# ASX Release



ASX Code: SEG

30 April 2014

Market Announcements Platform ASX Limited Exchange Centre, 20 Bridge Street Sydney NSW 2000

## QUARTERLY ACTIVITIES REPORT FOR THE PERIOD ENDED 31 MARCH 2014

#### **MARCH QUARTER HIGHLIGHTS**

- Ground EM Survey 30% complete at Plumridge Nickel Project
- Acquisition of up to 100% interest in the Plumridge Joint Venture tenements totalling 832km<sup>2</sup>
- Joint venture entered to earn up to 80% in two exploration licences totalling 641km<sup>2</sup>
- Acquisition of ten Exploration Licence Applications adjacent to the Plumridge Nickel Project
- Re-interpretation of >25,000m of the Plumridge Gold Project's historical data

### Plumridge Project, Fraser Range Province, Western Australia

During the quarter, Segue Resources Limited (**Segue** or the **Company**) continued to expand and consolidate its exploration tenement package at the Plumridge Project in the Fraser Range Province of Western Australia. Segue now controls over 2,800km<sup>2</sup> of granted exploration tenements and 740km<sup>2</sup> of exploration licence applications at Plumridge (**Figure 1**) and is one of the largest ASX-listed tenement holders in the region. The Company owns or is acquiring a 100% interest in eight tenements and ten tenement applications with an 80% interest in the remaining two tenements.

#### Plumridge Nickel Project

Segue commenced a Ground Electro-Magnetic (**EM**) survey at the Plumridge Nickel Project consisting of 123 line-kilometres of Moving Loop EM: one of the largest and most comprehensive ground EM surveys to be conducted in the Fraser Range. Segue's geophysical consultant, Newexco, has designed and will manage the ground EM programme to achieve the Company's objective of assessing the buried massive sulfide potential of the Plumridge Nickel Project.

The survey covers all 16 eye targets, previously defined by a detailed aeromagnetic survey (**Figure 2**), with appropriate density ground EM to maximise the likelihood of identifying Nova-style conductors. Regional drilling by previous tenement owners has allowed Segue to produce an accurate, ground-truthed depth-to-bedrock map which has been used to identify the location and extent of lignite (coal) and carbonaceous sediments in cover sequence. All 16 eye targets are under shallow cover and devoid of lignite minimising the potential for false positive conductors and reducing exploration and future development costs.

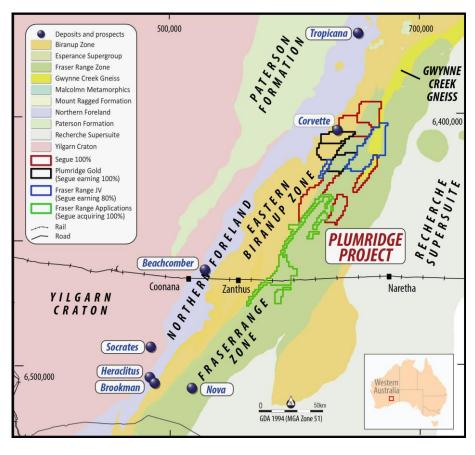


Figure 1 - Plumridge Project Location Map

The EM survey was initially delayed due to heavy rainfall in late January and again in mid-February. However, since regaining access to site, Segue has completed track clearing ahead of the EM crew which has significantly increased the daily line kilometres achieved. As at the end of March 2014, the data acquisition phase of the ground EM survey was approximately 30% complete. Data processing and conductor-plate modelling by Newexco will be conducted as appropriate data batches are amassed. All data processing is planned to be completed within 10 working days of the completion of data acquisition.

Tracks constructed for the EM survey will be re-used for a follow-up AirCore drilling programme designed to test the bedrock nickel geochemistry above identified ground EM conductors interpreted to be buried massive sulfide bodies. The AirCore drilling programme will be undertaken as soon as possible after the completion of the ground EM survey (data acquisition, processing and modelling).

Segue has previously outlined its exploration programme for the Plumridge Nickel Project (**Figure 3**). As per the exploration programme, the strongest, most strike extensive ground EM conductors coincident with the highest value, most strike extensive bedrock nickel anomalies will be prioritised for deeper Reverse Circulation (**RC**) drilling.

