

SPHERE MINERALS LIMITED

A SUBSIDIARY OF
GLENCORE

QUARTERLY ACTIVITIES REPORT – 31 MARCH 2014

Summary

Sphere Minerals Limited (Sphere) has made good progress on developing its two major resource areas – Guelb el Aouj and Askaf. As announced on 24 April 2014, the Board approved development of the 7 million tonnes per annum Askaf North iron ore project for a forecast construction cost of US\$0.9billion (real basis, 2014 dollars) and production start scheduled for early 2017.

Guelb el Aouj Iron Ore Project (Sphere 50%; SNIM 50%)

The El Aouj Pre-Feasibility Study (PFS) was progressed during the quarter. El Aouj Mining Company, on behalf of Sphere Minerals and SNIM, is examining options for fixing the project scope in order to progress to a Feasibility Study phase (FS).

Assessment of Phase II concepts for further development continued. This includes the option of utilising resources at the Bou Derga and Tintekrate guelbs, as well as the El Aouj Centre guelb.

El Aouj East

- No further geological work has been undertaken on the El Aouj East deposit.

El Aouj Centre

- The updated Mineral Resource for the El Aouj Centre deposit is currently under geostatistical assessment and preparation and a formal statement will be prepared in due course.

Askaf Iron Ore Project (Sphere 90%)

Askaf North

- Key fiscal terms have been confirmed by the Mauritanian Government including the application of the 2002 Model Mining Convention. Sphere and the Mauritanian Government have agreed that, in coming months, they will negotiate a new convention for Askaf based on the 2012 Model Mining Convention.
- Contractual arrangements for the provision of rail and port services for Askaf by Société Nationale Industrielle et Minière de Mauritanie (“SNIM”) have been finalised.
- Negotiation of the construction contract is nearing completion.

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Askaf Centre and Askaf East Deposits.

Final resource estimations have been completed for the Askaf Centre and Askaf East deposits (Figure 2 and Figure 3) following the completion of resource definition drilling programs and associated drill sample assaying and Davis Tube testwork. The combined fresh (unweathered) Inferred Resources for these deposits is 165 Mt (11 April 2014)¹ at 35% Fe (Table 1). The combined Davis Tube (DT) mass recovery (DT80 wt%) for the fresh Mineral Resources is 42% at a concentrate grade of 70.1% Fe (Table2).

In addition, the combined weathered magnetite-quartzite resource is 26 Mt at 34% Fe (Table 3).

The Mineral Resource estimates for Askaf Centre and East were prepared and classified by Golder Associates (Golder) in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition) based on drill hole data and a 3-dimensional wireframe interpretation supplied by Sphere.

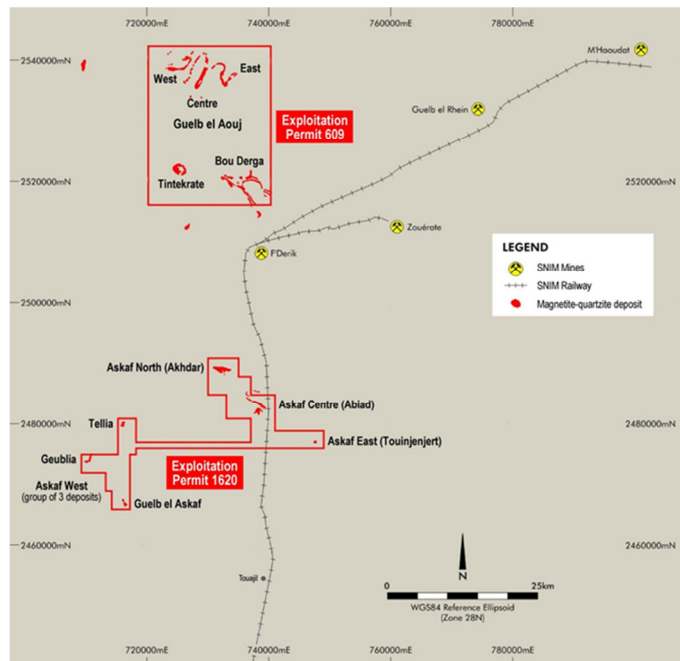


Figure 1. Location of Sphere's Magnetite-Quartzite Deposits in Mauritania.

