



# Midwest International Mining Forum

**Partnerships & Possibilities**

**November 2012**

# Regulatory and Compliance



## **Disclaimer**

This presentation contains reference to certain plans of Golden West Resources Limited which may or may not be achieved. The performance and operations of Golden West Resources Limited may be influenced by a number of factors, uncertainties and contingencies many of which are outside the control of Golden West Resources Limited and its Directors, staff and consultants. Golden West Resources Limited makes no undertaking to subsequently update or revise the forward looking statements made in this release to reflect events or circumstances after the date of this release.

## **Competent Person's Statement**

The information in this report which relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Brian Varndell, a Fellow Member of the Australasian Institute of Mining & Metallurgy ("AusIMM") and independent consultant to the Company. Mr Varndell is an employee of AI Maynard & Associates Pty Ltd and has many years of experience in exploration and mining in a variety of mineral deposit styles. Mr Varndell has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Varndell consents to inclusion in the report of the matters based on his information in the form and context in which it appears.

# Corporate Snapshot



## Issued Securities

Ordinary Shares (GWR)	192M
Issued Options	25M

## Major Shareholders

Cliffs Asia Pacific Iron	13%
Wynnes Investment Holdings Ltd	11%
Joyful Winner Holding Ltd	11%
Hunan Valin Steel Co Ltd	8%
Fairstar Resources Ltd	8%

## Market Capitalisation/cash

Market Cap (\$0.19 per share) (12/11/12)	A\$36M
Cash (30/09/12)	A\$23M

## Board and Senior Management

Gary Lyons – Non-executive Chairman  
Tan Sri Dato' Tien Seng Law – Deputy Chairman  
Chin An Lau – Non-executive Director  
Kong Leng Lee (Jimmy) – Non-executive Director  
Mick Wilson – Executive Director  
Mark Pitts – Company Secretary  
Craig Ferrier – Executive General Manager

# Project Interests



- Iron Ore Development Project
  - Wiluna West Iron Ore
- Advanced Gold Project
  - Wiluna West Gold
- Iron Ore Exploration Projects
  - Woodley Iron Project
  - Earraheedy Iron Project
  - Booylgoo Iron Project
- Equity investments
  - West Peak Iron Limited (18.6%)
  - Stratex International PLC (0.4%)



# Wiluna West Project Overview



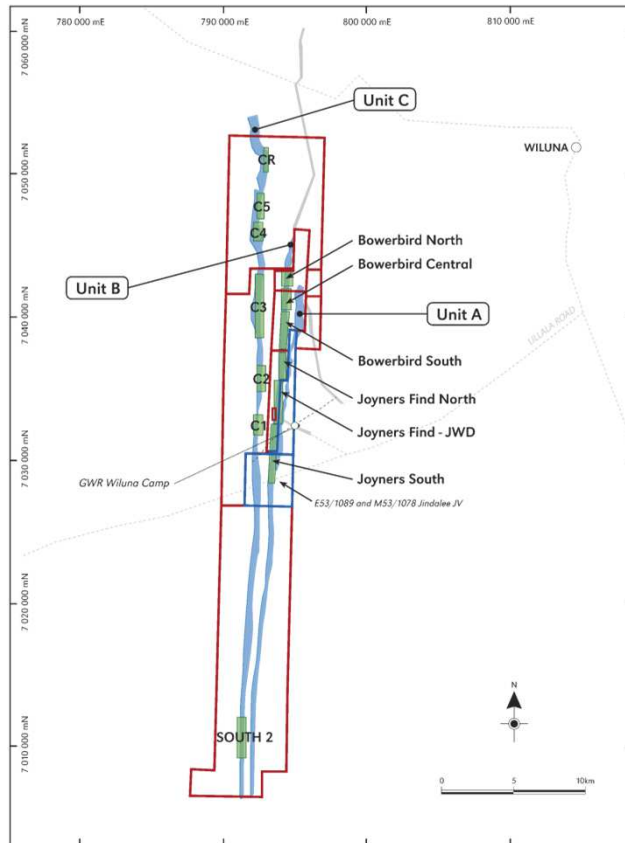
- Tenement holding 267km<sup>2</sup>
- Granted mining leases over main project area
- DSO hematite Mineral Resource Estimate of 130Mt @ 60% Fe
- DSO hematite Mineral Reserve Estimate of 69.2Mt @ 60.3% Fe
- Gold Mineral Resource Estimate of 3.5Mt @ 2.3g/t for 258,200 oz





