

Zanaga Iron Ore Project

Mysteel conference

Xiamen, China

November 2013



Zanaga Project

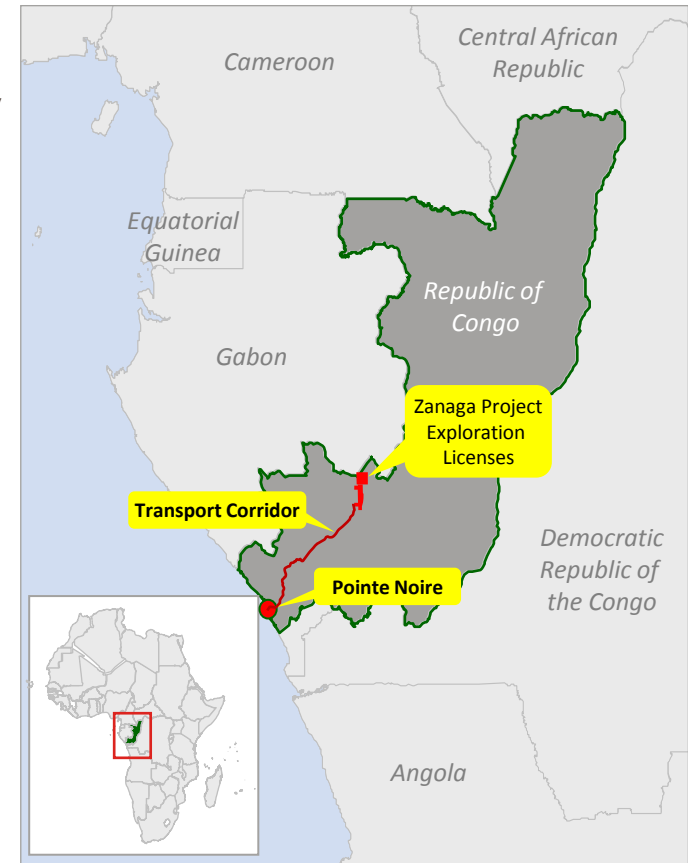
- **World class iron ore project in the Republic of Congo**
 - Resource – 6.8Bt (32% Fe)
 - Reserves – 2.5Bt (34% Fe)
- **Experienced leadership and Board**
 - Owned by Glencore and Zanaga Iron Ore Company
- **Post-PFS review identified attractive opportunity for Staged Development of the Zanaga Project**
 - Stage One – 12Mtpa high grade concentrate plus up to 2Mtpa DSO
 - Stage Two – Expansion to 30Mtpa high grade concentrate
- **Project advancing on Staged Development scope**
 - Feasibility Study engineering underway
 - SEIA finalisation in progress, based on comprehensive work and engagement to date
 - Application for Mining Licence on schedule for Q2 2014
- **Project funding round commenced**

Zanaga Project location

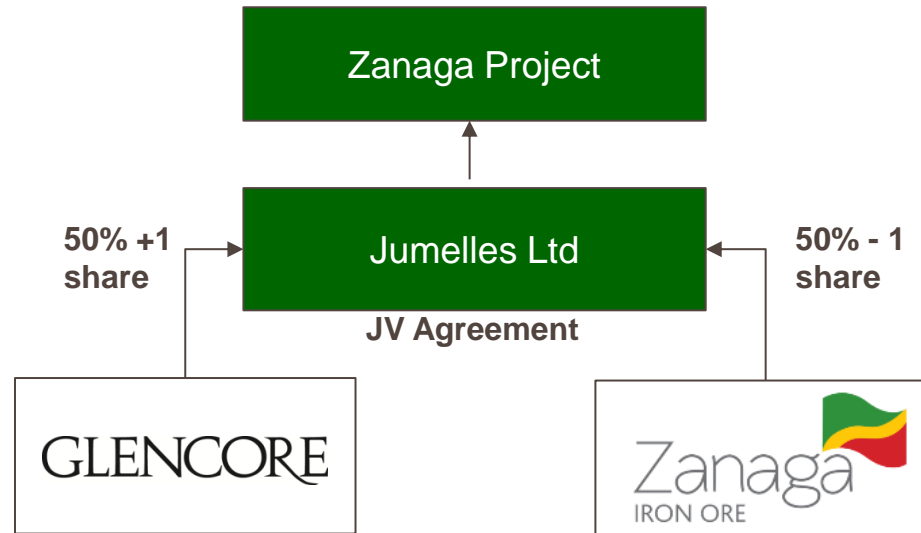
- Located in the Republic of Congo, 300km north-east of the major port city of Pointe Noire
- RoC is a favourable destination for resource investment, politically stable since 1999 and a government that recognises the importance of the project and is welcoming of investment
- Oil industry operated since 1950s
- Strong relationship with China