¹ ASX Announcement, 11 April 2014, "Maiden Inferred Mineral Resources at Askaf". The Competent Person for the geological information was Dr SW van der Merwe and the Competent Person for the resource estimate was Alan Millar. A 20% DT80 wt% cut-off grade was used for the fresh material and a 20% head Fe cut-off grade was used for the weathered material.

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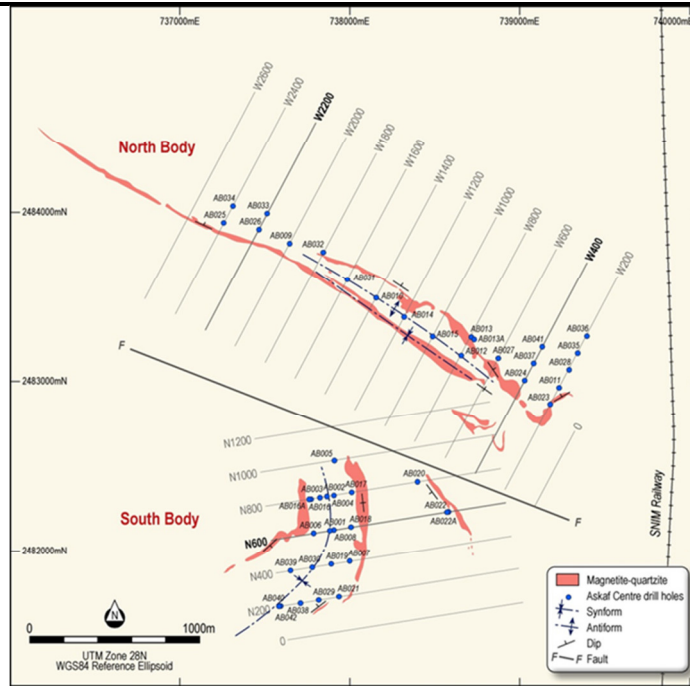


Figure 2. Askaf Centre Drill Location Plan Magnetite-Quartzite Outcrop.

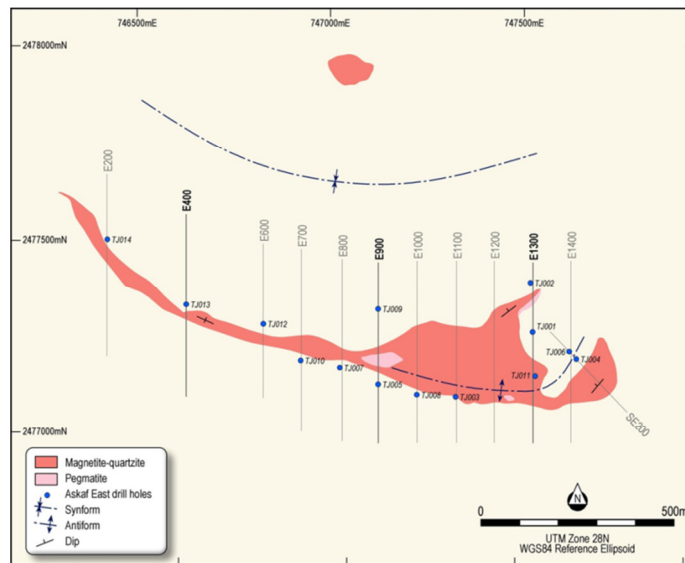


Figure 3. Askaf East Drill Location Plan and Magnetite-Quartzite Outcrop.

