Slurry	SG	1.39	Mass Balance		
12.3	Combined CIL Feed							
		Feed Rate (Intensive Leach and Flotation Tails)	Solids	t/h	145	Mass Balance		
			Water	t/h	137	Mass Balance		
			Slurry	total t/h	301	Mass Balance		
			Slurry	m³/h	208	Mass Balance		
			Slurry	% solids	48	MIQM	B	To be confirmed pending Albion thickening testwork
			Slurry	SG	1.45	Mass Balance		
12.3	Tank Design							
		Total No. of Tanks		number	10	Calculated		
		No. Intensive Leach Tanks			2	Client	C	Reference 5
		No. Leach Tanks			1	MIQM	A	
		No. Adsorption Tanks			7	MIQM	A	
		Residence Time Required, Albion Product	Nominal	h	24	Client	B	Reference 5
		Total Tankage Required	Nominal	m³	1,387	Calculated		
		Residence Time Required, Flotation Tails	Nominal	h	24	MIQM	A	To be confirmed with testwork
		Total Tankage Required	Nominal	m³	4,985	Calculated		
		Diameter	Nominal	m	9.30	MIQM	C	From standard tank design
		Tank Aspect Ratio			1.1	Calculated		
		Freeboard	Average	m	0.8	MIQM	A	From standard tank design
		Height		m	10.4	MIQM	C	From standard tank design
		Capacity - Live		m³/tank	852.1	Calculated		
			total tankage	m³	8,521	Calculated		
		Residence Time						
		Intensive Leach	Design Throughput and Blend	h	22.6	Calculated		
		CIL	Design Throughput and Blend	h	25.1	Calculated		
		Total	Design Throughput and Blend	h	47.7	Calculated		
12.5	Cyanide Addition							
		Rate	Albion tail	kg/t ore	4	Assumed	C	Reference 15 - Average of LB44 and LB45 cyanidation recovery
			Flotation Tail	kg/t ore	0.25	Assumed	B	Reference 11 - bulk composite flot tail leach testwork, average of master comp
			Nominal	kg/t ore	1.231	Mass Balance		
				kg/h	179	Calculated		
		Cyanide Addition	Nominal	Litres/h	593	Calculated		
			Range	Litres/h	0 - 750	MIQM	A	
11.10	Lime Addition							
				pH	9.5-11	MIQM	C	
		Lime Addition Rate (as 100% CaO)	Albion Tail	kg/t ore	1.22	Assumed	B	Reference 15 - Average of LB44 and LB45 cyanidation recovery
			Flotation Tail	kg/t ore	0.23	Assumed	B	Reference 11 - bulk composite flot tail leach testwork, average of master comp
			Nominal	kg/t ore	0.47	Mass Balance		
				kg/h	68	Calculated		
11.11	CIL Design Parameters							
		Gold in Solution		g Au/t	3.40	Calculated		
		Silver in Solution	Ag	g Ag/t				
		Loading factor			750.00	MIQM	C	
		Loaded Carbon						
			Calcd Carbon Loading Gravity - On	g Au	2,551	Calculated		
			Gravity - On	g Ag	0	Calculated		
			Calcd Carbon Loading Gravity - On	g Au+Ag/t	2,551	Calculated		
			Au Incremental Load Design	g Au/t	2,500	MIQM	C	
			Au/Ag Incremental Load Design	g Au+Ag/t	2,500	MIQM	C	
		Barren Carbon	Gold	g Au/t	75	Calculated		
			Silver	g Ag/t		Calculated		
		Design Carbon Loading	Gold	g Au/t	2,575	Calculated		
			Silver	g Ag/t				
		Kinetic Parameter	ko		TBC	Assumed	A	
		Rate Order Parameter	n		TBC	Assumed	A	
		Freundlich Isotherm	a		TBC	Assumed	A	
			b		TBC	Assumed	A	
		Adsorption Rate Constant	k	h^{-1}	TBC	Assumed	A	
		Carbon Conc. in Slurry	Range	g/L	8 - 20	MIQM	A	
			Nominal	g/L	10	MIQM	A	
		Soluble Metal Flows	Gold	g/h	535	Mass Balance		
			Total	g/h	535	Calculated		
		Carbon Advance Rate						
			Calculated	kg/h	214	Calculated		
			Calculated	t/d	5.1	Calculated		
			Design	t/d	6.0	MIQM	A	
			Nominal	t/week	36	Calculated		
			Design	t/week	42	Calculated		
			Slurry Transfer Tank 1	h/day	6.0	MIQM	A	
				m³/h	100	Calculated		
			Other Tank Slurry Transfers	h/day	10.0	MIQM	A	
				m³/h	60	Calculated		
		Carbon Bulk Density, dry		t/m³	0.47	MIQM	A	
		Carbon True Volume		t/m³	0.235	MIQM	A	
		Carbon Addition						
			Total Load in Circuit	t	45.65	Calculated		
			Consumption Rate	kg/t ore	0.030	Assumed	A	
			Consumption per Day	kg/day	78.29	Calculated		
11.12	Interbank Screen							
		Type			Vertical, Pumped	MIQM	A	
		Cloth			Stainless Steel - Wedge Wire	MIQM	A	

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
		Aperture		microns	1000	Consultant/Vendor Advice	C	
		Screen Area		m^2	3.4	Consultant/Vendor Advice	C	
		Specific Throughput Rate	Actual	$m^3/m^2/h$	78.0	Calculated		
		Number of Units Per Tank	Selected		1	MIQM	A	
		OIL Flowrates	Leach Slurry	m^3/h	209	Calculated		
			Carbon Advance	m^3/h	60	Calculated		
			Miscellaneous Flows	m^3/h	3	MIQM	A	
			Total	m^3/h	271	Calculated		

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
11.13	**Carbon Safety Screen**							
		Type			Vibrating, Horizontal	MIQM	A	
		Number on Line			1	MIQM	A	
		Number Spare			0	MIQM	A	
		Total Screens			1	Calculated		
		Deck			Polyurethane	MIQM	A	
		Aperture		mm	0.83mm x 18.5mm, co-current flow	MIQM	A	
		Flowrate	Nominal	m^3/h	211	Calculated		
		Screen Size	Width	m	1.5	Consultant/Vendor Advice	C	
		(Actual Screen Area)	Length	m	3.6	Consultant/Vendor Advice	C	
			Area	m^2	5.40	Calculated		
		Specific Throughput Rate		$m^3/m^2/h$	39.02	Calculated		
		Spray Water	Per Screen	m^3/h	10	Consultant/Vendor Advice	C	
11.14	**Carbon Recovery Screen**							
		Type			Vibrating, Horizontal	MIQM	A	
		Number of units			1	MIQM	A	
		Deck			Polyurethane, 2 wash troughs	MIQM	A	
		Aperture			0.7mm x 18.5mm, co-current flow	MIQM	A	
		Spray Water			7.8	Consultant/Vendor Advice	C	
		Screen Size	Width	m	1.20	Consultant/Vendor Advice	C	
			Length	m	2.40	Consultant/Vendor Advice	C	
			Area	m^2	2.9	Calculated		
		Flowrate	Nominal	m^3/h	100	Calculated		
			Design	m^3/h	130	Calculated		
		Actual specific throughput rate		$m^3/m^2/h$	45.14	Calculated		
		CIL Tailings						
			Solids	t/h	143	Mass Balance		
			Water	t/h	191	Mass Balance		
			Slurry	total t/h	336	Calculated		
			Slurry	m^3/h	242	Mass Balance		
			Slurry	% solids	43.13	Calculated		
			Slurry	SG	1.39	Calculated		
12	**ELUTION**							
12.6	**AARL Circuit Design**							
		No. of Strips		strip/week	6.0	Calculated		
		Carbon Recovered from CIL		t/d	5.1	Calculated		
				t/strip	5.0	MIQM	A	
			stripped	t/week	35.9	Calculated		
			advanced in CIL	t/week	35.0	Calculated		
		Carbon Bulk Density		t/m^3	0.47	Calculated		
		Carbon Batch Volume (Bed Volume)		m^3	12.8	Calculated		
		Carbon	Loaded	g Au/t	2,575	Calculated		
			Barren	g Au/t	75	Calculated		
		Solution Flowrate		BV/h	2.0	MIQM	A	
				m^3/h	25.5	Calculated		
12.7	**Acid Wash**							
		Acid Type			HCl	MIQM	A	
		Delivered Acid Strength		% HCl w/w	32	MIQM	A	
		Wash Acid Strength		% HCl w/w	3.0	MIQM	A	
		Acid Soak Volume		BV	0.6	R7	A	
				m^3	7.7	Calculated		
		Acid Rinse Volume		BV	4.0	R7	A	
				m^3	51.1	Calculated		
		Acid rinse time		min	120.0	Calculated		
		Acid Mix & Storage Tank Volume		BV	0.87	MIQM	A	
			Minimum	m^3	9.8	Calculated		
			Design Live	m^3	10.7	Calculated		
		Acid Required @ Delivered Conc		kg/strip	719	Calculated		
		Acid Required @ Delivered Conc		kg/week	4,301	Calculated		
12.8	**Carbon Transfer (Acid Wash to Elution)**							
		Carbon Transfer Time		min	60.0	MIQM	A	
		Carbon Transfer Concentration		g/L	100	Industry Standard	A	
		Transfer Flowrate		m^3/h	60	Calculated		
		Water Required		m^3	60.0	Calculated		
		Water Source			Fresh Water	Industry Standard	A	Water recovered by barren carbon screen to eduction water tank
12.9	**Elution Pretreat**							
		Cycle Time		min	30	MIQM	A	
		Solution Flowrate		BV/h	2	Calculated		
				m^3/h	25.5	Calculated		
		Total Pretreat Solution Volume (inc. Reagents)		m^3	12.8	Calculated	A	
		Solution Temperature		°C	110	MIQM	A	
		Raw Water Volume		m^3	12.8	MIQM	A	
		Solution Strength - NaCN		%w/v	3	MIQM	C	
		Solution Strength - NaOH		%w/v	3	MIQM	C	
		Flow Destination			Pregnant Solution Tank	MIQM	A	
13.0	**Recycle Elution**							
		Cycle Time		min	90	MIQM	A	
		Solution Flowrate		BV/h	2	Calculated		
				m^3/h	25.5	Calculated		
		Solution Temperature		°C	130	MIQM	A	
		Raw Water Volume		m^3	38.3	Calculated	A	
		Flow Destination			Pregnant Solution Tank	MIQM	A	
13.1	**Fresh Water Elution**							
		Cycle Time		min	90	MIQM	A	
		Solution Flowrate		BV/h	2	Calculated	A	
				m^3/h	25.5	Calculated		
		Solution Temperature		°C	130	MIQM	A	
		Raw Water Volume		m^3	38.3	MIQM	A	
		Flow Destination			Intermediate Solution Tank	MIQM	A	
13.2	**Carbon Cool**							
		Cycle Time		min	30	MIQM	A	
		Solution Flowrate		BV/h	2	Calculated	A	
				m^3/h	25.5	Calculated		
		Solution Temperature		°C	90	MIQM	A	
		Raw Water Volume		m^3	12.8	MIQM	A	
		Flow Destination			Intermediate Solution Tank	MIQM	A	
13.3	**Carbon Transfer**							
		Carbon Transfer Time		min	60	MIQM	A	
		Carbon Transfer Concentration		g/L	100	MIQM	A	
		Transfer Flowrate		m^3/h	60	Calculated		
		Transfer Method			Eduction	MIQM	A	
		Carbon Destination			Carbon Regeneration Kiln	MIQM	A	Water recovered by barren carbon screen to eduction water tank
13.4	**Intermediate Solution Tank**							
		Required Working Volume		m^3	51.1	Calculated		
		Total Volume - Design		m^3	76.0	Calculated		
		Tank Diameter		m	4.8	MIQM	A	
		Liquid Height		m	4.5	Calculated		
		Suction Height		m	0.3	MIQM	A	
		Free board		m	0.5	MIQM	A	
		Total tank height		m	5.0	MIQM	A	
13.10	**Pregnant Solution Tank**							
		Number of Tanks			2	Reference	A	
		Required Working Volume		m^3	51.1	Calculated		
		Total Volume - Design		m^3	76.0	Calculated		
		Tank Diameter		m	4.8	MIQM	A	
		Liquid Height		m	4.5	Calculated		
		Suction Height		m	0.3	MIQM	A	
		Free board		m	0.5	MIQM	A	
		Total tank height		m	5.0	MIQM	A	
13.11	**Eduction Water Tank**							
		Number of Tanks			1	Reference	A	
		Required Working Volume		m^3	90.0	Calculated		
		Total Volume - Design		m^3	90.5	Calculated		
		Tank Diameter		m	4.8	MIQM	A	
		Liquid Height		m	5.3	Calculated		
		Suction Height		m	0.3	MIQM	A	
		Free board		m	0.5	MIQM	A	
		Total tank height		m	5.8	MIQM	A	

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
13	**ELECTROWINNING AND GOLD ROOM**							
13.5	**Electrowinning**							
		Elution/Electrowin Time		h	16.0	MIQM	C	
		No of Electrowinning Cells		number	2	Consultant/Vendor Advice	C	
		Type of Cathode			Stainless Steel	MIQM	A	
		Cathodes per Cell		number	12	MIQM	A	
		Cell Size		mm	800 x 800	Consultant/Vendor Advice	C	
		Current Efficiency	Design	%	10.0	To Be Advised	A	
		Cell Pass Efficiency Fraction		Fraction	0.836	To Be Advised	A	
		Rectifier Size		A/cell	1,500	To Be Advised	A	
		Flow Rate per Cell		m³/h	16.0	MIQM	C	
		Average Au Grade		mg/L	294	Calculated		
		Barren Gold Grade		mg/L	<5	MIQM	A	
13.6	**Sludge Recovery & Smelting**							
		Sludge Filter						
		Sludge Filter Type			laboratory style filter press	MIQM	A	
		Sludge Filter Number		#	1	MIQM	A	
		Sludge Drying & Smelting						
		Sludge Drying			Drying Oven	MIQM	A	
		Furnace	Crucible	Designation	A260	MIQM	C	
		Smelt Frequency		pours/week	2.0	MIQM	C	
14	**CARBON REGENERATION**							
14.1	**Carbon Dewatering Screen**							
		Type			Vibrating, Horizontal	MIQM	A	
		Deck			Polyurethane	MIQM	A	
		Aperture			0.7 x 18mm	MIQM	A	
		Carbon Transfer		mins	60	MIQM	A	
		Number of Bed Volumes	Design	No	2	MIQM	A	
		Total Volume		m³	26	Calculated		
		Feed Flow Rate		m³/h	26	Calculated		
14.2	**Carbon Reactivation**							
		Kiln Feed Hopper Capacity		m³	10.1	Calculated		
		Kiln Type			Horizontal	MIQM	A	
		Kiln Specification			TBC	To Be Advised	A	
		Capacity		kg/h	375	MIQM	C	
		Operating Temperature		°C	650 - 750	To Be Advised	A	To be confirmed with vendor
		Operating Time		h/d	16	Calculated		
		Fuel		Type	LNG	Client	B	Reference 5
		Raw Water Consumption		m³/batch	0	Calculated		
				m³/t	0.00	Consultant/Vendor Advice	C	No water addition required
				m³/h	0.00	Calculated		
14.3	**Carbon Quench Hopper**							
	Residence Time			min	15.0	Industry Standard	A	
	Capacity			m³	0.0	Calculated		
14.4	**Carbon Sizing Screen**							
		Type			Vibrating, Horizontal	MIQM	A	
		Deck			Polyurethane	MIQM	A	
		Screen Spray Water		m³/h	2	Assumed	A	
14.5	**Carbon Transfer**							
		Carbon Transfer Time		min	60	MIQM	A	
		Carbon Transfer Concentration		g/L	100	MIQM	A	
		Transfer Flowrate		m³/h	60	Calculated		
		Transfer Method			Eduction	MIQM	A	
		Carbon Destination			Final CIL Tank	MIQM	A	
15	**CYANIDE DESTRUCTION - TAILINGS STREAM**							
15.1	**Circuit design**							
		WAD Cyanide Level in Discharge	Nominal	ppm	20	Assumed	A	
			Design	ppm	5	Assumed	A	
		Process Stream Treated			CIL Tails	MIQM	A	
		Cyanide Destruction Process			Air/SO_2	Assumed	A	
		Density Destruction Reactor Vessel	Maximum	% w/w solids	40	MIQM	C	To suit water balance
15.2	**Cyanide destruction reactor**							
		CIL Tailings		t/h	336	Mass Balance		
		CIL Tailings	Nominal	m³/h	242	Mass Balance		
		Dilution Water Addition to CN Destruct Tank		m³/h	1	Mass Balance		
		Total Liquid at Reactor Feed Density		m³/h	150	Mass Balance		
		Total Slurry Volume at Reactor Feed Density		m³/h	243	Mass Balance		
		Reactor Residence Time	Testwork	h	1.0	Assumed	A	
		Reactor Residence Time	Design	h	2.0	Assumed	A	
		Number of Reactors		No.	2	MIQM	A	
		Air Holdup Allowance		%	15	Assumed	A	
		Required Reactor Live Volume	Nominal, each	m³	288	Calculated		
		Reactor Diameter		m	7.2	MIQM	A	
		Reactor Height		m	7.7	MIQM	A	
		Reactor Freeboard		m³	0.8	MIQM	A	
		Live Reactor Volume		m	281	Calculated		
		Height: Diameter Ratio			1.07	Calculated		
		WAD Cyanide in Reactor Feed	Design	g/m³	150	Assumed	A	No testwork
		WAD Cyanide in Reactor Discharge	Maximum	g/m³	5	Calculated		
		Copper In Detox Feed	Minimum	Cu g/m³	0.10	Assumed	A	No testwork
		Iron in Detox Feed		Fe g/m³	0.2	Assumed	A	No testwork
		Liquid Phase Flow		m³/h	190	Calculated		
		Cyanide Load	Total	kg/h	29	Calculated		
			Target WAD	kg/h	28	Calculated		
			Design	kg/h	20	Calculated		
		Sulphur Dioxide Source			$Na_2S_2O_5$	MIQM	A	
		$Na_2S_2O_5$/CN WAD Weight Ratio		kg/kg	7	Industry Standard	A	
15.3	**Sodium Meta Bisulphite (MBS)**							
		CN WAD Flow	Max	kg/h	28.50	Calculated		
			Design	kg/h	28.50	Calculated		
		Required MBS Flow		kg/h	200	Calculated		
				t/day	4.4	Calculated		
				tonnes	1,595	Calculated		
15.4	**Copper Sulphate**							
		Existing Copper Flow		Cu g/h	19	Calculated		
		Copper Required For Iron Precipitation		Cu g/h	38	Calculated		
		Additional Copper Needed		Cu g/h	57.4	Calculated		
		Chosen Copper Excess		Cu g/m³	20.0	Assumed	A	
		Cu Excess		Cu g/h	3800.0	Calculated		
		Total Cu Needed		Cu g/h	3858.0	Calculated		
		Copper Sulphate Needed (as $CuSO_4.5H_2O$)		g/h	15197.6	Calculated		
				kg/day	364.7	Calculated		
				t/day	0.4	Calculated		
				tpa	133.1	Calculated		
		Copper Sulphate Makeup Strength		kg/m³	150	Assumed	A	
		Copper Sulphate Required		L/h	101.3	Calculated		
				L/day	2431.6	Calculated		
		Copper Sulphate Delivery Bag Size		kg	1,000	Assumed	A	
		Copper Sulphate Make Up Tank Size		L	4865.2	Calculated		
		Copper Sulphate Dosing Tank Size		L	4865.2	Calculated		
15.5	**Hydrated Lime (SMBS)**							
		Moles CaO Per Mole MBS		moles	1.0	MIQM	A	
		MBS Molecular Weight		g	150	MIQM	A	
		MBS Added		mole/h	1,060	Calculated		
		Lime Required (100% CaO)		mole/h	1,060	Calculated		
				kg/h	59	Calculated		
				t/day	1.4	Calculated		
				tpa	515	Calculated		
		Lime Suspension Strength		kg/m³	200	Calculated		
		Lime Suspension Dosing Rate		m³/h	0.29	Calculated		
				m³/day	7.1	Calculated		

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
15.6	**Oxygen Requirements (SMBS)**							
		CN WAD Flow Rate		kg/h	29	Calculated		
		Oxygen Required by CN WAD		kg/h	35	Calculated		
		Cu+1 Flow		kg/h	0.019	Calculated		
		Oxygen Required by Cu +1		kg/h	0.005	Calculated		
		SO_2 Input (MBS)		kg/h	134	Calculated		
		SO_2 used by CN WAD		kg/h	70.2	Calculated		
		SO_2 used by Cu 1+		kg/h	0.0	Calculated		
		SO_2 Used by CN WAD and Cu+1		kg/h	70	Calculated		
		SO_2 Excess		kg/h	64	Calculated		
		Oxygen Required by Excess SO_2		kg/h	16	Calculated		
		Total Oxygen Required		kg/h	51	Calculated		
		Air Requirements (SMBS)						
		Oxygen in Air		% w/w	23.0	Industry Standard	C	Oxygen utilised
		Air Required		kg/h	55	Calculated		
		Air Density		kg/m^3	1.165	Industry Standard	A	
		Air Required to Satisfy O_2 Dissolution Rate (100 % Effic.)		m^3/h	48	Calculated		
		Air Sparge Efficiency		%	15.9	Assumed	A	
		Air Required Total		Nm^3/h	308	Calculated		
14	**TAILINGS DISPOSAL**							
15.7	**Tailings Tank**							
		Slurry Feed		t solids/h	145	Mass Balance		
				t water/h	193	Mass Balance		
				t slurry/h	338	Calculated		
				m^3/h	244	Mass Balance		
				% solids	42.82	Mass Balance		
				slurry SG	1.38	Calculated		
		Retention Time	Nominal	minutes	1.5	Assumed	A	
		Volume	Live	m^3	6	Calculated		
15.8	**Tailings Pipeline & Pumps**							
		Tails Disposal Pipelines		number	1	Assumed	A	
		Pump Stages		number	2	Assumed	A	
		Pumps Online		number	1 set (2 pumps)	Assumed	A	
		Standby Pumps		number	1 pump only	Assumed	A	
		Flowsheet		t solids/h	145	Mass Balance		
				t water/h	195	Mass Balance		
				t slurry/h	340	Mass Balance		
				m^3/h	251	Mass Balance		
				% solids	42.63	Mass Balance		
				slurry SG	1.35	Mass Balance		
15.9	**Decant Pipeline & Pumps**							
		Decant return percentage		%	20	Assumed	A	
		Decant Return Pipelines		number	1	MIQM	A	
		Pump Stages		number	1	MIQM	A	
		Pumps Online		number	1	MIQM	A	
		Standby Pumps		number	1	MIQM	A	
		Flowsheet		t solids/h	0.0	Mass Balance		
				t water/h	28.0	Mass Balance		
				t slurry/h	35.0	Mass Balance		
				m^3/h	36.6	Mass Balance		
				% solids	0.00	Mass Balance		
				slurry SG	1.01	Mass Balance		
15	**REAGENTS STORAGE & DISTRIBUTION**							
16.0	**Hydrated Lime**							
	Consumption							
		Flotation		t/hour	0.000	Test work	A	Neutral pH used
		Albion		t/hour	0.390	Mass Balance		
		Leach Circuit		t/hour	0.068	Calculated		
		Cyanide Destruction Circuit		t/hour	0.059	Calculated		
		Total		t/hour	0.517	Calculated		
				m3/h	2.588	Calculated		
				tpa	6,172	Calculated		
		Hydrated Lime Slurry Addition % Solids		% w/w	20.0	Industry Standard	A	
		Available CaO		% CaO	80.0	Assumed	C	
		Storage Method			Silo	Industry Standard	A	
		Total Storage Capacity		days	4.8	Calculated		
		Total Storage Capacity		tonnes	75.0	MIQM	C	
		Specific Gravity of Solids			2.5	Industry Standard	A	
	Lime Storage							
		Number of Storage Tanks			1	MIQM	A	
		Storage Capacity		h	12	MIQM	A	
			Live Capacity	m^3	31	Calculated		
	Slaked Lime Distribution							
		Nominal Delivery Flow		m^3/h	2.588	Calculated		
		Ring Main Flow Factor	Times Delivery Capacity		4	MIQM	A	
		Milk of Lime Ring Main Pumping	Capacity	m^3/h	10	Calculated		
16.1	**Sodium Cyanide**							
		Consumption	To CIL	kg NaCN/t leach feed	1.23	Test work	A	
				kg NaCN/h	134	Calculated		
				tpa	1070.8	Calculated		
				Litres NaCN soln/h	448	Calculated		
			To Elution	kg/strip	383	Calculated		
				tpa	119.3	Calculated		of 100% NaCN equivalent
				L/strip	1,277	Calculated		
				L/h	4,255	Calculated		
			Total Consumption	kg/d	3,540	Calculated		
				t/a	1,190	Calculated		
			Litres NaCN soln/day	L/day	11,800	Calculated		
		Make up water addition		m^3/day	11.8	Calculated		
		NaCN Dosing Method			Ring main, magflow + control valves	Assumed	A	
		Solution Strength		w/v% NaCN	30	Industry Standard	A	
		Solution SG			1.15	Industry Standard	A	
		Delivery/Packaging			Isotainer	Industry Standard	A	
		Package Capacity		t	20.0	Industry Standard	A	
		Liquid NaCN Storage	Storage Tank	No.	Liquid Isotainer	Industry Standard	A	
			Storage Volume - Live	m^3	100	MIQM	A	
			Storage Capacity	days	9.5	Calculated		
			Materials of Construction		Mild Steel	Industry Standard	A	
16.2	**Sodium Hydroxide**							
		Addition Point			Elution Circuit	Industry Standard	A	
		Elution Circuit		kg/strip	383.0	Calculated		of 100% NaOH equivalent
		Elution Circuit NaOH Consumption		kg/day	328	Calculated		
		Albion consumption rate		kg/day	0	Calculated		
		Total Process Plant NaOH Consumption		m^3/day	0.22	Calculated		
		Solution Strength	Delivered	%w/w	50	Industry Standard	A	
		Solution SG	Delivered		1.5	Industry Standard	A	
		Maximum Storage Duration		d	15	Assumed	A	
		Storage Tank Volume (TBC by Vendor)		m^3	3.3	Industry Standard	A	
16.3	**Hydrochloric Acid**							
		Design Consumption		kg/strip	718	Calculated		
				kg/t	0.22	Calculated		of 32% HCl solution
				kg/d	614.5	Calculated		of 32% HCl solution
				t/mth	18.7	Calculated		of 32% HCl solution
				tpa	224	Calculated		of 32% HCl solution
		Addition Point			Acid Wash Column	Industry Standard	A	
		Delivered Solution Strength		%w/w	32	Industry Standard	A	
		Solution SG			1.17	Industry Standard	A	
		Dosing Solution Strength		%w/w	3.00	MIQM	A	
		Average Solution Consumption		m^3/d	0.719	Calculated		of 32% HCl solution
		Storage Tank Volume		m^3	21.6	Calculated	A	
		Maximum Storage Duration		d	30.0	MIQM		
		Dosing Pump Type			Centrifugal , Mag drive	Industry Standard	A	
16.4	**Grinding Media**							
		Ball Mill Consumption		kg/t	1.38	Consultant/Vendor Advice	C	OMC report
		Steel Liner Consumption		kg/t	0.18	Consultant/Vendor Advice	C	OMC report
		Ball Consumption		tpa	1,383	Calculated		Ball Charge 26% - 35% by volume
16.5	**Activated Carbon**							
		Design Consumption		kg/t	0.03	Industry Standard	A	
		Carbon Losses		kg/hour	3.26	Calculated		
		Annual Carbon Consumption		t/year	26.1	Calculated		

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
16.6	Flocculant Reagent Supply							
		Type			AN923SH / ChinaRoc A2015	Test work	A	
		Purpose			Settling Agent	MIQM	A	
		Average Flocculant Consumption	Flotation Tail Thickener	g/t	17	Test work	A	
			Isamill Thickener	g/t	40.0	Test work	A	
			NAL Thickener	g/t	40.0	Test work	A	
				g/h	3031	Calculated		
				L/h	1572	Calculated		
				m^3/h	1.57	Calculated		
				tpa	31.4	Calculated		
		Flocculant Mix Concentration		% w/v	0.25	MIQM	A	
				g/L	2.5	Calculated		
		Maximum Mix Capacity		m^3/h	2.00	Calculated		
		Supply Packaging			25 kg Bags	MIQM	A	
		Form			Powder	MIQM	A	
		Mixing						
			Feed Hopper Capacity	kg	500	Consultant/Vendor Advice	C	
			Effective Mixing Tank Capacity	m^3	3.0	Consultant/Vendor Advice	C	
			Mix Tank Fill Time	min	20	MIQM	A	
			Wetting Head Capacity	m^3/h	15	Calculated		
			Screw Feeder Capacity	kg/h	150	Calculated		
			Flocculant Mix Time	min	120	Consultant/Vendor Advice	C	
			Transfer Time	min	10	MIQM	A	
			Transfer Pump Capacity	m^3/h	30	Calculated		
			Total Mix Cycle Time	min	150	Calculated		
		Storage Tank Capacity		m^3	10	Consultant/Vendor Advice	C	
				h	5.4	Calculated		
		Distribution Method			VSD Metering Pumps	Consultant/Vendor Advice	C	
		Total No of Pumps		no.	4	MIQM	C	One per discharge location and one spare
16.7	Frother							
		Frother			To be Confirmed	To Be Advised	B	
		Type			Liquid	Assumed	A	
		Delivery			1,000 L IBC	Assumed	A	
		Frother dose		g/t	20	MIQM	A	
		Annual Consumption		tpa	20.0	Mass Balance		
		Solution Concentration		%	100	Assumed	A	
16.8	Copper Sulphate							
		Design Consumption	Flotation	kg/t	0.060	Test work	A	
			Cyanide destruction	kg/t	0.122	Calculated		
			Total	kg/t	0.182	Calculated		
				kg/d	544.7	Calculated		
				tpa	181.6	Calculated		
		Total Process Plant $CuSO_4$ Consumption		m^3/day	0.40	Calculated		
		Solution Strength		kg/m3	150	Industry Standard	A	
		Solution SG			1.19	Industry Standard	A	
		Reagent Physical Form			Powder	Industry Standard	A	
		Dosing Method			Dosing pumps	Industry Standard	A	
		Solution Strength		w/v%	15	Industry Standard	A	
		Solution SG		t/m3	1.02	Industry Standard	A	
		Delivery/Packaging			Bulk Bag	Industry Standard	A	
		Package Capacity		kg	1,000	Industry Standard	A	
		Addition Rate	Design	g/t ore	182	Calculated		
		Mixing	Mixing Tank	No.	1	Assumed	A	
			Mixing Volume	m3	6.7	MIQM	A	
			Mass per batch	kg	1000	Calculated		
			Drums/bags per batch	bags	1.0	Calculated		
			Mixing Capacity	days	1.8	Calculated		
			Materials of Construction		Mild Steel	Industry Standard	A	
		Mixing Tank Ventilation Required			No	Industry Standard	A	
		Mixed Storage	Storage Tank	No.	1	Assumed	A	
			Storage Volume - Live	m3	10.0	MIQM	A	
			Storage Capacity	days	2.8	Calculated		
		Bulk Storage	Storage Method		Reagents Shed	Assumed	A	
			Days Storage	days	30	Assumed	A	
			Capacity	kg	16,362	Calculated		
			Discrete Packages		16	Calculated		
16.9	Xanthate							
		Reagent Physical Form			Powder	Industry Standard	A	
		Xanthate Dosing Method			Dosing pumps	Industry Standard	A	
		Solution Strength		w/v% Xanthate	10	Industry Standard	A	
		Solution SG		t/m3	1.02	Industry Standard	A	
		Delivery/Packaging			Bulk Bag	Industry Standard	A	
		Package Capacity		kg	1,000	Industry Standard	A	
		Addition Rate	Design	g/t ore	100	Calculated		
				kg/day	274	Calculated		
				t/a	100	Calculated		
		Xanthate Mixing	Mixing Tank	No.	1	Assumed	A	
			Mixing Volume	m3	10.0	MIQM	A	
			Mass per batch	kg	1000	Calculated		
			Drums/bags per batch	drums	1.0	Calculated		
			Mixing Capacity	days	3.7	Calculated		
			Materials of Construction		Mild Steel	Industry Standard	A	
		Mixing Tank Ventilation Required			Yes	Industry Standard	A	
		Mixed Xanthate Storage	Storage Tank	No.	1	Assumed	A	
			Storage Volume - Live	m3	15.0	MIQM	A	
			Storage Capacity	days	5.5	Calculated		
		Bulk Storage	Storage Method		Reagents Shed	Assumed	A	
			Days Storage	days	30	Assumed	A	
			Capacity	kg	8,219	Calculated		
			Discrete Packages		8	Calculated		
16.10	Sodium metabisulphite							
		Reagent Physical Form			Powder	Industry Standard	A	
		Dosing Method			Dosing pumps	Industry Standard	A	
		Solution Strength		w/v%	20	Industry Standard	A	
		Solution SG		t/m3	1.25	Industry Standard	A	
		Delivery/Packaging			Bulk Bag	Industry Standard	A	
		Package Capacity		kg	1,000	Industry Standard	A	
		Addition Rate	Design	g/t ore	1506	Calculated		
				kg/day	4,373	Calculated		
				t/a	1,596	Calculated		
		Mixing	Mixing Tank	No.	1	Assumed	A	
			Mixing Volume	m3	30.0	MIQM	A	
			Mass per batch	kg	6000	Calculated		
			Drums/bags per batch	drums	6.0	Calculated		
			Mixing Capacity	days	1.4	Calculated		
			Materials of Construction		Mild Steel	Industry Standard	A	
		Mixing Tank Ventilation Required			Yes	Industry Standard	A	
		Storage	Storage Tank	No.	1	Assumed	A	
			Storage Volume - Live	m3	45.0	MIQM	A	
			Storage Capacity	days	2.1	Calculated		
		Bulk Storage	Storage Method		Reagents Shed	Assumed	A	
			Days Storage	days	30	Assumed	A	
			Capacity	kg	131,100	Calculated		
			Discrete Packages		131	Calculated		

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
16.11	Limestone							
		Type			Limestone Pebbles	MIQM	C	
		Storage	At plant site	days	7	MIQM	C	
			dry	t	2,265	Calculated		
				m^3	2,398	Calculated		
		Usage Rate for Plant Sizing	Flowsheet	dry t 75%CaCO3/d	243	Calculated		
			Design	dry t 75%CaCO3/d	243	Calculated		
				t/a	88,593			
		Purity	CaCO3	%	75.0	Consultant/Vendor Advice	C	Per Limestone Suppliers
			Solids density	kg/m^3	2.7	MIQM		
			Bulk density	kg/m^3	0.945	MIQM		
			Moisture Content	%	1.0	MIQM		
		Limestone Bin			Feed by FEL	MIQM	C	
		Limestone Ball Mill			Limestone	Consultant/Vendor Advice	C	Limestone circuit design to be confirmed by vendor
			Mill Feed F_{80}	mm	14.0	Consultant/Vendor Advice	C	
			Product P_{80}	µm	75	Consultant/Vendor Advice	C	
		Mill Circuit Data	Number of Parallel Trains		1	Consultant/Vendor Advice	C	
			Mill Type		Roller Mounted Ball Mill	Consultant/Vendor Advice	C	
			Mill Inside Diameter	m	2.0	Consultant/Vendor Advice	C	
			Mill EGL	m	8.0	Consultant/Vendor Advice	C	
			Mill motor size	kW	220.0	Consultant/Vendor Advice	C	
			Classification Method		Closed Circuit with Cyclones	MIQM		
			Circulating Load	%	TBC	Consultant/Vendor Advice		
				% solids	30	MIQM	C	Per GT
		LIMESTONE HOLDING TANK	Number of Tanks	#	1	MIQM	C	
			Vessel Type		Open top	MIQM	C	
			Sizing Basis		Retention time	MIQM	C	
			Total Retention Time	h	12	Calculated		
			Tank Consumption Rate	m^3/h	27	Calculated		
			Nominal Live Volume / tank	m^3	320	MIQM	C	
			Free board	m	0.5	MIQM	C	
			Agitation Type	-	Solids suspension	MIQM	C	
			Operating Temperature	°C	25	Assumed	C	
			Heating Medium	-	Nil	MIQM	C	
16.12	Oxygen							
		Reagent Physical Form			Gaseous oxygen	MIQM	A	
		Dosing Method			Into oxygen injection unit/downshaft/via GT Hypersparge	MIQM	A	
		Consumption rate		kg/h	6647	Calculated		
				t/d	157.14	Calculated		100% Oxygen basis
		Oxygen plant type			VPSA	Consultant/Vendor Advice	C	Per GT and oxygen suppliers
		Oxygen purity, volume		%	93	Consultant/Vendor Advice	C	Per GT and oxygen suppliers
		Trains		No.	1	To Be Advised	C	
		Operating air compressors		No.	2	To Be Advised	C	
		Operating oxygen compressors		No.	TBD	To Be Advised	C	
		Delivery pressure at O2 plant battery limits		kPa.g	600	Consultant/Vendor Advice	C	Per GT and oxygen suppliers
		Cooling water flow		m3/h	100	Consultant/Vendor Advice	C	Per Linde
		Coolingwater temperature		°C	25	Consultant/Vendor Advice	C	
		Liquid oxygen storage reserves		h	8	To Be Advised	A	
		On-stream factor, minimum		%	98	Assumed	A	
		Nominal turndown without venting		%	50	Consultant/Vendor Advice	C	Per Linde

Client	Ros Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-DCR-0001
Date	17-Oct-25
Revision	C
Description	Process Design Criteria

No	PARAMETER			UNITS	VALUE	REFERENCE	REV	COMMENTS
17	**WATER SUPPLY, STORAGE AND DISTRIBUTION**							
17.1	**Water Usage Applications**							
		Screen Sprays			Process water	Industry Standard	A	
		Gland Water			Raw Water	Industry Standard	A	
		Fire Water			Raw Water	Industry Standard	A	
		Safety Showers			Potable Water	Industry Standard	A	
		Flocculant Make Up			Raw Water	Industry Standard	A	
		Hydrated Lime Slurry Make Up			Process water	Industry Standard	A	
17.2	**LP Process Water Tank**		Feed flow rate	m^3/h	269	Mass Balance		
			Number		1	MIQM	A	
			Selected Capacity	m^3	80	Calculated		
			Capacity (Thickener Overflow)	min	20	MIQM	A	
17.3	**Cyanide-Free Process Water Pond**							
		Supply Source			Overflow from process water tank and raw water pond, decant return	MIQM	A	
		Total Demand		m^3/h	374	Mass Balance		
		Storage Method			Lined Pond	Assumed	A	
		Storage Requirement		h	24	Assumed	A	
		Storage Volume - Required		m^3	8,974	Calculated		
17.4	**Process Water Tank**							
		Supply Source			Decant Return, Top-up from CFPW pond	MIQM	C	
		Total Demand		m^3/h	49	Mass Balance		
		Storage Method			Tank	MIQM	C	
		Storage Requirement		h	6	MIQM	C	
		Storage Volume - Required		m^3	295	Calculated		
		Cyanide Concentration		ppm	5	Calculated		Assume no cyanide destroyed in tailings dam
17.5	**Raw Water Supply**							
	Raw Water							
		Supply Source			Borefield	Assumed	A	
		Raw Water Supply Rate		m^3/h	140	Mass Balance	C	
		Average Plant Usage		m^3/h	33	Mass Balance	C	
		Storage Method			Lined Pond	MIQM	A	
		Storage Requirement		h	24	MIQM	A	
		Storage Volume - Required (Plant)		m^3	794	Calculated	A	
		Storage Volume - Required (Fire Water)		m^3	269	MIQM	A	
		Fire Water Design Raw Water Pump Flowrate		m^3/h	50	Assumed	A	
	Potable Water Generation							
		Method			RO Plant	MIQM	A	
		Plant Recovery Factor		%	70	Assumed	A	
		Consumption				Assumed	A	
			General Plant Usage	m^3/d	5.0	Assumed	A	
			Elution Water	m^3/d	94.0	Calculated		
			Mining Contractor	m^3/d	10.0	Assumed	A	
			Accommodation Camp	m^3/d	10.0	Assumed	A	100L per person per day
			Total usage	m^3/d	120	Calculated		
						Assumed	A	
		Storage Method			Enclosed tank	Assumed	A	
		Storage Residence Time		days	1	Assumed	A	
		Storage Volume		m^3	120	Calculated		
		Plant availability		%	80	Assumed	A	
		Raw water feed		m^3/d	171	Calculated		
				m^3/h	8.9	Calculated		
17.6	**Gland Water**							
		Consumption						
			Cyclone Feed Pump (RW)	m^3/h	1.50	Assumed	A	
			Flotation Concentrate Pump (RW)	m^3/h	0.80	Assumed	A	
			Flotation Tailings Pump (RW)	m^3/h	1.50	Assumed	A	
			Leach Feed Pumps (RW)	m^3/h	1.50	Assumed	A	
			Conc. Thickener Underflow Pump (RW)	m^3/h	1.20	Assumed	A	
			IsaMill Feed Pumps	m^3/h	1.00	Assumed	A	
			IsaMill Gland Water	m^3/h	5.04	Calculated		
			IsaMill Discharge Pumps	m^3/h	1.00	Assumed	A	
			Albion Feed Pumps	m^3/h	1.00	Assumed	A	
			Albion Thickener Underflow Pumps	m^3/h	1.00	Assumed	A	
			Tailings Pump (RW)	m^3/h	1.50	Assumed	A	
			Total	m^3/h	17	Calculated		
		Tank Storge Time		hours	2	Assumed	A	
		Tank Active Volume		m^3	34	Calculated		
17	**AIR SERVICES**							
17.7	**High Pressure Air**							
	Number of Compressors				2	MIQM	C	
	Compressor Type				Rotary Screw	MIQM	C	
	Installed Power (each compressor)			kW	90	Consultant/Vendor Advice	C	
	Pressure			kPa	700	MIQM	C	
	Instrument Air Supply Source				Refrigerant	Consultant/Vendor Advice	C	

MASS BALANCE

Project Name:	Youanmi Refractory Plant
Project Phase:	FS
Client Name:	Rox Resources
Project Number:	839
Doc. No:	839-06020-MEB-0001

[redacted]

Client	Rox Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-MEB-0001
Date	17-Oct-25
Revision	C
Description	Mass Balance

0.7665

Stream No	Type	Stream Description	Solids			Water			Slurry					Gold in solids		Gold in solution		Gold in carbon		Arsenic in Solids		Sulphur in Solids		Operating hours
			t/h	SG	m³/h	t/h	SG	m³/h	t/h	SG	m³/h	% w/w	lps	g/h	g/t	g/h	g/m3	g/h	g/t	t/h	%	t/h	%	h/day
		CRUSHING																						
1	S	ROM Feed	163.1	2.85	57.2	4.2	1.01	4.1	167.3	2.73	61.4	97.5		782.78	4.80					0.46	0.28	5.59	3.43	16.80
2	RW	Dust Sprays (RW)		2.85	0.0	3.0	1.01	3.0	3.0	1.01	3.0													16.80
3	S	Sizing Screen Feed	469.2	2.85	164.6	20.7	1.01	20.5	490.0	2.65	185.2	95.8		2252.29	4.80					1.31	0.28	16.09	3.43	16.80
4	S	Sizing Screen Undersize Top Deck	185.1	2.85	64.9	8.2	1.01	8.1	193.3	2.65	73.0	95.8		888.43	4.80					0.52	0.28	6.35	3.43	16.80
5	S	Sizing Screen Undersize Bottom Deck	121.1	2.85	42.5	5.4	1.01	5.3	126.4	2.65	47.8	95.8		581.08	4.80					0.34	0.28	4.15	3.43	16.80
6	S	Secondary Crusher Discharge	185.1	2.85	64.9	8.2	1.01	8.1	193.3	2.65	73.0	95.8		888.43	4.80					0.52	0.28	6.35	3.43	16.80
7	S	Tertiary Crusher Discharge	121.1	2.85	42.5	5.4	1.01	5.3	126.4	2.65	47.8	95.8		581.08	4.80					0.34	0.28	4.15	3.43	16.80
8	S	Crushing Circuit Product	163.1	2.85	57.2	7.2	1.01	7.1	170.3	2.65	64.4	95.8		782.78	4.80					0.46	0.28	5.59	3.43	16.80
		GRINDING CIRCUIT																						
9	S	Ball Mill Ore Feed	125.0	2.85	43.9	5.5	1.01	5.5	130.5	2.65	49.3	95.8		600.00	4.80					0.35	0.28	4.29	3.43	21.92
10	S	Gravity Conc. Scalping Screen O/S	0.0	2.85	0.0	0.0	1.01	0.0	0.0	#DIV/0!	0.0	80		0.00	4.80					0.00	0.28	0.00	3.43	21.92
11	CFPW	Ball Mill Feed Water Addition (CFPW)		2.85		36.1	1.01	35.8	36.1	1.01	35.8													21.92
12	S	Ball Mill Discharge	500.0	2.85	175.4	166.7	1.01	165.0	666.7	1.96	340.5	75.0												21.92
13	S	Ball Mill Total Feed	500.0	2.85	175.4	166.7	1.01	165.0	666.7	1.96	340.5	75.0												21.92
14	CFPW	Ball Mill Trommel Spray Water (CFPW)		2.85		28.3	1.01	28.0	28.3	1.01	28.0													21.92
15	CFPW	Cyclone Feed Water Addition (CFPW)		2.85		160.7	1.01	159.1	160.7	1.01	159.1													21.92
16	RW	Cyclone Feed Pump (RW)				1.5	1.01	1.5	1.52	1.01	1.5	0.0												21.92
17	S	Cyclone Feed	500.0	2.85	175.4	357.1	1.01	353.6	857.1	1.62	529.0	58.3												21.92
18	S	Cyclone Underflow	375.0	2.85	131.6	125.0	1.01	123.8	500.0	1.96	255.3	75.0												21.92
19	S	Cyclone Overflow	125.0	2.85	43.860	232.1	1.01	229.8	357.1	1.30	273.7	35.0		600.0	4.80					0.350	0.28	4.3	3.43	21.92
		FLOTATION CIRCUIT																						
	CFPW	Trash Screen Spray Water (CFPW)				24.24	1.01	24.00	24.24	1.01	24.0													21.92
20	S	Trash Screen Oversize	0.01	2.85	0.0	0.00	1.01	0.0	0.01	2.61	0.0	95		0.00	4.80					0.000	0.28	0.00	3.43	21.92
21	S	Trash Screen Undersize	125.0	2.85	43.9	256.4	1.01	253.8	381.37	1.28	297.7	32.8		600.00	4.80					0.35	0.28	4.29	3.43	21.92
22	RW	Flotation Xanthate (RW)				0.1	1.01	0.1	0.13	1.01	0.1	0.0												21.92
23	RW	Flotation CuSO4 (RW)				0.1	1.01	0.05	0.05	1.01	0.0	0.0												21.92
24	CFPW	Flotation Feed Dilution Water (CFPW)		2.85		35.1	1.01	34.7	35.08	1.01	34.7													21.92
25	S	Rougher Flotation Feed	125.0	2.85	43.9	291.6	1.01	288.8	416.63	1.25	332.6	30.0		600.0	4.80					0.67	0.00	4.3	0.01	21.92
26	CFPW	Rougher Concentrate Launder Water Addition (CFPW)		2.85		5.1	1.01	5.0	5.05	1.01	5.0													21.92
27	S	Rougher Flotation Concentrate	16.2	3.50	4.6	48.7	1.01	48.3	64.99	1.23	52.9	25.0		554.70	34.14					0.32	1.96	4.22	25.97	21.92
28	RW	Flotation Concentrate Pump (RW)				0.81	1.01	0.8	0.81	1.01	0.8	0.0												21.92
29	S	Final Concentrate	16.2	3.50	4.6	53.8	1.01	53.3	70.04	1.21	57.9	23.2		554.70	34.14					0.32	1.96	4.22	25.97	21.92
		ALBION PROCESS																						
30	S	Feed to ISAMill Circuit	16.2	3.50	4.6	54.6	1.01	54.1	70.9	1.21	58.7	22.9		554.7	34.14					0.3	1.96	4.2	25.97	21.92
31	S	Isamill Cyclone Feed	68.2	3.50	19.5	159.2	1.01	157.7	227.5	1.28	177.2	30.0												21.92
32	S	Isamill Cyclone Underflow	52.0	3.50	14.9	52.0	1.01	51.5	104.0	1.57	66.3	50.0												21.92
33	S	Isamill Cyclone Overflow	16.2	3.50	4.64	107.2	1.01	106.2	123.5	1.11	110.8	13.2								-0.318	-1.96	-4.2	-25.97	21.92
31	CFPW	Isamill dilution (CFPW)				45.5	1.01	45.1	45.5	1.01	45.1													21.92
34	RW	IsaMill feed pump gland water (RW)				1.01	1.01	1.0	1.0	1.01	1.0													21.92
35	RW	IsaMill gland seal water				5.09	1.01	5.0	5.1	1.01	5.0													21.92
36	S	IsaMill product	51.99	3.50	14.9	58.10	1.01	57.5	110.1	1.52	72.4	47.2		554.70	10.67					0.32	0.61	4.22	8.11	21.92
37	RW	IsaMill Discharge Pumps (RW)				1.0	1.01	1.0	1.01	1.01	1.0	0.0												21.92
38	CFPW	Flocculant Dilution- Conc. Thickener (CFPW)				2.36	1.01	2.34	2.36	1.01	2.3													21.92
39	RW	Flocculant Mixing - Conc. Thickener (RW)				0.3	1.01	0.3	0.26	1.01	0.3	0.0												21.92
40	RW	Isamill Thickener Underflow Pump (RW)				1.21	1.01	1.2	1.21	1.01	1.2	0.0												21.92
41	S	Isamill Thickener Underflow	16.2	3.50	4.6	30.2	1.01	29.9	46.42	1.34	34.5	35.0		0.0	0.00					0.0	0.00	0.0	0.00	21.92
42	CFPW	Isamill Thickener Overflow				79.7	1.01	78.9	79.69	1.01	78.9													21.92
43	RW	Albion Feed Pumps (RW)				1.01	1.01	1.0	1.01	1.01	1.0	0.0												21.92
38	CFPW	Albion Feed Dilution Water (CFPW)				5.5	1.01	5.5	5.5	1.01	5.5													21.92
44	S	Albion Feed	16.25	3.50	4.6	37.9	1.01	37.5	54.2	1.28	42.2	30.0		554.70	34.14					0.32	1.96	4.22	25.97	21.92
45	CFPW	Limestone Dilution Water (CFPW)				23.6	1.01	23.4	23.6	1.01	23.4													21.92
46	R	Limestone to Albion	10.11	2.70	3.7	23.6	1.01	23.4	33.7	1.24	27.1	30.0												21.92
47	R	Caustic to Albion				0.00	1.00	0.0	0.00															21.92
48	S	Albion Mass Change	9.4	2.66	3.6	6.8	1.01	6.7	16.2	1.58	10.2			0.00	0.00					0.00	0.00	0.00	0.00	21.92
49	S	Albion Tailings	35.8	2.66	13.5	68.3	1.01	67.6	104.1	1.28	81.0	34.4		554.70	15.49					0.32	0.89	4.22	11.78	21.92
50	CFPW	Diluted Flocculant- Albion Thickener (CFPW)				5.21	1.01	5.16	5.21	1.01	5.2													21.92
51	RW	Flocculant Mixing - Albion Thickener (RW)				0.6	1.01	0.6	0.58	1.01	0.6	0.0												21.92
52	S	Albion Tails Thickener Underflow	35.8	2.66	13.5	43.8	1.01	43.3	79.57	1.40	56.8	45.0		554.7	15.49					0.3	0.89	4.2	11.78	21.92
53	CFPW	Albion Tails Thickener Overflow (CFPW)				30.3	1.01	30.0	30.28	1.01	30.0													21.92
54	RW	Albion Thickener Underflow Pumps (RW)				1.0	1.01	1.0	1.01	1.01	1.0	0.0												21.92
55	S	Albion Tails to CIL	35.8	2.66	13.5	44.77	1.01	44.33	80.58	1.39	57.8	44.4		554.7	15.49					0.3	0.89	4.2	11.78	21.92
		LEACH FEED THICKENER																						
56	RW	Leach Feed Pump (RW)				1.5	1.01	1.5	1.52	1.01	1.5	0.0												21.92
57	S	Flotation Tails	108.7	2.77	39.2	244.4	1.01	242.0	353.15	1.26	281.2	30.8		45.30	0.42					0.03	0.03	0.07	0.06	21.92
58	CFPW	Flocculant Dilution- Leach Feed Thickener (CFPW)				5.97	1.01	5.92	5.97	1.01	5.9													21.92
59	RW	Flocculant Mixing - Leach Feed Thickener (RW)				0.7	1.01	0.7	0.75	1.01	0.7	0.0												21.92
60	S	Leach Feed Thickener Underflow	108.7	2.77	39.2	89.0	1.01	88.1	197.71	1.55	127.3	55.0		45.3	0.42					0.0	0.03	0.1	0.06	21.92
61	CFPW	Leach Feed Thickener Overflow (CFPW)				162.2	1.01	160.6	162.16	1.01	160.6													21.92

Client	Rox Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-MEB-0001
Date	17-Oct-25
Revision	C
Description	Mass Balance

0.7665

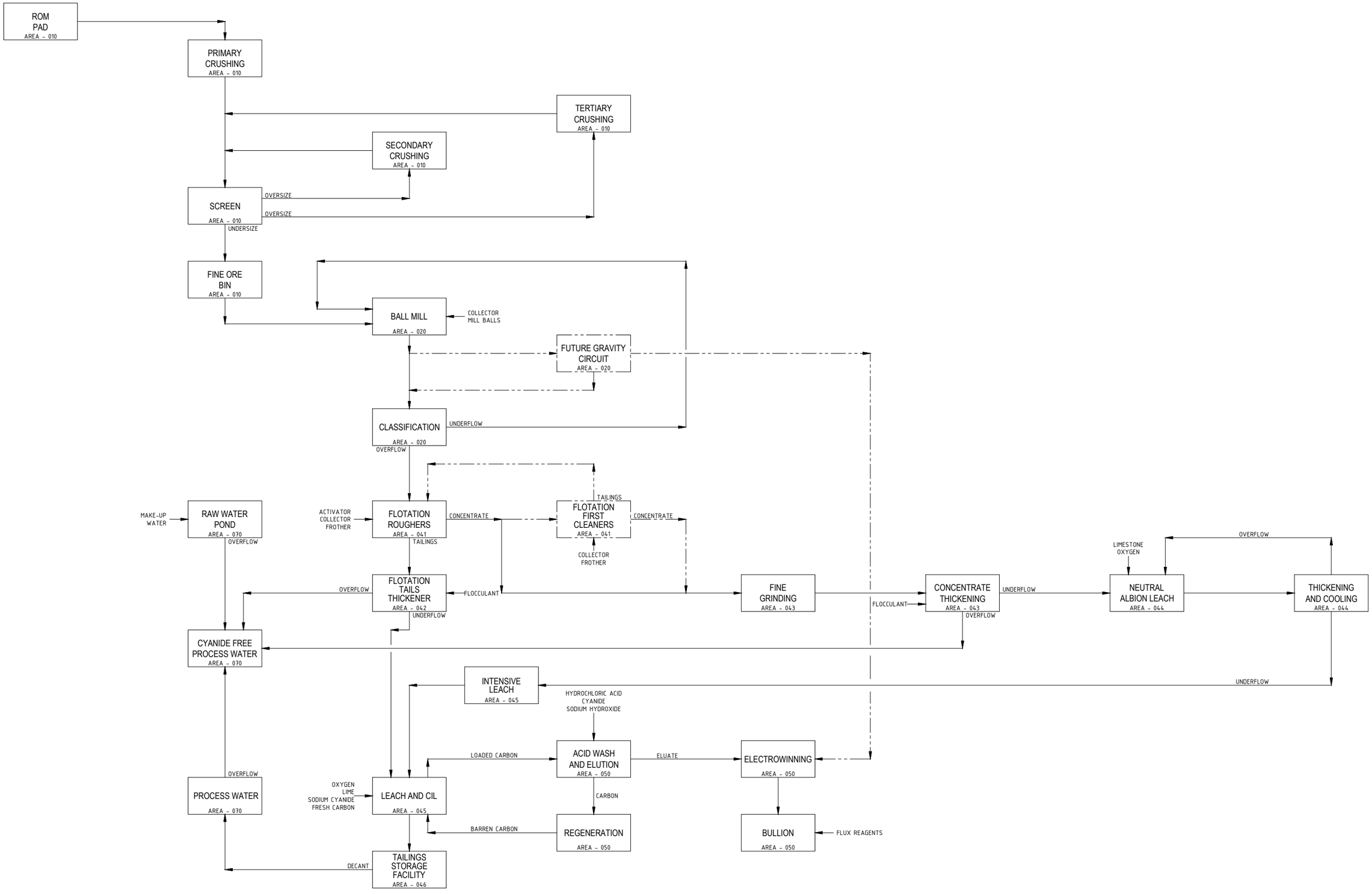
Stream No	Type	Stream Description	Solids			Water			Slurry					Gold in solids		Gold in solution		Gold in carbon		Arsenic in Solids		Sulphur in Solids		Operating hours
			t/h	SG	m³/h	t/h	SG	m³/h	t/h	SG	m³/h	% w/w	lps	g/h	g/t	g/h	g/m3	g/h	g/t	t/h	%	t/h	%	h/day
62	RW	Leach Feed Pumps (RW)				1.5	1.01	1.5	1.52	1.01	1.5	0.0												21.92
63	S	Flotation Tails to CIL	108.7	2.77	39.2	90.5	1.01	89.59	199.22	1.55	128.8	54.6		45.3	0.42					0.0	0.03	0.1	0.06	21.92
		CIL																						
		Flotation Tails Bleed Stream to Intensive Leach	0.0	2.77	0.0	0.0	1.01	0.00	0.00	#DIV/0!	0.0	#DIV/0!		0.0	0.42					0.0	0.03	0.0	0.06	21.92
		Intensive Leach Feed	35.8	2.66	13.5	44.8	1.01	44.33	80.58	1.39	57.8	44.4		554.7	15.49					0.3	0.89	4.2	11.78	21.92
64	PW	Leach Feed Dilution Water (PW)				21.33	1.01	21.12	0.0	0.0	21.1													21.92
65	S	Combined leach feed	144.5	2.74	52.7	156.6	1.01	155.04	301.13	1.45	207.7	48.0		600.0	4.15					0.3	0.24	4.3	2.97	21.92
66	S	Leached feed	144.5	2.7	52.7	156.6	1.01	155.04	301.13	1.4	207.7	48.0		65.2	0.45	535	3.42			0.3	0.24	4.3	2.97	21.92
67	RW	Lime to CIL	0.1	2.5	0.0	0.3	1.01	0.27	0.34	1.15	0.3	20												21.92
68	C	CIL Slurry	144.6	2.7	52.7	156.9	1.01	155.31	301.47	1.45	208.0	48.0		65.2	0.45	2.139	0.014	532.7		0.3	0.24	4.3	2.97	21.92
69	RW	Cyanide Addn (RW)	0.18	1.02	0.18	0.42	1.01	0.41	0.68	1.15	0.59													21.92
70	PW	Carbon Recovery Screen Sprays (PW)				7.88	1.01	7.80	7.88	1.01	7.8													21.92
71	S	Dilution Streams - Elution, Washdown				3.03	1.01	3.00	3.03	1.01	3.0													21.92
72	S	CIL Disch	144.8	2.7	52.8	169.5	1.01	167.81	314.27	1.42	220.6	46.1		65.2	0.45	2.139	0.013			0.3	0.24	4.3	2.97	21.92
73	PW	Safety Screen Spray Water (PW)				19.392	1.01	19.20	19.39	1.01	19.2													21.92
74	RW	Carbon Sizing Sprays (RW)				2.02	1.01	2.00	2.02	1.01	2.0													21.92
		Elution																						
75	POT	Acid Dilution Water (POT)				25.8	1.01	25.5	0.0	0.0	25.5													0.26
76	POT	Acid Water Rinse (POT)				25.8	1.01	25.5	0.0	0.0	25.5													1.71
77	POT	Carbon Transfer to Elution Column (POT)				60.6	1.01	60.00	0.0	0.0	60.0													0.00
78	POT	Elution Water (Incl Reagents)				25.8	1.01	25.5	0.0	0.0	25.5													1.71
79	POT	Carbon Transfer to Carbon Regeneration Kiln (POT)				60.6	1.01	60.00	0.0	0.0	60.0													0.00
80	POT	Reactivation Kiln Steam Water (POT)				0.0	1.01	0.00	0.0	0.0	0.0													13.69
81	POT	Carbon Transfer to Carbon Regeneration Kiln (POT)				60.6	1.01	60.00	0.0	0.0	60.0													0.00
82		Average Water to CIL				4.3	1.01	4.29	4.33	1.01	4.3													21.92
		CYANIDE DESTRUCTION																						
83	S	CIL Tailings to CN destruction (DW)	144.8	2.74	52.8	190.9	1.01	189.01	335.69	1.39	241.8	43.1		65.2	0.45	2.1	0.011			0.3	0.24	4.3	2.97	21.92
84	PW	CN Destruction feed dilution (PW)				1.0	1.01	1.02	1.03	1.01	1.0	0.0												21.92
85	S	CN Destruction feed	144.8	2.7	52.8	191.9	1.01	190.03	336.72	1.39	242.8	43.0		65.2	0.45	2.1	0.011			0.3	0.24	4.3	2.97	21.92
86	RW	CND SMBS (RW)				1.2	1.01	1.16	1.17	1.01	1.2	0.0												21.92
87	RW	CND CuSO4 (RW)				0.1	1.01	0.12	0.12	1.01	0.1	0.0												21.92
88	RW	Lime to CND (RW)	0.059	2.5	0.0	0.2	1.01	0.23	0.29	1.15	0.3	20												21.92
89	S	Cyanide Destruction Discharge	144.85	2.74	52.8	193.45	1.01	191.54	338.30	1.38	244.3	42.8		65.2	0.45	2.1	0.011			0.3	0.24	4.3	2.97	21.92
90	RW	Tailings Pump (RW)				1.5	1.01	1.5	1.52	1.01	1.5	0.0												21.92
91	S	Tailings Discharge	144.85	2.50	57.9	194.97	1.01	193.04	339.82	1.35	251.0	42.6		65.19	0.45	2.1	0.011			0.35	0.24	4.29	2.97	21.92

