

## QUARTERLY REPORT for the Quarter Ended 30 September 2011

### HIGHLIGHTS

**Magnetic Resources NL**  
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**Issued Capital:**  
**Shares - Quoted:**  
67,517,636 fully paid shares  
17,418,862 contributing shares  
**Options - Unquoted:**  
2,295,000 options exercisable at \$0.2709 by 23.12.2014  
2,145,000 options exercisable at \$0.4607 by 21.12.2015

**Cash:** \$2.4 million

**Directors:**  
**Peter Thomas**  
Non Executive Chairman  
**George Sakalidis**  
Managing Director

#### JUBUK

- Conceptual Mining Study shows a positive NPV from the 100%-owned Jubuk magnetite project.
- The study used a design production rate of 0.5Mtpa of magnetite concentrate, road freighted to Kwinana port in containers.
- Using available information, financial analysis indicates the project is likely to be viable on the following basis:

CAPEX A\$	Included Contingency	OPEX A\$/t	NPV (10%)	IRR	Nominal Payback
153M	A\$20M	106	A\$40M	18%	4 years

- Additional exploration targets are being investigated in order to enhance the project economics.

#### CALINGIRI

- Encouraging early sampling results with potential for DSO-grade iron ore near existing rail infrastructure.

#### WUBIN

- 11 DSO target areas identified, gravity surveys in progress to prioritise drill testing.

# IRON ORE

## Jubuk

Consulting engineering firm Engenium Pty Ltd has completed an independent conceptual mining and economic study on Magnetic Resources' 100%-owned Jubuk Magnetite Project situated 200km southeast of Perth near Corrigin. The Jubuk tenements host the Jubuk coarse-grained magnetite deposit with an exploration target range of 50-200Mt of magnetite banded iron formation.

Magnetic has completed 68 drill holes, totalling 7720m, and completed 532 Davis Tube Recovery (DTR) determinations on RC drill samples from the drilling programmes. The test results continue to show the potential for the project to produce a high-grade concentrate suitable for Direct Reduction Furnace usage based on the high Fe and low SiO<sub>2</sub> contents.

Of these samples, 126 have been sourced from the weathered profile and 406 from fresh rock with the composite samples representing an average 3m down-hole width. Table 1 summarises the weighted averages of the feed and concentrate grades and apparent recovery rates. The tests were performed on samples ground to P<sub>80</sub> of 75 microns.

Table 1  
DTR Testwork Summary

	Feed Grades %				Concentrate Grades %				Fe Rec	Mass Rec
	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	P	Fe	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	P		
<b>Weathered</b>	24.3	51.5	6.9	0.02	68.4	1.6	1.3	0.01	52.2	18.1
<b>Fresh</b>	24.1	49.9	6.4	0.03	69.6	1.2	1.1	0.00	76.2	27.5

All Values are Weighted Average Values based of composite sample down-hole width

Whilst the feed grade and recovery rate are lower from within the weathered profile, the material from this zone produces a concentrate of very similar quality to the concentrate derived from fresh rock.

The study assumed:

- Open pit contract mining.
- Conventional processing by crushing and screening, magnetic pre-concentration, milling, magnetic separation and filtering.
- Contract road haulage to port in containers.
- Port receipt, storage and export facilities using existing facilities at Kwinana.

The study reviewed a range of development options and concluded that a modest scale operation would be appropriate with a resultant reduction in capital costs by maximising local employment and minimising mine camp requirements for personnel, compared to larger tonnage options. Likewise the reduced power and water requirements were deemed achievable with minor upgrades to existing infrastructure. The capital costs of rail loading/unloading facilities and rail upgrades were eliminated by using road haulage directly to Kwinana in purpose built containers and discharge into ships using a container tipper mounted on existing container cranes or ships cranes. However the smaller scale of operation is reflected in higher operating costs.

