

Independent Technical Report - CNMC Goldmine Holdings Limited



J_2205

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November 2018

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		Date:	23 November 2018

Important Information:

This Report is provided in accordance with the proposal by Optiro Pty Ltd ("Optiro") to CNMC Goldmine Holdings Limited and the terms of Optiro's Consulting Services Agreement ("the Agreement"). Optiro has consented to the use and publication of this Report by CNMC Goldmine Holdings Limited for the purposes set out in Optiro's proposal and in accordance with the Agreement. CNMC Goldmine Holdings Limited may reproduce copies of this entire Report only for those purposes but may not and must not allow any other person to publish, copy or reproduce this Report in whole or in part without Optiro's prior written consent.

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23 November 2018 Our Ref: J_2205

The Board of Directors CNMC Goldmine Holdings Limited 745 Toa Payoh Lorong 5 #04-01 Singapore 319455

Dear Sirs

INDEPENDENT TECHNICAL REPORT - CNMC GOLDMINE HOLDINGS LIMITED

At the request of CNMC Goldmine Holdings Limited (CNMC), Optiro Pty Ltd (Optiro) has prepared an Independent Technical Report (ITR) on the Sokor, Kelgold and CNMC Pulai Projects located in Malaysia. The ITR is for inclusion in a prospectus for a proposed dual primary listing on the Main Board of The Stock Exchange of Hong Kong Limited (HKEx).

The Sokor Project, located in Kelantan State, northern Peninsular Malaysia, is currently 81% owned by CNMC, through its subsidiary CMNM Mining Group Sdn. Bhd. CMNM holds the rights to mine and produce gold, silver and base metals from an area of approximately 10 km² in the Ulu Sokor area in Kelantan. CNMC has defined four gold deposits in the southern part of the project area (Manson's Lode, New Discovery, New Found and Ketubong), and a fifth gold deposit (Rixen) approximately 3 km to the north of Ketubong. Additional base metal and silver mineralisation is also present at Manson's Lode and at Sg Among, to the east of Rixen.

The Kelgold Project comprises a 100% owned exploration project of approximately 15.5 km². The concession is located in the state of Kelantan, Malaysia immediately south of the Thailand-Malaysia border and are considered prospective for gold mineralisation.

The CNMC Pulai Project is 51% owned by CNMC and comprises a 38.41 km² exploration project. The project is located approximately 100 km south of the Sokor mine and 20 km to the southwest of the city of Gua Musang in the State of Kelantan, Malaysia. The project is considered prospective for gold mineralisation similar to that discovered at the Sokor Project.

The Mineral Resources at Rixen, Manson's Lode, New Discovery, New Found and Ketubong and the Ore Reserves at Rixen, Manson's Lode and New Discovery have been reported in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, December 2012 (the JORC Code, 2012).

The Mineral Resource estimates were prepared by Mrs Christine Standing and reviewed by Mr Ian Glacken. Mr Glacken, Director of Optiro and Fellow of the Australasian Institute of Mining and Metallurgy, and Mrs Standing, Principal of Optiro and Member of the Australasian Institute of Mining and Metallurgy, fulfil the requirements of Competent Persons as defined in the JORC Code (2012) and accept responsibility for the Qualified Persons' report and the JORC Code (2012) categorisation of the Mineral Resource estimate as tabulated in the form and context in which it appears in this report.



The Ore Reserve Estimate has been compiled by Mr Michael Leak, Senior Consultant at Optiro and Member of the Australasian Institute of Mining and Metallurgy. Mr Leak fulfils the requirement of a Competent Person as defined in the JORC Code 2012 and accepts responsibility for the qualified persons' report and the JORC Code 2012 categorisations of the Ore Reserve estimate as tabulated in the form and context in which they appear in this report.

As at 31 October 2018, both the Kelgold and CNMC Pulai Projects were at an early stage exploration stage. Optiro has reviewed the exploration work completed to date at both the Kelgold and Pulai Projects. Optiro considers that there has been insufficient exploration completed to estimate a Mineral Resource in accordance with JORC 2012 guidelines at both the Pulai and Kelgold Projects. The exploration projects remain at a conceptual stage and it is uncertain if further exploration will result in the estimation of a Mineral Resource. There is currently insufficient information available to disclose the location and size of any potential future mine, the expected mineral quality or the development costs.

The report has been provided to the Directors of CNMC in relation to its inclusion in a prospectus for a proposed dual primary listing on the Main Board of the HKEx with an effective date of 23 November 2018. As such, it should not be used or relied upon for any other purpose.

Neither the whole nor any part of this report or any reference thereto may be included in, or with, or attached to any document or used for any purpose without Optiro's written consent as to the form and context in which it appears.

Consent has been sought from CNMC's representatives to include technical information and opinions expressed by them. No other entities referred to in this Report have consented to the inclusion of any information or opinions and have only been referred to in the context of reporting any relevant activities.

Optiro has prepared this report upon the understanding that the exploration and mining licences held by CMNC are currently in good legal standing, and Optiro has not independently verified CNMC's legal tenure over its tenements. Optiro understands CNMC has commissioned David Lai & Tan to complete a solicitor's report on the tenement status with is included elsewhere in this prospectus.

Optiro has endeavoured, by making reasonable enquiry of CNMC, to ensure that all material information in the possession CNMC has been fully disclosed to Optiro. However, Optiro has not carried out any type of audit of the records of CNMC to verify that all material documentation has been provided. A final draft version of this report was provided to the Directors of CNMC along with a request to confirm that there are no material errors or omissions in the report and that the technical information and interpretations provided by them and reflected in the report are factually accurate. Confirmation of these terms has been provided in writing and has been relied upon by Optiro. Optiro has based its findings upon information supplied up until 19 November 2018. Optiro understands that no material changes have occurred since the effective date of this report.

Optiro is an independent consulting and advisory organisation which provides a range of services related to the minerals industry including, in this case, independent geological services, but also resource evaluation, corporate advisory, mining engineering, mine design, scheduling, audit, due diligence and risk assessment assistance. The Competent Persons and reviewers of this Report declare that they have no interest in CNMC, their associated entities or in the assets described in this Report. Optiro has charged CNMC a professional fee for services rendered, the quantum of which is unrelated to the outcome or the content of this Report.



Optiro has relied on the data, reports and information provided by CNMC; Optiro has nevertheless made such enquiries and exercised its judgement as it deems necessary and has found no reason to doubt the reliability of the data, reports and information which have been provided by CNMC.

Yours faithfully

OPTIRO

Jason Froud MAusIMM(CP), MAIG

Principal Consultant

Ian Glacken FAusIMM(CP), FAIG, CEng

Director of Geology and Principal Consultant



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1. EXECUTIVE SUMMARY

1.1. INTRODUCTION

At the request of CNMC Goldmine Holdings Limited (CNMC), Optiro Pty Ltd (Optiro) has prepared an Independent Technical Report (ITR) on the Sokor, Kelgold and CNMC Pulai Projects located in Malaysia. The ITR is for inclusion in a prospectus for a proposed dual primary listing on the Main Board of The Stock Exchange of Hong Kong Limited (HKEx).

The objectives of this Report are to provide an overview of the geological setting of CNMC's mineral assets and the associated mineralisation, outline the recent and historic exploration work undertaken over the project areas, report on the Mineral Resources and Ore Reserves defined within the projects and comment on the exploration potential of the projects.

1.2. SOKOR PROJECT

The Sokor Project (the Project), located in Kelantan State in northern Peninsular Malaysia, is currently owned 81% by CNMC Goldmine Holdings Limited (CNMC), through its subsidiary, CMNM Mining Group Sdn. Bhd. (CMNM). CMNM holds the rights to mine and produce gold, silver and base metals from an area of approximately 10 km² in the Ulu Sokor area in Kelantan. CNMC has defined four deposits in the southern part of the project area (Manson's Lode, New Discovery, New Found and Ketubong) and a fifth deposit (Rixen), approximately 3 km to the north of Ketubong. Base metal and silver mineralisation is also present at Manson's Lode and at Sg Among, to the east of Rixen.

Optiro Pty Ltd (Optiro) undertook site visits to the Sokor Project during December 2011, June 2015 and January 2018 to review data for the Mineral Resource estimate; during October 2012, June 2015 and January 2018 to review the mining operations for the Ore Reserve estimate; and during April 2018 for this ITR.

The Mineral Resource and Ore Reserve estimates for the Sokor Project have been prepared and classified in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia, December 2012 (the JORC Code 2012).

CNMC commenced mining ore at Rixen in 2012, at New Found during 2016, at New Discovery during 2012 and at Ketubong during 2017. Mining was conducted at Manson's Lode in 2012 only. The Mineral Resource and Ore Reserve estimates have been depleted for material mined up to 15 October 2018.

MINERAL RESOURCE ESTIMATE

The gold mineralisation within the Sokor Project is lithologically and structurally controlled and is generally hosted in acid to intermediate volcanic rocks and in carbonate-rich rocks. The depth to the base of oxidation varies between deposits, from a shallow depth of less than 3 m at Ketubong to up to 60 m at Rixen. Previous mining of near surface, high grade ore has occurred at Manson's Lode and New Discovery, and the pits have been backfilled with mineralised material of lower grades from these pits.

At Manson's Lode there are economic grade silver, lead and zinc assays in addition to gold that have been incorporated into the Mineral Resource model. At Rixen, New Discovery, New Found and Ketubong the silver and base metal concentrations are typically low. Exploration by CNMC has focussed on the definition of gold Mineral Resources and Ore Reserves at the Sokor Project; however, results from the drilling at Manson's Lode also include potentially economic zinc and lead grades.



Optiro interpreted the gold mineralisation at all deposits above a nominal 0.25 g/t gold cut-off grade. At Manson's Lode and New Discovery mineralisation was defined within backfilled material from previous mining and at New Discovery, Rixen and Ketubong a zone of mineralisation was interpreted within the alluvial/eluvial material overlying the bedrock. At Manson's Lode base metal mineralisation, external and additional to the gold mineralisation, was interpreted above a nominal 2% lead plus zinc (Pb+Zn) cut-off grade.

At New Discovery, New Found and Ketubong two types of mineralisation were interpreted within the bedrock: narrow zones of structurally-controlled mineralisation within the north-south trending Ketubong-Rixen fault zone, and lithologically-controlled mineralisation to the west of the fault zone which overlies the structurally controlled mineralisation. At Manson's Lode and Rixen the bedrock mineralisation has been interpreted to be lithologically controlled within one relatively flat zone at Manson's Lode and several east-dipping zones at Rixen.

Block grades were estimated using an ordinary kriging technique with appropriate assay top-cuts applied for each deposit and style of mineralisation. The mineralisation has been classified as Measured, Indicated and Inferred in accordance with the guidelines of the JORC Code (2012). Bulk density values for each deposit and material type were calculated using measurements from 204 sections of diamond drill core and measurements of alluvial and backfilled material from 41 test pits.

Mining at Rixen during 2018 has extracted 1,965 kt of ore for the production of 7,028 ounces of gold via heap leach extraction, which was ongoing as at 15 October 2018. CNMC reports that no ore tonnes were extracted from the tailings area located to the north-east of the Rixen pit, as this was completed in 2016.

Mining at New Found and New Discovery during 2018 has extracted 115 kt of ore for the production of 2,519 ounces of gold via vat leach extraction, which was ongoing as at 15 October 2018. A total of 103.5 kt of ore was mined from New Discovery and Ketubong providing feed to the newly commissioned CIL plant, producing 13,208 ounces of gold.

No ore from the Manson's Lode deposit was processed during 2018 thus far.

MINERAL RESOURCE AND ORE RESERVE TABULATION

The Mineral Resource estimate, as at 15 October 2018, for the Sokor Project is reported in Table 1.1 below. This has been classified and reported in accordance with the guidelines of the JORC Code (2012) and has been depleted for mining at Manson's Lode (as at 2012), and at Rixen, Ketubong, New Discovery and New Found up to 15 October 2018. The Mineral Resources are reported above a 0.5 g/t gold cut-off grade at Manson's Lode and for the transitional and fresh rock at Ketubong, New Discovery and New Found, and above a 0.25 g/t gold cut-off grade at Rixen and for the oxide material at Ketubong, New Discovery and New Found to reflect current commodity prices, differential operating costs and processing options. As at 15 October 2018, the total Measured, Indicated and Inferred gold Mineral Resources for the Sokor Project (above a 0.25 g/t gold cut-off grade at Rixen and for oxide rock at Ketubong, New Discovery and New Found and above a 0.5 g/t gold cut-off grade at Manson's Lode and for transitional and fresh rock at Ketubong, New Discovery and New Found) is 15,620 kt at 1.6 g/t gold for 785,000 ounces of contained gold.

Gold mineralisation at Manson's Lode has associated silver and base metal mineralisation. Silver, lead and zinc Mineral Resources have been reported for Manson's Lode, both within the gold mineralisation, above a 0.5 g/t gold cut-off grade, and also external to the gold mineralisation, above a cut-off of 2% lead plus zinc (Table 1.1).



Table 1.1 Sokor Project – Mineral Resource statement as at 15 October 2018 (inclusive of Ore Reserves)

		Gros	ss attributable	to licence		Gross attr	ibutable to CNMC	
Category	Mineral type	Tonnes (millions)	Grade (Au g/t, Ag g/t, Pb%, Zn%)	Contained metal (Au koz, Ag koz, Pb t, Zn t)	Tonnes (millions)	Grade (Au g/t, Ag g/t, Pb%, Zn%)	Contained metal (Au koz, Ag koz, Pb t, Zn t)	Change from previous update (%)
Measured	Gold	0.36	2.6	30	0.30	2.6	25	-38%
Indicated	Gold	6.14	1.5	288	4.98	1.5	233	2%
Inferred	Gold	9.11	1.6	467	7.38	1.6	378	19%
Total	Gold	15.62	1.6	785	12.65	1.6	636	9%
Measured	Silver	0.34	63	683	0.27	63	553	0%
Indicated	Silver	0.17	74	407	0.14	74	330	0%
Inferred	Silver	0.90	29	838	0.73	29	679	0%
Total	Silver	1.41	42	1,928	1.14	42	1,562	0%
Measured	Lead	0.34	1.5	5,058	0.27	1.5	4,097	0%
Indicated	Lead	0.17	1.5	2,560	0.14	1.5	2,074	0%
Inferred	Lead	0.90	1.7	15,407	0.73	1.7	12,480	0%
Total	Lead	1.41	1.6	23,025	1.14	1.6	18,650	0%
Measured	Zinc	0.34	1.9	6,370	0.27	1.9	5,160	0%
Indicated	Zinc	0.17	2.0	3,365	0.14	2.0	2,726	0%
Inferred	Zinc	0.90	1.5	13,770	0.73	1.5	11,154	0%
Total	Zinc	1.41	1.7	23,505	1.14	1.7	19,039	0%

Note: Inconsistencies in totals are due to rounding

The combined Ore Reserve estimate for Rixen, Manson's Lode, New Discovery, New Found and Ketubong deposits has been calculated and is shown in Table 1.2. The Ore Reserve estimate includes factors for ore loss and dilution which, by convention, have not been applied to the Mineral Resources. All Ore Reserves have been reported in accordance with the JORC Code (2012). Optiro has depleted the Ore Reserves for the Rixen and New Discovery pits with the pit production up to 15 October 2018, which is in accordance with guidelines of the JORC Code.

Table 1.2 Combined Sokor Project gold Ore Reserves (Manson's Lode, New Discovery and Rixen) and Mineral Resources (at Manson's Lode, New Discovery and New Found, Rixen and Ketubong that are additional to Ore Reserves at Manson's Lode, New Discovery and Rixen) as at 15 October 2018

		Gross at	tributable to	licence	Gross attributable to CNMC						
Category	Mineral type	Tonnes (kt)	Grade (Au g/t)	Contained Au (koz)	Tonnes (kt)	Grade (Au g/t)	Contained Au (koz)	Change from previous update (%)			
	Ore Reserves										
Proved	Gold	250	2.8	23	200	2.8	18	-46%			
Probable	Gold	2,680	1.4	120	2,170	1.4	97	-25%			
Total	Gold	2,930	1.5	143	2,360	1.5	115	-29%			
			Addi	itional Minera	l Resources						
Measured	Gold	90	1.8	5	70	1.8	4	0%			
Indicated	Gold	3,410	1.4	150	2,760	1.4	122	36%			
Inferred	Gold	9,110	1.6	470	7,380	1.6	378	19%			
Total	Gold	12,610	1.5	620	10,210	15	504	22%			

In reporting the October 2018 Ore Reserves in Table 1.2, it should be noted that the tabulated Mineral Resources have been reported 'exclusive' of and additional to Ore Reserves as at 15 October 2018. This means that there will be material declared in Table 1.1 which is neither reported as Mineral Resources nor Ore Reserves in Table 1.2; for instance, material which falls within the final pit, but which is below the Ore Reserve cut-off grade. Thus, it is not possible to add the Ore Reserves and Mineral Resources in Table 1.2 together to produce the total Mineral Resources in Table 1.2. Moreover, the Ore Reserves



include factors for ore loss and dilution which, by convention, have not been applied to the Mineral Resources. All Ore Reserves have been reported in accordance with the JORC Code (2012).

1.3. KELGOLD PROJECT

The Kelgold Project comprises a 100% owned right to explore for gold, iron ore and other minerals over an area of approximately 15.5 km². The concession is located in the state of Kelantan, Malaysia approximately 30 km northwest of the Sokor mine.

Assessment of the Kelgold Project by CNMC is at an early stage and is currently on-going. CNMC considers that their Kelgold acquisition has significant potential based on the geological information available and offers a strategic synergy due to the geographic proximity to the Group's existing Sokor Project. Optiro notes the presence of historic workings and gold in soil anomalism and considers further follow-up work is warranted.

1.4. CNMC PULAI

CNMC holds a 51% interest in CNMC Pulai Mining Sdn. Bhd. (formerly known as Pulai Mining Sdn. Bhd.) (CNMC Pulai) which owns exploration and mining licenses with a combined license area of 38.41 km². The project area is approximately 100 km south of the Sokor mine and 20 km to the southwest of the city of Gua Musang in the State of Kelantan, Malaysia.

The project area has historically been subject to alluvial gold mining operations especially along the Pulai River along with feldspar mining. Total alluvial gold production has been in the order of 260 kg and approximately 125,000 tonnes of feldspar has been produced.

CNMC considers that geological data collected by previous explorers supports the potential for primary gold mineralisation similar to that discovered at the Sokor Project. Optiro considers that the work to date is encouraging and warrants further follow-up work.

2. INTRODUCTION

2.1. TERMS OF REFERENCE

At the request of CNMC Goldmine Holdings Limited (CNMC), Optiro Pty Ltd (Optiro) has prepared an Independent Technical Report (ITR) on the Sokor, Kelgold and CNMC Pulai Projects located in Malaysia. The ITR is for inclusion in a prospectus for a proposed dual primary listing on the Main Board of The Stock Exchange of Hong Kong Limited (HKEx). CNMC listed on the Catalist Board of the Singapore Exchange (SGX) by way of an Initial Public Offering on 28 October 2011.

The objectives of this report are to provide an overview of the geological setting of CNMC's mineral assets and the associated mineralisation, outline the recent and historic exploration work undertaken over the project areas, report on the Mineral Resources and Ore Reserves defined within the projects and comment on the exploration potential of the projects.

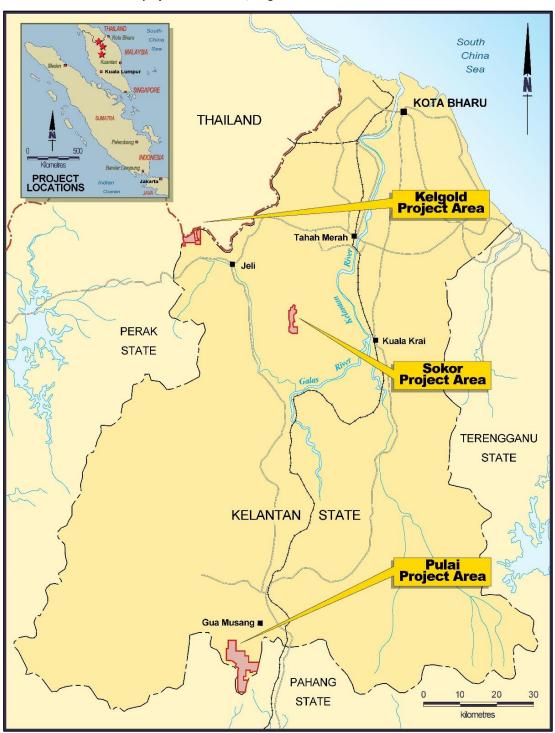
This report has been prepared by Mr Jason Froud (Principal) with input from Mrs Christine Standing (Principal) and Mr Michael Leak (Senior Consultant) of Optiro. The report was reviewed by Mr Ian Glacken (Principal and Director) of Optiro. This report has been prepared in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012), the Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets, 2015 Edition (the VALMIN Code, 2015) and the Chapter 18 Listing Rules of the HKEx.