# Wiluna West Iron Ore

# Wiluna West Iron Ore



# Status Resources and Reserves



- Resource definition drilling largely completed
- 130Mt of JORC\* DSO hematite Resource
- 69Mt of Proven & Probable JORC Reserves, with an additional 13Mt of Inferred Resource within Reserve pit limits (total of 82Mt)

\*JORC refers to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code) as prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (Effective 17 December 2004)



# JORC Resources and Reserves



	Classification	Tonnes (Mt)	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	LOI (%)	P (%)
DSO Hematite Resources	Measured	3.7	59.6	7.8	2.5	4.0	0.09
	Indicated	77.2	60.3	7.4	2.4	3.6	0.05
	Inferred	49.5	59.7	7.3	2.4	3.9	0.05
	Total	130.3	60.0	7.4	2.4	3.6	0.06

	Classification	Tonnes (Mt)	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	LOI (%)	P (%)
DSO Hematite Reserves	Proven	2.9	59.7	7.6	2.6	4.0	0.07
	Probable	66.3	60.4	7.2	2.5	3.6	0.05
	Total	69.2	60.3	7.2	2.5	3.6	0.05

# Infrastructure Overview

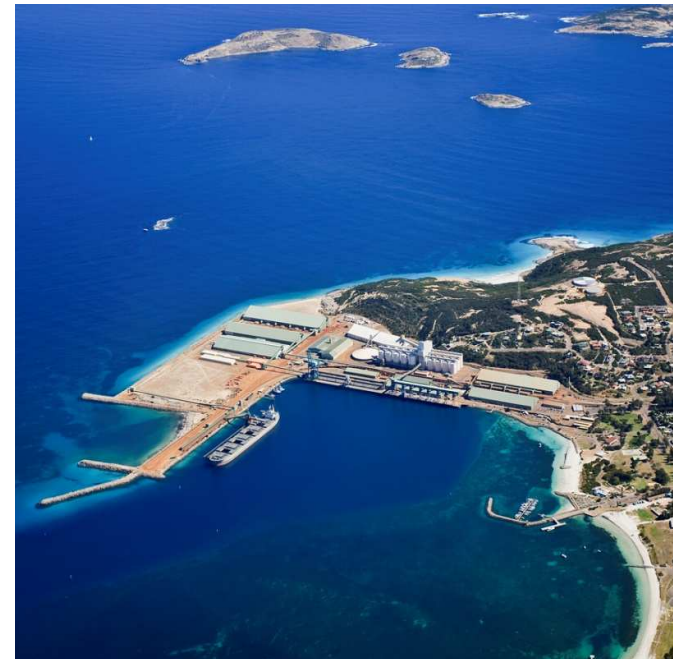


- Existing port options available:
  - Esperance (planned upgrade)
  - Geraldton
  
- Future port option:
  - Oakajee (proposed)

Port	Spur or Road	Public Rail	Total
<b>Esperance</b>	<b>320km</b>	<b>650km</b>	<b>970km</b>
Geraldton	720-838km	Nil	720km*
	608km	112km	720km
Oakajee	230km	400km	630km

km = kilometres from Wiluna West Project site

\* Minimum distance on public roads to Geraldton - Option via Meekatharra



Esperance Port

# Existing Port and Rail Infrastructure



## Esperance

- Deep water port – Capesize vessels
- Planned upgrade by up to 20 Mt
- Capacity Reservation Deed in place
- Sealed road from Wiluna to Leonora
- Railway siding at Leonora - loadout
- Railway from Leonora to Esperance

or

## Geraldton

- Viable immediate option
- Existing multi-user port
- Panamax vessels
- Road from Wiluna to Geraldton
- Road & rail option under review
- Ultra low capex option

# Project Status - Infrastructure



- In January 2012, Western Australian State Government announced intention to upgrade Esperance Port by up to 20Mtpa
- Esperance Multi-User Iron Ore Facility (MIOUF) market sounding and consultation with private sector – June to November 2012 – and nearing conclusion.
- Capacity Reservation Deed for 3Mtpa signed in July 2012 between Esperance Ports Land & Sea and GWR
- GWR focussed on development of Wiluna West through expanded Esperance Port and playing an active role in the upgrade process
- Geraldton options continue to be assessed for start-up and/or trial shipments
- Oakajee is an attractive option for larger-scale mining, should development occur in the future