Figure 2 – Plumridge Magnetic "Eye" Targets

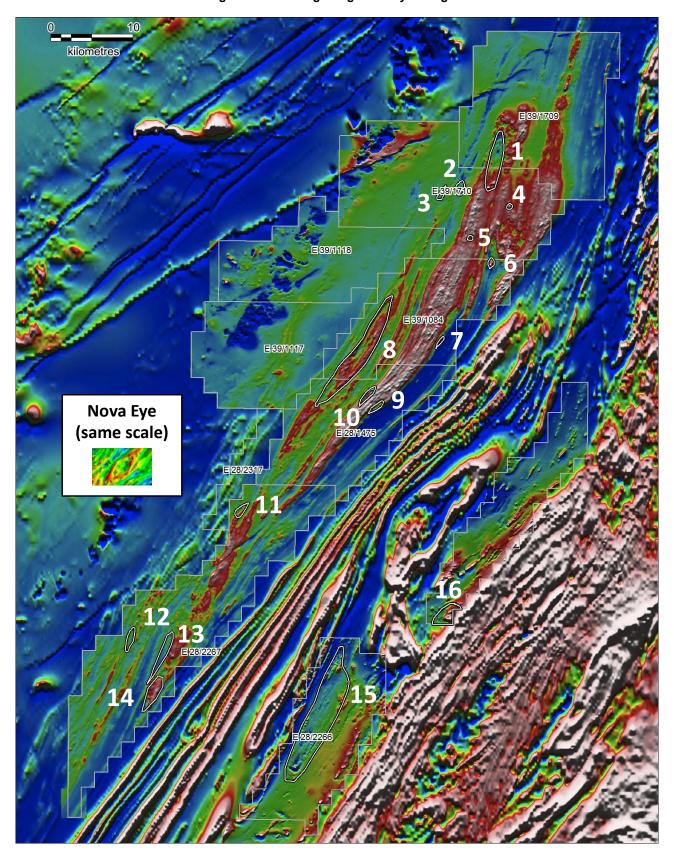
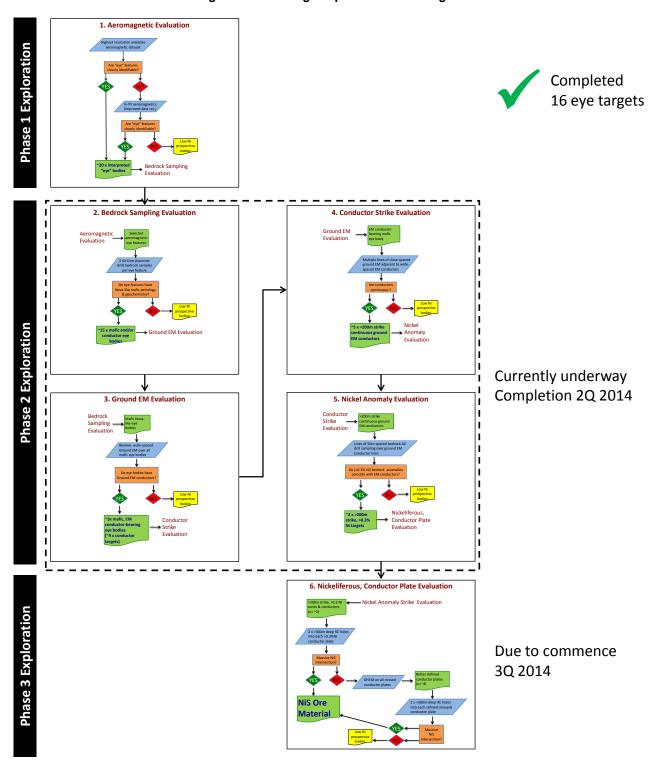


Figure 3 – Plumridge Exploration Flow Diagram



### **Plumridge Tenement Acquisitions**

During the quarter, Segue announced it had signed definitive agreements with Fraser Range Metals Group Limited (FRMG) and International Gold Fields Limited (IGS) to move to direct ownership of up to 100% in four tenements which were previously subject to the Plumridge Joint Venture (Segue earning 60%) and acquire an 80% interest in two exploration tenements adjacent to Segue's existing Plumridge tenements. In addition, Segue acquired a 100% interest in 10 exploration licence applications in the Plumridge region.

The transactions increased Segue's Plumridge Project area by over 25% to 2,880km² and potentially up to 3,620km² depending on the licence applications. Segue is now one of the largest ASX-listed tenement holders in the Fraser Range Province with 4,180km² of granted exploration licences (Plumridge and Deralinya Project areas) and almost 5,000km² of granted tenements and applications (including competing applications).

Segue and FRMG entered into a joint venture agreement over tenements E39/1731 and E28/2317 which total 641km<sup>2</sup> and are immediately adjacent to Segue's existing tenements at the Plumridge Nickel Project (**Plumridge East JV**). The addition of the Plumridge East JV tenements provides Segue with a contiguous tenement block covering around 50km across-strike and 120km along-strike of the Fraser Complex, which hosts the high grade Nova-Bollinger massive nickel sulfide deposit.