Consent has been sought from CNMC's representatives to include technical information and opinions expressed by them. No other entities referred to in this Report have consented to the inclusion of any information or opinions and have only been referred to in the context of reporting any relevant activities

CNMC Goldmine Holdings Limited, through its subsidiary CMNM Mining Group Sdn. Bhd., holds an 81% interest in the Sokor Project (Figure 2.1). CMNM holds the rights to mine and produce gold, silver and base metals from an area of approximately 10 km² in the Ulu Sokor area in Kelantan, Malaysia. Additional exploration tenure is held at the Kelgold and CNMC Pulai Projects. CNMC considers that these projects have significant exploration (Figure 2.1).

Figure 2.1 Location of CNMC's project area at Sokor, Kelgold and Pulai





2.2. VALIDATION OF LEGAL TENURE

Optiro has prepared this report upon the understanding that the exploration and mining licences held by CNMC are currently in good legal standing and has not independently verified CNMC's legal tenure over its tenements. Optiro understands CNMC has commissioned David Lai & Tan to complete a solicitor's report on the tenement status with is included elsewhere in this report. Among other things, this solicitor's report provides legal opinion on CNMC's licences, forfeiture risk and royalties.

2.3. COMPETENT PERSONS

Mrs Christine Standing of Optiro undertook a site visit to the Sokor Project on 7 and 8 December 2011 to review data for the Mineral Resource estimate. Mr Andrew Law of Optiro undertook a site visit to the Sokor Project between 16 and 18 May 2012 to review the mining operations for the Ore Reserve estimate. Mrs Christine Standing visited the Sokor Project again between 1 and 5 June 2015 to inspect the Sokor mine site, drilling procedures, drillhole core and the sampling and logging procedures and Mr Andrew Law undertook a site visit on 4 and 5 June 2015 to review the mining operations. Mrs Christine Standing and Mr Michael Leak visited the Sokor operation on 14 January 2018 to inspect the mine site and drillhole core and to examine the changes in mining and processing practices since 2015. Mr Jason Froud undertook a site visit to the Sokor Project between 8 and 10 April 2018 to review data and inspect the Sokor mine site, drilling procedures and drillhole core for this ITR.

The Mineral Resource estimates were prepared by Mrs Christine Standing and reviewed by Mr Ian Glacken. Mr Glacken, Director of Optiro and Fellow of the Australian Institute of Mining and Metallurgy, and Mrs Standing, Principal of Optiro and Member of the Australasian Institute of Mining and Metallurgy, fulfil the requirements of Competent Persons as defined in the JORC Code (2012) and accept responsibility for the qualified persons' report and the JORC Code categorisation of the Mineral Resource estimate as tabulated in the form and context in which it appears in this report. Optiro has relied on the data, reports and information provided by CNMC; Optiro has nevertheless made such enquiries and has exercised its judgement as it deems necessary and has found no reason to doubt the reliability of the data, reports and information which have been provided by CNMC.

The Ore Reserve Estimate has been compiled by Mr Michael Leak, Senior Consultant at Optiro and Member of the Australasian Institute of Mining and Metallurgy. Mr Leak fulfils the definition and requirements of Competent Persons as defined in the JORC Code and accept responsibility for the qualified persons' report and the JORC Code categorisation of the Ore Reserve estimate as tabulated in the form and context in which it appears in this report.

Mr Jason Froud [BSc (Hons) Geology, MAusIMM, MAIG] is a geologist with over 20 years' experience in mining geology, exploration, resource definition, mining feasibility studies, reconciliation, consulting and corporate roles in gold, iron ore, base metal and uranium deposits principally in Australia and Africa. Jason has previously acted as a Competent Person and Independent Expert across a range of commodities with expertise in mineral exploration, grade control, financial analysis, reconciliation and quality assurance and quality control.

Mrs Christine Standing [BSc (Hons) Geology, MSc (Min Econs), MAusIMM, MAIG] is a geologist with over 35 years' worldwide experience in the mining industry. She has six years' experience as an exploration geologist in Western Australia and over 25 years' experience as a consultant specialising in resource estimation, reconciliation, project management and statutory and Competent Persons' reporting on worldwide projects for a range of commodities. She has acted as a Qualified Person and Competent Person for gold, silver, copper, mineral sands, nickel, chromium, kaolin and PGEs.

Mr Ian Glacken [BSc (Hons) Geology, MSc (Mining Geology), MSc (Geostatistics), Grad. Dip (Comp), FAusIMM (CP), FAIG, CEng, MIMMM, DIC] has 35 years worldwide experience in the mining industry. Ian



is a geologist with postgraduate qualifications in geostatistics, mining geology and computing. Mr Glacken has over 20 years' experience in consulting, including a decade as Group General Manager of a major consulting organisation. He has worked on mineral projects and given over 250 training courses to thousands of attendees on every continent apart from Antarctica. Mr Glacken's skills are in resource evaluation and due diligence reviews, public reporting, training and mentoring, quantitative risk assessment, strategic advice, geostatistics, reconciliation, project management, statutory and Competent Persons' reporting and mining geology studies. He was a founding Director of Optiro.

Mr Michael Leak [BEng Mining (Hons), FAusIMM (CP)] is a mining engineer with over 17 years' experience in both open pit and underground operations in Australia, Africa and Europe. He has experience in various commodities including gold, copper, nickel, tin and lead-zinc and his skills are in operational management, due diligence, Ore Reserves, feasibility studies, mine planning and financial analysis.

2.4. STATEMENT OF INDEPENDENCE

Optiro is an independent consulting and advisory organisation which provides a range of services related to the minerals industry including, in this case, independent geological Mineral Resource and Ore Reserve estimation services, but also corporate advisory, mining engineering, mine design, scheduling, audit, due diligence and risk assessment assistance. The principal office of Optiro is at 16 Ord Street, West Perth, Western Australia, and Optiro's staff work on a variety of projects in a range of commodities worldwide.

This report has been prepared independently and to meet the requirements of the listing conditions and disclosure requirements for Mineral Companies set out in Chapter 18 of the HKEx Listing Rules and SGX requirements. This report has been prepared accordance with the guideline of the VALMIN and JORC Codes. The authors along with Optiro partners, directors, substantial shareholders and their associates (i) are independent of CNMC, its directors and substantial shareholders; (ii) do not have any interest, direct or indirect, in CNMC or its subsidiaries; and (iii) will not receive benefits other than the remuneration paid to Optiro in connection with this ITR. Fees for the preparation of this Report are being charged at Optiro's standard rates, whilst expenses are reimbursed at cost. Payment of fees and expenses is in no way contingent upon the conclusions drawn in this Report.

3. SOKOR PROJECT

3.1. PROPERTY DESCRIPTION

3.1.1. PROJECT LOCATION

The Sokor Project is located approximately 80 km southwest of Kota Bharu, the capital of Kelantan State, in northern Peninsular Malaysia (Figure 3.1). The project is accessed by a sealed road from Kota Bhara to Kampong Bukit, which is approximately 18 km from site, and thence by gravel track from Kampong Bukit to site. Kota Bharu is connected to Kuala Lumpur by a 55 minute flight. The nearest town, Tanah Merah, is located approximately half way between the project site and Kota Bharu.

The Sokor Project is situated in the upper catchment of the Sungai Sokor River, where topography consists of moderately steep hill ridges and narrow valleys, with elevations ranging from 200 m to 900 m above sea level. The project area experiences a hot, tropical monsoonal climate with dense tropical rainforest vegetation cover. Annual rainfall in Kelantan State averages between 2,000 mm and 2,500 mm, with November to January being the wettest months.

CNMC has defined four deposits in the southern part of the Sokor Project area (Manson's Lode, New Discovery, New Found and Ketubong) and a fifth deposit (Rixen), approximately 3 km to the north of Ketubong (Figure 3.1). Additional base metal mineralisation is present at Sg Among, to the east of Rixen,



and at Sg Tiger, within the southern part of the Sokor Project area. At present there is insufficient data to define Mineral Resources within these areas.

3.1.2. PROJECT OWNERSHIP AND STATUS

Metres

The Sokor Project consists of a Mining Licence (ML 10/2016) covering approximately 10 km² (known as the "Sokor Block"). In 2016, CNMC's mining rights to the Sokor Block were extended until 31 December 2034.

The Corporate income tax rate in Malaysia is 24%. A gold royalty of 10% of gross revenue is payable to the Kelantan State Government (KSG) and an additional tribute payment of 4% of gross revenue is payable to the Kelantan State Economic Development Corporation (KSEDC). Large scale mining approval was obtained from KSG in 2016, allowing for large scale mine production of unlimited ore.

444 000 E 446 000 E SOKOR PROJECT AREA 6 168 000 N Legend Alluvium Rixen's Deposit Acid Intermediate Volcanics Silicified Zone Quartz/Granitic Porphyry Mineralisation Zone Faults 6 166 000 N Tracks/Roads Ketubong Deposit New Discovery and New Found Deposits 6 164 000 N Manson's Lode Deposit

Figure 3.1 Sokor Project area – geology and location of Mining Licence (modified from BDA, 2011a)



Environmental approval was obtained from KSG in April 2010. Environmental approvals for the project included the submission of an Environmental Impact Assessment (EIA) in January 2008 and a supplementary EIA report in March 2009, with approval received in June 2009. An Environmental Management Plan (EMP) was submitted in February 2010 and an EMP Additional Information report submitted in March 2010, with approval received in April 2010. The EIA and EMP include approval for both heap leach and pond (vat) leach processing of gold ore at the Sokor mine site. The EIA and EMP for CIL plant was approved in February and May 2018. Where possible, CNMC will progressively rehabilitate disturbed areas and some areas, such as the process plant, will be rehabilitated when the mine is closed and the plant is decommissioned.

CNMC, through its subsidiary CMNM Mining Group Sdn. Bhd., holds an 81% interest in ML 10/2016 (which replaces ML 2/2008). The KSG holds a 10% share and other investors in Kelantan State hold the remaining 9%. The 19% interest not held by CNMC is a non-contributory share during exploration and mine development and production stages (Table 3.1).

Table 3.1 Sokor Project tenement schedule

Tenement ID	CNMC Interest	Status	Expiry date	Area km²	Type of mineral deposit	Remarks
ML 10/2016	81%	Development	31/12/2034	10.0	Gold	Mining rights

3.2. HISTORY OF THE PROPERTY

The earliest recorded exploration in the Ulu Sokor area was undertaken by Duff Development Company Limited in the early 1900s and included trenching and the development of numerous shafts and adits.

Between 1966 and 1970 Eastern Mining and Metals Company (EMM) undertook a drilling programme at Ulu Sokor, consisting of 104 holes totalling 2,963 m. EMM reported mineralisation of 227,000 t, with gold grades ranging from 1.94 g/t to 3.33 g/t gold and oxide mineralisation of 156,000 t, with gold grades ranging from 2.85 g/t to 5.34 g/t gold.

Between 1989 and 1991 Asia Mining Sdn Bhd (Asia Mining) conducted mapping, soil sampling, rock-chip sampling and completed a drilling programme consisting of 55 holes totalling 2,705 m. From 1995 to 1996 Asia Mining operated a heap leach facility that processed around 40,000 t of near-surface gossan ore from the Manson's Lode area and produced approximately 3,200 oz of gold. Asia Mining delineated a gold resource in the Rixen area totalling 4.1 Mt at 1.2 g/t gold above a cut-off grade of 0.5 g/t gold.

During 1997 and 1998 TRA Mining (Malaysia) Sdn Bhd (TRA) conducted geological mapping, rock chip and stream sediment sampling and completed a reverse circulation (RC) drilling programme consisting of 33 holes totalling 2,630 m. The TRA drilling was undertaken within the Manson's Lode and New Discovery areas.

CNMC commenced exploration in 2007, focusing on the known areas of mineralisation at Manson's Lode, New Discovery, Ketubong and Rixen. Over the length of its tenure CNMC has conducted geological mapping, soil sampling, Induced Polarisation geophysical surveys and diamond drilling programmes, and has excavated 27 trenches. Gold mineralisation was identified at New Found by CNMC in 2015. Diamond drilling has been undertaken at Manson's Lode, New Discovery, Ketubong, Rixen and New Found, and has tested areas to the east of Rixen, at Sg Among and to the southwest of Manson's Lode, at Sg Tiger.

In July 2010, CNMC commenced commissioning of a 60,000 tpa vat leach facility and gold recovery plant. Initial ore production was sourced from the Manson's Lode deposit and in 2012, CNMC expanded production with the commissioning of the 70,000 tonne heap leach facility to treat ore from the Rixen deposit.



During 2017, CNMC commissioned the design of a Carbon in Leach (CIL) flowsheet and subsequently build a 500 tonne per day CIL processing plant for Sokor. As of 15 October 2018, some 116 kt of ore material had been processed through the CIL plant (as part of trial operation in November through April 2018 and commercial operation from May 2018). The current mine operating practice is that ore from Rixen will continue to be treated by heap leach and ore from the adjacent deposits will be treated by vat leach processes and the CIL plant.

3.2.1. PRODUCTION STATISTICS

Since CNMC commenced operations, there have been no comprehensive production records or reconciliation data collected. CNMC has advised Optiro of the production that has occurred between 2012 and 15 October 2018, which is summarised in Table 3.2.

Since 2013, CNMC has been using opportunistic mining practices and mining to a lower cut-off grade which has progressively resulted in lower grade ore being processed. Furthermore, a reduced amount of higher grade oxide material has been mined over this period (with increased transitional material). The current mine schedule produced by Optiro indicates that it is possible to increase the feed grade should this be required.

Table 3.2 Sokor production statistics for 2012 to 15 October 2018

Commodity	Production statistics	2012	2013	2014	2015	2016	2017	2018*
			Rixen					
Mined	Ore tonnes mined (claimed)	90,000	323,000	1,362,138	2,236,674	2,243,667	1,871,856	1,965,392
	Ore tonnes processed	90,000	386,000	1,362,138	2,236,674	2,243,667	1,871,856	1,965,392
	Ore stockpiled (not processed	63,000	63,200					
	as at 31 December)	03,000	03,200	-	-	-	-	-
Gold	Calculated grade (g/t)	0.3	1.07	0.94	0.61	0.41	0.33	0.31
	Recovered gold (oz)	861	11,800	27,685	29,645	20,324	11,472	7,028
	K	Cetubong, Ne	w Discovery	and New Fo	ound			
Mined	Ore tonnes mined (claimed)	-	31,000	-	-	154,241	105,101	218,918
	Ore tonnes processed	-	31,000	-	-	154,241	105,101	218,918
Gold	Calculated grade (g/t)	-	1.14	-	-	1.92	1.40	3.18
	Recovered gold (oz)	-	1,100	-	-	7,080	3,345	15,727
Silver	Calculated grade (g/t)	-	N/A	-	-	-	-	-
	Recovered silver (oz)	-	690	-	-	-	-	-
			Manson's L	ode				
Mined	Ore tonnes mined (claimed)	50,000	-	-	-	-	-	-
	Ore tonnes processed	46,791	-	-	-	-	-	-
Gold	Calculated grade (g/t)	0.65	-	-	-	-	-	-
	Recovered gold (oz)	984	-	-	-	-	-	-
Silver	Calculated grade (g/t)	75.00	-	-	-	-	-	-
	Recovered silver (oz)	112,451	-	-	-	-	-	-
Lead	Calculated grade (%)	0.003	-	-	-	-	-	-
	Recovered lead (kg)	1,397	-	-	-	-	-	-
Zinc	Calculated grade (%)	0.004	-	-	-	-	-	-
	Recovered zinc (kg)	1,752	-	-	-	-	-	-
			Total					
Mined	Ore tonnes mined (claimed)	140,000	354,000	1,362,138	2,236,674	2,397,908	1,976,957	2,184,310
	Ore tonnes processed	136,791	417,000	1,362,138	2,236,674	2,397,908	1,976,957	2,184,310
Gold	Calculated grade (g/t)	0.42	0.96	0.94	0.61	0.51	0.45	0.60
	Recovered gold (oz)	1,845	12,900	27,685	29,645	27,190	14,817	22,755
Silver	Calculated grade (g/t)	75.00	N/A	N/A	N/A	-	-	-
	Recovered silver (oz)	112,451	690	20,886	22,057	-	-	-
Lead	Calculated grade (%)	0.003	-	-	-	-	-	-
	Recovered lead (kg)	1,397	-	-	-	-	-	-
Zinc	Calculated grade (%)	0.004	-	-	-	-	-	-
	Recovered zinc (kg)	1,752	-	-	-	-	-	-

^{*} to 15 October 2018



3.3. GEOLOGICAL SETTING

3.3.1. REGIONAL GEOLOGY

The Sokor Project is located in the Central (Gold) Belt of Peninsular Malaysia. Peninsular Malaysia is divided structurally into three north-south to northwest-southeast trending belts, the Eastern, Central and Western Belts. The Eastern and Western Belts are dominated by tin-bearing granites and associated tin and wolfram mineralisation.

The Central Belt consists of Permian to Triassic age metasediments including phyllite, slate, sandstone and limestone and felsic to intermediate volcanic rocks intruded by Late Triassic to Tertiary, acid to intermediate stocks and dykes. The Central Belt contains base metal mineralisation including copper, lead, zinc, antimony and manganese and gold mineralisation.

The eastern (Lebir Fault) and western (Bentong-Raub Fault) boundaries of the Central Belt are major fault zones featuring dextral rotation and strike slippage of 5 km to 10 km. Known gold deposits in the Central Belt include Raub, Selinsing and Penjom, all located south of Ulu Sokor. The Sokor gold mineralisation is located towards the middle of the Central Belt and is associated with the intersection of two major north-south trending structures with northeast to northwest trending secondary structures.

3.3.2. LOCAL GEOLOGY

The Ulu Sokor area is underlain by north-south trending meta-sediments including phyllite, slate, conglomerate, limestone and felsic to intermediate volcanic rocks. The meta-sediments are lower greenschist facies and appear to form an asymmetric anticline with shallow easterly dips in the eastern part of the concession and steeper westerly dips in the west. Locally the rocks are highly folded and display variable shallow to steep dips.

The concession area is divided into two parts by the north-south trending Ketubong-Rixen fault zone. The eastern part is dominated by calcareous and argillaceous sediments interbedded with carbonate rocks which dip eastwards at 10 to 40°. The western part of the concession is dominated by tuffaceous volcanics interbedded with minor calcareous phyllites and carbonate rocks. The acid to intermediate volcanic rocks consist of volcanic breccias and crystal tuffs. Silicification in the volcanic rocks is widespread.

STRUCTURE

Interpretation of Landsat imagery by CNMC suggests that the Ulu Sokor area lies between two major north-south trending faults approximately 2 km apart. The western fault (Ketubong-Rixen fault) is located in the middle of the concession and can be traced on the Landsat image for more than 10 km. Field evidence suggests these structures dip east at 40 to 60°. North-northeast and northwest trending secondary faults with variable dips ranging from 10 to 70° run between and in some cases cut the north-south structures. The intersection of north, north-northeast and northwest structures appear to control the mineralisation within the concession.

The Ketubong-Rixen fault strikes 10° west of north in the central and northern parts of the concession and changes to 10° east of north towards the southern part around New Discovery deposit. This fault and similar north-south trending structures appear to form brecciated shear zones with widths ranging from a few metres up to 35 m. Minor fault splays are developed along the main fault zone. The main fault zone is intensely sheared and typically contains disseminated pyrite and occasional, small lenses of semi-massive sulphide, mainly pyrite with minor chalcopyrite and galena.

INTRUSIVE ROCKS

Intrusive rocks in the concession are dominated by quartz porphyry dykes with widths of 2 to 50 m that have been intruded predominantly along east to northeast trending faults and occasionally along north-



northwest trending faults. Typically, the quartz porphyry dykes display pervasive silicification and/or sericitisation and kaolinisation. Dykes contain minor, disseminated pyrite mineralisation, particularly close to contact zones.

Narrow, north-south trending diorite porphyry dykes have been mapped west of the main north-south fault.

3.3.3. DEPOSIT GEOLOGY

The gold mineralisation within the Sokor Project is lithologically and structurally controlled and is generally hosted in acid to intermediate volcanic rocks and carbonate-rich rocks. The depth to the base of oxidation varies between deposits from a shallow depth of less than 3 m at Ketubong to up to 60 m at Rixen. Previous mining (during the 1990s) of near surface, high grade ore has occurred at Manson's Lode and New Discovery and the pits have been backfilled with lower grade material from these deposits.

RIXEN DEPOSIT

Gold mineralisation at the Rixen deposit is contained within acid volcanic rocks to the west of the Ketubong-Rixen fault. The deposit was defined initially by soil sampling and an Induced Polarisation survey which delineated an anomalous zone trending north-south with a strike length of approximately 800 m.