# Wiluna West JWD Mining Project

# JWD Mining Approval



- In April 2012 the WA Department of Mines and Petroleum approved the mining proposal for the John William Douth (JWD) high grade deposit
- Clearing permit previously approved by Department of Environment and Conservation
- Mining Approval concerns 3 million tonnes @ 1Mtpa



# JWD Mining Approval



JWD Hematite Resource	Classification	Tonnes (Mt)	Fe (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	LOI (%)	P (%)
Reported above a 50% Fe Cut-Off	Indicated	6.3	64.5	2.6	1.6	2.7	0.03
	Inferred	4.5	63.6	3.0	1.5	2.6	0.03
	Total	10.8	64.1	2.8	1.6	2.6	0.03

# JWD Mining Approval

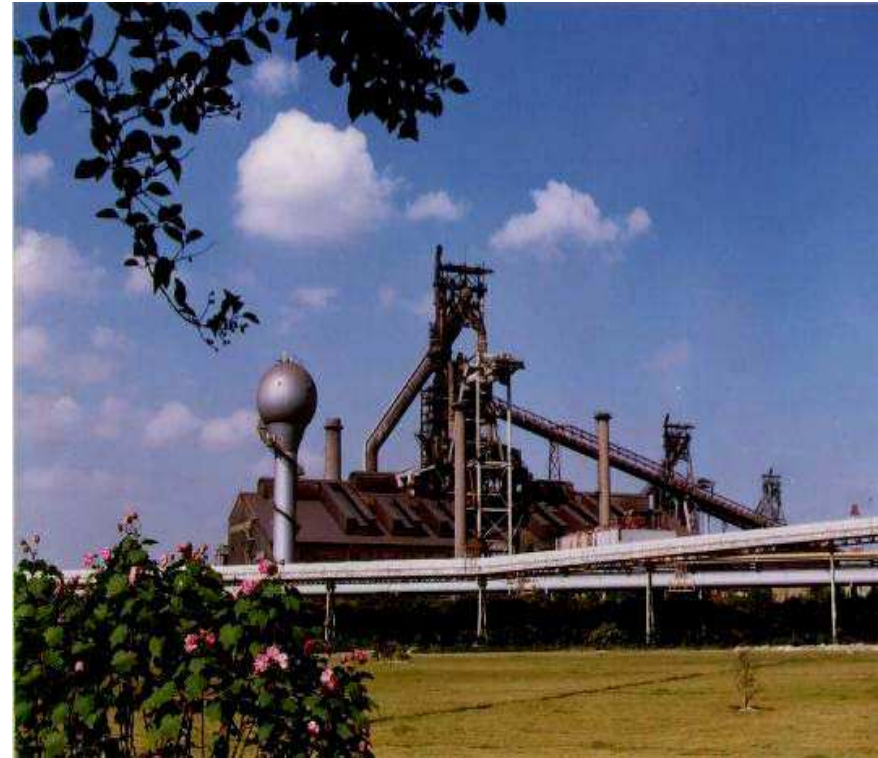


- JWD mine development planning well advanced
- Discussions underway with interested parties in relation to transport and port access
- In-fill drilling (50x20m) completed August 2012 to support detailed mine planning
- Logistics studies being finalised
- Metallurgical test work and material characterisation program in progress:
  - CSIRO lump test completed
  - CISRI sinter pot test in December 2012





# BF Ferrous Lump – Material Characterisation



# BF Requirements for Ferrous Materials



# BF Ferrous Lump – Material Characterisation



- **Tumble Index (TI) and Abrasion Index (AI):**

Measures cold strength and degradation during handling from mine to charging to the BF – impacts on lump yield

- **Decrepitation Index (DI):**

Generation of fines due to decomposition (thermal shock) of hydrated ores in the upper section of the blast furnace – high DI reduces blast furnace permeability

- **Reduction Degradation Index (RDI):**

Degradation and loss of strength due to low-temperature reduction involving volume changes of mineral phases in a reducing atmosphere – high RDI reduces blast furnace permeability

