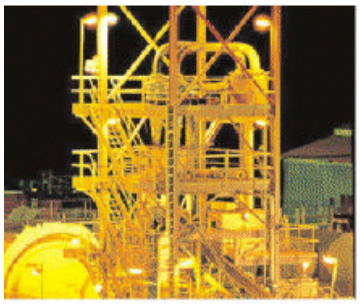

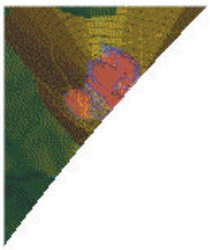

TANJIANSHAN GOLD PROJECT
Qinghai Province, China

Bankable Feasibility Study Report
April 2005

Prepared by RSG Global on behalf of:

Afcan Mining Corporation

GEOLOGY • EXPLORATION • RESOURCES • MINING ENGINEERING • METALLURGY

TANJIANSHAN GOLD PROJECT
QINGHAI PROVINCE, CHINA

Bankable Feasibility Study Report – April 2005

Prepared by RSG Global on behalf of:

Afcan Mining Corporation

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Illustrations, tables, figures and appendices can be accessed and downloaded from the following website :

www.afcan-mining.com/shareholder_news_02.html

1 SUMMARY

1.1 Introduction

RSG Global Pty Ltd (RSG Global) has been commissioned by Afcan Mining Corporation (Afcan) to compile a technical report on the Tanjianshan (TJS) Gold Project in the province of Qinghai, China. This report is to comply with disclosure and reporting requirements set forth in National Instrument 43-101, Companion Policy 43-101CP, and Form 43-101F1.

This report pertains to the two main deposits that comprise the TJS Project, namely the Jinlonggou and Qinlongtan deposits.

1.2 Location

The TJS Gold Project is located in the Dachaidan Region, Haixi Prefecture, Qinghai Province in the northwest of the Peoples Republic of China (China). The Project comprises four large contiguous exploration licences which total 338 square kilometres in area and which encompass two mining licences over two defined gold deposits, Jinlonggou and Qinlongtan, as well as numerous other prospects and anomalies

1.3 Ownership

The TJS Project is owned by Qinghai Dachaidan Mining Limited (QDML). QDML is owned 85% by TJS Limited, a Barbados based company wholly-owned by Afcan (Barbados) Limited which is in turn wholly-owned by the Canadian company, Afcan Mining Corporation (Afcan) (TSX: AFK) and 15% owned equally by The First Brigade for Geology and Mineral Exploration of Qinghai Province (Q1) and the Dachaidan Gold Mine. Afcan's holding in the company, through TJS Limited, was previously owned by Sino Mining Limited (Sino), which subsequently divested TJS to Afcan in January 2003.

1.4 Project Status

The Project has entered the financing stage. Afcan anticipates that it will take approximately 12 weeks to secure the required amount of project financing, which is expected to be a combination of debt and equity. The company has already purchased some plant equipment and is planning to secure other long lead items like crushing and milling equipment in parallel to the financing exercise. The company is also expecting to proceed with the design phase in April 2005

1.5 Mineral Resources

This report relies on the resource estimates provided in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004. This report was submitted to SEDAR on December 21st, 2004 and is Report No. 712538.

A summary of the estimated recoverable resources at a 1.0g/t cutoff, for the TJS Gold Project deposits, is provided in Table 1.5_1 below.

Table 1.5_1 TJS Gold Project Deposits Resource Summary Grade Tonnage Tabulation – Combined Multiple Indicator Kriging and Inverse Distance Squared Estimates											
Measured			**Indicated**			**Measured + Indicated**			**Inferred**		
Ktonne	**Au g/t**	**koz**	**ktonne**	**Au g/t**	**koz**	**ktonne**	**Au g/t**	**koz**	**ktonne**	**Au g/t**	**koz**
Jinlongou Deposit											
1,662	3.99	213	4,353	3.5	490	6,015	3.64	703	2,770	3.0	267
Qinlongtan Deposit											
			1,164	8.62	323	1,164	8.63	323	220	4.3	30
Combined											
1,662	**3.99**	**213**	**5,517**	**4.6**	**813**	**7,179**	**4.4**	**1,026**	**2,990**	**3.1**	**297**

The estimation and classification of the resources are in accordance with the criteria set out in the Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects of February 2001 (the Instrument) and the classifications adopted by CIM Council in August 2000.

The reported resources are also consistent with the Australasian Code for "the Reporting of Identified Mineral Resources and Ore Reserves" of December 2004 as prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia (the JORC Code).

1.6 Mineral Reserves

The mineral reserves outlined in Table 1.6_1 were determined for the TJS Project.

Table 1.6_1 TJS Gold Project Ore Reserve Summary									
Deposit	**Mineral Reserves**								
	Proven			**Probable**			**Total**		
	Tonnes	**Grade**	**Insitu Au**	**Tonnes**	**Grade**	**Insitu Au**	**Tonnes**	**Grade**	**Insitu Au**
	[Mt]	[g/t]	[koz]	[Mt]	[g/t]	[koz]	[Mt]	[g/t]	[koz]
Jinlonggou	1.5	4.3	209	3.5	4.0	446	5.0	4.1	654
Qinlongtan	0	0	0	1.0	9.1	290	1.0	9.1	290
Total	**1.5**	**4.3**	**209**	**4.5**	**5.1**	**736**	**6.0**	**4.9**	**944**

This reserve estimate has been determined and reported in accordance with the Instrument and the classifications adopted by CIM Council in August 2000. Furthermore, the reserve classifications are also consistent with the JORC Code.

1.7 Development and Operations

Afcan is now in the Project financing stage of development. It has already purchased some plant equipment and is planning to secure other long lead items like crushing and milling equipment in parallel to the financing exercise. The expectation is to proceed with the design phase in April 2005.

The project will produce, on average, 103,000 ounces of gold per annum over an 8 year mine life. The plant is expected to treat 0.8Mtpa of ore.

All ore and waste will be mined via conventional, open pit mining methods, using mining contractors. The operation is planned to utilise selective mining techniques to separate ore and waste. The mining equipment that is considered to be suitable for the TJS Project would include 20 tonne to 75 tonne back hoe excavators for ore zone mining and off-highway haul trucks with a payload capacity of between 10to 50tonne.

Provision has been made for drilling and blasting from surface.

The treatment plant flowsheet is based on material being fed into a ROM bin and through a single stage crushing circuit to a mill feed stockpile. This stockpile is then fed through a single stage SAG mill and a classification circuit. Qinlongtan material will then be fed through a conventional CIL circuit before the tailing is floated and the sulphide material removed for subsequent treatment.

Jinlonggou material will be treated based on the sulphide content. If the sulphur level is low, then the material will also be treated through a conventional CIL circuit. If the sulphur level is sufficiently high the material will be fed through a flotation circuit and then dewatered. The Qinlongtan and Jinlonggou flotation concentrate will then be blended for an optimal sulphur equivalent amount before being fed to the two stage roasting circuit.

The solid product from the roaster will then pass through a mill to remove any roasting agglomerates and will then be leached in a Carousel CIL circuit. The roaster off-gas will pass through an electrostatic precipitator and a series of scrubbers to remove the arsenic and any remaining SO_2 gas.

There is provision to place the Jinlonggou flotation tails through the CIL circuit also if the remaining grade is sufficiently high.

The carbon will then be removed from both absorption circuits for gold removal by Zadra methods. Gold bullion will be produced for sale.

Test work indicates that expected gold recoveries for the TJS deposits, based on the selected treatment route, will range from 82% to 93%.

QDML will employ approximately 230 people throughout the operating phase of the project. Initially selected posts requiring specific skills or experience will be filled by expatriates. In addition to performing their job function, expatriate personnel will be expected to transfer knowledge and expertise in order to develop the capabilities of the national staff. In the longer term, it is anticipated that nationals of China will fill most operating and management positions within the company. In addition, the mining contractor will employ approximately 150 people for a total for the Project of 380 people.

The primary source of raw water will be the Aolao River. The raw water will be pumped to a raw water tank located close to the plant and used to supply water to the plant as well as supplying the process water tank.

Electrical power requirements for the TJS Gold Project are around 8,000 kW. The power line from Xitieshan will provide sufficient electrical power to cover this need and will also cover any increase in power demand in case of expansion.

Potable water will be supplied to the plant and camp sites from the raw water system.

1.8 Project Implementation

Project implementation is expected to commence in April 2005, with civil works complete before December 2005, ready for plant construction.

The development capital cost of the project has been estimated at US$50.2 million and is based on an EPCM (engineering, procurement, construction and management) implementation strategy. The estimate includes owner's costs, working capital, and a contingency of approximately US$12.23.

Operating costs are anticipated to be $ US31.28/t milled as shown in Table 1.8_1.

Table 1.8_1
TJS Gold Project
Life of Mine Operating Costs

Item	Value [M$]	Unit Cost [$/t milled]
Mining Costs	82.5	13.76
Treatment Costs	82.4	13.75
On Site General and Administration Costs	22.6	4.17
Total	**187.5**	**31.68**

This equates to a direct operating cost of $US226/oz of gold. The total cash cost, including the 4.5% royalty payable to the Chinese partners, are estimated at $US250 per ounce over life of mine.

1.9 Financial Summary

Afcan has prepared a financial model to evaluate the economics of the Project. The model is presented as an equity model assuming 100% equity financing. No allowance has been made in the model for the effects and levels of debt financing available or required. Accordingly, no hedging of the gold price is assumed. The results of the model are presented in Table 1.9_1 on the basis of the assumptions applied as follows:

- Gold price of $ US420.00 per troy ounce.
- Average pre-tax JV royalty at 4.5%.

Afcan has completed the financial analysis based on the current taxation regime of 15% for the first six years and then 30% from then on. All sunk exploration and capital costs are depreciated over the first 6 ½ years.

QDML intends to apply to the relevant tax authorities to obtain certification that the TJS Gold Project is included in the "encouraged" category as defined by the Catalogue for Guiding Foreign Investment in Industries. Certification would confirm that QDML is entitled to benefit from a 15% tax rate during the first six years in lieu of the general corporate tax rate of 30%. While QDML may not technically qualify for such certification, the TJS Gold Project has obtained certification as an "encouraged" project for purposes of customs treatment and has reasons to believe that certification from the tax authorities also could be granted upon application. The Company further believes that, if granted, it is highly unlikely that the certification would be revoked.

The principal results of the financial evaluation are as follows:

- Internal Rate of Return 32.0%
- Net Present Value at 10% US$ 42.6 million
- Capital Investment US$ 50.2 million
- Net Cash flow US$ 145.1 million
- Royalty Payments US$ 15.9 million

Sensitivity studies have been undertaken on the financial model for the following scenarios:

- Gold Price ± 10%
- Operating Costs ± 10%
- Initial Capital Costs ± 10%.
- Grade/Recovery ± 10%.

The effect of these scenarios on the Internal Rate of Return (IRR) and Net Present Value (NPV) are presented in Figure 1.9_1 and Figure 1.9_2 respectively.

1.10 Conclusions

The results of the economic analysis indicate that exploitation of the TJS Gold Project is economically viable and should proceed. Due to the favourable outcome of this Feasibility Study, QDML has taken a strategic decision to commence production from the TJS deposits as quickly as possible, targeting April 2005 for the start of the plant design.

Based on a gold price of US$420 per ounce, the project returns a net cash flow of US145.1 million and a base case net present value (NPV) of US$42.6 million, using a 10% real discount rate.

1.11 Recommendations

Work should continue to establish a gold mining operation at the TJS Gold Project.

Opportunities exist in most areas of the project to be more rigorously investigated during the detailed engineering phase and to firm up certain assumptions, thereby mitigating and or removing some of the risks that have been identified during the feasibility study.

Table 1.9.1
Summary Base Case Cashflow Model

Item			Construction	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Total
Open Pit Mining Schedule:												
Ore Mined			136,560	684,401	863,634	788,340	787,897	826,490	788,803	806,709	313,310	5,996,144
Overburden & Waste			6,210,101	26,020,099	10,678,208	4,135,425	4,031,288	4,024,415	2,008,813	1,991,858	1,139,713	60,239,920
Total Material Mined			6,346,661	26,704,500	11,541,842	4,923,764	4,819,185	4,850,905	2,797,616	2,798,567	1,453,023	66,236,063
Strip Ratio			45.5	38.0	12.4	5.2	5.1	4.9	2.5	2.5	3.6	10.0
Ore Procesing Schedule:												
Ore Milled			0	750,000	798,769	800,000	800,000	800,000	800,000	800,000	447,375	5,996,144
Contained Grade in gm			0	6.98	7.52	4.38	4.35	3.56	3.91	4.11	4.22	4.90
Recovered ozs			0	152,242	175,786	99,605	97,860	80,308	88,864	93,611	53,266	841,541
Stockpile Movement:												
To (From) Stockpile			136,560	-65,599	64,865	-11,660	-12,103	26,490	-11,197	6,709	-134,065	
Contained Grade in gm			9.57	1.42	3.44	3.76	3.69	2.76	3.40	2.97	0.00	
Stockpile Balance at end of period			136,560	70,961	135,826	124,166	112,063	138,553	127,356	134,065	-0	
Gold Production Schedule (Ounces)												
Recovered gold - oz				138,630	155,351	97,762	111,631	85,946	90,511	89,387	72,323	841,541
Cumul, recovered gold - oz				138,630	293,981	391,742	503,373	589,319	679,830	769,217	841,541	
Gold Ounces Paid		99.95%		138,561	155,273	97,713	111,575	85,903	90,466	89,343	72,287	841,120
Revenue:												
Ounces Sold Forward				0	0	0	0	0	0	0	0	0
Ounces Sold Spot		$420		138,561	155,273	97,713	111,575	85,903	90,466	89,343	72,287	841,120
- Revenues				58,195,446	65,214,663	41,039,308	46,861,450	36,079,219	37,995,625	37,523,973	30,360,674	353,270,358
- Refining and Freight				415,602	465,730	293,082	334,661	257,660	271,346	267,977	216,821	2,522,878
- Royalty				2,620,105	2,936,128	1,847,693	2,109,820	1,624,377	1,710,658	1,689,423	1,366,914	15,905,119
Net Revenue:				**55,159,738**	**61,812,805**	**38,898,534**	**44,416,969**	**34,197,182**	**36,013,621**	**35,566,572**	**28,776,940**	**334,842,361**
Production Costs:												
- Mining Cost		**$ 13.76**		34,780,945	16,219,131	6,863,924	6,736,280	6,779,995	4,270,083	4,273,572	2,567,865	82,491,794
- Process Cost		**$ 13.75**		9,663,699	9,454,147	11,431,381	11,113,196	11,035,784	11,420,861	11,441,901	6,872,205	82,433,174
- G&A On Site		**$ 4.17**		2,990,497	3,502,610	3,287,475	3,286,212	3,396,480	3,288,799	3,339,961	1,930,197	25,022,230
Total Operating Costs				**47,435,140**	**29,175,888**	**21,582,780**	**21,135,687**	**21,212,259**	**18,979,743**	**19,055,433**	**11,370,267**	**189,947,198**
Unit Operating Costs	Operating Costs per recovered oz			342	188	221	189	247	210	213	157	226
	Royalties payable per recovered oz			19	19	19	19	19	19	19	19	19
	Cash cost per recovered oz			361	207	240	208	266	229	232	176	245
	Cash cost (including royatlies) per tonne processed			66.74	40.20	29.29	29.06	28.55	25.86	25.93	28.47	34.33
Operating Profit				**7,724,598**	**32,636,917**	**17,315,754**	**23,281,281**	**12,984,923**	**17,033,878**	**16,511,139**	**17,406,673**	**144,895,163**
Capital Investment:												
Initial Capital			-48,285,743									-48,285,743
Sustaining Capital				-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000		-1,400,000
Working Capital	# of days	14	-1,870,048									-1,870,048
Salvage	% Plant	10%									2,862,816	2,862,816
Total Capital Cost			**-50,155,791**	**-200,000**	**-200,000**	**-200,000**	**-200,000**	**-200,000**	**-200,000**	**-200,000**	**2,862,816**	**-48,692,975**
Net Cash Before Income and Debt Service			**-50,155,791**	**7,524,598**	**32,436,917**	**17,115,754**	**23,081,281**	**12,784,923**	**16,833,878**	**16,311,139**	**20,269,490**	
Cumulative Cash Flow Before taxes and interest			**-50,155,791**	**-42,631,193**	**-10,194,276**	**6,921,477**	**30,002,759**	**42,787,682**	**59,621,560**	**75,932,698**	**96,202,188**	

2 INTRODUCTION AND TERMS OF REFERENCE

2.1 Scope of the Report

RSG Global Pty Ltd (RSG Global) has been commissioned by Afcan to prepare a technical report on the TJS Gold Project in the province of Qinghai, China. This report is to comply with disclosure and reporting requirements set forth in the Instrument.

The report complies with the Instrument and the resource and reserve classifications adopted by CIM Council in August 2000. The report is also consistent with the JORC Code.

Furthermore, this report has been prepared in accordance with the 'Code and Guidelines for the Assessment and Valuation of Mineral Assets and Mineral Securities for Independent Expert Reports of 1998 (the Valmin Code) as adopted by the Australasian Institute of Mining and Metallurgy (AusIMM). The satisfaction of requirements under both the JORC and Valmin Codes is binding on the author as a Member of the AusIMM.

All monetary amounts expressed in this report are in United States of America dollars (US$) unless otherwise stated.

It should be noted that this report has been prepared subsequent to an Instrument compliant report titled "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate", prepared by DevMin Pty Ltd (DevMin), dated 16 December 2004. The Devmin report was lodged on SEDAR on 16 December 2004. Aspects of the project associated with exploration data collection, sampling, data quality and resource estimation are described in full in the Devmin report and are not repeated here. No additional drilling has been completed at the TJS Gold Project since lodgement of the DevMin report.

2.2 Principal Sources of Information

In addition to site visits undertaken to the TJS Gold Project, the authors have relied extensively on information compiled as a result of the Bankable Feasibility Study (BFS) on the TJS Gold Project which was completed in April 2005. A full listing of the principal sources of information is included in Section 22 of this report.

The BFS has been developed by a number of key parties with specialist competencies as follows:

- Afcan has provided the overall study management and strategy.
- DevMin of Australia for geologic modelling and resource estimation.
- RSG Global of Australia for reserve estimates, mine design, scheduling and costing and the production of the final comprehensive document.
- SGS Laboratory Services Ghana Limited has completed the project Environmental Impact Assessment.
- Beijing General Research Institute for Mining and Metallurgy (BGRIMM) for plant and infrastructure design costing. These costs have subsequently been audited by GBM Mec of England.

- John MacIntyre and Associates has prepared the design criteria and provided the operating costs for the treatment plant.
- AMMTEC has performed all of the metallurgical testwork on the TJS Gold Project samples under the supervision of MacIntyre and Associates.
- Orway Mineral Consultants (OMC) has given mill sizing and selection data based on testwork done by AMMTEC.
- SRK Inc (SRK) has completed the site geotechnical investigation. This included the mine geotechnical assessment and a recommendation of the pit slope angles for mine design. SRK also completed an assessment of the plant site and the tailings dam area.
- Baker & Mackenzie LLP, Beijing reviewed all licenses and permits and Chinese tax and corporate laws.

Remaining portions of the BFS were prepared by Afcan.

2.3 Qualifications and Experience

RSG Global is an integrated Australian-based consulting firm, which has been providing services and advice to the international mineral industry and financial institutions since 1987.

The primary author of this report is Mr John Hearne, who is a professional mining engineer with 21 years experience in the exploration and evaluation of mineral properties. Mr Hearne is Principal Engineer of RSG Global, a Member of the AusIMM, and has the appropriate relevant qualifications, experience and independence to be considered a Qualified Person as defined in the Instrument. Mr Hearne visited the TJS Gold Project in 2003.