Drilling has outlined a zone of pervasively silicified tuffs and mineralisation extends for 2,000 m along strike (north-south), 570 m across strike (east-west) and up to 330 m from surface. The Rixen deposit has been tested by 238 diamond drillholes totalling 28,595.7 m. The drillholes and the resource interpretation are illustrated in Figure 3.2.

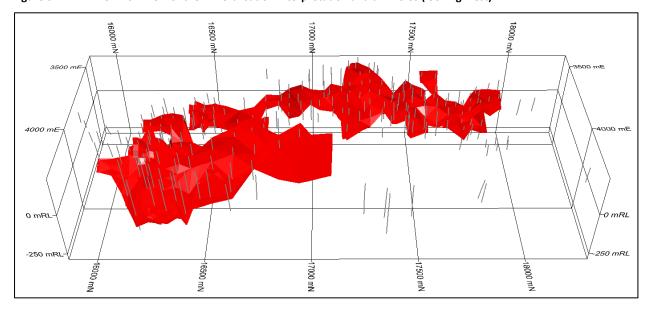


Figure 3.2 Rixen – 3D view of the mineralisation interpretation and drillholes (looking west)

MANSON'S LODE

The Manson's Lode deposit is located 3.5 km south of Rixen. Manson's Lode consists of a surface gossan after sulphides, partially replacing a silicified limestone unit which is intercalated with phyllitic sediments. The gold mineralised zone extends over a strike length of approximately 750 m, trending 060°, and is marked by old surface workings and a number of shallow shafts that have been excavated to depths of up to 30 m. The Manson's Lode deposit has been tested by 175 diamond drillholes totalling 11,065.85 m.



The average width of mineralisation exposed in trenches is 15 m, varying from a few metres to up to 34 m. The thickness of mineralisation is variable, ranging from 5 m to 20 m, and the dip of the mineralisation is shallow (10° to 15°) to the southeast. Trench mapping by CNMC suggests that the mineralisation is associated with a breccia zone. A quartz porphyry dyke, which is exposed to the southeast of Manson's Lode, may be a causative intrusion for the base metal-gold mineralisation. The dyke contains pyrite mineralisation as disseminations and veinlets, with rock chips returning grades of 0.5 g/t to 0.7 g/t gold.

At Manson's Lode, the gold mineralisation extends for 750 m along strike (northeast-southwest), 300 m across strike (southeast-northwest), and up to 120 m from surface. The drillholes and the mineralisation interpretation are illustrated in Figure 3.3.

The base metal mineralisation has the same general strike and dip as the gold mineralisation and extends along strike to the northeast and down-dip to the southeast, external to the gold mineralisation. Much of the surface area has been disturbed by previous mining activity and hence the relationship between the different rock types is not clear.

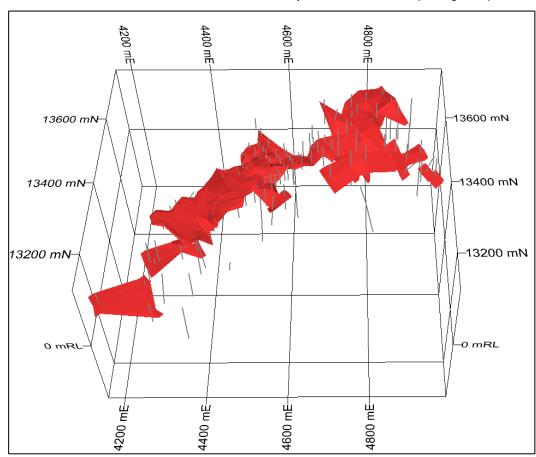


Figure 3.3 Manson's Lode – 3D view of the mineralisation interpretation and drillholes (looking north)

NEW DISCOVERY AND NEW FOUND DEPOSITS

The New Discovery deposit is located approximately 500 m west-northwest of Manson's Lode. Drilling during 2015 indicated that the mineralisation at New Discovery extended to the south: CNMC has named this area New Found. The gold mineralisation at New Discovery and New Found is associated with the Ketubong-Rixen fault that runs through the central part of the concession area.

At New Discovery, trench exposures indicate mineralised widths of 7 m to 35 m, trending 010° with a dip of approximately 30° to the east. In the north, the mineralised zone appears to be displaced to the west by a northwest trending fault. Based on trench mapping, mineralisation consists of gold in association



with weak stockwork and disseminated pyrite hosted in sheared and brecciated phyllite and in an adjacent limestone unit. The phyllite is generally strongly altered close to the fault zone, with pervasive sericite-chlorite-epidote alteration, silicification and carbonate veining.

The New Discovery deposit has been drilled down-dip to a depth of 280 m from surface and generally remains open at depth. The mineralisation at New Discovery and New Found has a combined strike length of 500 m and a maximum width of 330 m. Mineral Resources at the New Discovery and New Found deposits have been defined by 108 diamond drillholes totalling 9,346.82 m. The drillholes and the mineralisation interpretation for New Discovery and New Found are illustrated in Figure 3.4.

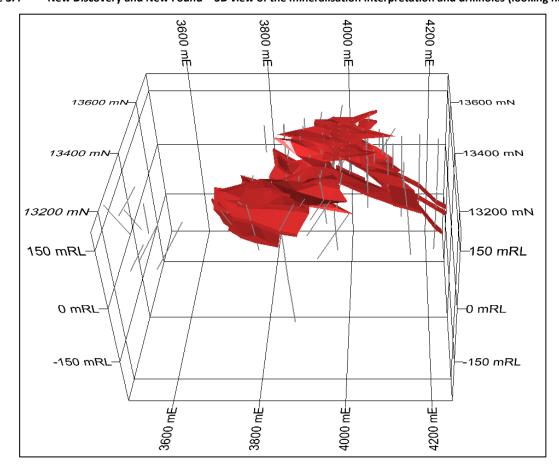


Figure 3.4 New Discovery and New Found – 3D view of the mineralisation interpretation and drillholes (looking north)

KETUBONG DEPOSIT

The Ketubong deposit is located approximately 600 m to the northwest of Manson's Lode and immediately north of New Discovery. Ketubong represents the northwards continuation of the north-south trending and easterly dipping mineralisation present in New Discovery. Mineralisation dips to the east at around 20° to 30°.

The deposit has been delineated by trenching and drilling over a strike length of 680 m and by gold-in-soil and Induced Polarisation anomalies, which are open to the north. Mineralisation is contained within highly folded phyllite and intercalated limestone over widths of 2 m to 40 m, based upon trench exposures. Interpretation of trench mapping indicates that the gold is associated with disseminated-stockwork quartz-sulphide mineralisation and more massive sulphide, consisting predominantly of pyrite with minor, sporadic galena, chalcopyrite and sphalerite. Drilling data indicates that the mineralisation is closely associated with a limestone unit within phyllite.



CNMC has tested the Ketubong deposit with 57 diamond drillholes totalling 9,851.73 m and Mineral Resources have been defined over a strike length of 520 m and an across strike length of around 200 m. Mineralisation has been intersected to a depth of 270 m. CNMC is investigating the potential to extract the deeper mineralisation at Ketubong by underground mining. The drillholes and the mineralisation interpretation for Ketubong are illustrated in Figure 3.5.

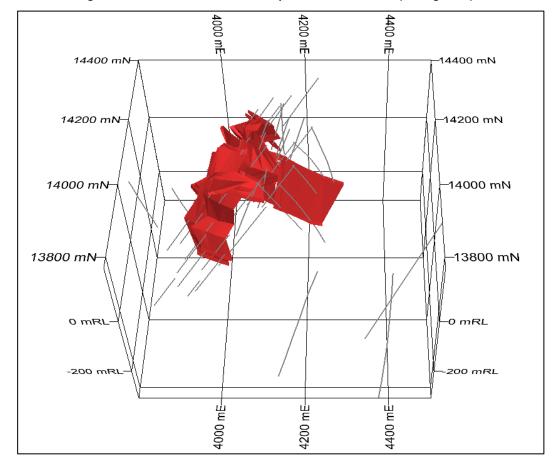


Figure 3.5 Ketubong – 3D view of the mineralisation interpretation and drillholes (looking north)

3.4. EXPLORATION DATA USED FOR MINERAL RESOURCE ESTIMATION

Behre Dolbear Australian Pty Ltd (BDA) previously documented outcomes from its review of CNMC's exploration and data collection procedures on site, inspection of surface trenches, drill sites and drill core and review of drillhole logging, survey, bulk density testing, sampling and data quality procedures (BDA, 2011a and 2011b). From BDA's documentation and Optiro's site visit observations and review and validation of the drilling data used for the Mineral Resource estimate, Optiro considers that the drilling, logging, sampling and assaying procedures, as discussed below, are appropriate and in accordance with industry standards. In Optiro's overall opinion, the geological database forms an appropriate and reasonable basis for resource estimation.

3.4.1. DRILLING

The five Sokor deposits (Manson's Lode, New Discovery, New Found, Ketubong and Rixen) have been evaluated by both surface trenches and diamond core drilling. Diamond drilling was completed on all five deposits using a combination of inclined and vertical drillholes on drill sections oriented normal to the strike of the mineralisation. Only the data from the CNMC diamond drillholes has been used for resource estimation. A total of 592 diamond drillholes for 61,139.5 m have been drilled at the Sokor Project for Mineral Resource definition.



CNMC provided the geological logs, assay data and survey data to Optiro as a series of Excel spread-sheets. Optiro consolidated this data and generated a drillhole database using Datamine mining software. CNMC provided the assay certificates for 162 of the drillholes used for the 2011 Mineral Resource, for all 16 drillholes used for the 2012 update to the Rixen Mineral Resource estimate, for 69 of the 76 drillholes provided for the 2013 Mineral Resource update and for 96 of the holes drilled during 2014. During 2015, CNMC purchased Datamine software and updated the database with the data from the 2015 drilling programme. Optiro validated the 2015 data captured by CNMC against the drillhole logs and data from the laboratory; minor inconsistencies were remedied following discussion with CNMC. CNMC provided the drillhole data for 2016, 2017 and April through October 2018 as a series of Excel spreadsheets and as Datamine files. Optiro used these files to update the master Datamine database used for Mineral Resource estimation.

3.4.2. SURVEY DATA

CNMC has completed a topographic survey over a 7 km² area covering the five deposits; this local detailed survey has been tied into the Malaysian National Grid (MNG) using a number of MNG survey control points. This survey work was carried out using electronic distance measurement (EDM) devices and from this data a digital terrain model (DTM) was produced.

Drillhole collars have been surveyed using EDM equipment. Comparison of the drillhole collar data from the holes drilled prior to 2016 revealed that many of the drillhole collar elevations were significantly different to the DTM. This issue has been resolved during 2016, and the collar elevations provided for the 2016, 2017 and April through October 2018 drillholes match the current topographical survey data, once allowances have been made for excavation of material to prepare the drilling pad.

Mining at Rixen, Ketubong, New Found and New Discovery was undertaken during 2017 and 2018, and pit surveys were conducted in early June 2018 at Ketubong and in mid-October at Rixen, New Found and New Discovery. These had been matched to the original topography and were suitable for Mineral Resource depletion.

3.4.3. LOGGING, SAMPLING AND SAMPLE PREPARATION

Drillhole cores are logged for lithology, weathering, alteration, structure, mineralisation and geotechnical data, including core recovery, RQD (rock quality designation) and fracture frequency measurements.

All drill core is photographed using a digital camera and potentially mineralised core is marked up for sampling. Sample intervals selected for analysis from the 2017 drillholes are between 0.05 m and 2.75 m, with an average sample interval of 0.96 m.

Systematic logging of oxidation boundaries (base of oxide and base of transitional) was introduced by CNMC for the 2011 exploration programme and oxidation was recorded as a separate field in the 2012 core logging. This practice was not continued during 2013 but was reinstated during 2014: the geological logs for all holes drilled during 2014 to 2018 recorded oxidised, transition and fresh material.

Half core samples were selected for analysis, with quarter core samples used for quality assurance/quality control (QAQC) analysis. Prior to 2012, sample preparation was undertaken at the ALS Group Laboratory in Perth, Australia; the samples collected from 2012 to 2015 were prepared by SGS (Malaysia) Sdn. Bhd. laboratory, Malaysia, and the samples collected from the 2016, 2017 and April through October 2018 drilling were prepared at CNMC's on-site laboratory. Sample weights range from 1 kg to 3 kg. Samples are dried, crushed to 6 mm and the whole sample is pulverised to 85% passing 75 microns. A pulp sample of 200 g is split for assay and the pulp reject bagged and retained.



3.4.4. SAMPLE SECURITY

Prior to 2016, exploration samples were selected, bagged and labelled by site geologists at Sokor and placed in sealed cartons for transport to the assay laboratory. The samples were stored at the Sokor exploration office in the sample storage area prior to dispatch to the laboratory, and the camp was patrolled day and night by security personnel. During 2016, 2017 and April through October 2018, samples were analysed at CNMC's on-site laboratory.

3.4.5. ASSAYING

Gold analyses at all five deposits were by 30 g fire assay with atomic absorption spectrometry (AAS) finish, having a detection limit of 0.01 g/t gold. Prior to 2012, sample analysis was undertaken at the ALS Group Laboratory in Perth, Australia (ALS); samples from the 2012 to 2015 drilling programmes were analysed by SGS (Malaysia) Sdn. Bhd. Laboratory. Samples from 16 of the 2013 drillholes were assayed using a 50 g fire assay charge.

Samples from Manson's Lode are routinely analysed for Au, Ag, Cu, Pb and Zn. Prior to 2012, Ag, Cu, Pb and Zn were analysed at the ALS Group Laboratory in Perth, Australia by four-acid digest and ICP Atomic Emission Spectrometry (ICPAES). The samples from the 2012 to 2015 drilling programmes were analysed by SGS (Malaysia) Sdn. Bhd. Laboratory by four-acid digest, followed by AAS.

The samples from 2016, 2017 and April through October 2018 drilling programmes were analysed at the CNMC on-site laboratory with 18% of the samples sent to SGS (Malaysia) Sdn. Bhd. Laboratory for check analysis. Approximately 50% of the check samples were sent to ALS Group Laboratory in Australia for inter-laboratory check analysis.

At New Discovery, New Found, Ketubong and Rixen, silver and base metal concentrations are low and the majority of samples were analysed for gold only.

3.4.6. QUALITY ASSURANCE/QUALITY CONTROL

CNMC's QAQC protocols have included the insertion of standards (certified reference material), blanks and duplicate samples at an umpire laboratory. During 2017 the samples were sent to SGS (Malaysia) Sdn. Bhd. Laboratory and inter-laboratory duplicate samples (of pulps) were submitted to ALS Group Laboratory in Australia. Optiro has reviewed the April to October 2018 QAQC data and the QAQC data from 2013 to 2017 on an annual basis.

CNMC has compiled the QAQC data from 2013 to October 2018 and graphs of the standards, blanks, field duplicates and laboratory duplicate samples are included in Appendix A. Summary results from the analysis of the standards are included in Table 3.3. The overall fail rate is 5% and the summary results indicate a small negative bias. For the 2018 data, the failure rate is less than 4%, however, Optiro notes that analysis of G916-1 (introduced during 2018) has a positive bias and a high failure rate of with eight of the 16 values outside the limits of three standard deviations. This grade bias is being monitored by CNMC. Of the 166 blank samples, only one has returned an assay value of >0.1 g/t gold. This indicates good sample preparation with little sample contamination.

Summary results from the analysis of the duplicate samples analysed at the umpire laboratory are included in Table 3.4 for data to August 2018. The difference between the mean grades is low (-6%) and the correlation coefficient is 0.75. The results from the standards and the duplicates assayed at the umpire laboratory indicate satisfactory accuracy of the assay data.

In Optiro's opinion the QAQC data indicates that satisfactory levels of precision and accuracy are being achieved by the on-site laboratory and this is reflected in the classification applied to the Mineral Resource estimates.



Table 3.3 Analysis of standards (2013 to October 2018)

CRM Name	Number of results	Expected mean	Actual mean	Bias	Expected standard deviation	Actual standard deviation
G912-7	15	0.42	0.40	-4.1%	0.02	0.01
G910-7	163	0.51	0.50	-2.2%	0.03	0.08
G916-4	85	0.51	0.50	-1.0%	0.02	0.01
G909-10	57	0.52	0.47	-9.0%	0.05	0.14
G916-1	16	1.72	1.87	9.0%	0.06	0.12
G916-2	83	1.98	1.91	-3.7%	0.07	0.16
G307-8	148	1.99	1.93	-3.1%	0.08	0.09
G308-8	17	2.45	2.41	-1.5%	0.12	0.15
G910-3	136	4.02	3.84	-4.4%	0.17	0.22
G314-3	9	6.70	6.50	-3.0%	0.21	0.16
G308-4	62	6.77	6.51	-3.9%	0.29	0.32

Table 3.4 QAQC results from duplicate samples sent to umpire laboratories

Chatistic		All Data		Significant Data			
Statistic	Original	Duplicate	%Difference	Original	Duplicate	% Difference	
Count	1,258	1,258	-	493	493	-	
Minimum	0.005	0.005	0.00%	0.020	0.005	-75.00%	
Maximum	189.0	150.0	-20.63%	189.0	150.0	-20.63%	
Mean	1.039	0.971	-6.48%	2.537	2.393	-5.68%	
Standard Error	0.201	0.181	-10.18%	0.507	0.454	-10.33%	
Median	0.130	0.120	-7.69%	0.530	0.500	-5.66%	
Mode	0.020	0.005	-75.00%	0.260	0.220	-15.38%	
Standard Deviation	7.140	6.413	-10.18%	11.249	10.087	-10.33%	
Sample Variance	50.978	41.128	-19.32%	126.538	101.740	-19.60%	
Coefficient of Variation	6.875	6.603	-3.96%	4.434	4.215	-4.93%	
Kurtosis	438.505	362.929	-17.23%	174.843	144.468	-17.37%	
Skewness	19.020	17.513	-7.93%	12.054	11.102	-7.90%	
Correlation Coefficient		0.7507			0.7437		

3.4.7. BULK DENSITY

Bulk density measurements are made on selected core samples of approximately 0.2 m in length using the water immersion method (weight in air and water). Samples are dried before measurement. Bulk density values for each deposit and material type were calculated using measurements from 260 sections of diamond drill core and of alluvial/eluvial and backfill material from 41 test pits.

3.5. MINERAL RESOURCE

INTERPRETATION

CNMC provided cross-sections of the mineralisation and geology interpreted from the geological logging and assay results from drillholes to the end of 2013. Optiro used the cross-sections to guide interpretation of the mineralisation at all deposits, using a nominal 0.25 g/t gold cut-off grade. At Manson's Lode base metal mineralisation, external and additional to the gold mineralisation, was interpreted using a nominal 2% lead plus zinc (Pb+Zn) cut-off grade.

Interpretation of the 2014 to October 2018 drillhole data was by Optiro, and used the geological logs provided by CNMC and the assay data. It maintained a similar orientation to that interpreted by CNMC geologists prior to 2014.



DATA ANALYSIS

Data within the interpreted mineralisation was composited to 1.5 m downhole intervals and coded for material type (alluvial/eluvial, backfill, lithologically controlled or structurally controlled). Statistical analysis of the composited and coded gold values indicated that the data populations are positively skewed and top-cut values were therefore selected for each deposit and material type. A top-cut was not applied to the eluvial mineralisation at Ketubong. For the other material types top-cut values range between 8 g/t gold (within the structurally controlled mineralisation at New Discovery and New Found) to 30 g/t gold (within the eluvial and lithologically controlled mineralisation at New Discovery and New Found). These top-cuts affected the top 1% to 3.5% of the gold data.

At Manson's Lode, silver, lead and zinc grades were top-cut to 310 g/t Ag, 9% Pb and 2% Zn respectively within the backfill material, and to 440 g/t Ag, 14% Pb and 14% Zn within the bedrock material. These top-cuts affected the top 1% to 3.6% of the data.

Variogram analysis was undertaken to determine the gold grade continuity within the mineralised domains. A normal scores transformation was applied and the variance parameters were backtransformed for grade estimation. The interpreted variogram parameters that were used for grade estimation are summarised in Table 3.5 and variogram fans (used to interpret the mineralisation orientation) and the directional variograms with the interpreted models and ranges of mineralisation continuity are included in Appendix B. The mineralisation continuity was interpreted to have an along-strike range of 29 m to 214 m, and a down-dip range of 31 m to 105 m.