Client	Rox Resources
Project	Youanmi Refractory Plant
Project Phase	FS
Doc No	839-06020-MEB-0001
Date	17-Oct-25
Revision	C
Description	Mass Balance

0.7665

Stream No	Type	Stream Description	Solids			Water			Slurry					Gold in solids		Gold in solution		Gold in carbon		Arsenic in Solids		Sulphur in Solids		Operating hours
			t/h	SG	m³/h	t/h	SG	m³/h	t/h	SG	m³/h	% w/w	lps	g/h	g/t	g/h	g/m3	g/h	g/t	t/h	%	t/h	%	h/day
		WATER CIRCUIT																						
2	RW	Dust Sprays (RW)				3.0	1.01	3.0	3.03	1.01	3.0	0.0												16.80
16	RW	Cyclone Feed Pump (RW)				1.5	1.01	1.5	1.52	1.01	1.5	0.0												21.92
22	RW	Flotation Xanthate (RW)				0.1	1.01	0.1	0.13	1.01	0.1	0.0												21.92
23	RW	Flotation CuSO4 (RW)				0.1	1.01	0.0	0.05	1.01	0.0	0.0												21.92
28	RW	Flotation Concentrate Pump (RW)				0.8	1.01	0.8	0.81	1.01	0.8	0.0												21.92
34	RW	IsaMill feed pump gland water (RW)				1.0	1.01	1.0	1.01	1.01	1.0	0.0												21.92
35	RW	IsaMill gland seal water				5.1	1.01	5.0	5.09	1.01	5.0	0.0												21.92
37	RW	IsaMill Discharge Pumps (RW)				1.0	1.01	1.0	1.01	1.01	1.0	0.0												21.92
39	RW	Flocculant Mixing - Conc. Thickener (RW)				0.3	1.01	0.3	0.26	1.01	0.3	0.0												21.92
40	RW	Isamill Thickener Underflow Pump (RW)				1.2	1.01	1.2	1.21	1.01	1.2	0.0												21.92
43	RW	Albion Feed Pumps (RW)				1.0	1.01	1.0	1.01	1.01	1.0	0.0												21.92
51	RW	Flocculant Mixing - Albion Thickener (RW)				0.6	1.01	0.6	0.58	1.01	0.6	0.0												21.92
54	RW	Albion Thickener Underflow Pumps (RW)				1.0	1.01	1.0	1.01	1.01	1.0	0.0												21.92
56	RW	Leach Feed Pump (RW)				1.5	1.01	1.5	1.52	1.01	1.5	0.0												21.92
59	RW	Flocculant Mixing - Leach Feed Thickener (RW)				0.7	1.01	0.7	0.75	1.01	0.7	0.0												21.92
62	RW	Leach Feed Pumps (RW)				1.5	1.01	1.5	1.52	1.01	1.5	0.0												21.92
67	RW	Lime to CIL				0.3	1.01	0.3	0.34	1.15	0.3	20.0												21.92
69	RW	Cyanide Addn (RW)				0.4	1.01	0.4	0.68	1.15	0.6	0.0												21.92
74	RW	Carbon Sizing Sprays (RW)				2.0	1.01	2.0	2.02	1.01	2.0	0.0												21.92
86	RW	CND SMBS (RW)				1.2	1.01	1.2	1.17	1.01	1.2	0.0												21.92
87	RW	CND CuSO4 (RW)				0.1	1.01	0.1	0.12	1.01	0.1	0.0												21.92
88	RW	Lime to CND (RW)				0.2	1.01	0.2	0.29	1.15	0.3	20.0												21.92
90	RW	Tailings Pump (RW)				1.5	1.01	1.5	1.52	1.01	1.5	0.0												21.92
92	RW	Raw water to RO Plant				9.0	1.01	8.92	9.01	1.01	8.9	0.0												19.20
93	RW	Average Plant Raw Water Use (RW)				33.4	1.01	33.09	33.42	1.01	33.1	0.0												21.92
94	RW	Cyanide-Free Process Water Dam Make-up (RW)				113.8	1.01	112.7	113.82	1.01	112.7	0.0												21.92
95	RW	Raw Water Supply Rate (RW)				147.2	1.01	145.8	147.23	1.01	145.8	0.0												21.92
11	CFPW	Ball Mill Feed Water Addition (CFPW)				36.1	1.01	35.8	36.14	1.01	35.8	0.0												21.92
14	CFPW	Ball Mill Trommel Spray Water (CFPW)				28.3	1.01	28.0	28.28	1.01	28.0	0.0												21.92
15	CFPW	Cyclone Feed Water Addition (CFPW)				160.7	1.01	159.1	160.68	1.01	159.1	0.0												21.92
0	CFPW	Trash Screen Spray Water (CFPW)				24.2	1.01	24.0	24.24	1.01	24.0	0.0												21.92
24	CFPW	Flotation Feed Dilution Water (CFPW)				35.1	1.01	34.7	35.08	1.01	34.7	0.0												21.92
26	CFPW	Rougher Concentrate Launder Water Addition (CFPW)				5.1	1.01	5.0	5.05	1.01	5.0	0.0												21.92
31	CFPW	Isamill dilution (CFPW)				45.5	1.01	45.1	45.53	1.01	45.1	0.0												21.92
38	CFPW	Flocculant Dilution- Conc. Thickener (CFPW)				2.4	1.01	2.3	2.36	1.01	2.3	0.0												21.92
36	CFPW	Albion Feed Dilution Water (CFPW)				5.5	1.01	5.5	5.52	1.01	5.5	0.0												21.92
45	CFPW	Limestone Dilution Water (CFPW)				23.6	1.01	23.4	23.59	1.01	23.4	0.0												21.92
50	CFPW	Diluted Flocculant- Albion Thickener (CFPW)				5.2	1.01	5.2	5.21	1.01	5.2	0.0												21.92
58	CFPW	Flocculant Dilution- Leach Feed Thickener (CFPW)				6.0	1.01	5.9	5.97	1.01	5.9	0.0												21.92
42	CFPW	Isamill Thickener Overflow				79.7	1.01	78.90	79.69	1.01	78.9	0.0												21.92
53	CFPW	Albion Tails Thickener Overflow (CFPW)				30.3	1.01	29.98	30.28	1.01	30.0	0.0												21.92
61	CFPW	Leach Feed Thickener Overflow (CFPW)				162.2	1.01	160.55	162.16	1.01	160.6	0.0												21.92
62	CFPW	RO Plant Permeate				2.7	1.01	1.50	1.52	1.01	1.5	0.0												19.20
96	CFPW	Average Plant Process Water Use (CFPW)				377.6	1.01	373.91	377.64	1.01	373.9	0.0												21.92
64	PW	Leach Feed Dilution Water (PW)				21.3	1.01	21.1	0.00	0.00	21.1	0.0												21.92
70	PW	Carbon Recovery Screen Sprays (PW)				7.9	1.01	7.8	7.88	1.01	7.8	0.0												21.92
73	PW	Safety Screen Spray Water (PW)				19.4	1.01	19.2	19.39	1.01	19.2	0.0												21.92
84	PW	CN Destruction feed dilution (PW)				1.0	1.01	1.0	1.03	1.01	1.0	0.0												21.92
97	PW	Cyanide Process Water Use				49.6	1.01	49.15	49.64	1.01	49.1	0.0												21.92
98	PW	Cyanide Free Process Water Makeup				10.6	1.01	10.54	10.65	1.01	10.5	0.0												21.92
98	DW	Return Decant Water (DW)				39.0	1.01	38.61	38.99	1.01	38.6	0.0												21.92
99	DW	Evap. & Seepage Water (DW)				156.0	1.01	154.43	155.97	1.01	154.4	0.0												21.92

APPENDIX 2–PROCESS FLOWSHEETS



NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C	19/11/2025	ISSUED FOR STUDY	KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	27/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT

TITLE: PROCESSING PLANT
OVERALL PLANT
PROCESS BLOCK FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-BFD-1001 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\BFD\839-00000-DRG-BFD-1001.dwg

FROM CYANIDE FREE PROCESS WATER PUMPS
PROCESS WATER
839-00000-DRG-PFD-1017

FROM RAW WATER PUMPS
RAW WATER
839-00000-DRG-PFD-1017

ROM ORE STOCKPILE

ROM BIN
STATIC GRIZZLY

ROM BIN

PRIMARY CRUSHER APRON FEEDER

APRON FEEDER DRIBBLE CHUTE

SECONDARY CRUSHER SURGE BIN

TERTIARY CRUSHER SURGE BIN

CRUSHER MAINTENANCE CRANE

SECONDARY CRUSHER FEEDER

TERTIARY CRUSHER FEEDER

SECONDARY CRUSHER

TERTIARY CRUSHER

PRIMARY CRUSHER

PRIMARY TRAMP METAL MAGNET

CRUSHER DISCHARGE CONVEYOR

SCREEN FEED CONVEYOR

PRODUCT SCREEN

FINE ORE BIN FEED CONVEYOR

CRUSHED ORE WEIGHTOMETER

SECONDARY CRUSHER TRAMP MAGNET

SECONDARY CRUSHER METAL DETECTOR

SECONDARY CRUSHER FEED CONVEYOR

TRAMP METAL BIN

TERTIARY CRUSHER TRAMP MAGNET

TERTIARY CRUSHER METAL DETECTOR

TERTIARY CRUSHER FEED CONVEYOR

TO ATMOSPHERE

CRUSHER DUST COLLECTOR

TAILINGS STORAGE PUMPS

CRUSHER DUST COLLECTOR ROTARY VALVE

CRUSHER DUST COLLECTOR VORTEX MIXER

FINE ORE BIN DUST COLLECTOR

FINE ORE BIN

FINE ORE BIN DISCHARGE CONVEYOR

CRUSHED ORE STOCKPILE

EMERGENCY FEED BIN

RECLAIM FEEDER

MILL FEED CONVEYOR

MILL FEED WEIGHTOMETER

CRUSHING SUMP PUMP

DUST COLLECTOR SUMP PUMP

TO MILL DISCHARGE HOPPER
DUST SLURRY
839-00000-DRG-PFD-1003

TO BALL MILL
CRUSHED ORE
839-00000-DRG-PFD-1003

NOT FOR CONSTRUCTION
PRELIMINARY

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1002.dwg

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	27/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
CRUSHING, SCREENING AND ORE STORAGE
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1002 | REV C

FROM CYANIDE PROCESS WATER PUMPS
PROCESS WATER
839-00000-DRG-PFD-1017

FROM ROUGHER AREA SUMP PUMP
SPILLAGE
839-00000-DRG-PFD-1004

FROM CLEANER AREA SUMP PUMP
SPILLAGE
839-00000-DRG-PFD-1005

FROM MILL FEED CONVEYOR
CRUSHED ORE
839-00000-DRG-PFD-1002

CYCLONE CLUSTER

CYCLONE MAINTENANCE CRANE

CYCLONE UNDERFLOW BOIL BOX

GRINDING TRASH SCREEN

GRINDING TRASH BIN

TO ROUGHER CONDITIONING TANK
TRASH SCREEN UNDERFLOW
839-00000-DRG-PFD-1004

BALL MILL FEED CHUTE

BALL MILL FEED SPOUT

BALL MILL

BALL MILL TROMMEL

SCATS BUNKER

FUTURE GRAVITY CIRCUIT

FROM GOLD ROOM SUMP PUMP
SPILLAGE
839-00000-DRG-PFD-1010

FROM DUST COLLECTOR SUMP PUMP
SPILLAGE
839-00000-DRG-PFD-1002

GRAVITY CIRCUIT DISCHARGE PUMP 1

GRAVITY CIRCUIT DISCHARGE PUMP 2

MILL DISCHARGE HOPPER

MILL DISCHARGE PUMP 1

MILL DISCHARGE PUMP 2

MILL AREA SUMP PUMP 1

NOT FOR CONSTRUCTION
PRELIMINARY

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1003.dwg

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	29/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	27/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
GRINDING, CLASSIFICATION AND GRAVITY RECOVERY
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1003 | REV C

FROM CYANIDE FREE PROCESS WATER PUMPS
PROCESS WATER
839-00000-DRG-PFD-1017

FROM FLOTATION AIR BLOWERS
FLOTATION AIR
839-00000-DRG-PFD-1018

FROM FROTHER DOSING PUMP 2
FROTHER
839-00000-DRG-PFD-1014

FROM PAX DOSING PUMP 2
PAX
839-00000-DRG-PFD-1014

FROM FROTHER DOSING PUMP 1
FROTHER
839-00000-DRG-PFD-1014

FROM FIRST CLEANER TAILINGS PUMP
SECOND CLEANER TAILINGS
839-00000-DRG-PFD-1005
(FUTURE)

FROM PAX DOSING PUMP 1
PAX
839-00000-DRG-PFD-1014

FROM TRASH SCREEN UNDERFLOW
TRASH SCREEN
839-00000-DRG-PFD-1003

FROM COPPER SULPHATE DOSING PUMPS
COPPER SULPHATE
839-00000-DRG-PFD-1016

(FUTURE)
TO CLEANER FLOTATION
PROCESS WATER
839-00000-DRG-PFD-1005

ROUGHER CONDITIONING TANK

ROUGHER CONDITIONING TANK AGITATOR

ROUGHER FLOTATION CELL 1

ROUGHER FLOTATION CELL 2

ROUGHER FLOTATION CELL 3

ROUGHER FLOTATION CELL 4

ROUGHER FLOTATION CELL 5

ROUGHER FLOTATION CELL 6

FLOTATION TAILINGS HOPPER

GN

FLOTATION TAILINGS PUMP

TO LEACH FEED THICKENER FEED BOX
ROUGHER TAILINGS
839-00000-DRG-PFD-1007

ROUGHER CONCENTRATE HOPPER

GN

ROUGHER CONCENTRATE PUMP

(FUTURE)
TO FIRST CLEANER FLOTATION CELLS 1 & 2
ROUGHER CONCENTRATE
839-00000-DRG-PFD-1005

FROM FIRST CLEANER CONCENTRATE PUMP
CLEANER CONCENTRATE
839-00000-DRG-PFD-1005
(FUTURE)

CONCENTRATE STORAGE TANK

TO IS MILL AREA
ROUGHER CONCENTRATE
PA00098-GTS-101-1-02001

TO LEACH FEED THICKENER FEED BOX
SPILLAGE
839-00000-DRG-PFD-1007

TO GRINDING TRASH SCRFEEN
SPILLAGE
839-00000-DRG-PFD-1003

ROUGHER AREA SUMP PUMP

NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

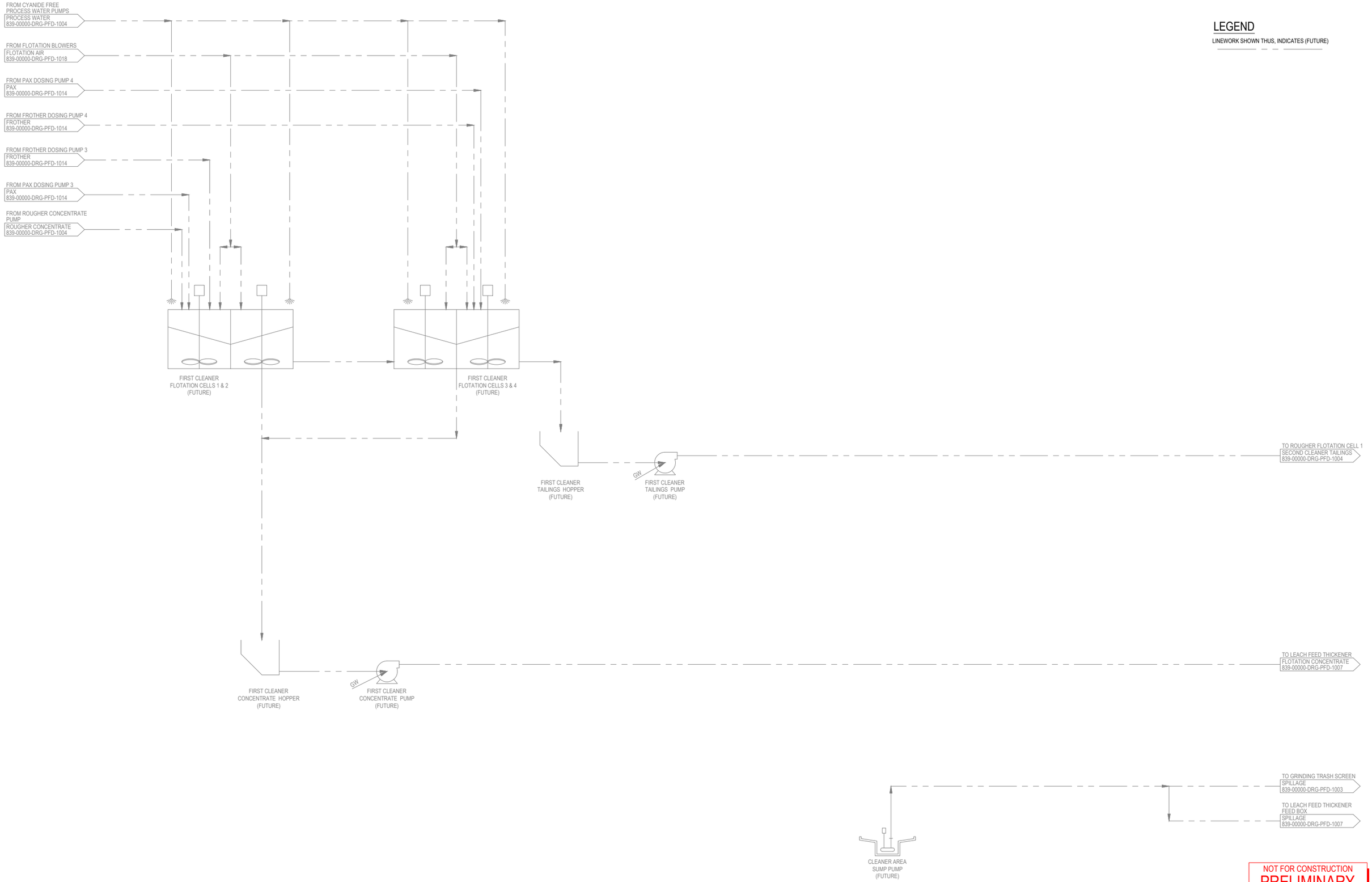
DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
FLOTATION - SHEET 1 OF 2
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1004 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1004.dwg



LEGEND

LINEWORK SHOWN THUS, INDICATES (FUTURE)

NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	27/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT

TITLE: PROCESSING PLANT
FLOTATION - SHEET 2 OF 2
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1005 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1005.dwg

FROM FLOCCULANT PUMP 2 & 3
FLOCCULANT
839-00000-DRG-PFD-1013

FROM CYANIDE FREE PROCESS WATER PUMPS
PROCESS WATER
839-00000-DRG-PFD-1017

FROM CLEANER AREA SUMP PUMP
SPILLAGE
839-00000-DRG-PFD-1005
(FUTURE)

FROM ROUGHER AREA SUMP PUMP
SPILLAGE
839-00000-DRG-PFD-1004

FROM FLOTATION TAILINGS PUMP
ROUGHER TAILINGS
839-00000-DRG-PFD-1004

LEACH FEED THICKENER FLOCCULANT MIXER

LEACH FEED THICKENER FEED BOX

FROM LIME RINGMAIN
LIME
839-00000-DRG-PFD-1015

LEACH FEED THICKENER

TO CYANIDE FREE PROCESS WATER POND
LEACH FEED THICK. O/F
839-00000-DRG-PFD-1017

GW
LEACH FEED PUMP 1

GW
LEACH FEED PUMP 2

TO LEACH FEED TANK DISTRIBUTION BOX
LEACH FEED
839-00000-DRG-PFD-1008

TO TAILINGS HOPPER
FLOTATION TAILINGS
839-00000-DRG-PFD-1011

LEACH FEED THICKENER SUMP PUMP

NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
LEACHING AND ADSORPTION - SHEET 1 OF 2
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1007 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1007.dwg

FROM REGENERATED CARBON PUMP
REGENERATED CARBON
839-00000-DRG-PFD-1009

FROM ELUTION COLUMN
BARREN CARBON
839-00000-DRG-PFD-1009

FROM PROCESS WATER PUMPS
PROCESS WATER
839-00000-DRG-PFD-1017

FROM LIME RINGMAIN
LIME
839-00000-DRG-PFD-1015

FROM CYANIDE RINGMAIN
CYANIDE
839-00000-DRG-PFD-1012

FROM GOLDROOM SUMP PUMP
GOLD ROOM SPILLAGE
839-00000-DRG-PFD-1010

FROM ELUTION AREA SUMP PUMP
ELUTION AREA SPILLAGE
839-00000-DRG-PFD-1009

FROM ELECTROWINNING RETURN PUMP
BARREN ELUATE
839-00000-DRG-PFD-1010

FROM LEACH FEED PUMPS
LEACH FEED
839-00000-DRG-PFD-1007

LEACH FEED PRIMARY SAMPLE

LEACH FEED PRIMARY SAMPLE

SAMPLE

FROM LIME RINGMAIN
LIME
839-00000-DRG-PFD-1015

FROM NAL TRANSFER PUMPS
ALBION PRODUCT
PA00098-GTS-101-1-02005

INTENSIVE LEACH PRIMARY SAMPLER

INTENSIVE LEACH SECONDARY SAMPLER

SAMPLE

LEACH FEED DISTRIBUTION BOX

INTENSIVE LEACH FEED DISTRIBUTION BOX

FROM OXYGEN PLANT
OXYGEN
839-00000-DRG-PFD-1013

VENDOR PACKAGE
CYANIDE ANALYSER

LOADED CARBON SCREEN FEED BOX

LOADED CARBON SCREEN

BARREN CARBON SCREEN FEED BOX

BARREN CARBON SCREEN

CARBON FINES SETTLING TANK

TO EDUCTION WATER TANK
CARBON FINES WATER
839-00000-DRG-PFD-1009

TO ELUTION COLUMN
LOADED CARBON
839-00000-DRG-PFD-1009

TO CYANIDE DESTRUCTION FEED DISTRIBUTION BOX
CIL TAILINGS
839-00000-DRG-PFD-1011

CIL AREA SUMP PUMP 1

CIL AREA SUMP PUMP 2

	INTENSIVE LEACH TANK 1	INTENSIVE LEACH TANK 2	LEACH TANK	CIL TANK 1	CIL TANK 2	CIL TANK 3	CIL TANK 4	CIL TANK 5	CIL TANK 6	CIL TANK 7
	INTENSIVE LEACH TANK AGITATOR	INTENSIVE LEACH TANK AGITATOR	LEACH TANK AGITATOR	CIL TANK 1 AGITATOR	CIL TANK 2 AGITATOR	CIL TANK 3 AGITATOR	CIL TANK 4 AGITATOR	CIL TANK 5 AGITATOR	CIL TANK 6 AGITATOR	CIL TANK 7 AGITATOR
				LOADED CARBON PUMP 1	LOADED CARBON PUMP 2	LOADED CARBON PUMP 3	LOADED CARBON PUMP 4	LOADED CARBON PUMP 5	LOADED CARBON PUMP 6	LOADED CARBON PUMP 7
				INTERTANK SCREEN 1	INTERTANK SCREEN 2	INTERTANK SCREEN 3	INTERTANK SCREEN 4	INTERTANK SCREEN 5	INTERTANK SCREEN 6	INTERTANK SCREEN 7

NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DT	CW		

MACA Interquip mintrex

ROX RESOURCES

DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
LEACHING AND ADSORPTION - SHEET 2 OF 2
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1008 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1008.dwg

FROM PROCESS WATER PUMP
PROCESS WATER
839-00000-DRG-PFD-1017

FROM LOADED CARBON SCREEN
LOADED CARBON
839-00000-DRG-PFD-1008

TO TAILINGS HOPPER
SPENT ACID WASH
839-00000-DRG-PFD-1011

TO PREGNANT ELUATE TANKS
PREGNANT SOLUTION
839-00000-DRG-PFD-1010

TO BARREN CARBON SCREEN
BARREN CARBON
839-00000-DRG-PFD-1008

ACID WASH FILTER 1

ACID WASH FILTER 2

ELUTION FILTER 1

ELUTION FILTER 2

RECOVERY HEAT EXCHANGER

ACID WASH COLUMN

ELUTION COLUMN

PRIMARY HEAT EXCHANGER

KILN DEWATERING SCREEN

KILN FEED HOPPER

CARBON FINES SETTLING TANK

CARBON REGENERATION KILN

BULK BAGS

CARBON QUENCH TANK

TO GRADE

VENDOR PACKAGE

TO BARREN CARBON SCREEN FEED BOX
REGENERATED CARBON
839-00000-DRG-PFD-1008

FROM ELUTION WATER PUMP
ELUTION WATER
839-00000-DRG-PFD-1017

FROM FINES SETTLING TANK
CARBON FINES WATER
839-00000-DRG-PFD-1008

THERMAL OIL EXPANSION TANK

ELUTION HEATER

THERMAL OIL CIRCULATION PUMP

EDUCTION WATER TANK

EDUCTION WATER PUMP

VENDOR PACKAGE

FROM LNG STORAGE FACILITY
LNG
839-00000-DRG-PFD-1013

FROM ELUTION WATER PUMP
POTABLE RAW WATER
839-00000-DRG-PFD-1017

FROM CYANIDE RING MAIN
CYANIDE
839-00000-DRG-PFD-1012

FROM CAUSTIC RINGMAIN
CAUSTIC
839-00000-DRG-PFD-1012

FROM HYDROCHLORIC ACID PUMP
HYDROCHLORIC ACID
839-00000-DRG-PFD-1012

TO LEACH FEED DISTRIBUTION BOX
ELUTION AREA SPILLAGE
839-00000-DRG-PFD-1008

TO TAILINGS HOPPER
ELUTION AREA SPILLAGE
839-00000-DRG-PFD-1011

ACID WASH TANK

ACID WASH PUMP

STRIP SOLUTION TANK

STRIP SOLUTION PUMP

ELUTION SUMP PUMP

NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

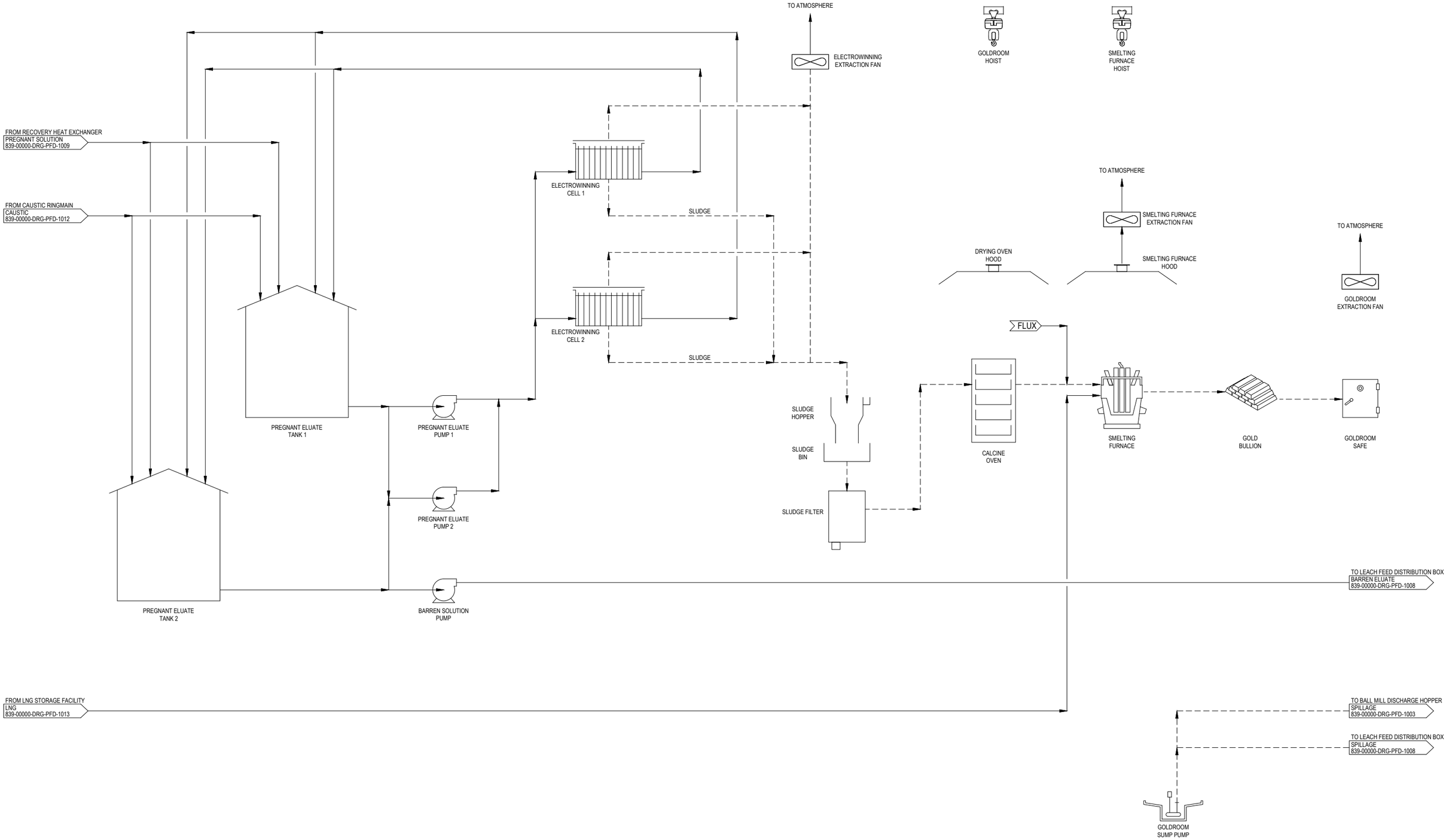
DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
GOLD RECOVERY - SHEET 1 OF 2
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1009 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1009.dwg



NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

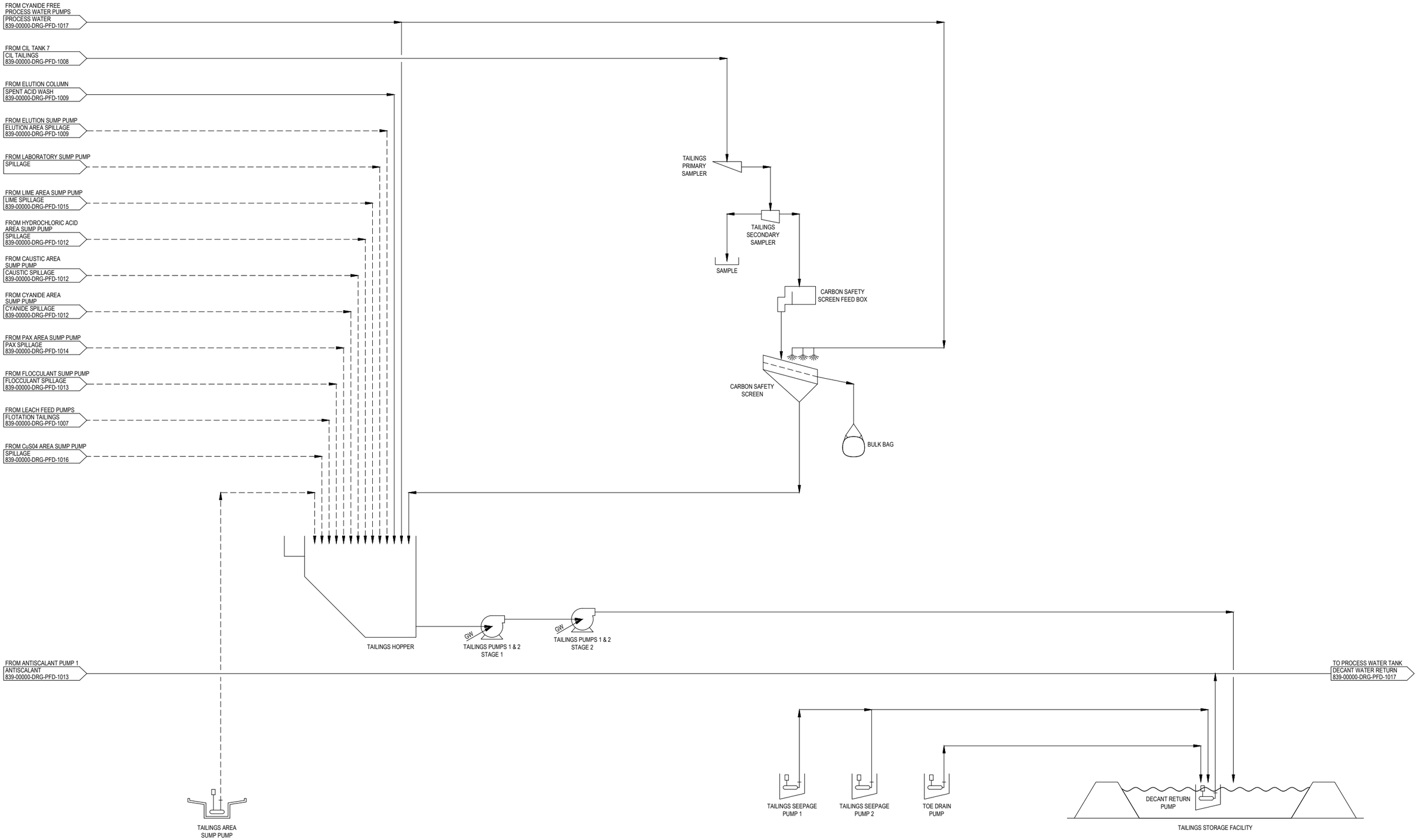
DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
GOLD RECOVERY - SHEET 2 OF 2
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1010 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1010.dwg



NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

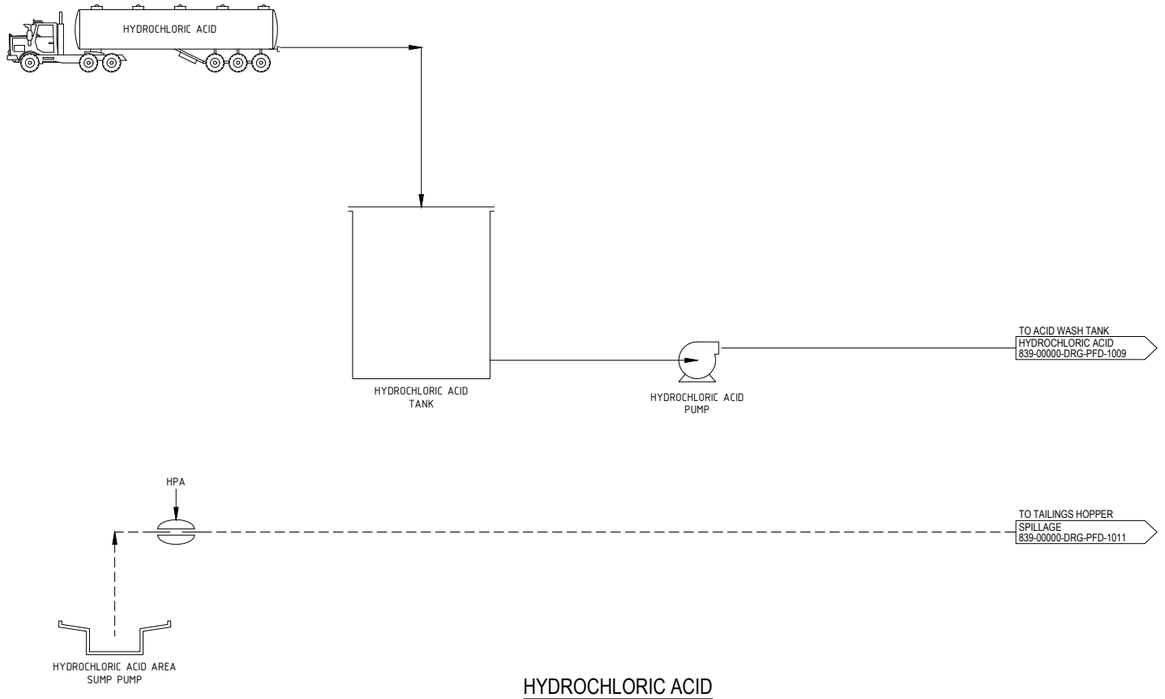
DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

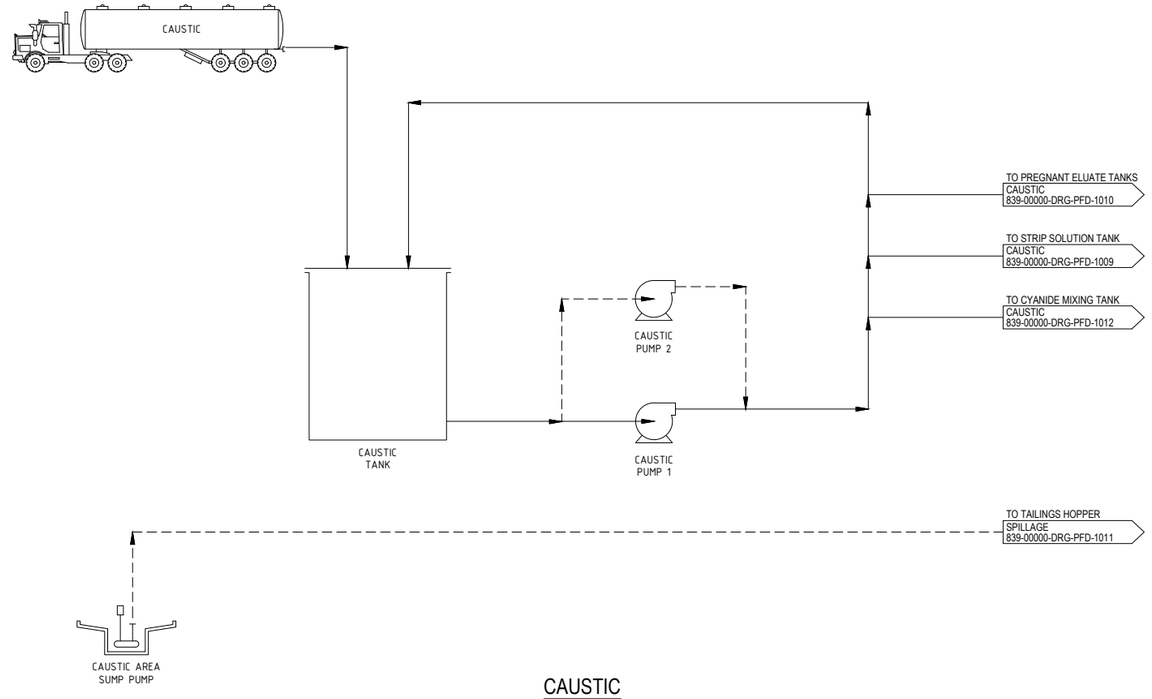
TITLE: PROCESSING PLANT
TAILINGS DISPOSAL
PROCESS FLOW DIAGRAM

A1	SCALE NTS	DRG No: 839-00000-DRG-PFD-1011	REV C

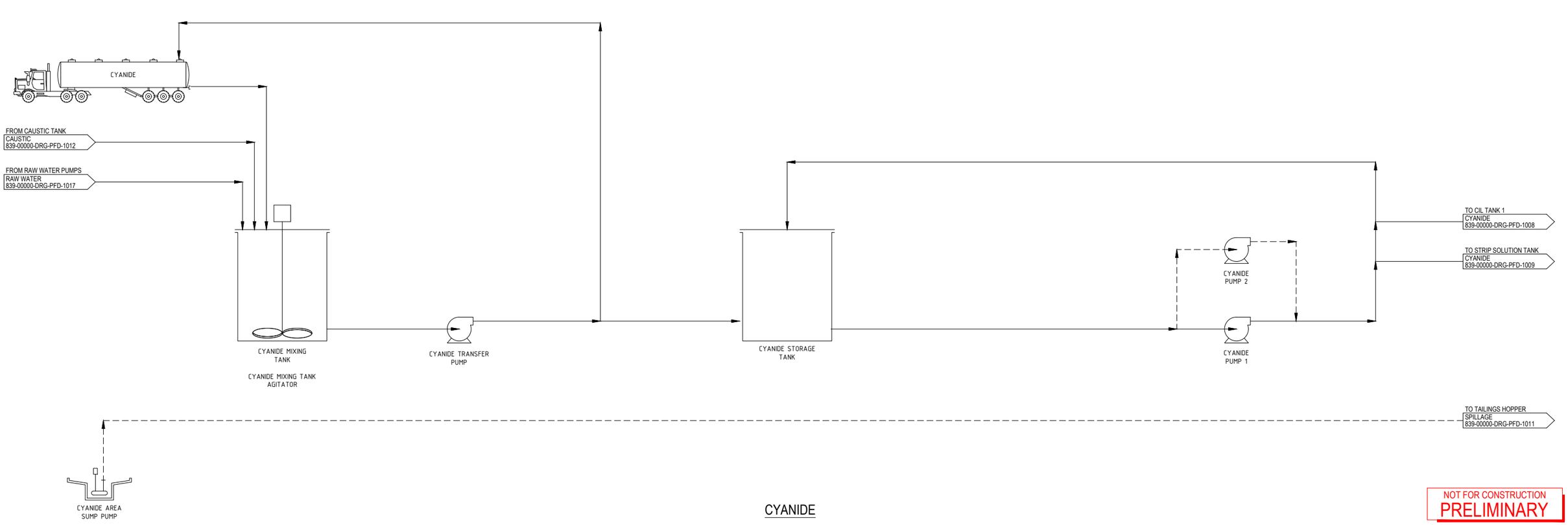
W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1011.dwg



HYDROCHLORIC ACID



CAUSTIC



CYANIDE

NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

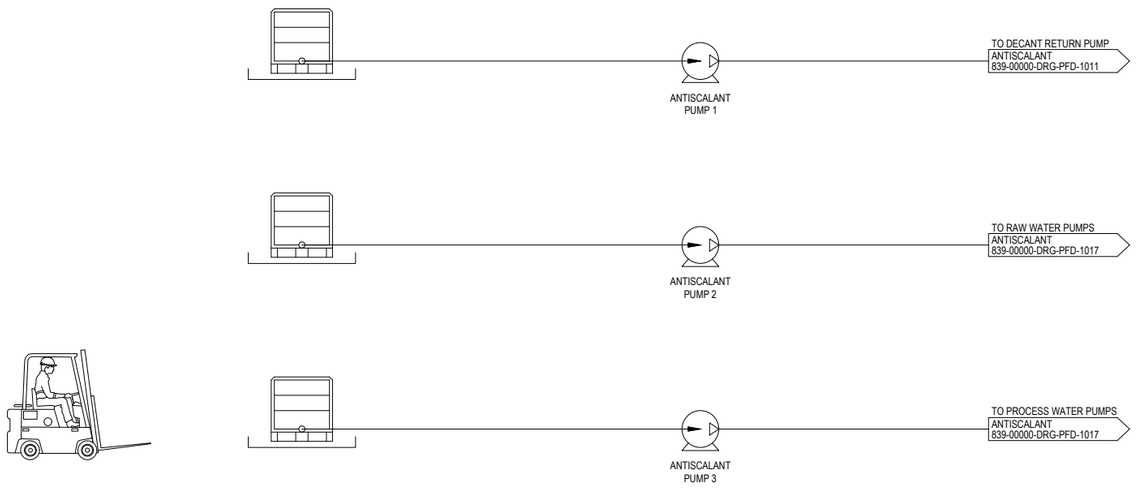
DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

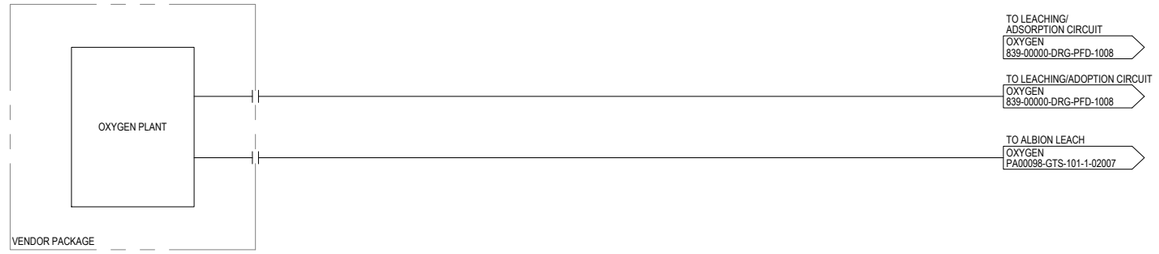
TITLE: PROCESSING PLANT
REAGENTS MIXING AND DISTRIBUTION - SHEET 1 OF 5
PROCESS FLOW DIAGRAM

A1	SCALE NTS	DRG No: 839-00000-DRG-PFD-1012	REV C

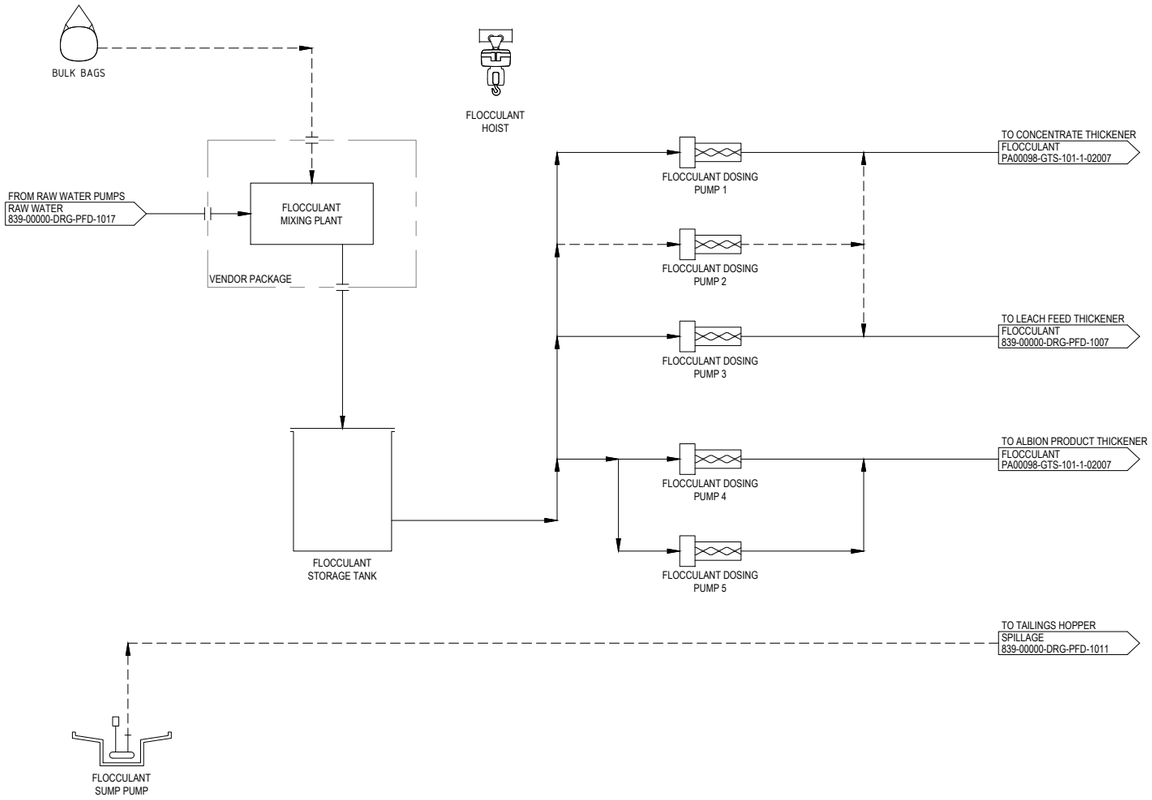
W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1012.dwg



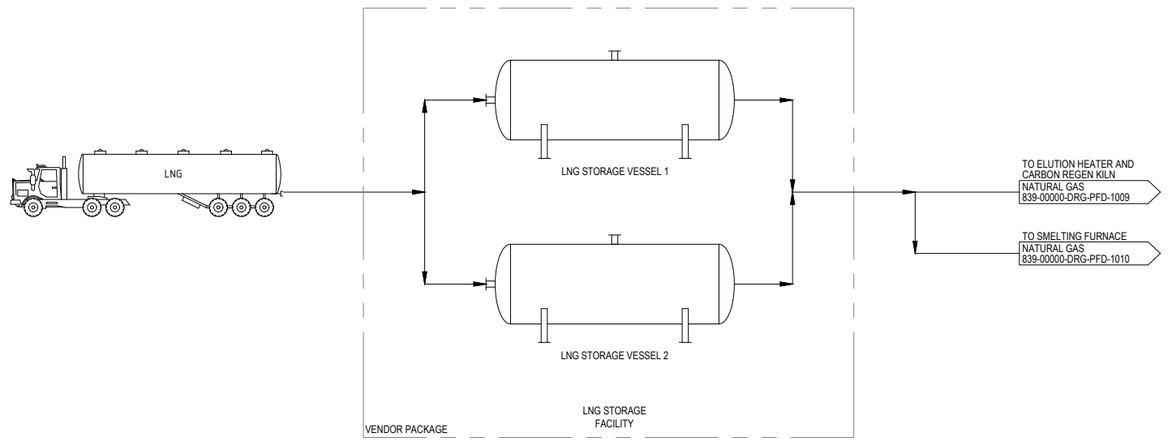
ANTISCALANT



OXYGEN



FLOCCULANT



NATURAL GAS

NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

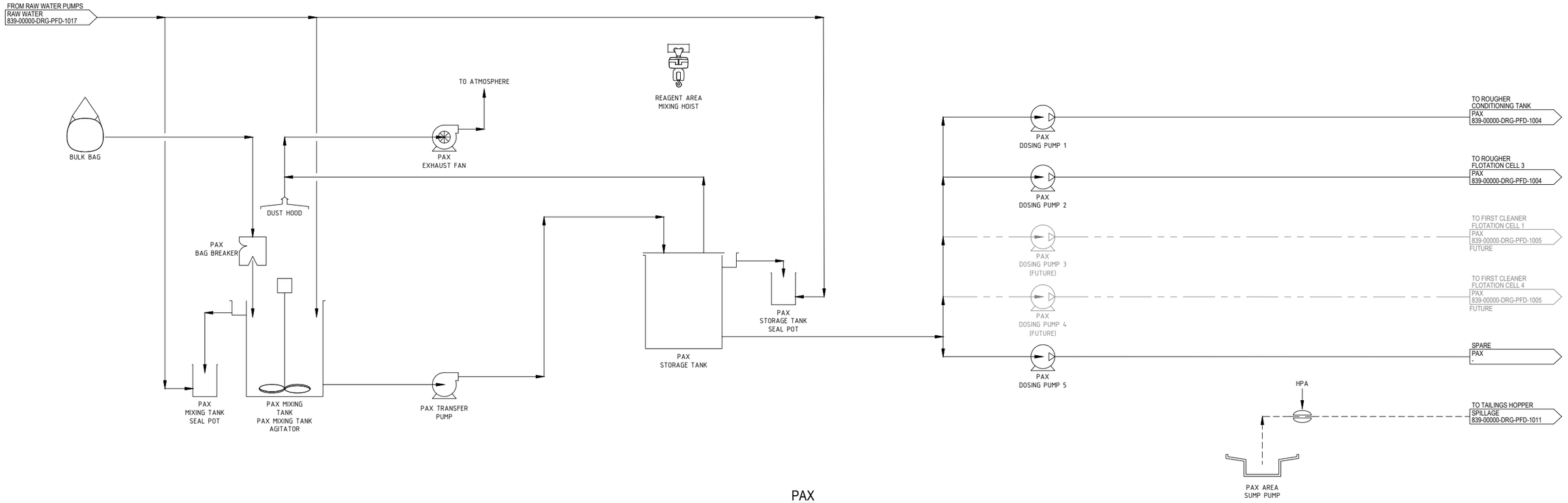
DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

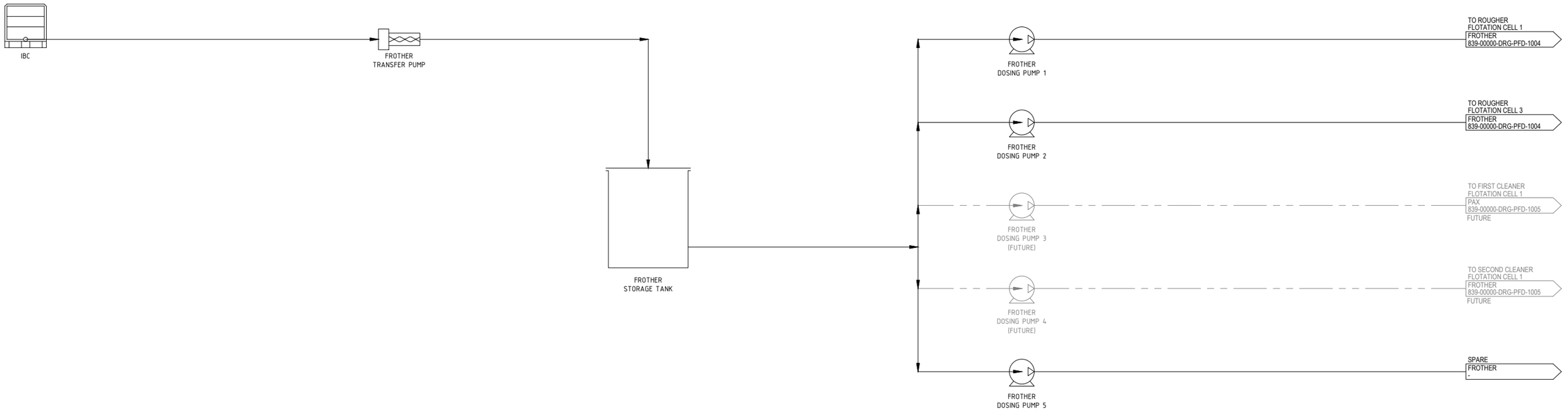
TITLE: PROCESSING PLANT
REAGENTS MIXING AND DISTRIBUTION - SHEET 2 OF 5
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1013 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1013.dwg



PAX



FROTHER

NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

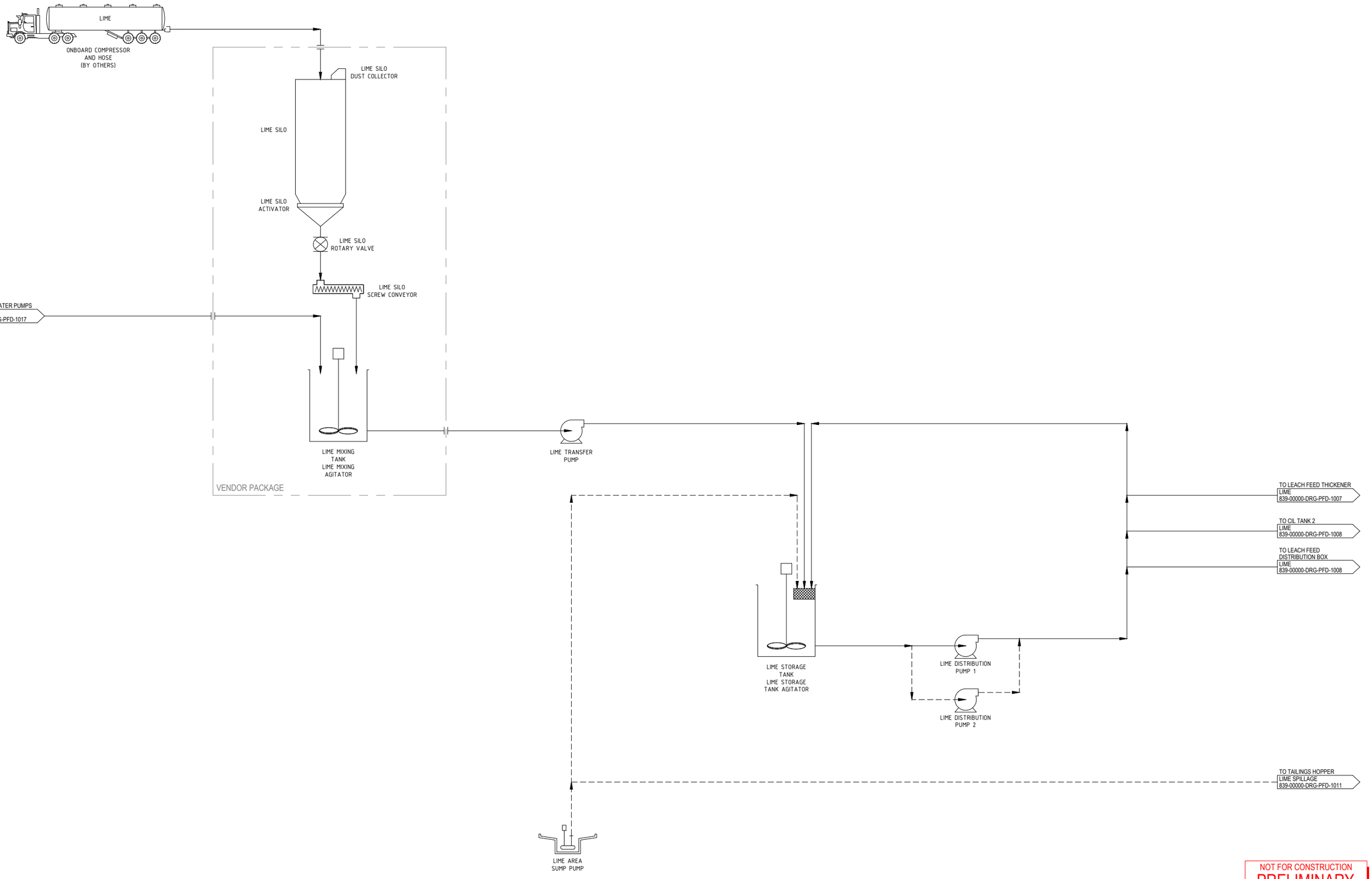
DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
REAGENTS MIXING AND DISTRIBUTION - SHEET 3 OF 5
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1014 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1014.dwg



NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip
mintrex

ROX RESOURCES

DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
REAGENTS MIXING AND DISTRIBUTION - SHEET 4 OF 5
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1015 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1015.dwg

FROM RAW WATER PUMPS
RAW WATER
839-00000-DRG-PFD-1017

COPPER SULPHATE
BULK BAG

COPPER SULPHATE
BAG BREAKER

COPPER SULPHATE
MIXING HOIST

COPPER SULPHATE
MIXING TANK
COPPER SULPHATE
MIXING TANK
AGITATOR

COPPER SULPHATE
MIXING PUMP

COPPER SULPHATE
STORAGE TANK

COPPER SULPHATE
DOSING PUMP 1

COPPER SULPHATE
DOSING PUMP 2

TO ROUGHER CONDITIONING
TANK
COPPER SULPHATE
839-00000-DRG-PFD-1004

TO TAILINGS HOPPER
SPILLAGE
839-00000-DRG-PFD-1011

CuSO4 AREA
SUMP PUMP

NOT FOR CONSTRUCTION
PRELIMINARY

COPPER SULPHATE

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
REAGENTS MIXING AND DISTRIBUTION - SHEET 5 OF 5
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1016 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1016.dwg

FROM BOREFIELD
BORE WATER
BY OTHERS

BORE WATER TANK

RO PLANT

VENDOR PACKAGE

OF

RAW WATER POND

POTABLE WATER TANK

DIESEL POTABLE WATER PUMP

ELECTRIC POTABLE WATER PUMP

ELUTION WATER PUMP

DIESEL FIRE WATER PUMP

ELECTRIC FIRE WATER PUMP

FIRE WATER JOCKEY PUMP

GLAND WATER PUMP 1

GLAND WATER PUMP 2

RAW WATER PUMP 1

RAW WATER PUMP 2

PROCESS WATER TANK

PROCESS WATER PUMP 2

PROCESS WATER PUMP 1

CYANIDE FREE PROCESS WATER POND

CYANIDE FREE PROCESS WATER PUMP 1

CYANIDE FREE PROCESS WATER PUMP 2

SITE DRAINAGE PUMP

SITE DRAINAGE POND

FROM ANTISCALANT PUMP 2
ANTISCALANT
839-00000-DRG-PFD-1013

FROM ANTISCALANT PUMP 3
ANTISCALANT
839-00000-DRG-PFD-1013

FROM LEACH FEED THICKENER
OVERFLOW
839-00000-DRG-PFD-1007

FROM DECANT RETURN WATER PUMP
DECANT RETURN WATER
839-00000-DRG-PFD-1011

TO SAFETY SHOWERS
SAFETY SHOWER WATER
PLANT

POTABLE WATER
PLANT

TO ELUTION AND REGEN AREA
POTABLE RAW WATER
839-00000-DRG-PFD-1009

TO EDUCTION WATER TANK
ELUTION WATER
839-00000-DRG-PFD-1009

TO HYDRANTS
FIRE WATER
PLANT

TO TAILINGS PUMPS STAGE 2
HP GLAND WATER
839-00000-DRG-PFD-1011

TO ALBION
GLAND WATER
PA00098-GTS-101-1-02006

GLAND WATER
PLANT

TO CYANIDE MIXING TANK
RAW WATER
839-00000-DRG-PFD-1012

TO LIME MIXING TANK
RAW WATER
839-00000-DRG-PFD-1015

TO CuSO4 MIXING TANK
RAW WATER
839-00000-DRG-PFD-1016

TO PAX MIXING TANK
RAW WATER
839-00000-DRG-PFD-1014

TO CRUSHING
RAW WATER
839-00000-DRG-PFD-1002

TO FLOCCULANT MIXING PLANT
RAW WATER
839-00000-DRG-PFD-1013

TO CRUSHING
CYANIDE FREE
PROCESS WATER
839-00000-DRG-PFD-1002

TO GRINDING
CYANIDE FREE
PROCESS WATER
839-00000-DRG-PFD-1003

TO FLOTATION
CYANIDE FREE
PROCESS WATER
839-00000-DRG-PFD-1004

TO LEACH FEED THICKENER
CYANIDE FREE
PROCESS WATER
839-00000-DRG-PFD-1007

TO TAILINGS
CYANIDE FREE
PROCESS WATER
839-00000-DRG-PFD-1011

TO PLANT SERVICE POINTS
CYANIDE FREE
PROCESS WATER
PLANT

TO ALBION LEACH
CYANIDE FREE
PROCESS WATER
PA00098-GTS-101-1-02006

TO LIMESTONE
CYANIDE FREE
PROCESS WATER
839-00000-DRG-PFD-1021

TO CARBON QUENCH TANK
PROCESS WATER
839-00000-DRG-PFD-1009

TO CIL
PROCESS WATER
839-00000-DRG-PFD-1008

NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

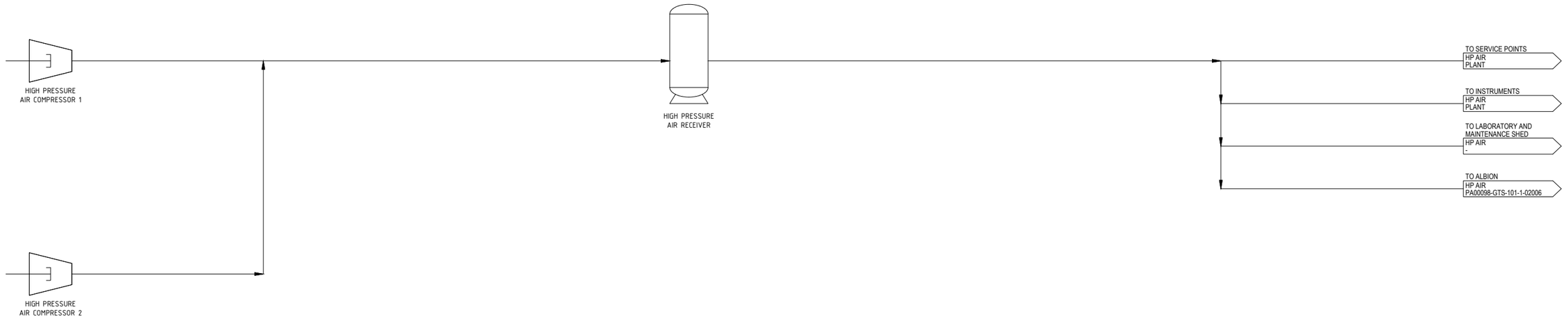
DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

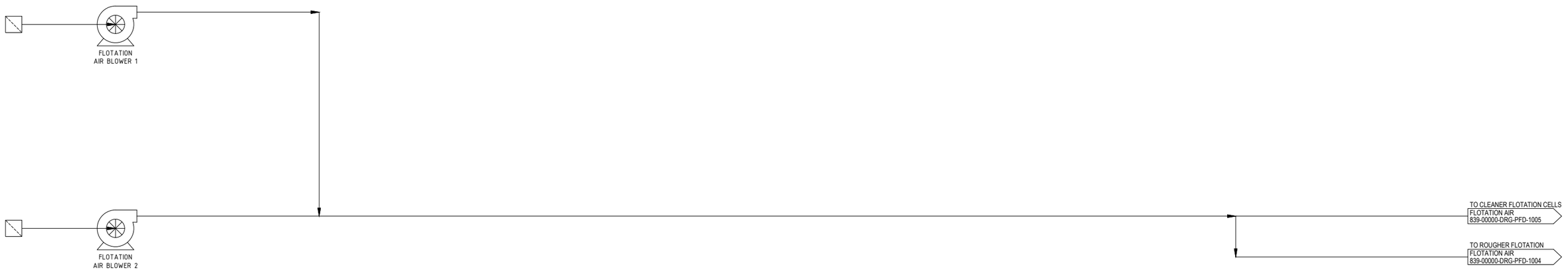
PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
WATER SERVICES
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1017 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1017.dwg





NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	10/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT839

TITLE: PROCESSING PLANT
AIR SERVICES
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1018 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1018.dwg

VENDOR PACKAGE

LIMESTONE CYCLONE CLUSTER

LIMESTONE CYCLONE U/F LAUNDER

LIMESTONE CYCLONE O/F LAUNDER

LIMESTONE BOIL BOX

FROM PROCESS WATER PUMPS
PROCESS WATER
839-00000-DRG-PFD-1017

FRONT END LOADER

CRUSHED LIMESTONE

LIMESTONE MILL FEED BIN

LIMESTONE RECLAIM CHUTE

LIMESTONE WEIGHTOMETER

LIMESTONE MILL FEED WEIGHTOMETER

LIMESTONE MILL FEED CHUTE

LIMESTONE MILL FEED SPOUT

LIMESTONE MILL TROMMEL

LIMESTONE MILL

LIMESTONE MILL SCATS CHUTE

LIMESTONE MILL SCATS BUNKER

LIMESTONE MILL DISCHARGE HOPPER

GW

LIMESTONE MILL DISCHARGE PUMP

RINGMAIN

LIMESTONE STORAGE TANK

LIMESTONE STORAGE TANK AGITATOR

LIMESTONE RINGMAIN PUMP 7

LIMESTONE RINGMAIN PUMP 2

TO ALBION LEACH
LIMESTONE SLURRY
PA00098-GTS-101-1-02007

LIMESTONE AREA SUMP PUMP

NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C			KH	JS		
		B	19/09/2025	ISSUED FOR REVIEW	MK	JS	JS	
		A	27/06/2025	ISSUED FOR REVIEW	DF	JS		

MACA Interquip mintrex

ROX RESOURCES

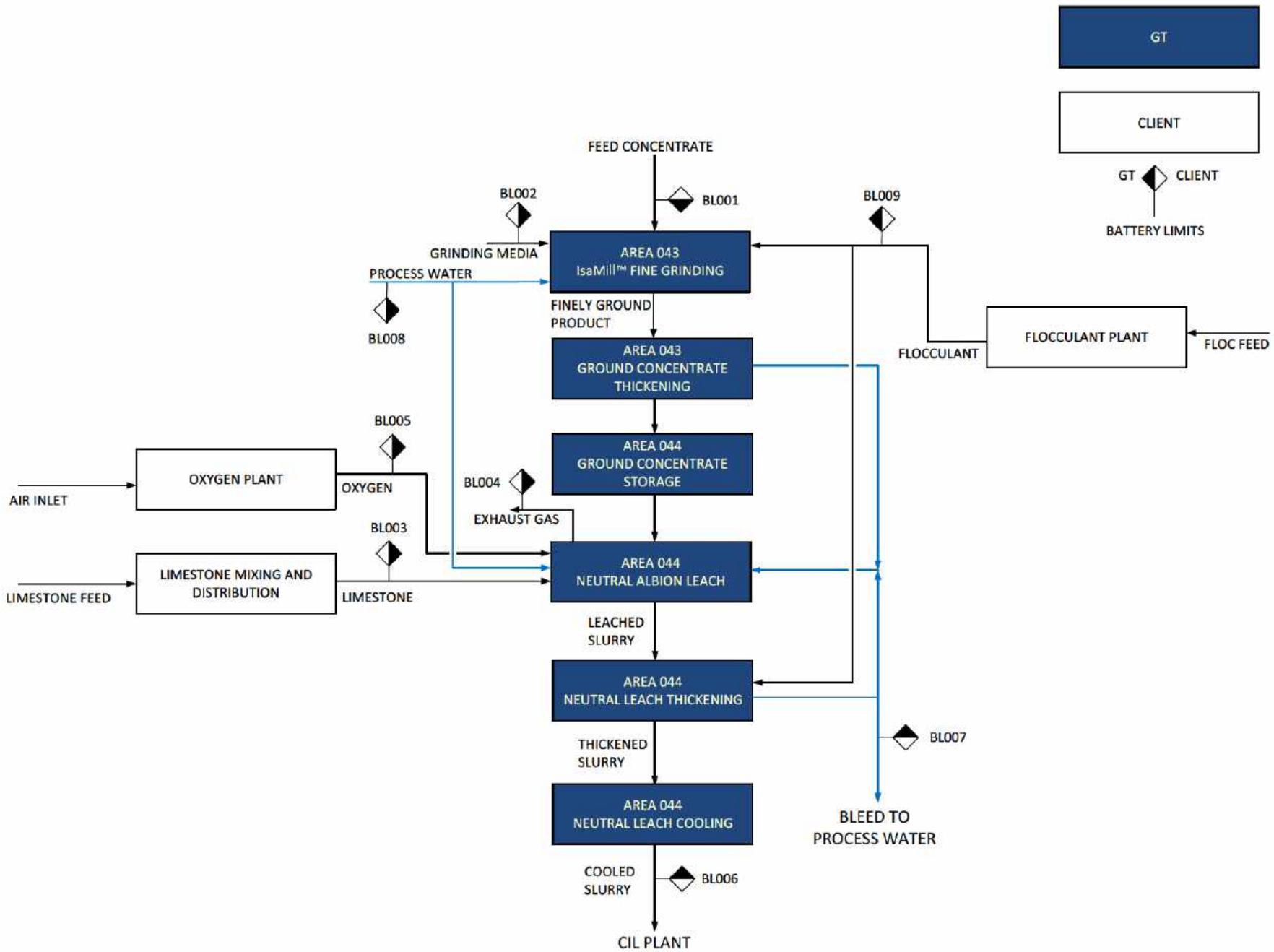
DRAWN	D.FORSYTH	JUNE 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT

TITLE: PROCESSING PLANT
LIMESTONE REAGENTS
PROCESS FLOW DIAGRAM

A1 | SCALE NTS | DRG No: 839-00000-DRG-PFD-1021 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\PFD\839-00000-DRG-PFD-1021.dwg



ROX RESOURCES DRAWING NUMBER

UPSTREAM REFERENCES

DRAWING NUMBER	DESCRIPTION

REVISION	BY	DATE	DESCRIPTION	CHECKED	ENGINEER	APPROVED
B	LP	16/05/2025	ADDITION OF COOLING TOWER	PB	LM	PB
A	LP	9/09/2025	ISSUED FOR REVIEW	PB	LM	PB

DIMENSIONS IN mm UNO

DO NOT SCALE

ALBION PROCESS™

	DRAWN	CHECKED	DRG OFF MGR	ENGINEER	LEAD ENGINEER	SNR ENGINEER	DNG MANAGER	PROJ MANAGER	DESIGNATE	SIGNED	DATE

CLIENT: ROX RESOURCES

YOUANMI PLANT – CLASS 3

ALBION PROCESS™ PLANT
BLOCK FLOW DRAWING

SCALE	SHT SIZE	DRAWING NUMBER	REV
NTS	A3	PA00098-GTS-101-1-01001	B

PLANT FEED CONCENTRATE

BL001 CLIENT GT (DESIGN)

201

CONCENTRATE SLURRY SAMPLER
043-SA-001

SAMPLE POINT

BL002 CLIENT GT (DESIGN)

209

MEDIA

ISACHARGER WATER COLLECTION TANK
043-TK-005

ISAMILL MEDIA COLLECTION HOPPER
043-HP-001

ISACHARGER
043-IC-001

ISACHARGER WATER INJECTION PUMP
043-PP-005/006

ISACHARGER MEDIA DEWATERING SCREEN
043-SC-001

ISAMILL CYCLOPACK
043-CY-001

204

CONCENTRATE SLURRY SAMPLER
043-SA-002

203

ISAMILL CYCLONE OVERFLOW TO ISAMILL THICKENER

PA00098-GTS-101-1-02002

SAMPLE POINT

PROCESS WATER

PA00098-GTS-101-1-02006

291

209

232

207

231

ISAMILL DISCHARGE MEDIA SCREEN
043-SC-002

208

206

202

ISAMILL DICHARGE / CYCLONE PUMP BOX
043-TK-007

ISAMILL DISCHARGE PUMP
043-PP-007/008

ISAMILL AREA SUMP PUMP
043-SU-901

ISAMILL FEED PUMPBOX
043-TK-001

ISAMILL FEED PUMP
043-PP-001/002

205

GLAND WATER

PA00098-GTS-101-1-02006

295

M

ISAMILL
043-ML-001

SCUTTLE LINE TO MEDIA COLLECTION HOPPER

ISAMILL CYCLONE BYPASS TO ISAMILL THICKENER

PA00098-GTS-101-1-02002

233

ISAMILL GLAND SEAL WATER

234

ISAMILL GLAND FLUSHING WATER

GLAND DRAIN WATER (TO SUMP FLOOR)

ISAMILL GLAND WATER TANK
043-TK-003

ISAMILL GLAND WATER PUMP
043-PP-003/004

GT SUPPLY

ROX RESOURCES DRAWING NUMBER

UPSTREAM REFERENCES

DRAWING NUMBER	DESCRIPTION

REV	BY	DATE	DESCRIPTION	CHECKED	ENGINEER	APPROVED
B	LP	16/09/2025	ADDITION OF COOLING TOWER	PB	LM	PB
A	LP	9/09/2025	ISSUED FOR REVIEW	PB	LM	PB

DIMENSIONS IN mm UNO

DO NOT SCALE

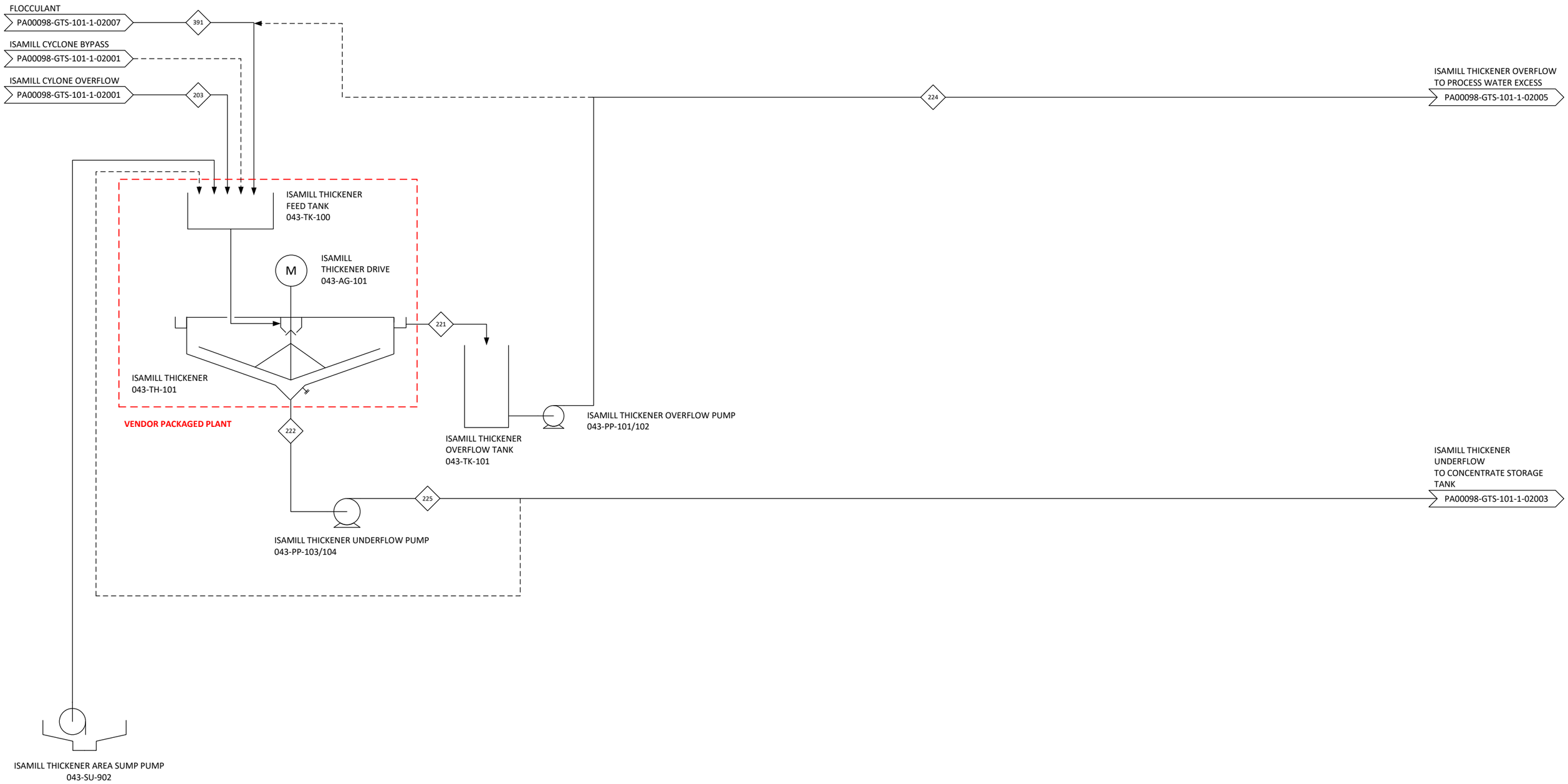
ALBION PROCESS™

DISICPLINE	SIGNED	DATE
DRAWN		
CHECKED		
DRG OFF MGR		
ENGINEER		
LEAD ENGINEER		
SNR ENGINEER		
ENG MANAGER		
PROJ MANAGER		

CLIENT: ROX RESOURCES

YOUANMI PLANT – CLASS 3
AREA 043
ISAMILL™ FINE GRINDING
PROCESS FLOW DIAGRAM

SCALE	SHT SIZE	DRAWING NUMBER	REV
NTS	A3	PA00098-GTS-101-1-02001	B



ROX RESOURCES DRAWING NUMBER

REV	BY	DATE	DESCRIPTION	CHECKED	ENGINEER	APPROVED
B	LP	16/09/2025	ADDITION OF COOLING TOWER	PB	LM	PB
A	LP	9/09/2025	ISSUED FOR REVIEW	PB	LM	PB

UPSTREAM REFERENCES

DRAWING NUMBER	DESCRIPTION

DIMENSIONS IN mm UNO

DO NOT SCALE

DRAWN			
CHECKED			
DRG OFF MGR			
ENGINEER			
LEAD ENGINEER			
SNR ENGINEER			
ENG MANAGER			
PROJ MANAGER			
DISICPLINE	SIGNED	DATE	

CLIENT: ROX RESOURCES

YOUANMI PLANT – CLASS 3
AREA 043
GROUND CONCENTRATE THICKENING
PROCESS FLOW DIAGRAM

SCALE	SHT SIZE	DRAWING NUMBER	REV
NTS	A3	PA00098-GTS-101-1-02002	B

GROUND CONCENTRATE
RING MAIN RETURN
PA00098-GTS-101-1-02004

311

CONCENTRATE SLURRY SAMPLER
044-SA-201

SAMPLE POINT

ISAMILL THICKENER UNDERFLOW
PA00098-GTS-101-1-02002

225

M

CONCENTRATE
STORAGE TANK
044-TK-205
CONCENTRATE
STORAGE TANK AGITATOR
044-AG-205

CONCENTRATE
DISTRIBUTION PUMP
044-PP-205/206

311

GROUND CONCENTRATE
TO NEUTRAL LEACH
PA00098-GTS-101-1-02004

CONCENTRATE STORAGE
AREA SUMP PUMP
044-SU-903

ROX RESOURCES DRAWING NUMBER

UPSTREAM REFERENCES

DRAWING NUMBER	DESCRIPTION

REVISION	BY	DATE	DESCRIPTION	CHECKED	ENGINEER	APPROVED
B	LP	16/09/2025	ADDITION OF COOLING TOWER	PB	LM	PB
A	LP	9/09/2025	ISSUED FOR REVIEW	PB	LM	PB

DIMENSIONS IN mm UNO

DO NOT SCALE

ALBION PROCESS™

DISICPLINE	SIGNED	DATE
DRAWN		
CHECKED		
DRG OFF MGR		
ENGINEER		
LEAD ENGINEER		
SNR ENGINEER		
ENG MANAGER		
PROJ MANAGER		

CLIENT: ROX RESOURCES

YOUANMI PLANT – CLASS 3
AREA 044
GROUND CONCENTRATE STORAGE
PROCESS FLOW DIAGRAM

SCALE	SHT SIZE	DRAWING NUMBER	REV
NTS	A3	PA00098-GTS-101-1-02003	B

GROUND CONCENTRATE
PA00098-GTS-101-1-02003

GROUND CONCENTRATE
RING MAIN RETURN
PA00098-GTS-101-1-02003

PROCESS WATER
PA00098-GTS-101-1-02006

LIMESTONE
PA00098-GTS-101-1-02007

LIMESTONE
RING MAIN RETURN

BL014
GT
CLIENT
(DESIGN)

301 292 281 282 283 284 285 286 287

251 241 242 243 244 245 246 247

VENT TO ATMOSPHERE (351)
VENT TO ATMOSPHERE (352)
VENT TO ATMOSPHERE (353)
VENT TO ATMOSPHERE (354)
VENT TO ATMOSPHERE (355)
VENT TO ATMOSPHERE (356)
VENT TO ATMOSPHERE (357)

OVERFLOW TO GRADE ON ALL TANKS

331 332 333 334 335 336 337

BYPASS LAUNDER
BYPASS LAUNDER
BYPASS LAUNDER
BYPASS LAUNDER
BYPASS LAUNDER

NEUTRAL LEACH REACTOR 1
044-LR-301
NEUTRAL LEACH REACTOR 1 AGITATOR
044-AG-301
NEUTRAL LEACH
HYPERSPARGE BANK 1
044-HS-301

NEUTRAL LEACH REACTOR 2
044-LR-302
NEUTRAL LEACH REACTOR 2 AGITATOR
044-AG-302
NEUTRAL LEACH
HYPERSPARGE BANK 2
044-HS-302

NEUTRAL LEACH REACTOR 3
044-LR-303
NEUTRAL LEACH REACTOR 3 AGITATOR
044-AG-303
NEUTRAL LEACH
HYPERSPARGE BANK 3
044-HS-303

NEUTRAL LEACH REACTOR 4
044-LR-304
NEUTRAL LEACH REACTOR 4 AGITATOR
044-AG-304
NEUTRAL LEACH
HYPERSPARGE BANK 4
044-HS-304

NEUTRAL LEACH REACTOR 5
044-LR-305
NEUTRAL LEACH REACTOR 5 AGITATOR
044-AG-305
NEUTRAL LEACH
HYPERSPARGE BANK 5
044-HS-305

NEUTRAL LEACH REACTOR 6
044-LR-306
NEUTRAL LEACH REACTOR 6 AGITATOR
044-AG-306
NEUTRAL LEACH
HYPERSPARGE BANK 6
044-HS-306

NEUTRAL LEACH REACTOR 7
044-LR-307
NEUTRAL LEACH REACTOR 7 AGITATOR
044-AG-307
NEUTRAL LEACH
HYPERSPARGE BANK 7
044-HS-307

NEUTRAL LEACH AREA
SUMP PUMP
044-SU-904

NEUTRAL LEACH SLURRY
TO NAL THICKENER
PA00098-GTS-101-1-02005

NEUTRAL LEACH BYPASS SLURRY
TO NAL THICKENER
PA00098-GTS-101-1-02005

GT SUPPLY

261 262 263 264 265 266 267

OXYGEN
PA00098-GTS-101-1-02007
271

ROX RESOURCES DRAWING NUMBER

UPSTREAM REFERENCES

DRAWING NUMBER	DESCRIPTION

REV	BY	DATE	DESCRIPTION	CHECKED	ENGINEER	APPROVED
B	LP	16/09/2025	ADDITION OF COOLING TOWER	PB	LM	PB
A	LP	9/09/2025	ISSUED FOR REVIEW	PB	LM	PB

DIMENSIONS IN mm UNO

DO NOT SCALE

ALBION PROCESS™

DISICPLINE	SIGNED	DATE
DRAWN		
CHECKED		
DRG OFF MGR		
ENGINEER		
LEAD ENGINEER		
SNR ENGINEER		
ENG MANAGER		
PROJ MANAGER		

CLIENT: ROX RESOURCES

YOUANMI PLANT – CLASS 3
AREA 044
ALBION PROCESS™ NEUTRAL OXIDATIVE LEACHING
PROCESS FLOW DIAGRAM

SCALE	SHT SIZE	DRAWING NUMBER	REV
NTS	A3	PA00098-GTS-101-1-02004	B

ISAMILL THICKENER OVERFLOW
PA00098-GTS-101-1-02002
224

FLOCCULANT
PA00098-GTS-101-1-02007
392

NEUTRAL LEACH SLURRY
PA00098-GTS-101-1-02004
337

NEUTRAL LEACH BYPASS SLURRY
PA00098-GTS-101-1-02004

NAL THICKENER
FEED TANK
044-TK-500

M
NAL THICKENER DRIVE
044-AG-501

371

NAL
THICKENER
044-TH-501

VENDOR PACKAGED PLANT

372

NAL THICKENER
OVERFLOW TANK
044-TK-501

NAL THICKENER
OVERFLOW PUMP
044-PP-501/502

375

NAL THICKENER
UNDERFLOW PUMP
044-PP-503/504

M
NAL THICKENER
UNDERFLOW TANK
044-TK-505

NAL THICKENER UNDERFLOW
TANK AGITATOR
044-AG-505

NAL THICKENER UNDERFLOW
SLURRY TRASNFER PUMP
044-PP-505/506

378

NAL THICKENER
AREA SUMP PUMP
044-SU-905

374

BL007
GT CLIENT (DESIGN)

NEUTRAL LEACH THICKENER
OVERFLOW
TO PROCESS WATER

VENT TO
ATMOSPHERE

381

DEMISTER

SLURRY COOLING TOWER
044-CT-601

SLURRY COOLING TOWER
FAN
044-FA-601

M

379

BL006
GT CLIENT (DESIGN)

380

COOLED NEUTRAL LEACH
THICKENER UNDERFLOW
TO CIL

SLURRY COOLING
TOWER DISCHARGE
PUMP
044-PP-601/602

ROX RESOURCES DRAWING NUMBER

UPSTREAM REFERENCES

DRAWING NUMBER	DESCRIPTION

REVISION	BY	DATE	DESCRIPTION	CHECKED	ENGINEER	APPROVED
B	LP	16/09/2025	ADDITION OF COOLING TOWER	PB	LM	PB
A	LP	9/09/2025	ISSUED FOR REVIEW	PB	LM	PB

DIMENSIONS IN mm UNO

DO NOT SCALE

ALBION PROCESS™

DRAWN		
CHECKED		
DRG OFF MGR		
ENGINEER		
LEAD ENGINEER		
SNR ENGINEER		
ENG MANAGER		
PROJ MANAGER		
DISICPLINE	SIGNED	DATE

CLIENT: ROX RESOURCES

YOUANMI PLANT – CLASS 3
AREA 044
NEUTRAL LEACH THICKENING AND COOLING
PROCESS FLOW DIAGRAM

SCALE	SHT SIZE	DRAWING NUMBER	REV
NTS	A3	PA00098-GTS-101-1-02005	B

PROCESS AND INSTRUMENT AIR

BL013
CLIENT GT
(DESIGN)

PROCESS AIR RETICULATION
THROUGH PLANT

PROCESS WATER

BL008
CLIENT GT
(DESIGN)

PROCESS WATER
TO ISAMILL FINE GRINDING
291
PA00098-GTS-101-1-02001

PROCESS WATER
TO NEUTRAL LEACH
292
PA00098-GTS-101-1-02004

GLAND WATER

BL011
CLIENT GT
(DESIGN)

GLAND WATER RETICULATION
THROUGH ALBION PLANT
295
PA00098-GTS-101-1-02001

MARSHALLING POINT FOR
CLIENT SUPPLIED SERVICES

ROX RESOURCES DRAWING NUMBER

UPSTREAM REFERENCES

DRAWING NUMBER	DESCRIPTION

REV	BY	DATE	DESCRIPTION	CHECKED	ENGINEER	APPROVED
B	LP	16/09/2025	ADDITION OF COOLING TOWER	PB	LM	PB
A	LP	9/09/2025	ISSUED FOR REVIEW	PB	LM	PB

DIMENSIONS IN mm UNO

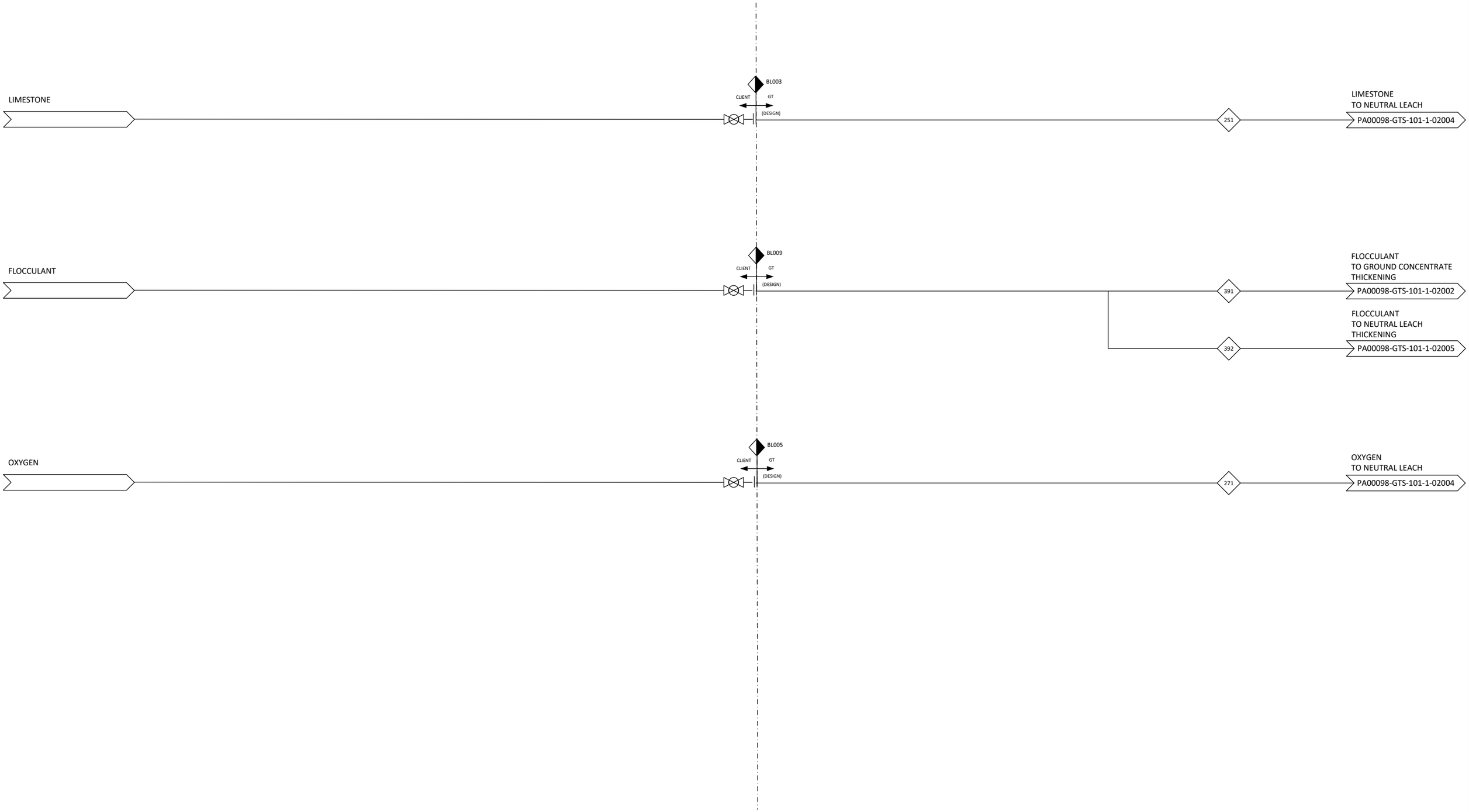
DO NOT SCALE

DISICPLINE	SIGNED	DATE
DRAWN		
CHECKED		
DRG OFF MGR		
ENGINEER		
LEAD ENGINEER		
SNR ENGINEER		
ENG MANAGER		
PROJ MANAGER		

CLIENT: ROX RESOURCES

YOUANMI PLANT – CLASS 3
AREA 070
WATER AND PLANT AIR SERVICES
PROCESS FLOW DIAGRAM

SCALE	SHT SIZE	DRAWING NUMBER	REV
NTS	A3	PA00098-GTS-101-1-02006	B



MARSHALLING POINT FOR
CLIENT SUPPLIED SERVICES

ROX RESOURCES DRAWING NUMBER

UPSTREAM REFERENCES

DRAWING NUMBER	DESCRIPTION

REVISION							
B	LP	16/09/2025	ADDITION OF COOLING TOWER	PB	LM	PB	
A	LP	9/09/2025	ISSUED FOR REVIEW	PB	LM	PB	
REV	BY	DATE	DESCRIPTION	CHECKED	ENGINEER	APPROVED	

DIMENSIONS IN mm UNO

DO NOT SCALE

ALBION PROCESS™

DRAWN			
CHECKED			
DRG OFF MGR			
ENGINEER			
LEAD ENGINEER			
SNR ENGINEER			
ENG MANAGER			
PROJ MANAGER			
DISICPLINE	SIGNED	DATE	

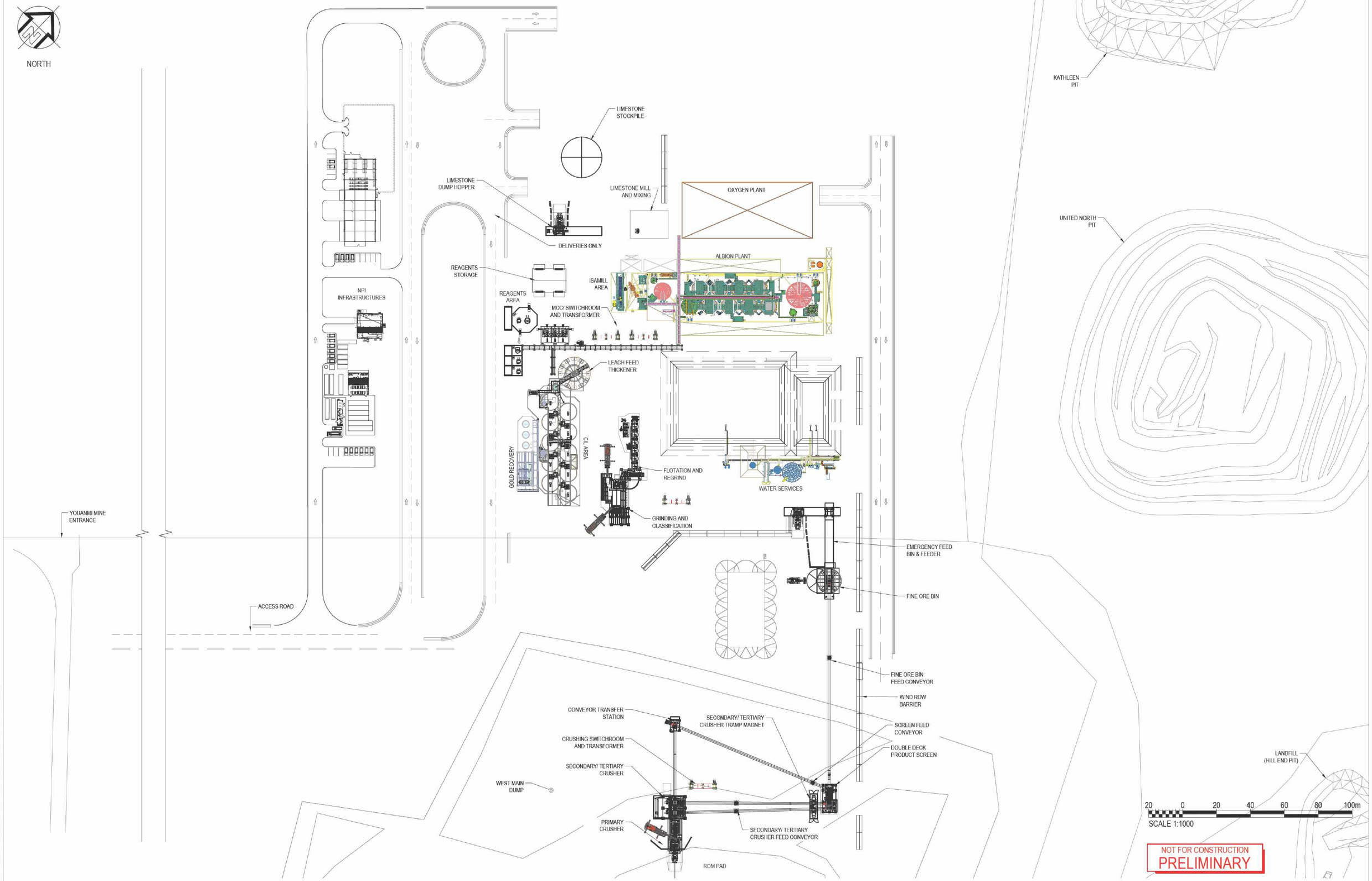
CLIENT: ROX RESOURCES

YOUANMI PLANT – CLASS 3
AREA 060
REAGENTS SYSTEMS
PROCESS FLOW DIAGRAM

SCALE	SHT SIZE	DRAWING NUMBER	REV
NTS	A3	PA00098-GTS-101-1-02007	B

APPENDIX 3–SITE LAYOUT DRAWING

NORTH



NOT FOR CONSTRUCTION
PRELIMINARY

REF DRG No	REFERENCES	REV	DATE	REVISION	DRN	CHK	TECH APP	PROJ APP
		C	09.09.25	UPDATED TO SUIT CLIENT COMMENTS	MK	JS	JE	
		B	27/08/2025	ISSUED FOR CLIENT COMMENT	MK	JS	JE	
		A	15/08/2025	ISSUED FOR REVIEW	MK			

Interquip

ROX RESOURCES

DRAWN	M.KNOX	JULY 2025
CHECKED		
DESIGNED		
TECH APP		
PROJ APP		
CLIENT APP		

PROJECT: ROX RESOURCES LTD
YOUANMI GOLD PROJECT

TITLE: PROCESSING PLANT
OVERALL PLANT
GENERAL ARRANGEMENT

A1 | SCALE 1:1000 | DRG No: 839-00000-SKT-GN-1001 | REV C

W:\Drafting\839 - Youanmi DFS Process & Albion Plant Design\00000-Site Wide\Sketches\DRG\839-00000-SKT-GN-1001.dwg

APPENDIX 4 –MECHANICAL EQUIPMENT LIST

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
			CRUSHING AND SCREENING							
010-BN-001	1		ROM Bin	80t of storage at a feed rate of 163dt/h		50m^3				
010-FE-001	1		Primary Crusher Apron Feeder	176 t/h, 800mm top size	215 t/h, 800mm top size	7000 x 1524mm		Variable	7.5	7.5
010-CH-001	1		Apron Feeder Dribble Chute							
010-CH-002	1		Primary Crusher Feed Chute							
010-CR-001	1		Primary Crusher	163 dt/h				Fixed	160	160
010-HY-001	1		Primary Crusher Hydraulic Power Pack				Part of Primary Crusher Supply (TBC)	Fixed	2.2 + 1.5	3.7
010-LU-001	1		Primary Crusher Hydraulic Lubrication System				Part of Primary Crusher Supply (TBC)	Fixed	0.072	0.072
010-CH-003	1		Primary Crusher Discharge Chute							
010-CV-001	1		Crusher Discharge Conveyor		215 dt/h, 1.8 t/m^3 bulk density, 225mm top size	TBC mm wide x 67m long x 3.8m lift	c/w drive, guards, belt, pulleys, scrapers,idlers and takeup	Variable	110	110
010-CH-004	1		Crusher Discharge Conveyor Head Chute							
010-CH-005	1		Screen Feed Conveyor Feed Chute							
010-MA-001	1		Primary Tramp Metal Magnet					Fixed		4.92
010-WT-001	1		Crusher Discharge Weightometer							
010-CV-002	1		Screen Feed Conveyor		674 dt/h, 1.8 t/m^3 bulk density, 225mm top size	TBC mm wide x 103m long x 14m lift	c/w drive, guards, belt, pulleys, scrapers,idlers and takeup	Variable	110	110
010-CH-006	1		Screen Feed Conveyor Head Chute							
010-CH-007	1		Product Screen Feed Chute							
010-SC-001	1		Product Screen	555 tph solids, top deck 35mm bottom deck 12mm	674 tph solids, top deck 35mm bottom deck 12mm	2.4m wide by 6.1m long, double deck		Fixed	55	55
010-CH-008	1		Product Screen Oversize Chute							
010-CH-009	1		Secondary Crusher Feed Conveyor Feed Chute							
010-CV-003	1		Secondary Crusher Feed Conveyor		306 dt/h, 1.8 t/m^3 bulk density, 225mm top size	TBC mm wide x 90m long x 16m lift	c/w drive, guards, belt, pulleys, scrapers,idlers and takeup	Variable	75	75
010-MA-002	1		Secondary Crusher Tramp Magnet				Heavy duty self cleaning rectangular core magnet c/w cleated belt, pulleys, drive and drive guard	Fixed		8.18
010-MD-001	1		Secondary Crusher Metal Detector						-	
010-CH-010	1		Secondary Crusher Feed Conveyor Head Chute							
010-BN-002	1		Secondary Crusher Surge Bin	85t at 169 dt/h		54 m^3				
010-FE-002	1		Secondary Crusher Feeder	256 t/h, 225mm top size	306 t/h, 225mm top size	1000 x 2100mm		Variable	2 x 3.91	7.82
010-CR-002	1		Secondary Crusher	185 t/h, 240mm top size				Fixed	220	220
010-HY-002	1		Secondary Crusher Hydraulic Power Pack				Part of Secondary Crusher Supply (TBC)	Fixed	7.5	7.5

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
010-LU-002	1		Secondary Crusher Hydraulic Lubrication System				Part of Secondary Crusher Supply (TBC)	Fixed	2 x 6 kW, 2.2kW, 5.5kW	19.7
010-CH-011	1		Secondary Crusher Discharge Chute							
010-CH-012	1		Tertiary Crusher Feed Conveyor Feed Chute							
010-CV-004	1		Tertiary Crusher Feed Conveyor		153 dt/h, 1.8 t/m^3 bulk density, 35mm top size	TBC mm wide x 90m long x 16m lift	c/w drive, guards, belt, pulleys, scrapers,idlers and takeup	Variable	55	55
010-CH-013	1		Tertiary Crusher Feed Conveyor Head Chute							
010-MA-003	1		Tertiary Crusher Tramp Magnet				Heavy duty self cleaning rectangular core magnet c/w cleated belt, pulleys, drive and drive guard	Fixed		4.8
010-MD-002	1		Tertiary Crusher Metal Detector						-	
010-BN-003	1		Tertiary Crusher Surge Bin	55t		35m^3				
010-FE-003	1		Tertiary Crusher Feeder	124 tph, 35mm top size	153 tph, 35mm top size	600 x 2100mm		Variable	2 x 1.51	3.02
010-CR-003	1		Tertiary Crusher	121 t/h, 30mm top size				Fixed	220	220
010-HY-003	1		Tertiary Crusher Hydraulic Power Pack				Part of Tertiary Crusher Supply (TBC)	Fixed	7.5	7.5
010-LU-003	1		Tertiary Crusher Hydraulic Lubrication System				Part of Tertiary Crusher Supply (TBC)	Fixed	2 x 6 kW, 2.2kW, 5.5kW	19.7
010-CH-014	1		Tertiary Crusher Discharge Chute							
010-BN-004	1		Secondary Tramp Metal Bin							
010-BN-005	1		Tertiary Tramp Metal Bin							
010-HT-001	1		Crusher Maintenance Hoist		5t			Fixed	9+1.4+0.3	10.7
010-CH-015	1		Product Screen Undersize Chute							
010-CV-005	1		Fine Ore Bin Feed Conveyor		215 dt/h, 1.8 t/m^3 bulk density, 12mm top size		c/w drive, guards, belt, pulleys, scrapers,idlers and takeup	Variable	110	110
010-CH-016	1		Fine Ore Bin Feed Conveyor Head Chute							
010-WT-002	1		Fine Ore Bin Feed Weightometer							
010-BN-006	1		Fine Ore Bin	16h storage at 125 t/h		1250 m^3				
010-DC-001	1		Fine Ore Bin Dust Collector					Fixed	11	11
010-DC-002	1		Crusher Dust Collector					Fixed	11	11
010-RV-001	1		Crusher Dust Collector Rotary Valve				Part of Crusher Dust Collector Supply Package	Fixed	0.25	0.25
010-FA-001	1		Crusher Dust Collector Fan				Part of Crusher Dust Collector Supply Package	Fixed	3	3
010-MX-001	1		Crusher Dust Collector Vortex Mixer				Part of Crusher Dust Collector Supply Package		-	
010-PP-001	1		Crushing Sump Pump					Fixed	15	15
010-PP-002	1		Dust Collector Sump Pump					Fixed	15	15
			Milling & Classification							
020-CH-001	1		Fine Ore Bin Discharge Chute							

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
020-FE-001	1		Fine Ore Bin Discharge Feeder	125 t/h, top size 14mm	150 t/h, top size 14mm					
020-CH-003	1		Fine Ore Bin Discharge Feeder Head Chute							
020-CV-001	1		Fine Ore Bin Discharge Conveyor		150 dt/h, 1.8 t/m^3 bulk density, 12mm top size		c/w drive, guards, belt, pulleys, scrapers,idlers and takeup	Variable	55	55
020-CH-004	1		Fine Ore Bin Discharge Conveyor Head Chute							
020-BN-001	1		Emergency Feed Bin		20t	12.5 m^3				
020-FE-002	1		Emergency Feeder	125 t/h, top size 14mm	150 t/h, top size 14mm			Variable	11	11
020-CH-005	1		Emergency Feeder Discharge Chute							
020-CV-002	1		Mill Feed Conveyor		150 dt/h, 1.8 t/m^3 bulk density, 12mm top size		c/w drive, guards, belt, pulleys, scrapers,idlers and takeup	Variable	110	110
020-CH-006	1		Mill Feed Conveyor Head Chute							
020-WT-001	1		Mill Feed Weightometer							
020-CH-007	1		Ball Mill Feed Chute							
020-CH-008	1		Ball Mill Feed Spout				Part of Ball Mill Supply			
020-ML-001	1		Ball Mill			5.03 dia x 8m EGL		SCIM + VSD	3350	3350
020-ID-001	1		Ball Mill Inching Drive				Part of Ball Mill Supply (TBC)	Fixed	37	37
020-FA-001	1		Ball Mill Lube Oil Cooling Fan 1				Part of Ball Mill Supply (TBC)	Fixed	5.5	5.5
020-FA-002	1		Ball Mill Lube Oil Cooling Fan 2				Part of Ball Mill Supply (TBC)	Fixed	5.5	5.5
020-PP-005	1		Ball Mill Gearbox Lubricant Pump 1				Part of Ball Mill Supply (TBC)	Fixed	5	5
020-PP-006	1		Ball Mill Gearbox Lubricant Pump 2				Part of Ball Mill Supply (TBC)	Fixed	5	5
020-PP-007	1		Ball Mill Bearing Grease Pump				Part of Ball Mill Supply (TBC)	Fixed	5	5
020-PP-008	1		Ball Mill Ring Gear Grease Pump				Part of Ball Mill Supply (TBC)	Fixed	5	5
020-SC-001	1		Ball Mill Trommel			1800 x 1997mm, 12x25mm aperture	Part of Ball Mill Supply (TBC)		-	-
020-CH-009	1		Trommel Cover Chute							
020-CH-010	1		Trommel Undersize Chute							
020-CH-011	1		Trommel Oversize Chute							
020-BK-001	1		Scats Bunker							
020-HP-001	1		Mill Discharge Hopper	90s at 522 m^3/h		13m^3				
020-PP-001	1		Mill Discharge Pump 1	570 m^3/h, SG 1.64, TDH 25m				Variable	185	185
020-PP-002		1	Mill Discharge Pump 2	570 m^3/h, SG 1.64, TDH 25m				Variable	185	185
020-CY-001	1		Cyclone Cluster	75µm Overflow size, 125 dtph		12x250mm cyclones. 8 operating, 2 spare, 2 blanks			-	
020-BX-003	1		Cyclone Underflow Boil Box							
020-BX-004	1		Grinding Trash Screen Feed Box				Part of Screen Supply			
020-SC-003	1		Grinding Trash Screen	230 m3/h slurry, 0.8mm apperture, SG 1.3		1.83 x 3.66m	Linear Motion screen, 0.8mmx18.5mm aperture	Variable	2 x 5.5	11
020-CH-012	1		Grinding Trash Screen Underpan				Part of Screen Supply			

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
020-CH-013	1		Grinding Trash Screen Oversize Chute				Part of Screen Supply			
020-BN-002	1		Grinding Trash Bin							
020-HT-003	1		Cyclone Maintenance Crane					Fixed	4+0.7+0.45	5.15
020-PP-003	1		Mill Area Sump Pump 1		25 m^3/h, 15m head			Fixed	15	
020-PP-004	1		~~Mill Area Sump Pump 2~~		~~25 m^3/h, 15m head~~			~~Fixed~~	~~15~~	
			Flotation							
041-TK-001	1		Rougher Conditioning Tank	5 minutes residence time, SG 1.26,		39 m^3				
041-AG-001	1		Rougher Conditioning Tank Agitator	39 m3 tank, SG 1.26				Fixed	7.5	7.5
041-FC-001	1		Rougher Flotation Cell 1			50m^3		Fixed	75	75
041-FC-002	1		Rougher Flotation Cell 2			50m^3		Fixed	75	75
041-FC-003	1		Rougher Flotation Cell 3			50m^3		Fixed	75	75
041-FC-004	1		Rougher Flotation Cell 4			50m^3		Fixed	75	75
041-FC-005	1		Rougher Flotation Cell 5			50m^3		Fixed	75	75
041-FC-006	1		Rougher Flotation Cell 6			50m^3		Fixed	75	75
041-BL-001	1		Rougher Blower 1					Fixed	75	75
041-BL-002		1	Rougher Blower 2					Fixed	75	75
041-HP-001	1		Rougher Concentrate Hopper	90 sec residence time		1.7 m^3				
041-HP-002	1		Flotation Tailings Hopper	90 sec residence time		11 m^3				
041-PP-001	1		Rougher Concentrate Pump 1					Variable	15	15
041-PP-002		1	Rougher Concentrate Pump 2					Variable	15	15
041-PP-003	1		Flotation Tailings Pump 1					Variable	45	45
041-PP-004		1	Flotation Tailings Pump 2					Variable	45	45
041-PP-005	1		Rougher Area Sump Pump		25 m^3/h, 15m head			Fixed	11	11
041-SA-001	1		On Stream Analyser					Fixed	1.1	1.1
			Thickening							
042-BX-002	1		Leach Feed Thickener Feed Box							
042-BK-002	1		Trash Bunker							
042-MX-002	1		Leach Feed Thickener Flocculant Mixer						-	
042-TH-002	1		Leach Feed Thickener	109 t/hr capacity	131 t/hr capacity	18 m dia.		Fixed	7.5	7.5
042-PP-006	1		Leach Feed Pump 1	127.3 m^3/h, SG 1.55, TDH TBC	152.8 m^3/h, SG 1.55, TDH TBC			Variable	30	30
042-PP-007		1	Leach Feed Pump 2	127.3 m^3/h, SG 1.55, TDH TBC	152.8 m^3/h, SG 1.55, TDH TBC			Variable	30	30
042-PP-008	1		Leach Feed Thickener Sump Pump		25 m^3/h, 15m head			Fixed	11	11
042-TK-002	1		Leach Feed Thickener Overflow Tank	5 minutes storage		15 m^3				
042-PP-009	1		Leach Feed Thickener Overflow Pump 1	178.9 m^3/h, SG 1.01, TDH TBC	214.7 m^3/h, SG 1.01, TDH TBC			Variable	30	30

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
042-PP-010		1	Leach Feed Thickener Overflow Pump 2	178.9 m^3/h, SG 1.01, TDH TBC	214.7 m^3/h, SG 1.01, TDH TBC			Variable	30	30
			Fine Grinding							
043-BX-101	1		Concentrate Trash Screen Feed Box			Part of Screen Supply				
043-SC-101	1		Concentrate Trash Screen	18 m3/h slurry, 0.8mm apperture, SG 1.7		0.6 x 1.8m	Linear Motion screen, 1mmx18.5mm aperture	Fixed	2 x 0.6	1.2
043-CH-101	1		Concentrate Trash Screen Oversize Chute			Part of Screen Supply				
043-CH-102	1		Concentrate Trash Screen Undersize Chute			Part of Screen Supply				
043-TK-010	1		Regrind Surge Tank	12 h residence time, SG 1.66		280 m3				
043-AG-001	1		Regrind Surge Tank Agitator	280 m3 tank, SG 1.66				Fixed	30	30
043-SA-001	1		Concentrate Slurry Sampler				Part of Regrind Mill Supply Package			
043-SA-002	1		Concentrate Slurry Sampler				Part of Regrind Mill Supply Package			
043-TK-001	1		IsaMill Feed Pump Box				Part of Regrind Mill Supply Package			
043-PP-001	1		IsaMill Feed Pump 1				Part of Regrind Mill Supply Package	Variable	37	37
043-PP-002		1	IsaMill Feed Pump 2				Part of Regrind Mill Supply Package	Variable	37	37
043-ML-001	1		IsaMill					Fixed	1500	1500
043-HY-001	1		Regrind Mill Shell Removal Power Pack				Part of Regrind Mill Supply Package	Fixed	1.5	1.5
043-ZM-001	1		Regrind Mill Brush Lifter Motor				Part of Regrind Mill Supply Package	Fixed	0.25	0.25
043-PP-110	1		Regrind Mill LRS Electrolyte Pump				Part of Regrind Mill Supply Package	Fixed	5	5
043-FA-001	1		Regrind Mill Gearbox Oil Cooler Fan				Part of Regrind Mill Supply Package	Fixed	1.1	1.1
043-PP-111	1		Regrind Mill Hydraulic Pump 1				Part of Regrind Mill Supply Package	Fixed	1.5	1.5
043-PP-112		1	Regrind Mill Hydraulic Pump 2				Part of Regrind Mill Supply Package	Fixed	1.5	1.5
043-LU-001	1		Regrind Seal Lubrication Unit				Part of Regrind Mill Supply Package	Fixed	5	5
043-SC-002	1		Isamill Discharge Media Screen				Part of Regrind Mill Supply Package			0
043-TK-007	1		Isamill Discharge/Cyclone Pump Box			6 m^3	Part of Regrind Mill Supply Package			
043-PP-007	1		Isamill Discharge Pump 1				Part of Regrind Mill Supply Package	Fixed	75	75
043-PP-008		1	Isamill Discharge Pump 2				Part of Regrind Mill Supply Package	Fixed	75	75
043-CY-001	1		Isamill Cyclopack				Part of Regrind Mill Supply Package			
043-MX-001	1		Isamill Thickener Flocculant Mixer						-	
043-TH-001	1		IsaMill Thickener	16.2 t/hr capacity	19.4 t/hr capacity	10 m dia.		Fixed	5.5	5.5
043-PP-103	1		IsaMill Thickener Underflow Pump 1	17.8 m^3/h, SG 1.66, TDH TBC	21.4 m^3/h, SG 1.66, TDH TBC			Variable	7.5	7.5
043-PP-104		1	IsaMill Thickener Underflow Pump 2	17.8 m^3/h, SG 1.66, TDH TBC	21.4 m^3/h, SG 1.66, TDH TBC			Variable	7.5	7.5
043-SU-092	1		IsaMill Thickener Area Sump Pump		25 m^3/h, 15m head			Fixed	5.5	5.5
043-TK-101	1		IsaMill Thickener Overflow Tank							
043-PP-101	1		IsaMill Thickener Overflow Pump 1	24.1 m^3/h, SG 1.01, TDH TBC	28.9 m^3/h, SG 1.01, TDH TBC			Variable	11	11
043-PP-102		1	IsaMill Thickener Overflow Pump 2	24.1 m^3/h, SG 1.01, TDH TBC	28.9 m^3/h, SG 1.01, TDH TBC			Variable	11	11
043-SU-901	1		Isamill Area Sump Pump					Fixed	5.5	5.5