The other primary author of this report is Mr John MacIntyre, who is a process engineer with 30 years experience as an extractive metallurgist. Mr MacIntyre is a director of John MacIntyre and Associates, and has the appropriate relevant qualifications, experience and independence to be considered a Qualified Person as defined in the Instrument. Mr MacIntyre has visited the TJS Gold Project once in 2004.

The resource estimates referred to in this report were prepared by Mr Philip Nicholas Fillis, who is a professional geologist with 30 years experience in mining geology and the geostatistical estimation of mineral resources. He is a Partner in DevMin, is a Member of the AusIMM and has the appropriate relevant qualifications, experience and independence to be considered an Expert as defined in the JORC Code and a Qualified Person as defined in the Instrument. Mr Fillis has visited the TJS Gold Project numerous times over the last two years.

The open pit optimisation studies used to derive the reserve estimates stated in this report were prepared by Mr Harry Warries, who is a professional mining engineer with 14 years experience in mine optimisation, design, scheduling, cost estimation and cash flow analysis. He is a Senior Consultant with RSG Global and a Member of the AusIMM. Mr Warries has the appropriate relevant qualifications, experience and independence to be considered an Expert as defined in the JORC Code and a Qualified Person as defined in the Instrument. Mr Warries has not visited the TJS Gold Project.

2.4 Independence

Neither RSG Global, John MacIntyre nor the other authors of this report, have or have had previously any material interest in Afcan or related entities or interests. Our relationship with Afcan is solely one of professional association between client and independent consultant. This report is prepared in return for fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this report.

2.5 Abbreviations

A full listing of abbreviations used in this report is provided in Table 2.5_1 below.

Table 2.5_1
List of Abbreviations

	Description
$	United States of America dollars
"	Inches
µ	Microns
3D	three dimensional
AAS	atomic absorption spectrometry
AMC	Australian Mining Consultants
Au	Gold
bcm	bank cubic metres
CC	correlation coefficient
cfm	cubic feet per minute
CIC	carbon in column
CIL	carbon-in-leach
cm	Centimetre
cusum	cumulative sum of the deviations
CV	coefficient of variation
DTM	digital terrain model
E (X)	Easting
EDM	electronic distance measuring
EV	expected value
g	Gram
g/m^3	grams per cubic metre
g/t	grams per tonne of gold
HARD	Half the absolute relative difference
HDPE	high density poly ethylene
HQ_2	Size of diamond drill rod/bit/core
hr	Hours
HRD	Half relative difference
ICP-MS	inductivity coupled plasma mass spectroscopy
ID	Inverse Distance weighting
ID^2	Inverse Distance Squared
IPS	integrated pressure stripping
IRR	internal rate of return
ISO	International Standards Organisation
ITS	Inchcape Testing Services
kg	Kilogram
kg/t	kilogram per tonne
km	Kilometres
km^2	square kilometres
KP	Knight Piésold Pty Ltd
kW	Kilowatts

	Description
kWhr/t	kilowatt hours per tonne
$l/hr/m^2$	litres per hour per square metre
LM2	Labtechnics 2kg (nominal) pulverising mill
M	million
M	metres
Ma	thousand years
MIK	Multiple Indicator Kriging
Ml	millilitre
Mm	millimetres
MMI	mobile metal ion
Moz	million ounces
Mtpa	million tonnes per annum
N (Y)	northing
NaCN	sodium cyanide
NATA	National Association of Testing Authorities
NPV	net present value
NQ_2	size of diamond drill rod/bit/core
ºC	degrees centigrade
OK	Ordinary Kriging
oz	troy ounce
P80 -75µ	80% passing 75 microns
PAL	pulverise and leach
ppb	parts per billion
ppm	parts per million
psi	pounds per square inch
PVC	poly vinyl chloride
QC	quality control
Q-Q	quantile-quantile
RAB	rotary air blast
RC	reverse circulation
RL (Z)	reduced level
ROM	run of mine
RQD	rock quality designation
RSG	RSG Global
SD	standard deviation
SG	Specific gravity
SGS	Société Générale de Surveillance
SMU	simulated mining unit
t	tonnes
t/m^3	tonnes per cubic metre
tpa	tonnes per annum
w:o	waste to ore ratio

3 DISCLAIMER

This report is based on information contained in the TJS Gold Project BFS and the consultants' reports supporting this study. RSG Global has compiled information contained in this report from these sources.

This report relies on the resource estimates provided in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004. This report was lodged to SEDAR on 21 December 2004 and is File Number 712538.

RSG Global nor the authors of this report are qualified to provide extensive comment on legal issues associated with the TJS Gold Project and included in Sections 1 and 4 of this report. The assessment of data pertaining to these sections relies heavily on information provided by Afcan, which has not been independently verified by RSG Global.

No warranty or guarantee, be it express or implied, is made by RSG Global with respect to the completeness or accuracy of aspects relating to legal issues in this document. RSG Global do not undertake or accept any responsibility or liability in any way whatsoever to any person or entity in respect of these parts of this document, or any errors in or omissions from it, whether arising from negligence or any other basis in law whatsoever.

Similarly, RSG Global nor the authors of this report are qualified to provide extensive comment on environmental issues associated with the TJS Gold Project and included in Section 18.9 of this report. The assessment of data pertaining to this section relies heavily on information provided by SGS Environmental Services, Ghana, which has not been independently verified by RSG Global.

The assessment of metallurgical and mineral processing aspects of the TJS Gold Project, included in Section 16, is based entirely on information and reports provided as part of the Bankable Feasibility Study (BFS) and compiled by John MacIntyre. Mr MacIntyre has provided separate Certificates to take responsibility for this section of the report.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Background Information

The TJS Gold Project located in Qinghai Province, northwest China (Figure 4.1_1), is owned by Qinghai Dachaidan Mining Limited (QDML). QDML is owned 85% by TJS Limited, a Barbados based company wholly-owned by Afcan (Barbados) Limited which is in turn a wholly-owned subsidiary of the Canadian company, Afcan Mining Corporation (Afcan) (TSX: AFK) and 15% owned equally by The First Brigade for Geology and Mineral Exploration of Qinghai Province (Q1) and the Dachaidan Gold Mine.

TJS Limited constitutes the foreign party of a cooperative joint venture company (QDML) established with the two other Chinese organisations. Afcan's holding in the company, through TJS Limited, was previously owned by Sino Mining Limited (Sino), which subsequently divested TJS Limited to Afcan in January 2003.

The TJS Gold Project comprises four large contiguous exploration licences which total 338 square kilometres in area and which encompass two mining licences over two defined gold deposits, Jinlonggou and Qinlongtan, as well as numerous other prospects and anomalies.

4.2 Project Location

The TJS Gold project is located at 38° 15'N, 94° 32'E, 75 km northwest of Dachaidan in Haixi Prefecture, northwest Qinghai Province, China. The main deposit, Jinlonggou, is approximately 20 kilometres on a track from the sealed Ge'ermu to Dunhuang highway while the Qinlongtan deposit is 16 kilometres to the northwest of Jinlonggou also along an ungraded track. The nearest centres are Dunhuang (265 km by road to the north) and Ge'ermu (260km by road to the south). There are frequent flights between Beijing and the state capital, Xining, which is located 670 km ESE. Travel from Xining is by train to the lead zinc mine at Xitieshan, thence a two hour drive along the paved Ge'ermu to Dunhuang highway. There are frequent flights during the summer months (tourist season) between Beijing and Dunhuang.

4.3 Tenements

The TJS Gold Project area comprises two mining licences and four contiguous exploration licences as shown in Table 4.3_1.

Table 4.3_1
TJS Gold Project
Mineral Tenements

Tenement	Type	Area (Km^2)	Date Granted	Date expiry
Jinlonggou	Mining	1.0296	2 Sep 2004	2 Jul 2007
Qinlongtan	Mining	2.875	24 Jan 2005	9 Dec 2007
Qinlongshan	Exploration	73.50	12 Feb 2004	12 Feb 2006
Qingshan	Exploration	72.07	6 Sep 2002	6 Sep 2005
Jinlonggou	Exploration	87.98	12 Feb 2004	12 Feb 2006
Xijingou	Exploration	100.86	6 Sep 2002	6 Sep 2005
Total		**338.31**		

The date of granting of the Exploration Licences listed in the table above also marks the anniversary date by which annual reports and expenditure commitments must be reported.

These are not surveyed tenements. Exploration Licences are defined by latitude and longitude and marked on a plan, not on the ground. Definition of Mining Licenses may be based on either No.3° or No. 6° Qinghai Provincial Grid and is again recorded on a plan. Sometimes the tenements are marked by pegs on site, but the co-ordinate definition takes precedence.

RSG Global has not independently verified, nor is it qualified to independently verify, the legal status of the mineral properties in China in which Afcan is understood to have an interest. In preparing this report RSG Global has assumed that the properties are lawfully accessible for evaluation and mineral production

4.4 Licenses

4.4.1 Exploration

Owners of an Exploration License have the right to explore for all minerals, save those preserved for the State, and to construct such facilities as are required by the owner in the search for such minerals. The owner also has a priority claim over applications for Mining Licences within the Exploration Licence. Owners are obligated to commence and complete exploration within the timeframe of the license and to submit progress reports on a regular basis. Excavations and other surface disturbances are required to be rehabilitated on completion of the planned exploration. Annual maintenance costs are RMB100 per km^2 for Years 1 to 3, thereafter increasing by RMB100 per year to a maximum of RMB500 per km^2 per year.

Proscribed exploration expenditure per km^2 is RMB2, 000 in Year 1, RMB5, 000 in Year 2 and RMB10,000 in subsequent years. Currently the Exploration Licenses expire in 2005 and 2006. These are granted initially for 3 years, and may be extended for a further 3 years. There is no limit to the number of extensions that may be applied for.

4.4.2 Mining

The Mining License (ML) is granted for an initial period of 3 years, thereafter renewal is reviewed on an annual basis. Renewal is guaranteed provided there is compliance with mining regulations and payments pertaining to all taxes and royalties have been met. Owners of a ML have the right to construct, develop and mine the delineated mineral resource.

Currently the Jinlonggou ML is owned by QDML and extends from surface (3556mRL) to 3378mRL. An application is in place to extend the license from surface down to 3000mRL.

The Qinlongtan ML was previously held by Q1. The Qinlongtan ML has been transferred from Q1 to QDML. The mining license covers the ML vertically from surface to 3450 mRL.

4.5 Royalties

A royalty of 4.5% is payable to Q1 and the Dachaidan Gold Mine as part of the Joint Venture Agreement. This will be evenly split between the two groups.

This percentage is independent of the final percentage ownership ratio.

4.6 Environmental Liabilities

RSG Global is not aware, nor have we been made aware, of any significant environmental liability associated with the TJS Gold Project.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Terrain and Vegetation,

The TJS Gold Project is located in the Saishiteng Mountains which rise to over 4,000 m to the north of the Chaidamu Basin. The landscape comprises rugged mountains with slope angles of 45° to 50° and steeper, separated by piedmonts of alluvial fans. The camp and mill site are at an elevation of 3,200m with the main resource at between 3,300m and 3,550m. Qinlongtan is at an elevation of 3,600m. There is virtually no vegetation of any sort in the mountains.

The Aolao River lies 2 km due east of the mine running 40 km from north to south and is the only permanent river in the area. For 100 m to 200 m either side of this river, the banks are covered mid summer in grasses which provide grazing for camels and sheep. A few nomadic herders set up camp in the valley during the summer months.

5.2 Property Proximity to Population Centres

The TJS Gold Project is located in the Qinghai Province in the northwest of the Peoples Republic of China. Qinghai is a relatively large Province covering 720,000 km^2 and supporting a population of approximately 5.3 million. The capital of Qinghai is Xining, which is situated on the eastern side of the Province. At a local scale, the Project Area is located 80 km northwest of Dachaidan in the Haixi Prefecture.

5.3 Climate

The area experiences a dry continental climate with low rainfall, high evaporation and generally clear skies. Winters are long and summers short, with a large diurnal temperature range. Meteorological data collected between 1971 and 1980 at Dachaidan (75 km ESE), and at a lower elevation than site, record an average annual temperature of 1.6°C and annual rainfall of 200 mm. Maximum monthly temperatures are in July and August (21°C) and minimum monthly temperatures are in December (-14° C) and January (-15° C). Maximum monthly rainfall is in June and July (40 mm) whereas no precipitation is recorded in November, December and January. Highest temperature on record is 29.9°C on the 15th July 1971 and minimum, -32.3°C on the 18th January 1973. Winds are frequent and strong from the west and northwest averaging 8.6 km/h peaking at 70 km/h.

In the past, field work and mining operations have been restricted to the period from April to October. Mining and processing operations were on a care and maintenance basis from November to March inclusive.

5.4 Local Infrastructure

The Province of Qinghai supports 44 different nationalities. Approximately 45% of the population of Qinghai is made up of a number of minorities, of which the Zang, Hui, Tu, Sala, and Mongol represent close to half.

The region around the site is unpopulated with the nearest town of about 6000 people, 90 kilometres away. Some nomads (mainly Kazakh) graze their animals in the valley during the short summer.

The main products of the province include Crude Oil, Gasoline, Diesel Oil, Asbestos, Lead Concentrate, Potassium Chloride, Mirabilite (Glauber's Salt – native sodium sulphate), Sodium Carbonate, Sodium Borate, Boric Acid, Raw Coal, Crude Salt, Fine Salt, Coke, Cement, Power Supply and Gold. For the last few decades, the investment of local fixed assets has grown and large-scale infrastructure projects have been successively built and put into operation.

5.5 Property Access

The nearest centres are Dunhuang (265 km by road to the north) and Ge'ermu (260 km by road to the south). There are frequent flights during the summer months (tourist season) between Beijing and Dunhuang. There are also regular flights from Xining to Ge'ermu throughout the year.

The site is easily accessed by road. There is a main highway between Dunhuang (Gansu Province) and Ge'ermu or Dachaidan in Qinghai Province that passes within 12 km of the plant site. The road is in good condition and is sealed and thus ensures year round access throughout the area.

HISTORY

6.1 Ownership

Gold was initially discovered at Jinlonggou and Qinlongtan in 1989 by Q1, and subsequently limited mining of both deposits has been undertaken. In 1999, Sino acquired a majority interest in the project and implemented a programme of data review and validation which was followed by underground drilling in 2002.

In November 2002, Sino sold its interest to Afcan citing its commitments to other projects in China as the reason for sale.

6.2 Exploration

The earliest exploration work in the area was in the late 1950's when Q1 teams conducted various programmes for petroleum. No work was recorded during the 1960's. Comprehensive reconnaissance, prospect investigation and regional surveys started in the early 1970's with work undertaken mainly by. During this period, a number of mineral prospects were discovered such as copper at Yixianshan, a pyrrhotite-pyrite prospect at Huanglushan, pyrite at Qinlongtan and limonite at Tanjianshan.

Lode gold in the area was discovered in the late 1970's by Q1 at Zhishigou and this discovery intensified gold exploration work along the Chaidamu Northern Margin tectonic zone.

Gold was initially discovered at Jinlonggou during the course of uranium exploration in 1989 by Q1, and subsequently limited mining of both that deposit and Qinlongtan has been undertaken. At Jinlonggou, the Q1 team generated exploration data in 29 surface drilled core holes, underground development on 3 levels and accompanying rises and sub-levels

and extensive surface sampling in trenches, shallow pits or shafts on section lines 30 m apart.

From April to November 2003, Afcan carried out a programme comprising data review, data validation, geological mapping in conjunction with SRK, underground and surface sampling and core drilling.

In 2004, Afcan undertook additional drilling programmes at both Jinlonggou and Qinlongtan and SRK continued their mapping studies.

6.3 Previous Production

In 1992, a production team from Q1 (Jinlong Mining Company) commenced mining and processing of surface oxide ore by heap leaching. This was accompanied by mining of primary material from underground commencing in 1995. This material was processed by roasting a float sulphide concentrate followed by a CIL circuit. Gold recovery by this method is estimated to be around 82%. Heap leach recovery is estimated to be 48%.

Production at Jinlonggou since the start of operations in 1992 is summarised in Table 6.3_1.

Table 6.3_1
Jinlonggou Mine
Past Production

Year	Heap Leach Production		Primary Production		Total Production		
	Tonnes	Grade (g/t Au)	Tonnes	Grade (g/t Au)	Tonnes	Grade (g/t Au)	oz
1992	15,045	7.27			15,045	7.27	3,517
1993	23,920	8.60			23,920	8.60	6,614
1994	42,279	7.13			42,279	7.13	9,692
1995	52,724	6.05	3,027	8.01	55,751	6.16	11,035
1996	52,128	6.38	5,191	8.40	57,319	6.56	12,095
1997	34,800	6.41	4,593	7.99	39,393	6.59	8,352
1998	38,283	7.54	3,899	14.32	42,182	8.17	11,076
1999	38,028	5.62	16,856	8.15	54,884	6.40	11,288
2000	36,610	5.64	21,062	8.63	57,672	6.73	12,482
2001	33,245	7.19	23,133	7.25	56,378	7.21	13,077
2002	26,088	4.82	28,404	7.92	54,492	6.44	11,275
Total	**393,154**	**6.52**	**106,166**	**8.22**	**499,321**	**6.88**	**110,503**

At Qinlongtan, Q1's exploration programme comprised excavation of 143 surface trenches and 14 core holes. Approximately 100,000 tonnes @ 10 g/t Au of oxide ore has been mined over a period of 4 years.

6.4 Previous Resource Estimates

The Q1 team estimated resources (1997) at Jinlonggou of 7.35 Mt @ 7.11 g/t Au (1.68 Moz). Note that this estimate was prepared by Q1 according to proscribed National Chinese rules for orebody estimation and does not necessarily conform to NI 43-101. The estimate was prepared prior to the promulgation of the Instrument.

In July 1999, Global Mining Services (GMS), commissioned by Sino, estimated resources within a 2 g/t Au mineralised outline at the TJS Gold Project and is summarised in Table 6.4_1.

Table 6.4_1
TJS Gold Project
GMS Resource Estimates 1999

Prospect	Tonnes	Grade g/t Au	Ounces
Jinlonggou	3,900,000	6.9	970,000
Qinlongtan	1,400,000	6.8	306,000
Total	**5,300,000**	**6.9**	**1,276,000**

Following the drilling of 21 core holes for 1,979 metres from underground on PD2 level in late 2000, Sino re-estimated the resource at Jinlonggou as 2.5 Mt @ 6.7 g/t Au for 536,000 oz.

In April 2002, Sino undertook a programme of geological mapping at surface and the underground workings, together with re-sampling of adits and cross cuts. They also excavated and sampled a fourth adit - Adit PD4 on the 3410mRL. This work provided the basis for a new interpretation of the geology which in turn was used to re-estimate resources. Cube Consulting Pty Ltd (Cube) of Perth undertook the resource estimate (November 2002) to give the results outlined in Table 6.4_2:

Table 6.4_2
TJS Gold Project
Cube Resource Estimates 2002

Prospect	Tonnes	Grade g/t Au	Ounces
Jinlonggou	2,618,760	5.88	495,068
Qinlongtan	876,089	6.31	177,733
Total	**3,494,849**	**5.99**	**672,800**

N.H.Cole and Associates Pty Ltd (Cole) reviewed these resources as part of its assessment in an independent report for Sino's prospectus and determined that the depletion allowance was understated. Accordingly, Cole estimated Indicated resources at Jinlonggou to be somewhere between 1.59 Mt and 1.9 Mt giving total resources at Jinlonggou (Indicated + Inferred) between 2.32 Mt @ 5.89 g/t Au and 2.62 Mt @ 5.88 g/t Au.