Table 3.5 Interpreted variogram parameters

Deposit	Domain	Direction	Nugget variance	Sill 1	Range 1 (m)	Sill 2	Range 2 (m)
		0°→355°			108		108
	Upper	-20°→085°	0.24	0.33	31	0.43	31
Rixen		-70°→285°			2		7.5
Kixeii		-1°→015°			50		214
	Main	-5°→105°	0.38	0.49	30	0.13	48
		-75°→280°			2.5		12.5
		-4°→090°			54		88
	Backfill	-3°→180°	0.19	0.68	33	0.13	33
Manson's		-85°→310°			7		7
Lode		-10°→165°			105		105
	Fresh	0°→255°	0.19	0.34	29	0.48	29
		90°→360°			6.5		20
		-23°→149°			98		
New	Upper	19→231°	0.30	0.70	74	-	-
Discovery		-80°→345°			1.5		
and New		-9°→075°			22		66
Found	Lower	-4°→165°	0.36	0.43	34	0.22	34
		-80°→280°			5		5
	Oxide,	-61°→137°			52		52
Ketubong	transitional	14°→201°	0.41	0.11	40	0.48	68
	and fresh	-25°→285°			11		16

GRADE ESTIMATION AND CLASSIFICATION

Block models were generated for each deposit using a block size of 10 mE by 10 mN on 2 m benches at Manson's Lode, New Discovery, New Found and Ketubong and 10 mE by 20 mN on 2 m benches at Rixen. Block grades were estimated using ordinary kriging with appropriate top-cuts, as previously described, applied per deposit and style of mineralisation.

The mineralisation has been classified as Measured, Indicated and Inferred in accordance with the guidelines of the Australian JORC Code (2012). Areas with well-defined geological and grade continuity were classified as either Measured or Indicated, and areas with close-spaced drilling with higher



estimation quality were classified as Measured. Areas with wide spaced drilling and/or poor grade continuity were classified as Inferred.

Average bulk density values for each deposit and material type were calculated using measurements from diamond drillholes and test pits. Bulk density values used for the 2018 Mineral Resource estimate at Rixen were 2.64 t/m³ for the oxide and transitional material and 2.70 t/m³ for the fresh material. For the combined New Discovery and New Found resource estimate, a bulk density of 2.2 t/m³ was used for the eluvial material, 2.47 t/m³ was used for the oxide material and 2.83 t/m³ for the transitional and fresh material. Bulk density values used for the 2017 Mineral Resource estimate at Ketubong were 2.2 t/m³ for the eluvial material, 2.47 t/m³ for the oxide material and 2.85 t/m³ for the transitional and fresh material.

For the 2018 Mineral Resource for Manson's Lode a bulk density of 1.85 t/m³ was used for the backfill material. There is a strong relationship between the sulphide mineralisation, in particular the silver, lead and zinc grades, and the bulk density. An ordinary multivariate least squares regression model between density and metal grade was developed and the following equation was used to determine the bulk density for the bedrock material at Manson's Lode as a function of the silver, lead and zinc grades:

Bulk density = 3.34+(0.004*Ag)+(-0.116*Pb)+(0.063*Zn)

MINERAL RESOURCE TABULATION

The Mineral Resource estimate, as at 15 October 2018 for the Sokor Project, is reported in Table 3.6. This has been classified and reported in accordance with the guidelines of the JORC Code (2012) and has been depleted for mining up to 15 October 2018. The Mineral Resources are reported above a 0.25 g/t gold cut-off grade at Rixen and for oxide material at Ketubong, New Discovery and New Found and above a 0.5 g/t gold cut-off grade at Manson's Lode and for transitional and fresh material at Ketubong, New Discovery and New Found to reflect current commodity prices, operating costs and processing options. The Mineral Resources in Table 3.6 have been reported inclusive of the material used to generate Ore Reserves.

The cut-off grades used for reporting reflect the current and anticipated processing operations. The economic cut-off grade determined from Optiro's mining study of 0.25 g/t gold at Rixen and New Discovery was used to report the Mineral Resources at Rixen and the oxide Mineral Resources at New Discovery, New Found and Ketubong. Optiro's mining study at New Discovery and Manson's Lode indicates that the current economic cut-off grade for reporting of transitional and fresh material (to be processed using CIL) is 0.7 g/t gold. A cut-off grade of 0.5 g/t gold was used to report the Mineral Resources at Manson's Lode and the transitional and fresh Mineral Resources at New Discovery, New Found and Ketubong. This cut-off grade is lower than the current economic mining and reflects potential future economic extraction.

Table 3.6 Sokor Project – Gold Mineral Resource statement as at 15 October 2018 (inclusive of Ore Reserves)

	Measured		Indicated		Inferred		Total	
Deposit	Tonnes (kt)	Grade (Au g/t)						
Manson's Lode	340	2.6	170	2.4	500	0.9	1,000	1.7
New Discovery	30	2.7	170	3.1	370	1.7	570	2.2
New Found	-	-	-	-	490	1.1	490	1.1
Ketubong	-	-	100	3.3	930	3.0	1,030	3.0
Rixen	-	-	5,710	1.3	6,810	1.5	12,520	1.4
Total	370	2.6	6,150	1.5	9,110	1.6	15,620	1.6

Note: Inconsistencies in totals are due to rounding



At Manson's Lode, elevated silver and base metal concentrations are associated with the gold mineralisation and are reported in Table 3.7 above a cut-off grade of 0.5 g/t gold. Additional base metal mineralisation is present, which is external and additional to the interpreted gold mineralisation, and this has been reported above a 2% lead plus zinc (Pb+Zn) cut-off grade in Table 3.7.

Table 3.7 Silver and base metal Mineral Resources at Manson's Lode as at 15 October 2018 (inclusive of Ore Reserves)

Cut-off Measured			Indicated				Inferred				Total					
grade	Tonnes (kt)	Ag g/t	Pb %	Zn %	Tonnes (kt)	Ag g/t	Pb %	Zn %	Tonnes (kt)	Ag g/t	Pb %	Zn %	Tonnes (kt)	Ag g/t	Pb %	Zn %
0.5 g/t Au	340	63	1.5	1.9	170	74	1.5	2.0	500	48	1.4	1.3	1,000	57	1.5	1.6
2% Zn+Pb	1	68	4.2	7.2	3	47	1.3	2.2	400	6	2.0	1.8	410	6	2.0	1.9
Total	340	63	1.5	1.9	173	74	1.5	2.0	900	29	1.7	1.5	1,410	42	1.6	1.7

Note: Inconsistencies in totals are due to rounding

The total Mineral Resource, inclusive of material used to generate Ore Reserves, is presented in Table 3.8. This has been depleted for material mined to 15 October 2018 and includes the interpretation of limited new drillhole information. There has been an overall increase of 9% in gold Mineral Resources from the period 31 December 2017 to 15 October 2018 with the replacement of Mineral Resources exceeding the depletion of Mineral Resources by mining. The overall increase in gold resources from 31 December 2017 to 15 October 2018 was due to mineralisation intersected by 10 additional holes drilled at Rixen during 2018. This increased the Mineral Resources by an estimated 146 koz of gold and, from 31 December 2017 to 15 October 2018, the resource was depleted by an estimated 62 koz of gold by mining at Rixen, New Discovery, New Found and Ketubong. This mining depletion is in-line with the production figures (67 koz) and overall recovery (63%) reported for Rixen, New Discovery, New Found and Ketubong and the Mineral Resource classification.

Table 3.8 Sokor Project – Mineral Resources as at 15 October 2018 (inclusive of Ore Reserves)

		Gros	ss attributable	to licence	Gross attributable to CNMC						
Category	Category Mineral type		Grade (Au g/t, Ag g/t, Pb%, Zn%)	(Au g/t, Ag g/t, Pb%,		Grade (Au g/t, Ag g/t, Pb%, Zn%)	Contained metal (Au koz, Ag koz, Pb t, Zn t)	Change from previous update (%)			
Measured	Gold	0.36	2.6	30	0.30	2.6	25	-38%			
Indicated	Gold	6.14	1.5	288	4.98	1.5	233	2%			
Inferred	Gold	9.11	1.6	467	7.38	1.6	378	19%			
Total	Gold	15.62	1.6	785	12.65	1.6	636	9%			
Measured	Silver	0.34	63	683	0.27	63	553	0%			
Indicated	Silver	0.17	74	407	0.14	74	330	0%			
Inferred	Silver	0.90	29	838	0.73	29	679	0%			
Total	Silver	1.41	42	1,928	1.14	42	1,562	0%			
Measured	Lead	0.34	1.5	5,058	0.27	1.5	4,097	0%			
Indicated	Lead	0.17	1.5	2,560	0.14	1.5	2,074	0%			
Inferred	Lead	0.90	1.7	15,407	0.73	1.7	12,480	0%			
Total	Lead	1.41	1.6	23,025	1.14	1.6	18,650	0%			
Measured	Zinc	0.34	1.9	6,370	0.27	1.9	5,160	0%			
Indicated	Zinc	0.17	2.0	3,365	0.14	2.0	2,726	0%			
Inferred	Zinc	0.90	1.5	13,770	0.73	1.5	11,154	0%			
Total	Zinc	1.41	1.7	23,505	1.14	1.7	19,039	0%			

Note: Inconsistencies in totals are due to rounding



3.6. MINERAL PROCESSING AND METALLURGICAL TESTING

3.6.1. PROCESSING

CNMC engaged Changchun Gold Research Institute (CGRI) to carry out process testwork in 2008 and to design a process for recovery of gold and silver from the Sokor ore. A vat leaching plant was constructed on site in early 2010 and operations commenced in July 2010. During 2013, vat leaching operations continued on a minimal scale, with ore from the New Discovery deposit being batch treated.

During 2012, the processing capability of the Sokor Project was increased, with the construction and commissioning of a trial 70 kt heap leach facility to treat the ore from Rixen. The heap leach process was commissioned and declared operational during January 2013, and has continued to operate throughout 2013 to 2018, with ore being supplied solely from the Rixen deposit. During 2016 to 2018, ore from New Found and New Discovery pits were supplied for vat leaching, and during 2017 and 2018 ore from New Discovery and Ketubong pits were supplied for carbon-in-leach. Heap leach recoveries ranged from 51% to 70% during 2017, with the average recovery being 60% for 2017. The 2018 heap leach recoveries to date have been significantly lower averaging closer to 35% due to the processing of ore mined from Rixen's primary zone and a new leach pad being started in September 2018. CNMC expect recovery to improve with this new leach pad.

METALLURGICAL TESTWORK

During 2017 through to 2018, CNMC carried out further metallurgical testwork in the following areas:

- gravity gold recovery and heap leaching of Manson's Lode backfill ore
- mineralogical analysis on polymetallic Manson's Lode ore for selection of a process route
- mineralogical and leaching testwork on primary ore from New Discovery and Ketubong.

Metallurgical testwork continues as part of the current operations, with the results being applied to the leaching processes as required to ensure that the operational parameters remain appropriate for the anticipated variations in ore characteristics across the various deposits, as well as to validate the new process flowchart for the recently constructed and commissioned CIL plant.

LEACHING OPTIONS

CNMC is currently using a combination of heap and vat leaching. The heap leach was the predominant processing method in 2017.

The heap leaching process being used by CNMC features standard heap leaching practices, with fresh ore remaining on the leach pad for a residence time of between 30 and 45 days before it is regarded as being barren. Pregnant leach solution is subsequently stripped of leached gold via a standard elution and electrowinning process, with gold recoveries in the order of 60% being achieved during 2017. The spent heap leach material is then removed from the heap pad to a tailings storage area, which is then progressively rehabilitated during the year.

The vat leaching plant comprises the following equipment:

- a 50 t per hour crushing plant which includes a jaw crusher, a secondary impact crusher and a 10 mm vibrating screen to split the secondary crusher product into plus and minus 10 mm material
- three concrete leaching vats, each with a capacity of 1,500 t of ore
- pregnant, barren and raw water ponds
- eight activated carbon columns set up in two trains of four columns
- a gold room comprising an acid wash tank and an elution column, each with a capacity of 1 t of carbon
- a 1,000 kg carbon/day diesel-fired carbon regeneration furnace



• a pressurised electrowinning cell.

Crushed ore is trucked about 150 m to the leaching vats and loaded into the vats using excavators. Barren solution is pumped into the vat to saturate the ore and to allow it to soak. The pregnant solution is then drained from the vat into the pregnant solution pond. Pregnant solution is pumped through the carbon columns, an estimated 97% of the contained gold is captured on the carbon and the solution discharging from the columns is recirculated to the barren pond, whence it is pumped back to the vat. The loaded carbon for both the heap leach and vat processes is transferred to the gold room for acid washing, elution and regeneration prior to recirculation to the adsorption columns. Eluate from the elution stage is circulated through an electrowinning process to produce a gold sludge which is dried and smelted to produce gold doré bars.

Recent heap leach performance is being reported to have lower recoveries than that of previous years. This is attributable to the ore mined from Rixen's primary zone being processed by heap leach methods. Should site achieved recoveries continue to be lower than previously achieved, this will need to be accounted for in future Ore Reserve estimates and may result in lower Heap Leach Ore Reserves.

CARBON IN LEACH CIRCUIT

During 2017, CNMC commissioned the design of a Carbon in Leach (CIL) flow sheet and subsequently build a 500 tonne per day CIL processing plant for Sokor (Figure 3.6).

The general extraction of the gold through a CIL process can be thought of as:

- the use of cyanide to dissolve the gold from the rock into solution
- the extraction of the gold from the cyanide solution by adsorption onto activated carbon
- the removal of the gold from the activated carbon by acid washing and elution
- the re-solidification and extraction of gold from solution by way of electrowinning and smelting to remove impurities.

The Sokor CIL plant does not include a crushing circuit as it has been designed to accept ore feed material from the existing crushing circuit, located near the New Discovery pit, which is trucked to the CIL plant.

The CIL plant consists of:

- a crushed ore feed conveyor
- two ball mills, to mill the ore feed material to less than 200 micron
- a thickener
- six leach tanks, containing cyanide solution to leach gold onto the activated carbon
- a filter press, to dewater tailings material for dry stacking
- dry tailings stacking infrastructure.

A gold room at the plant has not been built. The current design involves removal of the activated carbon from the leach tanks to be trucked to the existing gold room (currently used for heap leaching operations) for acid washing and elution to remove the gold from the carbon. The gold solution is then electrowon and smelted to produce gold doré bars. CNMC is in the process of constructing a gold room for the CIL plant.

As of January 2018, some 8 kt of ore material had been processed through the CIL plant (as part of trial operation in November and December 2017) and had achieved an average recovery of 91.5%. A further 97.1 kt of ore material has been processed in 2018. Records indicate that recoveries have improved during 2018 with an average recovery of above 92% from May to September 2018. As such the CIL recovery assumptions have not been altered from those used in the December 2017 Ore Reserve though may require modification in future Ore Reserve assessments. The current mine operating practice is that



all ore from Rixen will continue to be treated via the heap leach and ore from New Discovery, New Found and Ketubong will be treated via vat leach and the CIL plant.

Figure 3.6 Sokor CIL plant and tailings facility – January 2018



3.7. MINING

With the exception of the Mine Design Physicals in Table 3.11, all of the detail in Section 3.7 pertains to the 2017 Ore Reserve process and methodology. No new pit optimisations or mine designs have been applied for this ITR. The interim 2018 Ore Reserve has utilised the 2017 Pit Optimisations and Mine design as the basis for the Ore Reserve.

3.7.1. MINING METHODS

The deposits at the Sokor Project are suited to conventional open pit mining methods, the primary reasons being:

- the deposits virtually outcrop with limited overburden
- the deposits dip at roughly 35° to 40°, which allows one wall of the pit to follow the footwall (minimal waste dilution)
- there are multiple parallel lenses that fall within the pit boundaries, resulting in low stripping ratios
- the width of the ore zones and the dip would be problematic for underground extraction.

3.7.2. PIT OPTIMISATION

PROCESS

Pit optimisation is used to determine the most profitable or optimal open pit for a given Mineral Resource for a set of economic and metallurgical parameters. The economic parameters generally include metal price, process recoveries and operating costs (capital costs are not normally included). When the optimisation process is run, a range of metal prices (or revenue factors) are typically used to develop a series of nested shells to understand how the mine will expand or shrink with increasing or decreasing metal value (and revenue). The optimisation process produces a net present value (NPV) for each pit shell from the predicted cashflow for that pit. In this instance, the NPV from the pit optimisation should not being considered as a measure of fair market value, rather as a means of assessing the optimal pit for the input assumptions applied.



Optiro used NPV Scheduler (part of the Datamine mining software package) to determine the optimum pit limits. This programme applies the input parameters via an algorithm to create a series of nested pit shells, which are then evaluated to find the optimal pit shell.

PROCESSING STREAMS

For the purposes of the open pit optimisation, and in line with current operating practices, pit optimisations were run such that:

- For Rixen, the only available processing stream was the heap leach
- For all other deposits:
 - the only available processing stream for oxide material was the heap leach,
 - transitional and fresh rock above the processing cut-off grade was sent to the CIL plant.

COSTS

Site costs were provided by CNMC for the 2017 calendar year. The total costs were back-calculated to yield unit costs (\$/t) and were compared with the previously supplied 2014 and 2015 figures to estimate appropriate future mining costs. It is understood that the CNMC figures reported to Optiro do not contain the final rehabilitation costs and these have been added back on, based on known costs of similarly sized, geographically similarly located operations.

Mining Costs for New Discovery and Manson's Lode are not well known as there has been minimal mining in these pits over the previous few years. A more conservative approach has been undertaken by Optiro in this regard, with Rixen mining costs escalated to account for the smaller nature and different geographic locations of the pits (relative to Rixen).

To date, the limit of processing through the new CIL plant is approximately 116 kt of material for plant commissioning undertaken in November and December 2017 and again in March through October 2018. The mill has not operated consistently having largely been run on a trial operation basis thus far. Commercial operation commenced on 2 May 2018. Based on the lack of operating continuity and the small amount of material treated thus far due to the new start-up, Optiro considers the costs incurred by CNMC to date are not representative of the true operating costs. As such, Optiro has re-estimated the CIL operating costs based on knowledge of similar operations and taken a more conservative view than the CNMC costs incurred to date.

DILUTION AND RECOVERY

The ore zones at Sokor have reasonable width and are in an orientation amenable to good recovery through open pit mining. As such, dilution and recovery of the ore zones were estimated at 5% and 95% respectively. These assumptions result in average grades for heap leach material that closely approximate historical performance and which are considered reasonable.

GEOTECHNICAL

The geotechnical parameters on which the optimisation and subsequent design were undertaken were based on current operating practices for the Rixen pit. For Rixen and New Discovery, the slope angles used were:

- 40° for oxide material
- 42° for transitional material
- 45° for fresh rock.

At Manson's Lode an overall slope angle of 42° was used.



OPTIMISATION INPUTS

Input parameters used for pit optimisation are listed in Table 3.9.

Table 3.9 Optimisation input parameters

Item	Units	Amount	Comment
Overall slope angle – Rixen and New			
Discovery			Oxidation states have not been fully
Oxide material	degrees	40	logged at Manson's Lode, hence one
Transitional material	degrees	42	overall wall angle which roughly
Fresh material	degrees	45	approximates the Rixen average slope
Overall slope angle – Manson's Lode	degrees	42	angle was used
Production factors			
Dilution	%	5	Optiro estimates,
Mining recovery	%	95	align well with previous performance
Ore processing limit	Mtpa	1.0	
Mining costs			
Oxide Material	US\$ /t	1.00	Historical CNMC data
Transitional and fresh material - Rixen	US\$ /t	1.50	2017 CNMC actual costs
Transitional and fresh material - Manson's	US\$ /t	2.50	Optiro estimate based on CNMC costs
Lode and New Discovery	035/1	2.50	extrapolated for other pits
Processing recovery			
Heap Leach	%	60%	2017 CNMC actual recoveries
CIL	%	91.5%	Nov / Dec CNMC actual CIL performance
CIL	/6	31.376	from CIL commissioning
Processing costs			
Heap Leach	US\$ /t ore	1.90	Historical CNMC data
CIL	US\$ /t ore	20	Optiro estimate
Administration and royalty	US\$ /t ore	3.1	Historical CNMC data
Revenue			
Gold	US\$ /oz	1,200	

OPTIMISATION RESULTS

The optimisation results for each deposit are shown in Figure 3.7 to Figure 3.9. The pit optimisation NPV is represented by the blue line and the ore tonnes within the pit shell by the green columns (or red). The curve of cash value (NPV) versus tonnage tends to be flat at the top. During pit optimisation it is common for approximately the last third of the life-of-mine to be quite marginal. Whilst it is worth maintaining the option to operate during this period and in this part of the deposit in case prices, costs, or technology improve, this part of the Mineral Resource should not be regarded as a core part of and driver of the project.

In each instance, Optiro has selected a pit shell smaller than the highest theoretically conceivable value pit as the basis for the design. Optiro believes pits larger than the chosen shell do not have sufficient reward (contained ounces, NPV, free cashflow) to justify the additional risk (larger pit, higher stripping ratio and higher costs). Each pit shell chosen by Optiro as the basis for design is shown in red.