- **Reducibility (RI):**

Ease of removing oxygen from iron oxides in a reducing atmosphere - low RI increases the blast furnace fuel rate

- **Softening/melting behaviour (S&M):**

Measures cohesive zone properties – no standard test available, ideally the temperature of softening should be high and the temperature range to melting low giving a narrow cohesive zone – a broad cohesive zone reduces blast furnace permeability

# GWR Lump vs Seaborne Traded Lump



The CSIRO R&D test results for the GWR lump indicate the lump is suitable for BF use:

- RDI at 9 is low which is **good**
- DI is acceptable (<9 is preferred)
- RI is acceptable but moderately low ( >62 is preferred)
- TI & AI indices indicate a competent lump which would generate low fines during handling and provide higher lump yield at the BF compared to BHP Billiton or Rio lump

# GWR Lump - Chemistry



**Typical Chemical Analysis:**  
(JWD lump - dry Wt % at loading)

Component	
Fe (Calcined)	65.7
Fe (Natural)	63.5
SiO <sub>2</sub>	3.7
Al <sub>2</sub> O <sub>3</sub>	1.6
P	0.02
LOI	3.4

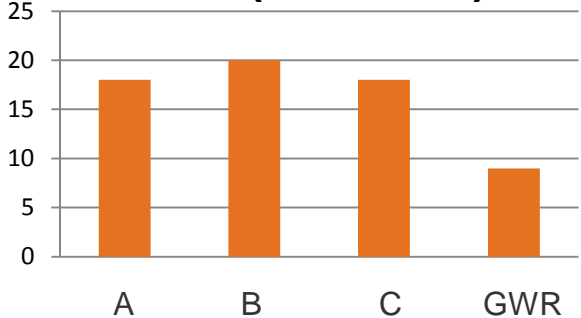


Craig Ferrier at Wiluna West Iron – JWD Project site

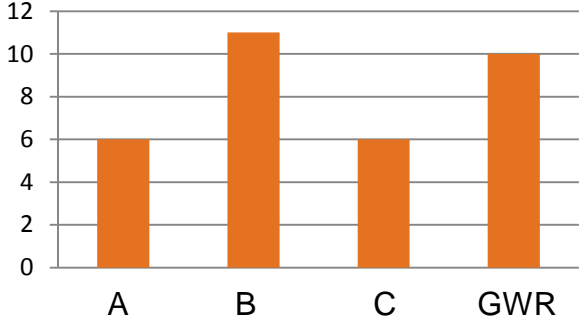
# GWR Lump – Test Results



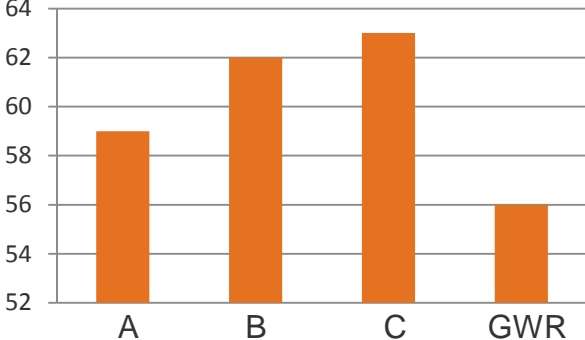
### RDI (%-2.8mm)



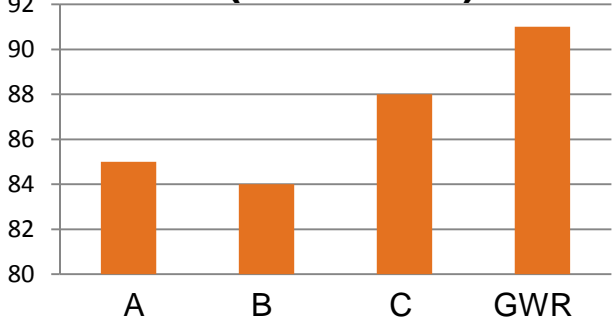
### DI (%-5.0mm)



