

**ASX Code: FAS**

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## Capital Structure

28th January 2011

**Ordinary Shares on issue:** 620 M

**Share price:** \$0.075

**Estimated market  
capitalisation:** \$ 46.5 M

## Board Directors

**Kevin J Robertson** MAICD  
Managing Director

**Harold J Paiker**  
B.Juris LLB LLM  
Director Non Executive

**Con Markopoulos**  
Director Non Executive

**Gary Lyons**  
Director Non Executive

**Alan Thomas**  
Company Secretary

This report covers FairStar's exploration related activities for the quarter ended 31 December 2010

## Highlights of December Quarter

### Steeple Hill Iron Project

- Modified JORC Resource received from independent consultants AMC Consultants using drilling and analysis data from the aircore program in April and May at Steeple Hill Iron Project in WA's eastern goldfields
- **The maiden JORC Indicated Resource estimation at the project was 93Mt of mineralized alluvials, with a hematite concentrate recovery of 18%, for 18Mt of hematite product. This was estimated using a recovery cutoff of 10%.**
- **The hematite product has a grade of 58%Fe, 7% SiO<sub>2</sub>, 6% Al<sub>2</sub>O<sub>3</sub>, 0.01% P, and 1.6% LOI.**
- The Company believes that the 10% cutoff is too high given that the mining will be a simple gravel pit operation, without blasting, and that simple processing will liberate and concentrate the hematite granules. AMC Consultants were asked to provide estimates at different recovery cutoffs of 7% and 5%.
- **At 7% cutoff, the total of hematitic gravel alluvials increases to 121Mt at 16% recovery, for 19Mt of hematite concentrate at the same grade.**
- **At 5% cutoff, the total of hematitic gravel alluvials increases to 131Mt at 15% recovery, for 19Mt of hematite concentrate at the same grade.**
- Review of the data showed that the first aircore drilling program had not closed off the mineralization in most directions, and a follow up aircore drilling program was undertaken in November-December 2010.
- **The 216 holes were drilled at a 200m x 200m grid over the edges of the deposit to close off the mineralisation** and provide sufficient data to allow an updated resource to be estimated. The original planned drilling program was expanded from 200 holes to 216 holes to cover a greater extent of hematite rich gravels in the southern region of project than initially expected.
- **The ore body still remains open to the south-west and north-east.**
- The mineralised alluvials area is expected to extend at least a further 1km in its southern area
- Drill samples were taken at 1m intervals, and 458 mineralised samples have been collected for screening, washing, dense media separation and Fe suite analysis by XRF. Results are awaited.
- Environmental surveys, soil characterization, hydrology, and noise studies necessary for mining approval have been completed.
- Groundwater studies are continuing to identify sources of water for use in the process plant.
- Metallurgical testwork has been undertaken to upgrade the hematite concentrate by further processing. The Company believes project has potential to produce Direct Shipping Ore (DSO) with grades >60% Fe
- An application for a Mining Lease over the mineralised area has been submitted, and is expected to be granted in early February.
- The project is 100% owned by FairStar and is located close to major rail infrastructure with Trans Australian Railway 23km south of project area



## Highlights of December Quarter continued

### Other Projects

- Mapping and review of the Jones Find gold deposit was undertaken, and indicated anomalous gold from 20m to 175 metres in several deeper holes. **An application for a Mining Lease has been submitted.**
- Mapping, rock chip sampling and review of existing data was undertaken at Duchess of York-Hickmans Find gold project. **The 28 rock chip analysis results showed a number of significant anomalous results for gold, as high as 2.17g/t.**
- These anomalous results will be followed up with infill sampling and mapping to identify the host rock and orientation of the mineralisation. A drilling program will then be targeted at the mineralisation.

### Corporate Activity

- The Company continues to monitor expenses while seeking to progress discussions with potential investors.

## Work performed

During the December 2010 quarter work continued to focus on exploration at the Company's Steeple Hill Iron Project in Western Australia's eastern goldfields. Work at the project in the quarter was highlighted by the completion of a successful follow up aircore drilling program designed to delineate the limits of the mineralised alluvials at the project..

### Steeple Hill Iron Project (E28/1672 and E28/1766)

The highlight of work conducted at the Steeple Hill Iron project during the December quarter was a 216 hole, 1,006 metre aircore drill program, designed to close off the alluvial hematite mineralisation at the project. This program commenced in late November and was completed on 12th December 2010.

