

Strong September Quarter performance by Perseus

Corporate Details:

ASX/TSX code: PRU

Capital Structure:

Ordinary shares:
 1,024,332m
 Unvested performance rights:
 11.625m
 Outstanding warrants:
 138,402 m
 Market Capitalisation:
 A\$537.8m at share price A\$0.525
 per share

Directors:

Mr Reg Gillard
Non-Executive Chairman
 Mr Jeff Quartermaine
Managing Director
 Mr Mike Bohm
Non-Executive Director
 Mr Colin Carson
Executive Director
 Mr Alex Davidson
Non-Executive Director
 Mr Sean Harvey
Non-Executive Director
 Mr John McGloin
Non-Executive Director

Substantial Shareholders:

Franklin Templeton Investments
 6.9%
 Paradise Investment Management
 6.3%

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Operations

Parameter	Units	March	June	September
		2016	2016	2016
		Quarter	Quarter	Quarter
Gold recovered	Ounces	37,150	40,058	43,776
All in Site Cost ¹	US\$/ounce	1,441	1,542	1,388
Gold Sales	Ounces	36,355	39,642	43,952
Av. Sale Price	US\$/ounce	1,190	1,172	1,223

¹ Includes production costs including waste stripping, royalties, and all other sustaining capital expenditure.

- **Significant improvement in productivity achieved at the Edikan Gold Mine ("Edikan") with increases in plant run time, throughput rates, gold recovery and production.**
- **Gold production of 43,776 ounces, 9% more than the prior quarter and on track to achieve December 2016 Half Year guidance of 80-100,000 ounces.**
- **Production cost of US\$1,095/ounce and all-in site cost ("AISC") of US\$1,388/ounce, 6% and 10% lower than prior quarter respectively, and both in line with or better than June Half Year cost guidance.**
- **Capital investment programme at Edikan on track to complete by end of December 2016 quarter leading to forecast reduction in AISC.**

Project Development

- **Full scale development of Sissingué Gold Mine ("Sissingué") continued during the Quarter. Development on track for first gold production in December 2017 quarter.**
- **Sissingué project expenditure to date, including early works and holding costs of US\$22.3million, with forecast expenditure to complete of US\$87.3million.**
- **Work on updating the Yaouré Gold Project ("Yaouré") preliminary feasibility study to a definitive feasibility study ("DFS") advanced during the Quarter, and remains on schedule for completion by the June quarter 2017.**

Corporate

- **Cash and bullion at 30 September 2016 totalled A\$136.9 million, A\$29.1 million less than at 30 June 2016 following investment in Edikan waste stripping, capital expenditure at Edikan, Sissingué and Yaouré and exploration during the Quarter.**
- **Gold sales of 43,952 ounces at an average price of US\$1,223/ounce. Existing gold price hedging covering 184,848 ounces at US\$1,275/ounce, down from 211,190 ounces at US\$1,271/ounce at 30 June 2016.**
- **Perseus remains unencumbered. US\$60million project loan for Sissingué has received bank credit committee approval.**
- **Mr. Chris Woodall appointed to the role of Chief Operating Officer ("COO") bringing significant operating experience from previous senior operating positions at Goldcorp Inc. and Barrick Gold Corporation.**

Operations

Edikan Gold Mine, Ghana

Edikan's operating performance during the three months ending on 30 September 2016 (the "Quarter" or the "September 2016 quarter"), and the three quarters pre-ceding this Quarter, is summarised as follows:

Table 2: Quarterly Performance Statistics

Parameter	Unit	December 2015 Quarter	March 2016 Quarter	June 2016 Quarter	September 2016 Quarter
Production & Sales:					
Total material mined:					
• Volume	bcm ¹	3,867,785	2,988,374	4,055,540	4,492,727
• Weight	tonnes	7,605,825	6,488,518	8,772,647	9,167,718
Ore mined:					
• Oxide	tonnes	498,219	324,054	164,173	239,013
• Fresh/Transitional	tonnes	<u>854,309</u>	<u>1,173,641</u>	<u>1,591,149</u>	<u>1,262,517</u>
• Total ore mined	tonnes	1,352,528	1,497,695	1,755,322	1,501,530
Ore grade mined:					
• Oxide	g/t ² gold	0.63	1.21	0.92	1.01
• Fresh/Transitional	g/t gold	<u>0.95</u>	<u>1.13</u>	<u>1.10</u>	<u>1.05</u>
• Average grade	g/t gold	0.83	1.15	1.08	1.04
Strip ratio	t:t	4.6	3.3	4.0	5.1
Ore stockpiles:					
• Quantity	tonnes	1,956,773	1,792,573	2,058,545	1,759,695
• Grade	g/t gold	0.5	0.6	0.6	0.6
Ore crushed	tonnes	1,453,485	1,408,659	1,253,045	1,479,127
Ore milled	tonnes	1,813,921	1,661,895	1,489,347	1,800,380
Milled head grade	g/t gold	0.68	0.85	1.01	0.91
Gold recovery	%	81	82	83	83
Gold produced	ozs	32,426	37,150	40,058	43,776
Gold sales ³	ozs	32,616	36,355	39,642	43,952
Average sales price	US\$/oz	1,247	1,190	1,172	1,223
Unit Costs:					
Mining cost	US\$/t mined	2.45	3.14	3.00	3.09
Processing cost	US\$/t milled	9.28	9.11	10.86	8.63
G & A cost	US\$/month	1.34	0.95	1.43	1.37
All-In Site Cost					
Production cost	US\$/oz	1,216	1,034	1,168	1,095
Royalties	US\$/oz	<u>74</u>	<u>85</u>	<u>83</u>	<u>78</u>
Sub-total	US\$/oz	1,290	1,119	1,251	1,173
Sustaining capital	US\$/oz	<u>118</u>	<u>322</u>	<u>291</u>	<u>215</u>
Total All-In Site Cost	US\$/oz	1,408	1,441	1,542	1,388
Site Exploration Cost	US\$/M	0.65	0.65	0.67	0.80

Notes:

¹ Denotes bank cubic metres

² Denotes grams of gold/tonne of ore

³ Gold sales are recognised in Perseus's accounts when the contracted gold refiner takes delivery of gold in the gold room.

The quantity of material mined during the Quarter increased by approximately 5% to 9,167,718 tonnes relative to the prior quarter as waste stripping of the Fetish, Chirawewa and Esujah North pits accelerated to provide access to fresh ore. Consistent with this increase in waste stripping, the total strip ratio across the Edikan site increased from 4.0:1 in the prior period to 5.1:1 in the Quarter.

The recent trend of improved processing plant performance at Edikan has continued strongly during the Quarter with improvements being recorded in all key plant performance statistics as indicated below.

Table 3: Plant Performance Statistics

	<i>December 2015 Quarter</i>	<i>March 2016 Quarter</i>	<i>June 2016 Quarter</i>	<i>September 2016 Quarter</i>
Crusher				
Run time (%)	45	47	47	48
Hourly throughput rate (t)	1,471	1,368	1,329	1,388
Oxide Circuit				
Run time (%)	75	42	50	74
Hourly throughput rate (t)	163	148	134	138
SAG Mill				
Run time (%)	86	85	79	89
Hourly throughput rate (t)	956	900	868	921
Gold recovery rate (%)	81	82	83	83

Plant modifications scheduled to occur during the December 2016 quarter will address a number of long term design shortcomings in the plant which have in the past given rise to maintenance issues and excessive down time. Once completed, these modifications should result in ongoing improvement in crusher and mill availability, run time and quantity of ore processed, ensuring that the recent improvements in operating performance can be sustained and further incremental reductions in unit costs achieved in the future.