The study indicates an NPV of A\$40M, a capital cost of A\$153M, operating costs of A\$106/tonne, an IRR of 18% and a nominal payback period of 4 years using the following mining, financial and cash flow assumptions:

- Mining rate of 2.0-2.4 Mtpa, producing 500,000-600,000tpa of magnetite concentrate;
- A Life of Mine of 14 years based on 29Mt of mineralisation;

- Long term iron ore price of US\$ \$1.77/dmtu (including 10% premium for quality product) and a long term exchange rate of 0.8 US\$/A\$;
- Strip ratio increasing from 1.4:1 to 3.6:1 over the Life of Mine;
- Mass recovery of 25%;
- Concentrate iron content of 67%;
- Royalty rate 5%;
- Tax rate 30%;
- Discount rate of 10%;
- Financial model over a project life of 14 years;
- No terminal value added to the NPV, (which would reflect any extension to the plant and/or mine life)
- Sustaining capital at 10% of direct capital from Year 4 onwards.

The capital cost of the base case study assumed new Australian-sourced equipment and applied a short term exchange rate of 1.0 US\$/A\$ reducing to 0.8 US\$/A\$ in Year 6.

The study also modelled a combined road and rail transport scenario which resulted in an increased capital cost of A\$170M, an NPV of A\$35M and an IRR of 16%.

Sensitivity analysis was performed on the road transport case to determine the change in NPV with discount rates up to 15%. The impact on Project NPV with a  $\pm 20\%$  change in exchange rate, price, production, operating costs and capital costs, was also modelled. The price, exchange rate and operating cost showed the potential to cause a negative NPV for the options examined in the  $\pm 20\%$  range investigated.

The study does not classify as a “scoping study” because a JORC compliant resource has not been finalised. The tonnage and grade assumptions on which the study is based are derived from Magnetic Resources’ estimates of the apparent extent of mineralisation.

Conceptual pit plans were optimised using a wire-framed geological model of the mineralisation based on sectional interpretation with assigned densities for the mineralisation and waste as shown in Figure 1, to develop stripping ratios and interpreted mineralisation tonnages available.

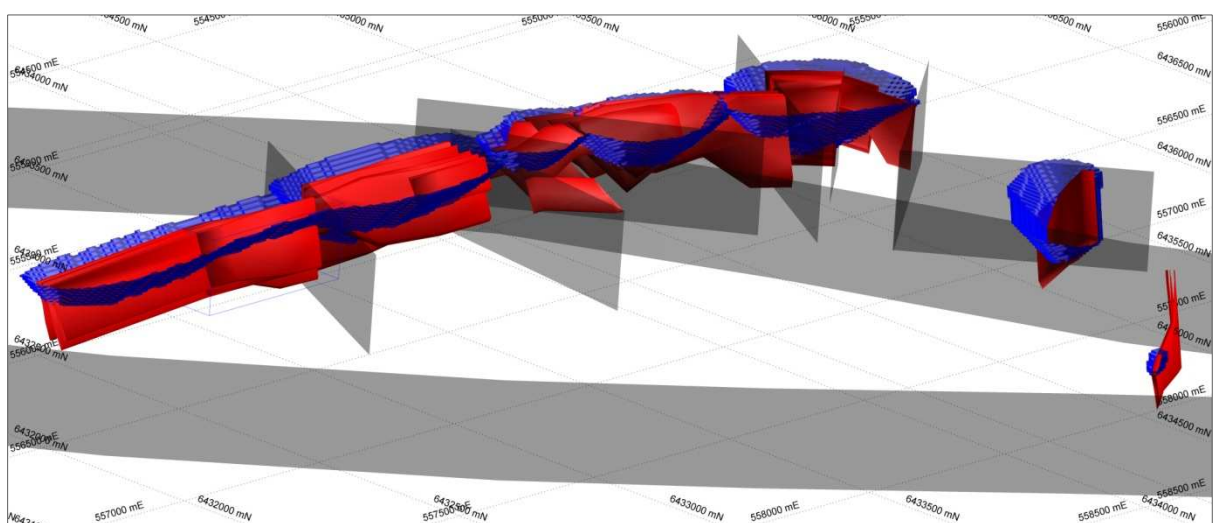


Figure 1  
Optimised Conceptual Pits (Blue), Interpreted Mineralisation (red) and Inferred Structures (grey)