Drilling targeted hematite rich detrital iron alluvials along a 12km strike length. The holes were drilled at a grid spacing of 200 metre x 200 metre over the edges of the deposit and in the southwest area, to provide additional data for an updated JORC resource estimation. The Company reported that the drill program produced good quality samples, and demonstrated good continuity of the mineralised zone along the whole area drilled. Geological logging indicates that the alluvial hematite mineralisation has still not been closed off in some areas, and a third follow up aircore program is planned for early 2011.

The drill program was initially planned for 200 holes, but was extended to 216 holes to cover a greater width of the deposit and also a further extent of the hematite rich gravels in the southern region of the project, and in tributaries to the east of the main creek. The Company is of the view that the mineralised zone of the project area may extend at least a further 1km to the south.

Drill samples were taken at 1 metre intervals, and 458 mineralised samples were collected for screening, washing, dense media separation and analysis at a metallurgical laboratory. The Company's independent geological consultants, Australian Mining Consultants, will use the analysis results to update the JORC Indicated Resource estimate for the project.

## Steeple Hill Iron Project Development Plan

The Company is focused on fast tracking the development of an alluvial iron oxide mining operation at the Steeple Hill Project, and has a maiden JORC Resource at the project. It is intended to provide mining, processing and transport cost data to AMC Consultants in the January Quarter to enable the estimation of a JORC Probable Reserve from the Indicated Resource.

**The Company is initially pursuing the alluvial operation (in preference to a hard rock project) due to its lower extraction cost, shorter timeframe to commencement of mining and ease of treatment. The aim of the alluvial project is to allow FairStar to quickly and economically become a producer of export grade hematite.**

A hard rock hematite and goethite mining operation at the Steeple Hill Project will be considered as a second phase operation at the project by the Company.

The Company's ongoing exploration program at Steeple Hill continues to confirm the project's potential to host a significant iron oxide deposit. It plans to fast track the development of a mining operation, with production scheduled to commence in 2011. Rehabilitation study and water studies for mining approval are currently underway.

Alluvials are loose grains of minerals or rocks that have been eroded from rocks and deposited in valleys over time. The alluvials are not cemented and can be mined by excavators without drilling and blasting. The particles are of varied sizes and can be removed from the soil by a simple shaking screen, washed and then separated by density methods into a dense concentrate to produce a direct shippable, low cost, high iron-content product.

## About the Steeple Hill Iron Project

The Steeple Hill Iron Project was discovered by FairStar in July 2008. The project is located in Western Australia's eastern goldfields and is 100% owned by the Company.

The Company has undertaken comprehensive exploration programs at the project, which include; three drill programs, rock chip sampling, geological mapping and an aero-magnetic survey (which indicated a much larger target area for future drilling at the project). The exploration programs have been designed to determine the extent of the mineralised zone at the project and allow estimation of a JORC Resource and Reserve.

The project is located 80km east of Kalgoorlie in close proximity to major rail infrastructure, with the heavy quality Trans Australian Railway passing 23 km south of the project area.



## Other Projects

### Jones Find Gold Prospect

Mapping was undertaken and a review of previous drilling indicates that extensive anomalous gold occurs from the top of the supergene enrichment zone at 20 metres depth to up to 175metres down-hole depth in a few deeper holes. Many of the holes in earlier drilling programs were drilled to only 40m, and did not intersect the full thickness of mineralisation. Holes were only analysed for gold, and other drilling at contiguous and nearby deposits indicates that significant copper and silver mineralisation also occurs in the region.

**Significant anomalous gold intersections (greater than 2m at 0.3g/t) occur over an area over 400m long by up to 200m wide. Gold grades reach as high as 11g/t. This anomalous zone requires infill and deeper drilling to fully delineate the mineralisation.**

A second smaller anomalous gold zone occurs about 500m south.

The company is of the view that a heap leach operation based on leaching gold ore with grades above 0.3g/t could be viable, and plans to undertake ore definition drilling in 2011 to determine the gold resource, and the viability of mining and processing the deposit.

**An application has been made for a Mining Lease covering the entire prospecting licence.**



### Duchess of York – Hickmans Find

This area was mapped in detail over anomalous gold areas, revealing that the major quartz veins have an alteration halo around them with minor quartz veins, and this zone was rock chip sampled with the results indicating that it contains the gold mineralisation. The large quartz veins had only weakly anomalous gold values, while the alteration zone had higher gold values. Results are tabulated in Table 1 below, and include anomalous Zn, Ag, Pb, Ni and Cu values.

The detailed mapping has indicated in part the location of the alteration zone, and further mapping to complete this delineation of the alteration zone will be undertaken. Then a follow up RC drilling program will be undertaken to target these mineralised zones at depth.