Gold production for the Quarter totalled 43,776 ounces, 9% more than the June 2016 quarter and approximately 18% more than the March 2016 quarter. The quarter on quarter improvement in gold production is a function of the improved mill performance noted above as during the Quarter the head grade of ore processed fell by 10% relative to the prior quarter, in line with expectations.

The unit operating costs incurred during the Quarter and in the prior three quarters were as follows:

Table 4: Unit Costs

<i>Unit Cost</i>		<i>December 2015 Quarter</i>	<i>March 2016 Quarter</i>	<i>June 2016 Quarter</i>	<i>September 2016 Quarter</i>
Mining ¹	US\$/t mined	2.45	3.14	3.00	3.09
Processing & Maintenance	US\$/t milled	9.28	9.11	10.86	8.63
G & A	US\$/month	1.34	0.95	1.43	1.37

Notes:

¹ Unit mining cost includes the weighted average cost of mining as charged by the mining contractors plus overheads (including but not limited to staff costs) incurred by Perseus's mining department.

As noted above, unit mining costs increased slightly during the Quarter to US\$3.09/tonne from US\$3.00/tonne mined in the prior quarter, reflecting a modest increase in mine geology and grade control costs this Quarter compared to the prior period. In contrast, unit processing costs reduced by 21% to US\$8.63/tonne milled from US\$10.86/tonne milled, due to a similar increase in the tonnes of ore processed. Average monthly G&A costs were slightly lower this Quarter relative to prior periods as a function of the timing of payments.

Production costs (including all mining, processing and G&A costs but excluding royalty) amounted to US\$1,095/ounce about 6% below the June 2016 quarter's production cost US\$1,168/ounce.

All-In Site Costs during the Quarter (including production costs plus royalty plus all sustaining capital costs) decreased by 10% to US\$1,388/ounce compared to US\$1,542/ounce in the prior quarter. As well as the decrease in production costs noted above, both royalties and sustaining capital expenditure expressed on a per ounce basis, declined during the Quarter leading to the improved overall cost performance.

Outlook for Edikan

Production and AISC guidance for Edikan in the remainder of the current financial year is as follows:

Table 5: FY2017 Production and Cost Guidance

Parameter	Units	Production and Cost Guidance		
		Dec 16 Half Year	Jun 17 Half Year	Full Fiscal 17 Year
Gold Production	'000 ounces	80 - 100	125 - 145	205 - 245
Production costs	\$US/ ounce	1,145 - 1,420	950 - 1,080	1,030 - 1,210
All-In Site Costs	\$US/ ounce	1,285 - 1,595	995 - 1,135	1,110 - 1,325

With 43,776 ounces of gold being produced at an AISC of US\$1,388/ounce during the Quarter, Perseus is currently on track to achieve guided production and costs in the December 2016 Half Year.

Production and therefore costs in the December 2016 quarter is forecast to be impacted by the planned plant shut-down to carry out the previously documented plant upgrades. The crusher is scheduled to shut down for approximately two weeks from 18 October 2016, with the mill scheduled for shut down in the second week of the crusher shut down (with ore to be fed from the crushed ore stockpile during the first week of crusher shut down). This downtime has been built into the production and cost guidance presented above.

Failure of an interim wall in the Fetish pit subsequent to the end of the Quarter has necessitated a modification to the current pit design that defers access to approximately 5,000 ounces of gold until a later stage of mining in the Fetish pit. As a result, the grade of ore to be processed during the December 2016 quarter will be slightly lower than previously forecast if efforts to reschedule mining in other pits is unsuccessful. This could impact gold production and costs however no change to the June 2016 Half Year production or cost guidance is warranted at this time.

Increasing ore production from the Esuajah North pit during the December 2016 quarter is expected to result in a slight grade improvement. Access to Esuajah North ore is dependent on the timely relocation of residents to newly constructed dwellings. At the date of this report, relocations are progressing marginally behind schedule but this is not expected to negatively impact mining. Final approval of proposed blasting practices close to the town of Ayanfuri is also required from the Minerals Commission. Successful trial blasts at Esuajah North have been completed and approval is expected shortly.