Under the terms of the Plumridge East JV, Segue will acquire an 80% interest in the tenements by exploration expenditure of \$500,000 over two years. Following this stage, normal dilution provisions will apply, with FRMG retaining the right to convert its joint venture interest into a 1% Net Smelter Royalty.

The primary tenement in the Plumridge East JV, E39/1731, hosts two important geological features which enhance the prospectivity for Nova-style nickel sulfide deposits:

- 1. E39/1731 is intersected by the NNE trending axis of the most prominent regional gravity high of the Fraser Complex, which maps the focus of dense, mantle magmatism the primary source of all nickel mineralisation. All of the world's major nickel sulfide deposits are transected or enveloped by regionally prominent gravity highs.
- 2. The Nova nickel deposit lies on a NNE-trending, major regional structure the "Nova Structure". This structure is interpreted to be a long-lived, steeply dipping and multiply-reactivated during the Albany Fraser Orogen; and as such an ideal mantle melt conduit. The Nova Structure can be traced in regional aeromagnetic data northwards to transects the western side of E39/1731.

It is highly significant that the Nova structure's aeromagnetic lineament and gravity anomalies coincide within E9/1731; indicative of favourable structural architecture and resultant voluminous, nickel-rich mantle magmatism (**Figure 4**).

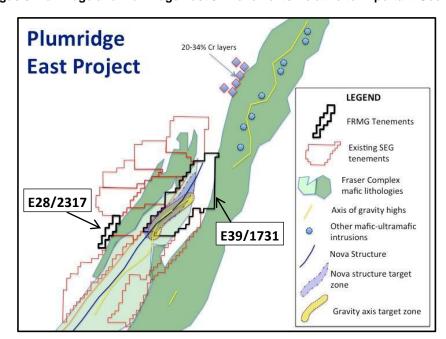


Figure 4 - Segue's Plumridge and Plumridge East JV Tenements Relative to Important Geological Features

Segue has also entered into an agreement with FRMG to acquire a 100% interest in 10 Exploration Licence Applications (ELAs) totalling 740km<sup>2</sup> in and around Segue's Plumridge Nickel Project. The 10 ELAs cover a significant amount of ground to the south-west of Segue's Plumridge Project and, if granted, may increase Segue's total Plumridge Nickel Project tenement package by a further 25% to over 3,600km<sup>2</sup>.

Subsequent to the quarter, Segue announced it had signed definitive agreements with IGS to acquire up to a 100% interest in four exploration tenements which were previously subject to the Plumridge Joint Venture. Segue is initially acquiring a 65% interest in the four tenements for \$100,000 in cash and the issue of 50 million Segue shares. Segue can acquire the remaining 35% interest in the four tenements (increasing its stake to 100%) by paying \$200,000 within three (3) months and granting IGS a 1% net smelter royalty.

#### Plumridge Gold Project

During the quarter Segue provided an update on exploration activities at the Plumridge Gold Project, around 60km southwest of the +5 million ounce Tropicana Gold Project. Gold mineralisation at Plumridge was discovered in 2007 by previous tenement holders, Corvette Resources. From 2007 to 2012, around 20,000m of air core drilling identified a 12km, NNE-SSW trending zone of semi-continuous bedrock gold grading >0.1g/t, and coincident, highly anomalous, mesothermal gold deposit (structurally hosted), pathfinder element geochemistry (**Figure 5**).

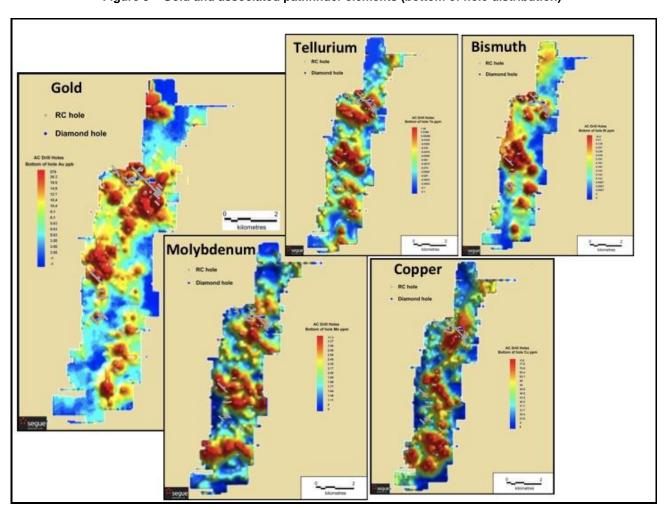


Figure 5 - Gold and associated pathfinder elements (bottom of hole distribution)

AirCore drill intersections up to 4.34g/t Au were reported within the Corvette prospect (Figure 6) and follow-up RC drilling confirmed the presence of discrete zones of high grade, supergene and bedrock gold mineralisation.