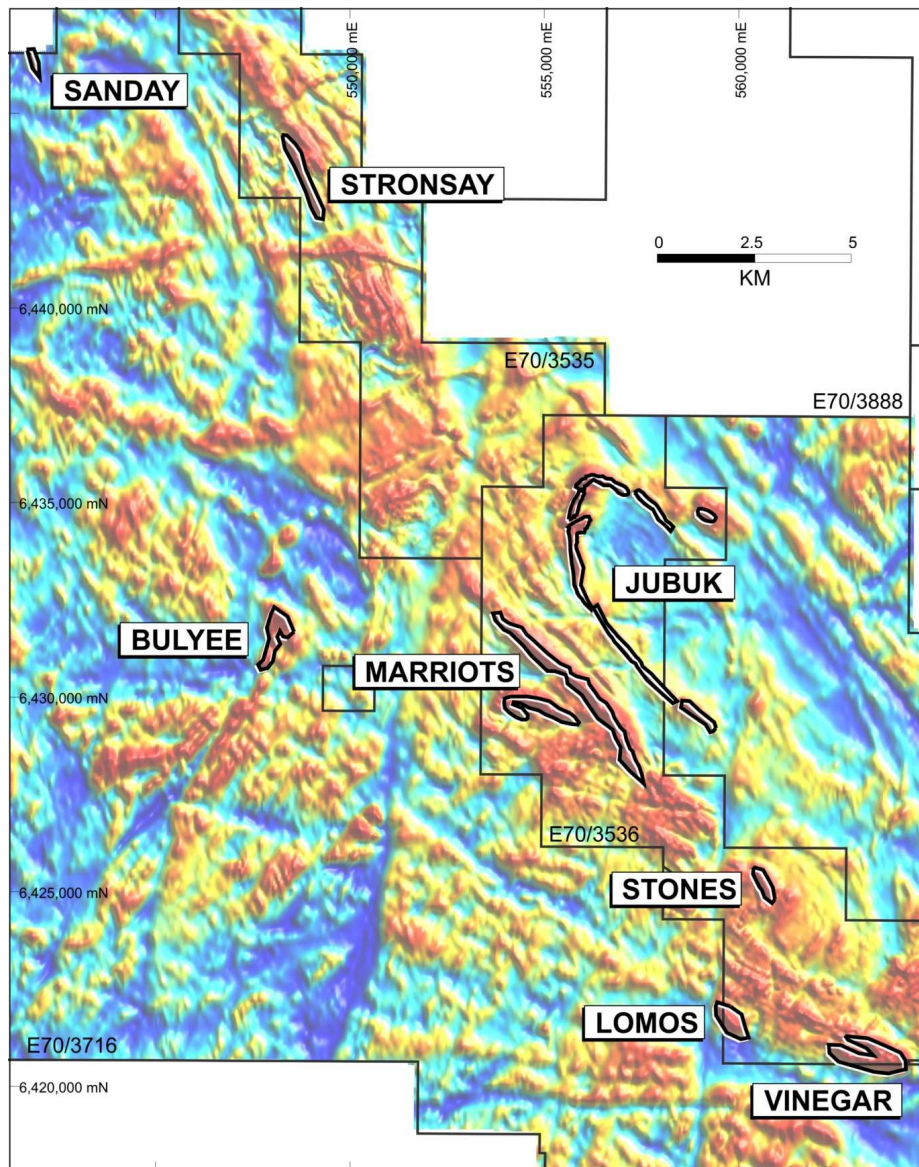


Figure 2  
Regional Exploration Targets within 30km of Jubuk

Magnetic Resources is investigating options to further reduce the capital costs. The study shows that additional mineralisation with low overburden strip ratios will strongly enhance the project economics. Exploration targets held 100% by Magnetic within a 30km radius of Jubuk and which remain untested, shown in Figure 2, are being prioritised and investigated in preparation for further drilling.