Unit AISCs are expected to remain relatively high in the forthcoming December 2016 quarter while heavy investment continues on waste stripping, the completion of construction of relocation houses needed to gain access to new ore deposits most notably in the Esuajah North pit, and the capital projects aimed at improving mill productivity referred to above. With a material reduction in capital investment forecast for the June 2017 Half Year relative to prior periods, Edikan's total cost base is expected to reduce, and on a unit cost basis, with both production up and the cost base down, unit AISCs are expected to reduce appreciably in this period.

Following the forecast improvements in performance at Edikan, the April 2016 forecasts for the remaining life of mine, which predict materially improved production and cash flows from the March 2017 quarter based on a 7.5 year mine life during which production averages 222,000 ounces of gold per annum at a weighted average AISC of US\$865/ ounce, are confirmed based on the assumptions used in the life of mine study.

Development

Sissingué Gold Mine , Côte d'Ivoire

The development of Sissingué provides Perseus with a relatively low cost opportunity to pursue its corporate strategy of geographically and technically diversifying its production base as soon as possible by establishing a second financially robust, producing mine in Côte d'Ivoire.

During the Quarter, Perseus advanced the development of Sissingué as follows:

- Development work at Sissingué ramped up during the Quarter and is currently on track to achieve the goal of producing first gold in the December 2017 quarter. The forecast total cost to complete construction from the end of the Quarter is approximately US\$87.3 million.
- Contracts that accounted for approximately 50% of the estimated construction scope of works were awarded to members of the Lycopodium group during the Quarter. Lycopodium's team commenced work as scheduled on 1 September 2016, procurement of key items of plant and equipment is well advanced and the Lycopodium site team is scheduled to mobilise to site at Sissingué in October 2016.
- Perseus's construction team which is responsible for managing the remaining 50% of the scope of works has continued to build during the Quarter. Material progress has been made on procurement of items of plant and equipment, construction of the camp, tailings dam and airstrip as evidenced by the photographs that follow in Appendix A.
- Macquarie Bank Limited and BNP Paribas credit committee approval of a US\$60 million project financing facility which will partially fund the development of Sissingué was received during the Quarter; and
- A total of 100,000 ounces of gold has been sold forward at an average price of approximately US\$1,308/ounce to satisfy the project lenders' minimum hedging requirement of not less than 100,000 ounces at a price of US\$1,200/ounce or better.

Development Schedule

Description	Q3 2016		Q4 2016			Q1 2017			Q2 2017			Q3 2017			Q4 2017				
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
Lycopodium Contract Award	■																		
Permanent Village & Site Buildings		■	■	■	■	■	■	■	■	■									
Formal Lycopodium Project Commencement			■																
Earthworks inc Tails Dam			■	■	■	■	■	■	■	■									
Concrete Works					■	■	■	■	■	■									
SMP & E-I Works								■	■	■	■	■	■	■	■	■	■	■	■
Mining Commence and Waste Removal													■	■	■	■			
First Ore to Mill																■			
First Gold Pour																	■		
Performance Test Complete																		■	

Yaouré Gold Project, Côte d'Ivoire

Following the acquisition of Yaouré, through the merger of Perseus and Amara Mining plc earlier this year, Perseus's study team immediately commenced assessing the scope of work required to comprehensively upgrade the existing preliminary feasibility study of Yaouré to DFS standard. Following this initial assessment which included examining all of the work previously conducted by Amara, contracts for all material work packages required to prepare the DFS were awarded to a range of consultants and contractors including Runge Pincok Minarco ("RPM") who will perform the role of lead consultant for the study.

During the Quarter, Stage 1 of the DFS was largely completed. This work confirmed that there were no "fatal flaws" in the work previously conducted. Some additional areas of study were identified along with a number of optimisation opportunities focused particularly on the optimisation of drilling and blasting and comminution that warrant closer examination.