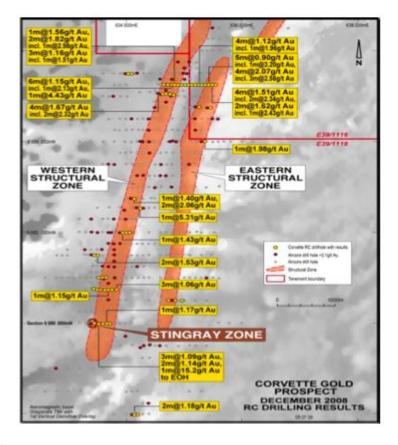


Figure 6 - High grade gold intersections from RC Drilling

The great majority of percussion drilling was either vertical or angled towards the west, across the strong NNE-trending magnetic fabric (reflecting lithological, metamorphic, structural lineations) of the regionally-extensive ductile shear zones.

In 2011, five diamond drill holes were completed adjacent to a selection of the best RC intersections. The oriented core was assayed and high grade intersections submitted to Jigsaw Geoscience for detailed structural and petrological analysis. This study determined that high grade intersections are free gold associated with pyrite, chalcopyrite, and bismuth-tellurides (as reflected in the multi-element geochemistry of Figure 5), hosted by narrow, albite-dominated sub-vertical, veins striking ENE-WSW.

One of the key conclusions of this study is that the great majority of drilling was oriented sub-parallel to the high-grade gold veins. Given that it is best practice to drill-intersect vein mineralisation at right angles, this study helps to explain the inability of previous operators to define continuous ore zones around high grade intersections. The coincidence of widespread low-grade gold and elevated pathfinder elements hosted by intensively altered gneisses, is interpreted to reflect variably overlapping alteration haloes enveloping a swarm of high-grade gold (albite) veins.

Segue completed a new interpretation of the structural setting of Corvette/Plumridge gold mineralisation, based upon Jigsaw's identification of brittle ENE-trending high grade gold veins, the architecture of other brittle-ductile gold systems (**Figure 7**), GSWA structural observations and measurements from the Fraser Range and an internal re-interpretation of the 100m line-spaced aeromagnetic data (**Figure 8**).

Figure 7 – Predicted orientation of tension gashes (brittle veins) within a ductile shear zone)

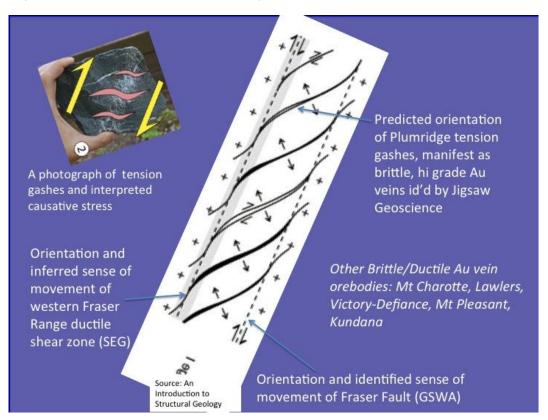
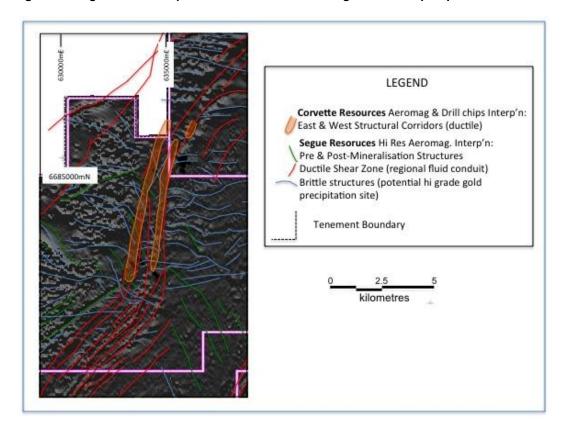


Figure 8 – Segue's new interpretation the structural setting of Corvette prospect mineralisation



Segue's new structural interpretation shows the potential of the Corvette Prospect and greater Plumridge Gold Project to host a major system of easterly trending, brittle (high grade gold in albite) veins, such as those identified by Jigsaw, between identified, multiple, parallel ductile shear zones. The distribution (density and extent) of such veins, will strongly impact the economics of exploiting such a system. The very large and strong alteration system with elevated gold and pathfinder elements, centred on the ductile shear zones, suggests they (the ductile shear zones) acted as significant gold-bearing hydrothermal fluid conduits. The abundance of easterly trending magnetic lineaments between the shear zones, suggests widespread brittle fracturing favourable to high grade gold mineralisation.