Table 1: Askaf Centre and Askaf East deposits – Summary of Inferred Mineral Resources, Fresh Mineralisation. At 20% DT80 wt% cut-off grade¹, Dry Head Basis as at January 2014 (East) and February 2014 (Centre)

Deposit	Mt	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %	MgO %	S %	K ₂ O %	LOI %
Askaf Centre	95	36	43	1.8	0.08	2.1	0.10	0.6	-0.8
Askaf East	70	35	44	1.7	0.09	2.2	0.07	0.8	-1.0
Total	165	35	44	1.7	0.08	2.2	0.09	0.7	-0.9

¹ DT80 wt% is the mass recovery of Davis Tube testwork conducted on mineralised drill samples pulverised to a size of 95% passing 80 µm. This is a standard setting characterisation test that enables the variability of the mineralisation to be assessed within and between deposits.

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Table 2: Askaf Centre and Askaf East deposits – Summary of Inferred Mineral Resources, Fresh Mineralisation. At 20% DT80 wt% cut-off grade, Dry DT80 Concentrate Basis, as at January 2014 (East) and February 2014 (Centre)

Deposit	DT80 Wt%	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %	MgO %	S %	K ₂ O %	LOI %
Askaf Centre	42	69.9	2.1	0.4	0.006	0.3	0.04	0.02	-3.1
Askaf East	42	70.3	1.8	0.3	0.007	0.3	0.06	0.02	-3.1
Total	42	70.1	1.9	0.4	0.006	0.3	0.05	0.02	-3.1

Table 3: Askaf Centre and Askaf East deposits – Summary of Maiden Inferred Resources, Weathered Mineralisation. At 20% Fe cut-off grade, Dry Head Basis as at January 2014 (East) and February 2014 (Centre)

Deposit	Mt	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %	MgO %	S %	K ₂ O %	LOI %
Askaf Centre	13	37	38	2.9	0.07	2.0	0.009	0.6	1.9
Askaf East	13	31	47	2.4	0.1	1.3	0.02	1.2	1.9
Total	26	34	43	2.6	0.08	1.7	0.01	0.9	1.9

Sphere considers the maiden Mineral Resources for Askaf Centre and Askaf East to be important supplements to the existing fresh Measured, Indicated and Inferred Mineral Resources at the nearby Askaf North deposit, which (inclusive of Ore Reserves) total 404 Mt at 36% Fe, DT80 wt% of 44% and concentrate Fe of 70.1%².

Lebtheinia Iron Ore Project (Sphere 100%)

- Concept study work for the development of the Lebtheinia resource continues.

² ASX Announcement, 13 January 2013, "Quarterly Activities and Cashflow Report". The Competent Person for the geological information was Dr SW van der Merwe and the Competent Person for the resource estimate was Alan Millar. A 20% DT80 wt% cut-off grade was used for the fresh material and a 20% head Fe cut-off grade was used for the weathered material.

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ASX Listing Rule 5.3.3 Disclosure

Mining tenements held at the end of quarter and their location.

Exploitation License Schedule

Exploitation (Mining) License	Location Country	Name	Area (km ²)	Date Granted	Grant Period (Years)	Holding Company	Interest
EL 609	Mauritania	El Aouj / (Tintekrate)	520	27 April 2008	30	El Aouj Mining Company SA	50%
EL 1620	Mauritania	Askaf	194	26 September 2012	30	Sphere Mauritania SA	90%

Exploration License Schedule

Exploration License	Location Country	Name	Area (km ²)	Expiry date of licence	Holding Company	Interest
EL 264	Mauritania	Lebtheinia	324	5 September 2015	Sphere Lebtheinia SA	100%
EL 325	Mauritania	Aoueoua	45	(1)	Sphere Lebtheinia SA	100%

(1) Application for a three year extension of the exploration license in progress.

Mining tenements acquired and disposed of during the quarter

None

The beneficial percentage interests held in farm-in or farm-out agreements at the end of the quarter.

None

The beneficial percentage interests in farm-in or farm-out agreements acquired or disposed of during the quarter.