Note that all resources estimated or quoted by Sino or Cole were prepared according to the JORC code

In March 2004, Afcan estimated resources according to the Instrument based on Afcan's work programme in 2003 together with data generated previously by Sino and Q1. These estimates are given in Table 6.4_3.

Table 6.4_3

TJS Gold Project

Mineral Resource Estimate (1.0g/t Cut-off) March 2004

	Indicated			**Inferred**		
	Tonnes	Au (g/t)	Au (oz)	Tonnes	Au (g/t)	Au (oz)
Jinlonggou	2,338,300	5.23	393,000	1,101,500	4.9	174,000
Qinlongtan	772,400	7.49	186,000			
Heap Leach Pads	592,200	1.91	36,000			
Total	**3,702,900**	**5.17**	**615,000**	**1,101,500**	**4.9**	**174,000**

The objectives of the two work programmes undertaken by Afcan from April to November 2003 and from April to October 2004, under the supervision and guidance of DevMin, were threefold:

- Establish Measured and Indicated Mineral Resources at Jinlonggou:
- Establish Indicated Mineral Resources at Qinlongtan:
- Estimate resources remaining on the heap leach pads.

At Jinlonggou, establishment of Measured and Indicated resources was to be based on a better understanding of the geology, validation of historical data to be used in resource estimation, and generation of additional drilling information. SRK was contracted to undertake surface and underground mapping and their reports are given in Appendix 1. Programme objectives have now been met and Measured and Indicated resources estimated.

The data validation work by Afcan has demonstrated that for the most part exploration data generated by Q1 and Sino may be used in estimating resources and classifying them as Measured, Indicated or Inferred.

7 GEOLOGICAL SETTING

This Item is covered in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004.

8 DEPOSIT TYPES

This Item is covered in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004.

9 MINERALISATION

This Item is covered in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004.

10 EXPLORATION

This Item is covered in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004

11 DRILLING

This Item is covered in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004.

12 SAMPLING METHOD AND APPROACH

This Item is covered in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004.

13 SAMPLE PREPARATION, ANALYSIS AND SECURITY

This Item is covered in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004.

14 DATA VERIFICATION

This Item is covered in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004.

15 ADJACENT PROPERTIES

There are no mineral deposits associated with adjacent projects that are directly relevant or comparable to the TJS Gold Project.

MINERAL PROCESSING AND METALLURGICAL TESTING

16.1 Metallurgical Testing

16.1.1 Testwork History

Testwork was previously instigated by both Jinlong Mining Company and Sino.

Jinlong Mining Company instigated the following reports:

- "Report of Test on Qinghai Province Dachaidan Gold Mine" by Research Institute of Mineral Resource Comprehensive Utilization of Ministry of Geography and Mine (1994); and
- "Report of Beneficiability Test on Qinghai Province Dachaidan Tanjianshan Gold Mine" by Changchun Gold Research Institute of National Gold Administration Bureau (1993).

Sino instigated the following testwork:

- Metcon Laboratories, Sydney. No report is available for this testwork; and
- "Bacterial Oxidation Testwork on Two Refractory Gold Concentrates Jinchailing (sino 1) & Tanjianshan (sino 2) of Sino Mining" by Bactech-Mintek 4 May 2000.

A detailed testwork program has been instigated by QDML over the period 2003-2005. Testwork is covered by the reports:

- Report A8928a "Tanjianshan Metallurgy – Jinlonggou Deposit", by Ammtec, Perth (2005);
- Report A8928b "Tanjianshan Metallurgy – Qinlongtan Deposit", by Ammtec, Perth (2005);
- Report 06/04 "Bacterial Oxidation Amenability Testing of a Bulk Refractory Gold Concentrate from Tanjianshan" by SGS (on behalf of Biox license holders Goldfields South Africa), 14 June 2004; and
- Report 15/04 "Bacterial Oxidation Amenability Testing of Various Gold Concentrates from Tanjianshan" by SGS (on behalf of Biox license holders Goldfields South Africa), 14 October 2004.

16.1.2 Metallurgical Sampling

Jinlonggou

18 variability samples were selected from the Jinlonggou deposit. These were in the form of cuttings from the underground workings. Each sample represents the true mining width including appropriate amounts of both internal and external dilution that would be included in practice to recover that ore. The samples are also spatially representative of the deposit. The 18 samples represent all ore types and consist of three oxide phyllite samples, nine primary phyllite samples, two diorite samples and four felsite samples. 13 of the 18 Jinlongou samples fall within the pit shell. Those 13 samples represent an average of 50,000 ounces per sample, being the target sought for on any evaluation.

Two site concentrate samples were also used as part of the Jinlonggou evaluation.

Qinlongtan

Gold bearing intervals from 10 HQ diamond drill holes were selected for metallurgical testwork. Each interval represents the true mining width including appropriate amounts of both internal and external dilution that would be included in practice to recover that ore. This core was the only suitable sample available at the time. Equal portions were selected from each interval to form an 80kg Original Composite sample. Approximately half of the sample from each interval was held in reserve. The Original Composite samples mean drill core grade of 5.72g/t closely matched that of the resource grade at that time of 5.87g/t.

The size of the Qinlongtan resource grew substantially during the course of the metallurgical evaluation. The reserve grade is presently 9.06g/t. Four equal weight

variability samples were formed from the remaining 72kg of diamond drill core. The variability samples were selected on the basis of depth as the ore body consists of only one ore type. A new composite sample was formed using five kg portions from each of the four variability samples.

A minimum of two additional variability samples need to be evaluated to meet the sample criteria that each sample represents an average of 50,000 ounces. Those samples need to be much higher in grade than the previous samples.

16.1.3 Testwork Program

The detailed testwork program consisted of:

Physical Testwork.

This included Bond crushing, rod mill and ball mill work index tests, abrasion index tests, JK (SAG mill amenability) testwork on the Jinlonggou sulphide ore, specific gravity testwork, oxygen consumption testwork, carbon adsorption testwork, viscosity testwork, settling testwork and carbonate solubility testwork.

Mineralogy.

This included full scan head assays of the various samples, mineragraphic examination, electron probe analysis of the sulphide species to the determine the solid solution refractory gold concentrations and diagnostic analyses of the various whole of ore and concentrate samples.

Whole of Ore Leaching.

Whole of ore leach tests were conducted on all of the 18 Jinlonggou variability samples and four Qinlongtan variability samples. Grind-recovery testwork was conducted on the oxide phyllite and Qinlongtan ore types. Reagent optimisation tests were also conducted.

Float Optimisation.

Reagent screening, ageing, flowsheet type and conditioning time testwork were conducted on a composite sample of Jinlonggou sulphide. Float grind-recovery testwork was conducted on composite samples of both Jinlonggou sulphide and Qinlongtan.

Flotation Testwork.

Flotation tests were conducted on all 18 Jinlonggou variability samples and all four Qinlongtan variability plus all Jinlonggou sulphide ore type composite samples.

Roasting Testwork.

Batch single and two stage roasting testwork was conducted on the first site concentrate sample. Batch and pilot plant roasting testwork was conducted on the second concentrate sample. Batch two stage roasting testwork was conducted on the three Jinlonggou sulphide ore type composite samples as well as the four Qinlongtan variability samples and one Qinlongtan composite sample.

Bacterial Oxidation (Biox) Testwork.

Batch bacterial oxidation testwork was conducted on the first site concentrate sample as well as three Jinlongou sulphide ore type composite samples. No Biox testwork was conducted on any of the Qinlongtan samples.

Calcine CIL Testwork.

Calcine CIL optimisation testwork was conducted on the calcine produced from the pilot plant roaster. CIL tests were conducted on the calcine produced from each of the three Jinlonggou sulphide ore type composite samples as well as the four Qinlongtan variability samples and one Qinlongtan composite sample.

Biox CIL Testwork.

CIL tests were conducted by Ammtec on all Biox tests. That was in addition to the work undertaken by SGS.

Detoxification Testwork.

Cyanide destruction testwork has been undertaken on the Jinlonggou sulphide ore type. Cyanide destruction testwork is currently being undertaken on the Jinlonggou oxide and Qinlongtan ore types. Arsenic precipitation testwork has also been undertaken.

16.1.4 Physical Characteristics – Comminution Testwork

The physical characteristics adopted for the design criteria are detailed by Table 16.1.4. Jinlonggou sulphide ore consists of 92% primary phyllite ore, 4% diorite and 4% felsite.

Table 16.1.4

Physical Characteristics

Test	Qinlongtan	Jinlonggou Sulphide	Jinlonggou Oxide	Units
Bond Values				
Crushing Work Index	-	24.7	-	kWh/tonne
Rod Mill Work Index	19.1	20.1	19.7	kWh/tonne
Ball Mill Work Index	18.7	18.5	15.6	kWh/tonne
Abrasion Index	0.109	0.119	0.095	
JK (SAG Mill Amenability Values)				
A		56.41		
b		0.80		
A*b		45.13		
Ta		0.90		

The following points are noted:

- Both the Qinlongtan and Jinlonggou sulphide ores have similar rod and ball mill work index values.
- The oxide phyllite ore has a lower ball mill work index value than the other two sulphide ore types. The oxide phyllite rod mill: ball mill work index ratio of 1.27:1 indicates that critical size build-up may be a problem for this ore type.
- All abrasion index values are very low.
- The JK resistance to impact value of 45.1 for Jinlonggou is very similar to the median value of 47.8 for the JK database. A lower A*b value denotes a higher resistance to impact breakage (i.e. less fines are generated in the test).
- The JK resistance to impact breakage t_a value of 0.9 is well above the median value of 0.47 for the JK database. A lower t_a value denotes a higher resistance to abrasion breakage (i.e. less fines are generated in the test). That is both sets of JK values indicate that the ore is amenable to SAG milling.

16.1.5 Head Grades and Mineralogy

Table 16.1.5 summarises the head grades used to represent each ore type in the design criteria as well as the diagnostic leach test results for each ore type composite sample.

Table 16.1.5

Head Grades and Diagnostic Leach Results

Item	Qinlongtan	Jinlonggou					Grand Total
		Phyllite		Diorite	Felsite	Sulphide Total	
		Oxide	Primary				
Proportion							
Mass	16.6%	9.6%	67.9%	3.0%	3.0%	73.8%	100.0%
Grades							
Gold (reserve)	9.06	3.24				4.18	4.90
Sulphide Sulphur	0.89%	0.05%	3.88%	3.18%	3.72%	3.84%	
Sulphate Sulphur	0.00%	0.73%	0.24%	0.20%	0.59%	0.25%	
Sulphur Oxidation	0%	93%	6%	6%	14%	6%	
Arsenic	0.19%	0.13%	0.24%	0.11%	0.25%	0.24%	
Organic Carbon	0.10%	0.85%	0.84%	0.07%	0.06%	0.78%	
Carbonate	28.7%	0.2%	1.5%	4.2%	0.3%	1.5%	
Diagnostic Leach							
CIL Recoverable	78.4%	86.5%	47.9%	42.8%			
Preg Robbed	2.7%	9.3%	2.8%	2.0%			
Sulphide	18.4%	3.7%	46.7%	53.7%			
Silicate	0.5%	0.5%	2.5%	1.5%			
Total	100.0%	100.0%	100.0%	100.0%			

Measured EPA Refractory Gold

Arsenopyrite	3.2%		8.6%	0.3%		
Pyrite	5.4%		43.4%	19.5%		
Combined	8.6%		52.0%	19.8%		

Implied Unexposed Particulate Sulphide Gold

	9.9%		-5.2%	33.9%		

The following points are noted:

Qinlongtan.

The Qinlongtan deposit is a high grade gold deposit with a low sulphide sulphur content and no measurable amount of sulphur oxidation. Qinlongtan ore has an implied pyrite: arsenopyrite ratio of 3.6:1. It has a refractory gold content of only 9%. Pyrite is the primary host for the majority of the refractory sulphide gold. The organic carbon grade of 0.10% is low. Only 2.7% of the 81.1% cyanide soluble gold is preg robbed. The ore has a very high carbonate content of 29%, all of which is acid soluble.

Jinlonggou Oxide Phyllite.

Jinlonggou oxide phyllite is by definition ore that has a high level of 90% plus sulphur oxidation. The ore is unique in that it has an organic carbon content of 0.85%, being almost the same as its sulphide counterpart. True oxide ores typically do not contain any organic carbon. 9.3% of the 95.8% cyanide soluble gold is preg robbed.

Jinlonggou Primary Phyllite.

Jinlonggou primary phyllite ore has an above average sulphide sulphur grade of 3.88%. 6% of the total sulphur is oxidised. Approximately half of this gold is refractory sulphide gold, the majority of which is hosted by pyrite. This ore type has a high inferred pyrite: arsenopyrite ratio of 13.4:1. The ore has an organic carbon grade of 0.84%. 2.8% of the 50.7% cyanide soluble gold is preg robbed.

Jinlonggou Diorite-Felsite.

Although Jinlongou diorite and felsite ore types account for only a small amount of the total Jinlonggou sulphide tonnage, their grades are more than twice that of the primary phyllite. Both the diorite and felsite ore types also have an above average sulphide sulphur grades of 3.18% and 3.72%. 6% and 14% of the diorite and felsite total sulphur is oxidised. 54% of the diorite-felsite gold is sulphide gold, with 20% occurring as solid solution refractory gold and the remaining 34% implied as particulate sulphide gold.

Almost all of the refractory gold is hosted by pyrite. Both the diorite and felsite ore types have high inferred pyrite: arsenopyrite ratio of 23.5:1 and 12.2:1. Although both ore types have low organic carbon grades of 0.07% and 0.06%, 2.0% of the 44.8% cyanide soluble gold is preg robbed.

16.1.6 Optimum Conditions

Financial assessments of the test results identified the following economic optimum operating conditions:

Grind Size. The following economic optimum P_{80} grind sizes were identified.

- Qinlongtan whole of ore leaching: 75 microns
- Qinlongtan flotation: 75 microns
- Oxide phyllite whole of ore leaching: 75 microns
- Jinlonggou sulphide flotation: 75 microns

Gravity Gold.

There is insufficient direct smelt gravity gold in either the oxide phyllite ore type (1.4%) or Jinlonggou ore type (8%) to warrant installing a gravity circuit.

Concentrate Sources for Oxidation.

It is economic to oxidise and recover the sulphide gold from both Jinlonggou sulphide and Qinlongtan flotation concentrates.

Oxidative Process.

Although the recoveries and processing costs including detoxification costs for roasting and bacterial oxidation are both similar, two stage roasting was adopted because of the much lower capital cost associated with this option.

Leach Type.

The preg robbing nature of the organic carbon necessitates the use of a true CIL treatment method for all leaching circuits. This is even true for the calcine leach circuit, where residual organic carbon from the roasting process still preg robs.

Jinlonggou Sulphide Float Tail CIL.

There is just enough cyanide soluble gold in the Jinlonggou sulphide float tail to warrant CIL treating it.

CIL Residence Time.

There are two CIL circuits. An optimum leach residence time of 24 hours has been determined for the larger CIL circuit for treating Qinlongtan whole of ore, phyllite oxide

whole of ore and Jinlongou sulphide flotation tailings. An optimum leach residence time of 25 hours has been determined for the second smaller calcine CIL circuit.

Processing Method for Treating Qinlongtan Ore.

Two processing options are available for treating Qinlongtan ore:

- Pre Float-Post Leach. That is float the ore, CIL treat the roasted concentrate and CIL treat the flotation tailings; and

- Pre Leach-Post Float. That is CIL treat the whole of ore to initially recover 78% of the gold; float the leach residue to recover an additional 16% of the gold into a flotation concentrate, stockpile that concentrate and then roast it as a blend with Jinlongou sulphide concentrate to recover a further 13% gold for a total Qinlongtan recovery of 91%.

The latter option has been adopted because it allows a deferral of capital expenditure for the roaster. Qinlongtan tailings can also be re-used as a source of alkali for scrubbing the roaster off gas of sulphur dioxide.

16.1.7 Metallurgical Recovery

Table 16.1.7 summarises the net recoveries adopted for each ore type. A total of up to five recovery adjustments have been applied to the base recovery. Those recovery adjustments include:

- Head grade adjustment.

- Loaded carbon adjustment.

- Roaster pilot plant scale-up adjustment.

- Leach kinetic adjustment.

- Soluble gold loss adjustment.

Adjustments totalling -3.23% for Qinlongtan, -2.11% for the oxide phyllite and -2.20% for Jinlonggou sulphide have been made. Recovery adjustments have only been interpolated. None have been extrapolated.

Table 16.1.7

Metallurgical Recovery

Ore Type	Stage Recoveries			Net Gold Recovery		
	Float Recovery	Unoxidised CIL	Calcine CIL	Unoxidised CIL	Calcine CIL	**Total**
Qinlongtan	72.30%	78.13%	84.14%	78.13%	13.30%	**91.44%**
Jinlonggou Oxide Phyllite		83.21%		83.21%		**83.21%**
Jinlonggou Sulphide	91.42%	48.05%	92.35%	4.12%	84.43%	**88.55%**
					Grand Total	**89.10%**

17 MINERAL RESOURCES AND MINERAL RESERVES

17.1 Overview & Approach

This Item is covered in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004.

17.2 Resource Statement

DevMin has reviewed all aspects of data collection by Q1, Sino and Afcan, including quality control and data validation programmes implemented by the various workers. In addition, DevMin has also reviewed the geology and geological interpretations. DevMin concludes that these data together with the interpretations form an adequate basis for the estimation of mineral resources.

DevMin has applied appropriate interpretations and modelling techniques in order to estimate remaining gold mineral resources in the Measured and Indicated categories at 30th November 2004 and which are summarised in Table 17.2_1.

Table 17.2_1
TJS Gold Project
Measured & Indicated Mineral Resource Estimation (1.0 g/t Cut-off)

	Measured			Indicated			Measured & Indicated		
	Tonnes	**Au (g/t)**	**Au (ozs)**	**Tonnes**	**Au (g/t)**	**Au (ozs)**	**Tonnes**	**Au (g/t)**	**Au (ozs)**
Jinlonggou	1,662,000	3.99	213,000	4,353,000	3.5	490,000	6,015,000	3.64	703,000
Qinlongtan				1,164,000	8.62	323,000	1,164,000	8.63	323,000
Heap Leach				592,200	1.91	36,000	592,200	1.89	36,000
Total	**1,662,000**	**3.99**	**213,000**	**6,109,200**	**5.17**	**849,000**	**7,771,200**	**4.25**	**1,062,000**

In addition Inferred Mineral Resources were estimated and are summarised in Table 17.1_3.

Table 17.2_2
TJS Gold Project
Inferred Mineral Resource Estimate (1.0 g/t Cut-off)

	MTonnes	Au (g/t)	Au (kozs)
Jinlonggou	2.8	3.0	267
Qinlongtan	0.2	4.3	30
Total	**3.0**	**3.0**	**297**

The Jinlonggou resource quoted here is limited in its northern, eastern and south-eastern extents. However, it is known that mineralisation does extend to the M7 deposit in the east and to Pubugou in the southeast, plus additional resources are indicated immediately to the north of the current estimate where there has been modest surface and underground mining. Programmes of work comprising additional geological mapping and appropriately targeted drilling should be designed to test and delineate additional resources in these areas. Areas likely to host additional resources which may impinge on first year operations or production should be tested as a matter of priority.

17.3 Mineral Reserves

The Mineral Reserve estimates for the TJS Gold Project are based on the input parameters described in Section 18 of this report. Table 17.3_1 provides a summary of the Mineral Reserves that were determined for the TJS Gold Project. All stated reserves are completely included within the quoted resources.