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
043-IC-001	1		Isacharger				Part of Regrind Mill Supply Package			
043-HP-001	1		Isamill Media Collection Hopper			5 m^3	Part of Regrind Mill Supply Package			
043-SC-001	1		Isacharger Media Dewatering Screen				Part of Regrind Mill Supply Package			
043-TK-005	1		Isacharger Water Collection Tank				Part of Regrind Mill Supply Package			
043-PP-005	1		Isacharger Water Injection Pump 1				Part of Regrind Mill Supply Package	Fixed	11	11
~~043-PP-006~~		~~1~~	~~Isacharger Water Injection Pump 2~~				~~Part of Regrind Mill Supply Package~~			
043-TK-003	1		Isamill Gland Water Tank				Part of Regrind Mill Supply Package			
043-PP-003	1		Isamill Gland Water Pump 1				Part of Regrind Mill Supply Package	Fixed	4	4
043-PP-004		1	Isamill Gland Water Pump 2				Part of Regrind Mill Supply Package	Fixed	4	4
043-HT-001	1		Regrind Media Hoist					Fixed	4+0.7+0.45	5.15
043-CH-001	1		Regrind Media Feed Chute							

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
			Albion Leach							
044-TK-205	1		Concentrate Storage Tank	12 h residence time, SG 1.42		280 m3				
044-AG-205	1		Concentrate Storage Tank Agitator	280 m3 tank, SG 1.42				Fixed	45	45
044-PP-205	1		Concentrate Distribution Pump 1					Variable	7.5	7.5
044-PP-206	1		Concentrate Distribution Pump 2					Variable	7.5	7.5
044-LR-301	1		Neutral Leach Reactor 1							
044-AG-301	1		Neutral Leach Reactor 1 Agitator				Part of the Albion Leach Tank Supply Package	Fixed	220	220
044-HS-301	1		Neutral Leach Hypersparge Bank 1				Part of the Albion Leach Tank Supply Package			
044-LR-002	1		Neutral Leach Reactor 2				Part of the Albion Leach Tank Supply Package			
044-AG-002	1		Neutral Leach Reactor 2 Agitator				Part of the Albion Leach Tank Supply Package	Fixed	220	220
044-HS-002	1		Neutral Leach Hypersparge Bank 2				Part of the Albion Leach Tank Supply Package			
044-LR-003	1		Neutral Leach Reactor 3				Part of the Albion Leach Tank Supply Package			
044-AG-003	1		Neutral Leach Reactor 3 Agitator				Part of the Albion Leach Tank Supply Package	Fixed	220	220
044-HS-003	1		Neutral Leach Hypersparge Bank 3				Part of the Albion Leach Tank Supply Package			
044-LR-004	1		Neutral Leach Reactor 4				Part of the Albion Leach Tank Supply Package			
044-AG-004	1		Neutral Leach Reactor 4 Agitator				Part of the Albion Leach Tank Supply Package	Fixed	220	220
044-HS-004	1		Neutral Leach Hypersparge Bank 4				Part of the Albion Leach Tank Supply Package			
044-LR-005	1		Neutral Leach Reactor 5				Part of the Albion Leach Tank Supply Package			
044-AG-005	1		Neutral Leach Reactor 5 Agitator				Part of the Albion Leach Tank Supply Package	Fixed	220	220
044-HS-005	1		Neutral Leach Hypersparge Bank 5				Part of the Albion Leach Tank Supply Package			
044-LR-006	1		Neutral Leach Reactor 6				Part of the Albion Leach Tank Supply Package			
044-AG-006	1		Neutral Leach Reactor 6 Agitator				Part of the Albion Leach Tank Supply Package	Fixed	220	220
044-HS-006	1		Neutral Leach Hypersparge Bank 6				Part of the Albion Leach Tank Supply Package			
044-SU-904	1		Albion Leach Sump Pump 1					Fixed	5.5	5.5
044-BX-001	1		Albion Product Thickener Feed Box							
044-TH-501	1		NAL Thickener					Fixed	5.5	5.5
044-PP-503	1		NAL Thickener Underflow Pump 1					Variable	18.5	18.5
044-PP-504		1	NAL Thickener Underflow Pump 2					Variable	18.5	18.5
044-TK-505	1		NAL Thickener Underflow Tank			40 m^3				
044-AG-505	1		NAL Thickener Underflow Tank Agitator					Fixed	7.5	7.5
044-PP-505	1		NAL Thickener Underflow Slurry Transfer Pump 1					Variable	11	11
044-PP-506		1	NAL Thickener Underflow Slurry Transfer Pump 2					Variable	11	11
044-SU-905	1		NAL Thickener Area Sump Pump					Fixed	5.5	5.5
044-TK-501	1		NAL Thickener Overflow Tank			80 m^3				
044-PP-501	1		NAL Thickener Overflow Pump 1					Variable	5.5	5.5
044-PP-502		1	NAL Thickener Overflow Pump 2					Variable	5.5	5.5

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
044-CT-601	1		Slurry Cooling Tower							
044-FA-601	1		Slurry Cooling Tower Fan						70	70
044-PP-601	1		Slurry Cooling Tower Discharge Pump 1					Variable	15	15
044-PP-602		1	Slurry Cooling Tower Discharge Pump 2					Variable	15	15
			Leaching & CIL							
045-SA-001	1		Intensive Leach Feed Primary Sampler							
045-SA-002	1		Intensive Leach Feed Secondary Sampler							
045-SA-003	1		Cyanide Analyser							
045-SA-004	1		Leach Feed Primary Sampler							
045-SA-005	1		Leach Feed Secondary Sampler							
045-BX-001	1		Intensive Leach Feed Distribution Box							
045-TK-001	1		Intensive Leach Tank 1	12 h residence time, SG 1.34	12 h residence time, SG 1.34	625 m3				
045-TK-002	1		Intensive Leach Tank 2	12 h residence time, SG 1.34	12 h residence time, SG 1.34	625 m3				
045-BX-002	1		Leach Feed Distribution Box							
045-TK-003	1		Leach Tank	3 h residence time, SG 1.49	3 h residence time, SG 1.49	625 m3				
045-TK-004	1		CIL Tank 1	3 h residence time, SG 1.49	3 h residence time, SG 1.49	625 m3				
045-TK-005	1		CIL Tank 2	3 h residence time, SG 1.49	3 h residence time, SG 1.49	625 m3				
045-TK-006	1		CIL Tank 3	3 h residence time, SG 1.49	3 h residence time, SG 1.49	625 m3				
045-TK-007	1		CIL Tank 4	3 h residence time, SG 1.49	3 h residence time, SG 1.49	625 m3				
045-TK-008	1		CIL Tank 5	3 h residence time, SG 1.49	3 h residence time, SG 1.49	625 m3				
045-TK-009	1		CIL Tank 6	3 h residence time, SG 1.49	3 h residence time, SG 1.49	625 m3				
045-TK-010	1		CIL Tank 7	3 h residence time, SG 1.49	3 h residence time, SG 1.49	625 m3				
045-AG-001	1		Intensive Leach Tank Agitator 1	625 m3 tank, SG 1.34	625 m3 tank, SG 1.34			Fixed	30	30
045-AG-002	1		Intensive Leach Tank Agitator 2	625 m3 tank, SG 1.34	625 m3 tank, SG 1.34			Fixed	30	30
045-AG-003	1		Leach Tank Agitator	625 m3 tank, SG 1.49	625 m3 tank, SG 1.49			Fixed	30	30
045-AG-004	1		CIL Tank 1 Agitator	625 m3 tank, SG 1.49	625 m3 tank, SG 1.49			Fixed	30	30
045-AG-005	1		CIL Tank 2 Agitator	625 m3 tank, SG 1.49	625 m3 tank, SG 1.49			Fixed	30	30
045-AG-006	1		CIL Tank 3 Agitator	625 m3 tank, SG 1.49	625 m3 tank, SG 1.49			Fixed	30	30
045-AG-007	1		CIL Tank 4 Agitator	625 m3 tank, SG 1.49	625 m3 tank, SG 1.49			Fixed	30	30
045-AG-008	1		CIL Tank 5 Agitator	625 m3 tank, SG 1.49	625 m3 tank, SG 1.49			Fixed	30	30
045-AG-009	1		CIL Tank 6 Agitator	625 m3 tank, SG 1.49	625 m3 tank, SG 1.49			Fixed	30	30
045-AG-010	1		CIL Tank 7 Agitator	625 m3 tank, SG 1.49	625 m3 tank, SG 1.49			Fixed	30	30
045-PP-001	1		Loaded Carbon Pump 1	100 m^3/h, SG 1.47, TDH 10m				Fixed	15	15
045-PP-002	1		Loaded Carbon Pump 2	100 m^3/h, SG 1.47, TDH 10m				Fixed	15	15
045-PP-003	1		Carbon Transfer Pump 3	60 m^3/h, SG 1.47, TDH 10m				Fixed	15	15

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
045-PP-004	1		Carbon Transfer Pump 4	60 m^3/h, SG 1.47, TDH 10m				Fixed	15	15
045-PP-005	1		Carbon Transfer Pump 5	60 m^3/h, SG 1.47, TDH 10m				Fixed	15	15
045-PP-006	1		Carbon Transfer Pump 6	60 m^3/h, SG 1.47, TDH 10m				Fixed	15	15
045-PP-007	1		Carbon Transfer Pump 7	60 m^3/h, SG 1.47, TDH 10m				Fixed	15	15
045-SC-001	1		Intertank Screen 1	192 m3/h slurry, 0.8mm apperture, SG 1.5	255 m3/h slurry, 0.8mm apperture, SG 1.5	5 m2	Pumped Screen	Fixed	7.5	7.5
045-SC-002	1		Intertank Screen 2	192 m3/h slurry, 0.8mm apperture, SG 1.5	255 m3/h slurry, 0.8mm apperture, SG 1.5	5 m2	Pumped Screen	Fixed	7.5	7.5
045-SC-003	1		Intertank Screen 3	192 m3/h slurry, 0.8mm apperture, SG 1.5	255 m3/h slurry, 0.8mm apperture, SG 1.5	5 m2	Pumped Screen	Fixed	7.5	7.5
045-SC-004	1		Intertank Screen 4	192 m3/h slurry, 0.8mm apperture, SG 1.5	255 m3/h slurry, 0.8mm apperture, SG 1.5	5 m2	Pumped Screen	Fixed	7.5	7.5
045-SC-005	1		Intertank Screen 5	192 m3/h slurry, 0.8mm apperture, SG 1.5	255 m3/h slurry, 0.8mm apperture, SG 1.5	5 m2	Pumped Screen	Fixed	7.5	7.5
045-SC-006	1		Intertank Screen 6	192 m3/h slurry, 0.8mm apperture, SG 1.5	255 m3/h slurry, 0.8mm apperture, SG 1.5	5 m2	Pumped Screen	Fixed	7.5	7.5
045-SC-007	1		Intertank Screen 7	192 m3/h slurry, 0.8mm apperture, SG 1.5	255 m3/h slurry, 0.8mm apperture, SG 1.5	5 m2	Pumped Screen	Fixed	7.5	7.5
044-SC-008		1	Intertank Screen Spare	192 m3/h slurry, 0.8mm apperture, SG 1.5	255 m3/h slurry, 0.8mm apperture, SG 1.5	5 m2	Pumped Screen	Fixed	7.5	7.5
044-LA-001	1		Intertank Launder 1							
044-LA-002	1		Intertank Launder 2							
044-LA-003	1		Intertank Launder 3							
044-LA-004	1		Intertank Launder 4							
044-LA-005	1		Intertank Launder 5							
044-LA-006	1		Intertank Launder 6							
044-LA-007	1		Intertank Launder 7							
044-LA-008	1		Intertank Launder 8							
044-LA-009	1		Intertank Launder 9							
044-LA-010	1		Intertank Launder 10							
045-BX-003	1		Loaded Carbon Screen Feed Box				Part of Screen Supply			
045-SC-009	1		Loaded Carbon Screen	100 m3/h slurry, 0.8mm apperture, SG 1.5		1.22 x 2.44m	Linear Motion screen, 1mmx18.5mm aperture	Fixed	2 x 1.5	3
045-CH-001	1		Loaded Carbon Screen Oversize Chute				Part of Screen Supply			
045-CH-002	1		Loaded Carbon Screen Undersize Chute				Part of Screen Supply			
045-BX-004	1		Barren Carbon Screen Feed Box				Part of Screen Supply			
045-SC-010	1		Barren Carbon Screen	100 g/L carbon slurry		0.9 x 1.8m	Linear Motion screen, 1mmx18.5mm aperture	Fixed	2 x 1.1	2.2
045-CH-003	1		Barren Carbon Screen Oversize Chute				Part of Screen Supply			
045-CH-004	1		Barren Carbon Screen Undersize Chute				Part of Screen Supply			
045-PP-008	1		CIL Area Sump Pump 1		25 m^3/h, 15m head			Fixed	11	11
045-PP-009	1		CIL Area Sump Pump 2		25 m^3/h, 15m head			Fixed	11	11
045-HT-001	1		CIL Area Crane		5t			Fixed	9+1.4+0.3	10.7
			Tailings							
~~046-BX-001~~	~~1~~		~~Cyanide Destruction Distribution Box~~							

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
~~046-TK-001~~	~~1~~		~~Cyanide Destruction Tank 1~~	~~2 h residence time, SG 1.43~~		~~264 m3~~				
~~046-TK-002~~	~~1~~		~~Cyanide Destruction Tank 2~~	~~2 h residence time, SG 1.43~~		~~263 m3~~				
~~046-AG-001~~	~~1~~		~~Cyanide Destruction Tank 1 Agitator~~	~~255 m3 tank, SG 1.43~~				~~Fixed~~	~~45~~	~~45~~
~~046-AG-002~~	~~1~~		~~Cyanide Destruction Tank 2 Agitator~~	~~255 m3 tank, SG 1.43~~				~~Fixed~~	~~45~~	45
046-SA-001	1		Tailings Primary Sampler							
046-SA-002	1		Tailings Secondary Sampler							
046-BX-002	1		Carbon Safety Screen Feed Box				Part of Screen Supply			
046-SC-001	1		Carbon Safety Screen	200 m3/h slurry, 0.8mm apperture, SG 1.5		1.5 x 3.6m	Linear Motion screen, 1mmx18.5mm aperture	Fixed	2 x 2.2	4.4
046-CH-001	1		Carbon Safety Screen Oversize Chute				Part of Screen Supply			
046-CH-002	1		Carbon Safety Screen Undersize Chute				Part of Screen Supply			
046-HP-001	1		Tailings Hopper							
046-PP-001	1		Tailings Pump 1	220 m^3/h, SG 1.36, TDH TBC	264 m^3/h, SG 1.36, TDH TBC			Fixed	75	75
046-PP-002		1	Tailings Pump 2	220 m^3/h, SG 1.36, TDH TBC	264 m^3/h, SG 1.36, TDH TBC			Fixed	75	75
046-PP-003	1		Tailings Pump 3	220 m^3/h, SG 1.36, TDH TBC	264 m^3/h, SG 1.36, TDH TBC			Fixed	75	75
046-PP-004		1	Tailings Pump 4	220 m^3/h, SG 1.36, TDH TBC	264 m^3/h, SG 1.36, TDH TBC			Fixed	75	75
046-PP-005			Tailings Area Sump Pump		25 m^3/h, 15m head			Fixed	22	22
046-PP-006	1		Tailings Seepage Pump 1					Fixed	3	3
046-PP-007	1		Tailings Seepage Pump 2					Fixed	3	3
046-PP-008	1		Toe Drain Pump					Fixed	3	3
046-PP-009	1		Tailings Decant Return Pump	35 m^3/h, SG 1.01, TDH TBC	87 m^3/h, SG 1.01, TDH TBC			Fixed	75	75
			Acid Wash & Elution							
050-CM-001	1		Acid Wash Column			6t				
050-CM-002	1		Elution Column			6t				
050-HX-001	1		Primary Heat Exchanger							
050-HX-002	1		Recovery Heat Exchanger							
050-FL-001	1		Acid Wash Filter 1							
050-FL-002	1		Acid Wash Filter 2							
050-FL-003	1		Elution Filter 1							
050-FL-004	1		Elution Filter 2							
050-HE-001	1		Elution Heater							
050-TK-001	1		Thermal Oil Expansion Tank				Part of Elution Heater Package			
050-PP-001	1		Thermal Oil Circulation Pump				Part of Elution Heater Package	Fixed	2.2	2.2
050-TK-002	1		Eduction Water Tank			90 m3				
050-PP-002	1		Eduction Water Pump		60 m^3/h, SG 1.01, TDH TBC			Fixed	7.5	7.5
050-TK-003	1		Acid Wash Tank							

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
050-PP-003	1		Acid Wash Pump		26 m3/h, 30m head			Fixed	7.5	7.5
050-TK-004	1		Strip Solution Tank			75m3				
050-PP-004	1		Strip Solution Pump		26 m3/h, 30m head			Fixed	15	15
050-SC-001	1		Kiln Dewatering Screen					Fixed	2 x 1.1	2.2
050-HP-001	1		Kiln Feed Hopper				Part of Carbon Kiln Package			
050-KN-001	1		Carbon Regeneration Kiln					Fixed	0.37 + 0.55 +0.3 + 1.1 +0.22 +0.17	2.71
050-TK-005	1		Carbon Quench Tank				Part of Carbon Kiln Package (TBC)			
050-SC-002	1		Carbon Quench Screen					Fixed	2 x 1.1	2.2
~~050-PP-005~~	~~1~~		~~Regenerated Carbon Pump~~				~~Part of Carbon Kiln Package (TBC)~~	~~Fixed~~	~~4.6~~	~~4.6~~
050-TK-006	1		Carbon Fines Settling Tank							
050-TK-007	1		Pregnant Eluate Tank 1			75m3				
050-PP-006	1		Elution Sump Pump		25 m3/h, 15m head			Fixed	5.5	5.5
050-TK-008	1		Pregnant Eluate Tank 2			75m3				
050-PP-007	1		Pregnant Eluate Pump		15 m3/h, 15m head			Fixed	2.2	2.2
050-PP-008	1		Barren Eluate Pump		15 m3/h, 15m head			Fixed	2.2	2.2
050-EW-001	1		Electrowinning Cell 1			800 x 800 x 9 Cathodes				
050-RC-001	1		Electrowinning Cell 1 Rectifier					Fixed	22	22
050-EW-002	1		Electrowinning Cell 2 Rectifier			800 x 800 x 9 Cathodes				
050-RC-002	1		Electrowinning Cell 2 Rectifier					Fixed	22	22
050-HP-002	1		Sludge Hopper							
050-BN-001	1		Sludge Bin							
050-FL-005	1		Sludge Filter							
050-OV-001	1		Calcine Oven							
050-FN-001	1		Smelting Furnace							
050-SF-001	1		Goldroom Safe							
050-FA-001	1		Electrowinning Extraction Fan					Fixed	0.75	0.75
050-FA-002	1		Smelting Furnace Extraction Fan					Fixed	0.75	0.75
050-FA-003	1		Goldroom Extraction Fan					Fixed	0.75	0.75
050-HD-001	1		Drying Oven Hood							
050-HD-002	1		Smelting Furnace Hood							
050-PP-009	1		Goldroom Sump Pump		25 m3/h, 15m head			Fixed	11	11
050-HT-001	1		Goldroom Hoist					Fixed	1.8+0.25+0.3	2.35
050-HT-002	1		Smelting Furnace Hoist					Fixed	1.8+0.25+0.3	2.35
			Reagents							

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
060-TK-001	1		Hydrochloric Acid Tank							
060-PP-001	1		Hydrochloric Acid Pump		2 m3/h, 32% HCl, 30m head, SG 1.16			Fixed	1.5	1.5
060-PP-002	1		Hydrochloric Acid Area Sump Pump		25 m3/h, 32% HCl, 15m head, SG 1.16			Fixed	2.2	2.2
060-TK-002	1		Caustic Tank			30 m3				
060-PP-003	1		Caustic Pump 1		10 m3/h, 50% NaOH, 30m head			Fixed	7.5	7.5
060-PP-004		1	Caustic Pump 2		10 m3/h, 50% NaOH, 30m head			Fixed	7.5	7.5
060-PP-005	1		Caustic Area Sump Pump		25 m3/h, 50% NaOH/30% NaCN, 15m head, SG 1.49			Fixed	5.5	5.5
~~060-TK-003~~	~~1~~		~~Cyanide Mixing Tank~~			~~66 m3~~				
~~060-AG-001~~	~~1~~		~~Cyanide Mixing Tank Agitator~~	~~66 m3 tank, SG 1.15~~				~~Fixed~~	~~2.2~~	~~2.2~~
060-PP-006	1		Cyanide Transfer Pump		15 m3/h, 30% NaCN, 12m head, SG 1.14			Fixed	1.5	1.5
060-TK-004	1		Cyanide Storage Tank			100 m3				
060-PP-007	1		Cyanide Pump 1		7 m3/h, 30% NaCN, 35m head, SG 1.14			Fixed	3	3
060-PP-008		1	Cyanide Pump 2		7 m3/h, 30% NaCN, 35m head, SG 1.14			Fixed	3	3
060-PP-009	1		Cyanide Dosing Pump		10 m3/h, 30% NaCN, 15m head, SG 1.14			Fixed	2.2	2.2
060-OP-001	1		Oxygen Plant							
060-PP-101	1		Oxygen Plant 1 Vacuum Pump 1				Part of VPSA Oxygen Plant	Variable	510	510
060-PP-102	1		Oxygen Plant 1 Vacuum Pump 2				Part of VPSA Oxygen Plant	Variable	510	510
060-PP-103	1		Oxygen Plant 2 Vacuum Pump 1				Part of VPSA Oxygen Plant	Variable	510	510
060-PP-104	1		Oxygen Plant 2 Vacuum Pump 2				Part of VPSA Oxygen Plant	Variable	510	510
060-PP-105	1		Oxygen Gas Compressor 1				Part of VPSA Oxygen Plant	Variable	505	505
060-PP-106	1		Oxygen Gas Compressor 2				Part of VPSA Oxygen Plant	Variable	505	505
060-VE-102	1		Oxygen Plant Adsorption Vessel 2				Part of VPSA Oxygen Plant			
060-VE-103	1		Oxygen Storage Vessel				Part of VPSA Oxygen Plant			
060-FP-001	1		Flocculant Mixing Plant							
060-HP-001	1		Flocculant Bulk Powder Hopper							
060-FE-001	1		Flocculant Screw Feeder				Part of Flocculant Mixing Plant Supply	Fixed	0.75	0.75
060-BL-001	1		Flocculant Powder Blower				Part of Flocculant Mixing Plant Supply	Fixed	0	
060-TK-005	1		Flocculant Mixing Tank				Part of Flocculant Mixing Plant Supply			
060-AG-002	1		Flocculant Tank Agitator				Part of Flocculant Mixing Plant Supply	Fixed	3	3
060-PP-010	1		Flocculant Pump				Part of Flocculant Mixing Plant Supply	Fixed	7.5	7.5
060-TK-006	1		Flocculant Storage Tank			4 m3				
060-AG-010	1		Flocculant Storage Tank Agitator					Fixed	5.5	5.5
060-PP-011	1		Flocculant Dosing Pump 1				Part of Flocculant Mixing Plant Supply	Variable	0.75	0.75
060-PP-012		1	Flocculant Dosing Pump 2				Part of Flocculant Mixing Plant Supply	Variable	0.75	0.75
060-PP-013	1		Flocculant Dosing Pump 3				Part of Flocculant Mixing Plant Supply	Variable	0.75	0.75
060-PP-014	1		Flocculant Dosing Pump 4				Part of Flocculant Mixing Plant Supply	Variable	0.75	0.75

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
060-PP-015	1		Flocculant Sump Pump					Fixed	7.5	7.5
060-HT-001	1		Flocculant Hoist					Fixed	1.8+0.25+0.3	2.35
~~060-TK-007~~	~~1~~		~~LNG Storage Vessel 1~~				~~Part of Power Plant supply~~			
~~060-TK-008~~	~~1~~		~~LNG Storage Vessel 2~~				~~Part of Power Plant supply~~			
060-BB-001	1		PAX Bag Breaker							
060-TK-009	1		PAX Mixing Tank			10 m3				
060-AG-003	1		PAX Mixing Tank Agitator	10 m3 tank				Fixed	1.1	1.1
060-TK-010	1		PAX Mixing Tank Seal Pot							
060-PP-016	1		PAX Transfer Pump		25 m^3/h, 10% PAX, 15 m head			Fixed	2.2	2.2
060-TK-011	1		PAX Storage Tank			15 m3				
060-TK-012	1		PAX Storage Tank Seal Pot							
060-FA-001	1		PAX Exhaust Fan					Fixed	2.2	2.2
060-HD-001	1		PAX Dust Hood						-	
060-PP-017	1		PAX Dosing Pump 1		0.25 m^3/h, 10% PAX, 15 m head			Variable	0.37	0.37
060-PP-018		1	PAX Dosing Pump 2		0.25 m^3/h, 10% PAX, 15 m head			Variable	0.37	0.37
060-PP-019	1		PAX Area Sump Pump		25 m^3/h, 10% PAX, 15 m head			Fixed	3	3
060-HT-002	1		Reagent Area Mixing Hoist					Fixed	1.8+0.25+0.3	2.35
060-PP-020	1		Frother Transfer Pump		25 m^3/h, 15 m head			Fixed	5.5	5.5
060-TK-013	1		Frother Storage Tank							
060-PP-021	1		Frother Dosing Pump 1		0.05 m^3/h, 15 m head			Variable	0.37	0.37
060-PP-022		1	Frother Dosing Pump 2		0.05 m^3/h, 15 m head			Variable	0.37	0.37
060-LP-001	1		Lime Plant							
060-BN-001	1		Lime Silo							
060-DC-001	1		Lime Silo Dust Collector	75 t capacity, 0.50 t/m3 bulk density	75 t capacity, 0.50 t/m3 bulk density			Fixed		
060-BA-001	1		Lime Silo Activator					Fixed	1.1	1.1
060-RV-001	1		Lime Silo Rotary Valve					Fixed	0.37	0.37
060-FE-002	1		Lime Silo Screw Conveyor					Fixed	1.5	1.5
060-TK-014	1		Lime Mixing Tank			7 m3				
060-AG-004	1		Lime Mixing Tank Agitator	7 m3 tank, SG 1.15				Fixed	1.5	1.5
060-PP-023	1		Lime Transfer Pump		25 m^3/h, 20% Hydrated Lime, 15 m head, SG 1.1		Included in lime plant	Fixed	3	3
060-TK-015	1		Lime Storage Tank			21 m3				
060-AG-005	1		Lime Storage Tank Agitator	21 m3 tank, SG 1.15				Fixed	1.5	1.5
060-PP-024	1		Lime Distribution Pump 1		25 m^3/h, 20% Hydrated Lime, 15 m head, SG 1.1			Fixed	4	4
060-PP-025		1	Lime Distribution Pump 2		25 m^3/h, 20% Hydrated Lime, 15 m head, SG 1.1			Fixed	4	4
060-PP-026	1		Lime Area Sump Pump		25 m3/h, 15m head			Fixed	4	4
~~060-BB-002~~	~~1~~		~~Sodium Metabisulphite Bag Breaker~~							

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
~~060-TK-016~~	~~1~~		~~Sodium Metabisulphite Mixing Tank~~			~~15 m3~~				
~~060-AG-006~~	~~1~~		~~Sodium Metabisulphite Mixing Tank Agitator~~	~~15 m3 tank, SG 1.25~~				~~Fixed~~	~~1.1~~	~~1.1~~
~~060-DC-002~~	~~1~~		~~Sodium Metabisulphite Dust Collector~~					~~Fixed~~	~~3~~	~~3~~
~~060-FA-002~~	~~1~~		~~Sodium Metabisulphite Exhaust Fan~~					~~Fixed~~	~~2.2~~	~~2.2~~
~~060-PP-027~~	~~1~~		~~Sodium Metabisulphite Mixing Pump~~		~~30 m3/h, 20% SMBS, 15m head, SG 1.15~~			~~Fixed~~	~~5.5~~	~~5.5~~
~~060-TK-017~~	~~1~~		~~Sodium Metabisulphite Storage Tank~~			~~45 m3~~				
~~060-PP-028~~	~~1~~		~~Sodium Metabisulphite Dosing Pump 1~~		~~1 m3/h, 20% SMBS, 25m head, SG 1.15~~			~~Variable~~	~~0.55~~	~~0.55~~
~~060-PP-029~~	~~1~~		~~Sodium Metabisulphite Dosing Pump 2~~		~~1 m3/h, 20% SMBS, 25m head, SG 1.15~~			~~Variable~~	~~0.55~~	~~0.55~~
060-PP-030	1		CuSO4 Area Sump Pump		25 m3/h, 15m head			Fixed	3	3
060-HT-003	1		Sodium Metabisulphite Hoist					Fixed	1.8+0.25+0.3	2.35
060-BB-003	1		Copper Sulphate Bag Breaker							
060-TK-018	1		Copper Sulphate Mixing Tank			6.7 m3				
060-AG-007	1		Copper Sulphate Mixing Tank Agitator	6.7 m3 tank, SG 1.02				Fixed	1.1	1.1
060-PP-031	1		Copper Sulphate Mixing Pump					Fixed	2.2	2.2
060-TK-019	1		Copper Sulphate Storage Tank			10 m3				
060-PP-032	1		Copper Sulphate Dosing Pump 1					Variable	0.37	0.37
060-PP-033		1	Copper Sulphate Dosing Pump 2					Variable	0.37	0.37
060-HT-004	1		Copper Sulphate Mixing Hoist					Fixed	1.8+0.25+0.3	2.35
060-LP-2	1		Limestone Mixing Plant							
060-BN-002	1		Limstone Mill Feed Bin							
060-FE-003	1		Limestone Feeder				Included in Limestone Mill Package	Variable	3	3
060-WT-001	1		Limestone Weightometer				Included in Limestone Mill Package			
060-CH-002	1		Limestone Mill Feed Chute							
060-CH-003	1		Limestone Mill Feed Spout				Included in Limestone Mill Package			
060-ML-001	1		Limestone Mill				Included in Limestone Mill Package	Variable	4 x 55	220
060-ML-001A	1		Limestone Mill Lubrication System				Included in Limestone Mill Package	Fixed	0.09	0.09
060-SC-001	1		Limestone Mill Trommel				Included in Limestone Mill Package			
060-CH-004	1		Limestone Mill Scats Chute				Included in Limestone Mill Package			
060-CH-005	1		Limestone Mill Discharge Chute				Included in Limestone Mill Package			
060-HP-002	1		Limestone Mill Discharge Hopper				Included in Limestone Mill Package			
060-AG-008	1		Limestone Mill Discharge Hopper Agitator				Included in Limestone Mill Package	Fixed	0.37	0.37
060-PP-034	1		Limestone Mill Discharge Pump				Part of the Limestone Mill Supply Package	Variable	15	15
060-CY-001	1		Limestone Cyclone Cluster				Part of the Limestone Mill Supply Package			
060-SC-002	1		Limestone Scrubber				Part of the Limestone Mill Supply Package	Variable	11	11
060-TK-020	1		Limestone Storage Tank			450 m3				
060-AG-009	1		Limestone Storage Tank Agitator	450 m3 tank, SG 1.15				Fixed	18.5	18.5

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
060-PP-035	1		Limestone Ringmain Pump 1					Fixed	45	45
060-PP-036		1	Limestone Ringmain Pump 2					Fixed	45	45
060-PP-037	1		Limestone Area Sump Pump					Fixed	5.5	5.5
			Services							
070-TK-001	1		RO Water Tank			300 m^3				
070-RO-001	1		RO Plant	300 m^3/d permeate			Containerised	Fixed	22	22
070-TK-002	1		Gland Water Tank							
070-PP-001	1		Gland Water Pump 1					Fixed	11	11
070-PP-002		1	Gland Water Pump 2					Fixed	11	11
070-PP-003	1		Raw Water Pump 1					Fixed	45	45
070-PP-004		1	Raw Water Pump 2					Fixed	45	45
070-PP-005	1		Process Water Pump 1					Fixed	11	11
070-PP-006		1	Process Water Pump 2					Fixed	11	11
070-TK-003	1		Process Water Tank							
070-PP-007	1		Cyanide Free Process Water Pump 1					Fixed	160	160
070-PP-008		1	Cyanide Free Process Water Pump 2					Fixed	160	160
070-WC-001	1		Potable Water Cooler					Fixed	7.5	7.5
070-TK-004	1		RO Water Tank			300 m3				
070-PP-009	1		Diesel Potable Water Pump						-	
070-PP-010	1		Electrical Potable Water Pump					Fixed	5.5	5.5
070-PP-011	1		Elution Water Pump					Fixed	4	4
070-PP-012	1		Diesel Fire Water Pump						-	
070-PP-013	1		Electrical Fire Water Pump					Fixed	15	15
070-PP-014	1		Fire Water Jockey Pump					Fixed	15	15
070-PP-018	1		Site Drainage Pump					Fixed	11	11
070-AC-001	1		Plant Air Compressor 1					Fixed	90	90
070-AC-002		1	Plant Air Compressor 2					Fixed	90	90
070-AD-001	1		Instrument Air Dryer							
070-AR-001	1		Plant Air Receiver							
070-AR-002	1		Instrument Air Receiver							
070-FL-001	1		Air Filter 1							
070-FL-002	1		Air Filter 2							
070-SS-001	1		Crushing Area Safety Shower							
070-SS-002	1		Milling Area Safety Shower							
070-SS-003	1		Cyclone Tower Safety Shower							

Equipment No.	Tot Qty	S/By Qty	Equipment Name	Process Duty Point	Design Duty Point	Size	Notes/Comments	Fixed/ Variable Speed	kW Inst.	kW Total
070-SS-004	1		Flotation Area Safety Shower							
070-SS-005	1		IsaMill Thickener Safety Shower							
070-SS-006	1		IsaMill Safety Shower							
070-SS-007	1		NAL Area Safety Shower 1							
070-SS-008	1		NAL Area Safety Shower 2							
070-SS-009	1		Leach Feed Thickener Area Safety Shower							
070-SS-010	1		CIL TOT Safety Shower							
070-SS-011	1		CIL Ground Level Safety Shower							
070-SS-012	1		Elution Area Safety Shower							
070-SS-013	1		Gold Room Ground Level Safety Shower							
070-SS-014	1		Gold Room Level 1 Safety Shower							
070-SS-015	1		Cyanide Destruction Area Safety Shower							
070-SS-016	1		Cyanide Bunded Area Safety Shower							
070-SS-017	1		Cyanide Loading Area Safety Shower							
070-SS-018	1		HCl Bunded Area Safety Shower							
070-SS-019	1		Caustic Bunded Area Safety Shower							
070-SS-020	1		Flocculant Mixing Plant Safety Shower							
070-SS-021	1		PAX Area Safety Shower							
070-SS-022	1		Lime Silo Area Safety Shower							
070-SS-023	1		Limestone Safety Shower							
070-SS-024	1		Oxygen Area Safety Shower							

APPENDIX 5 –ELECTRICAL DESIGN

Electrical Load List

Project Name:	Youanmi Gold Project
Project Phase:	DFS
Client Name:	Rox Resources
Project Number:	839
Doc. No:	839-06040-LST-0001

[redacted]

DEFINITIONS

Installed Power: Nameplate rating of each item of equipment

Load Factor: The ratio between the expected load power draw under normal operating conditions and the Installed

Diversity Factor: The proportion of time in any given 30 minute period that the load will operate at its expected load

Operating Factor: The proportion of time which each item of equipment operates per day. The operating factor takes into account the plant availability.

1/2 Hour Maximum Demand: The amount of power required from the electrical supply system to serve the load. The ½ hour maximum demand kW is used in the sizing of plant equipment.

1/2 Hour Max Demand kW = Installed Power x Load factor x Diversity Factor ÷ Efficiency
1/2 Hour Max Demand kVA = 1/2 Hour Max Demand kW ÷ Power Factor

Average 24 Hour Max Demand: Average power consumed by each item of equipment. The 24 hour maximum demand kW are used in the calculation of average power.

Average 24 Hour Max Demand kW = Installed Power x Load factor x Operating Factor ÷ Efficiency
Average 24 Hour Max Demand kVA = Average 24 Hour Max Demand kW ÷ Power Factor

EQUIPMENT NUMBER	DESCRIPTION	LOAD DATA							MOTOR DATA		PEAK 1/2 HOUR MAX DEMAND			AVERAGE 24 HOUR MAX			COMMENTS	REV
		INSTALLED POWER [kW]	STARTER TYPE	LOAD FACTOR	DIVERSITY FACTOR	OPERATING FACTOR	AVERAGE RUNNING OUTPUT	% DUTY	EFFICIENCY [%]	POWER FACTOR	REAL POWER [kW]	REACTIVE POWER	APPARENT POWER [kVA]	AVERAGE REAL POWER [kW]	AVERAGE APPARENT POWER	AVERAGE POWER MWh/Year		
010-MC-001	CRUSHING MCC	1335									314.2	376.6	1078.6	612.2	722.5	5362.9		
010-FE-001	Primary Crusher Apron Feeder	8	Variable	0.95	0.95	0.65	0.66	0.65	91%	0.81	6.1	4.4	7.6	3.5	4.3	30.9		A
010-CR-001	Primary Crusher	160	DOL	0.70	0.95	0.65	0.65	0.65	96%	0.86	105.8	64.3	124.3	61.9	72.3	542.1		A
010-HY-001	Primary Crusher Hydraulic Power Pack	3.7	Feeder	0.90	0.10	0.65	1.00	0.65	89%	0.77	0.3	0.2	0.4	0.1	0.2	1.3		A
010-LU-001	Primary Crusher Hydraulic Lubrication System	0.1	Feeder	0.85	0.95	0.59	0.90	0.65	80%	0.60	0.1	0.1	0.1	0.0	0.1	0.3		A
010-CV-001	Crusher Discharge Conveyor	110	Variable	0.60	0.95	0.55	0.65	0.65	90%	0.65	53.6	52.9	96.9	40.6	57.5	425.9		A
010-MA-001	Primary Tramp Metal Magnet	5	Feeder	0.85	0.95	0.65	1.00	0.65	90%	0.77	4.0	3.3	5.2	2.7	3.5	23.8		A
010-CV-002	Screen Feed Conveyor	110	Variable	0.60	0.95	0.55	0.65	0.65	90%	0.65	53.6	52.9	96.9	40.6	57.5	425.9		A
010-SC-001	Product Screen	55	DOL	0.80	0.95	0.95	1.00	0.95	95%	0.84	41.8	27.0	49.8	41.8	49.8	366.2		A
010-CV-003	Secondary Crusher Feed Conveyor	75	Variable	0.60	0.95	0.55	0.65	0.65	90%	0.64	57.6	36.6	67.9	33.2	39.5	290.4		A
010-MA-002	Secondary Crusher Tramp Magnet	8	Feeder	0.85	0.95	0.65	1.00	0.65	93%	0.82	6.5	4.6	8.1	4.5	6.5	39.6		A
010-FE-002	Secondary Crusher Feeder	6	Variable	0.80	0.85	0.55	0.65	0.65	91%	0.81	5.9	4.3	7.3	3.5	4.3	30.3		A
010-CR-002	Secondary Crusher	220	DOL	0.70	0.95	0.65	0.65	0.65	96%	0.87	146.3	82.9	168.2	66.1	97.6	746.3		A
010-HY-002	Secondary Crusher Hydraulic Pump	7.5	DOL	0.80	0.10	0.05	1.00	0.05	91%	0.81	0.5	0.4	0.7	0.3	0.4	2.6		A
	Secondary Crusher Lubrication Pump 1	5.5	DOL	0.95	0.95	0.59	0.90	0.65	90%	0.77	4.4	3.7	5.8	2.7	3.6	24.0		A
	Secondary Crusher Lubrication Pump 2	5.5	DOL	0.85	0.95	0.59	0.90	0.65	90%	0.77	4.4	3.7	5.8	2.7	3.6	24.0		A
	Secondary Crusher Lubrication Cooling Fan	5.5	DOL	0.85	0.95	0.40	1.00	0.40	90%	0.77	4.4	3.7	5.8	1.9	2.4	16.4		A
	Secondary Crusher Lubrication Heater	4.5	DOL	1.00	0.05	0.65	1.00	0.65	90%	0.77	0.2	0.2	0.3	2.0	3.8	25.6		A
010-CV-004	Tertiary Crusher Feed Conveyor	55	DOL	0.80	0.95	0.55	0.65	0.65	90%	0.64	41.8	27.0	49.8	24.3	29.9	213.0		A
010-MA-003	Tertiary Crusher Tramp Magnet	5	DOL	0.85	0.95	0.65	1.00	0.65	90%	0.77	3.9	3.2	5.0	2.7	3.4	23.2		A
010-FE-003	Tertiary Crusher Feeder	3	Variable	0.60	0.95	0.55	0.65	0.65	89%	0.77	2.5	1.9	3.0	1.5	1.7	11.7		A
010-CR-003	Tertiary Crusher	220	DOL	0.70	0.95	0.61	0.66	0.95	96%	0.87	146.3	82.9	168.2	124.4	142.9	1089.3		A
010-HY-003	Tertiary Crusher Hydraulic Power Pack	7.5	Feeder	0.80	0.10	0.05	1.00	0.05	91%	0.81	0.5	0.4	0.7	0.3	0.4	2.6		A
	Tertiary Crusher Hydraulic Lubrication System	15.7	Feeder	0.85	0.95	0.69	0.90	0.65	94%	0.83	10.9	10.5	15.3	9.6	11.9	86.6		A
	Tertiary Crusher Lubrication Pump 1	5.5	DOL	0.85	0.95	0.59	0.90	0.65	90%	0.77	4.4	3.7	5.8	2.7	3.6	24.0		A
	Tertiary Crusher Lubrication Pump 2	5.5	DOL	0.85	0.95	0.69	0.90	0.65	90%	0.77	4.4	3.7	5.8	2.7	3.6	24.0		A
	Tertiary Crusher Lubrication Cooling Fan	5.5	DOL	0.85	0.95	0.40	1.00	0.40	90%	0.77	4.4	3.7	5.8	1.9	2.4	16.4		A
	Tertiary Crusher Lubrication Heater	4.5	DOL	1.00	0.05	0.65	1.00	0.65	90%	0.77	0.2	0.2	0.3	2.0	3.8	25.6		A
010-HT-001	Crusher Maintenance Hoist	11	Feeder	0.80	0.10	0.10	1.00	0.10	89%	0.82	0.9	0.6	1.0	0.2	1.0	7.5		A
010-CV-005	Fine Ore Bin Feed Conveyor	110	Variable	0.60	0.95	0.55	0.65	0.65	90%	0.65	53.6	52.9	96.9	40.6	57.5	425.9		A
010-DC-001	Fine Ore Bin Dust Collector	11	DOL	0.85	0.95	0.65	1.00	0.65	93%	0.82	8.9	5.2	10.3	5.1	7.4	53.2		A
010-DC-002	Crusher Dust Collector	11	DOL	0.85	0.95	0.65	1.00	0.65	93%	0.82	8.9	5.2	10.3	5.1	7.4	53.2		A
010-RV-001	Crusher Dust Collector Rotary Valve	0.25	DOL	0.80	0.95	0.95	1.00	0.95	60%	0.60	0.2	0.3	0.3	0.2	0.3	1.7		A
010-FA-001	Crusher Dust Collector Fan	3	DOL	0.65	0.95	0.65	1.00	0.65	86%	0.77	2.4	2.0	3.1	1.7	2.2	14.5		A
010-PP-001	Crushing Sump Pump	15	DOL	0.80	0.20	0.86	0.90	0.95	92%	0.86	2.4	1.5	2.8	10.3	12.1	89.9		A
010-PP-002	Dust Collector Sump Pump	7.5	DOL	0.80	0.20	0.86	0.90	0.95	91%	0.81	1.2	0.9	1.5	5.1	6.3	44.9		A
010-DB-001A	Crushing Area LASP Distribution Board	30	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.83	17.1	11.7	20.7	10.8	13.1	94.6		A
010-DB-001B	Crushing Area Switchroom LASP Distribution Board	15	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.85	8.6	5.4	10.1	5.4	6.4	47.3		A
020-SB-001	Plant 11kV SWITCHBOARD	7900									0990	3902	6410	5820	6108	53351		
043-ML-001	UFG Mill	6500	LRS	0.60	0.95	0.86	0.90	0.95	96%	0.95	1211.3	395.1	1275.0	1090.1	1147.5	9549.5		A
060-PP-101	Oxygen Plant 1 Vacuum Pump 1	510	Variable	0.75	0.95	0.90	0.95	0.95	96%	0.95	363.4	119.4	382.5	345.2	363.4	3024.0		A
060-PP-102	Oxygen Plant 1 Vacuum Pump 2	510	Variable	0.75	0.95	0.90	0.95	0.95	96%	0.95	363.4	119.4	382.5	345.2	363.4	3024.0		A
060-PP-103	Oxygen Plant 2 Vacuum Pump 1	510	Variable	0.75	0.95	0.90	0.95	0.95	96%	0.95	363.4	119.4	382.5	345.2	363.4	3024.0		A
060-PP-104	Oxygen Plant 2 Vacuum Pump 2	510	Variable	0.75	0.95	0.90	0.95	0.95	96%	0.95	363.4	119.4	382.5	345.2	363.4	3024.0		A
060-AC-101	Oxygen Gas Compressor 1	505	Variable	0.75	0.95	0.90	0.95	0.95	96%	0.95	359.8	118.3	379.0	341.8	359.8	2994.4		A
060-AC-102	Oxygen Gas Compressor 2	505	Variable	0.75	0.95	0.90	0.95	0.95	96%	0.95	359.8	118.3	379.0	341.8	359.8	2994.4		A
020-ML-001	Ball Mill	3350	Variable	0.65	0.95	0.95	1.00	0.95	96%	0.95	2795.1	909.1	2947.5	2705.1	2947.5	23586.9		A
020-MC-002	GRINDING & FLOTATION MCC	1936									574	622	1156	622	575	7156		
020-CV-001	Fine Ore Bin Discharge Conveyor	55	Variable	0.80	0.95	0.81	0.85	0.95	95%	0.84	41.8	27.0	49.8	35.5	42.3	311.2		A
020-FE-002	Emergency Feeder	11	Variable	0.65	0.95	0.61	0.65	0.95	93%	0.82	6.9	6.2	10.5	7.6	9.2	66.1		A
020-CV-002	Mill Feed Conveyor	110	Variable	0.60	0.95	0.61	0.66	0.95	96%	0.86	53.6	52.9	96.9	71.1	84.1	622.5		A
020-HO-001	Ball Mill Inching Drive	37	RDOL	0.00	0.00	0.02	0.90	0.02	90%	0.64	0.0	0.0	0.0	0.5	0.6	4.7		A
020-FA-001	Ball Mill Lube Oil Cooling Fan 1	6	DOL	0.85	0.95	0.40	1.00	0.40	90%	0.77	4.4	3.7	5.8	1.9	2.4	16.4		A
020-FA-002	Ball Mill Lube Oil Cooling Fan 2	6	DOL	0.00	0.00	0.00	0.00	0.00	90%	0.77	0.0	0.0	0.0	0.0	0.0	0.0		A
020-PP-005	Ball Mill Gearbox Lubricant Pump 1	6	DOL	0.85	0.95	0.86	0.90	0.95	90%	0.77	4.0	3.3	5.2	3.6	4.7	31.8		A
020-PP-006	Ball Mill Gearbox Lubricant Pump 2	5	DOL	0.00	0.00	0.00	0.00	0.00	90%	0.77	0.0	0.0	0.0	0.0	0.0	0.0		A
020-PP-007	Ball Mill Bearing Grease Pump	6	Feeder	0.85	0.95	0.86	0.90	0.95	90%	0.77	4.0	3.3	5.2	3.6	4.7	31.8		A
020-PP-008	Ball Mill Ring Gear Grease Pump	5	Feeder	0.85	0.95	0.86	0.90	0.95	90%	0.77	4.0	3.3	5.2	3.6	4.7	31.8		A
020-PP-001	Mill Discharge Pump 1	185	Variable	0.60	0.95	0.86	0.90	0.95	96%	0.87	140.5	79.7	161.6	126.5	145.4	1166.5		B
020-PP-002	Mill Discharge Pump 2	185	Variable	0.00	0.00	0.00	0.00	0.00	96%	0.87	0.0	0.0	0.0	0.0	0.0	0.0		B
020-SC-003	Grinding Trash Screen	11	Dual DOL	0.80	0.95	0.95	1.00	0.95	93%	0.82	8.4	5.8	10.2	8.4	10.2	73.2		A
020-HT-002	Cyclone Maintenance Crane	5	Feeder	0.80	0.10	0.10	1.00	0.10	90%	0.77	0.4	0.3	0.5	0.4	0.5	3.6		A
020-SP-003	Mill Area Sump Pump 1	15	DOL	0.80	0.20	0.86	0.90	0.95	93%	0.85	2.4	1.5	2.8	10.3	12.1	89.9		A
020-SP-004	Mill Area Sump Pump 2	15	DOL	0.80	0.20	0.86	0.90	0.95	93%	0.85	2.4	1.5	2.8	10.3	12.1	89.9		A
041-AG-001	Roughter Conditioning Tank Agitator	8	RDOL	0.85	0.95	0.86	0.90	0.95	91%	0.81	6.1	4.4	7.5	5.5	6.7	47.7		A
041-FC-001	Roughter Flotation Cell 1	75	RDOL	0.00	0.95	0.86	0.90	0.95	96%	0.84	60.6	39.1	72.1	54.5	64.9	477.5		A
041-FC-002	Roughter Flotation Cell 2	75	RDOL	0.00	0.95	0.86	0.90	0.95	96%	0.84	60.6	39.1	72.1	54.5	64.9	477.5		A
041-FC-003	Roughter Flotation Cell 3	75	RDOL	0.00	0.95	0.86	0.90	0.95	96%	0.84	60.6	39.1	72.1	54.5	64.9	477.5		A
041-FC-004	Roughter Flotation Cell 4	75	RDOL	0.85	0.95	0.86	0.90	0.95	96%	0.84	60.6	39.1	72.1	54.5	64.9	477.5		A
041-FC-005	Roughter Flotation Cell 5	75	RDOL	0.00	0.95	0.86	0.90	0.95	96%	0.84	60.6	39.1	72.1	54.5	64.9	477.5		A
041-FC-006	Roughter Flotation Cell 6	75	RDOL	0.85	0.95	0.86	0.90	0.95	96%	0.84	60.6	39.1	72.1	54.5	64.9	477.5		A
041-BL-001	Roughter Blower 1	75	DOL	0.00	0.95	0.60	1.00	0.60	96%	0.84	60.6	39.1	72.1	36.3	43.5	320.1		A
041-BL-002	Roughter Blower 2	75	DOL	0.00	0.00	0.00	0.00	0.00	96%	0.84	0.0	0.0	0.0	0.0	0.0	0.0		A
041-PP-001	Roughter Concentrate Pump 1	15	Variable	0.80	0.85	0.86	0.90	0.95	93%	0.85	11.4	7.2	13.5	10.3	12.1	89.9		B
041-PP-002	Roughter Concentrate Pump 2	15	Variable	0.00	0.00	0.00	0.00	0.00	93%	0.85	0.0	0.0	0.0	0.0	0.0	0.0		B
041-PP-003	Flotation Tailings Pump 1	45	Variable	0.80	0.95	0.86	0.90	0.95	96%	0.84	34.2	22.1	40.7	30.8	36.6	269.6		B
041-PP-004	Flotation Tailings Pump 2	45	Variable	0.00	0.00	0.00	0.00	0.00	96%	0.84	0.0	0.0	0.0	0.0	0.0	0.0		B
041-PP-005	Roughter Area Sump Pump	8	DOL	0.80	0.20	0.86	0.90	0.95	91%	0.81	1.2	0.9	1.5	5.1	6.3	44.9		A
041-SA-001	On Stream Analyser	1	Feeder	0.65	0.95	0.95	1.00	0.95	65%	0.73	0.9	0.6	1.2	0.9	1.2	7.8		A
070-AC-001	Plant Air Compressor 1	90	Feeder	0.85	0.95	0.60	1.00	0.60	95%	0.84	72.7	46.6	86.3	46.9	64.6	422.1		A
070-AC-002	Plant Air Compressor 2	90	Feeder	0.85	0.95	0.60	1.00	0.60	95%	0.84	72.7	46.6	86.3	45.9	58.5	422.1		A
020-DB-001	Milling & Flotation Area LASP Distribution Board	30	Feeder	0.60	0.95	0.60	0.60	1.00	95%	0.83	17.1	11.7	20.7	10.8	13.1	94.6		A
020-DB-002	Milling & Flotation Area Switchroom LASP Distribution Board	15	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.85	8.6	5.4	10.1	5.4	6.4	47.3		A
030-DB-003C	Process Plant 11kV Switchroom LASP Distribution Board	30	Feeder	0.60	0.95	0.60	0.60	1.00	95%	0.83	17.1	11.7	20.7	10.8	13.1	94.6		A
030-DB-003E	Process Plant Control Room LASP Distribution Board	5	Feeder	0.60	0.95	0.60	0.60	1.00	90%	0.77	2.9	2.4	3.7	1.8	2.3	15.8		A
043-MC-003	REGRIND MCC	1789									1279	747	1482	1160	1345	10160		
043-SC-101	Concentrate Trash Screen	1	Dual DOL	0.00	0.95	0.95	1.00	0.95	65%	0.67	0.9	1.0	1.4	0.9	1.4	8.0		B
043-TH-001	IsaMill Thickener	6	Feeder	0.85	0.95	0.86	0.90	0.95	90%	0.77	4.4	3.7	5.8	4.0	5.2	36.0		B
043-PP-103	IsaMill Thickener Underflow Pump 1	4	Variable	0.80	0.95	0.86	0.90	0.95	89%	0.77	3.0	2.5	3.9	3.7	3.8	24.0		B
043-PP-104	IsaMill Thickener Underflow Pump 2	4	Variable	0.00	0.00	0.00	0.00	0.00	89%	0.77	0.0	0.0	0.0	0.0	0.0	0.0		B
043-SU-102	IsaMill Thickener Area Sump Pump	8	DOL	0.80	0.20	0.86	0.90	0.95	91%	0.81	1.2	0.9	1.5	5.1	6.3	44.9		B
043-PP-101	IsaMill Thickener Overflow Pump 1	11	Variable	0.80	0.95	0.86	0.90	0.95	93%	0.82	8.4	5.8	10.2	7.6	9.2	66.5		B
043-PP-102	IsaMill Thickener Overflow Pump 2	11	Variable	0.00	0.00	0.00	0.00	0.00	93%	0.82	0.0	0.0	0.0	0.0	0.0	0.0		B
043-PP-003	Isamill Gland Water Pump 1	4	DOL	0.00	0.95	0.86	0.90	0.95	89%	0.77	3.0	2.5	3.9	3.7	3.8	24.0		B
043-PP-004	Isamill Gland Water Pump 2	4	DOL	0.00	0.00	0.00	0.00	0.00	89%	0.77	0.0	0.0	0.0	0.0	0.0	0.0		B
043-AG-001	Regrind Surge Tank Agitator	30	DOL	0.85	0.95	0.86	0.90	0.95	55%	0.53	24.2	16.6	29.4	23.6	29.4	191.9		A
043-PP-001	IsaMill Feed Pump 1	37	Variable	0.80	0.95	0.86	0.90	0.95	95%	0.84	28.1	18.2	33.5	25.3	30.1	221.7		A
043-PP-002	IsaMill Feed Pump 2	37	Variable	0.00	0.00	0.00	0.00	0.00	95%	0.84	0.0	0.0	0.0	0.0	0.0	0.0		A
043-HY-001	Regrind Mill Shell Removal Power Pack	2	Feeder	0.80	0.00	0.02	0.90	0.02	86%	0.67	0.0	0.0	0.0	0.0	0.0	0.2		A
043-PP-101	Regrind Mill LRS	5	Feeder	0.80	0.10	0.10	1.00	0.10	90%	0.77	0.4	0.3	0.5	0.4	0.5	3.6		A
043-FA-001	Regrind Mill Gearbox Oil Cooler Fan	1	DOL	0.85	0.95	0.40	1.00	0.40	80%	0.73	0.9	0.8	1.2	0.4	0.5	3.3		A
043-HPA-111	Regrind Mill Hydraulic Pump 1	2	DOL	0.80	0.10	0.05	1.00	0.05	89%	0.67	0.1	0.1	0.2	0.1	0.1	0.5		B
043-PP-112	Regrind Mill Hydraulic Pump 2	2	DOL	0.00	0.00	0.00	0.00	0.00	89%	0.67	0.0	0.0	0.0	0.0	0.0	0.0		B
043-LU-001	Regrind Seal Lubrication Unit	5	DOL	0.85	0.95	0.86	0.90	0.95	90%	0.77	4.0	3.3	5.2	3.6	4.7	31.8		A
043-PP-007	Isamill Discharge Pump 1	75	DOL	0.00	0.95	0.86	0.90	0.95	96%	0.84	57.6	36.6	67.9	51.3	61.1	449.4		A
043-PP-008	Isamill Discharge Pump 2	75	DOL	0.00	0.00	0.00	0.00	0.00	96%	0.84	0.0	0.0	0.0	0.0	0.0	0.0		B
043-AG-200	Concentrate Storage Tank Agitator	45	DOL	0.65	0.95	0.86	0.90	0.95	95%	0.84	36.3	23.5	43.3	32.7	38.9	286.5		B
043-PP-201	Concentrate Distribution Pump 1	15	Variable	0.80	0.95	0.86	0.90	0.95	93%	0.86	11.4	7.2	13.5	10.3	12.1	89.9		B
043-PP-202	Concentrate Distribution Pump 2	15	Variable	0.00	0.00	0.00	0.00	0.00	93%	0.85	0.0	0.0	0.0	0.0	0.0	0.0		B
043-SU-001	Isamill Area Sump Pump	11	DOL	0.80	0.20	0.86	0.90	0.95	93%	0.82	1.9	1.2	2.1	7.5	9.2	65.9		B
043-HT-001	Regrind Media Hoist	5	DOL	0.80	0.10	0.10	1.00	0.10	90%	0.77	0.4	0.3	0.5	0.4	0.5	3.6		A
044-AG-001	Neutral Leach Reactor 1 Agitator	220	DOL	0.95	0.95	0.86	0.90	0.95	96%	0.87	177.7	100.7	204.2	159.5	183.8	1409.6		B
044-AG-002	Neutral Leach Reactor 2 Agitator	220	DOL	0.95	0.95	0.86	0.90	0.95	96%	0.87	177.7	100.7	204.2	159.5	183.8	1409.6		B
044-AG-003	Neutral Leach Reactor 3 Agitator	220	DOL	0.95	0.95	0.86	0.90	0.95	96%	0.87	177.7	100.7	204.2	159.5	183.8	1409.6		B
044-AG-004	Neutral Leach Reactor 4 Agitator	220	DOL	0.95	0.95	0.86	0.90	0.95	96%	0.87	177.7	100.7	204.2	159.5	183.8	1409.6		B
044-AG-005	Neutral Leach Reactor 5 Agitator	220	DOL	0.95	0.95	0.86	0.90	0.95	96%	0.87	177.7	100.7	204.2	159.5	183.8	1409.6		B
044-AG-006	Neutral Leach Reactor 6 Agitator	220	DOL	0.95	0.95	0.86	0.90	0.95	96%	0.87	177.7	100.7	204.2	159.5	183.8	1409.6		B
044-SU-004	Acton Leach Sump Pump	11	DOL	0.80	0.20	0.86	0.90	0.95	93%	0.82	1.9	1.2	2.1	7.5	9.2	65.9		B
044-PP-003	Acton Leach Sump Pump 2	11	DOL	0.00	0.20	0.86	0.90	0.95	93%	0.82	0.0	0.0	0.0	0.0	0.0	0.0		B
043-DB-003A	Regrind LASP Switchroom Distribution Board	15	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.85	8.6	5.4	10.1	5.4	6.4	47.3		A
043-DB-003B	Regrind LASP Distribution Board	30	Feeder	0.60	0.95	0.60	0.60	1.00	90%	0.83	17.1	11.7	20.7	10.8	13.1	94.6		A