## Calingiri

Magnetic Resources continues to advance exploration over its 100%-owned iron ore tenements in the south west of WA, with exploration licence E70/3921 near Calingiri showing early promise.

The tenement covers a series of strong aeromagnetic anomalies apparent in the regional data, as shown in Figure 3. Recent reconnaissance sampling has indicated the presence of high iron contents in ferruginous outcrops/subcrops coincident with one of the major magnetic trends.



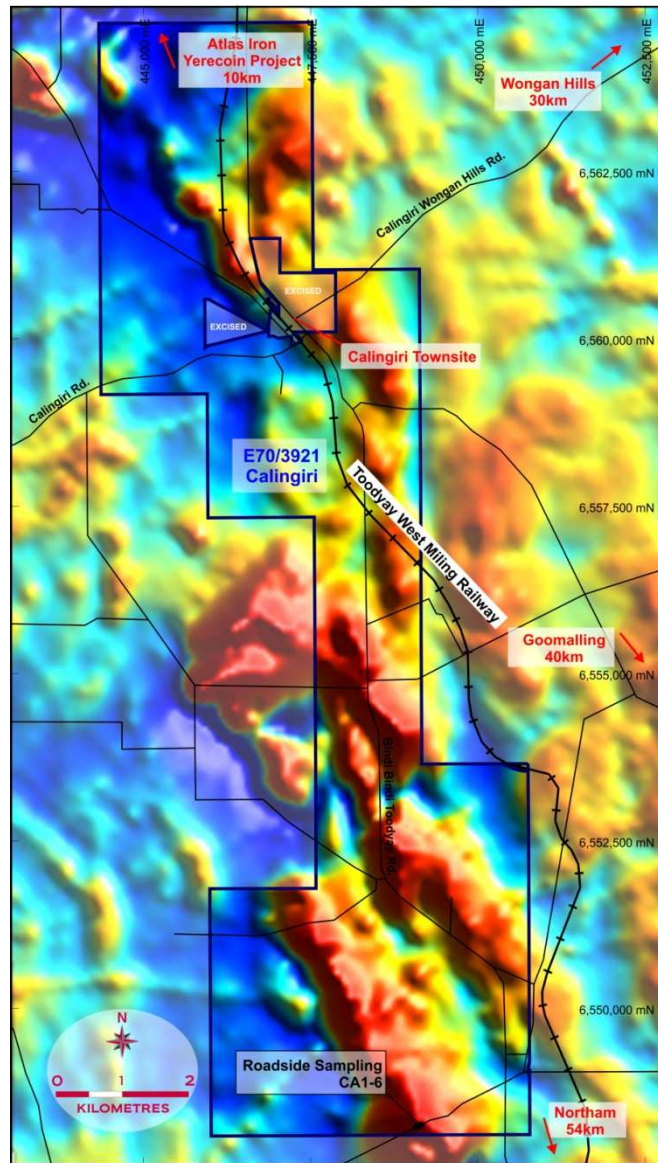


Figure 3  
**Aeromagnetic Image of Calingiri Tenement Showing Sample Locations.**

Composite samples were collected as being representative of outcropping and sub-cropping roadside material where a road crosses the southernmost magnetic feature. The strike length of the significant magnetic anomalies in the southern half of the tenement totals about 8.5km. Sample analysis results are summarised in Table 2, with a photograph of part of sample CA1 shown in Figure 4.