Figure 3.7 Optimisation results - Rixen

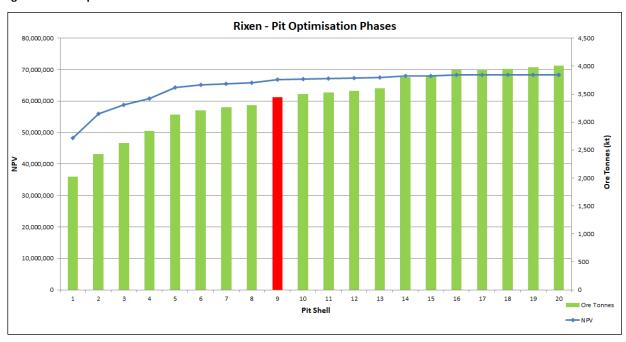
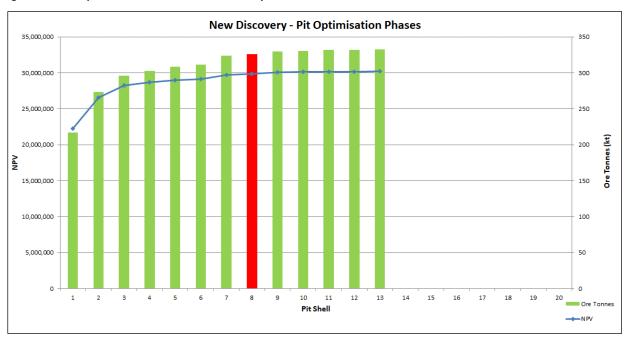


Figure 3.8 Optimisation results – New Discovery





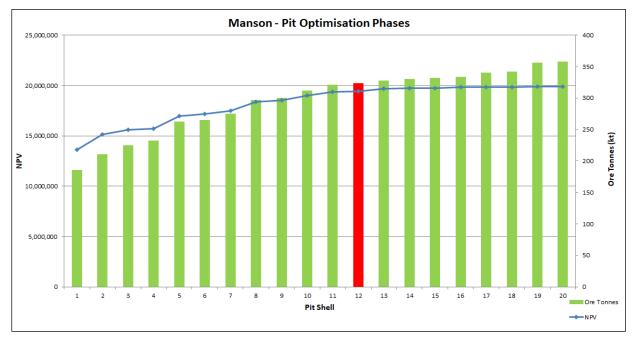


Figure 3.9 Optimisation results - Manson's Lode

SENSITIVITY

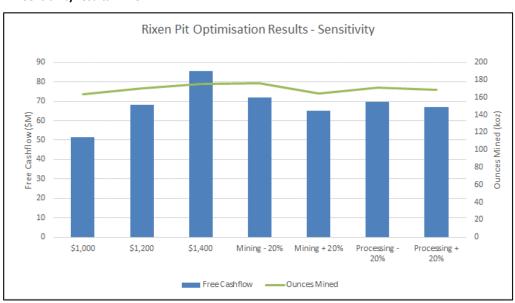
A sensitivity analysis (Figure 3.10 to Figure 3.12) was undertaken to:

- ensure that the chosen pit shell for design was still relevant at an appropriate range of key input drivers
- test overall project sensitivity.

Sensitivity analysis was undertaken on the following parameters:

- a gold price of US\$1,000 and US\$1,400 per ounce (base case is US\$1,200 per ounce)
- + 20% on processing cost
- ± 20% on mining cost.

Figure 3.10 Sensitivity results - Rixen





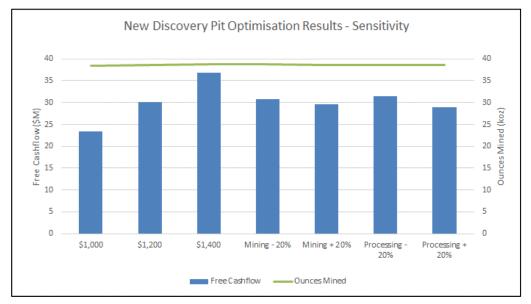
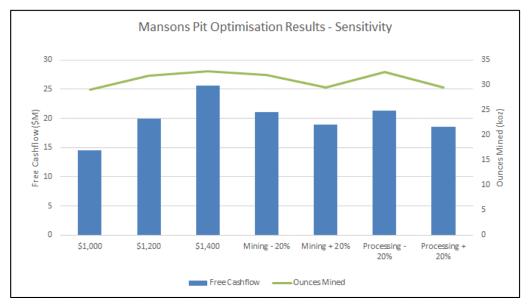


Figure 3.11 Sensitivity results - New Discovery

Figure 3.12 Sensitivity results - Manson's Lode



The results of the sensitivity analysis (highest theoretical NPV pit is shown for comparison) show that whilst the value (free cashflow) of the mine changes with input parameter, the key physical (contained ounces) is relatively unchanged (relatively insensitive). The results also show that all cases (including downside sensitivities) contain, at the very least, a pit with equivalent tonnes, grade, contained ounces and similar stripping ratios as that chosen as the basis of the pit design. Thus, the pit selection as the basis for design is robust and a relatively low-risk option.

3.7.3. MINE DESIGN

The mine design was undertaken using industry accepted parameters, in line with current site operating practices and based on a conventional, drill, blast, load and haul mining scenario.

DESIGN PARAMETERS

Design parameters are summarised in Table 3.10.



Table 3.10 Mine design parameters

Item	Units	Amount
Batter angles		
Oxide and transitional	degrees	60
Fresh	degrees	75
Batter height	m	10
Berm width	m	5
Ramp width		
Dual lane	m	20
Single lane*	m	10
Minimum mining width	m	30

^{*} Single lane employed at bottom of pit and in small pits that do not warrant dual lane ramps

PIT DESIGN

Pit designs are illustrated in Figure 3.13 to Figure 3.15.

Figure 3.13 Final pit design – Rixen in plan view (pit in green and red, existing natural surface in yellow)

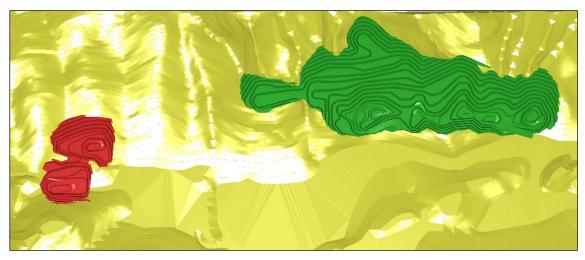


Figure 3.14 Final pit design - New Discovery in plan view (pit in blue, existing natural surface in yellow)

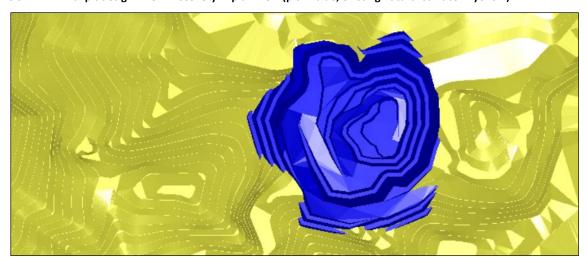




Figure 3.15 Final pit design - Manson's Lode in plan view (pit in grey, existing natural surface in yellow)

MINE DESIGN PHYSICALS

The mine designs were reimported into the optimisation package to report key physicals. This was done to ensure that a consistent method of reporting ore and waste by rock type, processing stream and the applicable cut-off grade was adhered to. The key physicals of each mine design are shown in Table 3.11.

Table 3.11 Mine design physicals

		Ore tonnes (kt)		Ore grade (g/t Au)			Gold mined (koz)			
Deposit	Waste kt	Heap leach	CIL	Total	Heap leach	CIL	Total	Heap leach	CIL	Total
Manson's Lode	868	-	263	263	-	2.8	2.8	-	23.7	23.7
New Discovery	370	9	114	123	2.7	3.1	3.0	0.7	11.3	12.0
Rixen	8,191	2,548	-	2,548	1.3	-	1.3	107.9	-	107.9
Total	9,429	2,557	377	2,934	1.3	2.9	1.5	108.6	11.3	119.9

3.7.4. MINE SCHEDULE

The mine schedule was undertaken using NPV scheduler. The final pit design was imported into the optimisation package and merged with the surface topography to produce an ultimate mining surface.

For Rixen, pushbacks were then created that:

- contained approximately 1 Mt of ore
- attempted to maintain similar stripping ratios.

Due to the small size of both the New Discovery and Manson's Lode pits, these were scheduled based on the final pit design, with no pushbacks.

Due to the nature of the Ore Reserve schedule, no stage designs were undertaken. Scheduling was undertaken on pushback surfaces created in NPV scheduler and the final pit designs. As such no face / stage positions at design resolution can be provided, this however does not impact the schedule resolution and is considered acceptable for an Ore Reserve.



SCHEDULING STRATEGY

The mine schedule had four primary objectives:

- continue to mine Heap leach sources as per current operating practice (scheduled at a nominal 1 Mtpa)
- achieve the nominal CIL rate of 500 tpd
- mine CIL sources in order of decreasing grade (New Discovery first, then Manson's Lode)
- smooth overall material movement as much as possible to keep the stripping ratio constant.

3.7.5. SCHEDULE OUTPUTS

The key outputs of the mining schedule are shown in Table 3.12. Optiro notes that the mining schedule is for Ore Reserves estimation purposes only.

Table 3.12 Mining schedule physicals

Source	Unit	Total	Year 1	Year 2	Year 3
Manson's Lode					
Waste	kt	868	676	165	28
Total ore	kt	263	60	183	21
Heap leach ore	kt	0	0	0	0
CIL ore	kt	263	60	183	21
Heap leach ore grade	g/t	0.0	0.0	0.0	0.0
CIL ore grade	g/t	2.78	2.06	2.96	3.30
Gold mined (heap leach)	koz	0.0	0.0	0.0	0.0
Gold mined (CIL)	koz	23.5	4.0	17.4	2.2
Gold mined	koz	23.5	4.0	17.4	2.2
New Discovery					
Waste	kt	370	370	0	0
Total ore	kt	123	123	0	0
Heap leach ore	kt	9	9	0	0
CIL ore	kt	114	114	0	0
Heap leach ore grade	g/t	2.69	2.69	0.00	0.00
CIL ore grade	g/t	3.1	3.1	0.0	0.0
Gold mined (heap leach)	koz	0.8	0.8	0.0	0.0
Gold mined (CIL)	koz	11.3	11.3	0.0	0.0
Gold mined	koz	12.0	12.0	0.0	0.0
Rixen					
Waste	kt	8,155	3,464	3,342	1,349
Total ore	kt	2,540	1,000	1,000	539
Heap leach ore	kt	2,540	1,000	1,000	539
CIL ore	kt	0	0	0	0
Heap leach ore grade	g/t	1.32	1.28	1.39	1.26
CIL ore grade	g/t	0.0	0.0	0.0	0.0
Gold mined (heap leach)	koz	107.7	41.3	44.6	21.8
Gold mined (CIL)	koz	0.0	0.0	0.0	0.0
Gold mined	koz	107.7	41.3	44.6	21.8
Waste	kt	9,393	4,510	3,507	1,376
Total ore	kt	2,926	1,183	1,183	560
Heap leach ore	kt	2,549	1,009	1,000	539
CIL ore	kt	378	174	183	21
Heap leach ore grade	g/t	1.3	1.30	1.39	1.26
CIL ore grade	g/t	2.9	2.72	2.96	3.30
Gold mined (heap leach)	koz	108	42	45	22
Gold mined (CIL)	koz	35	15	17	2
Gold mined	koz	143	57	62	24



The schedules were validated to ensure:

- the sequence is practical (logical, mining top down and following the pushbacks created)
- the drop-down rate of the pits did not exceed a maximum of 1 bench per month.

3.7.6. MINING OPERATIONS

MINING METHODS

The current mining method is conventional, drill and blast, load and haul in the open pit. The dip of the orebody (35° to 40°) aligns well with the conceptual overall pit slope. One wall of the pit has been designed to follow the footwall of the orebody.

WORKFORCE

The current operating workforce comprises both CNMC employees and various contractors. Administration and technical services staff are employed directly by CNMC. CNMC endeavours to employ labour from the local communities as required.

MINING FLEET

Due to the small volumes of material movement required, the pit is mined using a small fleet of machinery. Several back-hoe type excavators in the 60 t to 120 t class are utilised in the mining of the ore and waste, as well as in the post-heap tails relocation and rehabilitation process. A mixed fleet of 10-wheel haul trucks and 30 t articulated haul trucks are used in the mining operations as required. Ancillary equipment for in pit work requirements, waste dump management and road maintenance is provided by a fleet of graders, dozers and front-end loaders.

Drilling of blast holes is completed by a contractor and CNMC provides the blasting supervision.

3.7.7. ORE RESERVE ESTIMATION

The Ore Reserve estimates as stated in this document have been reported in accordance with the guidelines of the JORC Code, 2012 edition. Any inconsistencies within the tables may be attributed to the JORC requirement to report to an appropriate number of significant figures, and as such are due to rounding.

No new pit optimisations or mine designs have been applied for this ITR. The October 2018 Ore Reserve has utilised the December 2017 Ore Reserve Pit designs. The Ore Reserve has been re-reported on the basis of the block models (depleted as of 15 October 2018). A new schedule and financial analysis has been undertaken to ensure the economic viability of the Ore Reserve Physicals.

Accurate reporting of the precise ore tonnes, grade and amount of waste removal was not available, and hence this information has been considered in conjunction with surveyed data and the 2018 depleted block models.

With the information available to Optiro, a detailed reconciliation of actual mined against the depleted model could not be completed; therefore, this Ore Reserve estimate has been compiled solely on the basis of the depleted Mineral Resource block model against the pit design and working face surveys at 15 October 2018.

RIXEN PIT ORE RESERVES

Mining occurred at Rixen Between the period of 1 January 2018 and 15 October 2018. CNMC reported to Optiro that mining at Rixen during 2018 has extracted 1,965 kt of ore for the production of 7,028 ounces of gold via heap leach extraction, which was ongoing as at 15 October 2018.



The Rixen Ore Reserve has reduced by more than mining depletion even though there is relatively no change in the Mineral Resource estimate. The likely reasons for the additional reductions are:

- possible under call on the reconciled mined grade
- discrepancies between survey pickups taken for December 2017 and October 2018 Mineral Resource and Ore Reserve process.

MANSON'S LODE PIT ORE RESERVES

Between the period of 1 January 2017 and 15 October 2018, no ore from Manson's Lode were processed. As such the reported Ore Reserve remains unchanged.

Metals other than gold have not been included within this Ore Reserve estimate, nor has the impact on either credits or penalties for the presence of other metals and contaminants been included within the cost model or cut-off grade calculations. Metallurgical testwork was previously undertaken to determine lead and zinc recoveries from previously stockpiled material from Manson's Lode. Further mineral processing test work was commission in March 2018. This test analysed the characteristics of the lead, zinc, silver, gold mineralisation and mineral processing technology, mineral processing method, process flow structure, mineral processing indexes, technological conditions and final products.

The Manson's Lode Pit Ore Reserves are reported above a 0.7 g/t gold cut-off grade, using a 95% mining recovery and 5% dilution at zero grade and a gold price of US\$1,200 per ounce.

NEW DISCOVERY AND NEW FOUND

CNMC reported to Optiro that mining at New Discovery and New Found during 2018 has extracted 115 kt of ore for the production of 2,519 ounces of gold via vat leach extraction, which was ongoing as at 15 October 2018. A total of 103.5 kt of ore was mined from New Discovery and Ketubong providing feed to the newly commissioned CIL plant, producing 13,208 ounces of gold.

The New Discovery / New Found Pit Ore Reserve estimate has been reported above a 0.25 g/t gold cutoff grade for oxide ore going to the heap leach and a 0.7 g/t gold cut-off grade for transitional and fresh ore going to the CIL plant, 95% mining recovery and 5% dilution at zero grade and a gold price of US\$1,200 per ounce.

The reduction in New Discovery Ore Reserve figures is due entirely to mining depletion.

NEW FOUND

No Ore Reserve estimate was calculated or reported for the New Found deposit. Mineral Resources are classified as Inferred and thus cannot be converted to Ore Reserves, as defined by the JORC Code 2012.

KETUBONG

No Ore Reserve estimate was calculated or reported for the Ketubong deposit. CNMC is investigating potential underground mining at Ketubong. Optiro will determine the Ore Reserves at Ketubong once underground cost parameters have been determined by CNMC and either sufficient mining has occurred, or appropriate studies have been undertaken to determine the modifying factors, so as to have sufficient confidence to allow the reporting of an Ore Reserve.

3.7.8. STATEMENT OF SOKOR ORE RESERVES

The combined Ore Reserve estimate for Rixen, Manson's Lode and New Discovery deposits has been calculated and is shown in Table 3.13. The Ore Reserve estimate includes factors for ore loss and dilution which, by convention, have not been applied to the Mineral Resources. All Ore Reserves have been reported in accordance with the JORC Code (2012). Optiro has depleted the Ore Reserves for the Rixen



and New Discovery pits with the 15 October 2018 pit production, which is in accordance with guidelines of the JORC Code (2012).

In reporting the October 2018 Ore Reserves in Table 3.13, it should be noted that the tabulated Mineral Resources have been reported 'exclusive' of and additional to Ore Reserves as at 15 October 2018. This means that there will be material declared in Table 3.8 which is neither reported as Mineral Resources nor Ore Reserves in Table 3.13; for instance, material which falls within the final pit, but which is below the Ore Reserve cut-off grade. Thus, it is not possible to add the Ore Reserves and Mineral Resources in Table 3.13 together to produce the total Mineral Resources in Table 3.8. Moreover, the Ore Reserves include factors for ore loss and dilution which, by convention, have not been applied to the Mineral Resources. All Ore Reserves have been reported in accordance with the JORC Code (2012).

Table 3.13 Combined Sokor Project gold Ore Reserves (Manson's Lode, New Discovery and Rixen) and Mineral Resources (at Manson's Lode, New Discovery and New Found, Rixen and Ketubong that are additional to Ore Reserves at Manson's Lode, New Discovery and Rixen) as at 15 October 2018

		Gross att	ributable to	able to licence Gross attributable to CNMC				1C
Category	Mineral type	Tonnes (kt)	Grade (Au g/t)	Contained Au (koz)	Tonnes (kt)	Grade (Au g/t)	Contained Au (koz)	Change from previous update (%)
	Ore Reserves							
Proved	Gold	250	2.8	23	200	2.8	18	-46%
Probable	Gold	2,680	1.4	120	2,170	1.4	97	-25%
Total	Gold	2,930	1.5	143	2,360	1.5	115	-29%
			Additi	onal Mineral	Resources			
Measured	Gold	90	1.8	5	70	1.8	4	0%
Indicated	Gold	3,410	1.4	150	2,760	1.4	122	36%
Inferred	Gold	9,110	1.6	470	7,380	1.6	378	19%
Total	Gold	12,610	1.5	620	10,210	15	504	22%

Notes:

- Ore Reserves reported as per the JORC Code 2012 edition.
- Totals may display rounding inconsistencies.
- Cut-off grade for Ore Reserves is 0.25 g/t gold for ore going to the heap leach (all Rixen material and other sources of oxide) and 0.7 g/t gold for transitional and fresh ore going to the CIL plant (transitional and fresh rock from Manson's Lode, and New Discovery)
- Gold price used for cut-off calculation is US\$1,200 /oz for all lodes.
- No Inferred material is included in the Ore Reserves.
- Dilution of 5% and ore loss of 5% have been applied, with zero grade attributed to dilution.
- Cut-off grade for additional Mineral Resources is 0.25 g/t gold for ore going to the heap leach (all Rixen material and other sources
 of oxide) and 0.5 g/t gold for transitional and fresh ore going to the CIL plant (transitional and fresh rock from Manson's Lode,
 Ketubong, New Discovery and New Found).

3.8. INFRASTRUCTURE, FACILITIES, ENVIRONMENTAL AND COMMUNITY ISSUES

3.8.1. INFRASTRUCTURE

POWER AND WATER SUPPLY

Power to the operation has previously been provided by on-site diesel generators. Generators provide the bulk of the power requirements, with unit available as a stand-by. Small portable generators provide power to living quarters. In 2013, an additional six diesel generators were added to provide additional power generation for the expanded heap leach operations. In 2017, five additional high-power diesel generators were added to provide additional power generation for the newly constructed carbon-in-leach facility.

The project site is in an area of high, consistent rainfall. Water is sourced from local streams for use in mining and processing. Potable water is trucked to the site.



3.8.2. MINE SITE FACILITIES

CNMC has constructed offices, accommodation camp, assay laboratories and equipment maintenance facilities on the site. Communications are provided via a satellite phone system. Telephone, fax and data transmission facilities are provided.

3.8.3. ENVIRONMENTAL AND COMMUNITY ISSUES

Optiro understands that BDA reviewed the project's Environmental Impact Assessment in 2008, 2009 and its Environmental Management Plan in 2010. The review focussed on environmental aspects and social/community issues which are considered a material part of the project and which may have implications for project feasibility, costs and timing. Optiro understands that these aspects and issues have not changed since BDA's review in 2011 and the summary below is from the BDA report (BDA, 2011a).