**These deposits are considered suitable for processing via heap leaching, and metallurgical testwork will be conducted to confirm this.**

**Table 1:** Gold and Mineralised Rock Chip Samples.

Sample Number	Au ppb	Ag ppm	Cu ppm	Zn ppm	Pb ppm	Ni ppm	Rock Type
DOYANOM4_003	2170	0.71	38	33	17	49	Alteration zone near quartz vein
DOYANOM4_005	42	0.51	119	20	309	23	Alteration zone near quartz vein
DOYANOM4_006	678	0.14	79	35	13	41	Alteration zone near quartz vein
DOYANOM4_007	371	0.4	55	12	49	19	Alteration zone near quartz vein
DOYANOM4_008	347	0.08	24	25	7	38	Alteration zone near quartz vein
DOYANOM4_010	544	1	21	19	41	28	Alteration zone near quartz vein
DOYANOM4_012	9	16	8	3	732	6	Alteration zone near quartz vein
DOY002	1	0.05	22	10	5	499	Alteration zone near quartz vein
DOY005	1	0.05	98	203	3	68	Alteration zone near quartz vein
DOYANOM4_016	842	0.1	72	36	24	61	Alteration zone near quartz vein

These anomalous values will be followed up by infill soil sampling and mapping to relate the anomalous values back to geology.



## Tenement rationalisation

A Mining Lease (M28/373) to replace part of exploration licences (E28/1672 and 28/1766) was applied for and is pending. This covers all of the detrital hematite mineralisation with 2km for projected mineralisation at the south end of the Iron Creek at the SHIP Project.

A miscellaneous licence has been applied for to cover a proposed haul road from the mill to the proposed rail loop at the Trans Australia railway line.

## Other Tenements

FairStar's exploration activities for the quarter in review focused on those referred to in this report. However, the Company can report that all other tenements remain in good standing and meet statutory requirements.

## Proposed Work Program for Q1, 2011

During the coming quarter, work will continue to focus on the Steeple Hill Iron Project. A summary of proposed activity is given below:

- Company plans to begin next phase of drilling - 100 hole program to further expand the Steeple Hill project, particularly in the south where it remains open
- Company plans to update the Indicated JORC Resource at the Steeple Hill Iron project in the near future, with the stage 2 aircore drilling results.
- Infrastructure plans for future iron ore exports from the project are underway and will continue (rail and sea-bound transport corridors have been established)
- Other required surveys and approvals processes at the project will continue
- Company will undertake further studies to upgrade the hematite product, and to characterise the nature of the ore for potential customers.
- Company will commence discussions with potential off-take and joint venture partners for the project
- Additional RC drilling at Jones Find to delineate the extent of the gold mineralisation.
- Follow up work at Duchess of York to define the rock chip anomalies and map the underlying geology in detail. This will be followed by RC drilling of the targets defined.

## Corporate Activity

### Prospective Investors

The Company is looking to progress discussions with a number of investors who are interested in the Steeple Hill Iron Project.

### Board changes

During the quarter the Company received the resignation of Mr. Ken Allen as a director

### Shareholding in Golden West Resources

The Company continues to review its options in respect to its shareholding in iron ore exploration and development company Golden West Resources (ASX: GWR). The Company will advise the market when any decision or outcome in respect of this shareholding is achieved.

*The information reported herein is based on information compiled by Mr Sheldon Coates who is a member of the Australasian Institution of Mining and Metallurgy. He has sufficient experience relevant to the style of mineralisation and deposit type under consideration, and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the*

*"Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Coates consents to the inclusion of this report of the matters based on his observations in the form and context in which it appears. Mr Coates has a B.Sc.Geology, MBA in Technology Management, and MSc in Mineral Economics. He has 14 years iron ore experience. Mr. Coates consents to the inclusion of this report of the matters based on his observations in the form and context in which it appears.*

Yours faithfully



**KEVIN J. ROBERTSON**  
Managing Director  
FairStar Resources

## About FairStar Resources

FairStar Resources is a Perth-based multi-commodity exploration company, which listed on the ASX in October 2006. The Company has project interests in iron, gold, base metals, and uranium.

It currently has several high potential projects; Steeple Hill Iron project and Kurnalpi-Randalls Gold project, both in the Eastern Goldfields of Western Australia, Spinifex Well Gold project near Leonora, and the Mt Padbury Uranium, Mindoolah Gold and Uranium and Killara Base metals and Uranium projects all near Meekatharra in the Murchison region of WA.