RoC overview

Area	<ul style="list-style-type: none">• 342,000km²• Borders Gabon, Cameroon, CAR, Democratic Republic of Congo and Angola
Capital	<ul style="list-style-type: none">• Brazzaville
Language	<ul style="list-style-type: none">• French
Population	<ul style="list-style-type: none">• 4.2 million
Economy	<ul style="list-style-type: none">• GDP 2012 - \$19bn• GDP PPP per capita 2012 - \$4,700• Oil production - 300kbpd• Oil reserves -1.6bn barrels
Government	<ul style="list-style-type: none">• President Dennis Sassou-Nguesso first elected October 1997• Politically stable since 1999• Last election July 2009• Next election due 2016

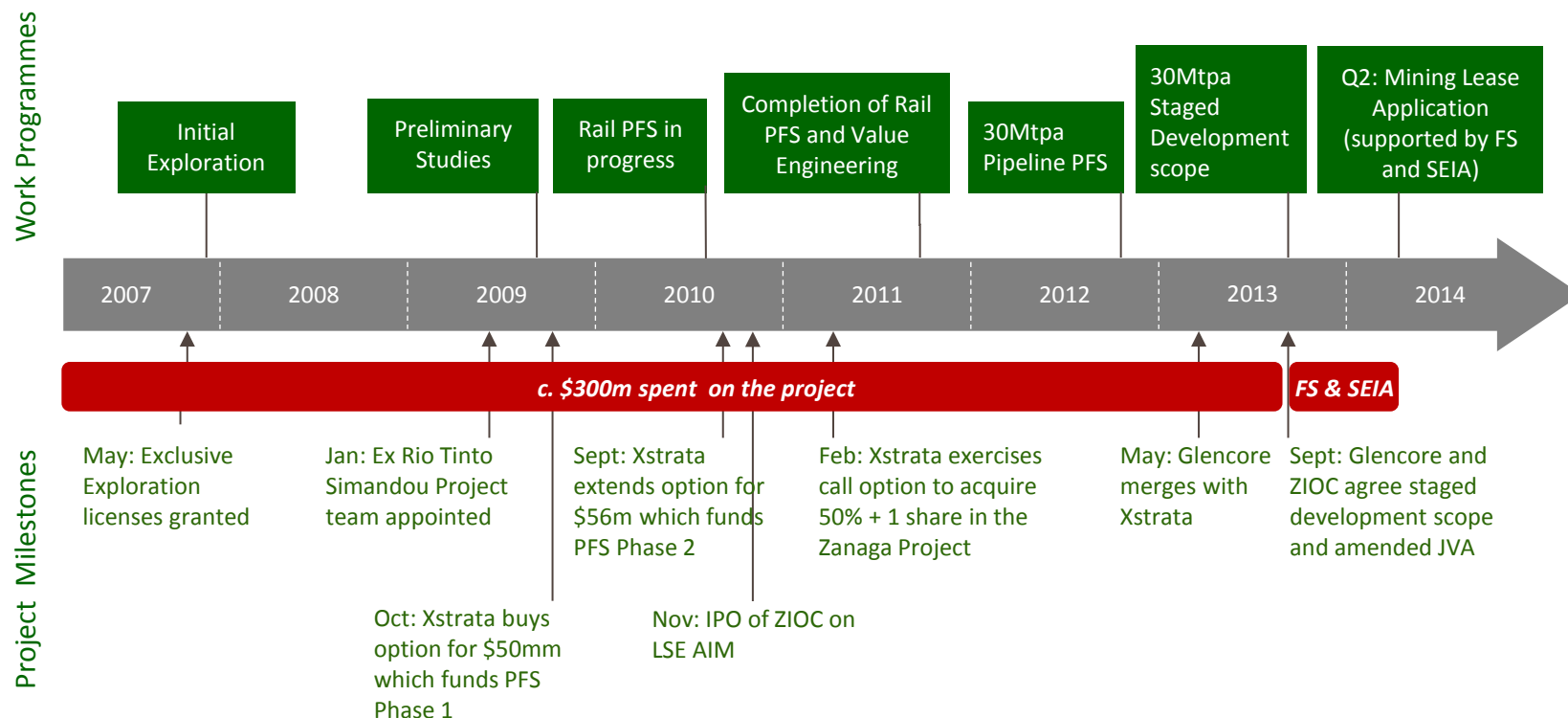


Project ownership structure








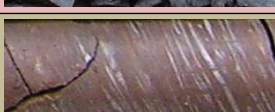

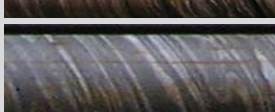
- Listed on London and Hong Kong Stock Exchanges
- Current rating BBB (stable) / Baa2 (stable)
- Leading integrated producer and marketer of commodities, with worldwide activities in the production, refinement, processing, third party procurement, storage and transport of those products
- >90 offices in >50 countries; operations comprise >150 mining and metallurgical sites, oil production assets, farms and agricultural facilities. We employ approximately 190,000 people, including contractors
- Listed on London Stock Exchange (ZIOC)
- Cash on B/S: \$35m at 30 June 2012
- Sole asset stake in Zanaga Iron Ore Project

Rapid exploration and engineering progress



World scale mineralisation

175,000m of exploration drilling has converted into a large, well defined ore body

Photo	Lithology	Average Fe
	SOL	
	CAN	
	COL	41.1%
	ITG	43.7%
	ITF	39.7%
	ITC	34.2%
	ITT	31.3%
	BIF	30.6%

↑
Friable
Itabirite
600Mt
↓

Compact
Itabirite
400Mt
↑
Magnetite
↓

Mineral Resource Statement

Classification	Tonnes Mt	Fe %	SiO2 %	Al2O3 %	P %
Measured	2,400	34.0	43.0	3.3	0.048
Indicated	2,290	30.8	46.6	3.0	0.052
Inferred	2,100	31	46	3	0.05