None

Competent Person's' Statement

The Competent Person responsible for the Exploration Results mentioned in this report is Dr Schalk van der Merwe, is a Geological Consultant to Sphere Minerals Limited. Dr van der Merwe is a member of a Recognised Overseas Professional Organisation (ROPO), the South African Council for Natural Scientific Professionals (SACNASP). Dr van der Merwe has sufficient experience that is relevant to the styles of mineralisation and type of deposits under consideration and to the activity being undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Dr van der Merwe consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/2013

Name of entity

Sphere Minerals Limited

ABN

66 009 134 847

Quarter ended ("current quarter")

March 2014

Consolidated statement of cash flows

	Current quarter \$A'000	Year to date (3 months) \$A'000
Cash flows related to operating activities		
1.1 Receipts from product sales and related debtors	-	-
1.2 Payments for (a) exploration & evaluation	(10,421)	(10,421)
(b) development	-	-
(c) production	-	-
(d) administration	(38)	(38)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	6	6
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other (provide details if material)	-	-
Net Operating Cash Flows	(10,453)	(10,453)
Cash flows related to investing activities		
1.8 Payment for purchases of: (a) prospects	-	-
(b) equity investments	-	-
(c) other fixed assets	(24)	(24)
1.9 Proceeds from sale of: (a) prospects	-	-
(b) equity investments	-	-
(c) other fixed assets	-	-
1.10 Loans to other entities	-	-
1.11 Loans repaid by other entities	-	-
1.12 Other (provide details if material)	-	-
Net investing cash flows	(24)	(24)
1.13 Total operating and investing cash flows (carried forward)	(10,477)	(10,477)

+ See chapter 19 for defined terms.

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(10,477)	(10,477)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	-	-
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	11,500	11,500
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other (provide details if material)	-	-
	Net financing cash flows	11,500	11,500
	Net increase (decrease) in cash held	1,023	1,023
1.20	Cash at beginning of quarter/year to date	5,226	5,226
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	Cash at end of quarter	6,249	6,249

Payments to directors of the entity, associates of the directors, related entities of the entity and associates of the related entities

	Current quarter \$A'000	
1.23	Aggregate amount of payments to the parties included in item 1.2	30
1.24	Aggregate amount of loans to the parties included in item 1.10	Nil

1.25 Explanation necessary for an understanding of the transactions

Directors' fees

Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

Interest expense accrued during the period: A\$735,000

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

Nil

+ See chapter 19 for defined terms.

Financing facilities available

Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	86,255	29,700
3.2 Credit standby arrangements	-	-

Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	12,871
4.2 Development	-
4.3 Production	-
4.4 Administration	133
Total	13,004

Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	6,249	5,226
5.2 Deposits at call	-	-
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
Total: cash at end of quarter (item 1.22)	6,249	5,226

+ See chapter 19 for defined terms.

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Changes in interests in mining tenements and petroleum tenements

	Tenement reference and location	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements and petroleum tenements relinquished, reduced or lapsed	-	-	-
6.2	Interests in mining tenements and petroleum tenements acquired or increased	-	-	-

Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	Nil			
7.2	Nil			
7.3	218,269,296			
7.4	Nil			
7.5	Nil			

+ See chapter 19 for defined terms.


Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted	Nil Nil			
7.7	Options (description and conversion factor)	Nil Nil		<i>Exercise price</i>	<i>Expiry date</i>
7.8	Issued during quarter	Nil			
7.9	Exercised during quarter	Nil Nil			
7.10	Expired during quarter	Nil			
7.11	Debentures (totals only)	Nil			
7.12	Unsecured notes (totals only)	Nil			

Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 5).
- 2 This statement does ~~not~~^{not} ~~(delete one)~~ give a true and fair view of the matters disclosed.

Sign here:  Date: 30/04/14
Company secretary

Print name: Matthew Conroy

+ See chapter 19 for defined terms.

Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements and petroleum tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement or petroleum tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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