Table 2  
**Calingiri Surface Sample Results**

Sample ID	Easting	Northing	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	P %	LOI %
CA1	449075	6548228	51.17	22.38	2.37	0.02	1.41
CA2	449104	6548239	36.10	24.07	16.07	0.012	6.39
CA3	449125	6548236	57.35	7.01	5.44	0.056	5.01
CA4	449125	6548236	56.45	4.13	4.03	0.075	10.40
CA5	449150	6548262	47.06	22.79	6.16	0.018	2.98
CA6	449166	6548265	40.10	23.69	13.30	0.029	3.59
CA6 Rpt			39.93	23.70	13.30	0.029	3.62

Co-ordinates Zone 50 MGA/GDA. All analyses by pressed powder XRF. LOI; loss on ignition

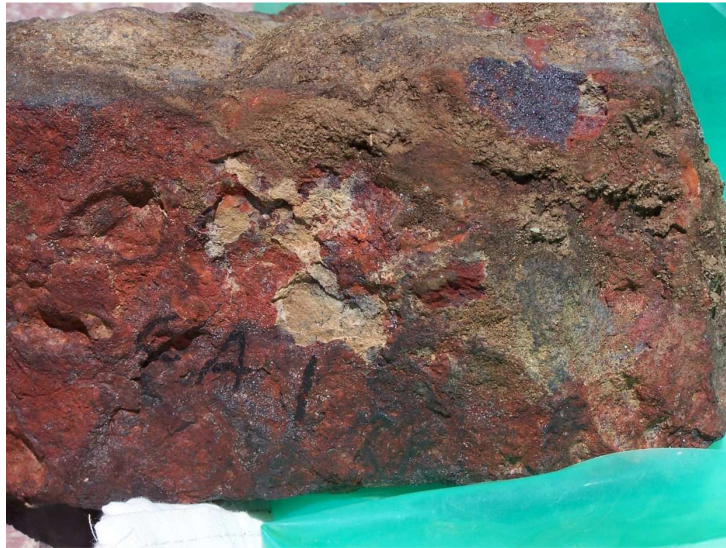


Figure 4  
**Sample CA1, Calingiri.**

Iron grades range from 36.1%Fe to 57.3%Fe indicating that the magnetite-rich units interpreted to underlie the magnetic anomalies have been enriched in some areas and suggesting the possibility of direct shipping (DSO) type ores being present. The Calingiri project is situated about 10km south of Atlas Iron's Yerecoin project where a substantial magnetite resource, with high concentrate grades similar to Magnetic's Jubuk project, has been reported. The Toodyay-West Miling railway line passes through the tenement area providing potential for access to Kwinana port. Magnetic is encouraged by these early sampling results and, subject to completion of landowner access agreements, is planning a programme of ground magnetic surveys and surface sampling to define drilling targets.

## **Wubin**

Magnetic Resources is about to commence crushing and screening test work on surface rock samples with the aim of assessing the potential for direct shipping ore-grade (DSO) material within the Wubin project area north east of Perth. This test work will be followed by ground gravity surveys targeting zones of reduced magnetic response on interpreted banded iron formation horizons which may reflect the presence of hematite-goethite alteration.

Magnetic is basing this approach on the results of the surface rock chip sampling shown in Figure 5 where 32% (90) of the 278 rock chip samples collected from the project area reported greater than 40% Fe. These results highlight the potential of the area to contain potentially mineable volumes of DSO-type materials with minimal stripping ratios.