EQUIPMENT NUMBER	DESCRIPTION	LOAD DATA INSTALLED POWER (kW)	STARTER TYPE	LOAD FACTOR	DIVERSITY FACTOR	OPERATING FACTOR	AVERAGE RUNNING OUTPUT	% DUTY	MOTOR DATA EFFICIENCY (%)	POWER FACTOR	PEAK 1/2 HOUR MAX DEMAND REAL POWER (kW)	REACTIVE POWER	APPARENT POWER (kVA)	AVERAGE 24 HOUR MAX AVERAGE REAL POWER (kW)	AVERAGE APPARENT POWER	AVERAGE POWER MWhr/year	COMMENTS	REV
043-MC-004	NAL MCC	1214									431	257	507	381	445	3335		
044-TH-501	NAL Thickener	6	Feeder	0.85	0.95	0.86	0.90	0.95	90%	0.77	4.4	3.7	5.8	4.0	5.2	35.0		A
044-PP-503	NAL Thickener Underflow Pump 1	11	Variable	0.80	0.95	0.86	0.90	0.95	93%	0.82	8.4	5.8	10.2	7.5	9.2	65.9		A
044-PP-504	NAL Thickener Underflow Pump 2	11	Variable	0.00	0.00	0.00	0.00	0.00	93%	0.82	0.0	0.0	0.0	0.0	0.0	0.0		A
044-AG-505	NAL Thickener Underflow Tank Agitator	8	DOL	0.85	0.95	0.86	0.90	0.95	97%	0.81	6.1	4.4	7.5	5.5	6.7	47.7		A
044-PP-505	NAL Thickener Underflow Slurry Transfer Pump 1	11	Variable	0.80	0.95	0.86	0.90	0.95	93%	0.82	8.4	5.8	10.2	7.5	9.2	65.9		A
044-PP-506	NAL Thickener Underflow Slurry Transfer Pump 2	11	Variable	0.00	0.00	0.00	0.00	0.00	93%	0.82	0.0	0.0	0.0	0.0	0.0	0.0		A
044-SU-506	NAL Thickener Area Sump Pump	11	DOL	0.80	0.20	0.86	0.90	0.95	93%	0.82	1.8	1.2	2.1	7.5	9.2	65.9		A
044-PP-501	NAL Thickener Overflow Pump 1	6	Variable	0.80	0.95	0.86	0.90	0.95	90%	0.77	4.2	3.5	5.4	3.8	4.9	33.0		A
044-PP-502	NAL Thickener Overflow Pump 2	6	Variable	0.80	0.95	0.86	0.90	0.95	90%	0.77	4.2	3.5	5.4	3.8	4.9	33.0		A
044-FA-601	Slurry Cooling Tower Fan	70	DOL	0.85	0.95	0.60	1.00	0.60	96%	0.84	56.5	36.5	67.3	35.7	42.5	312.7		A
044-PP-601	Slurry Cooling Tower Discharge Pump 1	8	Variable	0.80	0.95	0.86	0.90	0.95	97%	0.81	5.7	4.1	7.0	5.1	6.3	44.9		A
044-PP-602	Slurry Cooling Tower Discharge Pump 2	8	Variable	0.00	0.00	0.00	0.00	0.00	91%	0.81	0.0	0.0	0.0	0.0	0.0	0.0		A
060-BL-100	VSA Air Blower 1	280	Variable	0.85	0.10	0.10	1.00	0.10	96%	0.87	23.8	13.5	27.4	23.8	27.4	208.5		A
060-BL-101	VSA Air Blower 2	280	Variable	0.85	0.10	0.10	1.00	0.10	96%	0.87	23.8	13.5	27.4	23.8	27.4	208.5		A
060-XM-100	VSA Ancillaries	80	Variable	0.85	0.10	0.10	1.00	0.10	95%	0.84	6.8	4.4	8.1	6.8	8.1	59.6		A
060-FE-003	Limestone Feeder	3	Variable	0.80	0.95	0.81	0.85	0.95	88%	0.77	2.3	1.9	3.0	1.9	2.5	17.0		A
060-ML-001	Limestone Mill	220	Variable	0.85	0.95	0.86	0.90	0.95	95%	0.87	177.7	100.7	204.2	159.9	183.8	1400.6		A
060-ML-001A	Limestone Mill Lubrication System	0	DOL	0.85	0.90	0.86	0.90	0.95	60%	0.60	0.1	0.1	0.1	0.1	0.1	0.6		A
060-AG-008	Limestone Mill Discharge Hopper Agitator	0	DOL	0.85	0.95	0.86	0.90	0.95	60%	0.60	0.3	0.4	0.5	0.3	0.4	2.4		A
060-PP-034	Limestone Mill Discharge Pump	15	Variable	0.80	0.95	0.86	0.90	0.95	93%	0.85	11.4	7.2	13.5	10.3	12.1	89.9		A
060-SC-002	Limestone Scrubber	11	Variable	0.85	0.95	0.86	0.90	0.95	93%	0.82	8.9	6.2	10.8	8.0	9.7	70.0		A
060-AG-009	Limestone Storage Tank Agitator	19	DOL	0.85	0.95	0.86	0.90	0.95	94%	0.81	14.9	10.8	18.4	13.4	16.6	117.5		A
060-PP-035	Limestone Ringmain Pump 1	45	Variable	0.80	0.95	0.86	0.90	0.95	95%	0.84	34.2	22.1	40.7	30.8	36.6	265.6		A
060-PP-036	Limestone Ringmain Pump 2	45	Variable	0.00	0.00	0.00	0.00	0.00	95%	0.84	0.0	0.0	0.0	0.0	0.0	0.0		B
060-PP-037	Limestone Area Sump Pump	8	DOL	0.80	0.20	0.86	0.90	0.95	91%	0.81	1.2	0.9	1.5	5.1	6.3	44.5		A
043-DB-004A	NAL L&SP Switchroom Distribution Board	15	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.85	8.5	5.4	10.1	5.4	6.4	47.3		A
043-DB-004B	NAL L&SP Distribution Board	30	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.83	17.1	11.7	20.7	10.8	13.1	94.6		A
050-MC-005	CIL & ELUTION MCC	1121									610	435	756	602	739	5277		
042-TH-002	Leach Feed Thickener	8	DOL	0.85	0.95	0.86	0.90	0.95	97%	0.81	6.1	4.4	7.5	5.5	6.7	47.7		A
042-PP-006	Leach Feed Pump 1	30	Variable	0.80	0.95	0.86	0.90	0.95	96%	0.83	22.8	15.6	27.5	20.5	24.9	179.8		B
042-PP-007	Leach Feed Pump 2	30	Variable	0.00	0.00	0.00	0.00	0.00	96%	0.83	0.0	0.0	0.0	0.0	0.0	0.0		B
042-PP-008	Leach Feed Thickener Sump Pump	8	DOL	0.80	0.20	0.86	0.90	0.95	91%	0.81	1.2	0.9	1.5	5.1	6.3	44.5		A
042-PP-009	Leach Feed Thickener Overflow Pump 1	22	Variable	0.80	0.95	0.86	0.90	0.95	94%	0.83	16.7	11.5	20.3	15.0	18.2	131.8		B
042-PP-010	Leach Feed Thickener Overflow Pump 2	22	Variable	0.00	0.00	0.00	0.00	0.00	94%	0.83	0.0	0.0	0.0	0.0	0.0	0.0		B
045-AG-001	Intensive Leach Tank Agitator 1	30	DOL	0.85	0.95	0.86	0.90	0.95	96%	0.83	24.2	16.6	29.4	21.8	26.4	191.0		A
045-AG-002	Intensive Leach Tank Agitator 2	30	DOL	0.85	0.95	0.86	0.90	0.95	96%	0.83	24.2	16.6	29.4	21.8	26.4	191.0		A
045-AG-003	Leach Tank Agitator	30	DOL	0.85	0.95	0.86	0.90	0.95	96%	0.83	24.2	16.6	29.4	21.8	26.4	191.0		A
045-AG-004	CIL Tank 1 Agitator	30	DOL	0.85	0.95	0.86	0.90	0.95	96%	0.83	24.2	16.6	29.4	21.8	26.4	191.0		A
045-AG-005	CIL Tank 2 Agitator	30	DOL	0.85	0.95	0.86	0.90	0.95	96%	0.83	24.2	16.6	29.4	21.8	26.4	191.0		A
045-AG-006	CIL Tank 3 Agitator	30	DOL	0.85	0.95	0.86	0.90	0.95	96%	0.83	24.2	16.6	29.4	21.8	26.4	191.0		A
045-AG-007	CIL Tank 4 Agitator	30	DOL	0.85	0.95	0.86	0.90	0.95	96%	0.83	24.2	16.6	29.4	21.8	26.4	191.0		A
045-AG-008	CIL Tank 5 Agitator	30	DOL	0.85	0.95	0.86	0.90	0.95	96%	0.83	24.2	16.6	29.4	21.8	26.4	191.0		A
045-AG-009	CIL Tank 6 Agitator	30	DOL	0.85	0.95	0.86	0.90	0.95	96%	0.83	24.2	16.6	29.4	21.8	26.4	191.0		A
045-AG-010	CIL Tank 7 Agitator	30	DOL	0.85	0.95	0.86	0.90	0.95	96%	0.83	24.2	16.6	29.4	21.8	26.4	191.0		A
045-PP-001	Loaded Carbon Pump 1	8	DOL	0.80	0.95	0.90	0.95	0.95	91%	0.81	5.7	4.1	7.0	5.4	6.7	47.4		A
045-PP-002	Loaded Carbon Pump 2	8	DOL	0.80	0.95	0.90	0.95	0.95	91%	0.81	5.7	4.1	7.0	5.4	6.7	47.4		A
045-PP-003	Carbon Transfer Pump 3	8	DOL	0.80	0.95	0.90	0.95	0.95	91%	0.81	5.7	4.1	7.0	5.4	6.7	47.4		A
045-PP-004	Carbon Transfer Pump 4	8	DOL	0.80	0.95	0.90	0.95	0.95	91%	0.81	5.7	4.1	7.0	5.4	6.7	47.4		A
045-PP-005	Carbon Transfer Pump 5	8	DOL	0.80	0.95	0.90	0.95	0.95	91%	0.81	5.7	4.1	7.0	5.4	6.7	47.4		A
045-PP-006	Carbon Transfer Pump 6	8	DOL	0.80	0.95	0.90	0.95	0.95	91%	0.81	5.7	4.1	7.0	5.4	6.7	47.4		A
045-PP-007	Carbon Transfer Pump 7	8	DOL	0.80	0.95	0.90	0.95	0.95	91%	0.81	5.7	4.1	7.0	5.4	6.7	47.4		A
045-SC-001	Intertank Screen 1	8	DOL	0.80	0.95	0.95	1.00	0.95	91%	0.81	5.7	4.1	7.0	5.7	7.0	49.9		A
045-SC-002	Intertank Screen 2	7.5	DOL	0.80	0.95	0.95	1.00	0.95	91%	0.81	5.7	4.1	7.0	5.7	7.0	49.9		A
045-SC-003	Intertank Screen 3	7.5	DOL	0.80	0.95	0.95	1.00	0.95	91%	0.81	5.7	4.1	7.0	5.7	7.0	49.9		A
045-SC-004	Intertank Screen 4	7.5	DOL	0.80	0.95	0.95	1.00	0.95	91%	0.81	5.7	4.1	7.0	5.7	7.0	49.9		A
045-SC-005	Intertank Screen 5	7.5	DOL	0.80	0.95	0.95	1.00	0.95	91%	0.81	5.7	4.1	7.0	5.7	7.0	49.9		A
045-SC-006	Intertank Screen 6	7.5	DOL	0.80	0.95	0.95	1.00	0.95	91%	0.81	5.7	4.1	7.0	5.7	7.0	49.9		A
045-SC-007	Intertank Screen 7	7.5	DOL	0.80	0.95	0.95	1.00	0.95	91%	0.81	5.7	4.1	7.0	5.7	7.0	49.9		A
045-SC-008	Intertank Screen Spare	7.5	DOL	0.80	0.95	0.95	1.00	0.95	91%	0.81	5.7	4.1	7.0	5.7	7.0	49.9		A
045-SC-009	Loaded Carbon Screen	3.0	DOL	0.80	0.95	0.95	1.00	0.95	88%	0.77	2.3	1.9	3.0	2.3	3.0	20.0		A
045-SC-010	Barren Carbon Screen	2.2	DOL	0.80	0.95	0.95	1.00	0.95	87%	0.76	1.7	1.4	2.2	1.7	2.2	14.6		A
045-PP-008	CIL Area Sump Pump 1	11.0	DOL	0.80	0.20	0.86	0.90	0.95	93%	0.82	1.8	1.2	2.1	7.5	9.2	65.9		A
045-PP-009	CIL Area Sump Pump 2	11.0	DOL	0.80	0.20	0.86	0.90	0.95	93%	0.82	1.8	1.2	2.1	7.5	9.2	65.9		A
045-HT-001	CIL Area Crane	10.7	DOL	0.80	0.10	0.10	1.00	0.10	93%	0.82	0.9	0.6	1.0	0.9	1.0	7.5		A
~~046-AG-001~~	~~Cyanide Destruction Tank 1 Agitator~~	~~0~~	~~DOL~~	~~0.85~~	~~0.95~~	~~0.86~~	~~0.90~~	~~0.95~~	~~80%~~	~~0.60~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~		A
~~046-AG-002~~	~~Cyanide Destruction Tank 2 Agitator~~	~~0~~	~~DOL~~	~~0.85~~	~~0.95~~	~~0.86~~	~~0.90~~	~~0.95~~	~~80%~~	~~0.60~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~		A
046-SC-001	Carbon Safety Screen	4	DOL	0.80	0.95	0.95	1.00	0.95	89%	0.77	3.3	2.8	4.3	3.3	4.3	29.3		A
046-PP-001	Tailings Pump 1	75	Variable	0.80	0.95	0.86	0.90	0.95	96%	0.84	57.8	36.8	67.9	51.3	61.1	449.4		B
046-PP-002	Tailings Pump 2	75	Variable	0.00	0.00	0.00	0.00	0.00	96%	0.84	0.0	0.0	0.0	0.0	0.0	0.0		B
046-PP-003	Tailings Pump 3	75	Variable	0.80	0.95	0.86	0.90	0.95	96%	0.84	57.8	36.8	67.9	51.3	61.1	449.4		B
046-PP-004	Tailings Pump 4	75	Variable	0.00	0.00	0.00	0.00	0.00	96%	0.84	0.0	0.0	0.0	0.0	0.0	0.0		B
046-PP-005	Tailings Area Sump Pump	7.5	DOL	0.80	0.20	0.86	0.90	0.95	91%	0.81	1.2	0.9	1.5	5.1	6.3	44.9		A
050-PP-001	Thermal Oil Circulation Pump	2.2	DOL	0.80	0.95	0.40	1.00	0.40	87%	0.76	1.7	1.4	2.2	0.7	0.9	6.2		A
050-PP-002	Elution Water Pump	7.5	DOL	0.80	0.95	0.40	1.00	0.40	91%	0.81	5.7	4.1	7.0	2.4	3.0	21.0		A
050-PP-003	Acid Wash Pump	8	DOL	0.80	0.95	0.40	1.00	0.40	91%	0.81	5.7	4.1	7.0	2.4	3.0	21.0		A
050-PP-004	Strip Solution Pump	15	DOL	0.80	0.95	0.40	1.00	0.40	93%	0.85	11.4	7.2	13.5	4.8	5.7	42.0		A
050-SC-001	Kiln Dewatering Screen	2.2	Dual DOL	0.80	0.95	0.95	1.00	0.95	87%	0.76	1.7	1.4	2.2	1.7	2.2	14.6		A
050-KN-001	Carbon Regeneration Kiln	3	Feeder	0.85	0.95	0.60	1.00	0.60	88%	0.77	2.2	1.8	2.8	1.4	1.8	12.1		A
050-SC-002	Carbon Quench Screen	2.2	Dual DOL	0.80	0.95	0.95	1.00	0.95	87%	0.76	1.7	1.4	2.2	1.7	2.2	14.6		A
050-PP-005	Regenerated Carbon Pump	4.5	DOL	0.80	0.95	0.40	1.00	0.40	90%	0.77	3.4	2.8	4.4	1.4	1.9	12.6		A
050-PP-006	Elution Sump Pump	7.5	DOL	0.80	0.20	0.86	0.90	0.95	91%	0.81	1.2	0.9	1.5	5.1	6.3	44.0		A
050-PP-007	Pregnant Eluate Pump	15	DOL	0.80	0.95	0.40	1.00	0.40	93%	0.85	11.4	7.2	13.5	4.8	5.7	42.0		A
050-RC-001	Electrowinning Cell 1 Rectifier	22	DOL	0.80	0.20	0.86	0.90	0.95	94%	0.83	3.5	2.4	4.3	15.0	18.2	131.8		A
050-RC-002	Electrowinning Cell 2 Rectifier	22	DOL	0.80	0.20	0.86	0.90	0.95	94%	0.83	3.5	2.4	4.3	15.0	18.2	131.8		A
050-FA-001	Electrowinning Extraction Fan	0.75	DOL	0.85	0.95	0.86	0.90	0.95	83%	0.61	0.6	0.8	1.0	0.5	0.9	4.8		A
050-FA-002	Smelting Furnace Extraction Fan	0.75	DOL	0.85	0.95	0.86	0.90	0.95	83%	0.61	0.6	0.8	1.0	0.5	0.9	4.8		A
050-FA-003	Goldroom Extraction Fan	0.75	DOL	0.85	0.95	0.86	0.90	0.95	83%	0.61	0.6	0.8	1.0	0.5	0.9	4.8		A
050-PP-008	Goldroom Sump Pump	7.5	DOL	0.80	0.20	0.86	0.90	0.95	91%	0.81	1.2	0.9	1.5	5.1	6.3	44.9		A
050-HT-001	Goldroom Hoist	3	Feeder	0.80	0.10	0.10	1.00	0.10	88%	0.77	0.2	0.2	0.3	0.2	0.3	2.1		A
050-HT-002	Smelting Furnace Hoist	3	Feeder	0.80	0.10	0.10	1.00	0.10	88%	0.77	0.2	0.2	0.3	0.2	0.3	2.1		A
060-PP-001	Hydrochloric Acid Pump	2	DOL	0.80	0.50	0.40	1.00	0.40	85%	0.67	0.7	0.8	1.1	0.5	0.7	4.2		A
060-PP-002	Hydrochloric Acid Area Sump Pump	2	DOL	0.80	0.20	0.86	0.90	0.95	87%	0.76	0.4	0.3	0.5	1.5	2.0	13.2		A
060-PP-003	Caustic Pump 1	8	DOL	0.80	0.95	0.86	0.90	0.95	97%	0.81	5.7	4.1	7.0	5.1	6.3	44.9		A
060-PP-004	Caustic Pump 2	8	DOL	0.00	0.00	0.00	0.00	0.00	91%	0.81	0.0	0.0	0.0	0.0	0.0	0.0		A
060-PP-005	Caustic Area Sump Pump	6	DOL	0.80	0.20	0.86	0.90	0.95	90%	0.77	0.9	0.7	1.1	3.8	4.9	33.0		A
~~060-AG-004~~	~~Cyanide Mixing Tank Agitator~~	~~0~~	~~DOL~~	~~0.85~~	~~0.95~~	~~0.86~~	~~0.90~~	~~0.95~~	~~60%~~	~~0.60~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~		B
060-PP-006	Cyanide Transfer Pump	2	DOL	0.80	0.95	0.86	0.90	0.95	85%	0.67	1.1	1.3	1.7	1.0	1.5	9.0		A
060-PP-007	Cyanide Pump 1	3	DOL	0.80	0.95	0.86	0.90	0.95	88%	0.77	2.3	1.9	3.0	2.1	2.7	18.0		A
060-PP-008	Cyanide Pump 2	3	DOL	0.00	0.00	0.00	0.00	0.00	88%	0.77	0.0	0.0	0.0	0.0	0.0	0.0		A
060-PP-009	Cyanide Dosing Pump	2.2	Variable	0.80	0.95	0.86	0.90	0.95	87%	0.76	1.7	1.4	2.2	1.5	2.0	13.2		A
060-FE-001	Flocculant Screw Feeder	1	DOL	0.75	0.95	0.90	0.95	0.95	83%	0.61	0.5	0.7	0.9	0.5	0.8	4.4		A
060-AG-002	Flocculant Tank Agitator	3	DOL	0.75	0.95	0.90	0.95	0.95	88%	0.77	2.1	1.8	2.8	2.0	2.6	17.0		A
060-PP-010	Flocculant Pump	8	DOL	0.75	0.95	0.90	0.95	0.95	91%	0.81	5.3	3.9	6.6	5.1	6.3	44.6		A
060-AG-010	Flocculant Storage Tank Agitator	6	DOL	0.85	0.95	0.86	0.90	0.95	90%	0.77	4.4	3.7	5.8	4.0	5.2	35.0		A
060-PP-011	Flocculant Dosing Pump 1	1	Variable	0.80	0.95	0.40	1.00	0.40	83%	0.61	0.5	0.7	0.9	0.2	0.4	2.1		A
060-PP-012	Flocculant Dosing Pump 2	1	Variable	0.00	0.00	0.00	0.00	0.00	83%	0.61	0.0	0.0	0.0	0.0	0.0	0.0		A
060-PP-013	Flocculant Dosing Pump 3	0.8	Variable	0.80	0.95	0.40	1.00	0.40	83%	0.61	0.5	0.7	0.9	0.2	0.4	2.1		A
060-PP-014	Flocculant Dosing Pump 4	0.8	Variable	0.80	0.95	0.40	1.00	0.40	83%	0.61	0.5	0.7	0.9	0.2	0.4	2.1		A
060-PP-015	Flocculant Sump Pump	7.5	DOL	0.80	0.20	0.86	0.90	0.95	91%	0.81	1.2	0.9	1.5	5.1	6.3	44.5		A
060-HT-001	Flocculant Hoist	2.4	DOL	0.80	0.95	0.81	0.85	0.95	88%	0.77	1.8	1.5	2.3	1.5	2.0	13.3		A
060-AG-003	PAX Mixing Tank Agitator	1.1	DOL	0.85	0.95	0.86	0.90	0.95	80%	0.73	0.9	0.8	1.2	0.8	1.1	7.0		A
060-PP-016	PAX Transfer Pump	2.2	DOL	0.80	0.95	0.40	1.00	0.40	87%	0.76	1.7	1.4	2.2	0.7	0.9	6.2		A
060-FA-001	PAX Exhaust Fan	2.2	DOL	0.85	0.95	0.86	0.90	0.95	87%	0.76	1.8	1.5	2.3	1.6	2.1	14.0		A
060-PP-017	PAX Dosing Pump 1	0.4	Variable	0.80	0.95	0.86	0.90	0.95	60%	0.60	0.3	0.4	0.5	0.3	0.4	2.2		A
060-PP-018	PAX Dosing Pump 2	0.4	Variable	0.00	0.00	0.00	0.00	0.00	60%	0.60	0.0	0.0	0.0	0.0	0.0	0.0		A
060-PP-019	PAX Area Sump Pump	3.0	DOL	0.80	0.20	0.86	0.90	0.95	88%	0.77	0.5	0.4	0.6	2.1	2.7	18.0		A
060-HT-002	Reagent Area Mixing Hoist	2.4	DOL	0.80	0.95	0.81	0.85	0.95	88%	0.77	1.8	1.5	2.3	1.5	2.0	13.3		A
060-PP-020	Frother Transfer Pump	5.5	DOL	0.80	0.95	0.40	1.00	0.40	90%	0.77	4.2	3.5	5.4	1.8	2.3	15.4		A
060-PP-021	Frother Dosing Pump 1	0.4	Variable	0.80	0.95	0.40	1.00	0.40	60%	0.60	0.3	0.4	0.5	0.1	0.2	1.0		A
060-PP-022	Frother Dosing Pump 2	0.4	Variable	0.00	0.00	0.00	0.00	0.00	60%	0.60	0.0	0.0	0.0	0.0	0.0	0.0		A
060-BA-001	Lime Silo Activator	1	DOL	0.80	0.10	0.10	1.00	0.10	85%	0.73	0.1	0.1	0.1	0.1	0.1	0.8		A
060-RV-001	Lime Silo Rotary Valve	0.4	Variable	0.80	0.95	0.95	1.00	0.95	60%	0.60	0.3	0.4	0.5	0.3	0.5	2.5		A
060-FE-002	Lime Silo Screw Conveyor	1.5	Variable	0.75	0.95	0.90	0.95	0.95	85%	0.67	1.1	1.2	1.6	1.0	1.5	8.9		A
060-AG-004	Lime Mixing Tank Agitator	1.5	DOL	0.85	0.95	0.86	0.90	0.95	85%	0.67	1.2	1.3	1.8	1.1	1.6	9.5		A
060-PP-023	Lime Transfer Pump	3.0	DOL	0.80	0.95	0.40	1.00	0.40	88%	0.77	2.3	1.9	3.0	1.0	1.2	8.4		A
060-AG-005	Lime Storage Tank Agitator	1.5	DOL	0.85	0.95	0.86	0.90	0.95	85%	0.67	1.2	1.3	1.8	1.1	1.6	9.5		A
060-PP-024	Lime Distribution Pump 1	4	Variable	0.80	0.95	0.86	0.90	0.95	89%	0.77	3.0	2.5	3.9	2.7	3.5	24.0		A
060-PP-025	Lime Distribution Pump 2	4	Variable	0.00	0.00	0.00	0.00	0.00	89%	0.77	0.0	0.0	0.0	0.0	0.0	0.0		A
060-PP-026	Lime Area Sump Pump	4.0	DOL	0.80	0.20	0.86	0.90	0.95	89%	0.77	0.6	0.5	0.8	2.7	3.5	24.0		A
~~060-AG-006~~	~~Sodium Metabisulphite Mixing Tank Agitator~~	~~0~~	~~DOL~~	~~0.85~~	~~0.95~~	~~0.86~~	~~0.90~~	~~0.95~~	~~60%~~	~~0.60~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~		A
~~060-DC-00[illegible]~~	~~Sodium Metabisulphite Dust Collector~~	~~0.0~~	~~DOL~~	~~0.85~~	~~0.95~~	~~0.86~~	~~0.90~~	~~0.95~~	~~60%~~	~~0.60~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~		A
~~060-FA-002~~	~~Sodium Metabisulphite Exhaust Fan~~	~~0.0~~	~~DOL~~	~~0.85~~	~~0.95~~	~~0.86~~	~~0.90~~	~~0.95~~	~~60%~~	~~0.60~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~		A
~~060-PP-027~~	~~Sodium Metabisulphite Mixing Pump~~	~~0.0~~	~~DOL~~	~~0.80~~	~~0.95~~	~~0.40~~	~~1.00~~	~~0.40~~	~~60%~~	~~0.60~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~		A
~~060-PP-028~~	~~Sodium Metabisulphite Dosing Pump 1~~	~~0~~	~~Variable~~	~~0.80~~	~~0.95~~	~~0.86~~	~~0.90~~	~~0.95~~	~~60%~~	~~0.60~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~		A
~~060-PP-029~~	~~Sodium Metabisulphite Dosing Pump 2~~	~~0~~	~~Variable~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~60%~~	~~0.60~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~	~~0.0~~		A
060-PP-030	SMBS/CuSO4 Area Sump Pump	3	DOL	0.80	0.20	0.86	0.90	0.95	88%	0.77	0.5	0.4	0.6	2.1	2.7	18.0		A
060-HT-003	Sodium Metabisulphite Hoist	2.35	DOL	0.80	0.95	0.81	0.85	0.95	88%	0.77	1.8	1.5	2.3	1.5	2.0	13.3		A
060-AG-007	Copper Sulphate Mixing Tank Agitator	1.10	DOL	0.85	0.95	0.86	0.90	0.95	80%	0.73	0.9	0.8	1.2	0.8	1.1	7.0		A
060-PP-031	Copper Sulphate Mixing Pump	2.20	DOL	0.80	0.95	0.40	1.00	0.40	87%	0.76	1.7	1.4	2.2	0.7	0.9	6.2		A
060-PP-032	Copper Sulphate Dosing Pump 1	0.4	Variable	0.80	0.95	0.86	0.90	0.95	60%	0.60	0.3	0.4	0.5	0.3	0.4	2.2		A
060-PP-033	Copper Sulphate Dosing Pump 2	0	Variable	0.00	0.00	0.00	0.00	0.00	60%	0.60	0.0	0.0	0.0	0.0	0.0	0.0		A
060-HT-004	Copper Sulphate Mixing Hoist	2	DOL	0.80	0.95	0.81	0.85	0.95	88%	0.77	1.8	1.5	2.3	1.5	2.0	13.3		A
040-DB-005A	CIL & Elution L&SP Distribution Board	30	Feeder	0.60	0.95	0.60	0.60	1.00	95%	0.83	17.1	11.7	20.7	10.8	13.1	94.6		A
040-DB-005B	CIL & Elution Switchroom L&SP Distribution Board	15	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.85	8.5	5.4	10.1	5.4	6.4	47.3		A
070-MC-006	WATER SERVICES MCC	577									221	140	262	215	254	1880		
070-RO-001	RO Plant	22	Feeder	0.75	0.95	0.90	0.95	0.95	94%	0.83	15.7	10.7	19.0	14.9	18.1	130.4		A
070-PP-001	Gland Water Pump 1	11	DOL	0.80	0.95	0.86	0.90	0.95	93%	0.82	8.4	5.8	10.2	7.5	9.2	65.9		A
070-PP-002	Gland Water Pump 2	11	DOL	0.00	0.00	0.00	0.00	0.00	93%	0.82	0.0	0.0	0.0	0.0	0.0	0.0		A
070-PP-003	Raw Water Pump 1	45	Variable	0.80	0.95	0.86	0.90	0.95	95%	0.84	34.2	22.1	40.7	30.8	36.6	269.0		A
070-PP-004	Raw Water Pump 2	45	Variable	0.00	0.00	0.00	0.00	0.00	95%	0.84	0.0	0.0	0.0	0.0	0.0	0.0		A
070-PP-005	Process Water Pump 1	11	Variable	0.80	0.95	0.86	0.90	0.95	93%	0.82	8.4	5.8	10.2	7.5	9.2	65.9		A
070-PP-006	Process Water Pump 2	11	Variable	0.00	0.00	0.00	0.00	0.00	93%	0.82	0.0	0.0	0.0	0.0	0.0	0.0		A
070-PP-007	Cyanide Free Process Water Pump 1	160	Variable	0.80	0.95	0.86	0.90	0.95	96%	0.86	121.6	73.4	142.1	109.4	127.9	958.7		A
070-PP-008	Cyanide Free Process Water Pump 2	160	Variable	0.00	0.00	0.00	0.00	0.00	96%	0.86	0.0	0.0	0.0	0.0	0.0	0.0		A
070-WC-001	Potable Water Cooler	7.5	Feeder	0.80	0.95	0.81	0.85	0.95	97%	0.81	5.7	4.1	7.0	4.8	6.0	42.4		A
070-PP-010	Electrical Potable Water Pump	5.5	DOL	0.80	0.95	0.81	0.85	0.95	90%	0.77	4.2	3.5	5.4	3.6	4.6	31.1		A
070-PP-011	Elution Water Pump	4	DOL	0.00	0.00	0.00	0.00	0.00	89%	0.77	0.0	0.0	0.0	0.0	0.0	0.0		A
070-PP-013	Electrical Fire Water Pump	15	DOL	0.00	0.00	0.00	0.00	0.00	93%	0.85	0.0	0.0	0.0	0.0	0.0	0.0		A
070-PP-014	Fire Water Jockey Pump	2	DOL	0.00	0.00	0.00	0.00	0.00	85%	0.67	0.0	0.0	0.0	0.0	0.0	0.0		A
070-PP-015	Site Drainage Pump	37	DOL	0.80	0.20	0.86	0.90	0.95	95%	0.84	5.9	3.8	7.0	25.3	30.1	221.7		A
070-DB-006A	Water Services L&SP Distribution Board	15	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.85	8.5	5.4	10.1	5.4	6.4	47.3		A
070-DB-006B	Water Services Switchroom L&SP Distribution Board	15	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.85	8.5	5.4	10.1	5.4	6.4	47.3		A
080-DB-007	PLANT BUILDINGS	373									205	135	245	137	163	1196		
	Workshop/Warehouse Building	120	Feeder	0.60	0.95	0.60	0.60	1.00	96%	0.86	68.4	42.4	80.5	43.2	50.8	378.4		A
	Plant Stores Office	10	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.82	5.7	4.0	7.0	3.6	4.4	31.5		A
	Plant Maintenance Office	30	Feeder	0.60	0.95	0.60	0.60	1.00	95%	0.83	17.1	11.7	20.7	10.8	13.1	94.6		A
	Process Plant Office	30	Feeder	0.60	0.95	0.60	0.60	1.00	95%	0.83	17.1	11.7	20.7	10.8	13.1	94.6		A
	Process Plant Crib and Toilet	10	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.82	5.7	4.0	7.0	3.6	4.4	31.5		A
	Sample Preparation Building	50	Feeder	0.60	0.95	0.60	0.60	1.00	95%	0.84	28.5	18.4	33.9	18.0	21.4	157.7		A
	Plant Laboratory	100	Feeder	0.60	0.95	0.60	0.60	1.00	95%	0.85	57.0	36.1	67.5	36.0	42.6	315.4		A
	Plant Control Room	10	Feeder	0.60	0.95	0.60	0.60	1.00	93%	0.82	5.7	4.0	7.0	3.6	4.4	31.5		A
	Reagents Area Yard	5	Feeder	0.60	0.95	0.60	0.60	1.00	90%	0.77	2.9	2.4	3.7	1.8	2.3	15.8		A
	Sample Preparation Sump Pump	7.5	DOL	0.80	0.20	0.86	0.90	0.95	91%	0.81	1.2	0.9	1.5	5.1	6.3	44.0		A
008-GE-001	15kVA Portable Generator																	
045-PP-006	Tailings Seepage Pump 1	3	DOL	0.80	0.20	0.86	0.90	0.95	88%	0.77	0.5	0.4	0.6	2.1	2.7	18.0		A
045-PP-007	Tailings Seepage Pump 2	3	DOL	0.80	0.20	0.86	0.90	0.95	88%	0.77	0.5	0.4	0.6	2.1	2.7	18.0		A
045-PP-008	Toe Drain Pump	3	DOL	0.80	0.20	0.86	0.90	0.95	88%	0.77	0.5	0.4	0.6	2.1	2.7	18.0		A
008-GE-002	220kVA Generator																	
045-PP-009	Tailings Decant Return Pump	75	Star Delta	0.80	0.95	0.86	0.90	0.95	96%	0.84	57.8	36.8	67.9	51.3	61.1	449.4		A
		15,565									10,733	6,920	11,500	9,788	10,815	85,741		

TRANSFORMER SIZING						
TRANSFORMER NUMBER	DESCRIPTION	PEAK 1/2 HOUR MAX	SPARE CAPACITY	TOTAL CAPACITY	SELECTED TRANSFORMER	DETAILS
010-TF-001	Crushing Transformer	1,079	20%	1294	1,500	11kV/433V, Pad Mount
020-TF-002	Milling and Flotation Transformer	1,156	20%	1387	1,500	11kV/433V, Pad Mount
043-TF-003	Regrind Area Transformer	1,482	20%	1779	2,500	11kV/433V, Pad Mount
044-TF-004	NAL Area Transformer	507	20%	609	1,500	11kV/433V, Pad Mount
050-TF-005	Leaching, Elution and Tails Transformer	786	20%	943	1,500	11kV/433V, Pad Mount
070-TF-006	Water Services Transformer	262	20%	314	500	11kV/433V, Kiosk Style
080-TF-007	NPI Transformer	249	20%	299	500	11kV/433V, Kiosk Style

APPENDIX 6 – GLENCORE DESIGN DOCUMENTS

GLENCORE TECHNOLOGY

Rox Resources

YOUANMI - CLASS 3 STUDY

ALBION PROCESS™ PLANT DESCRIPTION

GT Document No: PA00098-GTS-DDO00008

Document/Records Management

Signatures

[redacted]

Disclaimer

Table of Contents

Table of Figures

List of Tables

1. Introduction

Glencore Technology has been commissioned by Rox Resources to complete a Class 3 (AACE) Engineering Study for recovery of gold from refractory sulphide concentrates using the Albion Process™. The Albion Process™ plant will treat high-grade sulphide concentrates and liberate gold for recovery by carbon in leach (CIL).

The Albion Process™ plant will be located at the Youanmi site where the Youanmi concentrate will be generated. The Albion Process™ plant will treat a total nominal throughput of 130,000 tonnes per annum.

The Albion Process™ comprises two steps. The first step is mechanical liberation achieved in the IsaMill™ Grinding Plant. The second step is chemical liberation achieved in the atmospheric pressure Albion Process™ Oxidative Leach. The residue from the Albion Process™ will feed a CIL plant for precious metals recovery.

This document outlines the Albion Process™ plant flow and needs to be read in conjunction with the Process Flow Diagrams.

The Block Flow Drawing for the Albion Process™ treatment plant is shown in Figure 1-1 as an overview of the process.

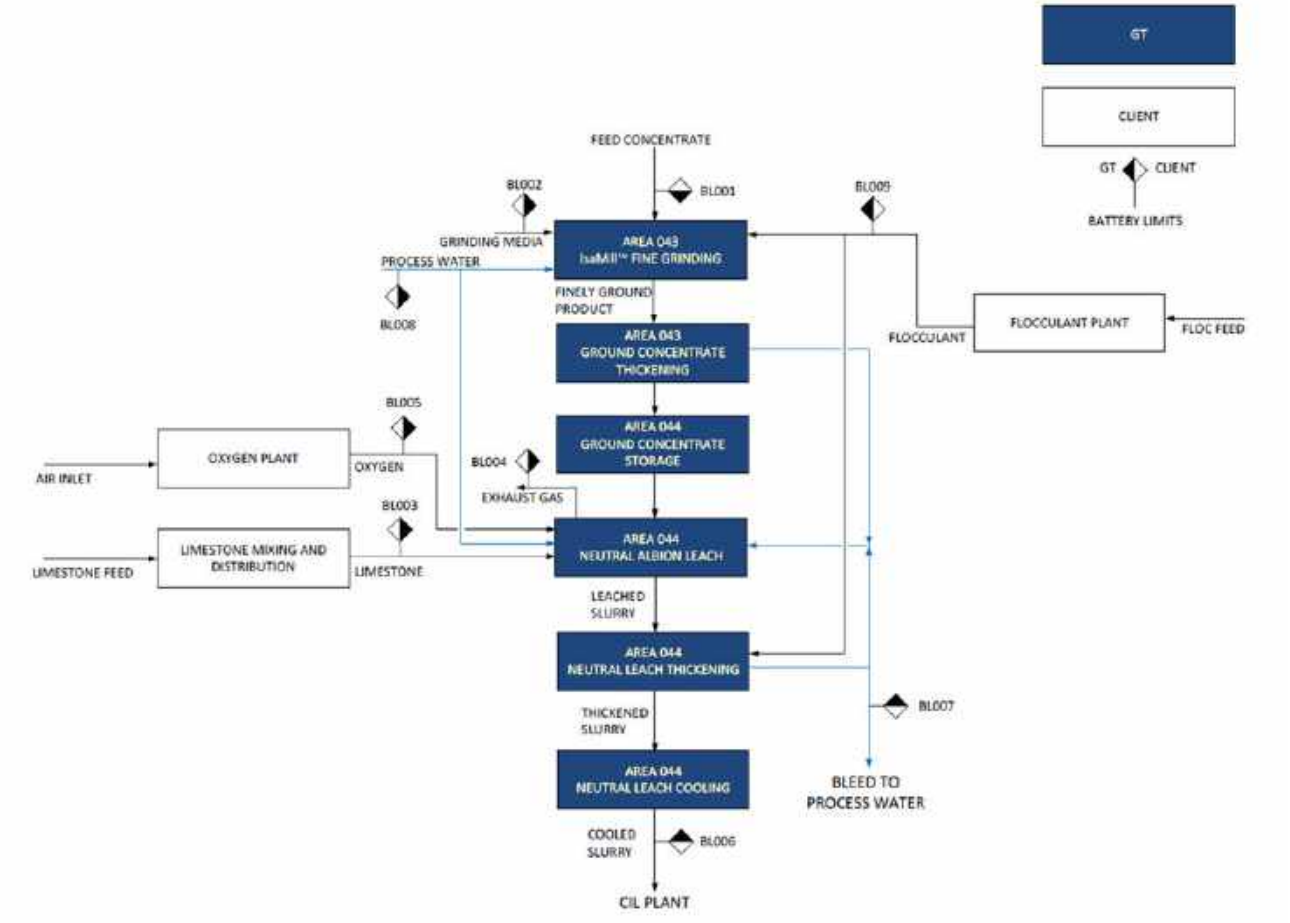


Figure 1-1 – Albion Process™ Project Block Flow Diagram

2. Work Breakdown Structure

The Engineering Study includes the following Plant Areas:

Table 2-1 – Work Breakdown Structure

WBS Area	Description
043	IsaMill Fine Grinding
043	Ground Concentrate Thickening
044	Ground Concentrate Storage and Distribution
044	Neutral Leach
044	Neutral Leach Thickening and Cooling
060	Reagents
070	Common Services Reticulation System

3. Process Flow Diagrams

The Engineering Study includes the following Process Flow Diagrams:

Table 3-1 – Process Flow Diagrams

Document Number	Description
PA00098-GTS-101-1-02001	Area 043 IsaMill Fine Grinding
PA00098-GTS-101-1-02002	Area 043 Ground Concentrate Thickening
PA00098-GTS-101-1-02003	Area 044 Ground Concentrate Storage and Distribution
PA00098-GTS-101-1-02004	Area 044 Neutral Leaching
PA00098-GTS-101-1-02005	Area 044 Neutral Leach Thickening and Cooling
PA00098-GTS-101-1-02006	Area 070 Common Services Reticulation System
PA00098-GTS-101-1-02007	Area 060 Reagents

4. Process Plant Oxidative Leach Chemistry

The Albion Process™ Plant utilises fine grinding, and oxidative leach processes to achieve improved gold recovery in the downstream CIL Plant.

The oxidative leach circuit oxidises sulphide minerals to either elemental sulphur or sulphate. This process liberates significant heat, and the leach is allowed to operate at a temperature close to the boiling point of the slurry. At the proposed Youanmi site, the boiling point of the slurry is anticipated to be 98.5°C.

At this operating temperature range, mineral leaching occurs in two steps. In the first step, the mineral sulphide is oxidised to a soluble sulphate and elemental sulphur.

Step 1 $MS + H_2SO_4 + ½\ O_2 = MSO_4 + S^o + H_2O$ (A)

In the second step, the elemental sulphur is then oxidised to form sulphuric acid.

Step 2 $S^o + H_2O + 3/2\ O_2 = H_2SO_4$ (B)

These reactions are catalysed by the action of ferric iron under acidic conditions.

The oxidative leach can be operated under a range of pH conditions, varying from acidic to neutral. The control pH fixes the amount of elemental sulphur oxidation via reaction B. The extent of elemental sulphur oxidation can be varied from a few percent to full oxidation by control of the leach pH. This is the main control loop employed in the oxidative leach, with pH set points varied within the range 1 – 6.

When the oxidative leach is operated under near neutral pH conditions, as employed for the Youanmi neutral concentrate leach, the pH is held in the range 5 – 6 by continual dosing of limestone, and no elemental sulphur is formed at all, with all sulphides oxidised completely through to sulphate, in the form of gypsum. No subsequent neutralisation of the neutral oxidative leach is required, as all oxidised components of the feed report to the oxidised residue, with the final solution phase containing no dissolved base metals.

4.1 Neutral Oxidative Leach Chemistry

Under neutral leaching conditions, pyrite is oxidised to form ferric sulphate and sulphuric acid at the surface of the leaching mineral:

$FeS_2 + 15/4O_2 + ½\ H_2O = ½\ Fe_2(SO_4)_3 + ½\ H_2SO_4$

Due to the neutral operating conditions, the acid is rapidly neutralised by limestone to form gypsum, and the ferric sulphate is converted almost exclusively to goethite at the operating temperatures in the leach:

$½\ Fe_2(SO_4)_3 + 3/2CaCO_3 + 1/2H_2O = FeO.OH + 3/2CaSO_4 + CO_2$

Under neutral leach conditions, the overall pyrite leach reaction then becomes:

$FeS_2 + 15/4O_2 + 9/2H_2O + 2CaCO_3 = FeO.OH + 2CaSO_4.2H_2O + 2CO_2$

Base metal sulphides, such as chalcopyrite and pentlandite will not oxidise under the near neutral operating conditions in the Neutral Oxidative Leach

In the neutral leach conditions arsenopyrite leaching will be very slow and is believed to proceed through a multistep process with the leach reactions represented as:

A. $FeAsS + 3.75\ O_2 + 1.5\ H_2O = H_3AsO_3 + FeSO_4$

B. $FeAsS + 1.75\ O_2 + H_2SO_4 + 0.5H_2O = H_3AsO_3 + FeSO_4 + S$

Arsenic is shown as leaching to the 3+ oxidation state, however additional oxidation of the As(III) will occur in the bulk leach slurry to arsenic 5+ state and any sulphur produced will oxidise to sulphate:

$2\ H_3AsO_3 + O_2 = 2\ H_3AsO_4$

$S + H_2O + 1.5\ O_2 = H_2SO_4$

The precipitation reaction will continue with the ongoing addition of alkali with the formation of ferric arsenate and sulphate as gypsum.

$$2\ H_3AsO_4 + Fe_2(SO_4)_3 = FeAsO_4 + H_2SO_4$$

$$H_2SO_4 + CaCO_3 = CaSO_4.2H_2O$$

Application of the "typical" neutral leach conditions of pH 5.5 – 6 with limestone for pH control, however, results in a relatively slow oxidation rate, with the onset of diffusion control at low levels of oxidation. The arsenopyrite surface becomes quickly passivated by a mixture of arsenic-sulphur and arsenic-iron precipitates.

To achieve improved leach kinetics for arsenopyrite at near neutral pH, a complexing agent may be required to transport the arsenic away from the leaching mineral. Sodium salts have been found to achieve this, with the formation of sodium arsenites and sodium arsenates.

When sodium salts are added to the neutral leach, the arsenopyrite leach reaction becomes:

$$2FeAsS + 5\ O_2(g) + 2\ NaOH(a) = 2\ FeAsO_4 + Na_2S_2O_3(ia) + H_2O$$

Arsenic will leach to As^{5+} exclusively at the neutral pH. The sodium thiosulphate generated by the leaching of arsenopyrite will be gradually oxidised as the slurry moves down the leach train according to the reaction:

$$Na_2S_2O_3(ia) + 2\ O_2(g) + H_2O = Na_2SO_4(ia) + H_2SO_4(ia)$$

The sodium is typically added as caustic or soda ash, however sodium will also build up in the recirculated liquor that will assist leaching. Recirculated sodium sulphate will assist leaching of arsenopyrite according to the reaction:

$$FeAsS + 2.5O_2(g) + 0.5Na_2SO_4(ia) + 0.5H_2O = FeAsO_4 + 0.5Na_2S_2O_3(ia) + 0.5H_2SO_4(ia)$$

The sodium requirement is equivalent to one mole of sodium per mole of arsenic to be oxidised.

The ideal operating pH for the near neutral leaching of arsenopyrite is marginally lower than for pyrite at approximately pH 4.5 – 5. Operation of the leach at this pH provides the benefits of near neutral oxidation but maximises the arsenic solubility to allow the arsenic-sodium complex to migrate away from the surface of the leaching mineral.

5. Albion Process™ Plant Description

5.1 Area 043 - Fine Grinding / Ground Concentrate Thickening

Refer to Drawings No PA00098-GTS-101-1-02001/02002

The IsaMill™ circuit produces a finely ground concentrate as feed to the Albion Process™. Fine grinding prevents passivation of the mineral in the leach circuit and allows the leach to operate at atmospheric pressure. Concentrate is ground as slurry, with the IsaMill™ operated in closed circuit.

The IsaMill™ has been sized as an M5,000 unit, and the circuit will accept repulped flotation concentrate at a maximum 80% passing size of ~81 microns and reduce the concentrate to 80% passing 12 microns at a specific energy requirement of 76.9 $kWh.t^{-1}$. The IsaMill™ will have an installed power of 1,500 kW, with 1,420 kW available for grinding. This will allow the IsaMill™ to treat the required 16.1 tph of fresh feed at the specified specific energy demand.

Concentrate slurry will be fed to the IsaMill™ circuit via IsaMill™ Discharge / Cyclone Pump Box (043-TK-007). Feed will pass over the IsaMill™ Discharge Media Dewatering Screen (043-SC-002) to remove any oversize material. Ground slurry will be combined with IsaMill™ (043-ML-001) discharge and be pumped to the IsaMill™ Cyclone Cluster (043-CY-001). The underflow will gravitate to the IsaMill™ Feed Pumpbox (043-TK-001), and the overflow will gravitate to the IsaMill™ Thickener (043-TH-001) via the IsaMill™ Thickener Feed Tank (043-TK-100). Thickener underflow will be pumped to the concentrate storage tanks at a slurry density of 45-48% w/w solids and the overflow will be returned to the process water system.

The IsaMill™ will be fed by the variable speed IsaMill™ Feed Pump – Duty (043-PP-001). Ground slurry will discharge from the IsaMill™ into the IsaMill™ Discharge/Cyclone Pump Box.

IsaMill™ media will be added to the IsaMill™ Feed Pump Box based on IsaMill™ power draw. The IsaMill™ will have a dedicated media addition system. Media will be drawn from the IsaMill™ Media Collection Hopper (043-HP-001) and be added to the IsaMill Feed Pump Box by hydraulic transfer. Ceramic media has been assumed to be provided in 1-tonne bulka bags.

The media sizing will be 2.5 mm and of low bulk density significantly improving the cost of the media. The IsaMill™ is designed for operation with Ceramic media.

Gland water will be required for the IsaMill™ gland seal and flushing duties and will be provided to the IsaMill™ Gland Seal and Flush Water Tank (043-TK-003) for distribution within the mill. A typical IsaMill™ Grinding Plant package is shown in Figure 5-1 – IsaMill™ Grinding Plant.

The IsaMill™ circuit will require approximately 80 tonnes per annum of ceramic media. Media will be supplied to site in 1 tonne bulka bags. Bags will be loaded directly into the media feed bin by overhead crane.

Figure 5-1 – IsaMill™ Grinding Plant

5.2 Area 044 – Ground Concentrate Storage

Refer to Drawing No PA00098-GTS-101-1-02003

A Ground Concentrate Storage Tank will be used to store concentrate and provide a buffer to the Albion Process™ oxidative leaching plant. Finely ground concentrate will be transferred from the Ground Concentrate Storage Tank (044-TK-205) via the Ground Concentrate Ring Main Pump – Duty (044-PP-205) to the leach circuit. Slurry will be transferred via a ring main, with capacity to dose into any of the first three reactors, this will allow continual feed to the leach with one of these tanks taken offline for maintenance and also allow partial parallel feeding to the leach as a strategy to minimise foaming.

The ring main will return to the Concentrate Storage Tanks through metallurgical Concentrate Slurry Samplers (044-SA-201).

5.3 Area 044 – Neutral Leach

Refer to Drawing No PA00098-GTS-101-1-02004

The purpose of the Albion Process™ Neutral Oxidative Leach circuit is to oxidise the sulphide matrix of concentrates with predominantly pyritic sulphide mineralogy under operating conditions that allow a moderate grade duplex steel alloy to be used for tank construction.

The concentrate will be leached in six agitated reactors arranged in series. Slurry transport between the reactors will be via gravity flow, with a head differential between each successive reactor. Reactors will overflow into a launder arrangement for feeding the subsequent reactors, and a slurry riser in each reactor will minimise bypassing within the reactor train.

The Oxidative Leach circuit volume is based on a minimum residence time of ~48 hours at the design concentrate flowrate. Leach Slurry density has been set at 30% w/w solids (nominal case) to ensure that the viscosity of the slurry allows adequate oxygen mass transfer.

Figure 5-2 – Oxidative Leach Reactor

The Neutral Oxidative Leaching circuit will consist of six 9.4 m diameter by 9.9 m high Neutral Leach Reactors (044-LR-301 to 306) with an average live volume of 600 m^3 throughout the leach train.

Each reactor will be agitated by a centrally-mounted 220 kW Neutral Leach Agitator (044-AG-301 to 306), fitted with dual hydrofoil impellers.

The impeller assembly will be designed to provide the required gas hold up and solution pumping rate to ensure efficient reaction within the reactor. All agitator shafts and impellers will also be fabricated from LDX2101 alloy. The top agitator will be a low solidity impeller, and the base agitator will be a high solidity impeller.

The reactors will be mounted on circular concrete ring beams. The leach reactors will be run in series and interconnected launders will allow the slurry to flow by gravity through the reactor train. All reactors will be fitted with bypass launders to allow any reactor to be removed from service for maintenance without interruption to the continuous process operation.

All reactors will have the same overall height (where practicable) to simplify the platform arrangement at the top of the reactor train. Removable sections of the grid mesh will allow access to the launders for insertion and access to valves used to bypass a reactor that may need to be temporarily removed from service.

The Neutral Leach circuit will operate under atmospheric conditions, but all reactors will be covered with lids to minimise evaporative losses and improve oxygen uptake efficiency. Each reactor lid will be fitted with a moat seal around the agitator shaft for sealing, with process water addition to the moat seal. Each reactor lid will also have an exhaust gas stack fitted to vent off-gas to the atmosphere.

The Neutral Leach circuit will operate auto-thermally. The leaching reactions will be exothermic, and the slurry temperature will be maintained by the heat of reaction. The major mechanism for heat loss from the leaching process will be through humidification of the leaching process off-gases.

The pH in the Neutral Leaching Reactors will be controlled to ~5.5 by the addition of limestone slurry to each reactor. Limestone will be added as a 30% w/w slurry based on a pH control measurement in each tank.

Oxygen will be added to each reactor via banks of HyperSparge™ oxygen spargers. The sparger banks will be designed to balance the sparger and agitator power input to provide the most efficient oxygen mass transfer.

The HyperSparge™ systems for each reactor will be located in 3 banks i.e. the sparger banks will be spaced at 120 degrees around the leach reactor. Each sparger will be sized at 250 $Nm^3.h^{-1}$ of oxygen flow, at a purity of >90% v/v. Each sparger will have a specially designed insertion assembly to allow live withdrawal of the spargers for maintenance. This will minimise reactor downtime.

Figure 5-3 – HyperSparge™ Oxygen Injector

Figure 5-4 – Oxidative Leach Train

Neutral leach thickener overflow will be recycled and added to the leach train to replace water losses through off gas humidification as required to maintain the target slurry density.

5.4 Area 044 – Neutral Leach Thickening

Refer to Drawing No. PA00098-GTS-101-1-02005

Discharge slurry from the Neutral Leach circuit will gravitate to the NAL Thickener (044-TH-501). The NAL Thickener will be a 15-metre diameter high-rate thickener for settling the oxidised solids, manufactured out of LDX2101 alloy steel.

Flocculant will be added to the thickener at 0.05% w/w to be blended with the feed and flow to the NAL Thickener feed well by gravity.

The NAL Thickener will thicken the concentrate slurry to an underflow density of 35 - 45% w/w. Thickener Underflow will be transferred to the NAL Thickener Underflow Tank (044-TK-505) by the NAL Thickener Underflow Pump – Duty (044-PP-503). The NAL Thickener Underflow Slurry Transfer Pump – Duty (044-PP-505) transfers the slurry to the CIL circuit.

Overflow from the Neutral Leach Thickener will gravitate to the Neutral Leach Thickener Overflow Tank (044-TK-501) and be utilised for dilution in the neutral leach reactors. Any excess will be returned to the process water system.

5.5 Area 060 – Common Services

Refer to Drawing No PA00098-GTS-101-1-02007

5.5.1 Limestone

Limestone will be provided to a single battery limit off-take at the Albion Process™ Plant site. Limestone will be supplied as a 30% w/w slurry with a particle size P80 of 70um.

Limestone will be used to maintain pH within the Neutral Leach. Approximately 8.42 tph of 90% reactive limestone will be required or 7.58 tph of 100% reactive limestone.

5.5.2 Flocculant

The plant will require flocculant to the following thickeners:

- Neutral Leach Thickener
- IsaMill Thickener

A single flocculant is proposed to be used in the plant, with the Flocculant Plant located adjacent to the relevant thickeners as practicable.

The Albion Process™ Plant will nominally consume 17 tonnes per annum of total flocculant in the thickening circuits.

Flocculant will be supplied as a 0.05%wt solution provided to a single battery limit off-take at the Albion Process™ Plant site.

5.5.3 Compressed Oxygen

Low pressure Oxygen gas supplied by others. The Youanmi oxygen plant will supply >90% v/v O_2 gas at 600 kPa(g) at a requirement of 6.5 nominal tonnes per hour (100% O_2 basis) to the Albion Process™ Plant.

5.6 Area 070 – Reagents

Refer to Drawing No PA00098-GTS-101-1-02006

5.6.1 Process Water Services

Process water will be provided to a single battery limit off-take at the Albion Process™ Plant site.