Table 17.3_1
TJS Gold Project
Ore Reserve Summary

	Proven			Probable			Total		
	Tonnes	**Grade**	**Insitu Au**	**Tonnes**	**Grade**	**Insitu Au**	**Tonnes**	**Grade**	**Insitu Au**
Deposit	Mt	g/t	koz	Mt	g/t	koz	Mt	g/t	Koz
Jinlongou	1.5	4.3	209	3.5	4.0	446	5.0	4.1	654
Qinlontan	0	0	0	1.0	9.1	290	1.0	9.1	290
Total	**1.5**	**4.3**	**209**	**4.5**	**5.1**	**736**	**6.0**	**4.9**	**944**

This reserve estimate has been determined and reported in accordance with the Instrument and the classifications adopted by CIM Council in August 2000. Furthermore, the reserve classifications are also consistent with the JORC Code.

The reserve classifications for both reporting systems are essentially the same, with only minor semantic differences in the naming conventions. Reserves are called “Ore Reserves” under the JORC Code and “Mineral Reserves” under the CIM standards. “Proved Reserves” under the JORC code are called “Proven Reserves” under the CIM Standards. The reserve naming convention for both systems is summarised in Table 17.3_1 below for the sake of completeness.

Table 17.3_1
Reserve Classification Comparison

Resource Classification	**Reserve Classification**	
	JORC Code	**Instrument**
Measured	Proved	Proven
Indicated	Probable	Probable

The reported reserves have been compiled by Mr John Hearne. John Hearne is a Member of the AusIMM nd an employee of RSG Global. He has sufficient experience, relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking, to qualify as an Expert as defined by the JORC code and as a Competent Person as defined by the Instrument.

18 ADDITIONAL REQUIREMENTS FOR REPORTS ON DEVELOPMENT PROPERTIES AND PRODUCTION PROPERTIES

18.1 Mining

18.1.1 Mining Approach

It has been assumed that the TJS Gold Project will involve a conventional open pit, selective mining exploitation method, employing a mining contractor.

Drilling and blasting will be performed on 5m high benches, with blasted material excavated in two discrete flitches, each nominally of 2.5m height.

The mining equipment that is considered to be suitable for the TJS Gold Project would depend on the final mining contractor fleet but include from 30 tonne and up to 75 tonne back hoe excavators for mining and haul trucks with a payload capacity of between 10t and 50t.

18.1.2 Geotechnical Input

All pit geotechnical work for the DFS was completed by SRK. Their report 'Geotechnical Feasibility Assessment of Jinlonggou and Qinlongtan, Tanjianshan' dated February 2005, is included as Appendix 1.

The fieldwork for the geotechnical assessment was carried out during July to September 2004. The site investigation for the geotechnical assessment included the mapping of surface and underground outcrops at representative locations across both sites at Jinlonggou and Qinlongtan. Borehole core that was obtained from the geological exploration program was logged for representative boreholes drilled at both sites. At Jinlonggou, an additional 3 boreholes were drilled to obtain infill information where it was judged that there was insufficient data. These holes were sited to satisfy both geological exploration and geotechnical objectives and they were drilled using the same techniques as for previous exploration holes drilled in 2004.

Point load and Schmidt hammer index testing was done at site to allow an estimate of rock strength to be made and also to correlate field descriptions. A limited amount of laboratory testing was carried out to assess strength and deformation properties of the rock.

The results of mapping, core logging and testing have been used to assign rock mass rating (RMR) values to the different rocks at TJS Gold Project. The RMR values have been adjusted, to give the MRMR, following well recognised procedures to take account of disturbance due to mining and performance under assumed mining conditions. The MRMR has been used to assess indicative overall slope angles and appropriate bench stack heights for the proposed pits at Jinlonggou and Qinlongtan.

18.1.3 Hydrogeology and Hydrology Input

RSG Global has relied on the SGS and SRK reports for this section, which discusses the hydrogeology, hydrology and surface water aspects at the TJS Gold Project.

Apart from the perched water table of the Aolao River, no groundwater was recorded in the TJS Gold Project area.

Jinlonggou is located in a very arid area. Water is apparently not usually encountered when drilling boreholes and it is expected that at Jinlonggou, the permanent water table will not be intersected during the proposed mining activities. This is supported by the observation that existing underground mine workings were observed to be essentially dry. Isolated locations where slight to moderate groundwater seepage into the pit occurs can, however, be expected to occur during the mining operation.

Qinlongtan is also located in a very dry area. No indication of groundwater seepage into the existing abandoned pit, that has a maximum depth of approximately 30m, was observed at the time of the geotechnical feasibility investigation. It is anticipated that the proposed "starter" pit could intersect groundwater at a depth of greater than about 70m. The water inflows are not expected to be significant.

18.1.4 Contract Mining

It was assumed that contract mining would be employed to carry out all mining related work. It is recommended, however, that an owner mining cost model is developed based on first principles to provide a comparison against future contract mining tender submissions.

Requests to express interest for quotation (RFQ) on the project were sent to all mining contractors that had been identified as having current work in China.

The RFQ documentation was based on a preliminary mine production schedule that was developed in August 2004 for the Jinlonggou deposit. The schedule was predicated on a preliminary pit optimisations and pit designs.

A summary of the contractor responses is provided in Table 18.1.4 below.

Table18.1.4

TJS Gold Project
Comparison Mining Contractor RFQ Responses
US$M

Contract Payment Schedule Item	CNMCC	BNM	WMSTE	W2STE	WTC	CTMC
Mobilisation-Demobilisation	0.5	1.7	0.5	0.4	0.6	0.2
Drill and Blast Ore	1.0	0.9	1.2	0.5		0.6
Drill and Blast Waste	9.3	9.6	6.1	3.0		6.5
Load & Haul Ore	2.7	2.6	2.3	2.3	2.4	2.1
Load & Haul Waste	28.9	26.3	21.2	21.4	26.3	22.6
Crusher feed	1.1	0.3	0.1	0.1	0.3	0.2
Total Contract Value US$M	**43.6**	**41.4**	**31.4**	**27.8**	**29.6**	**32.1**

The quotes varied widely as shown above. An average of the lowest 3 quotations was considered as acceptable to form the basis for the mining study.

The contractor equipment requirements and mining costs that were submitted are budget estimates only, based on a preliminary mining schedule. It will be necessary to obtain final contract estimates in an open mining tender, based on the final mining schedule.

18.1.5 Pit Optimisation

Pit optimisation studies have been undertaken using the resource models as developed by DevMin and described in the "Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate" report, prepared by DevMin Pty Ltd, dated 16 December 2004, as the basis for pit optimisation.

Pit optimisations were carried out for the Jinlonggou and the Qinlongtan deposits and the Whittle Four-X pit optimisation software package was used.

The small size of the proposed primary load and haul equipment lends itself to highly selective mining practices. The MIK grade estimate at Jinlonggou has inherently built in dilution, whilst at Qinlongtan the mineralisation is tightly contained within a steeply dipping tabular orebody that is visually discernible. Therefore, no additional dilution was deemed necessary and the mining recovery was set at 100%.

The input parameters adopted for the pit optimisation cover a wide range of disciplines and as a result a number of specialists have been involved in determining these parameters. The principal input parameters used in the pit optimisation and the specialists responsible for determining these parameters are listed in Table 18.1.5_1 below.

Table 18.1.5_1

Source of Main Input Parameters

Input Parameter	Source
Commodity price	Afcan
Contract Mining Costs	Average of 3 lowest contractor quotes
Owner's mining associated costs	Afcan
Metallurgical and Processing	John MacIntrye and Associates/Afcan
General and Administration cost	Afcan
Geotechnical and Hydrology	SRK
Governmental	Afcan

A flat gold price of $420/ounce Au was adopted for the TJS Gold Project optimisation and subsequent financials.

Appendix 2 provides a detailed summary of the mining costs.

A summary of the principal costs associated with mining are shown in Table 18.1.5_2.

Table 18.1.5_2 TJS Gold Project Summary Mining Operating Costs		
Item	**Unit**	**Value**
Jinlonggou		
Average waste mining cost	$/t	1.19
Average ore mining cost	$/t	1.29
Qinlongtan		
Average waste mining cost	$/t	1.18
Average ore mining cost	$/t	1.28
Road Haulage from Qinlongtan	$/t ore	2.00
Mine supervision and overheads	M$/yr	0.80
De-watering	$/t ore	0.20
Grade control	$/t ore	0.13

Crusher feed costs are included in the processing costs

The processing costs that were determined for the TJS Project are summarised in Table 18.1.5_3.

Table 18.1.5_3 TJS Gold Project Summary Processing Costs		
Item	**Unit**	**Value**
Jinlonggou		
Oxide	$/t	9.24
Primary	$/t	15.23
Qinlongtan		
Primary	$/t	14.92

The processing recoveries that were determined for the TJS Gold Project are summarised in Table 18.1.5_4.

Table 18.1.5_4 TJS Gold Project Summary Processing Recoveries		
Item	**Unit**	**Value**
Jinlonggou		
Oxide	%	82.7
Primary	%	88.6
Qinlongtan		
Primary	%	92.7

The project general and administration costs were determined by Afcan and were estimated at $2.5M per annum.

A royalty of 4.5% of revenue was included in the pit optimisation.

A summary of the principal economic input parameters used in the pit optimisations are summarised in Table 18.1.5_5 below.

Table 18.1.5_5 TJS Gold Project Summary Whittle Four-X Input Parameters			
Item		**Unit**	**Value**
Mill throughput		Mtpa	0.8
Gold Price		$/oz	420
State government royalty		%	4.5
Processing cost – Jinlonggou	- Oxide - Primary	$/t milled	9.24 15.22
Processing cost – Qinlongtan		$/t	14.92
Average waste mining cost	- Jinlonggou - Qinlongtan	$/t	1.19 1.18
Average ore mining cost	- Jinlonggou - Qinlongtan	$/t	1.29 1.28
General and Administration		$/t	3.13
Mine supervision		$/t ore	1.00
Dewatering		$/t ore	0.20
Grade control		$/t ore	0.13
Other – Road Haulage from Qinlongtan		$/t ore	2.00
Processing recovery	Jinlonggou - Oxide Jinlonggou - Primary Qinlongtan	%	82.7 88.6 92.7
Mining recovery		%	100
Overall pit wall slope angle (inclusive of a ramp system)		degrees	40 – 47

Pit Optimisation Setup

The pit optimisations were carried out for a wide range of Au prices, from as low as $84/oz to a maximum of $630/oz. Figure 18.1.5_1 displays the pit size in relationship to the gold price for Jinlonggou, for the pit optimisation based on the Measured and Indicated resources only.

Figure 18.1.5_2 displays the pit size in relationship to the gold price for Qinlongtan for the pit optimisation based on the Measured and Indicated resources only.

The Whittle Four-X financial analysis was carried out using the following base assumptions and parameters:-

- Mill throughput: 0.8Mtpa.
- Mill limiting – i.e. sufficient waste is removed each period to enable the required milling rate to be maintained.
- Discount rate – 10%.
- Base case Au price - $420/oz.

Three cashflows were produced for each analysis:-

- Undiscounted Operating Cashflow.
- Best Case Discounted Operating Cashflow – Each incremental pit is removed prior to advancing to the next adjacent incremental pit. The cashflow schedule is the equivalent of multiple pushbacks.

- Worst Case Discounted Operating Cashflow – Each bench is mined out prior to moving to the next bench, using the optimisation block height as the default bench height. The cashflow schedule is the equivalent of top down 'flat' mining.

An actual mining schedule will most likely lie between the two extremes of Worst Case and Best Case as described above.

The cashflows, as described above, are exclusive of any capital expenditure or Project start-up costs and should be used for pit optimisation comparison purposes only. No Net Present Value (NPV) can be derived from these cashflows.

Pit Optimisation Results

Jinlonggou

Based on Measured and Indicated resources only and at a gold price of $420/oz, the optimum pit shell, based on the maximum un-discounted cash flow, is pit shell 33. Pit shell 33 contains some 4.2 million tonnes of ore at a grade of 4.5g/t Au, for approximately 541,000 ounces of recovered Au metal. Some 27.9 million tonnes of waste are contained within the pit shell with a stripping ratio of 6.6:1. The undiscounted operating cashflow, exclusive of capital and start up costs, is $99 million. The Worst Case discounted cashflow is $72 million, whilst the Best Case discounted cashflow is $76 million.

To ascertain the likely discounted cashflow derived from a realistic mine production schedule, the average discounted cashflow was calculated and is $74 million.

Appendix 3 contains a detailed summary of the Jinlonggou pit optimisation results.

Qinlongtan

Based on a gold price of $420/oz, the optimum pit shell, based on the maximum un-discounted cash flow, is pit shell 15. Pit shell 15 contains some 1.0 million tonnes of ore at a grade of 9.2 g/t Au, for approximately 264,000 ounces of recovered Au metal. Some 23.2 million tonnes of waste are contained within the pit shell with a stripping ratio of 24.0:1. The undiscounted operating cashflow, exclusive of capital and start up costs, is $57 million. The Worst Case and Best Case discounted cashflows are $51 million.

Appendix 4 contains a detailed summary of the Qinlongtan pit optimisation results.

Mine Design

Detailed pit design work for both deposits was carried out based on the optimum pit shells as described above.

The pit slope parameters as provided by SRK and shown in Table 18.1.5_6 were used for the detailed pit design work.

Table 18.1.5_6 TJS Gold Project Summary Recommended Pit Wall Slope Parameters							
Jinlonggou	**Domain 1**	**Domain 2**	**Domain 3**	**Domain 4**	**Domain 5a**	**Domain 5b**	**Domain 5c**
Inter Ramp Slopes	53°	58°	46°	51°	53°	49°	50°
Batter Slopes	70°	80°	70°	70°	70°	70°	70°
Batter height	10m	10m	10m	10m	10m	10m	10m
Berm width	4m	4.5m	6m	4.5m	4m	5.2m	4.7m
Qinlongtan	**South**	**Other**					
Inter Ramp Slopes	36°	47°					
Batter Slopes	60°	80°					
Batter height	10m	10m					
Berm width	6m	5.5m					

The off-highway dump truck proposed by the mining contractors for the TJS Gold Project ranged in size from 10t to 45t trucks.

An 18m wide dual access ramp was selected for the detailed mine design work, which allows for a safe operating width of 3 truck widths plus a windrow in the case of a 45t dump truck. The ramp gradient is set at 1 in 10.

A minimum mining width of 25m has been assumed for both pits. This width suits the backhoe excavator loading method and allows sufficient room for truck turning and positioning.

Pit staging was only considered appropriate for the Qinlongtan deposit. The possible starter pit shells that were generated by Whittle Four-X for Jinlonggou were located on the high ridge on the south south-eastern side of the optimum pit shell, which was considered unsuitable for practical mining considerations. In addition, the pit optimisation showed that there was only a 6% difference between the Worst Case and Best Case discounted cashflows, which confirms that the benefits of pit staging are small.

Table 18.1.5_7 provides a summary of the material breakdown as contained within the final pit designs. It is noted that pit designs contain quantities of Inferred resources included in the waste tonnage of 0.5mt @ 4.g g/t Au at Jinlonggou and a negligible quantity at Qinlongtan.

Table 18.1.5_7 TJS Gold Project Summary Material Breakdown by Pit Design												
Deposit	**Total Material**	**Waste**	**Strip Ratio**	**Reserves**								
				Proven			**Probable**			**Total**		
				Tonnes	**Grade**	**Insitu Au**	**Tonnes**	**Grade**	**Insitu Au**	**Tonnes**	**Grade**	**Insitu Au**
	[Mt]	[Mt]	[w:o]	[Mt]	[g/t]	[koz]	[Mt]	[g/t]	[koz]	[Mt]	[g/t]	[koz]
Jinlongou	36.8	31.8	6.4	1.5	4.3	209	3.5	4.0	446	5.0	4.1	654
Qinlongtan	27.8	26.8	27				1.0	9.1	290	1.0	9.1	290
Total	**64.6**	**58.6**	**9.8**	**1.5**	**4.3**	**209**	**4.5**	**5.1**	**736**	**6.0**	**4.9**	**944**

Figure 18.1.5_3 shows the final pit designs and associated roads, dumps and other site infrastructure for Jinlonggou and Figure 18.1.5_4 shows the final pit designs and associated roads, dumps and other site infrastructure for Qinlongtan.

Waste Dumps

The waste dumps have been designed to Western Australian standards and the parameters used are:-

- Face slope 20º
- Bench height 20m
- Berm width 10m
- Overall slope 17º

The waste dump capacities have been based on a swell factor of 25%. No allowance for any in-pit or exhausted pit backfilling has been made.

The waste dump positions have been determined by taking into account geologically prospective ground (where sterilisation drilling is still to be carried out), the existing drainage patterns, waste haulage profiles and the space and infrastructure issues required for the planned operations.

The Jinlonggou West Waste Dump is located in the valley to the west of the deposit. The dump is approximately 100m high, covers 38Ha and has a capacity of 12Mm^3. A total waste dump capacity of approximately 15Mm^3 is required and therefore 3Mm^3 of waste needs to be hauled elsewhere, possibly to the flat plains to the east of the processing plant. RSG Global recommends that further work is carried out to ascertain the cost implications of reducing the height of the West Waste Dump and hauling more waste to the plains east of the processing plant. Furthermore, any future conversion to reserves of known resources that are located nearby may result in the opportunity of backfilling of pits.

The waste mined at Jinlonggou during the pre-production period will be utilised to build the ROM pad and other infrastructure items, such as haul roads, as required.

The Qinlongtan Waste Dump is located south of the pit. The dump is approximately 100m high, covers 55Ha and has a capacity of13MMm^3, with ample capacity to extend the dump.

The waste mined at Qinlongtan during the pre-production period will be utilised to build the ROM pad and other infrastructure items as required.

Mine Production Schedule

The mine production schedule was based on the pit designs as described above. A starter pit was developed for the Qinlongtan Pit and a material breakdown of the starter pit and the final cutback are summarised in Table 18.1.5_8.

Table 18.1.5_8 TJS Gold Project Qinlongtan Material Breakdown by Pit Stage						
Pit Stage	**Total Material**	**Waste**	**Strip Ratio**	**Mill Feed**		
				Tonnes	**Grade**	**Insitu Au**
	[Mt]	[Mt]	[w:o]	[Mt]	[g/t]	[koz]
Starter	12.2	11.8	29.5	0.4	9.7	125
Final cutback	15.6	15	25.0	0.6	8.6	165
Total	**27.8**	**26.8**	**27.0**	**1.0**	**9.0**	**290**

The scheduling periods adopted for the mine production schedule comprises of years, although pre-production has been estimated at 6 to 9 months.

The mine production schedule was developed using Microsoft Excel.

Scheduling was carried out on a bench by bench basis for all the pit designs, including the intermediate pit stages at Qinlongtan.

In consultation with Afcan, the following constraints were set as a target for the mine production schedule.

- Ore mining rate 0.8Mtpa
- Minimise pre stripping requirements
- Annual Vertical mining advance rate 60m
- Pre-production material requirements Mill Feed 0.1Mt

In order to reduce pre-production capital cost, it was assumed that only part of the ROM pad will be built, ready for plant commissioning and that the ROM pad will be extended with suitable waste during ongoing mining after plant commissioning.

The project produces an average of 103,000oz of Au per year ranging from 170,000oz in Year 2 to 59,000oz in Year 8, although Year 8 is a part year estimated at approximately 6 months.

The average total material movement for each operational area is approximately 5Mtpa, with a maximum combined total mining rate of 27Mtpa in Year 1 from the two operations and a minimum annualised mining rate of 1.5Mtpa in Year 8.

Table 18.1.5_9 summarises the mine production schedule that has been developed for the TJS Gold Project.