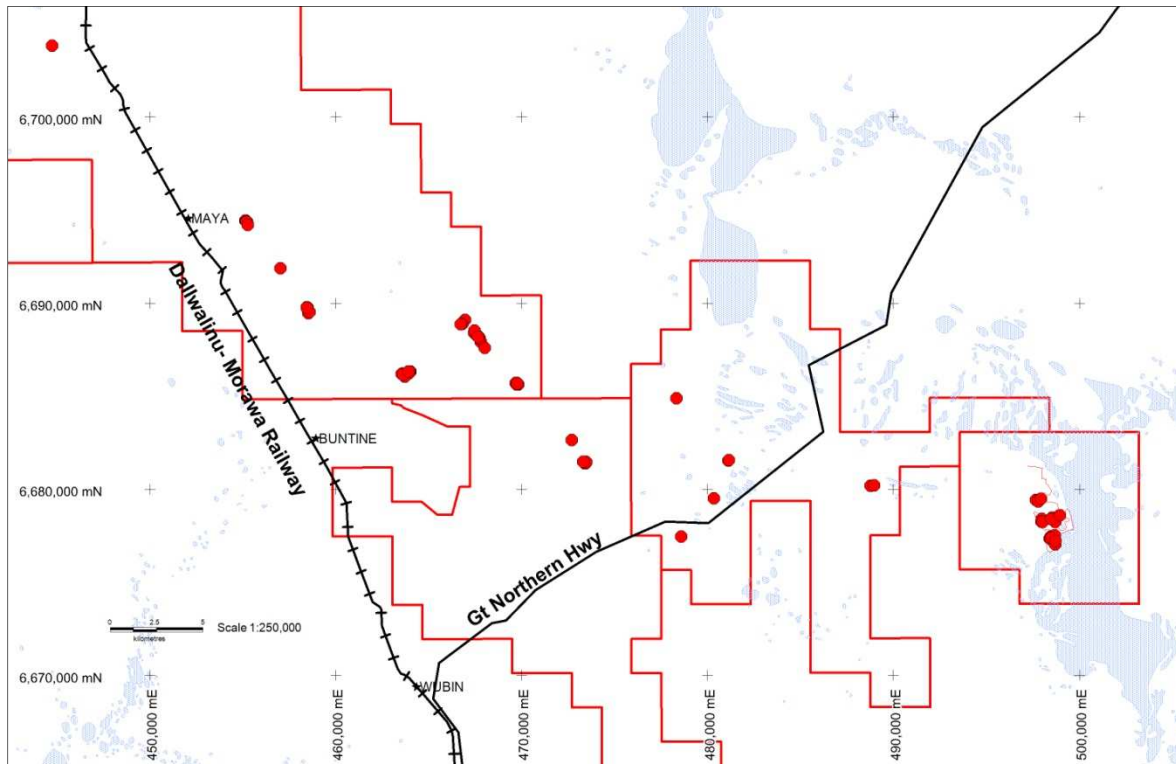


Figure 5  
Location of Surface Rock Chip Samples >40%Fe, Wubin Area.

Aircore drilling during October 2010 intersected 8m @ 52.8%Fe from 4m (BUNAC052). During preparation of sumps for adjacent RC drilling, goethitic material (Figure 6) was exposed that is potentially suitable for upgrading to a saleable product. The RC drilling intersected similar widths and grades in BRC08; 12m @ 41.3%Fe from surface, and BRC09; 12m @ 37.6%Fe from surface.