An integral part of the DFS is an initial 42,000 metre infill DD and RC drilling programme designed to enhance Perseus's confidence in the existing Mineral Resource estimate as well as examine opportunities for incremental expansion of the Mineral Resource. The drilling programme includes grade control drilling in targeted areas. A 40,000 metre RAB drilling program to sterilise the planned sites of mine infrastructure is also planned. Site preparations for the commencement of the drilling programme and the selection of samples for metallurgical testing from existing core have been completed. Commencement of drilling on the site has been temporarily suspended pending finalisation of negotiations with landowners of rates of compensation to be paid for access to land and the acquisition of crops and timber located on the site.

It is expected that the DFS will take a total of 12 months to complete from commencement which should see the full study results being available around the middle of 2017. Drilling results and other information associated with progress of the DFS will be progressively released as the study progresses.

DFS Schedule

Project Breakdown	Q3 2016			Q4 2016			Q1 2017			Q2 2017			Q3 2017			Q4 2017		
	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
	1. Project Stages																	
a. Stage 1 - Review and Option Identification	■	■	■	■														
b. Stage 2 - Assessment & Narrowing of Options			■	■	■	■	■	■	■									
c. Stage 3 - Identification of Preferred Option					■	■	■	■	■	■								
d. Stage 4 - Cost Estimate <20% of Preferred Option							■	■	■	■	■	■						
e. Stage 5 - Cost Estimate <10% for Preferred Option												■	■	■	■	■		
2. Technical and Financial Components																		
a. Technical Scope Finalisaiton	■	■	■	■														
b. Geological Resources Assessment		■	■	■	■	■	■	■	■									
c. Mining, Processing & Infrastructure Assessment			■	■	■	■	■	■	■	■	■	■						
d. Engineering and Design Assessment												■	■	■	■	■		
e. Progressive Financial Assessments			■					■		■		■						■

- Definitive Feasibility Study (DFS)
- Front End Engineering and Design (FEED)

Corporate

Cash and Bullion

Based on the gold price of US\$1,322.50/ounce and an A\$:US\$ exchange rate of 0.7636 as at 30 September 2016, the total value of available cash and bullion on hand at the end of the Quarter was \$136.9 million. This sum is A\$29.1 million less than the balance of cash and bullion as at 30 June 2016 and largely reflects heavy capital investment at both Edikan and Sissingué during the Quarter.

Debt

At the end of the Quarter, Perseus had no debts other than creditors that are payable in the ordinary course of business.

During the Quarter, steady progress has been made towards finalising a US\$60 million project debt facility to be used to partially finance the development of Sissingué. Prospective lenders, Macquarie Bank Limited and BNP Paribas both received credit committee approval of the facility. Final documentation for the facilities is expected to be completed in the December 2016 quarter, with funds available for draw down immediately following satisfaction of conditions precedent.

Gold Price Hedging

At the end of the Quarter, gold forward sales contracts were in place for 184,848 ounces of gold at US\$1,275/ounce. This includes 100,000 ounces of hedging at an average price of US\$1,308/ounce that is specifically earmarked to support the proposed debt financing of the Sissingué development.

Key Management Personnel

In anticipation of the expansion of its operating activities to include both Edikan and Sissingué by the end of 2017, and with the prospect of developing a third mine at Yaouré within several years, Perseus has appointed Mr. Chris Woodall to the role of COO.

Chris is an Australian mining professional who comes to Perseus equipped with a large amount of highly relevant operating experience needed to successfully perform the COO role for Perseus, having most recently held the positions of Senior Vice President Operations (Canada and US) for Goldcorp Inc. and immediately prior to that the role of Global Director Mining - Operations Support for Barrick Gold Corporation.

Reporting to the CEO, Chris will be based out of Perseus's corporate office in Perth but will necessarily spend a significant proportion of his time in West Africa overseeing the growth of Perseus's gold mining operations.