Process water will be used for water makeup and plant clean up. Process water will be sourced from the process water main and will be reticulated through the Plant site using HDPE piping.

Approximately 154 m^3/h process water will be required to be input to the process at the IsaMill area for density control. The IsaMill Thickener overflow will then be supplied to the Neutral Leach area as process water. An excess water requirement of approximately 152 m^3/h from the neutral thickener overflow will be returned to the plant process water system.

5.6.2 Raw and Gland Water Services

Raw water will be provided to a single battery limit off-take at the Albion Process™ Plant site.

Raw water will be required at an average flowrate of approximately 5 m^3/h for wash down allowance.

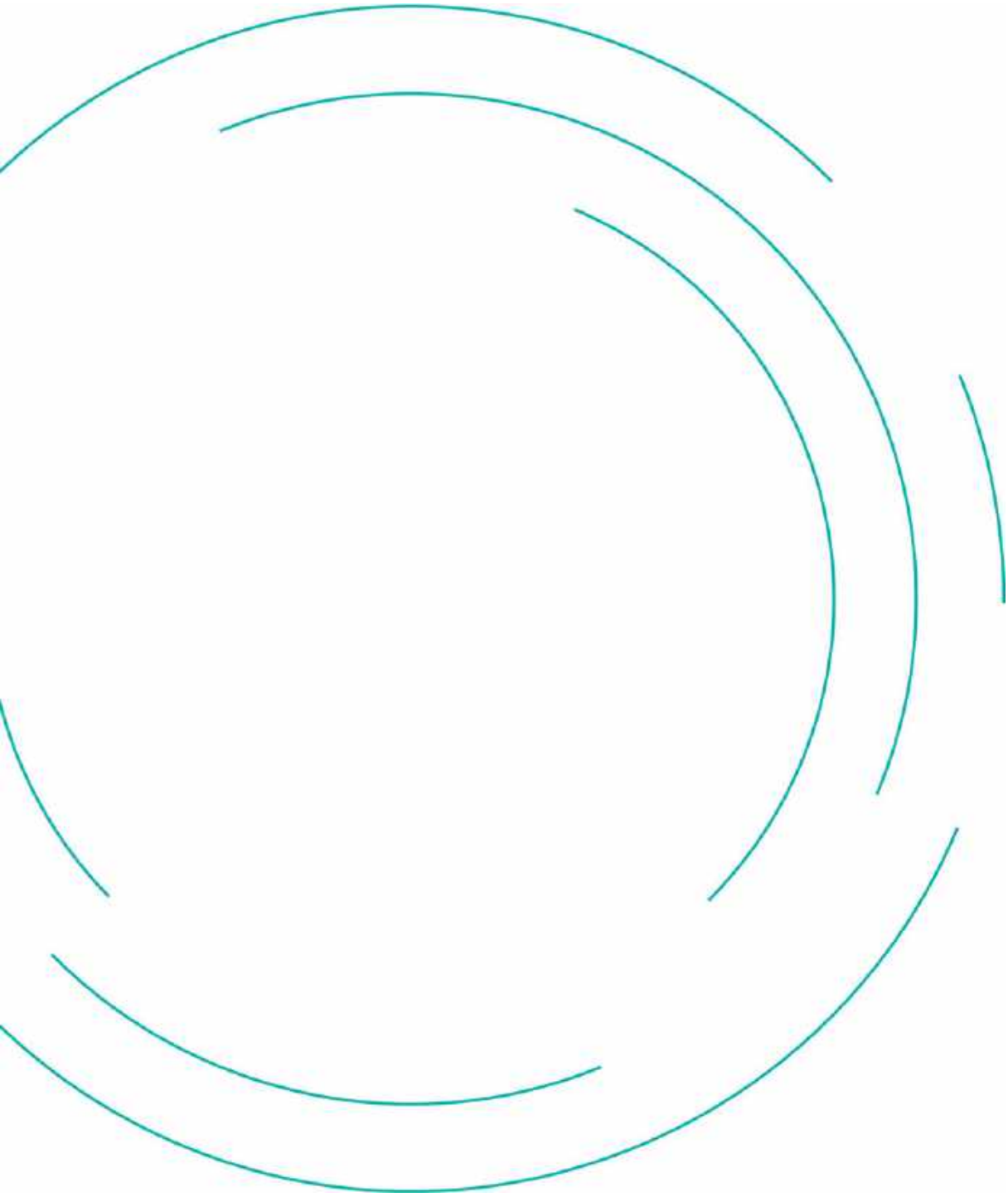
Gland water will be required at an average flowrate of approximately 26 m^3/h (including IsaMill flushing and seal water as well as pump gland water requirements).

All gland water lines will have Maric flow restrictors, with 2.5 times the vendor recommended barrier fluid requirements. The gland water system should be sized to provide excess the cumulative vendor recommended barrier fluid requirements to facilitate for system wear.

Gland water pressure will be 100 kPa higher than the highest expected pump discharge pressure. Solids should be filtered to less than 20 microns. Pumps will be generally specified as high seal expellers or low flow glands, to minimise water input to the process. Gland water feed to the pump will be isolated 20 seconds after pump shut down.

5.6.3 Air Services

Dry compressed air will be supplied by others and reticulated around the process plant.



GLENCORE TECHNOLOGY

[redacted]

GLENCORE TECHNOLOGY

Rox Resources

YOUANMI - CLASS 3 STUDY

PROCESS DESIGN CRITERIA

GT Document No: PA00098-GTA-DDO00001
Client Document No:

ISAKIDD JAMESON CELL ISASMELT™ ISAMILL™ ALBION PROCESS™

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
	DEFINITIONS					
	Source Codes					
	Client sourced data		A			
	Industry practice / Standard Engineering assumption / standard Engineering requirement.		B			
	Criteria based on GT Experience		C			
	Equipment Vendor		D			
	Engineering handbook data or fundamental constant		E			
	Assumed data		F			
	Process Calculation		G			
	Consultant		H			
	Technology Supplier		I			
	Metallurgical Testwork		J			
	Data on hold or under review		Z			
	Design Value Terms					
	The process criteria are listed as Flowsheet Nominal (from mass balance) and/or Design (maximum required to account for utilisation). The context in which these terms are used is in accordance with the following definitions:					
	Availability (availability factor)					
	The percent available time over total time a piece of equipment or process is made available to operations.					
	Operation (operation factor)					
	The percent operating time over available time a piece of equipment or process is operated.					
	Utilisation (utilisation factor)					
	% Utilisation = % Availability x % Operation. A Utilisation factor of unity represents the capability of, and requirement for, any equipment or facility being on-line for 24 hours per day for all operating days in the year. A Utilisation of less than unity reflects the combined effect of allowed					
	Nominal Value					
	The criteria values in the Nominal column (generally Flowrate) represent the steady-state average rate when processing mean head grade ore. Annual Rate = Flowsheet Nominal hourly rate x 24 hour x equipment Utilisation factor x number of operating days per year. All Nominal Flowrates, together with the respective utilisation factors, will be consistent with a typical annual mass balance.					
	Design Value					
	The criteria value in the Design column allow for instantaneous flows above the nominal value, where it is intended that the particular equipment will have an additional capacity to allow for maintenance, where process surge is required and incorporate a general design factor specified by The Design values are intended as attainable continuous rates and do not include any additional design allowance(s), by engineer or vendor, to ensure attainment of the Design values. The combination of Design values neither relate to the annual productions defined nor integrate to represent a metallurgical balance. The Design values shall be used for sizing equipment.					
	PLANT THROUGHPUT AND PRODUCTION					
	Nominal Throughput					
	Concentrate feed	tph	16.13	18.55		A
	General Design Factor					
		%		15		B
	Design Throughput			1.15		
	Concentrate feed	tpa	130,000	149,500		A
	PLANT OPERATING SUMMARY					
	Days per annum			365		
	Days per week			7		
	Operating Hours per Day			24		
	Availability	%		92%		B
	Available hours per annum	h		8,059		G
	Design Life	years		20		B
	Equipment Design Factor (applied to average mass balance flows)	%		15		B
	SITE CONDITIONS					
	Site location			Youanmi		A
	Latitude	S		28° 37' S		F
	Longitude	E		118° 50' E		F
	Elevation	m ASL		470		A
	Mean barometric pressure	kPa		96		G
	Timezone					
	General			UTC+8		

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
	PROCESS WATER SPECIFICATION			From Client		
	RAW WATER SPECIFICATION			From Client		
	GENERAL PROCESS DESIGN					
	Equipment Design Factors - Class 3 Estimates					
	Regrind Mills	%	20			B
	Atm. Leach, & Neutralisation Equipment	%	15			B
	Thickeners	%	6			B
	Pumps					
	Slurry	%	25			B
	Solution	%	10			B
	Flocculant	%	100			B
	Other major process equipment	%	15			B
	Plant Availability & Utilisation					
	Fine Grinding Circuit	%	92			B
	Atmospheric leaching	%	92			B
	Feed and Tailings Compositions					
	COMPONENT		**Feed Concentrate**			
	Modelled Dry Solids Throughput	tpa	130,000			A
	Modelled Dry Solids Throughput	tph	16.13			A
	SiO2	t/h	2.42			J - Core
	CuFeS2	t/h	0.06			J - Core
	FeS2	t/h	7.55			J - Core
	FeAsS	t/h	0.58			J - Core
	ZnS	t/h	0.08			J - Core
	Mg5Al2Si3O10(OH)8	t/h	1.06			J - Core
	NaAlSi3O8	t/h	0.40			J - Core
	CaCO3	t/h	0.50			J - Core
	CaMg(CO3)2	t/h	0.27			J - Core
	Au	t/h	0.00			J - Core
	Ag	t/h	0.00			J - Core
	KAl2(AlSi3O10)(OH)2	t/h	3.19			J - Core
	Fe (C3)	wt-%	23.14			J - Core
	S (C3)	wt-%	26.03			J - Core
	Si (C3)	wt-%	13.00			J - Core
	Cu (C3)	wt-%	0.14			J - Core
	Al (C3)	wt-%	4.92			J - Core
	Mg (C3)	wt-%	1.67			J - Core
	Ca (C3)	wt-%	1.61			J - Core
	Na (C3)	wt-%	0.22			J - Core
	As (C3)	wt-%	1.66			J - Core
	Zn (C3)	wt-%	0.34			J - Core
	Au (C3)	ppm	46.50			J - Core
	Ag (C3)	ppm	12.00			J - Core

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
	Product Compositions					
			Cooled Thickened			
	COMPONENT		**Residue to CIL**			
	Modelled Dry Solids Throughput	tpa	286,955			G
	Modelled Dry Solids Throughput	tph	35.61			G
	SiO2	t/h	9.78			G
	CuFeS2	t/h	0.03			G
	FeS2	t/h	2.67			G
	FeAsS	t/h	0.21			G
	FeO*OH	t/h	3.62			G
	FeAsO4	t/h	0.45			G
	ZnS	t/h	0.03			G
	Mg5Al2Si3O10(OH)8	t/h	1.06			G
	NaAlSi3O8	t/h	0.40			G
	Al2O3	t/h	0.03			G
	CaSO4*2H2O	t/h	14.14			G
	Au	t/h	0.00			G
	Ag	t/h	0.00			G
	KAl2(AlSi3O10)(OH)2	t/h	3.19			G
	FeS	t/h	0.00			G
	Fe (C3)	wt-%	10.47			G
	S (C3)	wt-%	11.58			G
	Si (C3)	wt-%	15.54			G
	Cu (C3)	wt-%	0.03			G
	Al (C3)	wt-%	2.27			G
	Mg (C3)	wt-%	0.65			G
	Ca (C3)	wt-%	9.24			G
	Na (C3)	wt-%	0.10			G
	As (C3)	wt-%	0.75			G
	Zn (C3)	wt-%	0.06			G
	Au (C3)	ppm	21.03			G
	Ag (C3)	ppm	5.43			G

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE

UNITS AND DIMENSIONS

Units and dimensions used in these design criteria are in SI units where possible
A period represents a decimal marker
A comma is used to separate groups of three integers
Reference conditions are Normal Temperature and Pressure (NPT), corresponding with a molar (ideal) gas volume of 22.414 m^3/(kg.mol).
A description of the units used in these design criteria is outlined below

Mass	
Kilogram	kg
Tonne	t
Gram	g
Milligram	mg
oz	ounce (precious metals)
Length	
Metre	m
Kilometre	km
Millimetre	mm
Micron	micron
Time	
Second	s
Hour	h
Day	d
Minute	min
Year	a
Volume	
Cubic metre	m^3
Litre	l
Bed Volume	BV
Energy	
Ampere	A
Kilowatt	kW
Megawatt	MW
Joules	j
Kilowatthour	kWh
Volt	V
Area	
Square metre	m^2
Velocity	
Metre per second	$m.s^{-1}$
Temperature	
Degrees Celsius	^oC
Degrees Kelvin	K
Pressure	
Kilopascals - absolute	kPa(a)
Kilopascals - gauge	kPa(g)
Pascal	Pa
Concentration	
Weight percent	% w/w
Volume percent	% v/v
Mole	Mol
Gram per litre	$g.l^{-1}$
Kilogram per cubic metre	$kg.m^{-3}$

ABBREVIATIONS

Max	Maximum
Min	Minimum
TBA	To be advised
FVF	Froth Volume Factor
CSRL / MSRL	Carbon (or Mild) Steel Rubber Lined
OT / CT	Tanks Only: Open Top or Closed Top Tank
UL /SL	Tank Shell Thermal Insulation Only: Unlagged or Lagged
VSD /DOL	Pump Drives Only: Variable Speed Drive or Direct On Line

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
	FEED CHARACTERISTICS					
	Description		Feed concentrate			
	Specific Gravity (SG)		3,874			G
	Moisture	%	50			F
	Sizing					
	P_{98}	microns	233			J - Sig Plot
	P_{80}	microns	81			J - Sig Plot
043 ML 001	**IsaMill**					
	Mill operations	Closed/Open		Closed		
	Mill fresh feed rate	$t.h^{-1}$	16.1	18.6		A
	Circulating Load	%	320			G
	Mill feed rate					
	Mill feed	$t.h^{-1}$	55.1	66.1		G
		$m^3.h^{-1}$	81.9	98.3		G
	Mill feed slurry density	% w/w	45.1	45.1		C
	Ground Concentrate PSD					
	% passing					
	P_{98}	microns	26			J - Core AL44
	P_{80}	microns	12			J - Core AL44
	Coarse Size Index (CSI)					
	Specific Energy	$kWh.t^{-1}$	77			J - Sig Plot
	Total Mill Specific Power	kW	1240	1489		G
	Mill Type			M5000		G
	Mill installed power	kW		1500		I
	Available Mill drawn power			1425		I
	No of mills			1		G
	Mill Flush Water	$m^3.h^{-1}$		3.54		I
	Mill Gland Water	$m^3.h^{-1}$		1.50		I
	Mill Discharge Flowrate	$m^3.h^{-1}$	82.8	95.2		G
	Design Temperature	°C		70		I
043 TK 001	**IsaMill Feed Pump Box**					
	Mass Flowrate	$t.h^{-1}$	55.1	63.3		G
	Slurry Density	%	45.1	45.1		C
	Slurry Flowrate	$m^3.h^{-1}$	81.9	94.2		G
	Configuration			Cylindrical Pump Tank, 60 degree cone angle, 1 per IsaMill		
	Number of Tanks			1		
	Residence Time - minimum	mins		5		C
	Tank sizing					
	Tank volume - live (calc)	m^3		7.9		G
	Tank volume - live (Chosen)	m^3		10		C
	Cone angle	Deg		60		C
043 PP 001	**IsaMill Feed Pump**					
	Nominal Flow	$m^3.h^{-1}$	81.9	102.4		G
	Froth Volume Factor			1.00		C
	Design Flow (Including FVF)	$m^3.h^{-1}$		102.4		G
	Ring Main Factor			1.0		C
	Design Flow	$m^3.h^{-1}$		102.4		G
	Slurry Specific Gravity (Including FVF)	$kg.m^{-3}$	3874	3874		G
	Pump Absorbed Power	kW		31.2		G
	Pump Installed Power	kW		37.0		G
	Wetted Materials			CSRL		C
043 SA 001	**Concentrate Slurry Sampler**					
	Type			Feed to On Stream Analyser		
	Slurry Flowrate	$m^3.h^{-1}$	20.42	23.5		G
043 SC 002	**IsaMill Discharge Media Screen**					
	Type			Seive Bend. Polyurethane		
	Aperture	microns		1000		I
	Slurry Flowrate	$m^3.h^{-1}$	103.20	118.7		G

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
043 TK 007	**IsaMill Discharge/Cyclone Pump Box**					
	Mass Flowrate	$t.h^{-1}$	67.9	78.1		G
	Slurry Density	%	30.0	30.0		C
	Slurry Flowrate	$m^3.h^{-1}$	177.9	204.6		G
	Configuration			Cylindrical Pump Tank, 60 degree cone angle, 1 per IsaMill		
	Number of Tanks			1		
	Residence Time - minimum	mins		5		C
	Tank sizing					
	Tank volume - live (calc)	m^3		17.1		G
	Tank volume - live (Chosen)	m^3		20		C
	Cone angle	Deg		60		C
043 PP 007	**IsaMill Cyclone Feed Pump**					
	Nominal Flow	$m^3.h^{-1}$	177.9	222.4		G
	Froth Volume Factor			1.00		C
	Design Flow (Including FVF)	$m^3.h^{-1}$		222.4		G
	Slurry Specific Gravity	$kg.m^{-3}$	3874	3874		G
	Pump Absorbed Power	kW		67.8		G
	Pump Installed Power	kW		75.0		G
	Wetted Materials			CSRL		C
043 CY 001	**IsaMill Cylcopack**					
	Circulating load	%	320			I - IsaMill design
	Cyclone feed solids	tph	67.9	78.1		G
	Cyclone feed flowrate	$m^3.h^{-1}$		222.4		G
	Overflow density	% w/w	13.2	13.2		G
	Overflow flowrate	$m^3.h^{-1}$	112.2	129.0		G
	Underflow Density	% w/w	50.0	50.0		G
	Underflow flowrate	$m^3.h^{-1}$	65.7	75.6		G
043 SA 002	**Concentrate Slurry Sampler**					
	Type			Feed to particle size analyser		
	Slurry Flowrate	$m^3.h^{-1}$	112.2	129.0		G
043 PP 003	**IsaMill Gland Water Pump**					
	Flow	$m^3.h^{-1}$	5.04	5.54		C
	Specific Gravity	$kg.m^{-3}$		1000		G
	Pump Absorbed Power	kW		0.52		G
	Pump Installed Power	kW		0.55		G
	Type			Inline multistage		I
	Wetted Materials			SS		I
043 SU 901	**IsaMill Area Sump Pump**					
	Flow	$m^3.h^{-1}$	60	60		F
	Specific Gravity	$kg.m^{-3}$		1600		F
	Pump Absorbed Power	kW		10.4		G
	Pump Installed Power	kW		11.0		G
	Wetted Materials			CSRL		C
043 TK 100	**IsaMill Thickener Feed Tank**					
	Feed Slurry Flowrate	$m^3.h^{-1}$	112.2	129.0		G
	Chosen Live Volume	m^3		2		C
	Design Temperature	°C		60		G
	Overflow System			Overflow pipe to Feedwell		I
	Tank materials of construction					
	Wetted metal surfaces			CSRL		C

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
043 TH 101	**IsaMill Thickener**					
	Solids Feedrate	$t.h^{-1}$	16.2	17.1		G
	Solids S.G.	$kg.m^{-3}$	3874	3874		G
	Combined Feed Slurry Flowrate	$m^3.h^{-1}$	112	118.9		G
	Combined Feed Pulp Density	% w/w	13	13		G
	Thickener Unit Area	$kg.m^{-2}.h^{-1}$		250		F
	Required Thickener Area	m^2		69		G
	Calculated Diameter	m		9.3		G
	Selected Diameter	m		10		C
	Selected Thickener Area	m^2		79		G
	Flocculant Add'n Rate (g/t of solids)	g/t		40		F
	Flocculant Strength	%		0.05		C
	Diluted flocculant solution flow	$m^3.h^{-1}$	1.29	2.59		G
	Underflow Density	% w/w	45.00	45		C
	Underflow slurry flowrate	$m^3.h^{-1}$	24.2	25.6		G
	Thickener overflow flowrate	$m^3.h^{-1}$	89.3	94.6		G
	Overflow Clarity	ppm		< 150		C
	Drawn power (Est)	kW		3.71		G
	Installed Power	kW		5.50		G
	Materials			CSRL		C
043 PP 103	**IsaMill Thickener Underflow Pump**					
	Nominal Flow	$m^3.h^{-1}$	24.2	30.2		G
	Froth Volume Factor			1.00		C
	Design Flow (Including FVF)			30.2		G
	Slurry density	%wt solids		45.0		G
	Slurry Specific Gravity	$kg.m^{-3}$	1486	1486		G
	Pump Absorbed Power	kW		3.5		G
	Pump Installed Power	kW		3.7		G
043 TK 101	**IsaMill Thickener Overflow Tank**					
	Feed Solution Flowrate	$m^3.h^{-1}$	89.3	102.7		G
	Residence Time	min		5		C
	Required Live Volume	m^3		9		G
	Chosen Live Volume	m^3		10		C
	Height (live) to Diameter ratio			1.00		C
	Height (live)	m		2.3		G
	Freeboard	m		0.5		C
	Height	m		2.8		G
	Diameter	m		2.3		G
	Materials of Construction			CS		C
	Tank Top			CT		C
043 PP 101	**IsaMill Thickener Overflow Pump**					
	Flow	$m^3.h^{-1}$	89.3	98.2		G
	Slurry s.g.	$kg.m^{-3}$	988	988		G
	Pump Absorbed Power	kW		7.6		G
	Pump Installed Power	kW		11.0		G
	Wetted materials			CS		C
043 SU 902	**IsaMill Thickener Sump Pump**					
	Flow	$m^3.h^{-1}$	60	60		F
	Specific Gravity	$kg.m^{-3}$		1600		F
	Pump Absorbed Power	kW		10.4		G
	Pump Installed Power	kW		11.0		G
	Wetted Materials			CSRL		C

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
044	**Ground Concentrate Storage**					
044 TK 205	**Concentrate Storage Tank**					
	Fresh Feed Rate	$m^3.h^{-1}$	24.8	28.5		G
	Slurry Specific Gravity	$kg.m^{-3}$	1474	1474		G
	Total residence time - minimum design	h		12		C
	Required Live Volume	m^3		342		G
	Chosen Live Volume	m^3		398		C
	Height (live) to Diameter ratio			0.95		I
	Height (live)	m		7.7		G
	Freeboard	m		0.95		C
	Height	m		8.67		G
	Diameter	m		8.10		G
	Number of baffles			4		I
	Tank materials of construction					
	Shell			Carbon Steel (CS)		C
	Lining			Rubber Lining (RL)		C
044 AG 205	**Concentrate Storage Tank Agitator**					
	Impeller type			Low solidity hydrofoil		I
	Impeller power - specific	$kW.m^{-3}$		0.085		C
	Impeller power per tank - Absorbed	kW		38.90		G
	Impeller power per tank - Installed	kW		45.0		G
	Agitator and Shaft Materials					
	Wetted materials			CSRL		C
044 PP 205	**Concentrate Distribution Pump**					
	Nominal Flow	$m^3.h^{-1}$	25.4	31.7		G
	Froth Volume Factor (FVF)			1.0		C
	Design Flow (Including FVF)	$m^3.h^{-1}$		31.7		G
	Ring Main Factor			4		C
	Design Flow	$m^3.h^{-1}$		126.9		G
	Slurry density	%		43.5		G
	Slurry Specific Gravity	$kg.m^{-3}$	1462	1462		G
	Pump Absorbed Power	kW		14.6		G
	Pump Installed Power	kW		15.0		G
	Wetted materials			CSRL		C
044 SA 201	**Concentrate Feed Slurry Sampler**					
	Type			Metallurgical		
	Slurry Flowrate	$m^3.h^{-1}$	25.4	29.2		G
044 SU 903	**Concentrate Storage Area Sump Pump**					
	Flow	$m^3.h^{-1}$	60	60		F
	Specific Gravity	$kg.m^{-3}$		1600		F
	Pump Absorbed Power	kW		10.4		G
	Pump Installed Power	kW		11.0		G
	Wetted materials			CSRL		C

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
044	**Neutral Oxidative Leach**					
	Residence time	h		48		J - Core AL44
	Reactor density - target	% w/w		30		C
	Solids feed size p80	µm	12	12		J
	Solids reactor discharge size p80 (estimated)	µm		20		C
	Sulphur oxidation	%		65		J - Core AL44
	Oxidative leach chemical rate constant	h^{-1}		0.022		G
	Number of reactors			6	B	G
	Reactor volume - live (nominal from modelling)	m^3		622		I
	Standard OLR selected			OLR0600		I
	Residence Time Check - from reactors total	h	53.8	46.8	B	G
	Reactor Volume Check - from reactors average	m^3		605	B	G
044 LR 301	**Neutral Leach Reactor 1**			NEUTRAL OXIDATIVE LEACH CONDITIONS		
	Design Solution Flowrate	$m^3.h^{-1}$	52.5	60.4	B	G
	Slurry Denisty	$t.m^{-3}$		1.2		G
	Residence Time - actual	h	12	10	B	G
	Design Temperature	°C		98		I
	Operating Temperature	°C		94	B	G
	Tank size - design (live)	m^3		622		G
	Height (live) to Diameter ratio			0.95		I
	Height (live)	m		8.95		G
	Freeboard	m		0.95		I
	Height	m		9.90		G
	Diameter	m		9.41		G
	Number of baffles			4		I
	Overflow System			Internal Riser to Launder		I
	Tank materials of construction					
	Shell			LDX 2101		C
	Wetted metal surfaces			LDX 2101		C
044 AG 301	**Neutral Leach Reactor 1 Agitator**					
	Reactor specific power	$kW.m^{-3}$		0.35		C
	Agitator drawn power	kW		218		G
	Agitator Installed power	kW		220		I
	Impeller diameter					
	Upper	m		3.08		I
	Lower	m		3.14		I
	Impeller type					
	Upper			Low solidity hydrofoil		I
	Lower			High solidity hydrofoil		I
	Agitator and Shaft Materials					
	Shaft			LDX 2101		C
	Wetted metal surfaces (impeller blades)			LDX 2101		C
044 HS 301	**Neutral Leach Oxygen Sparger Bank 1**					
	Sparger type			HyperSparge DN15		I
	Sparger insertion length	m		2.0		I
	Sparger nozzle size	mm		9		G
	Sparger Flowrate (nominal)	$Nm^3.h^{-1}$		250		G
	Total gaseous flowrate - Design	$Nm^3.h^{-1}$		1699.9	B	G
	Number of spargers required			6.8	B	G
	Number of Spargers per Reactor			9		G
	Number of Sparger Nozzles per Reactor			12		I
	Wetted materials of Construction			LDX 2101		C

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
044 LR 302	**Neutral Leach Reactor 2**			NEUTRAL OXIDATIVE LEACH CONDITIONS		
	Design Solution Flowrate	$m^3.h^{-1}$	61.6	70.8	B	G
	Slurry Denisty	$t.m^{-3}$		1.2		G
	Residence Time - actual	h	10	9	B	G
	Design Temperature	^oC		98		I
	Operating Temperature	^oC		96	B	G
	Tank size - design (live)	m^3		615		G
	Height (live) to Diameter ratio			0.94		I
	Height (live)	m		8.85		G
	Freeboard	m		1.05		I
	Height	m		9.90		G
	Diameter	m		9.41		G
	Number of baffles			4		I
	Overflow System			Internal Riser to Launder		I
	Tank materials of construction					
	Shell			LDX 2101		C
	Wetted metal surfaces			LDX 2101		C
044 AG 302	**Neutral Leach Reactor 2 Agitator**					
	Reactor specific power	$kW.m^{-3}$		0.35		C
	Agitator drawn power	kW		215		G
	Agitator Installed power	kW		220		I
	Impeller diameter					
	Upper	m		3.08		I
	Lower	m		3.14		I
	Impeller type					
	Upper			Low solidity hydrofoil		I
	Lower			High solidity hydrofoil		I
	Agitator and Shaft Materials					
	Shaft			LDX 2101		C
	Wetted metal surfaces (impeller blades)			LDX 2101		C
044 HS 302	**Neutral Leach Oxygen Sparger Bank 2**					
	Sparger type			HyperSparge DN15		I
	Sparger insertion length	m		2.0		I
	Sparger nozzle size	mm		9		G
	Sparger Flowrate (nominal)	$Nm^3.h^{-1}$		250		G
	Total gaseous flowrate - Design	$Nm^3.h^{-1}$		1202	B	G
	Number of spargers			4.8	B	G
	Number of Spargers per Reactor			6		G
	Number of Sparger Nozzles per Reactor			12		I
	Wetted materials of Construction			LDX 2101		C

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
044 LR 303	**Neutral Leach Reactor 3**			NEUTRAL OXIDATIVE LEACH CONDITIONS		
	Design Solution Flowrate	$m^3.h^{-1}$	68.3	78.5	B	G
	Slurry Denisty	$t.m^{-3}$		1.2		G
	Residence Time - actual	h	9	8	B	G
	Design Temperature	^oC		98		I
	Operating Temperature	^oC		96	B	G
	Tank size - design (live)	m^3		608		G
	Height (live) to Diameter ratio			0.93		I
	Height (live)	m		8.75		G
	Freeboard	m		1.15		I
	Height	m		9.90		G
	Diameter	m		9.41		G
	Number of baffles			4.0		I
	Overflow System			Internal Riser to Launder		I
	Tank materials of construction					
	Shell			LDX 2101		C
	Wetted metal surfaces			LDX 2101		C
044 AG 303	**Neutral Leach Reactor 3 Agitator**					
	Reactor specific power	$kW.m^{-3}$		0.35		C
	Agitator drawn power	kW		213		G
	Agitator Installed power	kW		220		I
	Impeller diameter					
	Upper	m		3.08		I
	Lower	m		3.14		I
	Impeller type					
	Upper			Low solidity hydrofoil		I
	Lower			High solidity hydrofoil		I
	Agitator and Shaft Materials					
	Shaft			LDX 2101		C
	Wetted metal surfaces (impeller blades)			LDX 2101		C
044 HS 303	**Neutral Leach Oxygen Sparger Bank 3**					
	Sparger type			HyperSparge DN15		I
	Sparger insertion length	m		2		I
	Sparger nozzle size	mm		9		G
	Sparger Flowrate (nominal)	$Nm^3.h^{-1}$		250		G
	Total gaseous flowrate - Design	$Nm^3.h^{-1}$		919.89	B	G
	Number of spargers			3.7	B	G
	Number of Spargers per Reactor			6.00		G
	Number of Sparger Nozzles per Reactor			9		I
	Wetted materials of Construction			LDX 2101		C

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS			SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
044	**LR**	**304**	**Neutral Leach Reactor 4**			NEUTRAL OXIDATIVE LEACH CONDITIONS		
			Design Solution Flowrate	$m^3.h^{-1}$	73.7	84.8	B	G
			Slurry Denisty	$t.m^{-3}$		1.2		G
			Residence Time - actual	h	8.2	7.1	B	G
			Design Temperature	^oC		98.0		I
			Operating Temperature	^oC		95.8	B	G
			Tank size - design (live)	m^3		601		G
			Height (live) to Diameter ratio			0.92		I
			Height (live)	m		8.65		G
			Freeboard	m		1.25		I
			Height	m		9.90		G
			Diameter	m		9.41		G
			Number of baffles			4.0		I
			Overflow System			Internal Riser to Launder		I
			Tank materials of construction					
			Shell			LDX 2101		C
			Wetted metal surfaces			LDX 2101		C
044	**AG**	**304**	**Neutral Leach Reactor 4 Agitator**					
			Reactor specific power	$kW.m^{-3}$		0.35		C
			Agitator drawn power	kW		210		G
			Agitator Installed power	kW		220		I
			Impeller diameter					
			Upper	m		3.08		I
			Lower	m		3.14		I
			Impeller type					
			Upper			Low solidity hydrofoil		I
			Lower			High solidity hydrofoil		I
			Agitator and Shaft Materials					
			Shaft			LDX 2101		C
			Wetted metal surfaces (impeller blades)			LDX 2101		C
044	**HS**	**304**	**Neutral Leach Oxygen Sparger Bank 4**					
			Sparger type			HyperSparge DN15		I
			Sparger insertion length	m		2		I
			Sparger nozzle size	mm		9		G
			Sparger Flowrate (nominal)	$Nm^3.h^{-1}$		250		G
			Total gaseous flowrate - Design	$Nm^3.h^{-1}$		719.4	B	G
			Number of spargers			2.9	B	G
			Number of Spargers per Reactor			3.00		G
			Number of Sparger Nozzles per Reactor			9		I
			Wetted materials of Construction			LDX 2101		C

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS			SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
044	**LR**	**305**	**Neutral Leach Reactor 5**			NEUTRAL OXIDATIVE LEACH CONDITIONS		
			Design Solution Flowrate	$m^3.h^{-1}$	77.7	89.4	B	G
			Slurry Denisty	$t.m^{-3}$		1.2		G
			Residence Time - actual	h	7.6	6.6	B	G
			Design Temperature	^oC		98.0		I
			Operating Temperature	^oC		95.8	B	G
			Tank size - design (live)	m^3		594		G
			Height (live) to Diameter ratio			0.91		I
			Height (live)	m		8.55		G
			Freeboard	m		1.35		I
			Height	m		9.90		G
			Diameter	m		9.41		G
			Number of baffles			4.0		I
			Overflow System			Internal Riser to Launder		I
			Tank materials of construction					
			Shell			LDX 2101		C
			Wetted metal surfaces			LDX 2101		C
044	**AG**	**305**	**Neutral Leach Reactor 5 Agitator**					
			Reactor specific power	$kW.m^{-3}$		0.35		C
			Agitator drawn power	kW		208		G
			Agitator Installed power	kW		220		I
			Impeller diameter					
			Upper	m		3.08		I
			Lower	m		3.14		I
			Impeller type					
			Upper			Low solidity hydrofoil		I
			Lower			High solidity hydrofoil		I
			Agitator and Shaft Materials					
			Shaft			LDX 2101		C
			Wetted metal surfaces (impeller blades)			LDX 2101		C
044	**HS**	**305**	**Neutral Leach Oxygen Sparger Bank 5**					
			Sparger type			HyperSparge DN15		I
			Sparger insertion length	m		2		I
			Sparger nozzle size	mm		9		G
			Sparger Flowrate (nominal)	$Nm^3.h^{-1}$		250		G
			Total gaseous flowrate - Design	$Nm^3.h^{-1}$		581.6	B	G
			Number of spargers			2.33	B	G
			Number of Spargers per Reactor			3		G
			Number of Sparger Nozzles per Reactor			6		I
			Wetted materials of Construction			LDX 2101		C

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS			SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
044	**LR**	**306**	**Neutral Leach Reactor 6**			NEUTRAL OXIDATIVE LEACH CONDITIONS		
			Design Solution Flowrate	$m^3.h^{-1}$	81.4	93.6	B	G
			Slurry Denisty	$t.m^{-3}$		1.2		G
			Residence Time - actual	h	7.2	6.3	B	G
			Design Temperature	^oC		98.0		I
			Operating Temperature	^oC		95.8	B	G
			Tank size - design (live)	m^3		587		G
			Height (live) to Diameter ratio			0.90		I
			Height (live)	m		8.45		G
			Freeboard	m		1.45		I
			Height	m		9.90		G
			Diameter	m		9.41		G
			Number of baffles			4		I
			Overflow System			Internal Riser to Launder		I
			Tank materials of construction					
			Shell			LDX 2101		C
			Wetted metal surfaces			LDX 2101		C
044	**AG**	**306**	**Neutral Leach Reactor 6 Agitator**					
			Reactor specific power	$kW.m^{-3}$		0.35		C
			Agitator drawn power	kW		206		G
			Agitator Installed power	kW		220		I
			Impeller diameter					
			Upper	m		3.08		I
			Lower	m		3.14		I
			Impeller type					
			Upper			Low solidity hydrofoil		I
			Lower			High solidity hydrofoil		I
			Agitator and Shaft Materials					0
			Shaft			LDX 2101		C
			Wetted metal surfaces (impeller blades)			LDX 2101		C
044	**HS**	**306**	**Neutral Leach Oxygen Sparger Bank 6**					
			Sparger type			HyperSparge DN15		I
			Sparger insertion length	m		2		I
			Sparger nozzle size	mm		9		G
			Sparger Flowrate (nominal)	$Nm^3.h^{-1}$		250		G
			Total gaseous flowrate - Design	$Nm^3.h^{-1}$		500.9	B	G
			Number of spargers			2.00	B	G
			Number of Spargers per Reactor			3		G
			Number of Sparger Nozzles per Reactor			6		I
			Wetted materials of Construction			LDX 2101		C

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
044 SU 904	**Neutral Leach Area Sump Pump**					
	Flow	$m^3.h^{-1}$	60	60		F
	Specific Gravity	$kg.m^{-3}$		1600		F
	Pump Absorbed Power	kW		10.4		G
	Pump Installed Power	kW		11.0		G
	Wetted Materials			LDX 2101		C
044	**Neutral Oxidative Leach Thickening**					
044 TK 500	**NAL Thickener Feed Tank**					
	Feed Slurry Flowrate	$m^3.h^{-1}$	99.7	114.6		G
	Residence Time	min		5.0		C
	Required Volume	m^3		9.5		G
	Chosen Volume	m^3		10		C
	Height (live) to Diameter ratio			1.0		C
	Height (live)	m		2.34		G
	Freeboard	m		0.5		C
	Height	m		2.84		G
	Diameter	m		2		G
	Design Temperature	°C		98		I
	Overflow System			Overflow pipe to Feedwell		I
	Tank materials of construction					
	Shell			LDX 2101		C
	Wetted metal surfaces			LDX 2101		C
044 TH 501	**NAL Thickener**					
	Design Solids Feed Rate	$t.h^{-1}$	35.6	37.8		G
	Solids S.G.	$kg.m^{-3}$	2656	2656.4		G
	Feed Pulp Solids Density	% w/w	30.0	30.0		G
	Feed Slurry Flowrate	$m^3.h^{-1}$	99.7	105.6		G
	Thickener Unit Area	$kg.m^{-2}.h^{-1}$		250		F
	Required Thickener Area	m^2		151		G
	Calculated Diameter	m		13.9		G
	Selected Diameter	m		15		C
	Selected Thickener Area	m^2		176.7		G
	Flocculant Add'n Rate	g/t		40.00		F
	Flocculant Add'n Strength	%		0.05		C
	Diluted flocculant solution flow	$m^3.h^{-1}$	2.9	5.7		G
	Underflow Density	% w/w	45	45.0		C
	Underflow slurry flowrate	$m^3.h^{-1}$	58.5	62.0		G
	Thickener overflow flowrate	$m^3.h^{-1}$	44.1	50.7		G
	Overflow Clarity	$mg.l^{-1}$		< 150		C
	Drawn power (Est)	kW		3.8		G
	Installed Power	kW		5.5		G
	Materials			LDX 2101		C

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
044 PP 503	**NAL Thickener Underflow Pump**					
	Flow	$m^3.h^{-1}$	58.5	73.1		G
	Feed slurry density	%	45	45.0		C
	Slurry s.g.	$kg.m^{-3}$	1353	1352.7		G
	Pump Absorbed Power	kW		7.78		G
	Pump Installed Power	kW		11		G
	Wetted materials			LDX 2101		C
044 SU 905	**NAL Thickening Area Sump Pump**					
	Flow	$m^3.h^{-1}$	60	60		F
	Specific Gravity	$kg.m^{-3}$		1600		F
	Pump Absorbed Power	kW		10.4		G
	Pump Installed Power	kW		11.00		G
	Wetted materials			LDX 2101		C
044 TK 501	**NAL Thickener Overflow Tank**					
	Feed Solution Flowrate	$m^3.h^{-1}$	133.4	153.4		G
	Residence Time	min		30		C
	Required Volume	m^3		76.7		G
	Chosen Volume	m^3		80		C
	Height (live) to Diameter ratio			1		C
	Height (live)	m		4.7		G
	Freeboard	m		0.5		C
	Height	m		5.2		G
	Diameter	m		4.7		G
	Materials of Construction			LDX 2101		C
	Closure			CT		C
	Insulation			UL		C
044 PP 501	**NAL Thickener Overflow Pump**					
	Flow	$m^3.h^{-1}$	44.11	48.5		G
	Slurry s.g.	$kg.m^{-3}$	965.8	965.8		G
	Pump Absorbed Power	kW		3.7		G
	Installed Power	kW		5.5		G
	Wetted materials			LDX 2101		C

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
044 TK 505	**NAL Thickener Underflow Tank**					
	Fresh Feed Rate	$m^3.h^{-1}$	59.1	68.0		G
	Slurry Specific Gravity	$kg.m^{-3}$	1352.7	1352.7		G
	Total residence time - minimum design	min		30		C
	Tank Size - live	m^3		34.0		G
	Tank size - design (live)	m^3		40		C
	Height (live) to Diameter ratio			1		C
	Height (live)	m		3.7		G
	Freeboard	m		0.5		C
	Height	m		4.2		G
	Diameter	m		3.7		G
	Number of baffles			4		I
	Tank materials of construction			LDX 2101		C
044 AG 505	**NAL Thickener Underflow Tank Agitator**					
	Impeller type			Low solidity hydrofoil		C
	Impeller power - specific	$kW.m^{-3}$		0.085		C
	Impeller power per tank - Absorbed	kW		6.6		G
	Impeller power per tank - Installed	kW		7.5		G
	Agitator and Shaft Materials					
	Shaft			LDX 2101		C
	Wetted metal surfaces (impeller blades)			LDX 2101		C
044 PP 505	**NAL Thickener Underflow Slurry Transfer Pump**					
	Flow	$m^3.h^{-1}$	58.5	73.1		G
	Froth Volume Factor (FVF)			1		C
	Design Flow (Including FVF)	$m^3.h^{-1}$		73.1		G
	Ring Main Factor			1		C
	Design Flow	$m^3.h^{-1}$		73.1		G
	Slurry density	%	45.00	45.0		C
	Slurry Specific Gravity (Including FVF)	$kg.m^{-3}$	1353	1352.7		G
	Pump Absorbed Power	kW		7.8		G
	Pump Installed Power	kW		11		G

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
044	**Neutral Leach Cooling**					
044 CT 601	**Slurry Cooling Tower**					
	Flow	$m^3.h^{-1}$	59.7	68.6		G
	Slurry density	%	44.33	44.3		G
	Slurry specific gravity	$kg.m^{-3}$	1346	1345.7		G
	Slurry heat capacity	$kJ.kg^{-1}$		2.77		G
	Inlet Temperature	^oC		93		G
	Outlet Temperature	^oC		45		B
044 PP 601	**Cooling Tower Transfer Pump**					
	Nominal Flow	$m^3.h^{-1}$	53.6	67.0		G
	Froth Volume Factor			1.00		C
	Design Flow (Including FVF)	$m^3.h^{-1}$		67.0		G
	Ring Main Factor			1.0		C
	Design Flow	$m^3.h^{-1}$		67.0		G
	Slurry density	%		47.1		G
	Slurry Specific Gravity (Including FVF)	$kg.m^{-3}$	1410	1409.8		G
	Pump Absorbed Power	kW		7.4		G
	Pump Installed Power	kW		7.5		G

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
	SERVICES					
	Process and Instrument Air					
	Air quality			Dry Instrument Air		
	Delivery Pressure	kPa(g)		600		F
	Process Water					
	Line Pressure	kPa(g)		500		F
	Minimum Wash Down Line Size	mm		25		F
	Minimum Wash Down Flow	$m^3.h^{-1}$		5		F
	Pipeline Design Flow Velocity	$m.s^{-1}$		2 - 2.5		B
	Requirement					
	Process water to IsaMill	$m^3.h^{-1}$	84	97		G
	Process water to Leaching	$m^3.h^{-1}$	50	57		G
	Hose allowance	$m^3.h^{-1}$	0	0		F
	Total Requirement	$m^3.h^{-1}$	134	154		G
	Gland Water					
	Distribution Pressure	kPa		700		C
	Average Consumption	m^3/h	10.4	21		G
060	**REAGENTS**					
	Oxygen Plant Vendor Package					
	Oxygen purity	% v/v		93%		B
	Oxygen leach utilisation	%		80		J
	Delivery pressure	kPag		600		C
	Delivery Temperature	°C		35		F
	Oxygen demand (100% O2 gas basis)					
	NAL Reactor 1	$t.h^{-1}$	1.96	2.26		G
	NAL Reactor 2	$t.h^{-1}$	1.39	1.60		G
	NAL Reactor 3	$t.h^{-1}$	1.06	1.22		G
	NAL Reactor 4	$t.h^{-1}$	0.83	0.96		G
	NAL Reactor 5	$t.h^{-1}$	0.67	0.77		G
	NAL Reactor 6	$t.h^{-1}$	0.58	0.67		G
	Oxygen Demand Total (100 % O2 gas basis)	$t.h^{-1}$	6.49	7.47		G
	Oxygen Demand Total (93 % O2 gas basis)	$t.h^{-1}$	7.03	8.08		
	Flowrate (at design purity)	(STP) $m^3.h^{-1}$		5,624		G
	Plant size (100 % O2 gas basis)	$t.d^{-1}$	156	179		G
	Plant size (100 % O2 gas basis)	$t.a^{-1}$	52,338	60,189		G
	Specific Power	kW/tonne	360			F
	Drawn Power	kW	2,338	2,689		G
	Installed Power	kW		3,279		G
	Oxygen utilisation	%wt reacted		80%		J
	Fine Grinding Mill Media	$kg.h^{-1}$	9.92	11.41		G
	Usage	$g.kWh^{-1}$	8			C
	Media					
	Type			MT1 Alumina Ceramic		
	Specific gravity			2.9		I
	Top size	mm		2.5		I
	Delivery			One tonne bulka bags		

GLENCORE TECHNOLOGY

ROX RESOURCES

Project Name: YOUANMI - CLASS 3 STUDY

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS	SECTION	UNITS	NOM VALUE	DESIGN VALUE	REVISION	SOURCE
	Flocculant Vendor Package					
	Dosing Rates					
	NAL Thickener	$kg.h^{-1}$	1.1655	2.33		G
	IsaMill Thickener	$kg.h^{-1}$	0.6463	1.29		G
	Dosage point					
	Flocculant usage	$kg.h^{-1}$	1.81	3.62		G
		$t.a^{-1}$	14.6	29.20		G
	Flocculant Type			TBC		
	Flocculant			TBC		
	Transport Form			Solid		B
	Transport Strength	% w/w		100		B
	Delivery Form			25kg bag Pallet		B
	Flocculant dosing rate - per tonne of thickener feed	$g.t^{-1}$		40		C
	Flocculant mixing strength	%		0.5		C
	Flocculant storage strength	%		0.5		C
	Flocc flow rate - at mixing strength	$m^3.h^{-1}$	0.36	0.72		G
	Limestone					
	Limestone Demand (100% pure reactive $CaCO_3$)	$t.h^{-1}$	7.6	8.73		G
		$t.a^{-1}$	61,194	70,373		G
	Limestone Demand (90% pure reactive $CaCO_3$)	$t.h^{-1}$	8.4	9.70		G
		$t.a^{-1}$	67,993	78,192		G
	Limestone slurry density	%w/w		30		C
	Lime slurry solids particel size p80	µm		70		C
	Limestone Solids Specific gravity	$t.m^{-3}$		2.95		G

Level 10, 160 Ann Street, Brisbane QLD Australia 4000
Ph: +61 7 3833 8500 Fax: +61 7 3833 8555
Web: www.glencoretechnology.com

GLENCORE TECHNOLOGY

Rox Resources

Project Name: **YOUANMI - CLASS 3 STUDY**
Load List per WBS

Document Number: PA00098-GTA-DDO00001
Rev: B

WBS Area	Description	Drawn Power - kW	Installed Power - kW	Installed kVa	Drawn kVa	Emergency Drives	Emergency Load - kW	Maintenance %
043	Mill Feed Classification System	-	-	-	-	-	-	3.0%
043	Mill Feed System	31	60	68	35	-	-	3.0%
043	IsaMill System	1,240	1,500	1,698	1,404	-	-	3.0%
043	Mill Gland Water System	1	8	9	1	-	-	3.0%
043	Media Delivery System	1	11	12	1	-	-	3.0%
043	Mill Discharge System	68	150	170	77	-	-	3.0%
043	Mill Thickening	36	57	64	40	1	4	3.0%
044	Ground Concentrate Storage	64	86	97	72	2	53	3.0%
044	Neutral Oxidative Leach	1,280	1,331	1,507	1,450	1	218	3.0%
044	Neutral Oxidative Leach Thickening	48	79	89	54	1	4	3.0%
044	Neutral Leach Cooling	15	23	17	17	-	-	3.0%
	Total	2,783	3,304	3,733	3,151		279	

GLENCORE TECHNOLOGY

Rox Resources

Youanmi - CLASS 3 STUDY

LISTS

MECHANICAL EQUIPMENT LIST

GT Document No: **PA00098-GTA-LST00001**
Client Document No:

[redacted]

Glencore Technology Pty Ltd
Level 10, 160 Ann Street, Brisbane, Queensland 4000
Telephone: +61 7 3833 8500. Facsimile: +61 7 3833 8555
www.glencoretechnology.com

Level 23, 180 Ann Street, Brisbane QLD Australia 4000
PH: +61 7 3222 8500 FAX: +61 7 3222 8555
Web: www.glencoretechnology.com

GLENCORE TECHNOLOGY

Rox Resources

Project Name: Youanmi - CLASS 5 STUDY

Document Number: PA00098-GTA-LST000001
Rev: A

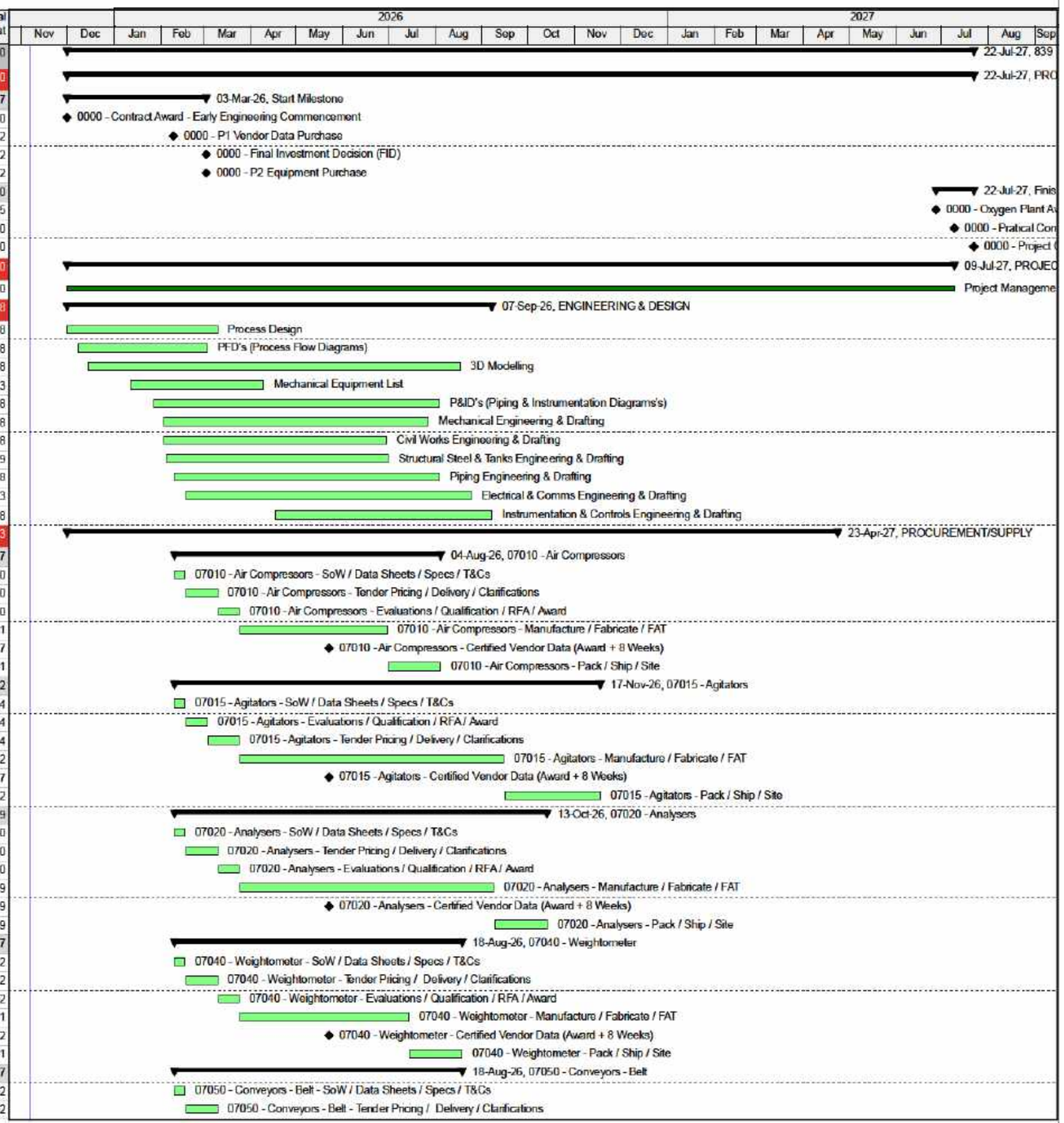
Notes: 1. Equipment List reflects the latest revision of the PFDs
2. Process duties are based on the process model and include a design factor
3. All drives are to be 415V 3ph 50Hz supply unless noted otherwise