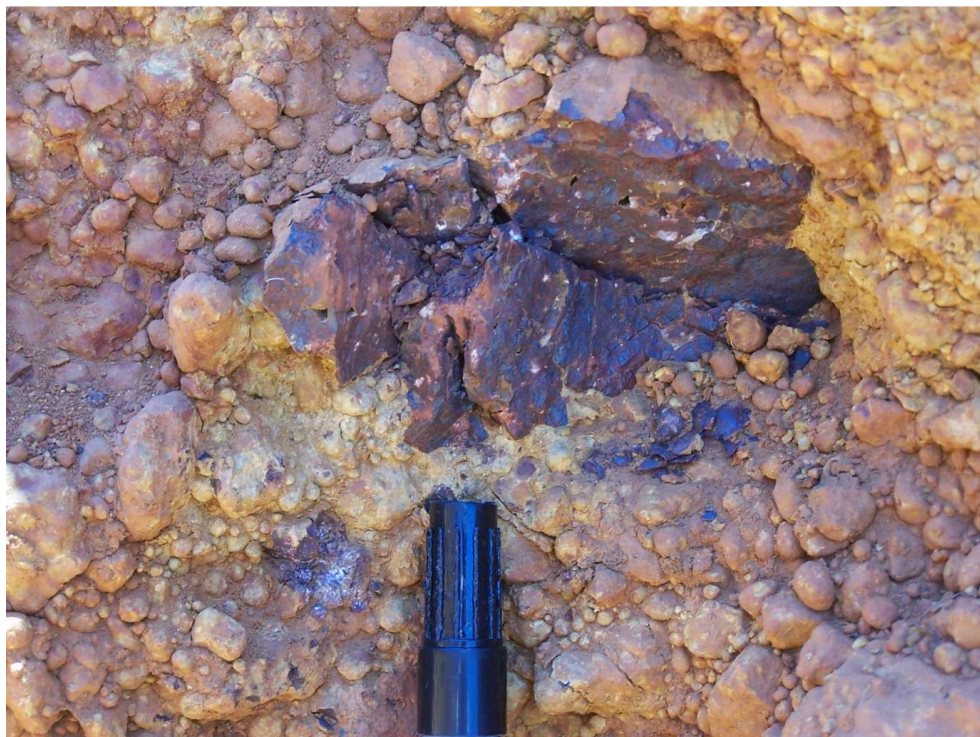


Figure 6  
Goethitic Iron Oxide In Surface Lateritic Detritus

Magnetic has completed crushing and screening test work on three manually collected samples, from drill sump spoil at the Cheesemans prospect, to assess whether a saleable product could be generated from the near surface goethitic iron oxide.

The testwork was completed by the independent laboratory Nagrom. The three samples displayed similar results and indicated the iron content could be improved and the silica content reduced by screening, however the alumina content did not significantly change. The results for sample A at Cheesemans are shown in Table 3.

Table 3  
**Crushing, Screening Testwork Results, Sample A, Cheesemans**

SAMPLE A	Weight kg	Fe %	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	LOI(1000°C) %
Calc. Head Sizing (mm)	39.03	37.97	15.17	20.76	8.03
+50mm	4.58	46.14	4.83	19.37	8.92
+31.5mm	2.97	43.30	5.56	22.23	9.37
+22.4mm	1.67	44.59	5.31	21.92	8.04
+16mm	2.37	45.79	6.08	20.68	6.76
+12.5mm	2.12	44.78	6.28	21.60	6.82
+6.3mm	8.08	44.38	6.11	22.20	6.98
+4mm	4.66	43.31	7.69	20.92	7.38
+2mm	4.03	43.23	10.81	17.70	7.40
+1mm	1.42	39.14	16.80	17.17	7.82
-1mm	7.13	10.39	51.05	21.27	9.68

Further sampling and test work will be required to assess the concept of upgrading near surface iron oxides, in the meantime Magnetic plans to focus on those target areas which are not directly related to surface lateritic enrichments.

The regional aeromagnetic data shows numerous areas with significant changes in the character of a series of magnetic horizons along strike. Some of these changes may be due to changes in rock type; others may be caused by faulting or structural disruption. These changes in magnetic character may also be caused by alteration of the rock type by weathering or hydrothermal activity. In the case of primary magnetite in the fresh rock, the magnetite may be altered to hematite or reduced to goethite by weathering. In both cases there is a major reduction in magnetic response, however it is expected that there will be limited change to the overall density of the rock types.

The target areas tend to be topographic highs and also show a superficial soil discoloration interpreted to indicate potential for elevated iron contents in the underlying rocks.

Magnetic is undertaking a series of gravity traverses along fence-lines and roads over areas where the change in magnetic character occurs rather than areas of lateritic character. This information will allow planning for more extensive gravity surveys to define drilling targets once harvest is completed on these farm land areas.

Planning of several air core drilling programs is in progress and will be submitted for landowner and statutory approval to continue the evaluation of these and other target zones.

The surface sampling, magnetic character and soil discolouration of one of these areas (Harles) is shown in Figure 7. So far, Magnetic has identified 11 areas in the Wubin area with potential for DSO-type iron oxides, with an estimated combined areal extent



of 2.2sq km. The depth and potential tonnage of iron oxide is unknown at this stage. The Dalwallinu-Morawa railway traverses the western margin of the project area, potentially providing ready access to Geraldton and southern ports.