Table 18.1.5_9 TJS Gold Project Annual Mine Production Schedule											
		Pre-Prod	1	2	3	4	5	6	7	8	Total
Total Material	[Mt]	6.35	26.7	10.4	4.4	5.0	4.7	2.8	2.8	1.5	64.6
Waste	[Mt]	6.21	26.0	9.5	3.7	4.2	3.9	2.0	2.0	1.1	58.6
Strip Ratio	[w:o]	45.5	38.0	10.0	5.2	5.3	4.7	2.5	2.5	3.6	9.8
Mill Feed - Tonnes	[Mt]	0.14	0.68	0.94	0.71	0.79	0.82	0.79	0.81	0.31	6.00
- Grade	[g/t]	9.57	6.16	6.91	4.39	4.28	3.60	3.92	4.11	4.68	4.90
ROM Crusher Feed - Tonnes	[Mt]	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	6.0
- Grade	[g/t]	0.00	6.60	7.73	4.28	4.30	3.70	3.87	4.08	4.68	4.90
Stockpile at Year End											
Jinlonggou - Tonnes	[Mt]	9.57	6.16	6.91	4.39	4.28	3.60	3.92	4.11	4.68	4.90
- Grade	[g/t]	0.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	6.0
Qinlongtan - Tonnes	[Mt]	0.00	6.60	7.73	4.28	4.30	3.70	3.87	4.08	4.68	4.90
- Grade	[g/t]	0.02	0.02	0.22	0.12	0.12	0.14	0.13	0.13	0.00	0.00
Gold - Mined	[Mt]	3.77	4.35	3.98	4.39	4.28	3.60	3.92	4.11	0.00	0.00
- Rec.	[g/t]	0.12	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

The mine production schedule is presented graphically in Figure 18.1.5_5 and Figure 18.1.5_6.

18.2 Process Description

18.2.1 Overview

The logical sequence of treating the two TJS deposits is as follows:

- Initially pre leach Qinlongtan high grade ore to recover 78% of the gold;
- Post float the Qinlongtan whole of ore CIL residue to produce a low grade sulphide concentrate;
- Stockpile Qinlongtan flotation tailings as a separate entity;
- Float Jinlonggou sulphide ore and blend that concentrate with the lower grade Qinlongtan stockpiled concentrate. Roast the combined concentrate and CIL treat the calcine. Neutralise the roaster off gases using Qinlongtan tailings.
- CIL treat Jinlonggou sulphide flotation tailings to recover an additional 4% of the Jinlonggou sulphide gold;

- Whole of ore CIL treat Jinlonggou oxide ore. Simultaneously roast and CIL treat the blended sulphide concentrate.

The design criteria have been developed on this basis for treating 100 tonnes per hour of the three ore types.

A single stage crush to a P80 of 150 mm has been nominated for all ore types. 85% crusher availability has been specified.

A single stage SAG mill has been nominated for grinding all three ore types to a P80 of 75 microns. 91.3% mill availability has been specified.

91.3% availability has been specified for the flotation and float tail CIL sections.

85% availability has been specified for the two stage roaster and calcine CIL sections.

18.2.2 Qinlongtan

The physical characteristics of Qinlongtan ore are very similar to Jinlonggou sulphide ore, so much so that Qinlongtan's estimated maximum mill throughput rate is only 3% greater than Jinlonggou sulphide.

Although Qinlongtan ore has a low organic carbon content of only 0.10%, it is still mildly preg robbing and as such, Qinlongtan whole of ore will require a true CIL treatment method. The optimum CIL residence time is 24 hours.

An average of 22 tonnes per week of carbon will need to be eluted for the specified carbon loading of 5,000g/t. This will be eluted in a 5 tonne pressure Zadra column.

Cyanide contained in the Qinlongtan leach residue will be destroyed using sodium metabisulphite.

The conditioned pulp will then be floated with 200g/t of collector SIBX to produce a bulk flotation concentrate. No cleaning of the scavenger concentrate will be required. A mass pull of 9.8% or 9.8 tonne per hour has been specified. That concentrate will be thickened, filtered and stockpiled.

Qinlongtan flotation tailings will be thickened and then stockpiled for subsequent reuse. Thickener overflow water is recycled.

18.2.3 Jinlonggou Sulphide

Jinlonggou sulphide ore will be milled and floated at a rate of 100 tonne per hour.

Scavenger cleaner concentrate will be cleaned. A mass pull of 13.9% or 13.9 tonne per hour has been specified. That concentrate will be thickened, filtered and excess concentrate stockpiled.

Stockpiled Qinlongtan concentrate will be reclaimed and blended with Jinlongou concentrate in the ratio of 2.1 tonne per hour Qinlongtan concentrate with 13.3 tonne per hour of Jinlongou concentrate.

The two stage fluid bed roaster will be fed at a design rate of 15.4 tonne per hour.

Roaster off gas will be cycloned, cooled in a spraying tower, passed through an electrostatic precipitator before being passed through an arsenic scrubber. The solution from such will be treated with ferrous sulphate to produce an iron arsenic precipitate.

Off gas from the arsenic scrubber will then be used to destroy residual cyanide contained in the calcine CIL residue and the float tail CIL residue. Off gas will then be passed through three sulphur dioxide scrubbers. Qinlongtan tailings will be used as the principal source of alkalinity. This will be supplemented with milled commercial limestone.

Off gas depleted of arsenic and sulphide dioxide will then be emitted to atmosphere via an induced draft fan and stack.

Calcine will be quenched, thickened, pre conditioned with lime and CIL treated for 25 hours.

An average of 10.4 tonne per week of carbon will need to be eluted for the specified carbon loading of 5,000g/t.

Flotation tailings will be CIL treated in the same set of CIL tanks as used to treat Qinlongtan whole of ore. Leach residence time decreases to 18 hours due to the lower pulp density of 32% for the flotation tailings.

An average of 10.4 tonne per week of carbon will also need to be eluted for the specified carbon loading of 350g/t.

The tailings thickener accepts material from four sources:

- Jinlonggou float tailings;
- Calcine CIL residue;
- Arsenic precipitate; and
- Re-used Qinlongtan tailings and gypsum precipitate.

Thickener underflow is stored in the Jinlonggou tailings storage facility. Thickener overflow and tailings water are to be recycled.

18.2.4 Jinlonggou Oxide

Jinlonggou oxide ore is softer than the other two ore types, so much so that the estimated maximum mill throughput rate for Jinlongou oxide is 9% greater than Jinlonggou sulphide ore.

Jinlonggou oxide ore is whole of ore treated through the same CIL facility as used to pre leach Qinlongtan ore. Although this ore is an oxide, it still contains organic carbon and as such is still a preg robber.

19.2 tonnes of carbon will need to be eluted each week for the specified 1,000:1 carbon loading upgrade ratio (equivalent to a carbon loading of 2,197 g/t).

The roaster will continue to operate at 15.4 tonne per hour during this period treating the specified blend of Jinlonggou and Qinlongtan concentrate. Off gases will be handled in the same manner as that specified for treating Jinlonggou sulphide ore.

Off gas will also be used to destroy the residual cyanide contained in the oxide phyllite whole of ore CIL residue.

The elution requirements are at a maximum under this operating mode. 29.6 tonne per week of carbon need to be eluted (10.4 tonne per week of calcine CIL carbon plus 19.2 tonne per week of oxide WOO CIL carbon). The five tonne pressure Zadra column has been sized to accommodate this requirement, stripping six lots of carbon per week.

The tailings thickener also encounters its maximum duty while treating Jinlonggou oxide ore.

Thickener underflow is stored in the Jinlonggou TSF. Thickener overflow and tailings water are to be recycled.

18.3 Proposed Processing Operations

18.3.1 Primary Crushing

Run of Mine (ROM) ore is delivered to the ROM feed bin by front-end loader (FEL). Ore is withdrawn from the ROM bin by a variable speed apron feeder to the primary crusher. Crushed ore reports to the crusher discharge conveyor which feeds onto the ROM bin feed conveyor.

18.3.2 Stockpile

Ore will be stored in a surge bin with 24 hours capacity. The ore will be removed by four vibrating feeders (two variable speed, two fixed speed) and fed into a Semi Autogenous Grinding (SAG) mill. Under normal operation, one fixed speed and one variable speed unit will operate. There will be provision to bypass the surge bin with material if required. This will be loaded manually onto the SAG feed conveyor by the FEL.

18.3.3 Milling

Crushed ore is fed to the single stage, closed circuit SAG mill. The mill product discharges via a trommel screen to a splitter box. Oversize from the trommel reports to a bunker for removal by Bobcat or front-end loader.

The splitter box is equipped with two plug valves allowing slurry to feed either of the two compartments of the mill sump. A single stage, variable speed mill discharge pump draws slurry from the active compartment of the sump and feeds the cluster of hydrocyclones. A standby mill discharge pump is installed. Gland service water is provided to the mill pumps.

The sulphide cyclone overflow will report to the flotation banks at 33% solids whereas the oxide material will report directly to CIL at 44% solids. Some adjustment of cyclone geometry is anticipated to handle the two ore types. It is expected that a single cyclone cluster will handle the two ore types. Cyclone underflow from both ore types will flow back to the SAG mill for re-grinding.

The selected cyclone cluster is a set of six 500 mm cyclones. Four of these would normally be operating and two would normally be on standby or available for maintenance.

18.3.4 Flotation

The cyclone overflow reports to the conditioning tank for the flotation circuit. Methyl Iso-Butyl Carbinol (MIBC (30 g/t)) and sodium Iso-Butyl Xanthate (SIBX (200 g/t)) will be added to this tank in preparation for the flotation process. The slurry will then flow to the rougher flotation tanks. The rougher section will consist of four KYF-16 (16 m^3) cells. The overflow from the rougher section will report directly as concentrate. The underflow will report to the scavenger cells.

The scavenger circuit will consist of five KYF-16 (16 m^3) cells. The concentrate from the scavenger section will report to the scavenger cleaner section. The tailings from the scavenger section will either report directly for detoxification and thickening or report to the WOO CIL circuit (depending on grade and potential recovery).

The scavenger cleaner section consists of four KYF-4 (4 m^3) cells. The concentrate from this section joins the rougher concentrate to form the final concentrate product. The tailings from this section will join the scavenger tailings to wherever (tailings dam or to the whole of ore CIL section.

Both the concentrate and tailings are placed in separate sump pumps and then pumped to their respective destinations. Both of these pump sets consist of one operating and one standby pump and are variable speed and controlled by the slurry hopper level.

18.3.5 Dewatering

The flotation concentrate will be pumped to a 9m conventional thickener to increase the density from 12.5% to approximately 65% solids. The thickener underflow will then be pumped to either a mixing tank or a plate filter. The plate filter is designed to reduce the water content and then feed back to the mixing tank to provide a roaster feed density of 75%. Alternatively, the plate filter can discharge onto a screw conveyor and the material is conveyed to a storage system.

The circuit of mixing tank and plate filter is duplicated to give maximum flexibility and to allow for 100% of the feed to be dried if required. This is due to a difference in expected availability between the roasting circuit and the milling circuit and also the requirement to treat oxides for a period of time each year.

Once dried concentrate is stored, it can be re-claimed using a grab bucket and then fed through a repulping system for addition back into the mixing tanks.

This system gives the process the ability to stockpile concentrate in the event that the roaster breaks down for any period of time. It also gives the circuit the ability to treat oxides

for an extended period while also roasting the sulphide material if required. Finally, the system allows Qinlongtan material to be treated and then the concentrate from this material stockpiled until the required Jinlonggou sulphide concentrate is available for blending.

18.3.6 Roasting

The dewatered pulp will be fed through a distributor pack where pulp is sprayed by high pressure air into the first fluid bed roaster. Air is introduced to the base of the roaster to provide the oxygen requirements for the process.

Diesel is supplied to start the process but it is expected that the process will run on feed material alone once the process is up to temperature. The first roaster will run at 580°C – 600°C in a weakly oxidised atmosphere (90% of stoichiometric oxygen) to ensure maximum arsenic removal. The off-gas from the first roaster will pass through the first cyclone (2 m diameter) to remove any excess dust. The overflow calcine and the cyclone underflow are transported to the second stage fluidized bed roaster by two loop seals. The air introduced into the bottom of the second roaster accounts for 20% of stoichiometric oxygen requirements. This roaster runs at a higher temperature of 680°C – 700°C. The off-gas from the second roaster also flows through a cyclone and the underflow collected and returned to the process.

The gases from the cyclone overflow from the two off-gas cyclones passes to the spraying tower. This is designed to reduce the off-gas temperature to allow the electrostatic precipitator to function properly.

The electrostatic precipitator delivers a charge across the air flow and causes particles to become charged and adhere to the walls. These are then 'pulsed' back onto the chain conveyor and returned to the calcine product flow.

18.3.7 Arsenic Scrubbing

The off-gas from the electrostatic precipitator is around 350°C. This gas is then sprayed with a very fine spray containing water. This reduces the temperature of the solution down to 60°C. This material is then fed through to the detoxification tanks.

18.3.8 Sulphur Dioxide Neutralisation

The remaining SO_2 is required to be neutralised for the off-gas to conform to China's environmental regulations. A series of three scrubbing towers will be used to conduct neutralisation and adsorption. In the scrubbing towers, a limestone slurry will be sprayed through the gas to precipitate $CaSO_4$.

Subsequent testwork has shown that Qinlongtan ore has significant quantities of carbonate present. This material will be used as an additive to neutralise the acid present when the Jinlonggou material is roasted.

The designated sulphur dioxide efficiency is 85%.

The final cleaned off-gas will be discharged through a 50 m high stack. The discharge rate of air is calculated to be 45,000m^3/hour. The calculated discharge concentration of sulphur dioxide is 462mg/m^3. The permitted discharge standard is 960mg/m^3 (GB 9078 – 1996).

The precipitated materials will be sent through to the detoxification circuit.

18.3.9 Calcine Quench

The calcine product from the roaster, cyclones, scrubbing tower and the electrostatic precipitator is added to the calcine quench. The calcine quench is added to a small milling circuit to remove any 'frits' that have occurred throughout the roasting process. No overall size reduction is targeted or expected. The mill discharge material is pumped through a set of cyclones with the overflow reporting to the thickener and the underflow returning to the mill.

The thickener increases the density to 35% with the overflow reporting back to the process water pond.

18.3.10 Calcine CIL

A carousel arrangement CIL is designed for the extraction of gold by carbon from the calcine product. The tanks are arranged in a circular fashion around a central distribution box. The piping is arranged so that any of the tanks can take the slurry flow from the distribution box.

Carbon is added to all of the tanks and one is selected as the 'head' tank. Carbon is restricted from moving by an intertank screen in each tank. The slurry flows through this tank and then clockwise through the rest of the tanks to the tank immediately to the left of the head tank. From here, the slurry flows to the tailings hopper for pumping to the detoxification system.

Once the carbon in the first tank is fully loaded, the tank is taken off line by sending the slurry to the tank immediately to the left. The first tank is then gravity fed into the carbon movement tank and this is pumped over a vibrating screen to remove the carbon. The slurry returns to the distribution box to be sent to the new head tank. The carbon is stored in a storage tank ready for transfer to the elution circuit by eduction.

There are a total of eight tanks in the calcine CIL circuit. These are 5.0m diameter and 5.6m high. The density of the material is 35% and the retention time is 25 hours. Each CIL tank will contain 2.5 tonnes of carbon. This calculates to an expected carbon density for the tanks of 29g/L and the expected loading capacity of the carbon is 7,800g/t

Lime will be added to the slurry immediately prior to the distribution box and cyanide can be added to all of the tanks. There is also provision for air to be added to the circuit although oxygen would be investigated if it was demonstrated to be required.

The carousel arrangement has been designed for this particular application as the carbon movement requirement was too high for a normal staggered tank approach.

18.3.11 Whole of Ore CIL

"Whole of ore" (WOO) CIL is capable of taking ore from either of two sources. It can treat oxide material that has been milled but not presented to the flotation circuit for further treatment such as Qinlongtan material or Jinlonggou oxide material. It can also treat the flotation tails to extract any remaining cyanide recoverable gold.

The tanks are 8.0m diameter by 8.5m high. The calculated capacity is 3,838m^3 and consists of seven tanks of 548m^3 each. The flotation tails would flow through the circuit at a pulp density of 32% solids, which equates to a residence time of 17.7 hours. The whole of ore material would be split at 44.4% solids by the mill cyclones and this equates to a residence time of 24 hours.

In this circuit, slurry is added to the first tank and carbon is added to the last tank. The two materials pass counter currently with the carbon moving up the circuit to contact with the higher grade solution. Intertank screens stop carbon from travelling back down the leach train. An overhead crane will facilitate the removal of the screens for maintenance and routine cleaning and will allow maintenance of all tank top equipment including agitators. A spare intertank screen will also be provided. All tanks will be fitted with bypass facilities to allow any tank to be removed from service for agitator or screen maintenance.

Carbon is then moved from the first leach tank over a vibrating screen to a hopper containing loaded carbon. This carbon is then educted to the elution circuit.

Sodium cyanide solution will be metered into the leach tank via a circulating main and rotameter.

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

18.3.12 Tailings

Tailings slurry from the last two CIL tank gravitates to the tailings vibrating screen for carbon recovery in the event of damage, wear or incorrect installation of the final stage interstage screens. Carbon recovered on the screen will report to a bulk bag for re-use.

Tailings discharging from the tailings liner screen, is then pumped through the detoxification circuit.

18.3.13 Acid Wash and Elution

Carbon is educted from the two CIL circuits to the elution circuit for gold extraction. There are two hoppers of 10m^3 capacity for the two CIL circuits for storage of carbon. A 3% hydrochloric acid (HCl) solution is pumped into the base of these hoppers and this acid is recirculated for approximately 20 minutes. Transfer and fill operations will be controlled manually.

During acid washing, the dilute solution of hydrochloric acid will be pumped into the bottom of the column to remove contaminants, predominantly carbonates, from the carbon. This process improves the elution efficiency and has the beneficial effect of reducing the risk of calcium-magnesium slagging within the carbon during the regeneration process.

Once the acid wash is completed, an amount of water (usually eight bed volumes) is added to the carbon to wash the acid off and increase the pH sufficiently to ensure the safety of the next step.

The carbon from the acid washing tank is added to the elution column.

A solution of 0.2% NaCN / 2% NaOH is mixed in the elution mixing tank. This solution is pumped through the carbon bed in the elution column and then to the electrowinning cells. There will be two electrowinning cells. These will be for the two different CIL systems. The solution will then pass back to the elution mixing tank before cycling through again.

18.3.14 Carbon Regeneration

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

The carbon will be heated to 650 to 750°C and held at this temperature for 15 minutes to allow thermal regeneration to occur. Regenerated carbon from the kiln will discharge onto a carbon sizing screen to remove undersize particles prior to entering the last adsorption tank (whichever circuit).

18.3.15 Electrowinning and Gold Recovery

The electrowinning cells will contain alternate anodes and cathodes. The cathodes will consist of steel wool and will be removed manually. The anodes will be a stainless steel mat. Electrowinning will take approximately 14 to 16 hours. Circulation of the eluate solution will continue until the return solution is depleted of gold.

The electrowinning cells will be of polypropylene construction and will be located within the security area of the gold room.

The steel wool will be removed from the electrowinning cells and placed in the calcine oven. The calcine oven will heat the cathodes up to 700°C and the steel will burn off leaving the gold and other extracted materials.

This material will then be mixed with a series of fluxes before being added to the electric fired furnace. From the furnace, gold ingots will be poured.

Fume extraction equipment will be provided to remove noxious gases from the cells and calcine ovens. One rectifier per cell will be located in a non-secure room alongside the cells allowing maintenance without going through security. Rectifiers, remote ammeters and controls will be located adjacent to the electrowinning cells.