Rev	WBS	Equipment code	Tag No.	Equipment number	Equipment name	Process Duty	Size	Process Temp (°C)	Insulation Type	Weight (t)	Drive type (DOL/VSD)	Duty/Standby	Emergency Power (Y/N)	Installed power (kW)	Preferred Vendor	Manufacturer	Model number	Vendor Package Equipment Tag	-	-
A	065	ML	001	065-ML-001	IsaMill™	18.6 t/h	17.5 mL x 6 mW x 2.8 mH	70		61.70	LRS	Duty	N	1500	Glencore Technology	-	M5000	065-ML-001		
A	065	CY	001	065-CY-001	IsaMill™ Cyclopack	222 m³/h	2 mL x 2 mW x 2.5 mH	70		2.00	-	-	-	-	Glencore Technology	-	-	065-ML-001		
A	043	TK	001	043-TK-001	IsaMill™ Feed Pump Box	6 m³	4 mL x 3 mW x 3.7 mH	70		4.45	-	-	-	-	Glencore Technology	-	-	043-ML-001		
A	043	PP	001	043-PP-001	IsaMill™ Feed Pump	302 m³/h	-	70		-	DOL	Duty	N	30	Glencore Technology	Weir Warman	4/3DD-AH	043-ML-001		
A	043	PP	002	043-PP-002	IsaMill™ Feed Standby Pump	302 m³/h	-	70		-	DOL	Standby	N	30	Glencore Technology	Weir Warman	4/3DD-AH	043-ML-001		
A	065	TK	005	065-TK-005	IsaMill™ Gland Water Tank	2.5 m³	2.85 mL x 2.708 mW x 5.255 mH	70		2.28	-	-	-	-	Glencore Technology	-	-	065-ML-001		
A	043	PP	003	043-PP-003	IsaMill™ Gland Water Pump	5.5 m³/h	-	70		-	DOL	Duty	N	4	Glencore Technology	Grundfos	CRN10-10	043-ML-001		
A	043	PP	004	043-PP-004	IsaMill™ Gland Water Standby Pump	5.5 m³/h	-	70		-	DOL	Standby	N	4	Glencore Technology	Grundfos	CRN10-10	043-ML-001		
A	043	TK	005	043-TK-005	IsaCharger Water Collection Tank	1 m³	1 mL x 1.5 mD	70		0.29	-	-	-	-	Glencore Technology	-	-	043-ML-001		
A	065	PP	005	065-PP-005	IsaCharger Water Injection Pump	10 m³/h	-	70		-	DOL	Duty	N	11	Glencore Technology	Weir Warman	1.5/1D-AH	065-ML-001		
A	065	IC	001	065-IC-001	IsaCharger	-	-	70		-	-	-	-	-	Glencore Technology	-	-	065-ML-001		
A	065	HP	001	065-HP-001	IsaMill™ Media Collection Hopper	5 m³	2 mL x 1.5 mW x 2.5 mH	70		-	-	-	-	-	Glencore Technology	-	-	065-ML-001		
A	043	SC	001	043-SC-001	IsaCharger Dewatering Screen	-	-	70		-	-	-	-	-	Glencore Technology	-	-	043-ML-001		
A	043	SC	002	043-SC-002	IsaMill™ Discharge Media Screen	-	-	70		-	-	-	-	-	Glencore Technology	-	-	043-ML-001		
A	043	TK	007	043-TK-007	IsaMill™ Discharge/Cyclone Pump Box	6 m³	4 mL x 3 mW x 3.7 mH	70		4.45	-	-	-	-	Glencore Technology	-	-	043-ML-001		
A	043	PP	007	043-PP-007	IsaMill™ Cyclone Feed Pump	222 m³/h	-	70		-	DOL	Duty	N	75	Glencore Technology	Weir Warman	6/4DD-AH	043-ML-001		
A	043	PP	008	043-PP-008	IsaMill™ Cyclone Feed Standby Pump	222 m³/h	-	70		-	DOL	Standby	N	75	Glencore Technology	Weir Warman	6/4DD-AH	043-ML-001		
A	043	SA	001	043-SA-001	Concentrate Slurry Sampler	20 m³/h	-	40		-	-	-	-	-	-	-	-	-		
A	043	SA	002	043-SA-002	Concentrate Slurry Sampler	129 m³/h	-	52		-	-	-	-	-	-	-	-	-		
A	043	TH	101	043-TH-101	IsaMill™ Thickener	119 m³/h	Ø10 m	52		-	-	-	-	-	-	-	-	043-TH-101		
A	065	AG	101	065-AG-101	IsaMill™ Thickener Drive	-	-	52		-	DOL	Duty	Y	5.5	-	-	-	065-TH-101		
A	043	TK	100	043-TK-100	IsaMill™ Thickener Feed Tank	2 m³	-	52		-	-	-	-	-	-	-	-	043-TH-101		
A	065	PP	105	065-PP-105	IsaMill™ Thickener Underflow Pump	30 m³/h	-	52		-	VSD	Duty	N	5.7	-	-	-	-		
A	043	PP	104	043-PP-104	IsaMill™ Thickener Underflow Standby Pump	30 m³/h	-	52		-	VSD	Standby	N	3.7	-	-	-	-		
A	043	TK	101	043-TK-101	IsaMill™ Thickener Overflow Tank	10 m³	Ø2.3 m x 2.8 mH	52		-	-	-	-	-	-	-	-	-		
A	065	PP	101	065-PP-101	IsaMill™ Thickener Overflow Pump	98 m³/h	-	52		-	VSD	Duty	N	11	-	-	-	-		
A	065	PP	102	065-PP-102	IsaMill™ Thickener Overflow Standby Pump	98 m³/h	-	52		-	VSD	Standby	N	11	-	-	-	-		
A	043	SU	002	043-SU-902	IsaMill™ Thickener Sump Pump	60 m³/h	-	52		-	DOL	Intermittent	N	11	-	-	-	-		
A	043	SU	901	043-SU-901	IsaMill™ Area Sump Pump	60 m³/h	-	52		-	DOL	Intermittent	N	11	-	-	-	-		
A	044	SU	903	044-SU-903	Concentrate Storage Area Sump Pump	60 m³/h	-	52		-	DOL	Intermittent	N	11	-	-	-	-		
A	066	TK	205	066-TK-205	Concentrate Storage Tank	398 m³	Ø7.52 m x 9.9 mH	52		68.05	-	-	-	-	Glencore Technology	-	OLR600	066-TK-205		
A	066	AG	205	066-AG-205	Concentrate Storage Tank Agitator	-	-	52		10.76	DOL	Duty	Y	45	Glencore Technology	-	-	066-TK-205		
A	044	PP	205	044-PP-205	Concentrate Distribution Pump	127 m³/h	-	52		-	VSD	Duty	N	15	-	-	-	-		
A	044	PP	206	044-PP-206	Concentrate Distribution Standby Pump	127 m³/h	-	52		-	VSD	Standby	N	15	-	-	-	-		
A	044	SA	201	044-SA-201	Concentrate Feed Slurry Sampler	127 m³/h	-	52		-	-	-	-	-	-	-	-	-		
A	044	LR	501	044-LR-501	Neutral Leach Reactor 1	622 m³	Ø9.40 m x 9.9 mH	98		52.50	-	-	-	-	Glencore Technology	Glencore Technology	OLR600	044-LR-501		
A	044	AG	301	044-AG-301	Neutral Leach Reactor 1 Agitator	-	-	98		14.70	DOL	Duty	Y	220	Glencore Technology	Glencore Technology	-	044-LR-501		
A	044	HS	301	044-HS-301	Neutral Leach Hypersparge Bank 1	-	DN15 x 2.000 mL	98		0.29	-	-	-	-	Glencore Technology	Glencore Technology	MK5	044-LR-501		
A	044	LR	502	044-LR-502	Neutral Leach Reactor 2	622 m³	Ø9.40 m x 9.9 mH	98		52.50	-	-	-	-	Glencore Technology	Glencore Technology	OLR600	044-LR-501		
A	044	AG	302	044-AG-302	Neutral Leach Reactor 2 Agitator	-	-	98		14.70	DOL	Duty	N	220	Glencore Technology	Glencore Technology	-	044-LR-501		
A	044	HS	302	044-HS-302	Neutral Leach Hypersparge Bank 2	-	DN15 x 2.000 mL	98		0.29	-	-	-	-	Glencore Technology	Glencore Technology	MK5	044-LR-501		
A	044	LR	503	044-LR-503	Neutral Leach Reactor 3	622 m³	Ø9.40 m x 9.9 mH	98		52.50	-	-	-	-	Glencore Technology	Glencore Technology	OLR600	044-LR-501		
A	044	AG	303	044-AG-303	Neutral Leach Reactor 3 Agitator	-	-	98		14.70	DOL	Duty	N	220	Glencore Technology	Glencore Technology	-	044-LR-501		
A	044	HS	303	044-HS-303	Neutral Leach Hypersparge Bank 3	-	DN15 x 2.000 mL	98		0.29	-	-	-	-	Glencore Technology	Glencore Technology	MK5	044-LR-501		
A	044	LR	504	044-LR-504	Neutral Leach Reactor 4	622 m³	Ø9.40 m x 9.9 mH	98		52.50	-	-	-	-	Glencore Technology	Glencore Technology	OLR600	044-LR-501		
A	044	AG	304	044-AG-304	Neutral Leach Reactor 4 Agitator	-	-	98		14.70	DOL	Duty	N	220	Glencore Technology	Glencore Technology	-	044-LR-501		
A	044	HS	304	044-HS-304	Neutral Leach Hypersparge Bank 4	-	DN15 x 2.000 mL	98		0.29	-	-	-	-	Glencore Technology	Glencore Technology	MK5	044-LR-501		
A	044	LR	505	044-LR-505	Neutral Leach Reactor 5	622 m³	Ø9.40 m x 9.9 mH	98		52.50	-	-	-	-	Glencore Technology	Glencore Technology	OLR600	044-LR-501		
A	044	AG	305	044-AG-305	Neutral Leach Reactor 5 Agitator	-	-	98		14.70	DOL	Duty	N	220	Glencore Technology	Glencore Technology	-	044-LR-501		
A	044	HS	305	044-HS-305	Neutral Leach Hypersparge Bank 5	-	DN15 x 2.000 mL	98		0.29	-	-	-	-	Glencore Technology	Glencore Technology	MK5	044-LR-501		
A	044	LR	506	044-LR-506	Neutral Leach Reactor 6	622 m³	Ø9.40 m x 9.9 mH	98		52.50	-	-	-	-	Glencore Technology	Glencore Technology	OLR600	044-LR-501		
A	044	AG	306	044-AG-306	Neutral Leach Reactor 6 Agitator	-	-	98		14.70	DOL	Duty	N	220	Glencore Technology	Glencore Technology	-	044-LR-501		
A	044	HS	306	044-HS-306	Neutral Leach Hypersparge Bank 6	-	DN15 x 2.000 mL	98		0.29	-	-	-	-	Glencore Technology	Glencore Technology	MK5	044-LR-501		
A	044	SU	904	044-SU-904	Neutral Leach Area Sump Pump	60 m³/h	-	98		-	DOL	Intermittent	N	11	-	-	-	-		
A	044	TH	501	044-TH-501	NAL Thickener	306 m³/h	Ø35 m	98		-	-	-	-	-	-	-	-	044-TH-501		
A	066	AG	501	066-AG-501	NAL Thickener Drive Mechanism	-	-	98		-	DOL	Duty	Y	5.5	-	-	-	044-TH-501		
A	066	TK	500	066-TK-500	NAL Thickener Feed Tank	30 m³	-	98		-	-	-	-	-	-	-	-	044-TH-501		
A	044	PP	503	044-PP-503	NAL Thickener Underflow Pump	75 m³/h	-	98		-	VSD	Duty	N	11	-	-	-	-		
A	044	PP	504	044-PP-504	NAL Thickener Underflow Pump - Standby	75 m³/h	-	98		-	VSD	Standby	N	11	-	-	-	-		
A	044	TK	505	044-TK-505	NAL Thickener Underflow Tank	60 m³	Ø3.7 m x 4.2 mH	98		-	-	-	-	-	-	-	-	-		
A	066	AG	505	066-AG-505	NAL Thickener Underflow Tank Agitator	-	-	98		-	DOL	Duty	N	7.5	-	-	-	-		
A	066	PP	505	066-PP-505	NAL Thickener Underflow Slurry Transfer Pump	73 m³/h	-	98		-	VSD	Duty	N	11	-	-	-	-		
A	066	PP	506	066-PP-506	NAL Thickener Underflow Slurry Transfer Pump - Standby	73 m³/h	-	98		-	VSD	Standby	N	11	-	-	-	-		
A	044	TK	501	044-TK-501	NAL Thickener Overflow Tank	80 m³	Ø4.7 m x 5.2 mH	98		-	-	-	-	-	-	-	-	-		
A	044	PP	501	044-PP-501	NAL Thickener Overflow Pump	49 m³/h	-	98		-	VSD	Duty	N	5.5	-	-	-	-		
A	044	PP	502	044-PP-502	NAL Thickener Overflow Pump - Standby	49 m³/h	-	98		-	VSD	Standby	N	5.5	-	-	-	-		
A	066	SU	905	066-SU-905	NAL Thickening Area Sump Pump	60 m³/h	-	98		-	DOL	Intermittent	N	11	-	-	-	-		
A	066	CT	601	066-CT-601	Slurry Cooling Tower	98°C to 45°C	-	98		-	-	-	-	-	-	-	-	066-CT-601		
A	044	FA	601	044-FA-601	Slurry Cooling Tower Fan	-	-	98		-	VSD	Duty	N	7.5	-	-	-	044-CT-601		
A	044	PP	601	044-PP-601	Cooling Tower Transfer Pump	67 m³/h	-	45		-	VSD	Duty	N	7.5	-	-	-	-		
A	044	PP	602	044-PP-602	Cooling Tower Transfer Pump - Standby	67 m³/h	-	45		-	VSD	Standby	N	7.5	-	-	-	-		

APPENDIX 7– SCHEDULE

839 Youanmi Gold Project

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
839 Youanmi Gold Project		571	01-Dec-25	22-Jul-27	0
PROJECT MILESTONES		571	01-Dec-25	22-Jul-27	0
Start Milestone		54	01-Dec-25	03-Mar-26	347
839.000.PMS.100	0000 - Contract Award - Early Engineering Commencement	0	01-Dec-25*		0
839.000.PMS.160	0000 - P1 Vendor Data Purchase	0	09-Feb-26		362
839.000.PMS.130	0000 - Final Investment Decision (FID)	0	03-Mar-26*		32
839.000.PMS.150	0000 - P2 Equipment Purchase	0	03-Mar-26		32
Finish Milestone		25	27-Jun-27	22-Jul-27	0
839.000.PMS.140	0000 - Oxygen Plant Available	0		27-Jun-27	25
839.000.PMS.110	0000 - Pratical Completion	0		09-Jul-27*	0
839.000.PMS.120	0000 - Project Close Out	0		22-Jul-27	0
PROJECT MANAGEMENT		392	01-Dec-25	09-Jul-27	0
839.000.DES.1000	Project Management & Procurement - LoE	392	01-Dec-25	09-Jul-27	0
ENGINEERING & DESIGN		185	01-Dec-25	07-Sep-26	48
839.000.ENG.100	Process Design	60	01-Dec-25	10-Mar-26	8
839.000.ENG.110	PFD's (Process Flow Diagrams)	50	08-Dec-25	03-Mar-26	8
839.000.ENG.150	3D Modelling	160	15-Dec-25	17-Aug-26	8
839.000.ENG.160	Mechanical Equipment List	60	12-Jan-26	09-Apr-26	83
839.000.ENG.240	P&ID's (Piping & Instrumentation Diagrams's)	130	27-Jan-26	03-Aug-26	8
839.000.ENG.230	Mechanical Engineering & Drafting	120	03-Feb-26	27-Jul-26	8
839.000.ENG.250	Civil Works Engineering & Drafting	100	03-Feb-26	29-Jun-26	8
839.000.ENG.260	Structural Steel & Tanks Engineering & Drafting	100	04-Feb-26	01-Jul-26	79
839.000.ENG.270	Piping Engineering & Drafting	120	10-Feb-26	03-Aug-26	8
839.000.ENG.350	Electrical & Comms Engineering & Drafting	130	17-Feb-26	24-Aug-26	23
839.000.ENG.530	Instrumentation & Controls Engineering & Drafting	100	17-Apr-26	07-Sep-26	48
PROCUREMENT/SUPPLY		481	01-Dec-25	23-Apr-27	63
07010 - Air Compressors		176	10-Feb-26	04-Aug-26	227
839.PRO.MEC.1280	07010 - Air Compressors - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	160
839.PRO.MEC.1285	07010 - Air Compressors - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	160
839.PRO.MEC.1290	07010 - Air Compressors - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	160
839.FAB.MEC.1150	07010 - Air Compressors - Manufacture / Fabricate / FAT	98	25-Mar-26	30-Jun-26	231
839.PRO.MEC.1295	07010 - Air Compressors - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	187
839.TRN.MEC.1140	07010 - Air Compressors - Pack / Ship / Site	35	01-Jul-26	04-Aug-26	231
07015 - Agitators		281	10-Feb-26	17-Nov-26	152
839.PRO.MEC.1320	07015 - Agitators - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	104
839.PRO.MEC.1325	07015 - Agitators - Evaluations / Qualification / RFA / Award	10	17-Feb-26	03-Mar-26	104
839.PRO.MEC.1330	07015 - Agitators - Tender Pricing / Delivery / Clarifications	15	04-Mar-26	24-Mar-26	104
839.FAB.MEC.1170	07015 - Agitators - Manufacture / Fabricate / FAT	175	25-Mar-26	15-Sep-26	152
839.PRO.MEC.1335	07015 - Agitators - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	187
839.TRN.MEC.1160	07015 - Agitators - Pack / Ship / Site	63	16-Sep-26	17-Nov-26	152
07020 - Analysers		246	10-Feb-26	13-Oct-26	189
839.PRO.MEC.1340	07020 - Analysers - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	130
839.PRO.MEC.1345	07020 - Analysers - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	130
839.PRO.MEC.1350	07020 - Analysers - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	130
839.FAB.MEC.1180	07020 - Analysers - Manufacture / Fabricate / FAT	168	25-Mar-26	08-Sep-26	189
839.PRO.MEC.1355	07020 - Analysers - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	209
839.TRN.MEC.1170	07020 - Analysers - Pack / Ship / Site	35	09-Sep-26	13-Oct-26	189
07040 - Weightometer		190	10-Feb-26	18-Aug-26	277
839.PRO.MEC.1360	07040 - Weightometer - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	192
839.PRO.MEC.1365	07040 - Weightometer - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	192
839.PRO.MEC.1370	07040 - Weightometer - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	192
839.FAB.MEC.1190	07040 - Weightometer - Manufacture / Fabricate / FAT	112	25-Mar-26	14-Jul-26	281
839.PRO.MEC.1375	07040 - Weightometer - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	232
839.TRN.MEC.1180	07040 - Weightometer - Pack / Ship / Site	35	15-Jul-26	18-Aug-26	281
07050 - Conveyors - Belt		190	10-Feb-26	18-Aug-26	277
839.PRO.MEC.1400	07050 - Conveyors - Belt - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	192
839.PRO.MEC.1405	07050 - Conveyors - Belt - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	192



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

839 Youanmi Gold Project

Data Date: 06-Nov-25 - Printed: 06-Nov-25 - 11:51 - TASK filter: All Activities

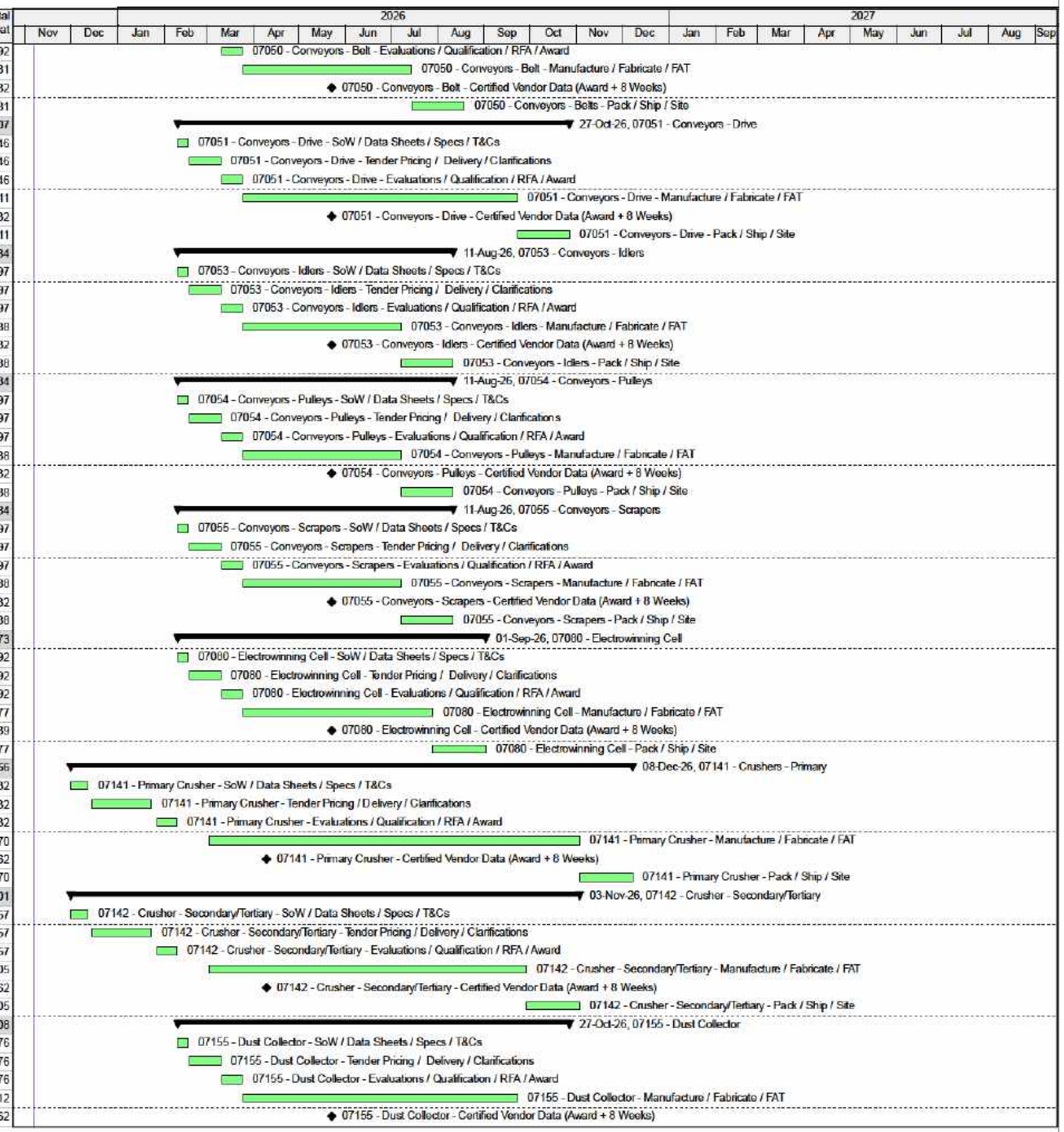
Date	Revision	Checked	Approved
06-Nov-25	839 Youanmi Gold Project - IFI	MS	

ROX RESOURCES

839 Youanmi Gold Project

MACA Interquip mintrex

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
839.PRO.MEC.1410	07050 - Conveyors - Belt - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	192
839.FAB.MEC.1210	07050 - Conveyors - Belt - Manufacture / Fabricate / FAT	112	25-Mar-26	14-Jul-26	281
839.PRO.MEC.1415	07050 - Conveyors - Belt - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	232
839.TRN.MEC.1200	07050 - Conveyors - Belts - Pack / Ship / Site	35	15-Jul-26	18-Aug-26	281
07051 - Conveyors - Drive		260	10-Feb-26	27-Oct-26	207
839.PRO.MEC.1020	07051 - Conveyors - Drive - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	146
839.PRO.MEC.1025	07051 - Conveyors - Drive - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	146
839.PRO.MEC.1030	07051 - Conveyors - Drive - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	146
839.FAB.MEC.1020	07051 - Conveyors - Drive - Manufacture / Fabricate / FAT	182	25-Mar-26	22-Sep-26	211
839.PRO.MEC.1035	07051 - Conveyors - Drive - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	232
839.TRN.MEC.1010	07051 - Conveyors - Drive - Pack / Ship / Site	35	23-Sep-26	27-Oct-26	211
07053 - Conveyors - Idlers		183	10-Feb-26	11-Aug-26	284
839.PRO.MEC.1420	07053 - Conveyors - Idlers - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	197
839.PRO.MEC.1425	07053 - Conveyors - Idlers - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	197
839.PRO.MEC.1430	07053 - Conveyors - Idlers - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	197
839.FAB.MEC.1220	07053 - Conveyors - Idlers - Manufacture / Fabricate / FAT	105	25-Mar-26	07-Jul-26	288
839.PRO.MEC.1435	07053 - Conveyors - Idlers - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	232
839.TRN.MEC.1210	07053 - Conveyors - Idlers - Pack / Ship / Site	35	08-Jul-26	11-Aug-26	288
07054 - Conveyors - Pulleys		183	10-Feb-26	11-Aug-26	284
839.PRO.MEC.1440	07054 - Conveyors - Pulleys - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	197
839.PRO.MEC.1445	07054 - Conveyors - Pulleys - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	197
839.PRO.MEC.1450	07054 - Conveyors - Pulleys - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	197
839.FAB.MEC.1230	07054 - Conveyors - Pulleys - Manufacture / Fabricate / FAT	105	25-Mar-26	07-Jul-26	288
839.PRO.MEC.1455	07054 - Conveyors - Pulleys - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	232
839.TRN.MEC.1220	07054 - Conveyors - Pulleys - Pack / Ship / Site	35	08-Jul-26	11-Aug-26	288
07055 - Conveyors - Scrapers		183	10-Feb-26	11-Aug-26	284
839.PRO.MEC.1460	07055 - Conveyors - Scrapers - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	197
839.PRO.MEC.1465	07055 - Conveyors - Scrapers - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	197
839.PRO.MEC.1470	07055 - Conveyors - Scrapers - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	197
839.FAB.MEC.1240	07055 - Conveyors - Scrapers - Manufacture / Fabricate / FAT	105	25-Mar-26	07-Jul-26	288
839.PRO.MEC.1475	07055 - Conveyors - Scrapers - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	232
839.TRN.MEC.1230	07055 - Conveyors - Scrapers - Pack / Ship / Site	35	08-Jul-26	11-Aug-26	288
07080 - Electrowinning Cell		204	10-Feb-26	01-Sep-26	273
839.PRO.MEC.1000	07080 - Electrowinning Cell - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	192
839.PRO.MEC.1005	07080 - Electrowinning Cell - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	192
839.PRO.MEC.1010	07080 - Electrowinning Cell - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	192
839.FAB.MEC.1000	07080 - Electrowinning Cell - Manufacture / Fabricate / FAT	126	25-Mar-26	28-Jul-26	277
839.PRO.MEC.1015	07080 - Electrowinning Cell - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	239
839.TRN.MEC.1000	07080 - Electrowinning Cell - Pack / Ship / Site	35	29-Jul-26	01-Sep-26	277
07141 - Crushers - Primary		358	01-Dec-25	08-Dec-26	166
839.PRO.MEC.1480	07141 - Primary Crusher - SoW / Data Sheets / Specs / T&Cs	10	01-Dec-25	12-Dec-25	132
839.PRO.MEC.1485	07141 - Primary Crusher - Tender Pricing / Delivery / Clarifications	20	15-Dec-25	23-Jan-26	132
839.PRO.MEC.1490	07141 - Primary Crusher - Evaluations / Qualification / RFA / Award	10	27-Jan-26	09-Feb-26	132
839.FAB.MEC.1250	07141 - Primary Crusher - Manufacture / Fabricate / FAT	245	03-Mar-26	03-Nov-26	170
839.PRO.MEC.1495	07141 - Primary Crusher - Certified Vendor Data (Award + 8 Weeks)	0		09-Apr-26	262
839.TRN.MEC.1240	07141 - Primary Crusher - Pack / Ship / Site	35	03-Nov-26	08-Dec-26	170
07142 - Crusher - Secondary/Tertiary		323	01-Dec-25	03-Nov-26	201
839.PRO.MEC.2000	07142 - Crusher - Secondary/Tertiary - SoW / Data Sheets / Specs / T&Cs	10	01-Dec-25	12-Dec-25	157
839.PRO.MEC.2010	07142 - Crusher - Secondary/Tertiary - Tender Pricing / Delivery / Clarifications	20	15-Dec-25	23-Jan-26	157
839.PRO.MEC.2020	07142 - Crusher - Secondary/Tertiary - Evaluations / Qualification / RFA / Award	10	27-Jan-26	09-Feb-26	157
839.FAB.MEC.1510	07142 - Crusher - Secondary/Tertiary - Manufacture / Fabricate / FAT	210	03-Mar-26	29-Sep-26	205
839.PRO.MEC.2030	07142 - Crusher - Secondary/Tertiary - Certified Vendor Data (Award + 8 Weeks)	0		09-Apr-26	262
839.TRN.MEC.1500	07142 - Crusher - Secondary/Tertiary - Pack / Ship / Site	35	29-Sep-26	03-Nov-26	205
07155 - Dust Collector		260	10-Feb-26	27-Oct-26	108
839.PRO.MEC.1060	07155 - Dust Collector - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	76
839.PRO.MEC.1065	07155 - Dust Collector - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	76
839.PRO.MEC.1070	07155 - Dust Collector - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	76
839.FAB.MEC.1040	07155 - Dust Collector - Manufacture / Fabricate / FAT	182	25-Mar-26	22-Sep-26	112
839.PRO.MEC.1075	07155 - Dust Collector - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	162



Remaining Level of Effort | Critical Remaining Work
Actual Work | Milestone
Remaining Work | Summary

839 Youanmi Gold Project

Data Date: 06-Nov-25 - Printed: 06-Nov-25 - 11:51 - TASK filter: All Activities

Date	Revision	Checked	Approved
06-Nov-25	839 Youanmi Gold Project - IFI	MS	

ROX RESOURCES

839 Youanmi Gold Project

MACA Interquip mintrex

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
839.TRN.MEC.1030	07155 - Dust Collector - Pack / Ship / Site	35	23-Sep-26	27-Oct-26	112
07161 - Cyclone Cluster		288	10-Feb-26	24-Nov-26	154
839.PRO.MEC.1080	07161 - Cyclone Cluster - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	109
839.PRO.MEC.1085	07161 - Cyclone Cluster - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	109
839.PRO.MEC.1090	07161 - Cyclone Cluster - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	109
839.FAB.MEC.1050	07161 - Cyclone Cluster - Manufacture / Fabricate / FAT	182	25-Mar-26	22-Sep-26	158
839.PRO.MEC.1095	07161 - Cyclone Cluster - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	194
839.TRN.MEC.1040	07161 - Cyclone Cluster - Pack / Ship / Site	63	23-Sep-26	24-Nov-26	158
07230 - Flocculant Mixing Plant		218	10-Feb-26	15-Sep-26	224
839.PRO.MEC.1500	07230 - Flocculant Mixing Plant - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	155
839.PRO.MEC.1505	07230 - Flocculant Mixing Plant - Evaluations / Qualification / RFA / Award	10	17-Feb-26	03-Mar-26	155
839.PRO.MEC.1510	07230 - Flocculant Mixing Plant - Tender Pricing / Delivery / Clarifications	15	04-Mar-26	24-Mar-26	155
839.FAB.MEC.1260	07230 - Flocculant Mixing Plant - Manufacture / Fabricate / FAT	140	25-Mar-26	11-Aug-26	224
839.PRO.MEC.1515	07230 - Flocculant Mixing Plant - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	214
839.TRN.MEC.1250	07230 - Flocculant Mixing Plant - Pack / Ship / Site	35	12-Aug-26	15-Sep-26	224
07240 - Flotation Cells		351	01-Dec-25	01-Dec-26	123
839.PRO.MEC.1520	07240 - Flotation Cells - Pre-Fabricated - SoW / Data Sheets / Specs / T&Cs	10	01-Dec-25	12-Dec-25	99
839.PRO.MEC.1525	07240 - Flotation Cells - Tender Pricing / Delivery / Clarifications	20	15-Dec-25	23-Jan-26	99
839.PRO.MEC.1530	07240 - Flotation Cells - Evaluations / Qualification / RFA / Award	10	27-Jan-26	09-Feb-26	99
839.FAB.MEC.1270	07240 - Flotation Cells - Manufacture / Fabricate / NDT	210	03-Mar-26	29-Sep-26	123
839.PRO.MEC.1535	07240 - Flotation Cells - Certified Vendor Data (Award + 8 Weeks)	0		09-Apr-26	207
839.TRN.MEC.1260	07240 - Flotation Cells - Pack / Ship / Site	63	29-Sep-26	01-Dec-26	123
07246 - Acid Wash Column		375	01-Dec-25	08-Jan-27	115
839.PRO.MEC.1540	07246 - Acid Wash Column - SoW / Data Sheets / Specs / T&Cs	10	01-Dec-25	12-Dec-25	93
839.PRO.MEC.1545	07246 - Acid Wash Column - Tender Pricing / Delivery / Clarifications	20	15-Dec-25	23-Jan-26	93
839.PRO.MEC.1550	07246 - Acid Wash Column - Evaluations / Qualification / RFA / Award	10	27-Jan-26	09-Feb-26	93
839.FAB.MEC.1280	07246 - Acid Wash Column - Manufacture / Fabricate / FAT	266	03-Mar-26	24-Nov-26	115
839.PRO.MEC.1555	07246 - Acid Wash Column - Certified Vendor Data (Award + 8 Weeks)	0		09-Apr-26	237
839.TRN.MEC.1270	07246 - Acid Wash Column - Pack / Ship / Site	35	24-Nov-26	08-Jan-27	115
07247 - Elution Column/Expansion Vessel		379	01-Dec-25	12-Jan-27	155
839.PRO.MEC.1560	07247 - Elution Column/Expansion Vessel - SoW / Data Sheets / Specs / T&Cs	10	01-Dec-25	12-Dec-25	121
839.PRO.MEC.1565	07247 - Elution Column/Expansion Vessel - Tender Pricing / Delivery / Clarifications	20	15-Dec-25	23-Jan-26	121
839.PRO.MEC.1570	07247 - Elution Column/Expansion Vessel - Evaluations / Qualification / RFA / Award	10	27-Jan-26	09-Feb-26	121
839.FAB.MEC.1290	07247 - Elution Column/Expansion Vessel - Manufacture / Fabricate / FAT	266	03-Mar-26	24-Nov-26	155
839.PRO.MEC.1575	07247 - Elution Column/Expansion Vessel - Certified Vendor Data (Award + 8 Weeks)	0		09-Apr-26	269
839.TRN.MEC.1280	07247 - Elution Column/Expansion Vessel - Pack / Ship / Site	35	24-Nov-26	12-Jan-27	155
07341 - Crane, Hoist & Trolley		302	10-Feb-26	08-Dec-26	133
839.PRO.MEC.1620	07341 - Crane, Hoist & Trolley - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	94
839.PRO.MEC.1625	07341 - Crane, Hoist & Trolley - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	94
839.PRO.MEC.1630	07341 - Crane, Hoist & Trolley - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	94
839.FAB.MEC.1320	07341 - Crane, Hoist & Trolley - Manufacture / Fabricate / FAT	224	25-Mar-26	03-Nov-26	137
839.PRO.MEC.1635	07341 - Crane, Hoist & Trolley - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	209
839.TRN.MEC.1310	07341 - Crane, Hoist & Trolley - Pack / Ship / Site	35	04-Nov-26	08-Dec-26	137
07380 - Pumps - Process Water		232	10-Feb-26	29-Sep-26	171
839.PRO.MEC.1120	07380 - Pumps - Process Water - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	121
839.PRO.MEC.1125	07380 - Pumps - Process Water - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	121
839.PRO.MEC.1130	07380 - Pumps - Process Water - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	121
839.FAB.MEC.1070	07380 - Pumps - Process Water - Manufacture / Fabricate / FAT	154	25-Mar-26	25-Aug-26	175
839.PRO.MEC.1135	07380 - Pumps - Process Water - Certified Vendor Data (Award + 3 Weeks)	0		16-Apr-26	212
839.TRN.MEC.1060	07380 - Pumps - Process Water - Pack / Ship / Site	35	26-Aug-26	29-Sep-26	175
07381 - Pumps - Slurry/Solution		281	10-Feb-26	17-Nov-26	154
839.PRO.MEC.1140	07381 - Pumps - Slurry/Solution - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	109
839.PRO.MEC.1145	07381 - Pumps - Slurry/Solution - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	109
839.PRO.MEC.1150	07381 - Pumps - Slurry/Solution - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	109
839.FAB.MEC.1080	07381 - Pumps - Slurry/Solution - Manufacture / Fabricate / FAT	175	25-Mar-26	15-Sep-26	158
839.PRO.MEC.1155	07381 - Pumps - Slurry/Solution - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	189
839.TRN.MEC.1070	07381 - Pumps - Slurry/Solution - Pack / Ship / Site	63	16-Sep-26	17-Nov-26	158
07382 - Pumps - Reagents		260	10-Feb-26	27-Oct-26	173
839.PRO.MEC.1160	07382 - Pumps - Reagents - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	123

Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

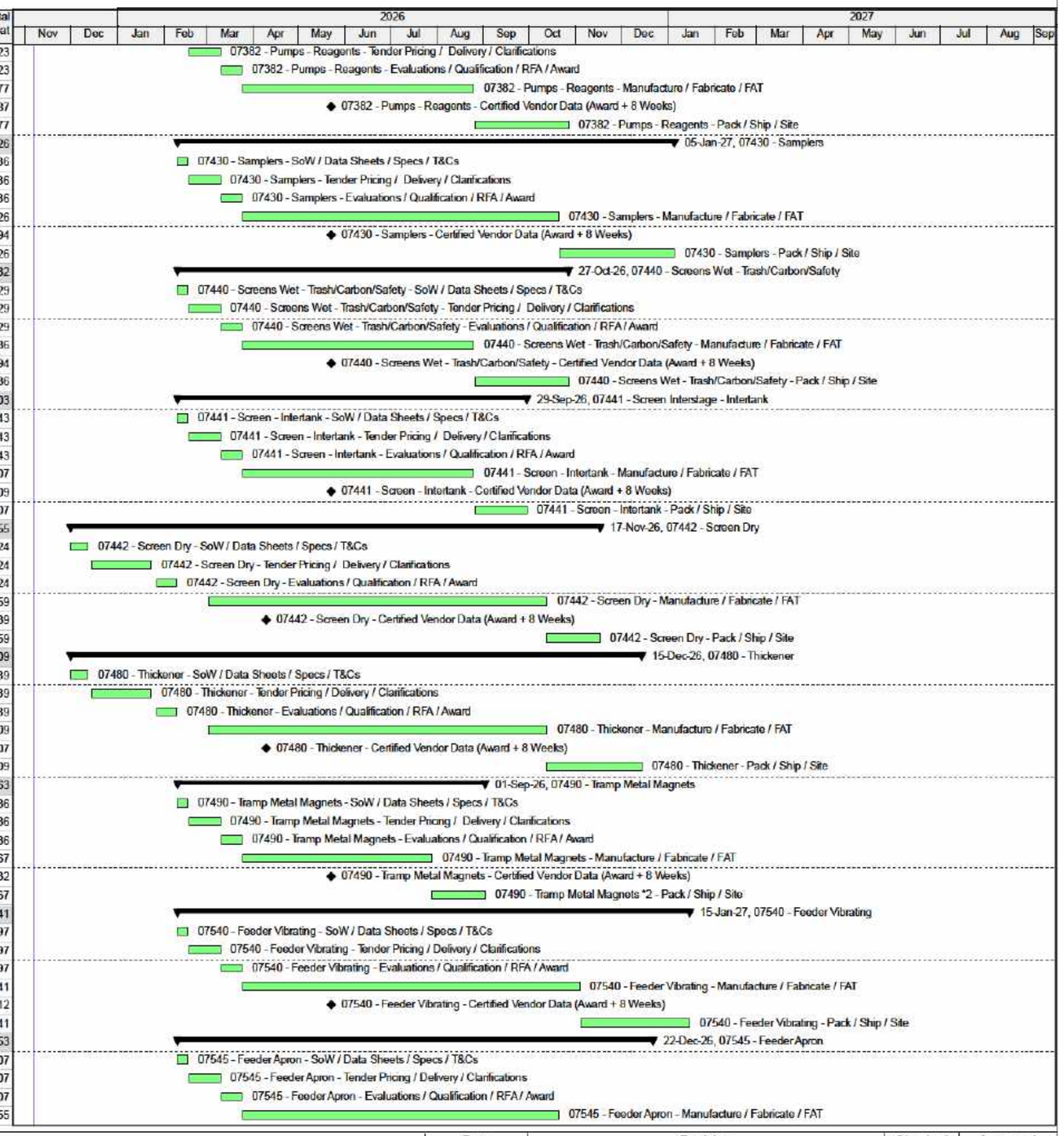
839 Youanmi Gold Project

Data Date: 06-Nov-25 - Printed: 06-Nov-25 - 11:51 - TASK filter: All Activities

Date	Revision	Checked	Approved
06-Nov-25	839 Youanmi Gold Project - IFI	MS	

839 Youanmi Gold Project

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
839.PRO.MEC.1165	07382 - Pumps - Reagents - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	123
839.PRO.MEC.1170	07382 - Pumps - Reagents - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	123
839.FAB.MEC.1090	07382 - Pumps - Reagents - Manufacture / Fabricate / FAT	154	25-Mar-26	25-Aug-26	177
839.PRO.MEC.1175	07382 - Pumps - Reagents - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	187
839.TRN.MEC.1080	07382 - Pumps - Reagents - Pack / Ship / Site	63	26-Aug-26	27-Oct-26	177
07430 - Samplers		316	10-Feb-26	05-Jan-27	126
839.PRO.MEC.1680	07430 - Samplers - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	86
839.PRO.MEC.1685	07430 - Samplers - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	86
839.PRO.MEC.1690	07430 - Samplers - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	86
839.FAB.MEC.1340	07430 - Samplers - Manufacture / Fabricate / FAT	210	25-Mar-26	20-Oct-26	126
839.PRO.MEC.1695	07430 - Samplers - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	194
839.TRN.MEC.1330	07430 - Samplers - Pack / Ship / Site	63	21-Oct-26	05-Jan-27	126
07440 - Screens Wet - Trash/Carbon/Safety		260	10-Feb-26	27-Oct-26	182
839.PRO.MEC.1180	07440 - Screens Wet - Trash/Carbon/Safety - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	129
839.PRO.MEC.1185	07440 - Screens Wet - Trash/Carbon/Safety - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	129
839.PRO.MEC.1190	07440 - Screens Wet - Trash/Carbon/Safety - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	129
839.FAB.MEC.1100	07440 - Screens Wet - Trash/Carbon/Safety - Manufacture / Fabricate / FAT	154	25-Mar-26	25-Aug-26	186
839.PRO.MEC.1195	07440 - Screens Wet - Trash/Carbon/Safety - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	194
839.TRN.MEC.1090	07440 - Screens Wet - Trash/Carbon/Safety - Pack / Ship / Site	63	26-Aug-26	27-Oct-26	186
07441 - Screen Interstage - Intertank		232	10-Feb-26	29-Sep-26	203
839.PRO.MEC.1200	07441 - Screen - Intertank - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	143
839.PRO.MEC.1205	07441 - Screen - Intertank - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	143
839.PRO.MEC.1210	07441 - Screen - Intertank - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	143
839.FAB.MEC.1110	07441 - Screen - Intertank - Manufacture / Fabricate / FAT	154	25-Mar-26	25-Aug-26	207
839.PRO.MEC.1215	07441 - Screen - Intertank - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	209
839.TRN.MEC.1100	07441 - Screen - Intertank - Pack / Ship / Site	35	26-Aug-26	29-Sep-26	207
07442 - Screen Dry		337	01-Dec-25	17-Nov-26	155
839.PRO.MEC.2040	07442 - Screen Dry - SoW / Data Sheets / Specs / T&Cs	10	01-Dec-25	12-Dec-25	124
839.PRO.MEC.2050	07442 - Screen Dry - Tender Pricing / Delivery / Clarifications	20	15-Dec-25	23-Jan-26	124
839.PRO.MEC.2060	07442 - Screen Dry - Evaluations / Qualifcation / RFA / Award	10	27-Jan-26	09-Feb-26	124
839.FAB.MEC.1520	07442 - Screen Dry - Manufacture / Fabricate / FAT	224	03-Mar-26	13-Oct-26	159
839.PRO.MEC.2070	07442 - Screen Dry - Certified Vendor Data (Award + 8 Weeks)	0		09-Apr-26	239
839.TRN.MEC.1510	07442 - Screen Dry - Pack / Ship / Site	35	13-Oct-26	17-Nov-26	159
07480 - Thickener		365	01-Dec-25	15-Dec-26	109
839.PRO.MEC.1700	07480 - Thickener - SoW / Data Sheets / Specs / T&Cs	10	01-Dec-25	12-Dec-25	89
839.PRO.MEC.1705	07480 - Thickener - Tender Pricing / Delivery / Clarifications	20	15-Dec-25	23-Jan-26	89
839.PRO.MEC.1710	07480 - Thickener - Evaluations / Qualification / RFA / Award	10	27-Jan-26	09-Feb-26	89
839.FAB.MEC.1350	07480 - Thickener - Manufacture / Fabricate / FAT	224	03-Mar-26	13-Oct-26	109
839.PRO.MEC.1715	07480 - Thickener - Certified Vendor Data (Award + 8 Weeks)	0		09-Apr-26	207
839.TRN.MEC.1340	07480 - Thickener - Pack / Ship / Site	63	13-Oct-26	15-Dec-26	109
07490 - Tramp Metal Magnets		204	10-Feb-26	01-Sep-26	263
839.PRO.MEC.1660	07490 - Tramp Metal Magnets - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	186
839.PRO.MEC.1665	07490 - Tramp Metal Magnets - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	186
839.PRO.MEC.1670	07490 - Tramp Metal Magnets - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	186
839.FAB.MEC.1360	07490 - Tramp Metal Magnets - Manufacture / Fabricate / FAT	126	25-Mar-26	28-Jul-26	267
839.PRO.MEC.1675	07490 - Tramp Metal Magnets - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	232
839.TRN.MEC.1350	07490 - Tramp Metal Magnets *2 - Pack / Ship / Site	35	29-Jul-26	01-Sep-26	267
07540 - Feeder Vibrating		326	10-Feb-26	15-Jan-27	141
839.PRO.MEC.2080	07540 - Feeder Vibrating - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	97
839.PRO.MEC.2090	07540 - Feeder Vibrating - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	97
839.PRO.MEC.2100	07540 - Feeder Vibrating - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	97
839.FAB.MEC.1530	07540 - Feeder Vibrating - Manufacture / Fabricate / FAT	224	25-Mar-26	03-Nov-26	141
839.PRO.MEC.2110	07540 - Feeder Vibrating - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	212
839.TRN.MEC.1520	07540 - Feeder Vibrating - Pack / Ship / Site	63	04-Nov-26	15-Jan-27	141
07545 - Feeder Apron		314	10-Feb-26	22-Dec-26	153
839.PRO.MEC.1220	07545 - Feeder Apron - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	107
839.PRO.MEC.1225	07545 - Feeder Apron - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	107
839.PRO.MEC.1230	07545 - Feeder Apron - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	107
839.FAB.MEC.1120	07545 - Feeder Apron - Manufacture / Fabricate / FAT	210	25-Mar-26	20-Oct-26	155



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

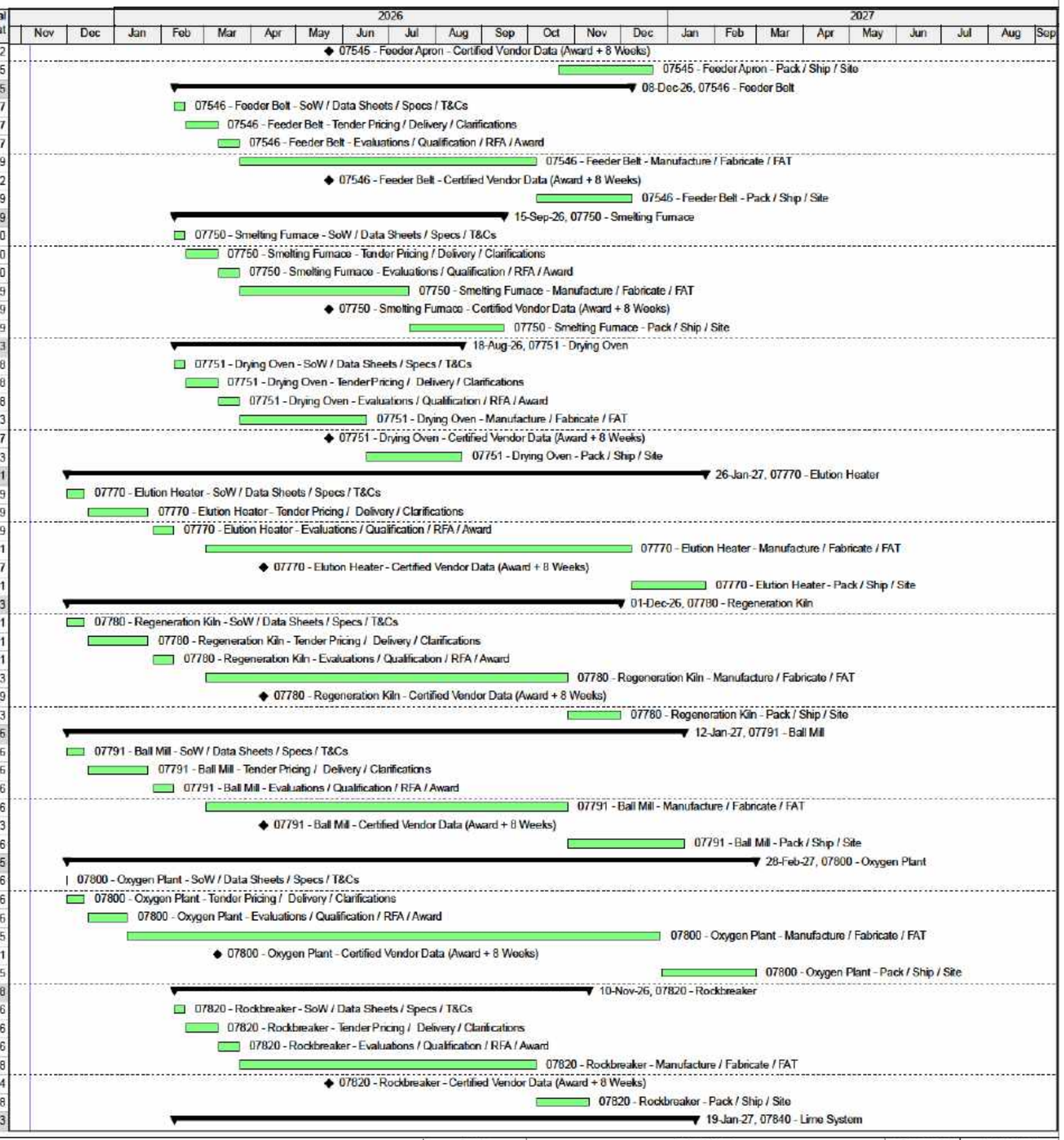
Date	Revision	Checked	Approved
06-Nov-25	839 Youanmi Gold Project - IFI	MS	

ROX RESOURCES

839 Youanmi Gold Project

MACA Interquip mintrex

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
839.PRO.MEC.1235	07545 - Feeder Apron - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	212
839.TRN.MEC.1110	07545 - Feeder Apron - Pack / Ship / Site	63	21-Oct-26	22-Dec-26	155
07546 - Feeder Belt		302	10-Feb-26	08-Dec-26	165
839.PRO.MEC.2120	07546 - Feeder Belt - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	117
839.PRO.MEC.2130	07546 - Feeder Belt - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	117
839.PRO.MEC.2140	07546 - Feeder Belt - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	117
839.FAB.MEC.1540	07546 - Feeder Belt - Manufacture / Fabricate / FAT	196	25-Mar-26	06-Oct-26	169
839.PRO.MEC.2150	07546 - Feeder Belt - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	212
839.TRN.MEC.1530	07546 - Feeder Belt - Pack / Ship / Site	63	07-Oct-26	08-Dec-26	169
07750 - Smelting Furnace		218	10-Feb-26	15-Sep-26	259
839.PRO.MEC.1740	07750 - Smelting Furnace - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	180
839.PRO.MEC.1745	07750 - Smelting Furnace - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	180
839.PRO.MEC.1750	07750 - Smelting Furnace - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	180
839.FAB.MEC.1380	07750 - Smelting Furnace - Manufacture / Fabricate / FAT	112	25-Mar-26	14-Jul-26	259
839.PRO.MEC.1755	07750 - Smelting Furnace - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	219
839.TRN.MEC.1370	07750 - Smelting Furnace - Pack / Ship / Site	63	15-Jul-26	15-Sep-26	259
07751 - Drying Oven		190	10-Feb-26	18-Aug-26	213
839.PRO.MEC.1760	07751 - Drying Oven - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	148
839.PRO.MEC.1765	07751 - Drying Oven - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	148
839.PRO.MEC.1770	07751 - Drying Oven - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	148
839.FAB.MEC.1390	07751 - Drying Oven - Manufacture / Fabricate / FAT	84	25-Mar-26	16-Jun-26	213
839.PRO.MEC.1775	07751 - Drying Oven - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	167
839.TRN.MEC.1380	07751 - Drying Oven - Pack / Ship / Site	63	17-Jun-26	18-Aug-26	213
07770 - Elution Heater		393	01-Dec-25	26-Jan-27	151
839.PRO.MEC.2160	07770 - Elution Heater - SoW / Data Sheets / Specs / T&Cs	10	01-Dec-25	12-Dec-25	119
839.PRO.MEC.2170	07770 - Elution Heater - Tender Pricing / Delivery / Clarifications	20	15-Dec-25	23-Jan-26	119
839.PRO.MEC.2180	07770 - Elution Heater - Evaluations / Qualification / RFA / Award	10	27-Jan-26	09-Feb-26	119
839.FAB.MEC.1550	07770 - Elution Heater - Manufacture / Fabricate / FAT	280	03-Mar-26	08-Dec-26	151
839.PRO.MEC.2190	07770 - Elution Heater - Certified Vendor Data (Award + 8 Weeks)	0		09-Apr-26	277
839.TRN.MEC.1540	07770 - Elution Heater - Pack / Ship / Site	35	08-Dec-26	26-Jan-27	151
07780 - Regeneration Kiln		351	01-Dec-25	01-Dec-26	183
839.PRO.MEC.1780	07780 - Regeneration Kiln - SoW / Data Sheets / Specs / T&Cs	10	01-Dec-25	12-Dec-25	141
839.PRO.MEC.1785	07780 - Regeneration Kiln - Tender Pricing / Delivery / Clarifications	20	15-Dec-25	23-Jan-26	141
839.PRO.MEC.1790	07780 - Regeneration Kiln - Evaluations / Qualification / RFA / Award	10	27-Jan-26	09-Feb-26	141
839.FAB.MEC.1400	07780 - Regeneration Kiln - Manufacture / Fabricate / FAT	238	03-Mar-26	27-Oct-26	183
839.PRO.MEC.1795	07780 - Regeneration Kiln - Certified Vendor Data (Award + 8 Weeks)	0		09-Apr-26	269
839.TRN.MEC.1390	07780 - Regeneration Kiln - Pack / Ship / Site	35	27-Oct-26	01-Dec-26	183
07791 - Ball Mill		379	01-Dec-25	12-Jan-27	45
839.PRO.MEC.1800	07791 - Ball Mill - SoW / Data Sheets / Specs / T&Cs	10	01-Dec-25	12-Dec-25	46
839.PRO.MEC.1805	07791 - Ball Mill - Tender Pricing / Delivery / Clarifications	20	15-Dec-25	23-Jan-26	46
839.PRO.MEC.1810	07791 - Ball Mill - Evaluations / Qualification / RFA / Award	10	27-Jan-26	09-Feb-26	46
839.FAB.MEC.1410	07791 - Ball Mill - Manufacture / Fabricate / FAT	238	03-Mar-26	27-Oct-26	46
839.PRO.MEC.1815	07791 - Ball Mill - Certified Vendor Data (Award + 8 Weeks)	0		09-Apr-26	173
839.TRN.MEC.1400	07791 - Ball Mill - Pack / Ship / Site	63	27-Oct-26	12-Jan-27	46
07800 - Oxygen Plant		427	01-Dec-25	28-Feb-27	25
839.PRO.MEC.2200	07800 - Oxygen Plant - SoW / Data Sheets / Specs / T&Cs	0	01-Dec-25	01-Dec-25	16
839.PRO.MEC.2210	07800 - Oxygen Plant - Tender Pricing / Delivery / Clarifications	10	01-Dec-25	12-Dec-25	16
839.PRO.MEC.2220	07800 - Oxygen Plant - Evaluations / Qualification / RFA / Award	10	15-Dec-25	05-Jan-26	16
839.FAB.MEC.1560	07800 - Oxygen Plant - Manufacture / Fabricate / FAT	352	10-Jan-26	27-Dec-26	25
839.PRO.MEC.2230	07800 - Oxygen Plant - Certified Vendor Data (Award + 8 Weeks)	0		10-Mar-26	211
839.TRN.MEC.1550	07800 - Oxygen Plant - Pack / Ship / Site	63	28-Dec-26	28-Feb-27	25
07820 - Rockbreaker		274	10-Feb-26	10-Nov-26	168
839.PRO.MEC.1820	07820 - Rockbreaker - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	116
839.PRO.MEC.1825	07820 - Rockbreaker - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	116
839.PRO.MEC.1830	07820 - Rockbreaker - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	116
839.FAB.MEC.1420	07820 - Rockbreaker - Manufacture / Fabricate / FAT	196	25-Mar-26	06-Oct-26	168
839.PRO.MEC.1835	07820 - Rockbreaker - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	214
839.TRN.MEC.1410	07820 - Rockbreaker - Pack / Ship / Site	35	07-Oct-26	10-Nov-26	168
07840 - Lime System		330	10-Feb-26	19-Jan-27	103



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

839 Youanmi Gold Project

Data Date: 06-Nov-25 - Printed: 06-Nov-25 - 11:51 - TASK filter: All Activities

Date	Revision	Checked	Approved
06-Nov-25	839 Youanmi Gold Project - IFI	MS	

ROX RESOURCES

839 Youanmi Gold Project

MACA Interquip mintrex

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
839.PRO.MEC.2240	07840 - Lime System - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	69
839.PRO.MEC.2250	07840 - Lime System - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	69
839.PRO.MEC.2260	07840 - Lime System - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	69
839.FAB.MEC.1570	07840 - Lime System - Manufacture / Fabricate / FAT	252	25-Mar-26	01-Dec-26	103
839.PRO.MEC.2270	07840 - Lime System - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	207
839.TRN.MEC.1560	07840 - Lime System - Pack / Ship / Site	35	02-Dec-26	19-Jan-27	103
07841 - Limestone System		344	10-Feb-26	02-Feb-27	89
839.PRO.MEC.2280	07841 - Limestone System - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	59
839.PRO.MEC.2290	07841 - Limestone System - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	59
839.PRO.MEC.2300	07841 - Limestone System - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	59
839.FAB.MEC.1580	07841 - Limestone System - Manufacture / Fabricate / FAT	266	25-Mar-26	15-Dec-26	89
839.PRO.MEC.2310	07841 - Limestone System - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	207
839.TRN.MEC.1570	07841 - Limestone System - Pack / Ship / Site	35	16-Dec-26	02-Feb-27	89
07850 - RO Plant		203	28-Jul-26	01-Mar-27	32
839.PRO.MEC.1840	07850 - RO Plant - SoW / Data Sheets / Specs / T&Cs	5	28-Jul-26	03-Aug-26	23
839.PRO.MEC.1845	07850 - RO Plant - Tender Pricing / Delivery / Clarifications	15	04-Aug-26	24-Aug-26	23
839.PRO.MEC.1850	07850 - RO Plant - Evaluations / Qualification / RFA / Award	10	25-Aug-26	07-Sep-26	23
839.FAB.MEC.1430	07850 - RO Plant - Manufacture / Fabricate / FAT	126	08-Sep-26	25-Jan-27	32
839.PRO.MEC.1855	07850 - RO Plant - Certified Vendor Data (Award + 8 Weeks)	0		03-Nov-26	72
839.TRN.MEC.1420	07850 - RO Plant - Pack / Ship / Site	35	26-Jan-27	01-Mar-27	32
07972 - Gold Room Safe		161	28-Jul-26	18-Jan-27	148
839.PRO.MEC.1900	07972 - Gold Room Safe - SoW / Data Sheets / Specs / T&Cs	5	28-Jul-26	03-Aug-26	104
839.PRO.MEC.1905	07972 - Gold Room Safe - Tender Pricing / Delivery / Clarifications	15	04-Aug-26	24-Aug-26	104
839.PRO.MEC.1910	07972 - Gold Room Safe - Evaluations / Qualification / RFA / Award	10	25-Aug-26	07-Sep-26	104
839.FAB.MEC.1460	07972 - Gold Room Safe - Manufacture / Fabricate / FAT	84	08-Sep-26	30-Nov-26	148
839.PRO.MEC.1915	07972 - Gold Room Safe - Certified Vendor Data (Award + 8 Weeks)	0		03-Nov-26	124
839.TRN.MEC.1450	07972 - Gold Room Safe - Pack / Ship / Site	35	01-Dec-26	18-Jan-27	148
07974 - Filters - Elution/Sludge		260	10-Feb-26	27-Oct-26	217
839.PRO.MEC.1940	07974 - Filters - Elution/Sludge - SoW / Data Sheets / Specs / T&Cs	5	10-Feb-26	16-Feb-26	150
839.PRO.MEC.1945	07974 - Filters - Elution/Sludge - Tender Pricing / Delivery / Clarifications	15	17-Feb-26	10-Mar-26	150
839.PRO.MEC.1950	07974 - Filters - Elution/Sludge - Evaluations / Qualification / RFA / Award	10	11-Mar-26	24-Mar-26	150
839.FAB.MEC.1480	07974 - Filters - Elution/Sludge - Manufacture / Fabricate / FAT	182	25-Mar-26	22-Sep-26	217
839.PRO.MEC.1955	07974 - Filters - Elution/Sludge - Certified Vendor Data (Award + 8 Weeks)	0		22-May-26	239
839.TRN.MEC.1470	07974 - Filters - Elution/Sludge - Pack / Ship / Site	35	23-Sep-26	27-Oct-26	217
07990 - Isamill Package		469	01-Dec-25	11-Apr-27	0
839.PRO.MEC.2320	07990 - Isamill Package - Elution/Sludge - SoW / Data Sheets / Specs / T&Cs	0	01-Dec-25	01-Dec-25	0
839.PRO.MEC.2330	07990 - Isamill Package - Tender Pricing / Delivery / Clarifications	0	01-Dec-25	01-Dec-25	0
839.PRO.MEC.2340	07990 - Isamill Package - Evaluations / Qualification / RFA / Award	10	01-Dec-25	12-Dec-25	0
839.FAB.MEC.1590	07990 - Isamill Package - Manufacture / Fabricate / FAT	373	13-Dec-25	17-Jan-27	0
839.PRO.MEC.2350	07990 - Isamill Package - Certified Vendor Data (Award + 8 Weeks)	0		23-Feb-26	217
839.TRN.MEC.1580	07990 - Isamill Package - Pack / Ship / Site	84	18-Jan-27	11-Apr-27	0
FAB & MATERIAL BULKS		481	01-Dec-25	23-Apr-27	43
080FSS - Fab Structural Steel		250	18-Feb-26	26-Oct-26	119
839.PRO.STR.1010	080FSS - Structural Steel - Fabrication - SoW / Data Sheets / Specs / T&Cs / Model	10	18-Feb-26	05-Mar-26	87
839.PRO.STR.1020	080FSS - Structural Steel - Fabrication - Tender Pricing / Delivery / Clarifications	20	05-Mar-26	02-Apr-26	87
839.PRO.STR.1030	080FSS - Structural Steel - Fabrication - Evaluations / Qualification / RFA / Award	10	02-Apr-26	20-Apr-26	87
839.FAB.STR.1000	080FSS - Structural Steel - MTO / Material Requisition / Detailing / Fabrication / QA Release	154	20-Apr-26	21-Sep-26	123
839.TRN.STR.1040	080FSS - Structural Steel - Fabrication - Pack / Ship / Site	105	13-Jul-26	26-Oct-26	123
080FSR - Fab Switchroom/MCC		316	05-Mar-26	28-Jan-27	118
839.PRO.ARC.1050	080AR - Switchroom Bld *3 - Manufacture - SoW / Data Sheets / Specs / T&Cs / Model / Loa	10	05-Mar-26	18-Mar-26	49
839.PRO.ARC.1060	080AR - Switchroom Bld *3 - Manufacture - Tender Pricing / Delivery / Clarifications	20	19-Mar-26	17-Apr-26	49
839.PRO.ARC.1070	080AR - Switchroom Bld *3 - Manufacture - Evaluations / Qualification / RFA / Award	10	20-Apr-26	04-May-26	83
839.FAB.ARC.1110	080AR - Switchroom Bld *3 - MTO / Material Requisition / Electrical Fitout / FAT / QA Release	224	05-May-26	14-Dec-26	118
839.TRN.ARC.1080	080AR - Switchroom Bld *3 - Pack / Ship / Site	35	15-Dec-26	28-Jan-27	118
080FTK - Fab Tankage Steel		166	18-Feb-26	03-Aug-26	156
839.PRO.STK.1040	080FTK - Tankage Steel - Fab/Roll Strakes - SoW / Data Sheets / Specs / T&Cs / Model (Fiel	10	18-Feb-26	05-Mar-26	113
839.PRO.STK.1050	080FTK - Tankage Steel - Fab/Roll Strakes - Tender Pricing / Delivery / Clarifications (Field Er	20	05-Mar-26	02-Apr-26	113
839.PRO.STK.1060	080FTK - Tankage Steel - Fab/Roll Strakes - Evaluations / Qualification / RFA / Award (Field E	10	02-Apr-26	20-Apr-26	113
839.FAB.STK.1010	080FTK - Tankage Steel - MTO / Material Requisition / Detailing / Fab/Roll Strakes / QA Rele	70	20-Apr-26	29-Jun-26	160

Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

839 Youanmi Gold Project

Data Date: 06-Nov-25 - Printed: 06-Nov-25 - 11:51 - TASK filter: All Activities

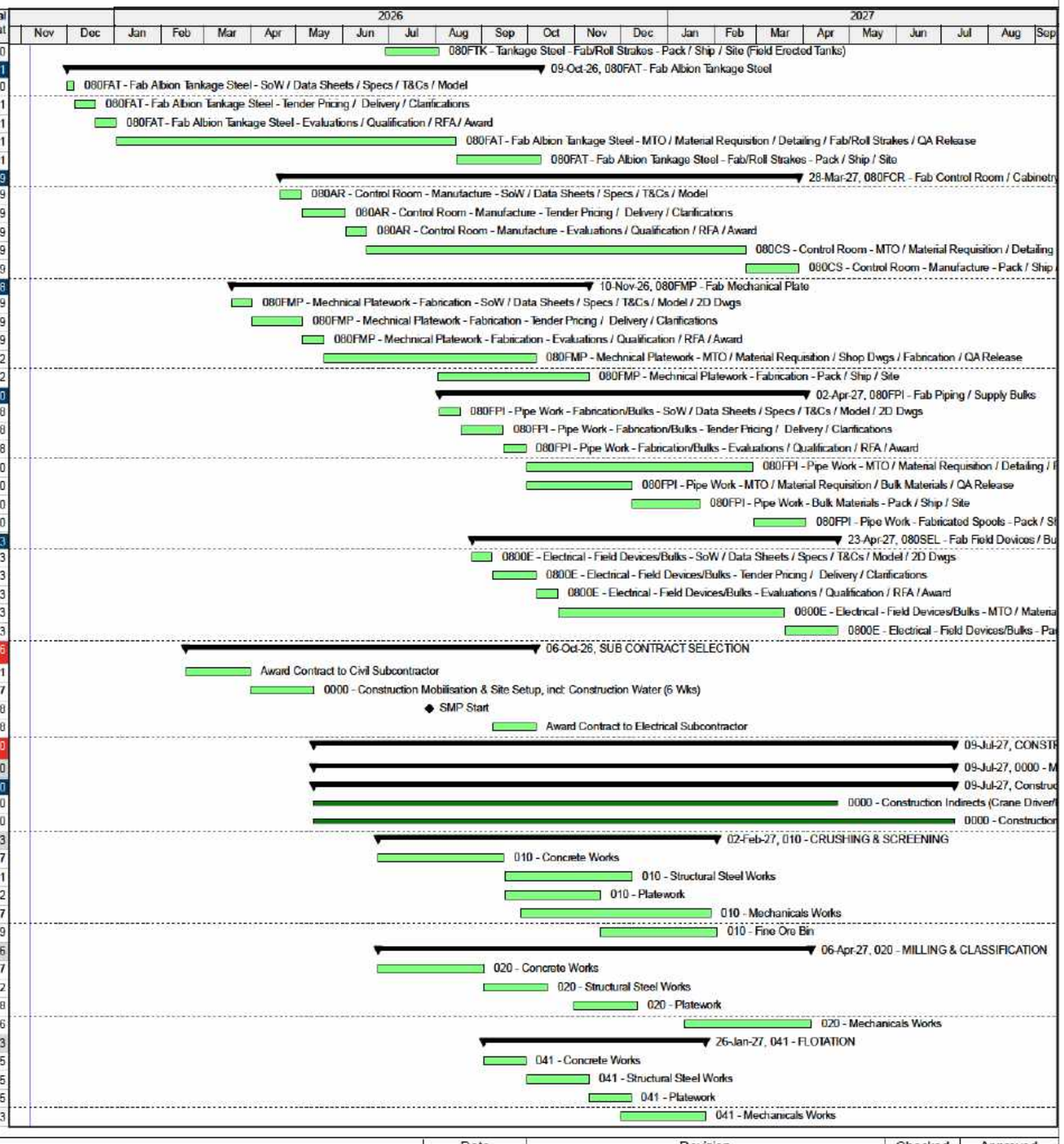
Date	Revision	Checked	Approved
06-Nov-25	839 Youanmi Gold Project - IFI	MS	

ROX RESOURCES

839 Youanmi Gold Project

MACA Interquip mintrex

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
839.TRN.STK.1050	080FTK - Tankage Steel - Fab/Roll Strakes - Pack / Ship / Site (Field Erected Tanks)	35	29-Jun-26	03-Aug-26	160
080FAT - Fab Albion Tankage Steel		299	01-Dec-25	09-Oct-26	21
839.PRO.STK.1070	080FAT - Fab Albion Tankage Steel - SoW / Data Sheets / Specs / T&Cs / Model	5	01-Dec-25	05-Dec-25	10
839.PRO.STK.1080	080FAT - Fab Albion Tankage Steel - Tender Pricing / Delivery / Clarifications	14	06-Dec-25	19-Dec-25	21
839.PRO.STK.1090	080FAT - Fab Albion Tankage Steel - Evaluations / Qualification / RFA / Award	14	20-Dec-25	02-Jan-26	21
839.FAB.STK.1020	080FAT - Fab Albion Tankage Steel - MTO / Material Requisition / Detailing / Fab/Roll Strakes	224	03-Jan-26	14-Aug-26	21
839.TRN.STK.1060	080FAT - Fab Albion Tankage Steel - Fab/Roll Strakes - Pack / Ship / Site	56	15-Aug-26	09-Oct-26	21
080FCR - Fab Control Room / Cabinetry		329	20-Apr-26	28-Mar-27	69
839.PRO.CCR.1120	080AR - Control Room - Manufacture - SoW / Data Sheets / Specs / T&Cs / Model	10	20-Apr-26	04-May-26	49
839.PRO.CCR.1130	080AR - Control Room - Manufacture - Tender Pricing / Delivery / Clarifications	20	05-May-26	02-Jun-26	49
839.PRO.CCR.1140	080AR - Control Room - Manufacture - Evaluations / Qualification / RFA / Award	10	03-Jun-26	16-Jun-26	49
839.FAB.CCR.1110	080CS - Control Room - MTO / Material Requisition / Detailing / Manufacture / QA Release (	240	17-Jun-26	21-Feb-27	69
839.TRN.CCR.1090	080CS - Control Room - Manufacture - Pack / Ship / Site	35	22-Feb-27	28-Mar-27	69
080FMP - Fab Mechanical Plate		236	19-Mar-26	10-Nov-26	108
839.PRO.PLA.1010	080FMP - Mechnical Platework - Fabrication - SoW / Data Sheets / Specs / T&Cs / Model / 2I	10	19-Mar-26	02-Apr-26	79
839.PRO.PLA.1020	080FMP - Mechnical Platework - Fabrication - Tender Pricing / Delivery / Clarifications	20	02-Apr-26	05-May-26	79
839.PRO.PLA.1030	080FMP - Mechnical Platework - Fabrication - Evaluations / Qualification / RFA / Award	10	05-May-26	19-May-26	79
839.FAB.PLA.1040	080FMP - Mechnical Platework - MTO / Material Requisition / Shop Dwgs / Fabrication / QA R	140	19-May-26	06-Oct-26	112
839.TRN.PLA.1050	080FMP - Mechnical Platework - Fabrication - Pack / Ship / Site	100	02-Aug-26	10-Nov-26	112
080FPI - Fab Piping / Supply Bulks		228	04-Aug-26	02-Apr-27	10
839.PRO.PIP.1010	080FPI - Pipe Work - Fabrication/Bulks - SoW / Data Sheets / Specs / T&Cs / Model / 2D Dw	10	04-Aug-26	17-Aug-26	8
839.PRO.PIP.1020	080FPI - Pipe Work - Fabrication/Bulks - Tender Pricing / Delivery / Clarifications	20	18-Aug-26	14-Sep-26	8
839.PRO.PIP.1030	080FPI - Pipe Work - Fabrication/Bulks - Evaluations / Qualification / RFA / Award	10	15-Sep-26	29-Sep-26	8
839.FAB.PIP.1040	080FPI - Pipe Work - MTO / Material Requisition / Detailing / Fabrication / QA Release	140	30-Sep-26	26-Feb-27	10
839.FAB.PIP.1050	080FPI - Pipe Work - MTO / Material Requisition / Bulk Materials / QA Release	70	30-Sep-26	08-Dec-26	80
839.TRN.PIP.1060	080FPI - Pipe Work - Bulk Materials - Pack / Ship / Site	35	09-Dec-26	22-Jan-27	80
839.TRN.PIP.1050	080FPI - Pipe Work - Fabricated Spools - Pack / Ship / Site	35	27-Feb-27	02-Apr-27	10
080SEL - Fab Field Devices / Bulks		228	25-Aug-26	23-Apr-27	33
839.PRO.ELE.1010	0800E - Electrical - Field Devices/Bulks - SoW / Data Sheets / Specs / T&Cs / Model / 2D Dw	10	25-Aug-26	07-Sep-26	23
839.PRO.ELE.1020	0800E - Electrical - Field Devices/Bulks - Tender Pricing / Delivery / Clarifications	20	08-Sep-26	06-Oct-26	23
839.PRO.ELE.1030	0800E - Electrical - Field Devices/Bulks - Evaluations / Qualification / RFA / Award	10	07-Oct-26	20-Oct-26	23
839.FAB.ELE.1040	0800E - Electrical - Field Devices/Bulks - MTO / Material Requisition / Detailing / Fabrication /	140	21-Oct-26	19-Mar-27	33
839.TRN.ELE.1050	0800E - Electrical - Field Devices/Bulks - Pack / Ship / Site	35	20-Mar-27	23-Apr-27	33
SUB CONTRACT SELECTION		232	17-Feb-26	06-Oct-26	66
839.000.SUB.0010	Award Contract to Civil Subcontractor	30	17-Feb-26	31-Mar-26	11
839.000.MOB.1000	0000 - Construction Mobilisation & Site Setup, incl: Construction Water (6 Wks)	42	01-Apr-26	12-May-26	17
839.000.SUB.0020	SMP Start	0	28-Jul-26		48
839.000.SUB.0030	Award Contract to Electrical Subcontractor	20	08-Sep-26	06-Oct-26	48
CONSTRUCTION		409	13-May-26	09-Jul-27	0
0000 - MANAGEMENT		409	13-May-26	09-Jul-27	0
Construction Management & Indirect's		409	13-May-26	09-Jul-27	0
839.000.IND.1000	0000 - Construction Indirects (Crane Driver/Peggy/Scaffolder) - LoE	332	13-May-26	23-Apr-27	0
839.000.MGT.1010	0000 - Construction Management - LoE	409	13-May-26	09-Jul-27	0
010 - CRUSHING & SCREENING		210	24-Jun-26	02-Feb-27	133
839.000.CON.0100	010 - Concrete Works	84	24-Jun-26	15-Sep-26	17
839.000.STR.0100	010 - Structural Steel Works	84	16-Sep-26	08-Dec-26	111
839.000.PLA.0100	010 - Platework	63	16-Sep-26	17-Nov-26	132
839.000.MEC.0100	010 - Mechanicals Works	112	26-Sep-26	29-Jan-27	137
839.000.PLA.610	010 - Fine Ore Bin	63	18-Nov-26	02-Feb-27	69
020 - MILLING & CLASSIFICATION		272	24-Jun-26	06-Apr-27	46
839.000.CON.0200	020 - Concrete Works	70	24-Jun-26	01-Sep-26	17
839.000.STR.0200	020 - Structural Steel Works	42	02-Sep-26	13-Oct-26	122
839.000.PLA.0200	020 - Platework	42	31-Oct-26	12-Dec-26	108
839.000.MEC.0200	020 - Mechanicals Works	84	12-Jan-27	06-Apr-27	46
041 - FLOTATION		132	02-Sep-26	26-Jan-27	123
839.000.CON.0410	041 - Concrete Works	28	02-Sep-26	29-Sep-26	175
839.000.STR.0410	041 - Structural Steel Works	42	30-Sep-26	10-Nov-26	175
839.000.PLA.0410	041 - Platework	28	10-Nov-26	08-Dec-26	145
839.000.MEC.0410	041 - Mechanicals Works	42	01-Dec-26	26-Jan-27	123



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

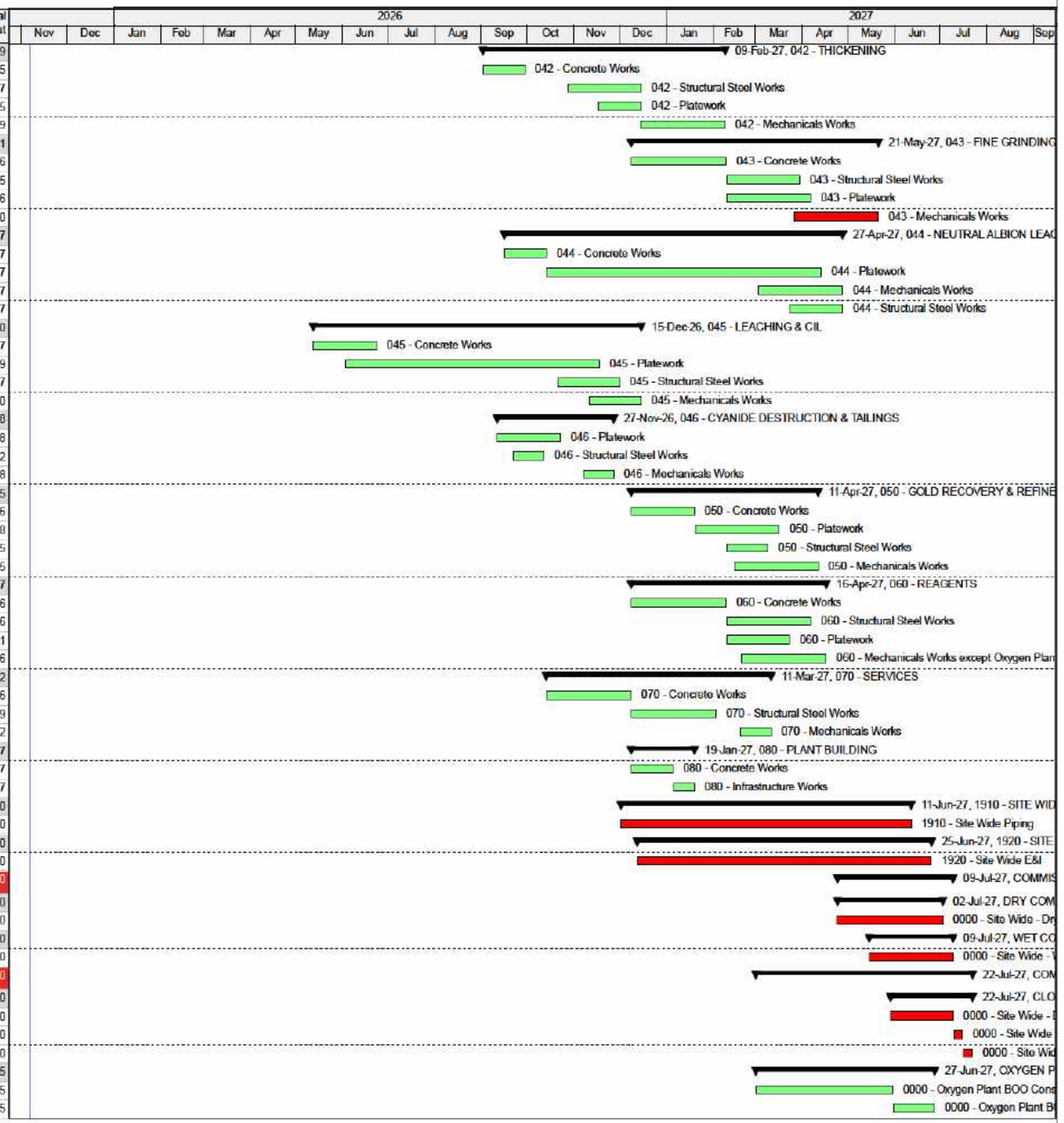
839 Youanmi Gold Project

Data Date: 06-Nov-25 - Printed: 06-Nov-25 - 11:51 - TASK filter: All Activities

Date	Revision	Checked	Approved
06-Nov-25	839 Youanmi Gold Project - IFI	MS	

839 Youanmi Gold Project

Activity ID	Activity Name	Planned Duration	Start	Finish	Total Float
042 - THICKENING		146	02-Sep-26	09-Feb-27	109
839.000.CON.800	042 - Concrete Works	28	02-Sep-26	29-Sep-26	175
839.000.STR.700	042 - Structural Steel Works	49	28-Oct-26	15-Dec-26	147
839.000.PLA.600	042 - Platework	28	17-Nov-26	15-Dec-26	145
839.000.MEC.700	042 - Mechanicals Works	42	15-Dec-26	09-Feb-27	109
043 - FINE GRINDING		150	09-Dec-26	21-May-27	1
839.000.CON.0430	043 - Concrete Works	49	09-Dec-26	09-Feb-27	26
839.000.STR.0430	043 - Structural Steel Works	49	10-Feb-27	30-Mar-27	35
839.000.PLA.0430	043 - Platework	56	10-Feb-27	06-Apr-27	46
839.000.MEC.0430	043 - Mechanicals Works	56	27-Mar-27	21-May-27	0
044 - NEUTRAL ALBION LEACH		210	16-Sep-26	27-Apr-27	17
839.000.CON.0440	044 - Concrete Works	28	16-Sep-26	13-Oct-26	17
839.000.PLA.0440	044 - Platework	168	14-Oct-26	13-Apr-27	17
839.000.MEC.0440	044 - Mechanicals Works	56	03-Mar-27	27-Apr-27	17
839.000.STR.0440	044 - Structural Steel Works	35	24-Mar-27	27-Apr-27	17
045 - LEACHING & CIL		217	13-May-26	15-Dec-26	150
839.000.CON.0450	045 - Concrete Works	42	13-May-26	23-Jun-26	17
839.000.PLA.0450	045 - Platework	168	03-Jun-26	17-Nov-26	69
839.000.STR.0450	045 - Structural Steel Works	42	21-Oct-26	01-Dec-26	147
839.000.MEC.0450	045 - Mechanicals Works	35	11-Nov-26	15-Dec-26	150
046 - CYANIDE DESTRUCTION & TAILINGS		78	11-Sep-26	27-Nov-26	168
839.000.PLA.0460	046 - Platework	42	11-Sep-26	23-Oct-26	198
839.000.STR.0460	046 - Structural Steel Works	21	22-Sep-26	12-Oct-26	202
839.000.MEC.0460	046 - Mechanicals Works	21	07-Nov-26	27-Nov-26	168
050 - GOLD RECOVERY & REFINEMENT		110	09-Dec-26	11-Apr-27	75
839.000.CON.0500	050 - Concrete Works	28	09-Dec-26	19-Jan-27	96
839.000.PLA.0500	050 - Platework	56	20-Jan-27	16-Mar-27	98
839.000.STR.0500	050 - Structural Steel Works	28	10-Feb-27	09-Mar-27	75
839.000.MEC.0500	050 - Mechanicals Works	56	15-Feb-27	11-Apr-27	75
060 - REAGENTS		115	09-Dec-26	16-Apr-27	67
839.000.CON.0600	060 - Concrete Works	49	09-Dec-26	09-Feb-27	26
839.000.STR.0600	060 - Structural Steel Works	56	10-Feb-27	06-Apr-27	26
839.000.PLA.0600	060 - Platework	42	10-Feb-27	23-Mar-27	91
839.000.MEC.0600	060 - Mechanicals Works except Oxygen Plant	56	20-Feb-27	16-Apr-27	26
070 - SERVICES		135	14-Oct-26	11-Mar-27	32
839.000.CON.0700	070 - Concrete Works	56	14-Oct-26	08-Dec-26	26
839.000.STR.0700	070 - Structural Steel Works	42	09-Dec-26	02-Feb-27	69
839.000.MEC.0700	070 - Mechanicals Works	21	19-Feb-27	11-Mar-27	32
080 - PLANT BUILDING		28	09-Dec-26	19-Jan-27	127
839.000.CON.0800	080 - Concrete Works	14	09-Dec-26	05-Jan-27	127
839.000.INF.0800	080 - Infrastructure Works	14	06-Jan-27	19-Jan-27	127
1910 - SITE WIDE PIPING		178	02-Dec-26	11-Jun-27	0
839.000.PIP.1910	1910 - Site Wide Piping	178	02-Dec-26	11-Jun-27	0
1920 - SITE WIDE E&I		181	13-Dec-26	25-Jun-27	0
839.000.E&I.1910	1920 - Site Wide E&I	181	13-Dec-26	25-Jun-27	0
COMMISSIONING		77	24-Apr-27	09-Jul-27	0
DRY COMMISSIONING		70	24-Apr-27	02-Jul-27	0
839.000.COM.1000	0000 - Site Wide - Dry Commissioning (Sub-Systems)	70	24-Apr-27	02-Jul-27	0
WET COMMISSIONING		56	15-May-27	09-Jul-27	0
839.000.COM.1010	0000 - Site Wide - Wet Commissioning (Systems)	56	15-May-27	09-Jul-27	0
COMPLETIONS		144	01-Mar-27	22-Jul-27	0
CLOSE OUT		55	29-May-27	22-Jul-27	0
839.000.MDR.1000	0000 - Site Wide - Draft Submission of MDR's	42	29-May-27	09-Jul-27	0
839.000.MDR.1010	0000 - Site Wide - Final Clean Up & De-Mob	6	10-Jul-27	15-Jul-27	0
839.000.MDR.1020	0000 - Site Wide - Final Submission of MDR's	7	16-Jul-27	22-Jul-27	0
OXYGEN PLANT BOO		119	01-Mar-27	27-Jun-27	25
839.000.OPB.1030	0000 - Oxygen Plant BOO Construction	91	01-Mar-27	30-May-27	25
839.000.OPB.1040	0000 - Oxygen Plant BOO Commissioning	28	31-May-27	27-Jun-27	25



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

839 Youanmi Gold Project

Data Date: 06-Nov-25 - Printed: 06-Nov-25 - 11:51 - TASK filter: All Activities

Date	Revision	Checked	Approved
06-Nov-25	839 Youanmi Gold Project - IFI	MS	

APPENDIX 8– OPERATING COST ESTIMATE

OPERATING COST ESTIMATE

Project Name:	Youanmi
Project Phase:	DFS
Client Name:	Rox Resources
Project Number:	839
Doc. No:	839-01020-EST-0002

[redacted]

The operating cost estimate presented here includes all direct costs associated with the Project to allow production of gold bearing concentrate and Gold doré. The operating cost estimate is presented with the following qualifications and exclusions:

Refer to separate Word document listing of exclusions

1. General Qualifications

1.1 Refer to separate document listing of exclusions
1.2 Costs provided by Client have not been validated
1.3 Impact of foreign exchange rate variations excluded
1.4 Escalation from the date of estimate excluded
1.5 Project financing costs excluded
1.6 Interest charges excluded
1.7 All costs associated with areas beyond the battery limits of the Study excluded
1.8 No allowance for contingency has been made

2. Estimate Basis

2.1 All costs and exchange rates are as at 4Q 2025
2.2 Currency of Estimate: A$
2.3 Accuracy: ± 15 %
2.4 Exchange rate - US$ 1.00 = A$ 1.528
Exchange rate - US$ 1.00 = € 0.867 (Euro)
2.5 Fuel costs have been based on a diesel price of A$ 1.35 /L
2.6 Power supply is assumed to be BOO over the fence, and a typical local cost per kilowatt hour has been used
2.7 Consumables costs have been based on budget quotations from vendors and local suppliers
2.8 Grinding media consumption rates have been based on MIM Modelling
2.9 Reagent consumption rates have been based on preliminary testwork and the MIM database of recent projects
2.10 Power consumption has been based on the equipment list
2.11 Maintenance costs have been factored from the capital cost estimate
2.12 Labour unit costs have been taken from the MIM database for similar projects.
2.13 Mobile equipment cost provides for fuel and maintenance, not for purchase or vehicle lease
2.14 FIFO and camp costs have been included in Labour costs

3. Battery Limits

3.1 Feed into ROM bin. Loader to crusher excluded.
3.2 Tails in tailings dam
3.3 Gold bullion in safe on site. No transport or refining charge included
3.4 Concentrate bagged ready for export

Project Name:	**Youanmi Gold Project**
Client:	**Rox Resources**
Project Description:	**Feasibility Study**
Job No.:	**839**
Option:	**1,000,000 tpa Albion Option**
Revision:	**C**
Cover Date:	**November 2025**

Annual Throughput		1,000,000	tpa
Operating Hours			
Crushing Plant		6,132	h/y
Milling and Flotation		8,000	h/y
CIL		8,000	h/y
Mill Throughput		125	tph
Estimate Period		4Q 2025	
Estimate Accuracy		± 15%	
Estimate Currency		A$	
Labour Cost Basis		NON-EXPAT	
Exchange Rate:			
US$ 1.00		1.528	A$
US$ 1.00		0.867	Euro
A$ 1.00		0.655	US$
A$ 1.00		0.568	Euro
Diesel price	$	1.35	A$/L
Gas price	$	19.00	$/GJ
Power Supply		GAS	
Power Cost - Gas			
Demand charge	$	-	A$/month
Unit Rate	$	0.25	A$/kWh
Total Cost	$	0.250	A$/kWh
Ore		Primary Ore	
Au		4.800	g Au/t
Ag		1.500	g Ag/t
Mo			g Mo/t
As		2,800	g As/t
$S_{(tot)}$		3.430	%
Recovery			
Overall Recovery			
Au		88.8%	

Project Name:	**Youanmi Gold Project**
Client:	**Rox Resources**
Project Description:	**Feasibility Study**
Job No.:	**839**
Option:	**1,000,000 tpa Albion Option**
Revision:	**C**
Cover Date:	**November 2025**

Ag		**25.0%**	
Annual Gold Production		136,993	oz/year
Annual Silver Production		12,057	oz/year
Crushing			
Crusher throughput		1,000,000	tpa
		163	tph
Annual Operating Hours		6,132	h/y
Availability		**70.0%**	
Ball Mill			
Ball Mill throughput		1,000,000	tpa
		125	tph
Annual Operating Hours		8,000	h/y
Availability		**91.3%**	
Cyclone Overflow Trash Screen			
Trash Screen throughput		1,000,000	tpa
Flotation			
Flotation Feed		1,000,000	tpa
		125	tph
Annual Operating Hours		8,000	h/y
Availability		**91.3%**	
Rougher Flotation			
Feed		1,000,000	tpa
Activator (Copper sulphate)		**60.0**	g/t rougher feed
Frother (IF 6801 B)		**24.0**	g/t rougher feed
Promotor ()		**-**	g/t rougher feed
Collector (A3302)		**-**	g/t rougher feed
Collector (A3418A)		**-**	g/t rougher feed
Collector (Xanthate - PAX)		**100.0**	g/t rougher feed
Rougher Mass Pull to Concentrate		**13.00%**	%
Concentrate Production		130,000	tpa
Rougher Tails Production		870,000	tpa
Flotation Summary			
Concentrate Production		130,000	tpa
Tailings Production		870,000	tpa
Flotation Mass Pull		13.0%	

Project Name:	**Youanmi Gold Project**
Client:	**Rox Resources**
Project Description:	**Feasibility Study**
Job No.:	**839**
Option:	**1,000,000 tpa Albion Option**
Revision:	**C**
Cover Date:	**November 2025**

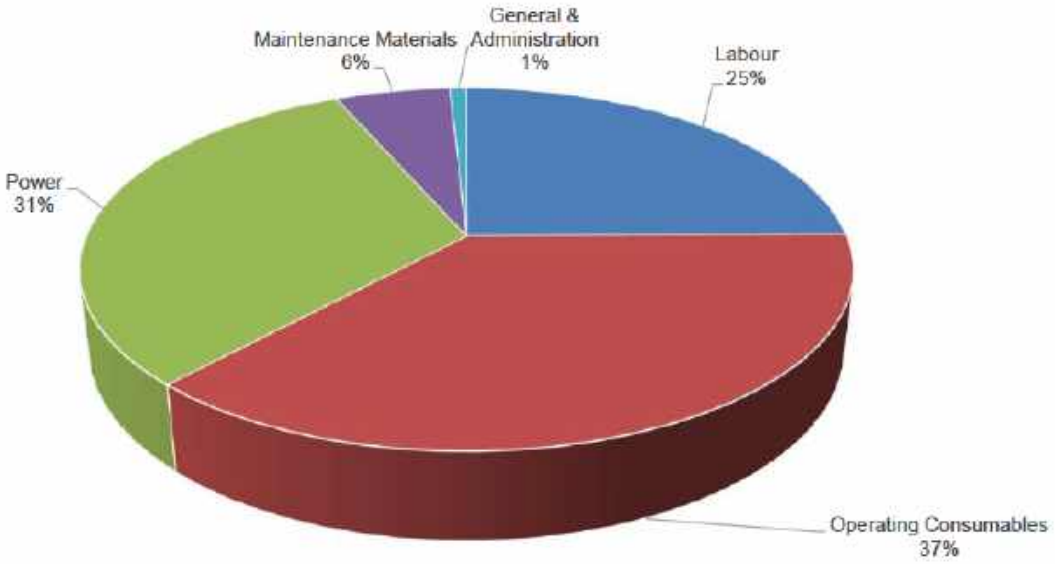
IsaMill Thickener		
Concentrate Thickener Feed	130,000	tpa
	16.3	tph
Flocculant addition	40.0	g/t thickener feed
Flotation Tailings Thickener		
Flotation Tailings	870,000	tpa
Neutralisation Tailings		
Tailings Thickener Feed	870,000	
Flocculant addition	17.0	g/t thickener feed
IsaMill		
IsaMill throughput	168,800	tpa
	21	tph
Annual Operating Hours	8,000	h/y
Availability	91.3%	
Media consumption rate	8	g/kWh
Consumed power	1240	kW
Media consumption rate	9.9	kg/h
Albion		
CaCO3 Required	469.14	kg/t Concentrate feed
Limestone Reactivity	75%	kg/t Concentrate feed
Limestone	625.51	kg/t Concentrate feed
Hydrated Lime Required	0.39	t/h
Lime CaCO3 Contained	80%	%
Oxygen	400.00	kg/t Concentrate feed
Caustic soda	-	g/t Concentrate feed
Flocculant	88.4	g/t Albion Product
CIL		
Lime (90% CaO)	0.47	kg/t feed
Cyanide	1.23	kg/t feed
Carbon	0.03	kg/t feed

Project Name:	**Youanmi Gold Project**
Client:	**Rox Resources**
Project Description:	**Feasibility Study**
Job No.:	**839**
Option:	**1,000,000 tpa Albion Option**
Revision:	**C**
Cover Date:	**November 2025**

Elution		
Number of Strips	[redacted]	strips / week
Carbon		t/strip
Cyanide		kg/strip
Hydrochloric Acid		kg/strip
Caustic		kg/strip
Intense Cyanidation		
Cyanide		kg/batch
Caustic		kg/batch
Leach Aid		kg/batch
Gold Room		
Number of Smelts	2	smelt / week
Smelt time	4	h / smelt
Intense Cyanidation Reactor	-	batch / day

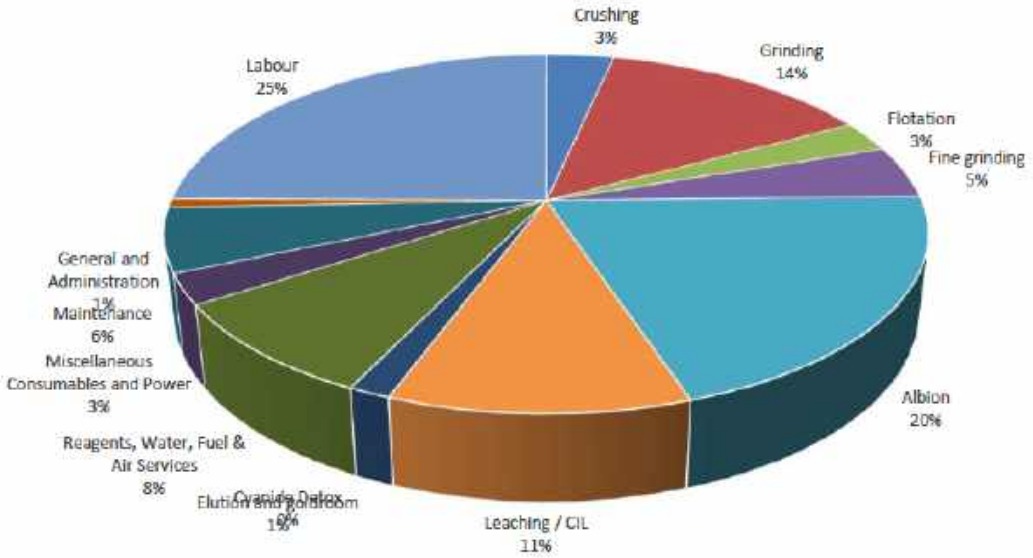
Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

[redacted]



Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

[redacted]



Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Item	Annual Costs A$/year	A$/t	Notes
Town Office			
Rental			stimated by Client elsewhere
Other Costs			stimated by Client elsewhere
Site Office			
Telecommunications			stimated by Client elsewhere
Telecommunications Maintenance			stimated by Client elsewhere
Stationery			stimated by Client elsewhere
Postage, Courier and Light Freight			stimated by Client elsewhere
Computer Supplies			stimated by Client elsewhere
Insurances			
Medical			stimated by Client elsewhere
Death and Disability			stimated by Client elsewhere
Light Vehicle Insurance			stimated by Client elsewhere
Workers Liability Insurance			stimated by Client elsewhere
Political Risk Insurance			stimated by Client elsewhere
Financial			
Banking Charges			stimated by Client elsewhere
Legal Fees			stimated by Client elsewhere
Auditing Costs			stimated by Client elsewhere
Bullion Refining			stimated by Client elsewhere
Royalties			stimated by Client elsewhere
Fees			
Tenement Maintenance Costs			cluded in financials
Tenement Fees			cluded in financials
Native Title Fees			cluded in financials
DEP/ Environmental Licence			cluded in financials
Local Government Fees			cluded in financials
Community Relations Expenses			cluded in financials
Consultants			
Environmental Consultants			stimated by Client elsewhere
Consultants			stimated by Client elsewhere
Metallurgical Testing			stimated by Client elsewhere
Environmental Compliance Testing			stimated by Client elsewhere
Personnel			
First Aid and Medical Costs			stimated by Client elsewhere
Medicals, Visas, Passports			xcluded
Recreational and Local Facilities			xcluded
Entertainment			xcluded
Safety Clothing			500 per person
Travel & Accommodation			xcluded
Recruiting/Relocation			stimated by Client elsewhere
Training			llowance based on similar projects
Contracts			
Worker Transport Contract			cluded in labour costs
Security Contract			xcluded
Catering Contract			xcluded
Office Cleaning Contract			stimated by Client elsewhere
Camp Lease Cost			xcluded
General			
Site Laboratory			efer to *"Laboratory"* sheet
Administration Light Vehicles			cluded in *"Mobile Equipment"*
Services			llowance based on similar projects
Miscellaneous			llowance based on similar projects
TOTAL			

NOTES
1. Excludes head office costs

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Area	[redacted]
Plant Maintenance	
CRUSHING	
MILLING & CLASSIFICATION	
FLOTATION	
THICKENING	
FINE GRINDING	
ALBION	
LEACHING & CIL	
CYANIDE DESTRUCTION & TAILING	
ACID WASH & ELUTION	
REAGENTS	
SERVICES	
Mobile Equipment	
Maintenance General	
Maintenance software (SAP etc)	
Maintenance manuals	
Maintenance training	
TOTAL	

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

		Number of units	Treatment Plant	Admin	Make
Processing Plant					
5t Truck c/w Hiab Crane		2	2	0	
Ambulance		1	0	1	Toyota
Diesel Pumps		2			
Integrated Tool Carrier/Forklift		2			Cat
50t Crane		1			
Stand-by Generator - 500 kVA		1			
Mobile Lighting Towers		2			Mobi-glow
Limestone Loader		1			CAT 950
Provided by ROX					
Single Cab Ute	4WD	4	4	2	Toyota
Double Cab Ute	4WD	2	2	0	Toyota
Personnel Carrier	4WD	1	0	1	Toyota
Single Cab Ute (Security)	4WD	1		1	Toyota
20 person bus		1	0	1	
Front End Loader		1			CAT 980
Bobcat		2			
Diesel Welder		1			Lincoln
Excavator/Rock Breaker		1			Komatsu PC360LC
Dozer		1			CAT D8T
Total		11			

[redacted]

Provided by client

[redacted]

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Assay Costs
Solids Preparation
Solids Moisture
Solids Sizing
Solids Fire Assay
Solids ICP
Solution Assay
Carbon Assay
Bullion
Environmental (WAD CN, As)
Water Quality (potable)
Sample Pick Up/Courier

[redacted]

Number of shifts per day 2

Assay Requirement	Shift	Daily	Weekly	Monthly
Solids				
Mill Feed	1	1	1	1
Leach Feed	1	1	1	1
Leach Tanks	1	1	1	1
Leach Tails	1	1	1	1
Tails bottle roll	1	1	1	1
Float Feed	1	1	1	1
Rougher Concentrate	1	1	1	1
Rougher Tail	1	1	1	1
Albion feed	1	1	1	1
Albion tail	1	1	1	1
Metallurgical Testing		6		50
Solutions (AAS)				
Albion Feed	1			
Albion Tanks			7	7
Albion Tail	1			
Leach Feed	1			
Leach Tanks			7	7
Leach Tail	1			
Pregnant Eluate			7	
Barren Eluate			7	
Thickener Overflow		1		
Process Water Pond		1		
Tails bottle roll		1	1	
Metallurgical Testing		6		50
Carbon				
Loaded		2		
Barren		2		
Regen		2		
CIP Tanks			12	12
Bullion				
Bars			6	
Miscellaneous				
Mill Feed Moisture	1			10
Mill Feed Sizing	1			10
Leach Feed Sizing	1			10
Float Feed Sizing	1			10
Environmental Samples			2	10
Water Quality Sample			2	2
Subtotal				

[redacted]

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Assay Costs	Internal	External	Source / Comment
Solids Preparation	$ -		
Solids Moisture	$ -		
Solids Sizing	$ -	$ 91	
Solids Fire Assay			
Solids ICP			
Solution Assay	$ -	$ 26	
Carbon Assay		$ 42	
Bullion		$ 500	
Environmental (WAD CN, As)		$ 200	
Water Quality (potable)		$ 250	
Sample Pick Up/Courier		$ 2	

[redacted]

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Power Supply GAS

Power Unit Cost $ 0.250 A$/kWh
Power Fixed Charge $ 1,000.00 A$/year

	Installed Power kW	Maximum Continuous Draw kW	Average Continuous Draw kW	Total Annual Power Consumption kWh/year
Crushing and stockpile	1,335	914	618	5,416,193
Milling and Classification	4,090	3,056	3,019	26,449,316
Flotation	736	478	418	3,659,896
Fine grinding	1,913	1,397	1,267	11,102,294
Albion	1,585	1,219	1,080	9,457,364
Leaching / CIL	926	527	495	4,334,524
Elution and Goldroom	126	57	64	558,374
Reagents	4,170	2,538	2,410	21,114,978
Water, Fuel & Air Services	757	369	309	2,709,810
Village				-
Mine services				-
Workshops / Plant Buildings	373	209	137	1,196,003
Airport / other infrastructure				-
Miscellaneous	84	58	57	503,315
Sub Total Unit Rate	**16,094**	**10,821**	**9,875**	**86,502,065**
Power Demand Cost				
Service Charge				
TOTAL				

[redacted]

NOTES

1. Power taken from the detailed Equipment List
2. Peak Power Draw = Installed Power x Load Factor (kW)
3. Average Continuous Power Draw = Peak Power Draw x %Utilisation (kW)
4. Total Annual Consumption = Average Continuous Power Draw x 365 x 24 (kWh)
5. Utilisation is calculated from the annual operating hours
6. Mill Motor Power Draw = Mill Pinion Power / Mill Power Factor (default 0.925)

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Basis	12	hours per day
Shift Roster	2	shifts per day
	4	shifts in total
Panel Rotation	8 days on, 6 days off	
On costs	27%	
STI	10%	
Shift uplift	10%	

	Employees per Team	Number of Teams	Number of Employees	Roster	Site days	Classificati
Administration Department						
Management						
General Manager			0	8/6	0	M
Executive assistant/Reception			0	8/6	0	SD
Environmental						
Environmental Superintendent			0	8/6	0	M
Environmental Advisor			0	8/6	0	SD
Safety						
HS Manager			0	8/6	0	SD
OHS Advisor			0	8/6	0	SD
HR						
HR Manager			0	8/6	0	M
HR Officer			0	8/6	0	SD
Security						
Security Staff	0	2	0	8/6		SD
Finance & Administration						
Commercial and Administration Manager			0	8/6	0	M
Accountant			0	8/6	0	SD
Purchasing Officer	1	2	2	8/6	417	SD
Warehouse Manager	1	1	1	8/6	209	SD
Warehouse Labour	1	3	3	8/6	626	SS
Administration Subtotal			6		1,251	
Process Department						
Process Manager	0	1	0	8/6	0	M
Secretary	0	1	0	8/6		SD
Operations						
Production Superintendent	1	1	1	8/6	209	M
Shift Supervisors	1	4	4	8/6	834	SS

[redacted]

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Basis	12	hours per day
Shift Roster	2	shifts per day
	4	shifts in total
Panel Rotation	8 days on, 6 days off	
On costs	27%	
STI	10%	
Shift uplift	10%	

	Employees per Team	Number of Teams	Number of Employees	Roster	Site days	Classificat
Crushing Operators	1	4	4	8/6	834	SS
Milling Operators	1	4	4	8/6	834	SS
Albion/O2 plant Operators	1	4	4	8/6	834	SS
CIL Operators	1	4	4	8/6	834	SS
Flotation Operators	1	4	4	8/6	834	SS
Reagent operators	1	4	4	8/6	834	SS
Relief/Day crew Operators	1	1	1	8/6	209	SD
Goldroom Supervisors	1	1	1	8/6	209	SD
Goldroom Operators	1	2	2	8/6	417	SD
Metallurgy						
Senior Metallurgist	0	1	0	8/6	0	M
Plant Metallurgist	1	2	2	8/6	417	M
Lab Supervisor	0	2	0	8/6	0	SD
Lab Technicians	0	2	0	8/6	0	SD
Sample Preparer	0	2	0	8/6	0	SD
Maintenance						
Plant Maintenance Manager	0	1	0	8/6	0	M
Maintenance Planner	1	2	2	8/6	417	SD
Mechanical Supervisor	1	4	4	8/6	834	SD
Electrical Supervisor	1	4	4	8/6	834	SD
Boilermakers	2	2	4	8/6	834	SD
Fitters	4	4	16	8/6	3,337	SD
Trades Assistants	2	2	4	8/6	834	SD
E&I Technicians	2	4	8	8/6	1,669	SD
Instrument Technicians	1	2	2	8/6	417	SD
Clerk	0	1	0	8/6	0	SD
				8/6	0	
Process Subtotal			79		16,477	

[redacted]

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Basis	12	hours per day
Shift Roster	2	shifts per day
	4	shifts in total
Panel Rotation	8 days on, 6 days off	
On costs	27%	
STI	10%	
Shift uplift	10%	

	Employees per Team	Number of Teams	Number of Employees	Roster	Site days	Classificati
Mining						
Manager Mining			0			M
Technical Services						
Chief Mining Engineer			0			M
Senior Mining Engineer			0			M
Mine Engineer			0			SD
Graduate Mine Engineer			0			SD
Senior Surveyor			0			SD
Surveyor			0			SD
Survey Assistants			0			SD
Clerk			0			SD
Mine Operations						
Pit Superintendent			0			M
Mine Foreman			0			SD
Drill and Blast Supervisor			0			SD
Shift Supervisor			0			SD
Mine Services Supervisor			0			SD
Drillers			0			SD
Excavator Operator			0			SD
FEL Operator			0			SD
RDT Operator			0			SD
Dozer Operator			0			SD
Grader Operator			0			SD
Water Cart Operator			0			SD
Drivers			0			SD
Clerk			0			SD
Trainees / General Labour			0			SD
Mine Maintenance						
General Foreman			0			M
Maintenance Foreman			0			SD
Mine Maintenance Planner			0			SD
Lead Hand Mechanics			0			SD
Lead Hand Electrical			0			SD

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Basis	12	hours per day
Shift Roster	2	shifts per day
	4	shifts in total
Panel Rotation	8 days on, 6 days off	
On costs	27%	
STI	10%	
Shift uplift	10%	

	Employees per Team	Number of Teams	Number of Employees	Roster	Site days	Classificati
Boilermakers			0			SD
Mechanical Fitter			0			SD
Electrical Fitter			0			SD
Tyre Fitter			0			SD
Labourer / Greaser			0			SD
Clerk			0			SD
Mine Geology						
Senior Mine Geologist			0			SD
Project Mine Geologist			0			SD
Mine Geologist			0			SD
Junior Mine Geologist			0			SD
Technician			0			SD
Clerk			0			SD
Grade Control Contractor			0			SD
Exploration Geology						
Senior Exploration Geologist			0			SD
Project Exploration Geologist			0			SD
Exploration Geologist			0			SD
Junior Exploration Geologist			0			SD
Technician			0			SD
Development Geology						
Senior Development Geologist			0			SD
Project Development Geologist			0			SD
Development Geologist			0			SD
Resource Geologist			0			SD
Technician			0			SD
Mining Subtotal			0		0	
Total			85			

[redacted]

Labour Summary

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Basis	12	hours per day
Shift Roster	2	shifts per day
	4	shifts in total
Panel Rotation	8 days on, 6 days off	
On costs	27%	
STI	10%	
Shift uplift	10%	

	Employees per Team	Number of Teams	Number of Employees
Area			**Employees**
Administration			6
Process Plant Operations			35
Process Plant Maintenance			44
Mining Operations			0
Mining Maintenance			0
Total			**85**

Roster	Site days	Classificat	[redacted]

	Total Annual Salaries
	$ 987,600
	$ 6,533,360
	$ 9,507,600
	$ -
	$ -
	$ 17,028,560

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Throughput

1,000,000 t ore/year
130,000 t concentrate/year
870,000 t flot tail/year

Operating Consumable			Unit Cost A$/unit	Unit	Consumption Rate		[redacted]
Crusher Liners							
Jaw Crusher	Fixed Jaw		8,702	ea.			
Jaw Crusher	Moving Jaw		7,502	ea.			
Cone Crusher	Bowl		6,394	ea.			
Cone Crusher	Mantle		7,228	ea.			
Screen Consumables							
Top Deck			15,000				
Bottom Deck			15,000				
Mill Liners							
Ball Mill	Rubber		365,310	set			
Grinding Media							
Ball Mill Balls			1,600	/t		1.38 kg/t	
Reagents - Flotation							
Activator	CuSO4		5,067	/t		60.0 g/t ore	
Frother	W22		5,850	/t		24.0 g/t ore	
Collector	PAX		4,399	/t		100.0 g/t ore	
Reagents and consumables - Albion							
IsaMill Media			5,805	/t	0.61 kg/t conc	0.1 kg/t ore	
Oxygen	O2	y labour and power			400.00 kg/t conc	52.0 kg/t ore	
Limestone	CaCO3		15	/t	625.51 kg/t conc	81.3 kg/t ore	
Hydrated Lime			630	/t		3.9 kg/t ore	
Sodium Hydroxide	NaOH		980	/t	0.00 g/t conc	0.0 kg/t ore	
Flocculant			3,284	/t	88.40 g/t conc	11.5 g/t ore	
Reagents - CIL							
Cyanide		CIL	4,600	/t		1.2 kg/t ore	
Hydrated Lime		CIL	630	/t		0.6 kg/t ore	
Activated Carbon			6,095	/t		0.03 kg/t ore	
Reagents - Elution							
Cyanide		Elution	4,600	/t	383.0 kg/strip	0.119 kg/t ore	
Sodium Hydroxide	NaOH	Elution	914	/t	383.0 kg/strip	0.119 kg/t ore	
Hydrochloric Acid	HCl	Elution	650	/t	718.0 kg/strip	0.224 kg/t ore	
Reagents - Intense Cyanidation							
Cyanide		Intense Cyanidation	4,600	/t	0.0 kg/batch	0.000 kg/t ore	
Sodium Hydroxide	NaOH	ntense Cyanidation	980	/t	0.0 kg/batch	0.000 kg/t ore	
Reagents - Cyanide Destruction							
Hydrated Lime		CIL	630	/t		0.0 kg/t ore	
Sodium Metabisulphite	SMBS	CN Destruct	978	/t		0.0 kg/t ore	
Copper Sulphate		CN Destruct	5,067	/t		0.0 kg/t ore	
Reagents - Thickening							
Flocculant	Basic Duty	Isamill Thickener	3,284	/t	40 g/t thk feed	5.2 g/t ore	
Flocculant	Basic Duty	Tailings Thickener	3,284	/t	17 g/t thk feed	14.8 g/t ore	
Electrowinning - CIL							
Stainless Steel Stocking			94	kg	0.6 kg/smelt		
Gold Room							
Goldroom Consumables			40,000	set			

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

Throughput

1,000,000 t ore/year
130,000 t concentrate/year
870,000 t flot tail/year

Operating Consumable		Unit Cost A$/unit	Unit	Consumption Rate		
Fuel						
Diesel	Mobile Equipment	1,350	/kL			732 kL/
LPG	Elution	475	/kL	1,448 L/strip		452 kL/
LPG	Regeneration	475	/kL	1,488 L/strip		464 kL/
LPG	Smelting	475	/kL	53 L/smelt		6 kL/
Water						
Antiscalant		$4,526	/t			3.00 t/
Water Treatment and Supply						
Water Supply Cost	Fixed Component	5,000	/year			
	Variable Component	0	kL			68,166 kL/
General						
Mill Lubricants	Allowance	20,000	lot			1.0 lot/
General supplies	Allowance	10,000	lot			1.0 lot/
Operator Supplies	Allowance	100	pp/yr			79 peopl
TOTAL						

[redacted]

Project Name:	Youanmi Gold Project
Client:	Rox Resources
Project Description:	Feasibility Study
Job No.:	839
Option:	1,000,000 tpa Albion Option
Revision:	Rev C
Cover Date:	November 2025

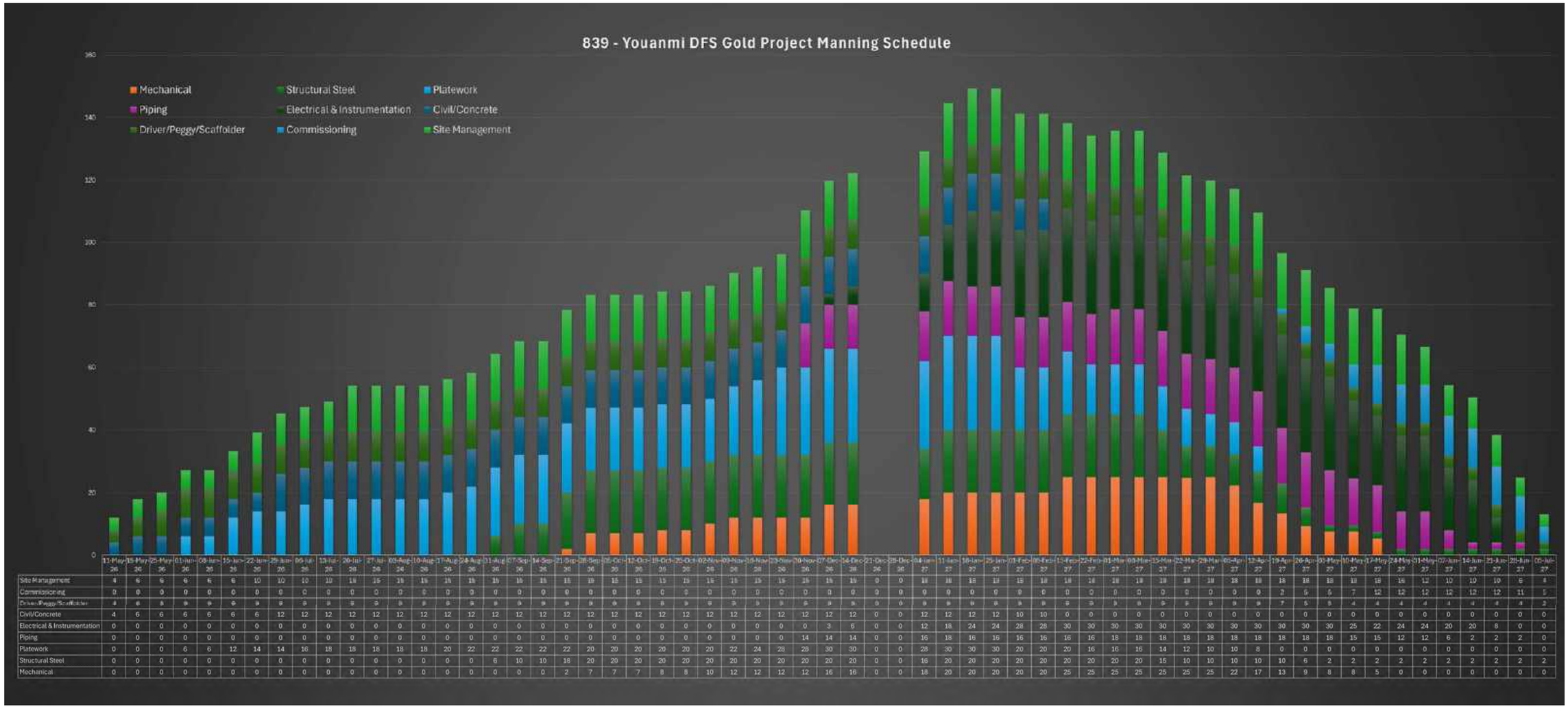
Item		[redacted]
Crusher Liners		
Jaw Crusher	Fixed Jaw	
Cone Crusher	Bowl	
Cone Crusher	Mantle	
Mill Liners		
Ball Mill	Rubber	
Grinding Media		
Ball Mill Balls		
IsaMill media		
Screen Consumables		
Top Deck		
Bottom Deck		
Reagents		
Flocculants		
Flocculant	Concentrate	
Flocculant	Albion product	
Flocculant	Tails	
Flotation Reagents		
Frother	IF 6801 B	
Activator	CuSO4	
Collector	PAX	
Acid		
Hydrochloric Acid	HCl	
Other Reagents		
Cyanide		
Copper Sulphate		
Sodium Metabisulphite	SMBS	
Leach Aid		
Activated Carbon		
Limestone		
Sodium Hydroxide		
Electrowinning - CIL		
Stainless Steel Stocking		
Gold Room		
Goldroom Consumables		

APPENDIX 9 – CAPITAL ESTIMATE

Description	INSTALLATION HOURS				COSTS, AUD $M					
	Concrete	E&I	SMP	Total	Material Costs	Installation Costs	Freight Costs	Subtotal	Growth	Grand Total
T										
CONTRACTOR INDIRECTS										
PRELIMINARY & GENERAL										
FIRST FILLS & INITIAL CONSUMABLES										
EQUIPMENT SPARES										
EPCM										
COMMISSIONING										
BULK EARTHWORKS										
CRUSHING										
GRINDING										
FLOTATION										
THICKENING										
FINE GRINDING										
NEUTRAL ALBION LEACH										
LEACHING AND CIL										
TAILINGS										
GOLD RECOVERY AND REFINEMENT										
REAGENTS										
SERVICES										
OXYGEN GENERATION										
PIPING										

Description	[redacted]
ELECTRICAL AND INSTRUMENTATION	
CONSTRUCTION OVERHEADS	
PLANT & EQUIPMENT	
PLANT BUILDINGS	

APPENDIX 10 – CONSTRUCTION HISTOGRAM



	13-May-26	19-May-26	25-May-26	01-Jun-26	08-Jun-26	15-Jun-26	22-Jun-26	29-Jun-26	06-Jul-26	13-Jul-26	20-Jul-26	27-Jul-26	03-Aug-26	10-Aug-26	17-Aug-26	24-Aug-26	31-Aug-26	07-Sep-26	14-Sep-26	21-Sep-26	28-Sep-26	05-Oct-26	12-Oct-26	19-Oct-26	26-Oct-26	02-Nov-26	09-Nov-26	16-Nov-26	23-Nov-26	30-Nov-26	07-Dec-26	14-Dec-26	21-Dec-26	28-Dec-26	04-Jan-27	11-Jan-27	18-Jan-27	25-Jan-27	01-Feb-27	08-Feb-27	15-Feb-27	22-Feb-27	01-Mar-27	08-Mar-27	15-Mar-27	22-Mar-27	29-Mar-27	05-Apr-27	12-Apr-27	19-Apr-27	26-Apr-27	03-May-27	10-May-27	17-May-27	24-May-27	31-May-27	07-Jun-27	14-Jun-27	21-Jun-27	28-Jun-27	05-Jul-27
Site Management	4	6	6	6	6	6	10	10	10	10	10	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	0	0	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	16	12	10	10	10	6	4
Commissioning	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	5	5	7	12	12	12	12	12	11	5
Driver/Peggy/Scaffolder	4	6	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7	5	5	4	4	4	4	4	4	4	2
Civil/Concrete	4	6	6	6	6	6	6	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	0	0	12	12	12	12	10	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electrical & Instrumentation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	6	0	0	12	18	24	24	28	28	30	30	30	30	30	30	30	30	30	30	30	25	22	24	24	20	20	8	0	0
Piping	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	14	0	0	16	18	16	16	16	16	16	16	18	18	18	18	18	18	18	18	18	15	15	12	12	6	2	2	2	0
Platework	0	0	0	6	6	12	14	14	16	18	18	18	18	18	20	22	22	22	22	22	20	20	20	20	20	20	22	24	28	28	30	30	0	0	28	30	30	30	20	20	20	16	16	16	14	12	10	10	8	0	0	0	0	0	0	0	0	0	0
Structural Steel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	10	10	18	20	20	20	20	20	20	20	20	20	20	20	0	0	16	20	20	20	20	20	20	20	20	20	15	10	10	10	10	10	6	2	2	2	2	2	2	2	2	2
Mechanical	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	7	7	8	8	10	12	12	12	12	16	16	0	0	18	20	20	20	20	20	25	25	25	25	25	25	25	22	17	13	9	8	8	5	0	0	0	0	0	0	0