ENVIRONMENTAL IMPACT ASSESSMENT

The project mining and environmental approvals are granted by the Kelantan State Department of Environment (DOE). Environmental approvals for the project include submission of an Environmental Impact Assessment in January 2008 and a supplementary EIA report in March 2009, with approval received in June 2009. An Environmental Management Plan was submitted in February 2010 and an EMP – Additional Information report was submitted in March 2010, with approval received in April 2010. The EIA and EMP cover both heap leach and pond (vat) leach processing of gold ore at the Sokor mine site. CNMC obtained the large scale mining permit for the Sokor Project in December 2016 and EIA approval for the CIL plant in February 2018. The EMP for the CIL plant was approved on 30 May 2018.

As part of the environmental investigations undertaken to date, potential project impacts to physical and biological resources have been assessed to identify key environmental risks that may arise from the construction, operation and eventual mine closure of the Sokor Project. Formal assessment, documentation and communication of potential project-related impacts, including the anticipated scope, magnitude, extent and duration, have been completed in conformance with the Kelantan State permitting process, including the DOE requirements and requirements under the Environmental Quality Act 1974. The information supplied under the Supplementary EIA was in response to further information requests from the DOE and the Kelantan State Minerals and Geoscience Department.

The EIA reports were prepared by I.Z. Environmind Sdn. Bhd., whilst the EMP document was prepared by I.Z. Environmind Sdn. Bhd. The Sokor Mining Schemes Report was prepared by CMNM Mining Consultant Engineer, KF Lee Mining Consultant and Surveyor.

ENVIRONMENTAL PROTECTION AND MITIGATION MEASURES

CNMC has identified the key potential environmental impacts arising from the project's operations and their associated mitigation measures, which have been implemented. These potential impacts and CNMC mitigation measures include:

- Site clearing impacting on downstream water quality mitigation measures include the use of silt traps and runoff barriers, retention of vegetation, vegetation removal to follow natural contours to maximise effects of silt traps.
- Soil erosion and dust emissions resulting from earthmoving activities mitigation measures
 include revegetation to control runoff and soil loss, water spraying of mine roads and trafficked
 areas to suppress dust emissions and provision of personal protection equipment to provide
 protection from dust and noise.
- Biomass waste and other waste disposal causing air pollution, fire hazard, unhealthy environment
 mitigation measures include no burning of biomass waste allowed on site, spoils and waste



- materials to be buried on-site in a designated 'fill' area, properly designed spoil piles surrounded by soil containment berms and biodegradable waste to be left in situ to decompose naturally.
- Waste water generation and disposal impacting on water quality mitigation measures include provision of suitable sanitation facilities and potable water supply, solid waste to be recycled and composted of disposed in secure areas designed in accordance with Department of Environment of Malaysia guidelines.
- Chemicals and hazardous material use impacting on water quality mitigation measures include
 prevention of leakage from tailings vats by installing water proofing materials to inhibit seepage,
 conducting regular maintenance of vats, engagement of Kualiti Alam (a Federal Government
 licensed toxic waste collector) to handle all acids and hazard chemicals resulting from the
 operations and provision of proper safe and secure storage facilities located away from
 incompatible substances that may generate heat, fire, gas or explosion.
- Traffic associated with the project impacting on air quality, noise and road safety mitigation
 measures include provision of sufficient width to access roads, limiting speed of vehicles,
 restricting entry to active mining areas to project vehicles only.
- Mine closure impacting on water quality, employment opportunities, development opportunities, loss of environmental values mitigation measures include developing an appropriate Mine Closure and Rehabilitation Plan which includes appropriate systems for handling site storm water runoff, compacting and sealing potentially acid-generating waste rock, closure and covering tailings dams, site re-vegetation, employee training and multi-skilled experience which is transferable to other mining operations or other sectors of employment.
- CNMC advised Optiro, in January 2018, that there had been no reported breaches of the
 environmental conditions and that all monitoring requirements were being carried out as per the
 licence requirements.

AIR QUALITY AND NOISE

Background air quality and noise were measured in and around the Sokor Project area in 2007 as part of baseline monitoring for environmental assessment purposes. In general, ambient air quality and noise levels in areas sampled in the project area are within Government of Malaysia ambient standards.

SURFACE HYDROLOGY

Based on topographical information, there are numerous streams which pass through the Sokor mine site area from east to west, flowing through Sg Tapis, Sg Amang, Sg Sejana, Sg Liang and Sg Ketubong, which eventually discharge into the Sg Pergau.

Surface water baseline evaluations have previously been conducted in the Sokor Project area as part of the environmental assessment process.

Baseline water quality analysis showed that the water quality in the project area is generally good and the parameter levels comply with the limits of Class III of the Interim National River Water Quality Standard for Malaysia and Standard B of the Malaysian Environmental Quality (Sewage & Industrial Effluents) Regulations, 1979.

WATER MANAGEMENT

Given the project area's high rainfall, water management is a significant issue for the project, with the need to minimise any potential downstream impacts.

The mine and processing plant are operated as a closed-loop circuit where no water from the site operations discharges to nearby surface waters. Tailings from the new CIL plants are dewatered prior to discharge.



The TSF from the previous plant was designed to operate with a minimum freeboard of 1.5 m and is surrounded by berms. The design capacity was at least twice the actual design capacity of all water from the mineral processing circuit and has also been designed to accommodate the recorded maximum rainfall event.

The berms are designed to prevent overflow from discharging from the TSF and will also preclude rainfall runoff from entering the TSF. Any storm-water and water collected from the mine pits is channelled to a sedimentation pond (i.e. environmental control pond), which is designed to provide a retention time of 48 hours.

Discharge from the sedimentation control pond is via a spillway. The mine has been developed with minimum disturbance to streams and creeks in the area. Where this is unavoidable, silt traps and sediment control practices are to be used to prevent any inflow of sediment to surface water. Surface runoff from the workshop area and other vehicle service areas is channelled to an oil/water separator device prior to the water being discharged.

Discharge of waste water from the sewerage system, domestic waste water and rainwater runoff from on-site facilities such as workshops is controlled so as not to impact on surrounding surface waters.

TAILINGS MANAGEMENT

Originally it was proposed that the project would commence using alluvial and vat leach methods to develop the mine; however, since 2013 the ore is mainly processed via the heap leach circuit.

Optiro has not been supplied with any details of the design of these plants, any expansion details on proposed plant process ponds, or any site water balance data. Optiro notes that it is prudent that any heap leach system (besides provisioning for process ponds – barren and pregnant solution ponds) provides a storm-water (safety) pond with sufficient capacity to accommodate the local maximum rainfall event. Such a pond will need to accommodate runoff from the entire process plant area, including the process ponds and heap leach area. A cyanide detoxification system will likely be necessary to handle increased rainfall on the heap leach area during the monsoon period and to provide for decommissioning of the heap leach structures and to make safe the process solutions once the heap leach system has closed. The EMP contains limited details on three possible cyanide detoxification methods; however, the information provided is considered preliminary, as no particular detoxification method has yet been selected.

The EIA Supplementary report contains design details and environmental protection measures to minimise the potential for water pollution. It is proposed that no solutions are to be discharged from the storm-water (safety) pond and that the cyanide content of water in the pond will be constantly monitored to ensure it remains below 0.1 mg/L.

All ponds, channels and impounding bunds are planned to be constructed with the required minimum freeboard and be HDPE-lined for protection against erosion and potential groundwater contamination.

ENVIRONMENTAL MONITORING

The approved Environmental Management Plan contains details concerning the environmental monitoring requirements stipulated under the Government approval. They include requirements for the monitoring and reporting of air quality, noise and water quality.

An Environmental Audit process is set out in the Environmental Management Plan. CNMC has advised Optiro that all monitoring is being undertaken by a licensed third party independent environment consultation firm in accordance with the requirements of the licence conditions. There have been no reported breaches during the past 12 months.



REHABILITATION

It is proposed that where possible, any disturbed areas will be progressively rehabilitated; however, there are some areas, such as the process plant, which cannot be rehabilitated until the mine is closed and the plant is decommissioned.

An Erosion and Sediment Control Plan is set out in the Environmental Management Plan, together with other specific pollution control and occupational health and safety plans.

SOCIAL ISSUES

There is a possibility that the Sokor Project may encroach into fishing areas, which may impact on revenue and livelihoods for the local communities which use the area. Consequently, local dissatisfaction with the project may arise if access to fish resources is restricted.

It is expected that the Sokor Project will create employment opportunities for residents of the area. In the communities surveyed, the residents expressed the desire to seek work at the site for both skilled and unskilled work opportunities.

CNMC has made substantial efforts to integrate its project activities with the local communities and is assisting them in social and economic development programmes. It is providing the local community with new employment opportunities, training and skills development for those staff employed in CNMC's mining activities and has broadened the economic and commercial base for local businesses, contributing to economic growth in the region. In addition, it provides opportunities for business investors to invest in Kelantan.

The main negative social impact that can occur at mine closure is the loss of jobs resulting from the cessation of mining. CNMC's proposed mitigation measure is to ensure that the workforce that has been employed will be fully trained with multi-skilled experience that is easily transferable at the time of mine closure, thus enabling potential further employment in other sectors.

3.9. FINANCIAL ANALYSIS

The current production schedule was updated by Optiro to reflect the depletion due to mining at Rixen, Manson's Lode and New Discovery. The schedule mines the deposits to achieve the production rate of the newly commissioned CIL plant, ensuring that heap leach Ore Reserves are depleted at approximately the same rate (i.e. the heap leach processing and CIL processing are scheduled to finish at the same time). Whilst this mining schedule is adequate for an Ore Reserve estimate, Optiro recommends that CNMC completes a detailed life of mine schedule combining all ore sources for accurate reporting of tonnes and grade. This mining schedule follows the same logic as the December 2017 Ore Reserve schedule, which was authorised for use by CNMC.

3.9.1. CAPITAL AND OPERATING COSTS

Capital and operating costs have been estimated by CNMC. Optiro understands that there has been no change to the previous year's estimated costs and that CNMC plans to review the costs as part of further study work to be undertaken during 2018.

3.9.2. OPERATING COSTS

The operating costs used to determine the economic viability of this Ore Reserve estimate have been provided to Optiro by CNMC. Whilst some actual production and processing costs have been recorded, and are lower than the study applied costs, Optiro has opted to use a combination of the current costs and escalated cost assumptions for reasons of conservatism and consistency over variable recorded costs.



The mining costs used are considered to be in-line with current operational expectations and actuals. A forecast gold price of US\$1,200 per ounce has been applied at the request of CNMC. The unit operating costs and cut-off grade calculations used are presented in Table 3.14.

Vat Leach material is relatively minor and was not considered as a processing stream in the pit optimisation and a cut-off grade was not calculated.

Table 3.14 Mining unit costs and cut-off grade

	Units	Heap Leach	CIL Material					
	Processing costs							
Processing cost	Processing cost US\$ /t 5 20							
	Revenue an	d selling costs						
Rehabilitation cost	US\$ /t ore	-	-					
Colling cost	US\$ /g	0.05	0.05					
Selling cost	US\$ /g	2.95	2.95					
Total sale cost	US\$ /g	3	3					
Coldarios	US\$ /oz	1,200	1,200					
Gold price	US\$ /g	38.6	38.6					
Final sale price	US\$ /g	32.37	32.37					
Mining recovery	%	95%	95%					
Process recovery	%	65.0%	91.5%					
Recovered revenue	US\$ /g	20.0	28.1					
Marginal cut-off	g/t	0.25	0.7					

3.9.3. ECONOMIC EVALUATION

A high level financial model was built using the costs and gold prices as directed by CNMC. The only exception to this was for CIL processing where the cost was estimated by Optiro. This was primarily because there was insufficient material processed (the CIL was still in commissioning phase) to accurately determine the processing costs.

Key cost metrics used in the evaluation are shown in Table 3.15.

Table 3.15 Major cost Inputs

	Units	Value
Processing cost		
Heap Leach	US\$ /t	5
CIL Circuit	US\$ /t	20
Processing Recovery		
Heap Leach	%	91.5
CIL Circuit	%	65.0
Selling Cost		
Refining Costs	\$ / oz	5
Royalties	%	7
Total sale cost	US\$ /g	3
Mining Costs		
Manson's Lode	\$/t	2.50
New Discovery	\$/t	2.16
Rixen	\$/t	1.20
Cold price	US\$ /oz	1,200
Gold price	US\$ /g	38.6



Economic evaluation of the Ore Reserves for the Sokor Project shows that the net cashflow from the operation is estimated to be US\$72 M, with a Net Present Value of US\$61 M (based on a 10% discount rate).

In-line with the pit optimisation sensitivity, the financial metrics were tested at an upside and downside gold price case of US\$1,400/oz and US\$1,000/oz respectively, the results of which are shown in Table 3.16.

Table 3.16 Financial metrics at varying gold prices

Gold price (US\$ /oz)	\$1,000	\$1,200	\$1,400
Free cashflow (US\$ M)	52.7	72	90.8
NPV (US\$ M)	45	61	77

Based on the economic evaluation undertaken by Optiro, Optiro can demonstrate and is satisfied that there is a positive financial outcome for the Manson's Lode, Rixen and New Discovery deposits. Financial analysis has not been completed for:

- the Ketubong deposit as underground mining technical studies are being finalised by CNMC and have not been used to support the determination of an Ore Reserve in this report
- the New Found deposit as the Mineral Resource is classified as Inferred and thus no Ore Reserves have been stated.

A summary of the financial model for the base case (\$US 1,200 per ounce) is shown in Table 3.17.

Table 3.17 Financial model summary - \$1,200 gold price

Year	1	2	3	Total
Revenue				
Income from sales	49.64	53.95	19.44	123.04
Cost of sales (\$/oz)	-0.21	-0.22	-0.08	-0.51
Government Royalties	-3.46	-3.76	-1.36	-8.58
Net Revenue	45.97	49.97	18.01	113.95
Capital Costs				
Sustaining Capital	-1	-1	-1	-3.00
Total Capital	-1	-1	-1	-3.00
Processing Costs				
HL - Heap Leach	-1.92	-1.90	-1.02	-4.84
CIL	-3.49	-3.65	-0.41	-7.55
Other processing cost	-3.67	-3.67	-1.73	-9.07
Total Processing Costs	-9.07	-9.22	-3.17	-21.46
Mining Costs				
Waste mining	-6.65	-4.42	-1.69	-12.76
Ore mining	-1.62	-1.66	-0.70	-3.97
Total Mining	-8.26	-6.08	-2.39	-16.73
Summary				
Revenue	45.97	49.97	18.01	113.95
Capital cost	-1.00	-1.00	-1.00	-3.00
Operating Cost	-17.34	-15.30	-5.56	-38.19
Net Cash Flow	27.64	33.67	11.45	72.76
Revenue per oz	1111	1111	1111	1111
Cost per oz	443	362	405	412
Margin per oz	668	749	707	700
NPV (\$ M)	61			



A breakdown of costs is shown in Table 3.18 and based on:

- Estimated costs going forward, and
- The historic cost distributions across the operation.

Table 3.18 Cost breakdown summary

Year	1	2	3
Processing (\$ M)			
Workforce employment	0.73	0.74	0.25
Consumables	2.13	2.16	0.74
Fuel, electricity, water and other services	1.02	1.04	0.36
On and off-site administration	0.64	0.65	0.22
Environmental protection and monitoring	-	-	-
Transportation of workforce	-	-	-
Product marketing and transport	0.02	0.02	0.01
Non-income taxes, royalties and other	3.99	4.05	1.39
governmental charges	3.33	4.03	1.55
Others	0.55	0.56	0.19
Total	9.07	9.22	3.17
Mining (\$ M)			
Workforce employment	1.80	1.33	0.52
Consumables	0.00	0.00	0.00
Fuel, electricity, water and other services	2.22	1.63	0.64
On and off-site administration	1.16	0.85	0.33
Environmental protection and monitoring	0.10	0.07	0.03
Transportation of workforce	0.16	0.12	0.05
Product marketing and transport	-	-	-
Non-income taxes, royalties and other			
governmental charges	_	_	_
Others	2.82	2.07	0.81
Total	8.26	6.08	2.39
	17.34	15.30	5.56

⁻ no costs allocated

3.10. INTERPRETATION AND COMMENTS

The geology and mineralisation controls at Sokor are reasonably well understood, with mineralisation being both structurally and lithologically controlled. The Rixen, Manson's Lode, Ketubong, New Discovery and New Found deposits have been well defined by drilling. The drilling has essentially defined the limits of gold and base metal mineralisation at Manson's Lode. The mineralisation Rixen, New Discovery, New Found and Ketubong remains open at depth (down-dip) and these deposits warrant additional drill testing. Drilling to the north of Ketubong intersected mineralisation at surface and at around 140 m depth; this area also warrants further testing.

Optiro considers that there is considerable potential remaining in the Sokor Block mining licence to locate additional gold and base metal mineralisation and CNMC's exploration programme is assessing targets within the exploration licences held by CNMC Pulai Mining Sdn Bhd and Kelgold Mining Sdn Bhd. Additional base metal mineralisation has been identified at Sg Among, to the east of Rixen, and at Sg Tiger, within the southern part of the Sokor Project area.

From an operational perspective, Optiro recommends that CNMC continues to improve the rigour that has been applied to the recording and reconciliation of operating activities during 2015 to 2018. Accurate reporting of mining locations and material movements on to and off stockpiles and leach pads will provide



CNMC with greatly improved production tracking and enable meaningful reconciliation of actual against planned mine performance in terms of both tonnes and grades.

The above recording should continue to be supported by accurate face and stockpile surveys on a monthly basis to provide a spatial basis for reconciliation against the reported physicals. The implementation of these processes would eliminate unaccounted for material movements and significantly streamline end of period reporting requirements. Optiro notes that there has been good improvement in this aspect of operations on site during 2016, 2017 and through to October 2018.

On a similar note, the movement of material from stockpiles to leach pads continued to be recorded during 2017 and through to October 2018. Optiro recommends that additional details are recorded in the future to ensure that CNMC has a more detailed basis for measuring the performance of the heap leach circuits. Without recording this additional information from the heap leach circuits, the basis for determining how the heap leaching process has performed during the month is sub-optimal.

The above operational processes are considered to be essentials for a single-source mining and processing operation. With the continued potential for multiple ore sources to be mined concurrently at Sokor, the requirement for accurate and rigorous reporting processes is multiplied to ensure that operational performance is recorded on an appropriate basis.

In summary, Optiro notes the improved progress in recording of the operational performance of the Sokor Project. Optiro supports CNMC's desire and actions to continue implementing a more formalised and structured production recording and reporting process, as commenced during 2016.

4. KELGOLD PROJECT

On 20 March 2017, CNMC announced that the Company had entered into a share sale agreement to acquire 100% of KelGold Mining Sdn. Bhd. (KelGold).

KelGold has the right to explore for iron ore, gold and other minerals in an area of approximately 1,550 hectares (15.5 km²) that expires in 2019. This concession is located in the state of Kelantan, Malaysia immediately south of the Thailand-Malaysia border and approximately 30 km northwest of the Sokor mine.

The Kelgold Project area falls within the Central Gold Belt of Malaysia (see Section 3.3.1) which hosts CNMC's Sokor mine and the third party Penjom and Selinsing mines among others. The project geology comprises a sequence of north-south trending Permian to Triassic marine sedimentary rocks along with a mylonitic granite in the central portion of the licence. The main units include argillite, sericite-quartz schist, tuff and sandy slate.

The lithologies within the licence area are affected by regional tectonic movement and are generally foliated and folded with complicated structural observations in outcrop. The strata generally trend near north-south with dipping to the east or near west controlled by folding dipping between 35° to 85°. A series of anticline folds are found in the southeastern portion of the project area, with a north-south trending axis.

Faulting is well developed in the area. The larger rivers are typically located within fracture zones trending near north-south, northwesterly or northeasterly with compressive-twisting. The main fault in the area is in the east of the licence area trending north-south with a strike length of approximately 8 km. Secondary faults are predominantly northeast or northwest trending. Magmatic activity is common with mylonitic monzogranite distributed in the west of the area and associated with the Noring Stong Granite. Quartz veining is common and quartz porphyry and diorite float is rarely observed. Gold anomalism /



mineralisation observed to date is usually associated with fine pyritised quartz veins. The occurrence and distribution of gold anomalism remains uncertain as the exploration only began by late 2017.

Assessment of the Kelgold Project by CNMC geologists is at an early stage and is currently on-going. The current assessment of the project area includes geological mapping, soil geochemical sampling, trenching and follow-up drilling of any anomalous results. Known mineralisation within the project area includes an area of historic gold workings located in the northern part of the project associated with highly silicified rocks and pyrite or limonite mineralisation. Further gold in soil anomalism has been identified and warrants further follow-up work.

CNMC considers that the Kelgold acquisition has significant potential based on the geological information available and the strategic synergy with the Company due to the geographic proximity to the Group's existing Sokor Project.