The goldroom design is based on full security surveillance with remote control CCTV cameras with viewing facilities in the Plant Superintendent's office.

18.3.16 Detoxification

Once the slurry has passed through the leach tanks it will go to detoxification. The main aim of the detoxification circuit is to remove any cyanide that remains within the slurry and to remove any arsenic that still exists in the roaster off gases. This is completed by mixing the slurry with the remaining products from the off-gas neutralisation.

The liquid product from the Arsenic scrubber is then mixed with ferric sulphate ($FeSO_4.7H_2O$). This forms a stable precipitate of $FeAsO_4$ which is then sent through the thickener to the tailings dam.

The slurry is then thickened by passing through a 15m high-rate thickener. The thickened slurry is pumped to the tailings dam at an average density of 58% solids. The water that is recovered is sent to the process water tank for re-use in the process.

When Qinlongtan material is being treated, Sodium Metabisulphite will be used to remove the cyanide present once the leaching process is completed.

18.3.17 Reagents

Provision has been made for the mixing, storage and distribution of the following consumables: grinding media, sodium cyanide, caustic soda, hydrochloric acid, hydrated lime, activated carbon and flotation reagents.

Reagents that are added as solution are mixed in a common area with a mixing tank and storage tank. Some of the reagents, for example cyanide are supplied in one tonne bulk-bags that are lifted by a dedicated mono-rail and electric hoist and discharged using a bag breaker on each tank. Each reagent mixing station will include a bag breaker/drum tipper, mixing tank and agitator, storage tank (and agitator if required), transfer pump and dosing pumps.

Grinding balls are delivered to the main grinding area in drums. These drums will be lifted over the feed chute and then fed into the grinding ball feed hopper located at the SAG mill using a dedicated hoist. This activity takes place on a shift basis as required.

Cyanide solution is prepared in a dedicated reagent mixing facility. Cyanide is supplied to the site in one tonne bulk-bags and mixed in an agitated tank at 25% solution strength. It is transferred and dosed to the plant using centrifugal pumps and a ring main system.

Caustic is supplied in 25 kg bags, stored in the reagent storeroom, and manually added to the mixing tank and made using raw water.

Strong, 32% hydrochloric acid is delivered in 200 litre drums or by 10,000 litre bulk truck and offloaded using a drum pump to a storage tank. Acid is to be pumped as required to points of use in the elution process.

It is proposed to provide pH control in the milling and CIL circuits using hydrated lime. Lime is delivered by 40 kg bags and mixed to a slurry on site. Limestone will also be delivered to site where it is milled in place and stored for SO_2 neutralisation as required.

High activity carbon will be provided in 50kg bulk-bags and added to the CIL circuits as required.

18.3.18 Air Supply

Air Supply is currently managed by a series of specific blowers and compressors depending on the area and the amount of use. An integrated compressed air / instrument air / low pressure air supply system is being considered for all the air requirements.

18.3.19 Process Water

Decanted excess settled water from the tailings dam pool gravitates to the return water dam. A return water pump is provided at the return dam for recycling of return water to the plant process water tank. Operating and standby pumps are installed at the process water tank. Any shortfall in the process water requirement will be made up by the use of raw water.

Process water is reticulated throughout the plant where required, from the 500 m^3 process water tank, servicing specific process requirements as well as general hose points.

18.4 Tailings Management

The preliminary tailings dam design has been completed by BGRIMM. However, it is anticipated that Golders or equivalent will review the design and be involved in the final design.

The site for the Tailings Storage Facility (TSF) had been identified by Golders (Australia) in a previous study and then selected by Afcan personnel independently. This site was tested from a geotechnical perspective along with another alternative location that was closer to the plant site and provided better protection from the prevailing weather. However, subsequent geological investigation has indicated that there is resource potential for the second area and it won't be used for tailings storage at this stage.

The geotechnical investigation completed by SRK included the proposed tailings dam and plant site area. A TSF constructed at the favoured site can be described as a "hill side tailings impoundment" that could be constructed as either single or multiple tailings impoundments. The proposed facility is to have a maximum height of about 40m. This is a significant structure that warrants careful consideration to be given to the design and long term risks. Taking the site conditions into account, SRK favour the construction of a TSF using the downstream method to minimise risks associated with a tailings facility.

Detailed limit equilibrium and static analysis has been carried out by SRK to assess the stability of an assumed TSF, constructed using suitable rockfill, placed as an engineered fill, under a variety of loading conditions, and for different modes of failure. Taking the results of analysis into account, it is considered that the upstream embankment slope and downstream embankment slope can be constructed at 1 (V): 1.33 (H) and 1 (V): 1.54 (H) respectively, for the final embankment profile with a minimum crest width of 10.5m. The proposed TSF design is considered feasible, and it is anticipated that there will not be extensive site preparation or stabilisation costs.

Site preparation will be required for the construction of a TSF. It has been recommended that the coarse gravely sand layer that occurs at the surface is removed beneath the area within which tailings will be placed. This layer extends to an interpreted maximum depth of about 1.0m. The insitu materials beneath the tailings site have a permeability that is marginally higher than desirable. SRK have therefore recommended that the tailings storage facility incorporate a liner in the detailed design. The liner could be either HDPE or GCL. SRK favour the use of a GCL from a practical and installation perspective.

It has been anticipated that the natural ridges that are present at the tailings site will form a significant portion of the starter dam. There are topographic low areas that will require in-

filling. Where the embankment is constructed between topographic low areas, it should be properly tied into the competent ground and keyed into the ridges. Subsequent lifts that overlie the natural ridges must be properly keyed into the competent natural materials and the embankment should be built as an engineered fill. SRK have assumed that there will be an upstream barrier to the embankment. This layer will require a transition zone to be incorporated and it may include a liner.

The geotechnical designs that have been proposed for the TSF are conceptual and to a level considered appropriate for a feasibility study. Detailed geotechnical design is still to be carried out. TSF designs are commonly required to be changed during the life of the facility to take into account actual conditions and performance of the structure. Construction monitoring is an important tool in optimising a TSF. SRK have therefore recommended that an appropriate level of geotechnical input should be provided during the construction phase. This will include the design and monitoring of instrumentation installed specifically to assess geotechnical performance.

18.5 Infrastructure

The site infrastructure will consist of upgrading the existing facilities that are already present on the site. This will include the administration office, workshop / warehouse, plant workshop and office, laboratory and training centre, together with internal plant roads and drainage.

18.5.1 Communications

Communications on site are excellent with a fibre-optic cable installed between Dachaidan and the site. This allows for excellent telephone coverage and a broadband internet cable connection. Also installed on the site is a mobile CDMA tower. The mobile coverage is approximately 10 km from the tower and is sufficient for most of the treatment area and the Jinlonggou deposit.

A telephone exchange with a capacity of 120 sets will be installed and then distributed as required throughout the mine area. The cables will be laid respectively from each telephone exchange room to each workshop and individual building.

18.5.2 Access Road and In-plant Road Construction

The main access to the site is a track off the main sealed Dunhuang – Ge'ermu highway. The plant site is approximately 12 kilometres from this road. This road will be upgraded as part of the construction scope.

Access to the site is relatively simple with only one small river to cross. A culvert will be created to allow easy crossing of this river.

There is currently a single lane track between Jinlonggou and Qinlongtan, a distance of 19 kilometres. This road will be upgraded as part of the construction scope to bring ore from Qinlongtan back to the treatment plant at Jinlonggou.

18.5.3 Water Supply

Raw Water

Raw water is pumped from the Aolao River and is filtered and the sediment removed prior to being pumped to the raw water tank. A reservoir will be constructed alongside the river as the river surface freezes during the winter months. Water will be withdrawn from underneath the ice and then pumped by underground piping to storage facilities on the site.

Raw water is pumped to various points in the plant that require water free of suspended solids or chemical contamination. Raw water is used in the elution section for making up acid wash and eluant solutions, and for safety showers throughout the plant. The raw water pond is also the supply for the gland service water pumps. Standby raw water and gland water pumps are installed.

The fire-water for the plant is also obtained from the raw water pond. The fire system consists of a main fire pump, an electric jockey (pressure booster) pump, a diesel driven pump, a fire pipe manifold and hydrants in chosen locations throughout the plant.

Potable Water Supply

The raw water is almost potable. This water will be further treated through a filtration and UV sterilisation system before being stored in dedicated potable water tanks. These storage tanks are included for the plant site and the offices.

Potable water supply pumps for the plant then supply the various drinking water and ablution facilities throughout the plant and offices and all safety showers on site.

18.5.4 Power Supply and Reticulation

The TJS Gold Project will be supplied with electricity by the Qinghai Power Corporation from their power station at Ge'ermu. The Government has recently completed a Feasibility Study into installing a power line from Xitieshan to Yuka and then installing a 110 kV transformer there. Construction of this line has started and should be completed by November 2005. QDML will then install a power line from Yuka to the project site and install a 35 kV transformer substation at TJS. The power line will be approximately 38 km long.

The mine site will be provided with an enclosed 35 kV switchyard and two transformers of 5000 kVA – 35 kV / 6 kV to supply power for the 6 kV high voltage equipment and the mining area as well as the future load expansion. Four transformers of 1600 kVA – 35 kV / 0.4 kV will be used to supply power to the mineral processing, smelting, living areas and offices.

Power for construction will be provided by existing diesel generators that are already on site.

18.5.5 Buildings

Existing

The project originally commenced operations in 1992. Offices and accommodation have been constructed for a workforce of approximately 100 personnel and associated administrative requirements. This includes a number of offices including a conference

room, accommodation for 100 people, kitchen facilities and various leisure facilities. Also included in the original project was store building, yards and maintenance areas.

Offices

There is already a series of offices at Tanjianshan and these will be upgraded and expanded as required. The workshop and stores will be located adjacent to each other outside of the plant high security area. Both of these buildings will be constructed from steel frames and compressed foam. The store yard will have a laydown area to allow for storage of items that are not adversely affected by the weather.

Camp

The accommodation camp is located alongside the existing accommodation area and offices in the Pubugou valley. There are existing services of water and power for the existing camp. However, these services will need to be upgraded for the increase in numbers of personnel for the new project.

There is already existing accommodation on the site for approximately 80 personnel. Accommodation for another 150 people will be required for permanent accommodation. The existing units will be refurbished and the numbers of personnel sharing will be reduced as more accommodation is constructed.

The camp recreation area consists of a bar, games area, open veranda, bathrooms, dining room and kitchen. All enclosed rooms will be heated. The main camp kitchen will be part of the recreation complex. The kitchen will be fully equipped to prepare and serve food as required by the mine shift roster. There is currently a medical facility on site and this will be upgraded with more equipment to handle the increased numbers of personnel.

All accommodation on site is single status. Expatriate and senior staff will live in slightly different accommodation. The current design has eight rooms in a block with toilets and showers attached. Another two blocks of eight rooms will be constructed for the same purpose.

Process Plant

The cyanide store will be an open fenced area located immediately to the rear of the workshop and store. This area will be gated to control access.

A comprehensively equipped laboratory will be provided at the plant to cater the process control, metallurgical accounting, mine assay and environmental monitoring.

The weigh station will consist of an 80-tonne weighbridge complete with workstation for the operator. The weighbridge will be used for weighing reagents and stores when they are delivered to the plant. Fuel and oil storage will be supplied under contract.

Portable fire extinguishers will be placed outside of the offices, sleeping quarters, kitchens, workshops, stores and will be distributed around the plant site for fighting small fires. Hose reels and hydrants will be positioned in the plant and camp sites to be able to cover the entire sites. Fire water will be supplied from the raw water tank on site, and a reserve level will be set in the tank to ensure the availability of water for fighting fires.

The site vehicles will be used for the transport of materials and personnel to and from Dachaidan and Ge'ermu for subsequent transport during their break periods.

The Main entrance security office will be located on the Main Plant access road. All visitors to the mine complex will report to this security gate for authorisation prior to entry. Personal protection equipment (PPE) will be issued from this point if required. A CCTV (Closed circuit television) system will be installed in the plant overseeing the mill and goldroom to monitor activities.

Solid waste will be buried in a dedicated facility on site. This site will consist of pits to be filled with waste, compacted and covered over before a new pit is started.

Sewerage will be collected in septic tanks, placed through a macerator unit and then gravity fed to the tailings dam.

Communications

A 40 number PABX will be installed throughout the plant for communications. This telephone system will be linked to the existing fibre-optic cable for communications offsite. Internet and voice transmissions will be carried on the same signal using Voice over IP (VOIP) protocol. Television signals will be received from satellite television systems. Plant and mine mobile communications will be done via handheld mobile radio sets, with a base station located near the centre of operations. There is also a CDMA mobile phone system in place that can and will be used for remote communications. Finally, a UHF radio system is expected to be used for communications with the Qinlongtan operations.

18.5.6 Mine Infrastructure and Services

Most workers live in either Dachaidan or Ping'an (near Xining). A weekly bus service runs from Xitieshan through Dachaidan to site and then back through Dachaidan to Ge'ermu. This allows people to go to either Dachaidan or Ge'ermu to board the train heading back to Xining.

The basic medical facility currently on site will be upgraded. This will allow basic first aid to be completed on the site. A doctor has been contracted from the hospital in Dachaidan and is currently on the site. If there are any more serious problems the person can be moved to Dachaidan.

An agreement has been reached with International SOS for the evacuation of Senior Personnel if required. This would involve transport to Dunhuang or Ge'ermu and then airlift to Beijing or Hong Kong. The medical facilities in both of these places are considered world-class.

International SOS has also proposed an equipment list for the medical facilities on the site. This equipment will be purchased to ensure that personnel on site have sufficient medical equipment to handle most accidents. International SOS will also complete a site medical evaluation to determine the most efficient method of removing an injured person from the site and commenting on the viability of the various hospitals in the region. This will be completed during the early construction period.

Security is less of a problem due to the remote location of the project and the limited number of access points. The treatment plant area will be fenced and access will be controlled by security. Within this area, the gold room will also be fenced and only limited access will be allowed.

The gold room will only be accessed by suitably trained and authorised personnel. Security within the room will include double locks and a electronic motion detection system. Gold room activities will be monitored on closed circuit television from the Mill Superintendent's offices. The electrowinning cells will be locked and different keyholders will be needed for access. Persons leaving the gold room will be subjected to security checks using a portable metal detector.

18.6 Personnel

The TJS Gold Project has been operating either as a heap leach operation or a sulphide processing plant or both since 1992. Many of the 130 personnel have been with the company for a number of years and when Afcan took over the joint venture, they agreed to keep all of the personnel employed. Consequently, many of the workers are immediately available and have relevant experience for the location and the style of operations that QDML are proposing.

Selected posts requiring specific skills or experience not available within China will be filled by expatriates. In addition to performing their job function expatriate personnel will be expected to transfer knowledge and expertise to develop the capabilities of their national staff. In the longer term it is anticipated that nationals from China will fill most operation and management positions within the company.

The workforce will be under the control of a General Manager who will be supported by several departments, each headed by a Manager. The General Manager will be responsible for all aspects of safety in the operation, the environment and industry and community relations.

18.7 Markets

Gold output from the TJS Gold Project will be in the form of doré bars containing approximately 97 percent gold, the balance being silver and other minor metals. Silver credits are negligible.

The doré will be transported to Dachaidan and will be collected from there by the buyer. Based on quoted refining charges, the cost for refinery, shipping and insurance is 1.5RMB/gram ($US 5.60 per ounce). It is anticipated that penalties for any impurities will not be significant.

18.8 Contracts

An EPCM style contract has been awarded for the TJS Gold Project treatment plant. This contract has been awarded to BGRIMM.

18.9 Environmental Considerations

18.9.1 Legislative Background

In accordance with the Environmental Impact Assessment Law (28 October 2002, effective September 2003), an environmental study for the TJS Gold Project is required since the proposed development is considered to have a major impact on the receiving environment.

Environmental approval for the project was given by the Qinghai Environmental Protection Bureau on December 30th, 2002.

18.9.2 Organisation of the Study

SGS Environment, a Division of SGS Laboratory Services Ghana Limited (SGS), has prepared the Environmental Impact Assessment (EIA). A number of specialist reports have been used in the preparation of the environmental baseline and include the Qinghai Geological Environmental Monitoring Station (Environmental Impact Report), the Department of Grassland Science, Qinghai University (Fauna and Flora Surveys) and the Qinghai Academy of Science (Social and Economic Impact Report). A number of other consultants were commissioned by QDML to undertake engineering studies of the proposed infrastructure.

18.9.3 Baseline Survey

The TJS Gold Project lies in the northern part of the Chaidamu Basin on the inland plateau of north-western China. Most of the Chaidamu Basin can be defined as Desert and some parts can be defined as gravel Desert. The climate of the TJS Gold Project Area is typical of most desert environments and experiences very low rainfall, high evaporation, very cold nights and relatively warmer days.

The TJS Gold Project area is entirely rural and there are no sources of gaseous or particulate emissions with the exception of the existing TJS Gold Project operation. Air quality was monitored around the existing mine site in May and June 2002. The findings show air quality in the close vicinity of the operation to include high levels of suspended particulate (dust), Diarsenic Trioxide and Sulphur Dioxide. Since, however, the existing plant and associated roasting facility are not in operation anymore, air quality can now be described as good.

Although no permanent water can be found at the mine site throughout the year, the area has been known to experience some localised flooding during times of heavy rainfall. The only perennial water body within the TJS Gold Project Area is the Aolao River, which lies approximately 2 km from the proposed mine site. The Aolao River takes its source in the mountains some 8 km upstream of the mine site.

Results of the physico-chemical analysis of the Aolao River show that the quality of water is typical of the region and local geology. Total Suspended Solids, Sodium (Na+), Chloride (Cl-) and Sulphate (SO_4^{2-}) levels in the Aolao River were generally high.

Apart from the perched water table of the Aolao River, no groundwater was recorded in the TJS Gold Project Area. The perched water table supports a strip of vegetation on either side of the Aolao River.

It was concluded that quality and quantity of flora and fauna in the TJS Gold Project Area is low and that the ecological environment is particularly fragile. Furthermore, species diversity is not distributed evenly. Low species diversity and vegetation cover are a result of two factors, namely the harshness of the climate and anthropogenic activities.

According to the classification system of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Food and Agricultural Organization of the United Nations (FAO) in 1977, the soils of the TJS Project Area can be broadly classified as Desert Soil. This soil type is widespread in the northwest arid regions of China.

Land uses of the area include mining and informal livestock grazing. Apart from the existing accommodation at the mine and seasonal nomadic herdsmen (3 to 6 groups of 2 to 4 persons) there are no people living close to the proposed TJS Project Area.

A number of alternatives were considered in the early stages of the project planning. Alternatives were screened out based on financial, social, technical or environmental constraints. Alternatives included, but were not limited to the placement of infrastructure, the mining process and the decision whether to mine or not (the “no – go” alternative).

Potential impacts associated with the proposed development were identified and assessed. Potential impacts relating to gaseous emission, tailings disposal, water abstraction and acid rock drainage were considered the most significant.

Typical mitigation measures similar to those already in use by several existing operations in other parts of the world have been proposed. Based on the implementation of the mitigation measures, all of the potential impacts of high significance were reduced to acceptable levels. The potential impact of the proposed TJS Project on the physical, biophysical and social environments is considered to be of low significance.

A Provisional Environmental Management Plan (PEMP) for the project has been prepared. A full EMP will be prepared just prior to the construction phase. The plans of the PEMP cover the period, which extends from the construction phase to the post closure of the TJS Project and includes the following topics:

- Corporate Commitment and Environmental Policy;
- Environmental Management Structure;
- Financial Allocations;
- Outline of the Project;
- Existing Natural Environment;
- Existing Socio-economic Environment;
- Environmental Impacts and Mitigation of the Project;
- Waste Management;
- Community Relations;

- Monitoring Programmes;
- Reclamation, Closure and Decommissioning;
- Emergency Response Plans (Fire Protection, Tailings Dam Failure, Solution Excursion, etc.); and
- Auditing & Review.