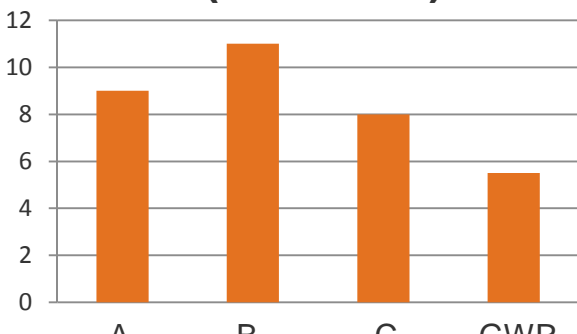
### RI



### TI (%+6.3mm)



### AI (%-0.5mm)



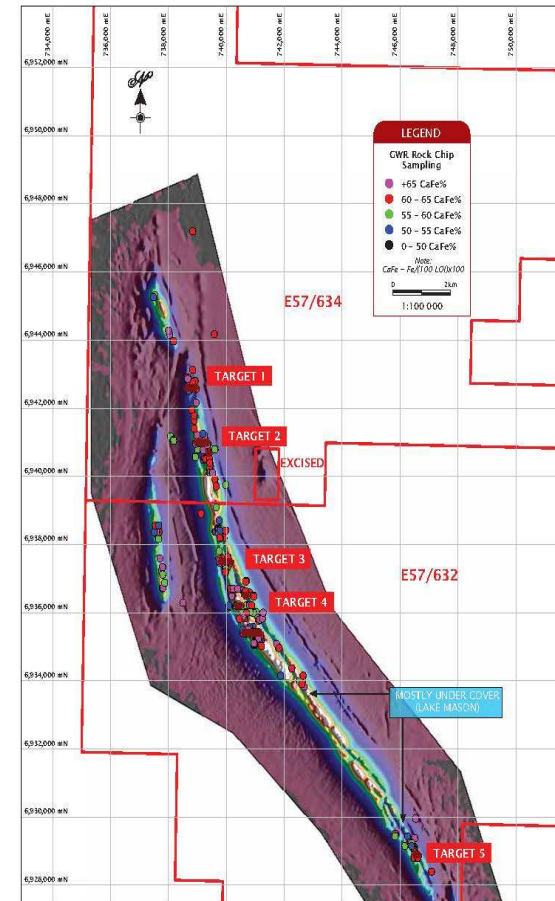


# Regional Exploration DSO Iron

# Regional Exploration – Woodley



- Woodley is located 100km south-west of Wiluna
- DSO hematite targets identified
- Initial GWR mapping and rock chip sample results identified widespread hematite and goethite mineralisation over 15km strike length
- 70% of 225 rock chip samples collected had grades  $>55\%$  Fe
- RC drilling program of 1600m to test continuity of surface mineralisation at depth completed in October 2012 – assay results pending

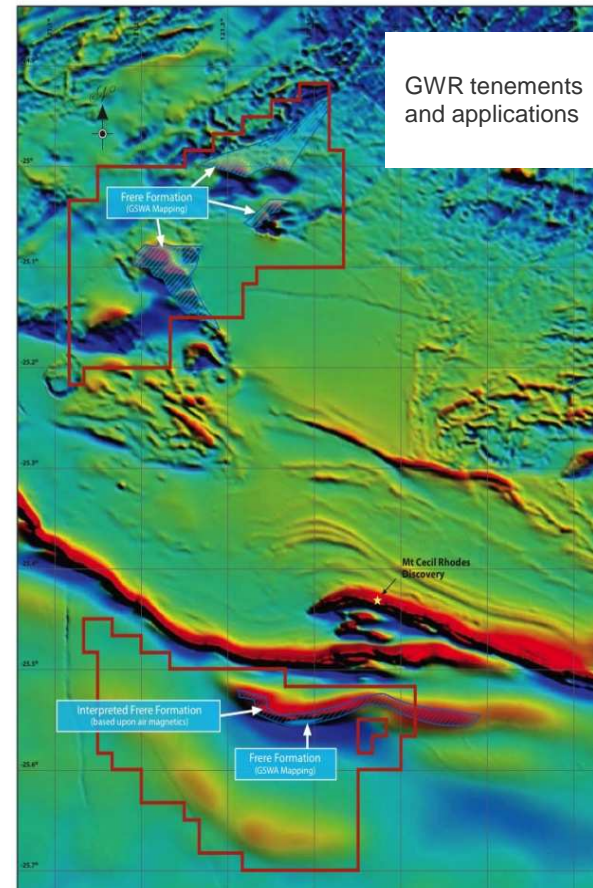




# Regional Exploration – Earraheedy



- Earraheedy basin located 200km north-east of Wiluna and considered highly prospective for both iron and manganese deposits
- GWR recently acquired 1382km<sup>2</sup>
- Hematite goethite mineralisation identified in 1970s associated with Frere Formation which is evident on GWR tenements and applications
- Estimated to contain approximately 45km of strike
- Access deeds in place with the Birriliburu Native Title holders