Program for the December 2016 Quarter**Edikan**

- Produce gold at a total all-in site cost that is in line with Half Year guidance;
- Continue to implement improved grade control practices and investigate potential opportunities for improvements in grade estimation;
- Effect the tie in of planned plant modifications during the 2 week crusher, and 1 week mill shut downs;
- Continue training of operating and maintenance staff;
- Continue to implement business improvement initiatives across all departments at Edikan;
- Continue construction of houses to relocate former residents of the Eastern Pits mine take area; and
- Complete the current re-assessment of geological datasets with the aim of formulating near mine exploration programmes targeting high grade mineralisation that can be mined using either underground mining or open pit mining methods.

Sissingué

- Complete detailed design and procurement;
- Mobilise key contractors to site;
- Continue construction of Sissingué in line with schedule and budget;
- Finalise the project debt facility required under the project funding plan; and
- Continue drilling of the Bélé deposit to expand the Mineral Resource ahead of optimisation and possible inclusion in the Sissingué mine plan.

Yaouré

- Advance work on preparing a bankable DFS for Yaouré, including the planning and execution of a 42,000 metre drilling programme designed to confirm Mineral Resource estimates as a basis for mine optimisation;
- Obtain an approved ESIA for Yaouré; and
- Finalise negotiation of compensation arrangements with Landowners with holdings within the proposed Yaouré footprint.

Jeff Quartermaine**Managing Director and Chief Executive Officer**

24 October 2016

To discuss any aspect of this announcement, please contact:

Managing Director: Jeff Quartermaine at telephone +61 8 6144 1700 or email jeff.quartermaine@perseusmining.com;

Investor Relations: Cathy Moises at telephone + 61 412196350 or email cathy.moises@perseusmining.com (Perth/Melbourne);

Media Relations: Nathan Ryan at telephone +61 4 20 582 887 or email nathan.ryan@nwrcommunications.com.au (Melbourne)

Competent Person Statement:

Production targets for the EGM referred to in this report are underpinned by estimated Ore Reserves which have been prepared by competent persons in accordance with the requirements of the JORC Code. The Company confirms that all material assumptions underpinning those production targets, or the forecast financial information derived from those production targets, in its market release dated 19 April 2016 and its 2016 Financial Statements released on 29 August 2016 continue to apply and have not materially changed. Refer "Technical Report — Central Ashanti Gold Project, Ghana" dated 30 May 2011. Steffen Brammer and Paul Thompson, each of whom is a Qualified Person as defined in NI 43-101 and an employee of the Company, have approved the inclusion of technical and scientific information in this report.

Caution Regarding Forward Looking Information:

This report contains forward-looking information which is based on the assumptions, estimates, analysis and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management of the Company believes to be relevant and reasonable in the circumstances at the date that such statements are made, but which may prove to be incorrect. Assumptions have been made by the Company regarding, among other things: the price of gold, continuing commercial production at the Edikan Gold Mine without any major disruption, development of a mine at Sissingué and/or Yaouré, the receipt of required governmental approvals, the accuracy of capital and operating cost estimates, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used by the Company. Although management believes that the assumptions made by the Company and the expectations represented by such information are reasonable, there can be no assurance that the forward-looking information will prove to be accurate. Forward-looking information involves known and unknown risks, uncertainties, and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any anticipated future results, performance or achievements expressed or implied by such forward-looking information. Such factors include, among others, the actual market price of gold, the actual results of current exploration, the actual results of future exploration, changes in project parameters as plans continue to be evaluated, as well as those factors disclosed in the Company's publicly filed documents. The Company believes that the assumptions and expectations reflected in the forward-looking information are reasonable. Assumptions have been made regarding, among other things, the Company's ability to carry on its exploration and development activities, the timely receipt of required approvals, the price of gold, the ability of the Company to operate in a safe, efficient and effective manner and the ability of the Company to obtain financing as and when required and on reasonable terms. Readers should not place undue reliance on forward-looking information. Perseus does not undertake to update any forward-looking information, except in accordance with applicable securities laws.