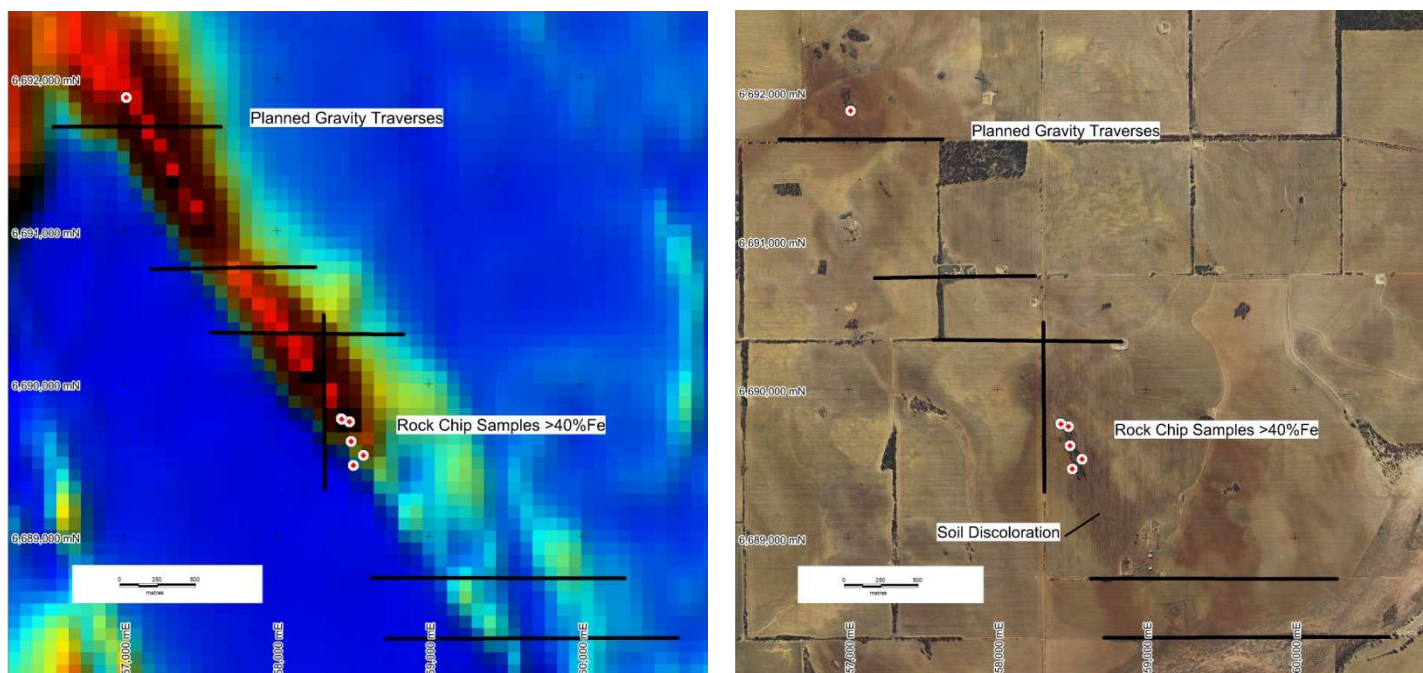


Figure 7

**Harles Target. Left: Proposed Gravity Traverses Shown On Magnetic Background. Right: Air Photo Showing Iron Rich Discolouration Area.**

## Corporate

Singapore-based private investor Mr Eric JH Lim has been appointed as a non-executive director. Mr Lim represents a group of Singapore-based investors who hold a significant stake in the Company.

For more information on the company visit [www.magres.com.au](http://www.magres.com.au)

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The information in this report is based on information compiled or reviewed by George Sakalidis BSc (Hons), who is a member of the Australasian Institute of Mining and Metallurgy. George Sakalidis is a director of Magnetic Resources NL. George Sakalidis 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'. George Sakalidis consents to the inclusion of this information in the form and context in which it appears in this report.