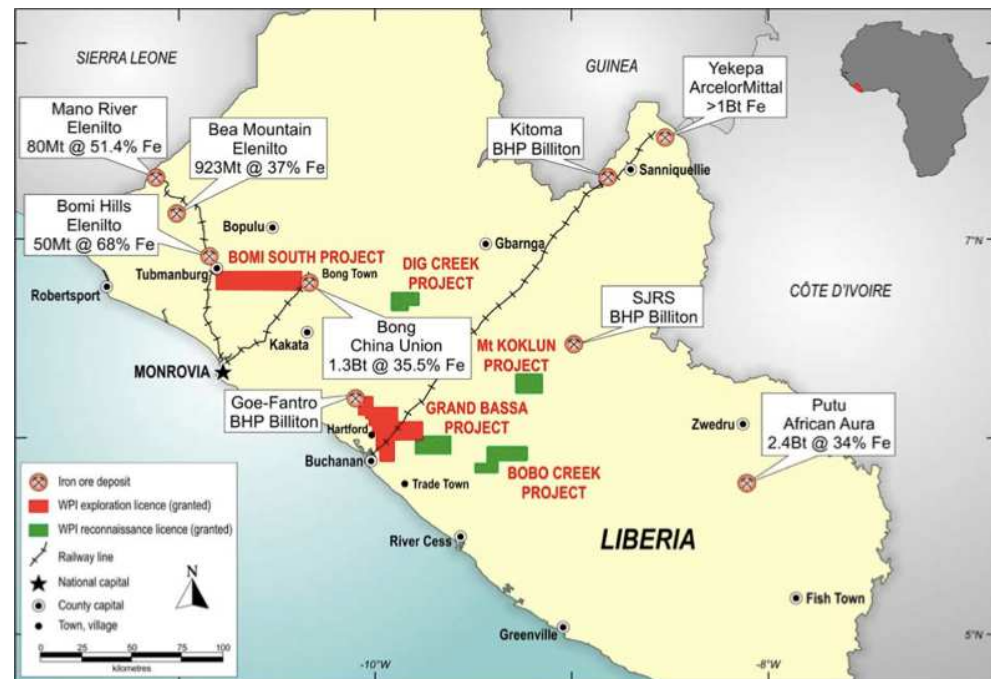
# Equity Interests Investments

# Equity Interests - Investments



## ASX Listed West Peak Iron Limited (WPI)

- WPI have a significant landholding in the West African country of Liberia with 977km<sup>2</sup> of tenements in four project areas all containing identified iron – bearing formations, that are located close to port, rail and road infrastructure. WPI also hold tenements in WA's Midwest and Yilgarn regions. GWR holds an 18.6% interest in WPI and has a board representative
- Initial assay results from maiden drilling campaign at Bomi South have identified friable hematite/goethite bearing iron formations at varying widths near surface (including 36m @ 30.12% Fe and 14m @ 41.96% Fe)



# Key Project Milestones



Milestone	Status	Complete
<b>Native Title Agreement</b>	Jul 2010	<input checked="" type="checkbox"/>
<b>69 Mt Reserve</b>	Aug 2011	<input checked="" type="checkbox"/>
<b>Small Mining Approval (JWD)</b>	Apr 2012	<input checked="" type="checkbox"/>
<b>Esperance Capacity Reservation Deed</b>	Jul 2012	<input checked="" type="checkbox"/>
<b>JWD lump test work</b>	Sep 2012	<input checked="" type="checkbox"/>
<b>Esperance Port Upgrade</b>	Nov 2012 – MUIOF Market Sounding recommendations pending	<input type="checkbox"/>
<b>JWD Mine Development</b>	2012 – Development program well advanced	<input type="checkbox"/>
<b>Commencement of mining</b>	2013 – Pending port access	<input type="checkbox"/>
<b>Major Mining Approval</b>	Sep 2013 – In progress	<input type="checkbox"/>

For further information



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