Total	6,800	32	45	3	0.05

Includes higher grade material with some >60% Fe DSO currently in definition

Ore Reserve Statement

Classification	Tonnes Mt	Fe %
Probable Ore Reserves	2,500	34
Proved Ore Reserves	-	-
Total Ore Reserves	2,500	34

Mineral Resources and Reserves reported in accordance with the JORC Code.

Flexible development pathway

	Indicative 12+2Mtpa Stage One (US\$m)	Previous 30Mtpa PFS (US\$m)
Initial capital cost reduced to 1/3 rd	c.\$2.5-3.0bn	\$7.4bn
Improved capital cost intensity	c.\$200/annual tonne	\$245/annual tonne
Attractive LOM operating costs	c.\$37-40/t	\$23/t
Premium product	60-62% Fe (DSO) 66% Fe (pellet feed)	68% (pellet feed)
Leverage existing infrastructure	Existing road/rail for DSO, existing grid power	Scale made this impossible
Scaled pipeline	Low opex solution, appropriate solution for direct remote route	
Low cost port options	Transship from low draft service harbour	Large scale deep water port

Note : Estimated capital and operating costs in 2013 US Dollar terms for Stage One and 2012 US Dollar terms for the Pipeline PFS, before including potential future inflation. Operating cost estimates include contingency but exclude 3% royalty. Cost estimates are subject to change following feasibility study work

DSO opportunity

Stage One DSO potential of up to 2Mtpa

- Based on at least 3-5Mt of “true” DSO, with opportunity to increase to 250Mt through limited processing
- Low capital cost increment to pellet feed project
- Leverage existing road and rail infrastructure to reach Stage One port.
- Operational flexibility based on prevailing market conditions
- Initial indications suggest attractive 60-62% Fe product

Potential to bring forward first ore

- Enabled by ongoing road upgrades
- Commenced engagement with road, rail and port contractors
- Investigating use of existing rail and port infrastructure
- Deliver early cashflows
- Gain valuable operating experience