Appendix A – Photos of Sissingué Site Works



Airstrip



Tailings Dam



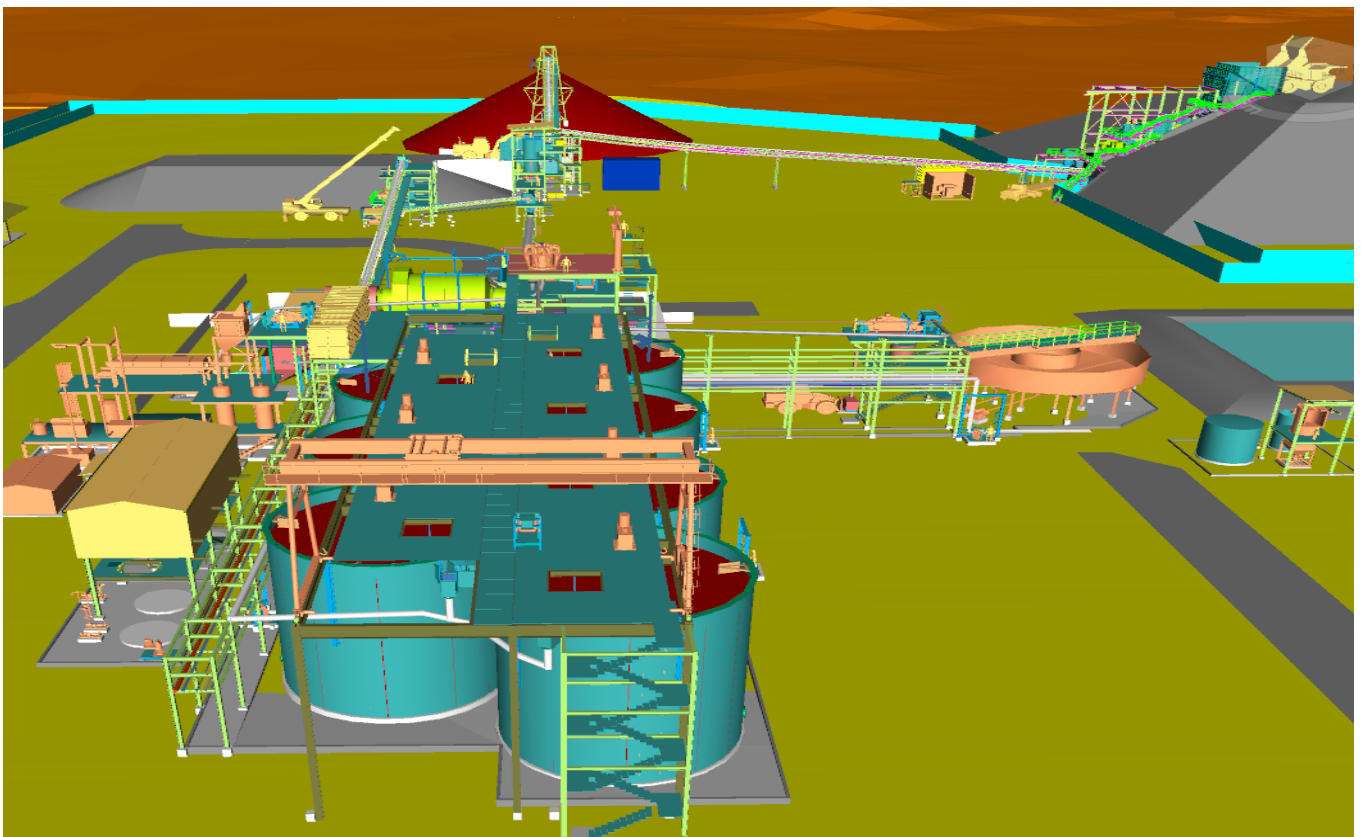
Process Plant Site



Construction of last of 18 relocation houses



Artist's impression of site camp



Artist's impression of proposed processing facility