QDML is committed to managing all phases of the proposed TJS Gold Project in accordance with best environmental practices such that the medium and long term social and environmental impacts are minimized.

A conceptual reclamation and closure/decommissioning plan has been prepared and presented. Where feasible, QDML will undertake progressive reclamation during Project Life and will close/decommission the project with the objectives of elimination of any public safety hazards, and of providing a post mining land use compatible with the prevailing beneficial land-uses of the area.

The reclamation plan encompasses potential end-land use, reclamation principles, land reclamation methods, post monitoring and management techniques and financial aspects.

The closure/decommissioning plan includes the environmental objectives of QDML as a corporate body, followed by a provisional plan for rehabilitation and site closure. A preliminary, but detailed assessment of reclamation and closure costs has been prepared.

18.10 Taxes, Duties and Royalties

Generally, a foreign-invested exploration and mining company (FIMC) such as QDML that engages in the mining of metals would be subject to the following taxes and fees:

Enterprise income tax:

An FIMC will be subject to a 33% enterprise income tax (30 % national tax plus a 3 % local tax) calculated on net income. The enterprise income tax may be reduced to 15% up to 2010 if the FIMC is considered an encouraged project.

Exploration rights use fee:

RMB 100 / Km2 / year: for the first 3 years of exploration;

RMB 200 / Km2/ year: for the 4th year of exploration;

RMB 300 / Km2/ year: for the 5th year of exploration;

RMB 400 / Km2/ year: for the 6th year of exploration;

RMB 500 / Km2/ year: for the 7th year of exploration and onwards.

Mining rights use fee: RMB 1,000 / Km2/ year

Exploration/mining rights premium:

The premium is an amount payable to the Ministry of Land and Resources ("MOLAR") or its local counterpart to compensate the State for its funding for the exploration or mining work prior to the transfer of relevant exploration or mining rights.

The premium shall be determined based on an appraisal done by a qualified appraisal firm recognized by both the MOLAR and the State Assets Supervision and Administration Commission. The appraisal result shall be verified by the MOLAR.

The premium may be paid in lump sum or by instalments. If by instalments, the exploration right premium shall be paid up within 2 years, and the mining right premium shall be paid within 6 years.

Resources tax:

An FIMC may be subject to a resources tax. The State Council determines the taxable items and the range of the tax rates in general, and the Ministry of Finance may decide the specific tax rates applicable to particular projects. The resources tax rates for gold ores range from RMB 1.3 to RMB 2.5 per ton, depending on the grade of specific gold ores. The resources tax rates for gold placer range from RMB 1.2 to RMB 2.0 per 50 cubic meters of dredged amount, depending on the grade of specific gold ores.

Mineral resources compensation fee:

An FIMC as the mining rights holder shall pay the mineral resources compensation fee, which equals to a certain percentage of the revenue generated from sales of relevant mineral products, ranging from 0.5% to 4%. The applicable rate for gold is 4%.

Land use rights grant fees or rentals:

An FIMC must apply for temporary or formal land use rights in order to explore or mine minerals, and must pay the applicable land use rights grant fee if the company obtains the land use rights by way of grant, or pay rent if the company obtains the land use rights by way of renting. The rates of the land use rights grant fees or rentals are determined locally.

To support the development in the Western regions of China, including Qinghai Province, China offers certain tax incentives for foreign invested enterprises established in the Western regions. Among others, the enterprise income tax rate may be reduced to 15% up to 2010 upon approval by the tax authority if the foreign invested enterprise meets certain conditions, including;

- being established in the Western regions of China;
- its main business is considered "encouraged" under the Foreign Investment Catalogue or falls under the Catalogue for Guiding Foreign Investment in the Dominant Industries of the Central and Western Regions; and
- more than 70% of its revenue arises from the encouraged business.

Under the current Foreign Investment Catalogue, gold mining is considered restricted except for the mining and dressing of low-grade, refractory gold, which is considered

encouraged. Since the gold ores that QDML will mine in Tanjianshan are not low-grade refractory ore, QDML may not qualify for the reduced 15% enterprise income tax. Nonetheless, QDML plans to apply to the local tax authority for the reduced 15% tax rate.

TJS Limited constitutes the foreign party of a cooperative joint venture company established with two other Chinese organisations. When TJS Limited as a foreign investor receives dividends from a foreign invested enterprise such as QDML, the dividend will be exempt from withholding income tax. In addition, if TJS Limited reinvests its profits earned from QDML, 40% of the enterprise income tax paid by QDML corresponding to the reinvestment amount may be refunded upon satisfaction of certain stipulated conditions. The refund rate may be up to 100% if the reinvested enterprise is a technologically advanced enterprise or meets other stipulated conditions.

18.11 Inflation and Exchange Rates

The Base Case cash flow projections are made in constant dollars without escalation for either costs or metal prices. All dollar amounts are reported in United States currency since metal prices are denominated in US dollars and the Renmimbi is currently pegged to the US Dollar. Most of the equipment costs and most of the operating costs are in Renmimbi or US Dollars.

18.12 Capital Cost Estimates

18.12.1 Initial Fixed Capital Costs

Initial fixed capital costs, including working capital, total US$50.2 million and are summarized in Table 18.11.1_1. For equipment, the costs are the delivered, installed costs including import duties where applicable. No escalation has been assumed in the capital costs, nor allowances made for capitalized interest or country risk insurance. Interest charges and country risk insurance are treated as financing costs and considered as part of an overall financing package. Additionally the capital costs do not recognize the impact of export credits which Etruscan believes could be available for the Project.

Table 18.11.1_1

Initial Capital Costs

Item	Value [M$]
Mining Costs	8.51
Treatment Plant	25.05
Technical Equipment	0.17
Infrastructure and Utilities	0.10
First Fill	0.26
Recruitment	0.20
Vehicles	0.81
Power Line Construction	2.14
Owner's Costs	2.65
Salaries (during construction)	2.24
Working Capital	1.87
Miscellaneous Items	0.70
Sub-Total	44.68
Contingency	5.47
Grand Total ($M)	**50.16**

The Project construction and commissioning of the CIL mill is assumed to occur over a 12 month period starting from the date of a decision-to-proceed. For the purposes of feasibility analysis, it has been assumed that all initial capital will be expended in the 12 months immediately prior to production.

The feasibility cash flows exclude the sunk exploration and development costs incurred to date, feasibility study costs, financing charges and Afcan overhead.

18.12.2 Working Capital

During the initial weeks of mine operation and mill commissioning while gold inventory is building up in the process circuit, and before cash is received from the sale of gold, working capital is required to meet operating expenses. Working capital is estimated to be 14 days of Year 1 operating expenses or approximately US$1.87 million. This figure is included as part of the initial project capital cost to be financed and is shown separately on the cash flow schedules in Year 1. The working capital will be recouped over the life of the mine.

The initial stocks of consumables and strategic spare parts have been provided for separately within the Project capital costs. Ongoing purchases of supplies and parts are treated as operating costs.

18.12.3 Deferred Capital Costs

Deferred capital costs net of estimated salvage value approximate $0.97 million. This figure comprises $1.57 million for sustaining capital expenditures as outlined in Table 18.11.3_1 and a credit of $2.54 million for estimated salvage value.

Table 18.11.3_1
Deferred Capital Costs

Item	Value [M$]
Tailings Dam	1.05
Reclamation and Mine Closure	.52
Grand Total	**1.57**

Annual sustaining costs have been estimated at $200,000 for the period between Year 1 and Year 7. The bulk of the sustaining capital comprises the expenditures associated with the build up of the tailings dam and reclamation bonding.

18.13 Operating Costs

The life of mine operating costs for the TJS Gold Project are presented in Table 18.12_1 and include all mining, treatment and general and administrative costs, which are incurred at the mine site. The operating costs exclude depreciation, amortization or any management services provided by Afcan.

Table 18.12_1
Life of Mine Operating Costs

Item	Value [M$]	Unit Cost [$/t milled]
Mining Costs	82.49	13.76
Treatment Costs	82.43	13.75
On Site General and Administration Costs	25.54	4.17
Total	**190.46**	**31.68**

18.14 Economic Analysis

18.14.1 Project Economics

The economic evaluation of the TJS Gold Project presented in this Study and prepared by Afcan assumes the project will be 100% equity financed. Afcan considers the project to be a good candidate for a combination of a dollar loan, equipment lease and equity financing. The effect of including debt financing on the Base Case economics is to increase the rate of return to the equity owners by virtue of a *leveraging* effect.

For the purposes of the study, the evaluation is based on 100% of the project cash flows before distribution of profits to the equity owners. Before-tax annual cash flows are discounted at rates of 0% and 10%. The markets for gold equities typically imply a low discount rate, near 0% in many cases.

The Base Case 100%-equity financed scenario, using a constant gold price of US$420 per ounce, indicates a before-tax internal rate of return (IRR) of 32%. Cumulative before-tax cash flows are US$145 million over a 8 year mine life. Afcan has prepared the model based on the current best information in terms of the taxation provisions in China.

Direct operating costs average $226 per ounce of gold produced over the mine life. The total cash costs, including the 4.5% royalty payable to the Chinese JV partners, are estimated at $19 per ounce over life of mine.

A summary of the Base Case cashflow model is provided in Table 1.9.1 reproduced hereafter.

The present mine life of the TJS Gold Project is 8 years. The initial capital investment of $50.2 million is paid back in 2.6 years.

18.14.2 Sensitivity Analysis

Several cash flow projections were calculated whereby certain of the Base Case parameters were varied. In particular, each of the gold price, capital costs, operating costs, grade and recovery were varied by +10% and -10%.

A constant gold price of $420 per ounce has been applied to the Base Case cashflow model. Forward sales of a significant portion of gold production could achieve a higher effective gold price. For example, by forward selling 50% of feasibility study production at $450 per ounce, the average effective gold price would increase to US$435 per ounce. The Base Case project sensitivity analyses indicate that, at a constant gold price of $435 per ounce of gold, the before-tax internal rate of return is 35.9%. Using a constant gold price of $420 per ounce, the before-tax internal rate of return is 32.0%.

The results of the sensitivity analyses are summarized in Figures 18.13.2_1 and 18.13.2_2 in which the sensitivity of the project to each of the varied parameters is quantified in terms of change in the Project NPV calculated at a 10% discount rate and change in the Project Internal Rate of Return (IRR).

Table 1.9.1
Summary Base Case Cashflow Model

Item			Construction	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Total
Open Pit Mining Schedule:												
Ore Mined			136,560	684,401	863,634	788,340	787,897	826,490	788,803	806,709	313,310	5,996,144
Overburden & Waste			6,210,101	26,020,099	10,678,208	4,135,425	4,031,288	4,024,415	2,008,813	1,991,858	1,139,713	60,239,920
Total Material Mined			6,346,661	26,704,500	11,541,842	4,923,764	4,819,185	4,850,905	2,797,616	2,798,567	1,453,023	66,236,063
Strip Ratio			45.5	38.0	12.4	5.2	5.1	4.9	2.5	2.5	3.6	10.0
Ore Procesing Schedule:												
Ore Milled			0	750,000	798,769	800,000	800,000	800,000	800,000	800,000	447,375	5,996,144
Contained Grade in gm			0	6.98	7.52	4.38	4.35	3.56	3.91	4.11	4.22	4.90
Recovered ozs			0	152,242	175,786	99,605	97,860	80,308	88,864	93,611	53,266	841,541
Stockpile Movement:												
To (From) Stockpile			136,560	-65,599	64,865	-11,660	-12,103	26,490	-11,197	6,709	-134,065	
Contained Grade in gm			9.57	1.42	3.44	3.76	3.69	2.76	3.40	2.97	0.00	
Stockpile Balance at end of period			136,560	70,961	135,826	124,166	112,063	138,553	127,356	134,065	-0	
Gold Production Schedule (Ounces)												
Recovered gold - oz				138,630	155,351	97,762	111,631	85,946	90,511	89,387	72,323	841,541
Cumul, recovered gold - oz				138,630	293,981	391,742	503,373	589,319	679,830	769,217	841,541	
Gold Ounces Paid		99.95%		138,561	155,273	97,713	111,575	85,903	90,466	89,343	72,287	841,120
Revenue:												
Ounces Sold Forward				0	0	0	0	0	0	0	0	0
Ounces Sold Spot		$420		138,561	155,273	97,713	111,575	85,903	90,466	89,343	72,287	841,120
- Revenues				58,195,446	65,214,663	41,039,308	46,861,450	36,079,219	37,995,625	37,523,973	30,360,674	353,270,358
- Refining and Freight				415,602	465,730	293,082	334,661	257,660	271,346	267,977	216,821	2,522,878
- Royalty				2,620,105	2,936,128	1,847,693	2,109,820	1,624,377	1,710,658	1,689,423	1,366,914	15,905,119
Net Revenue:				**55,159,738**	**61,812,805**	**38,898,534**	**44,416,969**	**34,197,182**	**36,013,621**	**35,566,572**	**28,776,940**	**334,842,361**
Production Costs:												
- Mining Cost		**$ 13.76**		34,780,945	16,219,131	6,863,924	6,736,280	6,779,995	4,270,083	4,273,572	2,567,865	82,491,794
- Process Cost		**$ 13.75**		9,663,699	9,454,147	11,431,381	11,113,196	11,035,784	11,420,861	11,441,901	6,872,205	82,433,174
- G&A On Site		**$ 4.17**		2,990,497	3,502,610	3,287,475	3,286,212	3,396,480	3,288,799	3,339,961	1,930,197	25,022,230
Total Operating Costs				**47,435,140**	**29,175,888**	**21,582,780**	**21,135,687**	**21,212,259**	**18,979,743**	**19,055,433**	**11,370,267**	**189,947,198**
Unit Operating Costs	Operating Costs per recovered oz			342	188	221	189	247	210	213	157	226
	Royalties payable per recovered oz			19	19	19	19	19	19	19	19	19
	Cash cost per recovered oz			361	207	240	208	266	229	232	176	245
	Cash cost (including royatlies) per tonne processed			66.74	40.20	29.29	29.06	28.55	25.86	25.93	28.47	34.33
Operating Profit				**7,724,598**	**32,636,917**	**17,315,754**	**23,281,281**	**12,984,923**	**17,033,878**	**16,511,139**	**17,406,673**	**144,895,163**
Capital Investment:												
Initial Capital			-48,285,743									-48,285,743
Sustaining Capital				-200,000	-200,000	-200,000	-200,000	-200,000	-200,000	-200,000		-1,400,000
Working Capital	# of days	14	-1,870,048									-1,870,048
Salvage	% Plant	10%									2,862,816	2,862,816
Total Capital Cost			**-50,155,791**	**-200,000**	**-200,000**	**-200,000**	**-200,000**	**-200,000**	**-200,000**	**-200,000**	**2,862,816**	**-48,692,975**
Net Cash Before Income and Debt Service			**-50,155,791**	**7,524,598**	**32,436,917**	**17,115,754**	**23,081,281**	**12,784,923**	**16,833,878**	**16,311,139**	**20,269,490**	
Cumulative Cash Flow Before taxes and interest			**-50,155,791**	**-42,631,193**	**-10,194,276**	**6,921,477**	**30,002,759**	**42,787,682**	**59,621,560**	**75,932,698**	**96,202,188**	

18.15 Project Implementation

18.15.1 Nature of Implementation

The nature of the implementation contract will be an engineering, procurement and construction management (EPCM) for the plant and infrastructure using a Chinese engineering group. This group will then manage the various sub-contractors involved in the construction of the project. A foreign group will then be retained to operate as the Owner's Representative for Afcan during the project construction period.

18.15.2 Assumptions

This study is based on an option that is most likely to be practical and cost effective, namely engineering, procurement and construction management of the plant and infrastructure. Construction of the plant will be supervised by the Contractor but using a local labour force employed by the owner. The infrastructure will be carried out by local contractors and/or direct field labour and will be supervised by the Contractor. All fabrication will be done in China. Included in the supervisory team will be expatriate quality control and expediting personnel that will ensure that fabrication schedules and quality of work are acceptable to the project. Local labour will be administrated by QDML. Tools and equipment will be imported to carry out the construction work as required and will be supplemented by hired heavy equipment as required.

18.15.3 Critical Drivers

There will be front-end activities required for confirmation of BFS data, before any physical work can be done and these include the following critical drivers:-

- Obtaining the appropriate finance.
- Availability of local plant and equipment.
- Mobilising equipment for the construction of the tailings disposal facility.
- Procurement of long lead mechanical equipment especially the SAG mill, alternately identifying a suitable second hand mill for refurbishment.

A procurement strategy has been included in the implementation plan to provide for the supply and transportation of equipment and bulk materials, which will be purchased from reputable vendors to ensure the reliability and performance of vendors.

18.15.4 Construction Strategy

Construction activities can only proceed during the summer months (April to October) so it is critical to ensure that all civil works should be scheduled for the summer months to ensure high enough temperatures. The construction efficiency has been taken into account in the construction program during the winter.

The major milestones for the completion of the project are as follows:-

- Project commencement 01 March 2005.
- Upgrade of roads and completion of village accommodation unit civils commence 01 April 2005.
- Commence civil works on 01 May 2005.

- Complete ordering of long lead items before 31 May 2005.
- Civil & structural detail design complete before 01 July 2005.
- Civil works complete before December 2005.
- Erect sufficient buildings to allow for efficient winter construction activities.

18.15.5 Project Management

The project will be executed on a functional matrix basis, with resource allocation dictated by the project requirements. To facilitate this, a functional project structure, will be implemented, based on separating the process plant from the infrastructure.

18.15.6 Construction

The construction management will be run on the same basis as the engineering and design. Two distinct construction teams will be put into place, one to construct the process plant, and one to construct the infrastructure.

18.15.7 Taxes & Permits

All taxes, duties, levies, Chinese taxes on expatriate salaries and local permits required for the execution of the works have been included in the costing sections of the document. The administration of which will be the responsibility of QDML.

18.15.8 Health and Safety

To ensure the health and safety of the expatriate workers, and due to the remoteness, a doctor (employed by QDML) will form part of the site management team, and the first aid facilities on site will be sufficient to deal with emergency treatment and stabilisation before transport by ambulance to the nearest hospital. In terms of backup, the mine ambulance will evacuate to Dunhuang in case of a medical emergency requiring evacuation. International SOS are preparing to complete a review of medical facilities in the area and elsewhere in China.

18.16 Risk Assessment

The framework for risk assessment is based on the Australian Standard for Risk Management, AS4360:1999.

The principal risks to the Project that were assessed as either extreme or high require further work on mitigation during detailed engineering and are discussed below.

The highest risk identified concerns the political risk to the mining operation. China is, however, a politically stable country so the likelihood of any political upheaval is low.

The risk to the gold produced is minimal, as the mining rights are well defined.

The time taken to ramp up to full production as a result of late mobilisation of crews with the necessary skill levels to meet production targets is a risk for the project.

Pay scales have been developed to allow the company to attract the necessary quality staff. A comprehensive training strategy will be implemented using international trainers, OEM training specialists, experienced staff from within China, and an in-house training function.

Proven and relatively simple technology will be utilised.

Due to the plant's remote location the plant must carry a reasonably comprehensive store of spares. As most of the equipment will be produced locally, it is not expected to be difficult to obtain spare parts.