Sampling of high grade DSO ore (60% Fe)



Upgraded road between mine site and RN1



High grade product at low strip ratio

Mining

- Targeting the upper part of the orebody which consists of >600Mt friable ~42% Fe material (circa 20 year life)
- Low cost mining due to low strip ratio and free dig material
- Suitable for contract mining (current assumption)
- Reduced mine infrastructure requirements and community impacts
- Post 20 year life extension through mining of compact itabirite (ITC)
- Stage Two will exploit magnetite ores

Processing Plant

- 12Mtpa pellet feed supplemented by 2Mtpa sinter feed produced in first stage of flowsheet
 - 66% Fe PF with 3% Silica and 0.5% Alumina
 - 60-62% Fe SF: specs subject to ongoing testing
- Simplified design to treat only hematite ore types to pellet feed with spirals and flotation
- Low Stage One power demand due to focus on softer, coarser liberating ore
- Weight recovery over 40%
- Post 20 year life extension through plant conversion to process compact itabirite
- Stage Two involves construction of conventional magnetite plant with product grade increasing to 68% Fe

Glencore Mutanda copper mine - DRC



Glencore Antapaccay process plant - Peru



Demonstrated feasibility of competitive pipeline transport

Pipeline selected for primary transport solution

- Lower capital cost and in-line with project scale
- Very low operating cost
- Reduced environmental impact – buried pipeline
- Majority of ore body most suitable for high grade concentrate which is amenable to pipeline transport
- Significantly reduced construction risk considering terrain
- Favourable topography and attractive land access process in Republic of Congo (contrast to Brazil)

Large diameter pipeline installation



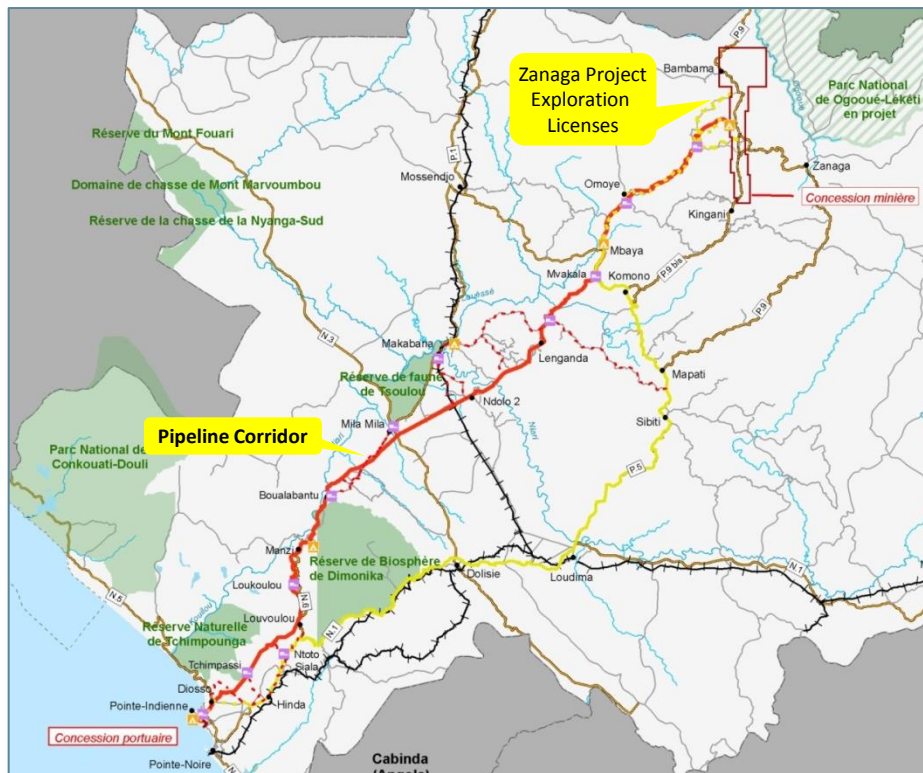
Staged development

- Stage One – 500mm (20inch) pipeline with 2 pumping stations
- Stage Two – 650mm (26inch) pipeline with single pumping station