As at 31 October 2018, the Kelgold Project is at an early stage exploration stage. Optiro has reviewed the exploration work completed to date and considers that there has been insufficient exploration completed to estimate a Mineral Resource in accordance with JORC 2012 guidelines. The project is at a conceptual stage and it is uncertain if further exploration will result in the estimation of a Mineral Resource. There is insufficient information available to disclose the location and size of any potential future mine, the expected mineral quality or the development costs.

5. CNMC PULAI PROJECT

On 28 June 2016, CNMC announced it had entered into a non-binding letter of intent with CNMC Pulai in respect of the proposed subscription of new shares in CNMC Pulai representing 51% of the enlarged issued and paid-up share capital of CNMC Pulai. The purchase consideration for the proposed subscription was RM13,800,000. On 27 February 2017, CNMC announced that it had completed the proposed subscription and CNMC Pulai was a 51%-owned subsidiary of the Company.

CNMC Pulai owns exploration and mining licenses with a combined license area of 3,841.3 hectares (38.41 km²) and 70% stake of Sumberjaya Land & Mining Sdn Bhd. which holds the rights to mine iron ore for the iron ore mining licenses assigned to CNMC Pulai. The project area is approximately 100 km south of the Sokor mine and 20 km to the southwest of the city of Gua Musang in the State of Kelantan, Malaysia. This comprises:

- one exploration licence of approximately 2,300 hectares (23 km²)
- seven gold mining licenses (of which four gold mining licences are in the process of renewal) totalling approximately 1,166.19 hectares (11.7 km²)
- one iron ore mining licenses totalling approximately 179.7 hectares (1.7 km²)
- one feldspar mining license for approximately 15.41 hectares (0.15 km²).

The project area has historically been subject to alluvial gold mining operations especially along the Pulai River along with previous feldspar mining. Total historical alluvial gold production has been in the order of 260 kg and approximately 125,000 tonnes of feldspar has been produced.

As for the Kelgold Project, the CNMC Pulai Project falls within the Central Gold Belt of Malaysia which hosts CNMC's Sokor mine and the third party Penjom and Selinsing mines among others.

Overall, assessment of the CNMC Pulai Project by CNMC geologists is at an early stage and is currently ongoing. The current assessment of the project area includes geological mapping, soil geochemical sampling, trenching and follow-up drilling of any anomalous results.

Quaternary cover is relatively thick within the Pulai prospect with outcrop mostly present along road and river cuttings. According to geological mapping and drill core logging, the lithology within the project area



is mainly lower Permian metamorphic rock, pyroclastic rocks and volcanic rocks striking in a north-northeast direction. The Pulai area has been divided into the western, central and southern areas. The lithology of western area consists of limestone, tuff (interbedded with carbonaceous slate and slate), volcanic breccia and andesite. The overall dip direction found in western area is west-northwest and the dip angle 23° to 72°. The central area is mainly composed of andesitic tuff, with some rhyolitic tuff and andesite. Andesite with minor andesitic tuffs are distributed through the southern area. Pyroclastic and volcanic rocks occur widely across the area while sedimentary rocks have only been found in the western area.

Fracture and fault structures are common across the Pulai area. Major faults are north-south and north-northeast oriented, while secondary faults are mainly northwest, west-northwest and northeast in direction. Medium to coarse grained granite has been mapped along fault zones which are partially mylonitised and accompanied by pyrite mineralisation.

Primary gold anomalism identified to date appears related to silicification and limonitic (after pyrite) alteration. In the west of the project area, quartz-limonite veinlets in slate and tuff associated with gold anomalism have been identified through trenching but the control on the occurrence of gold is not yet clear.

Several styles of gold mineralisation potentially occur within the Pulai area, with the major types being alluvial occurrences, high-arsenic mesothermal auriferous quartz veins, low-arsenic auriferous stockwork and sheeted quartz veins with variable sulphidation and porphyry-style gold mineralisation.

China Railway Resources Exploration Ltd (2015) completed geological studies and concluded that the CNMC Pulai Project has similar mineralisation characteristic to the Sokor gold mine. Comparable to the Sokor deposits, the CNMC Pulai Project was interpreted as:

- within 15 to 30 km east of the Bentong-Ruab Fault
- north-south fault structures are well developed with sub-ordinate northeast, northwest and north-northeast faults controlling the distribution of alteration and mineralisation
- alluvial gold present within the project area
- geochemical anomalism of pathfinder elements antimony, arsenic and uranium.

Feldspar mineralisation in the CNMC Pulai region has been developed by hydrothermal alteration of volcanic rocks of various types and from shallow intrusive bodies. Whilst feldspar has previous been mined from the project area further work is required to determine the future economic potential of any feldspar mineralisation.

CNMC considers that geological data collected by previous explorers supports the potential for gold mineralisation similar to that discovered at the Sokor Project. Optiro considers that the work to date is encouraging and warrants further follow-up work.

As at 31 October 2018, the CNMC Pulai Project is at an early stage exploration stage. Optiro has reviewed the exploration work completed to date and considers that there has been insufficient exploration completed to estimate a Mineral Resource in accordance with JORC 2012 guidelines. The project is at a conceptual stage and it is uncertain if further exploration will result in the estimation of a Mineral Resource. There is insufficient information available to disclose the location and size of any potential future mine, the expected mineral quality or the development costs.

6. RISK ASSESSMENT

CNMC's principal asset (the Sokor Project) is an operating mine, and thus many of the start-up risks associated with mineral projects have been addressed, but there are still operational areas where some



uncertainties remain. These broadly include the reliability and integrity of the Mineral Resource/Ore Reserve estimates, reconciliation of actual results to date against the geological model and the handling of key mining operational issues, including grade control and geotechnical issues.

Optiro has undertaken a risk assessment to address key areas of risk along with an assessment of the degree of risk for CNMC's mineral assets. This risk assessment is in line with Guidance Note 7 issued by the Stock Exchange of Hong Kong Limited. These assessments are necessarily subjective and qualitative. Risk has been classified from minor to major, which can be further clarified as:

- Major Risk: the factor poses an immediate danger of a failure, which if uncorrected, will have a
 material effect (>15% to 20%) on the project cash flow and performance and could potentially
 lead to project failure.
- Moderate Risk: the factor, if uncorrected, could have a significant effect (10% to 15% or 20%) on the project cash flow and performance unless mitigated by some corrective action.
- **Minor Risk:** the factor, if uncorrected, will have little or no effect (<10%) on project cash flow and performance.

In addition to the risk, the likelihood of a risk must also be considered. Likelihood within a seven year time frame can be considered as:

Likely: will probably occur

• Possible: may occur

• Unlikely: unlikely to occur

The degree or consequence of a risk and its likelihood are combined into an overall risk assessment as presented in Table 6.1. Optiro's risk assessment and risk rating is presenting in Table 6.2.

Table 6.1 Risk assessment ranking

Likelihood	Consequence					
Likeiiiioou	Minor	Moderate	Major			
Likely	Medium	High	High			
Possible	Low	Medium	High			
Unlikely	Low	Low	Medium			

Table 6.2 Risk assessment and risk rating

Risk	Description	Control	Likelihood	Consequence	Ranking
Geological interpretation	Unexpected geological complexity (faulting, structures etc)	CNMC undertake an appropriate level of geological investigation prior to Mineral Resource/Ore Reserve estimation.	Unlikely	Moderate	Low
Mineral Resource/Ore Reserve	Actual Mineral Resource/Ore Reserve significantly different to estimate	Undertaken by experienced and competent staff using geological domaining and appropriate processes and procedures. Optiro considers the resource and reserve models provide a reasonable guide for long term planning. The process of monthly and year to date reconciliations should be improved.	Unlikely	Moderate	Low
Open pit mining	Pit design inappropriate	There is no indication that the planned LOM pits will be significantly different in terms of lithologies or structures to the current pits. If appropriately scheduled, the multiple pits should reduce the risk of interruptions to the ore supply.	Unlikely	Moderate	Low



Risk	Description	Control	Likelihood	Consequence	Ranking
Geotechnical	Pit wall failure	CNMC have a good history of open pit mining and understanding of the geotechnical parameters. The dip of the Rixen deposit (35° to 40°) aligns well with the conceptual overall pit slope. One wall of the pit has been designed to follow the footwall of the deposit.	Likely	Minor	Medium
Underground mining	CNMC are considering underground mining	CNMC have limited experience with underground mining and will require an appropriate level of study and planning to ensure the viability and safety of any future underground mining. Any underground mining will likely only have a minor effect on project cashflow.	Likely	Minor	Medium
Processing	Throughput and recovery from CIL plant	The CIL plant has a limited processing history. Gold recovery has been improving through 2018 as the plant has progressed through the commissioning process. Recovery is expected to be in line with expectations.	Unlikely	Moderate	Low
Infrastructure	Lack of appropriate infrastructure	The project is well serviced with infrastructure.	Unlikely	Minor	Low
Licencing and title	Loss of operating licence or title	Optiro has not undertaken legal due diligence or title searches on the status of the licences and permits, but CNMC advises that all relevant tenements and permits are in good standing. CNMC has a long history in the area and has developed good working relations with the various external stakeholders.	Unlikely	Moderate	Low
Environmental	Suspension of operations due to environmental non-compliance	Optiro considers that the environmental management and monitoring programmes appear well prepared and appropriate for the location, stage of development and scale of the project. Statutory environmental monitoring programmes are being undertaken and appropriate mitigation measures are in place to reduce potential environmental impacts.	Unlikely	Moderate	Low
Occupational health and safety	Suspension of operations due to OH&S non-compliance	There has been no known OH&S related issues to date and the Company maintains appropriate control to improve safety.	Unlikely	Minor	Low
Community	Loss of community support	CNMC appears to strongly engage with the surrounding communities and First Nation groups through which community issues and concerns are addressed.	Unlikely	Minor	Low
Production forecast	Failure to achieve mine production rates	The mine production rates are considered low risk. The mine has generally achieved target productivities and tonnages in recent years.	Unlikely	Moderate	Low
Capital costs	Increase in mine capital costs	Only minor capital expenditure is required for mining and processing.	Unlikely	Minor	Low
Operating costs	Increase in mine operating costs	The mine operating costs have been prepared based on the recent performances and these cost forecasts appear to be reasonable and within industry standards.	Unlikely	Minor	Low



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8. GLOSSARY

Term	Explanation
Abbreviations	AAS - Atomic Absorption Spectrometry, Ag – silver, AIG – Australian Institute of Geoscientists, Au – gold, AusIMM – Australasian Institute of Mining and Metallurgy, CEng – Chartered Engineer, CIL – carbon in leach, CP – Chartered Professional of the AusIMM, Cu – copper, DTM – digital terrain model, g/t – grams per tonnes, EL – Exploration Licence, HKEx – the Stock Exchange of Hong Kong, ICPAES – Inductively Coupled Plasma with Atomic Emission Spectroscopy (assay device), IMMM – Institute of Materials, Mining and Metallurgy, kg – kilogram, km - kilometre, km² - square kilometre, koz – one thousand ounces, kt – one thousand tonnes. Ktpa – kilo tonnes per annum, kW – kilowatt, one thousand watts, m - metre, m³ - cubic metres, Ma - million years, mm - millimetre, M - million, ML – Mining Licence, Mt - million tonnes, Mtpa - million tonnes per annum, NPV – net present value, oz - (troy ounce – 31.1 g), % - percentage, Pb – lead, RQD – rock quality designation, QA/QC – quality control and quality assurance, SGX – Singapore Stock Exchange, t - metric tonnes, tpa – tonnes per annum, tpd – tonnes per day, t/m³ – tonnes per metre cubed, US\$ – United States dollars, Zn – zinc
alteration	A change in mineralogical composition of a rock through reactions with hydrothermal fluids, temperature or pressure changes.
andesite	a dark, fine-grained, brown or greyish intermediate volcanic rock which is a common constituent of lava
argillite	A compact rock, derived from either mudstone or shale that has undergone a higher degree of induration but is less clearly laminated than slate.
Base metals	Non-ferrous (other than iron and alloys) metals excluding precious metals. These include copper, lead, nickel and zinc.
Bedrock	The solid rock lying beneath superficial material such as gravel or soil.
blanks	Samples whose grade is (practically) zero.
block model	A model comprised of rectangular blocks, each with attributes such as grades, rock types, codes that represents a given mineral deposit.
breccia	A detrital sedimentary rock composed of poorly sorted fragments which are all angular to sub-angular in shape, and have a particle size of greater than 2 mm.
bulk density	The mass of many particles of the material divided by the volume they occupy. The volume includes the space between particles as well as the space inside the pores of individual particles.
certified reference material	A certified standard of known true value used during analysis.
CIL	A gold extraction process using cyanidation where carbon is added to the leach tanks (or reaction vessel) so that leaching and adsorption take place in the same tanks.
conglomerate	A detrital sedimentary rock composed of rounded to sub-rounded shaped fragments, which have a particle size of greater than 2mm.
cut-off grade	The grade that differentiates between mineralised material that is economic to mine and material that is not.
diamond drilling	Drilling method which produces a cylindrical core of rock by drilling with a diamond tipped bit.
dykes	A tabular igneous intrusive rock that cuts across the bedding or foliation of the country rock.
eluvial	An incoherent ore deposit resulting from decomposition or disintegration of rock in place.
fault	A fracture in rock along which displacement has occurred.
felsic	Silicate minerals, magmas, and rocks which are enriched in the lighter elements such as silica, oxygen, aluminium, sodium, and potassium.
fire assay	A quantitative determination in which a metal or metals are separated from impurities by fusion processes and weighed in order to determine the amount present in the original sample.
gossanous (rocks)	Gossanous rocks are intensively oxidised and weathered and usually represent the upper and exposed part of an ore deposit or mineral vein. They are enriched in iron containing iron oxides such as goethite and limonite.
Indicated Mineral Resource	An 'Indicated Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes. The locations are too widely or
Inferred Mineral Resource	inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed. An 'Inferred Mineral Resource' is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate
	techniques from locations such as outcrops, trenches, pits, workings and drillholes which may be limited or of uncertain quality and reliability.
intermediate	A rock with roughly even mixtures of felsic minerals (mainly plagioclase) and mafic minerals (mainly hornblende, pyroxene, and/or biotite). There is little or no quartz.

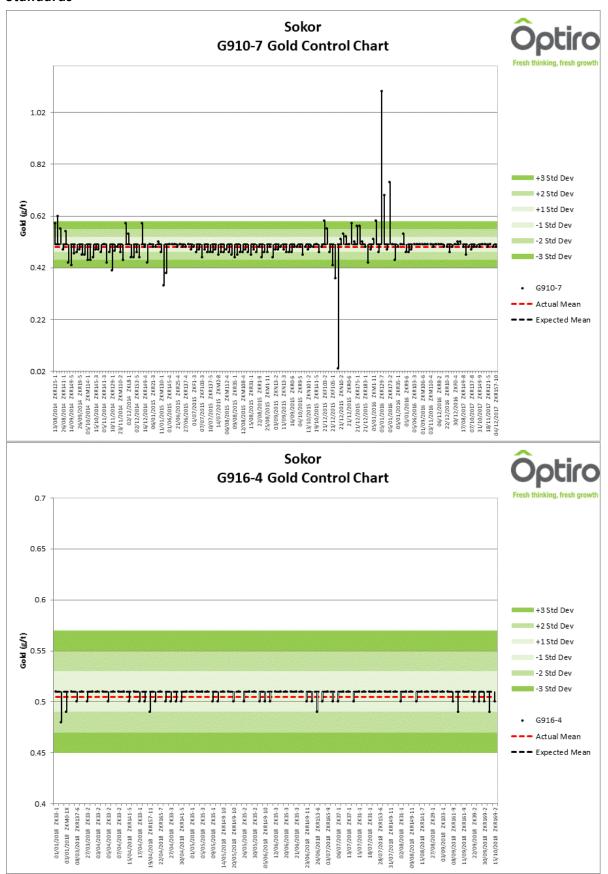


Term	Explanation
JORC Code	The JORC Code provides minimum standards for public reporting to ensure that investors and their advisers have all the information they would reasonably require for forming a reliable opinion on the results and
	estimates being reported. The current version is dated 2012.
kaolinite	A clay mineral, part of the group of industrial minerals, with the chemical composition Al2Si2O5(OH)4.
metallurgy	Study of the physical properties of metals as affected by composition, mechanical working and heat
	treatment.
metasedimentary Measured Mineral	A sediment or sedimentary rock that shows evidence of having being subjected to metamorphism.
Resource	A 'Measured Mineral Resource' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drillholes. The locations are spaced closely enough to confirm geological and grade continuity.
Mineral Resource	A 'Mineral Resource' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.
mineralisation	The process by which a mineral or minerals are introduced into a rock, which may result in a valuable deposit.
ordinary kriging	A geostatistical estimation method relying upon a model of spatial continuity as defined in a variogram.
ore	Mineralised material which is economically mineable at the time of extraction and processing.
Ore Reserve	An 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments and studies have been carried out and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.
overburden	Waste rock or soil overlying a mineral deposit.
oxidation	The addition of oxygen to the metal ion, generally as a result of weathering.
Permian	a geologic period which spans 47 million years from the end of the Carboniferous Period 298.9 Ma to the beginning of the Triassic period 251.9 Ma
phyllite	A type of foliated metamorphic rock primarily composed of quartz, sericite mica, and chlorite.
porphyry	A variety of igneous rock consisting of large grained crystals, such as feldspar or quartz, dispersed in a fine grained feldspathic matrix or groundmass.
pyroclastic	A rock formed when small particles of magma are blown from the vent of a volcano by escaping gas.
Quaternary	A geological period comprising the Pleistocene (2.588 Ma to 11.7 thousand years ago) and the Holocene (11.7 thousand years ago to today)
recovery	Metallurgical: The percentage of metal that can be recovered given the limitations of the processing equipment.
reverse circulation (RC)	Drilling method that uses compressed air and a hammer bit to produce rock chips.
schist	A group of medium-grade metamorphic rocks, chiefly notable for the preponderance of lamellar minerals such as micas, chlorite, talc, hornblende, graphite, and others.
sericite	Fine grained mica formed by the decay of feldspar.
slate	A hard platy rock, formed by the action of pressure on shales.
stockwork	A network of veins.
strike	Geological measurement – the direction of bearing of bedding or structure in the horizontal plane.
strip ratio	the ratio of the amount of overburden (or waste material) required to be removed in order to extract a given tonnage of ore
stripping	Open pit mining term relating to the removal of uneconomic waste material to expose ore. Metallurgical term relating to the removal of copper from the organic phase in the solvent extraction process.
Tertiary	A geologic period from 65 million to 2.58 million years ago
top cut	A process that reduces the effect of isolated (and possible unrepresentative) outlier assay values on the estimation.
Triassic	a geologic period which spans 50.6 million years from the end of the Permian Period 251.9 Ma to the beginning of the Jurassic Period 201.3 Ma
tuffs	A rock composed of pyroclastic material ejected from a volcano.
transitional	The partially oxidised zone between oxidized and fresh material.
volcanic rocks	Sequence of strata formed from an erupting volcano.