OTHER RELEVANT DATA AND INFORMATION

19.1 China Applicable Law

China became a full member the World Trade Organization on December 11, 2001. As such, it is subject to the General Agreement of Tariffs and Trade (1994), the General Agreement on Trade in Services and the Agreement of Trade-Related Aspects of Intellectual Property Rights. China has also adhered to other multilateral agreements such as the Agreement on Trade-Related Investment Measures, the Understanding on Rules and Procedures Governing the Settlement of Disputes, the Agreement on Agriculture and the Agreement on Technical Barriers to Trade.

As a member of the World Trade Organization, China is required to ensure the transparency of its legal and regulatory system. The government of China has made progress since the 1980's in establishing a rule of law in China. However, it should be noted that the current legal and regulatory framework cannot be recognised as fully transparent.

19.2 Foreign Investment

The activities of foreign-invested exploration and mining companies ("FIMCs") in China are subject to laws and regulations regarding foreign investment in China, and to the rules and policies of the Chinese Ministry of Commerce ("MOFCOM") and other official bodies. The Catalog for Guiding Foreign Investment in Industries (the "Foreign Investment Catalog") as amended and reissued by the National Development and Reform Commission ("NDRC") and MOFCOM on January 1, 2005, categorizes various investment projects as "encouraged," "restricted," or "prohibited" for foreign investment. Unlisted projects are generally treated as "permitted." The categorization of any particular project will affect, amongst others, the level of governmental approval required, the availability of tax and customs incentives, and limitations of foreign equity ownership.

Under the Foreign Investment Catalog, foreign investment in gold exploration and mining is categorized as "restricted." However, foreign investment in the mining and dressing of low-grade, refractory gold is categorized as "encouraged."

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Under the Foreign Investment Catalog, foreign investment in gold exploration and mining is categorized as "restricted." However, foreign investment in the mining and dressing of low-grade, refractory gold is categorized as "encouraged."

19.3 Mining Law

FIMCs are also subject to The Mineral Resources Law (the "Mineral Resources Law") of China adopted by the National People's Congress Standing Committee on March 19, 1986 and amended as of January 1st, 1997. The Mineral Resources Law constitutes the fundamental legislation governing mining activities in China. To supplement the Mineral Resources Law, the State Council promulgated national administrative rules or regulations and local governments adopted local regulations. In China, mineral resources are owned by the State and exploration and mining rights must be obtained to explore or mine mineral resources.

The Ministry of Land and Resources ("MOLAR") administers the laws and regulations which govern exploration and mining operations. Subject to the specific rules applying to FIMCs, each province, autonomous region and municipality is responsible for supervising and administering the exploration and mining of mineral resources within its own administrative area.

On October 24, 2000, the State Council approved "Several Opinions on Further Encouraging Foreign Investment in the Exploration and Mining of Non-petroleum Non-Gas Resources" (the "Opinions") which sets out general policies for the exploration and mining of non-petroleum non-gas resources under which foreign investors:

Were encouraged to invest in the exploration and mining of non-petroleum non-gas mineral resources in China in accordance with the Mineral Resources Law and the Foreign Investment Catalog;

- Could undertake exploration directly or as part of a joint venture with a local partner;
- Enjoy a legal priority to mine a deposit discovered as a result of their exploration work;
- Could purchase rights to explore and mine non-petroleum non-gas mineral resources from large and medium-sized State owned enterprises, except if prohibited by law or otherwise; and
- Were entitled to transfer in accordance with law, their exploration and mining rights of non-petroleum non-gas mineral resources.

The Opinions further established that foreign investors in the exploration and mining of non-petroleum non-gas mineral resources could:

- Establish FIMCs that would benefit from the same preferential treatment with respect to the import and export of exploration equipment as enjoyed by other foreign invested enterprises in China;

- amortize exploration expenses against mining revenues;
- be eligible for exemptions from and reductions of, mineral resources compensation fees under stipulated circumstances.

The Opinions also included certain promises for a more liberal and comprehensive regulatory regime to govern foreign participation in China's mineral sector and to streamline approval procedures. However, the government has been slow to implement these promises.

19.4 Licensing and Registration

The Mineral Resources Law stipulates that mineral resources are owned by the State. The State Council exercises ownership of the mineral resources on behalf of the State.

Licensing and registration are required for the exploration and mining of mineral resources. The Mineral Resources Law provides that the State will protect the lawful exploration and mining rights from disturbance. Licence fees are due to be paid at the time of issuance. Thereafter, an annual payment is required to be paid based on the fixed rate established by regulation multiplied by the number of square kilometres covered by the exploration or mining rights.

Under the Mineral Resources Law and the Measures for Administration of Registration of Mineral Resources Exploration Blocks, a unified block registration system is established in respect of exploration of mineral resources. The exploration area is described by a basic block of 1' of longitude x 1' of latitude (approximately 848 acres), and with respect to the exploration of metal minerals, 40 basic blocks is the maximum area allowed to be covered by any one exploration licence.

Exploration of mineral resources is subject to obtaining an exploration licence from the MOLAR. For non-petroleum and non-gas mineral resources, exploration licences are registered and issued to exploration licence holders for a maximum three-year period. They can be renewed upon application.

When an economic deposit is discovered, the exploration licence holder may apply for a two-year reservation of the exploration licence covering the area of the deposit within 30 days prior to expiration of the initial licence.

The holder of the exploration rights has the right to undertake exploration within the licensed area, to construct exploration facilities and infrastructure and to use the land to access the licensed area. The holder also has the priority in obtaining the mining rights to exploit minerals within the exploration area. Exploration rights can be transferred subject to prescribed approvals such as all of the required annual payments having been made and the licensee having carried out the stipulated minimum expenditures.

The terms of a mining license are determined by the size of the deposit and the legal characteristics of its holder. The holder of the mining rights has the right to conduct mining operations within the term of the license, sell mineral products and keep the proceeds from such sales, acquire land uses rights and construct production and living facilities within the mining area. The holder of the mining rights must submit an environmental impact study and carry out its mining activities within the timeframe approved in the course of obtaining

his license. A resource tax and a mineral resource compensation fee must be paid annually. After the first year of production, mining rights can be transferred subject to governmental approval.

If mining activities result in damage to arable land, grassland or afforested area, the mining operator must take measures to return the land to an arable state within the prescribed time frame. Any entity or individual which fails to fulfill its rehabilitation obligations may be fined and denied application for land use rights for new land by the relevant land and natural resources authorities.

The Interim Administrative Provisions Governing the Grant and Assignment of Mining Industry Rights were promulgated on November 1, 2000 and allow for the following:

the transfer of exploration rights and mining rights, by way of sale, contribution through evaluation, cooperative exploration or mining or public listing;

- granting of exploration and mining rights, including by way of invitations to bid and auctions;
- mortgaging and leasing of exploration and mining rights;
- selling exploration and mining rights;
- undertaking co-operative operations with other entities; and
- the assignment of exploration and mining rights.

It is also possible for foreign investors to purchase rights to explore and mine such mineral resources (except those forbidden by law) legally held by large and medium-size State-owned enterprises.

19.5 Transfer of Exploration Rights and Mining Rights

Under the Mineral Resources Law, an exploration licence holder can, subject to approval, transfer its exploration rights to another party when it has fulfilled its minimum exploration expenditure obligations. Under the Mineral Resources Law, a mining licence holder that engages in a merger or division, joint venture or a disposition of its assets may, subject to approval, transfer its mining rights to another party.

In addition, on February 12, 1998, the State Council promulgated the Measures on the Administration of Transfer of Exploration Rights and Mining Rights (the "Transfer Measures"). The Transfer Measures stipulate that an exploration licence holder may transfer its exploration rights to another entity if the following conditions are met:

- the passage of two years since the issuance of the exploration licence or the discovery of mineral resources that are worth further exploration or mining within the area covered by the exploration licence;

minimum exploration expenditures required by statute have been made;

- no dispute has arisen regarding the exploration rights;

- payments for the use of the exploration rights and other payments for the exploration rights have been made; and
- all other conditions required by the MOLAR have been met.

A mining licence holder may also transfer its mining rights to another party if the following conditions are met:

- one year has passed since the mining commences;
- no disputes have arisen regarding the mining rights;
- payments for the usage fees and other payments have been made; and
- all other conditions required by the MOLAR have been met.

19.6 Approval Certificate for Gold Mining

In addition to a mining license issued by the MOLAR, an FIMC that wishes to engage in the gold mining must obtain an Approval Certificate for Gold Mining from the Chinese National Development and Reform Commission pursuant to the Rules for Administration of Approval Certificate for Gold Mining, promulgated by the National Development and Reform Commission on December 17, 2003 and effective as of January 1, 2004.

19.7 Gold Sale Policy

Under the 1983 Regulations on the Administration of Gold and Silver and its implementing rules, the People's Bank of China is the competent agent authorized to supervise and control the purchase and distribution of gold and silver in China. The People's Bank of China is responsible for the State's reserves of gold and silver, the purchase, allocation and sale of gold and silver, the pricing gold and silver jointly with other competent authorities. It is responsible for regulating and supervising the gold and silver markets.

Prior to October 2002, all gold producers in China were required to sell their gold to the People's Bank of China. In October 2002, the gold market in China was liberalized by the establishment of the Shanghai Gold Exchange to replace the People's Bank of China's purchase and allocation system. There is no guarantee that liberalization of the gold market or of any other precious metals market in China will continue to the point that gold and precious metal imports and exports will link freely into the international market in the near term.

19.8 Cooperative Joint Venture Law and Joint Venture Contract

Qinghai Dachaidan Mining Limited ("QDML") is a cooperative joint venture company ("CJV") governed by the Law of the People's Republic of China on Sino-Foreign Cooperative Joint Venture Enterprises (the "CJV Law") and the detailed implementing rules issued thereunder. According to the CJV Law, the relationship between the parties to a CJV (such as issues in respect of investment and cooperation conditions, distribution of profits, risks and losses, management, etc.) is governed by the joint venture contract and articles of association of the CJV approved by the relevant examination and approval

authority. The parties to a cooperative joint venture may agree on the distribution of profits at a ratio different from the value of the parties' respective capital contributions.

QDML has the status of a legal person under Chinese law, which enables QDML to enjoy civil rights and bear civil liabilities independently. Under Article 17 of the CJV Law, a CJV may borrow money from domestic or foreign financial institutions. A CJV with legal-person status shall also be allowed to own and operate its own assets. It may also pledge its assets to guarantee the repayment of a loan subject to the provisions of the Law of the People's Republic of China on Security, effective as of October 1, 1995, and other relevant laws and regulations.

QDML was created following the execution of a joint venture contract (the "JV Contract") dated July 1, 2000 by The First Brigade for Geology and Mineral Exploration of Qinghai Province, Dachaidan Gold Mine and Sino Gold Limited, which subsequently changed its name into TJS Limited. TJS Limited is a wholly-owned subsidiary of Afcan Barbados Limited that is in turn a wholly-owned subsidiary of Afcan Mining Corporation. Afcan Barbados Limited acquired its interest in TJS Limited from Sino Gold Limited. Please see section 1.1 entitled "History of the Project".

Under current Chinese laws and regulations, the establishment of an FIMC shall be verified by the National Development and Reform Commission or its local counterpart, and the joint venture contract and articles of association shall be examined and approved by MOFCOM.

The JV Contract and Articles of Association of QDML were reviewed and approved by the Qinghai Provincial Commission of Foreign Trade and Economic Cooperation on July 7, 2000, and a Certificate of Approval was issued by Qinghai People's Government on July 10, 2000. QDML was then registered with Qinghai Provincial Administration of Industry and Commerce ("Qinghai AIC") which issued a business licence confirming the establishment of QDML and its permitted scope of business, namely, to engage in geological exploration, construction of mines, mining, dressing and sale of relevant products.

The JV Contract and Articles of Association of QDML were amended and restated respectively on December 10, 2004 and December 11, 2004 (the "Amended JV Documents") and were approved by Qinghai Bureau of Commerce on February 23, 2005. A Certificate of Approval was issued by Qinghai Provincial People's Government on February 24, 2005. A new business license reflecting the changes of the registered capital was issued by Qinghai AIC on March 7, 2005. The Amended JV Documents must be approved by the MOFCOM to become effective, and QDML is in the process of seeking such MOFCOM approval,

According to the terms of the Amended JV Documents, the total investment and the registered capital of QDML are provisionally determined to be US$ 12 million. The Chinese parties' contribution to the registered capital of QDML shall consist of assets and expertise. TJS Limited's contribution to the registered capital of QDML shall consist of cash in the amount of US$10.2 million. Up to date and as was provided for by the amended JV Contract, TJS Limited contributed a sum of US$4,250,000 to QDML as capital contribution.

According to the terms of the Amended JV Documents, the respective shares of the parties in QDML shall be, depending on the investment made by TJS Limited, as follows:

Table 19.8.1 TJS Gold Project Respective Party Shares based on Investment		
TJS Limited's Investment (US$)	**TJS Limited's Share (%)**	**Chinese Partners' Share (%)**
4,250,000 – 10,200,000	85.0	15.0
10,200,000 – 35,000,000	85.0	15.0
35,000,001 – 50,000,000	87.5	12.5
50,000,001 and over	90.0	10.0

The board of directors shall once every year decide the amount of after-tax profit of QDML (after making allocations to certain statutory funds, as required by law) to be retained for expanding its operations, QDML will distribute the balance of the after-tax profits to the parties in proportion to their respective shares of QDML's registered capital.

QDML has further committed to pay to the Chinese parties a sum of RMB 15 million which will paid on a monthly basis once the said parties have met certain conditions outlined in the Amended JV Documents.

QDML has a board of directors composed of three directors appointed by TJS Limited and two directors appointed by the Chinese parties. The Chairman of the company is David G. Netherway and the vice-chairman Mr. Dengshu Li.

There is no other data or information that is relevant to this report.

INTERPRETATION AND CONCLUSIONS

The results of the economic analysis indicate that exploitation of the TJS gold deposits is economically viable and should proceed. Due to the favourable outcome of this Feasibility Study, Afcan Mining Corporation has taken a strategic decision to commence production from the TJS deposits as quickly as possible, targeting June 2005 for the start of the plant design.

The construction schedule for the project must take into account the prevailing weather conditions coupled with the remoteness of the site. The region has a very cold, dry winter, so construction must be phased to fit into the seasonal windows.

Opportunities exist in most areas of the project that will be more rigorously investigated during the detailed engineering phase and where appropriate will be incorporated into the project.

The BFS has been conservatively costed on the basis of new and refurbished international equipment and construction materials being imported to China. Duty on imported items is

zero%, with no additional VAT or taxes payable during the construction phase of the project. Afcan has already secured certain pieces of used equipment, and are currently trying to source more.

The current financial models are based on the scenario of 100% equity financing for the project. This, coupled with a conservatively projected base price of gold of $420/oz gives a before tax IRR of 32%. The anticipated project payback time is less than 3 years.

Sensitivity analysis shows that at a base case gold price of $420 per ounce, a worst case scenario of a 10% reduction in the gold price or a 10% reduction in the gold production will result in an IRR of approximately 22% over the life of the mine, while a best case scenario of a 10% increase in the gold price or increase in gold production returns an IRR of approximately 43% over the life of the mine.

The financial evaluation presented in this study shows an economically sound project based upon achieving an early project implementation.

21 RECOMMENDATIONS

It is recommended that Afcan proceeds with:

- Development of a detailed mine implementation program.
- Compilation of tender documents for mine contracting and subsequent tender process.
- Development of an owner mining cost model based on first principles in order to compare mining contractor rates.
- Consideration and evaluation of Afcan supplying some major mining consumables (eg fuel and explosives) to share some risk and reduce contract mining costs.
- Geotechnical evaluation of the blasting and 'diggability' of the rock.
- Bench height optimisation for mining dilution and recovery control.
- Risk based geotechnical evaluation, which may lead to steepening of wall angles.
- Personnel recruitment, policies and procedures and training.
- More detailed or updates to mine design, scheduling and budgeting.
- Design and implementation of a number of technical and production systems and procedures.
- Assessment of the requirement for a computerised fleet management system.
- Continue the exploration on the satellite deposits around the main Jinlonggou and Qinlongtan deposits to increase the life of the plant.
- Examine the used equipment market to source used equipment to refurbish, if necessary, and use on the plant instead of new equipment.
- Source local earthworks and civil contractors and machinery.

Illustrations, tables, figures and appendices can be accessed and downloaded from the following website :

www.afcan-mining.com/shareholder_news_02.html

22 .REFERENCES

Tanjianshan Gold Project : Bankable Feasibility Study - April 2005 RSG Global Pty Ltd

Geotechnical Feasibility Assessment of Jinlongou and Qinlongtan, Tanjianshan – February 2005 SRK Consulting

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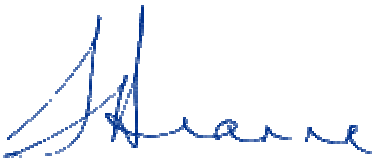
Tanjianshan Gold Project, Qinghai Province, China, 2003 & 2004 Work Programmes & Resource Estimate – December 2004 DevMin Consultants

Feasibility Study of Tanjianshan Gold Mine Expansion Project – September 2002 BGRIMM

23 DATE

The effective date of this report is April 2005.

Signed the 01st of April 2005.



John Hearne
Principal Mining Engineer
RSG Global

24 CERTIFICATES

RSG Global Pty. Ltd.

CERTIFICATE OF QUALIFIED PERSON

I, John Edward Hearne, BEng (Min) do hereby certify that:

1. I am a Principal Engineer – Mining of RSG Global Pty Ltd, 1162 Hay Street, West Perth, WA, 6005, Australia

2. I graduated with a degree from the University of Sydney, Sydney, NSW, Australia and hold a Bachelor of Engineering degree in mining engineering (1984).

3. I am a member of the Australasian Institute of Mining and Metallurgy (AusIMM).

4. I have worked as a mining engineer for a total of 21 years since my graduation from university.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of Section 1 through to Section 9 and Section 18 through to Section 21 of the technical report entitled Tanjianshan Feasibility Study Report, Tanjianshan Gold Project, Qinghai Province, China and dated March 2005 (the "Technical Report") relating to the Tanjianshan property. I visited the Tanjianshan property in September 2003 for 3 days.

7. I have not had prior involvement with the property that is the subject of the Technical Report.

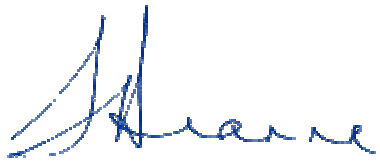
8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated this 1st day of April 2005.



John Hearne
Principal Engineer

BEng(Min) MAusIMM

RSG Global Pty. Ltd.

CERTIFICATE OF QUALIFIED PERSON

I, Harry Warries, MSc (Mining) do hereby certify that:

1. I am a Senior Consultant - Mining of RSG Global Pty Ltd, 1162 Hay Street, West Perth, WA, 6005, Australia

2. I graduated from Delft University of Technology, Holland, and hold a Masters degree, majoring in Mining (1989).

3. I am a member of the Australasian Institute of Mining and Metallurgy (AusIMM) and the Society for Mining, Metallurgy and Exploration Inc (SME)

4. I have worked as a mining engineer for a total of 15 years since my graduation from university.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

6. I am responsible for the preparation of 17.3 and Section 18.1 of the technical report entitled Tanjianshan Feasibility Study Report, Tanjianshan Gold Project, Qinghai Province, China and dated March (the "Technical Report") relating to the Tanjianshan property. I have not visited the Tanjianshan property.

7. I have not had prior involvement with the property that is the subject of the Technical Report.

8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.

10. I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

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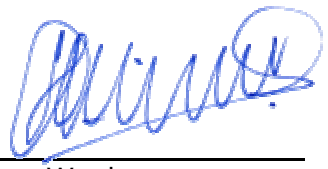
Dated this 1st day of April 2005.



Harry Warries
Senior Mining Engineer

MSc (Mining Engineering)