Segue has completed the Plumridge Project's historical data review and reinterpretation which will strongly influence the new gold exploration strategy. To define and prioritise the next round of drill targets, Segue has engaged Model Earth Geoscience (formerly Jigsaw Geoscience) to design and deliver a comprehensive alteration mineral composition study. All historical bedrock drill chips (>14,000 in total) have recently been analysed by Portable Infra-Red Mineral Analysis (PIMA) — a relatively new technology that measures the composition of alteration minerals intimately associated with gold mineralisation. Gold is often closely associated with rapid changes in alteration mineral composition. Model Earth has received the raw PIMA database and is integrating it with previous gold and pathfinder geochemistry and new structural data and interpretations to develop prioritised gold target zones.

Segue and Model Earth will refine these target zones into a number of prioritised drill targets, from which Segue will ultimately develop the next Plumridge Gold drill programme(s). It is anticipated that these drill programme(s) will be announced to the market during Q2 CY2014.

#### **Corporate and Financial**

During the quarter Segue completed a placement to Australian institutional and sophisticated investors to raise a total of \$900,000 by the issue of 150,000,000 ordinary shares at \$0.006 per share together with a 1 for 2 attaching option exercisable at \$0.018 per share on before the date that is two years from the date of issue.

At the end of the quarter, the Company had 1,258,412,797 shares on issue. The Company also has 11,800,000 options exercisable at \$0.051 on or before 8 November 2014, 25,000,000 options exercisable at \$0.01 on or before 18 February 2018 and 76,500,000 options exercisable at \$0.018 on or before 31 January 2016 outstanding.

For further information visit <u>www.segueresources.com</u> or contact:

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#### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Dr Howard Carr, Technical Director, who is a Member of The Australian Institute of Geoscientists. Dr Carr has more than five years' 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 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves". Dr Carr consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Appendix A - Schedule of Tenements

- pp				
Tenement ID	Status	Interest at beginning of quarter	Interest acquired or disposed	Interest at end of quarter
Plumridge Project				
E28/1475 <sup>1</sup>	Granted	0%	0%	0%
F28/2266	Granted	0%	100%	100%

E28/1475 <sup>1</sup>	Granted	0%	0%	0%
E28/2266	Granted	0%	100%	100%
E28/2267	Granted	0%	100%	100%
E39/1084 <sup>1</sup>	Granted	0%	0%	0%
E39/1117 <sup>1</sup>	Granted	0%	0%	0%
E39/1118 <sup>1</sup>	Granted	0%	0%	0%
E39/1709	Pending	0%	-	-
E39/1710	Granted	0%	100%	100%

<sup>1.</sup> Segue will acquire an initial 65% interest in the four tenements for \$100,000 in cash and the issue of 50 million Segue shares. Segue may acquire an additional 35% (for a total of 100%) by the payment of \$200,000 to IGS within three months of the agreement.

## **Plumridge East JV**

E28/2317 <sup>2</sup>	Granted	0%	0%	0%
E39/1731 <sup>2</sup>	Granted	0%	0%	0%

<sup>2.</sup> Segue can earn an 80% interest in the Plumridge East JV by spending \$500,000 within two years of the date of agreement

## **Plumridge Exploration Licence Applications**

E28/2384	Pending	0%	0%	0%
E28/2385	Pending	0%	0%	0%
E28/2386	Pending	0%	0%	0%
E28/2387	Pending	0%	0%	0%
E28/2388	Pending	0%	0%	0%
E28/2389	Pending	0%	0%	0%
E28/2390	Pending	0%	0%	0%
E28/2391	Pending	0%	0%	0%
E28/2392	Pending	0%	0%	0%
E28/2393	Pending	0%	0%	0%

# **Deralinya Project**

E63/1521	Granted	0%	100%	100%
E63/1522	Granted	0%	100%	100%
E63/1523	Granted	0%	100%	100%
E63/1524	Granted	0%	100%	100%

# Pardoo Project

E45/1866	Granted	100%	100%	100%
E45/3383	Granted	100%	100%	100%
E45/4279	Pending	0%	-	-