Iron Ore pipeline installations

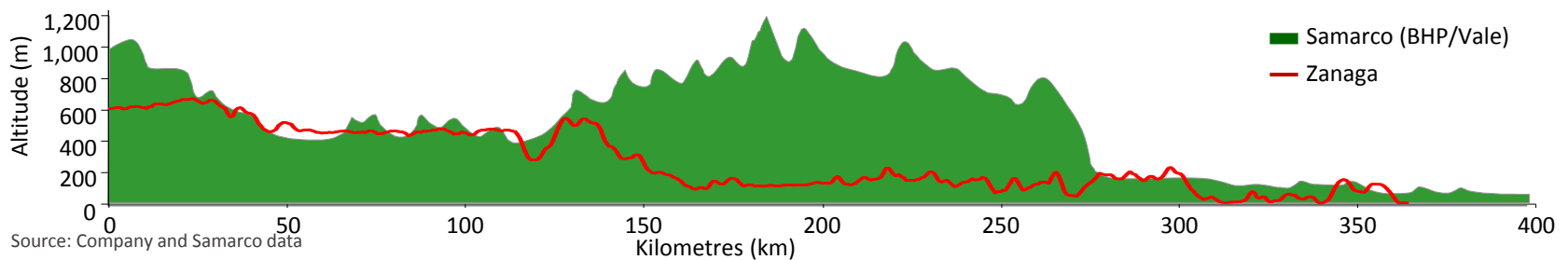
Project	Country	Length (km)	Diameter (inch)	Capacity (Mtpa)	Year
Zanaga Stage One	Rep. Congo	370	20	12	-
Samarco 3 rd Pipeline	Brazil	401	22/24	20.0	construction
Minas Rio	Brazil	528	24/26	24.5	construction
Essar 2 nd Pipeline	India	253	20	12.0	2013
CP Mining	Australia	30	32	33.6	2013
BRPL Tanto-Jajpur	India	217	13	4.0	2012
Da Hong Shan Expansion	China	171	9	3.5	2010
Bao Tou West Mine	China	145	14	5.5	2010
Samarco 2 nd Pipeline	Brazil	398	16/14	8.3	2008
Da Hong Shan	China	171	9	2.3	2006
Essar 1 st Pipeline	India	266	14/16	6.8	2006
Jian Shan	China	105	9	2.0	1997
Samarco 1 st Pipeline	Brazil	398	20/18	16.0	1977

Mine to Port Logistics



From	To	By	Distance
Mine	Pointe Noire	Road	470km
Mine	Pointe Noire	Pipeline	370km
Mine	Loudima	Road	240km
Loudima	Pointe Noire	Rail	215km
Mine	Mossendjo	Road	170km
Mossendjo	Pointe Noire	Rail	360km

Pipeline indicative topographical profile – easier terrain than Brazil



Source: Company and Samarco data

Stage One port options

- **Stage One currently based on owner-built service harbour and trans-shipping operation**
- **Optionality:**
 - Third party built similar or deep water port
 - Early low tonnages via existing Pointe-Noire port facilities
- **Stage Two expansion expected through construction of deep water port**

Richards Bay Coal Terminal
Multi-user with Glencore as shareholder



Porto Nuevo – Glencore owned and operated



Example of Iron Ore transshipping



Power opportunities

- **Existing grid supplied by low cost power sources**
 - Gas generated power using flare gas from oil industry
 - Existing hydro power
- **Stage One based on use of national grid, with potential for new hydro power from nearby projects**
- **Stage Two requires new power generation**
 - New gas sources currently being developed
 - Major Hydro projects under consideration by government
- **Availability of local gas could make pellet plant economics compelling**

CEC 300MW Gas Power Station in Pointe-Noire



Refurbished 220kV transmission lines



Investment Highlights

✓ **Robust project fundamentals**

- Large ore body defined to support long life development
- High quality product specifications

✓ **Deliverable and financeable project scope**

- Potential for early DSO production
- Reduced capital intensity and quantum
- Optionality with respect to port and power infrastructure

✓ **Feasibility Study in progress**

- Confirm technical and economic basis for development

✓ **Application for Mining Licence on schedule for Q2 2014**

- Supported by Feasibility Study and SEIA

✓ **Project funding round commenced**