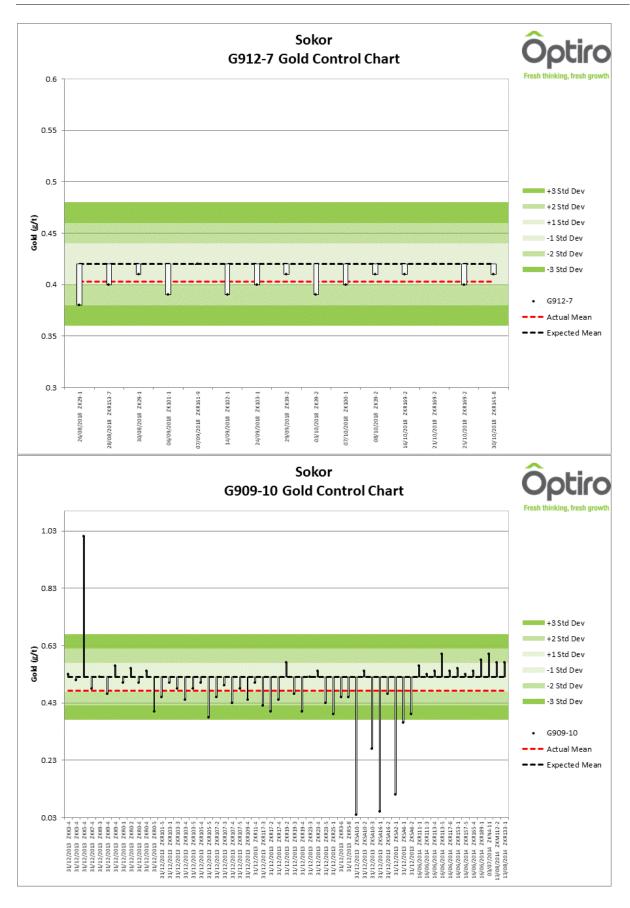


APPENDIX A - QAQC PLOTS

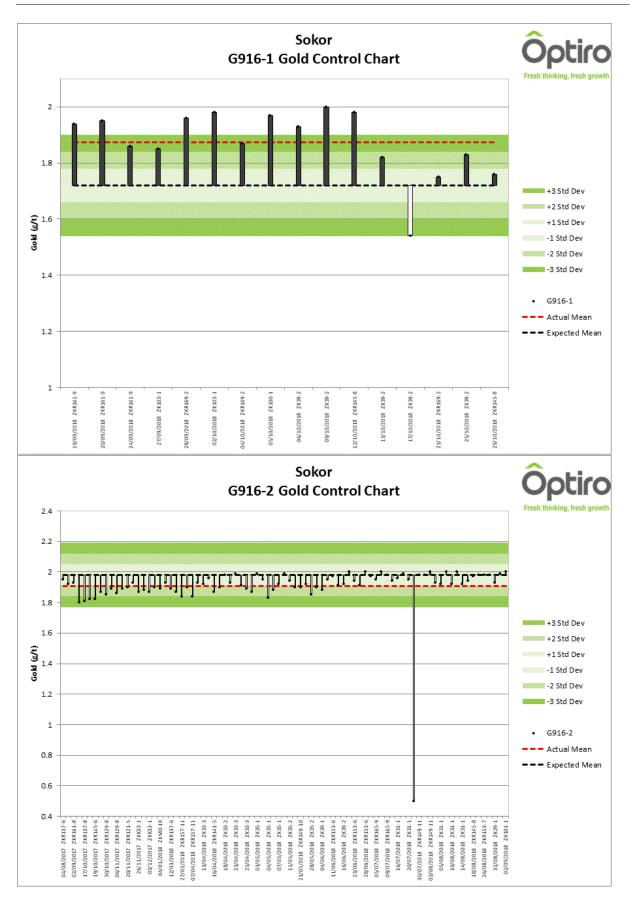
Standards



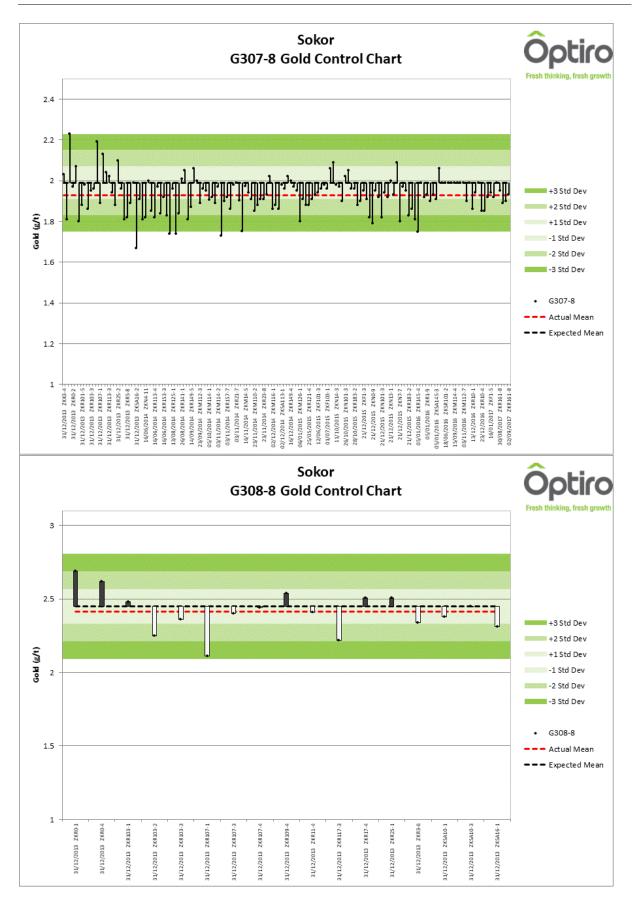




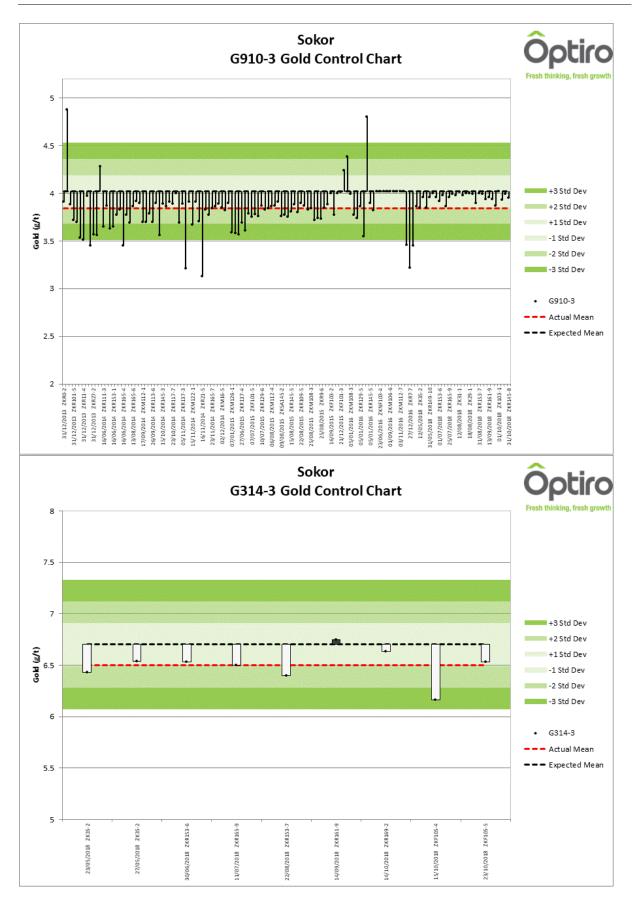




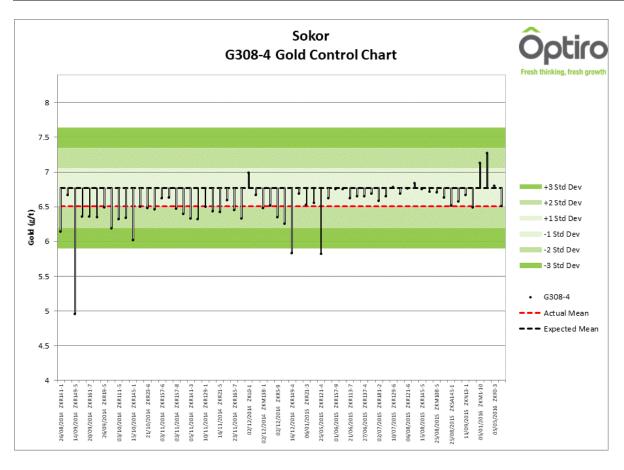




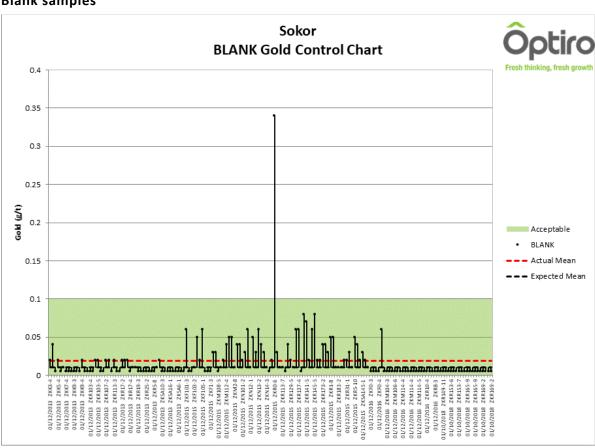




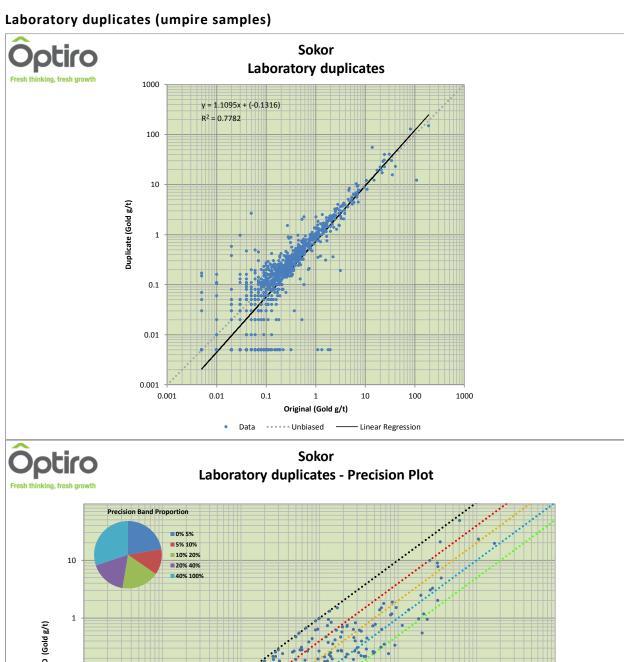




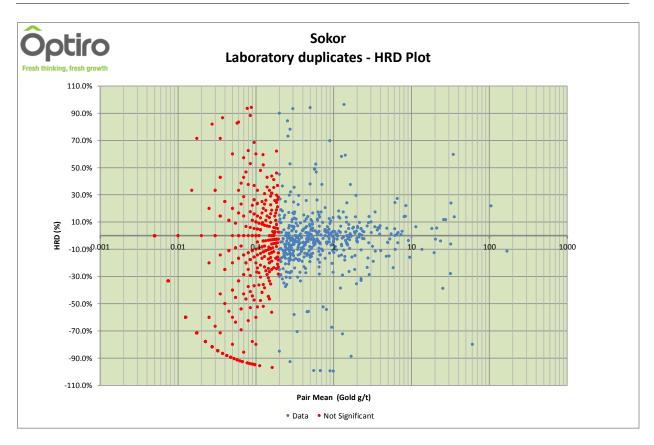
Blank samples







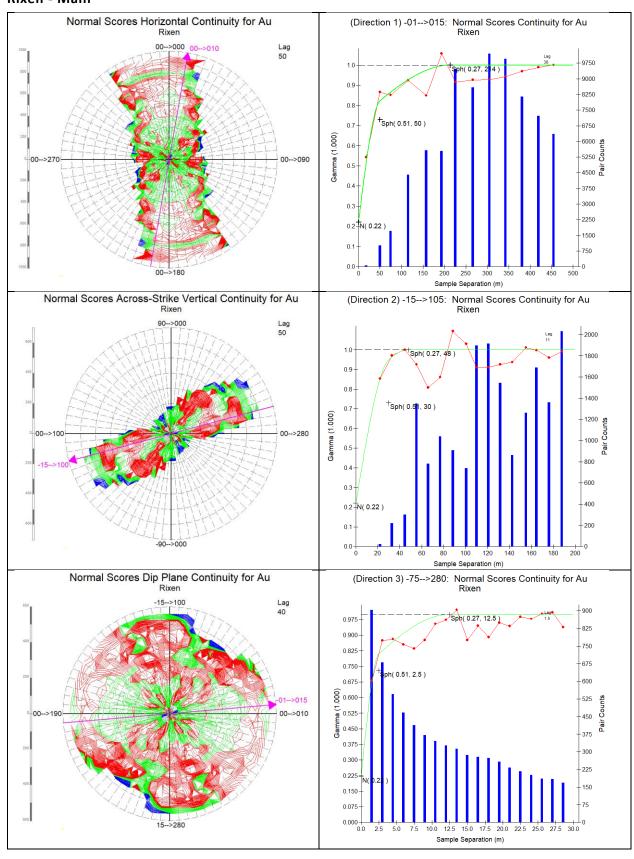






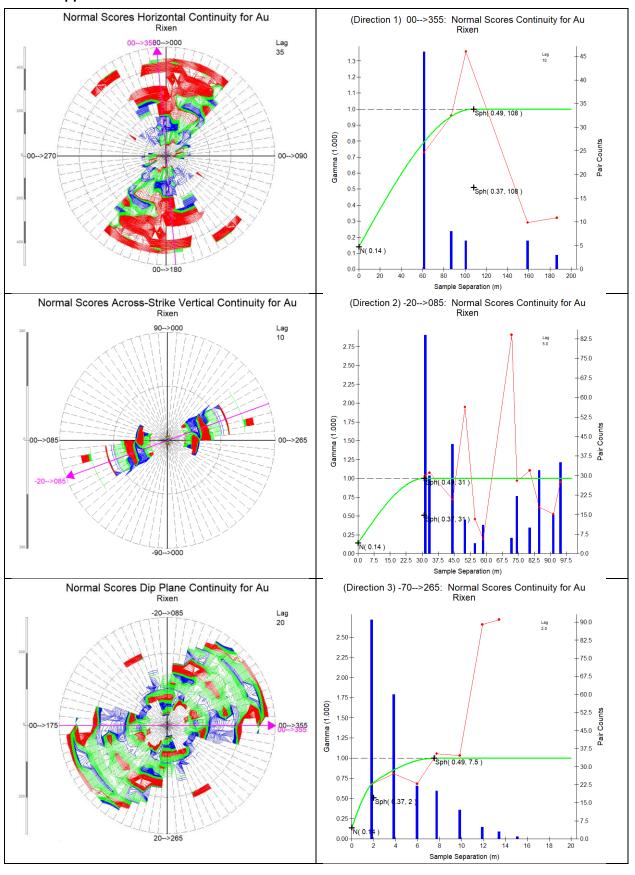
APPENDIX B - VARIOGRAM FANS AND DIRECTIONAL VARIOGRAMS

Rixen - Main



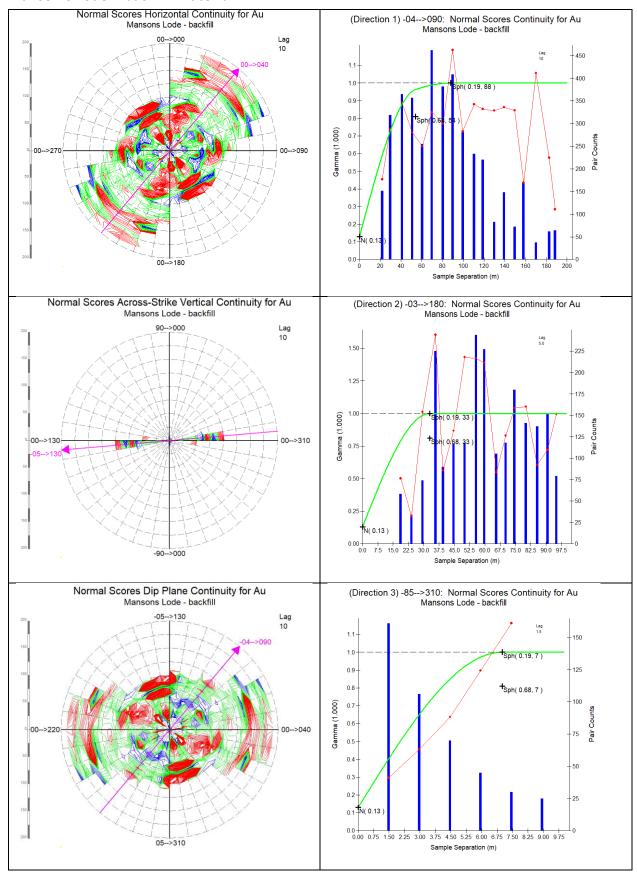


Rixen - Upper



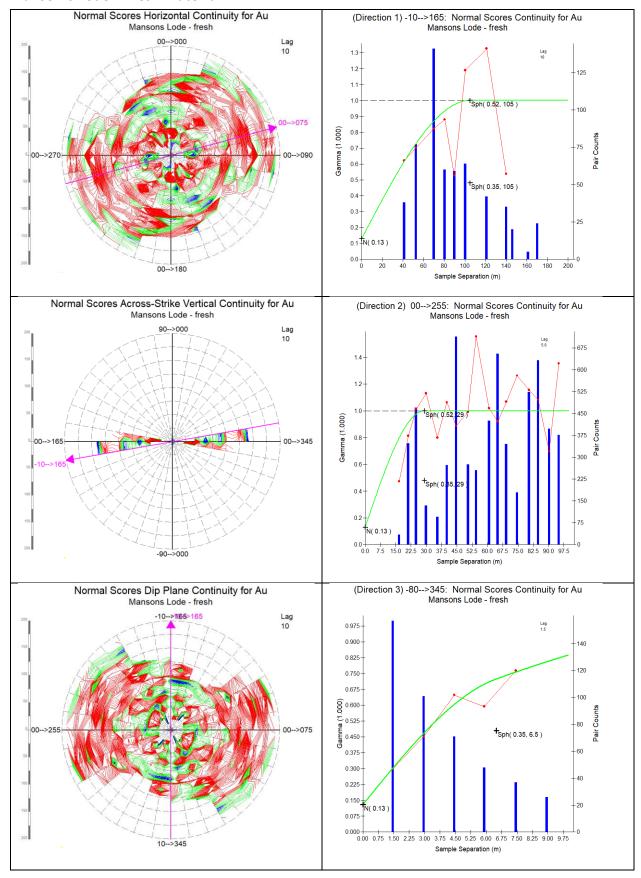


Manson's Lode – backfill material



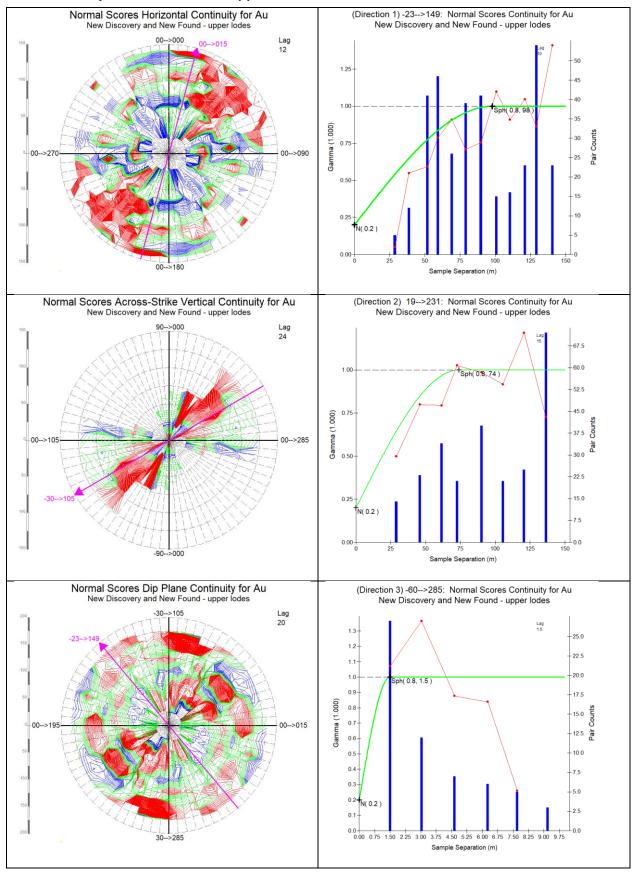


Manson's Lode - fresh material



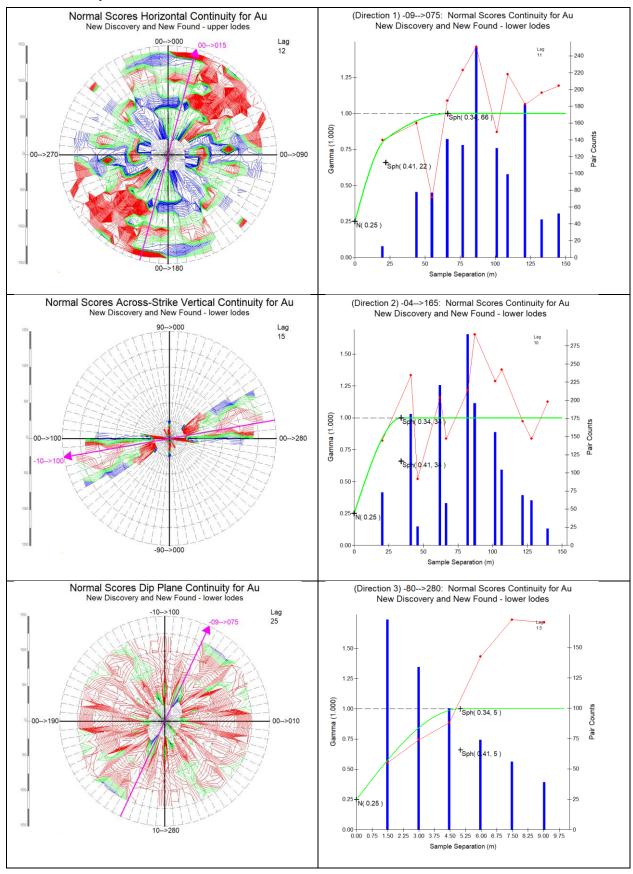


New Discovery and New Found – upper lodes





New Discovery and New Found – lower lodes





Ketubong

