

# **EQUITY RESEARCH**

### 24 May 2016

**AUSTRALIA** 

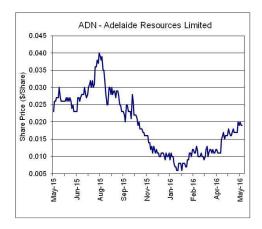
GOLD, COPPER, LITHIUM

ADVANCED EXPLORATION

**EXCHANGE: ASX:ADN** 

### **CAPITAL PROFILE**

Share price (A\$)		0.019
52 week range (A\$/share)	0.006 to	0.04
Number of shares (M)		357.9
Options and warrants^(M)		37.2
Fully diluted^(M)		395.1
Market capitalisation (undiluted) (A\$	M)	6.8
Debt (A\$M) - Mar 16A		0.0
Enterprise value (A\$M)		6.8
Major shareholders: Buratu Pty Ltd (19.33%	),	
Avg monthly volume (M)		16
Cash (A\$M) - Mar 16A		0.7
Price/Cash (x)		9.7
'Options out of the money: 37.2M, \$0.05, expire	Sept '16.	



## **DIRECTORS**

Colin Jackson (Non Exec Chairman) Chris Drown (Managing Dir) Nick Harding (Exec Dir) Jonathan Buckley (Non Exec Dir)

Mr Chris Drown, Managing Director Tel: +61 08 8271 0600 Unley, South Australia www.adelaideresources.com.au

Analyst: John Wilson johnwilson@rcresearch.com.au

## ADELAIDE RESOURCES LIMITED

Australian gold exploration focus; potential JORC resource (SA), high grade epithermal gold (QLD) and lithium targets.

## Share Price: \$0.019

Speculative Buy

Maiden JORC resource expected 2H16 at Barns and possibly Baggy Green in the priority Eyre Peninsula Gold Project. ADN is also targeting high grade epithermal gold in the Drummond Basin similar in style to the nearby Pajingo Field (>3Moz). Discovery hole potential; drilling 2H16. Lithium exploration interests (1H16) are complementary to these projects.

### **INVESTMENT POINTS**

- Eyre Peninsula Gold Project: (SA, ADN 100%) combined Exploration Target at Barns, White Tank and Baggy Green deposits: 2.5Mt-3.5Mt grading 1.3g/t to 2.0g/t gold for total contained gold of ~100Koz to ~225Koz. Potential JORC 2H16.
- Barns scoping study: (May '16) potential for an economic project at a gold price of A\$1500/oz, based on anticipated ore body (scale, grade, recovery), and assumed benchmark mining parameters and costs.
- Drummond Epithermal Gold Project (QLD, ADN 100%): High grade gold district targeting epithermal quartz veins similar in style to nearby Pajingo Field (>3M oz Au). There are 4 drill ready targets: Bunyip, Poppi's, Roo Tail, and East Central Limey Dam. Drilling 2H16 (2000m).
- New lithium prospective projects in WA, SA and NT: Hard rock, pegmatite
  and brine targets. Davenport Ranges (NT) prospectivity indicated by
  presence of tungsten-tantalum-niobium. Prince of Wales (WA) analogous
  setting to Lepidolite Hill lithium project. Sampling expected 2-3Q16.
- Advanced, high quality Moonta (Olympic Copper-Gold Province) and Rover (Tennant Creek district) exploration projects seeking JV funding.
- Exploration Development Incentive (EDI) tax credits for the 2015-16 tax year to be distributed to shareholders (Record Date of 31 May 2016): value ~0.1c/share (ann. 18 May).
- Gold price positive outlook: The spot gold price is ~A\$1733/oz (US\$1252/oz; 20 May). The outlook for the gold price remains positive as a safe haven investment driving funds into gold ETFs and Central Bank buying.
- Share price catalysts 2H16: include drilling results and anticipated maiden JORC resource at the Eyre Peninsula Gold Project (Barns, Baggy Green); potential discovery holes at the Drummond Epithermal Gold Project (2,000m); confirmation of lithium mineralisation at its 3 projects; and farm in agreements at Moonta and/or Rover.

## **COMPANY STATISTICS**

Year End June	Mar-16a	Jun-16F	2015A	2016F	2017F
Exploration and evaluation (A\$M)	0.14	0.22	1.49	1.41	2.30
Corporate (A\$M)	0.20	0.14	1.10	0.88	0.80
Exploration/(Expl.+ Corporate) (%)	42	61	58	61	74
Funding duration at current burn (years)			0.6	1.0	0.2
Shares on issue (pr end) (M shares)	357.9	475.6	304.5	475.6	534.4
Drilling - RAB/Aircore (m)	0	0	4,728	0	2,700
Drilling - Other/Diamond (m)	0	0	2,906	1,855	12,500
Land holding ('000 ha)*	560	593	502	593	593
Capital raisings (A\$M)	0.00	2.00	2.24	2.92	1.00
Funding from JV partners (A\$M)	0.0	0.0	0.4	0.2	0.5
Cash (A\$M)	0.7	2.4	1.6	2.4	0.6
Cash backing (Ac/share)	0.2	0.5	0.5	0.5	0.1

<sup>\*</sup> Tenements held and under application. Quarters refer to calendar year. Drill metres are RCR estimates

## **COMPANY COMMENT**

**Overview:** Adelaide Resources is based in South Australia and listed on the ASX in 1996. It has a long term focus on exploration for gold and copper with strategic holdings in 4 districts; Eyre Peninsula - Gawler Craton (SA; gold, copper and silver); Drummond Basin (QLD; epithermal gold); Moonta - Olympic Copper-Gold Province (SA, IOCG); Rover Field (NT; gold, copper). In 1H16 ADN added lithium prospects to its portfolio in WA, SA and NT.

**Eyre Peninsula Gold Project:** (Gold, SA, ADN 100%) ADN has a large regional landholding of 3,123km<sup>2</sup> mostly within the Central Gawler Gold Province.

**Barns:** ADN's most advanced project is Barns, one of several gold deposits at various stages of exploration within a 6km radius. Barns geological model comprises two flat lying supergene gold lenses underlain by 10 stacked lode systems. In Oct '15 ADN defined a new **Exploration Target** comprising high grade zones at Barns, White Tank and Baggy Green of 2.5Mt-3.5Mt grading between 1.3g/t and 2.0g/t gold for total contained gold of around **100Koz to 225Koz** down to 200m depth. Drilling at Barns is predominantly on 50m x 50m spacing.

predominantly on 50m x 50m spacing.

Conceptual economic review: ADN undertook a conceptual scoping study at Barns (ann. 16 May). The study used a mineral inventory block model estimated by Mining Plus Pty Ltd from the company's in-house 3-D block model and drill hole database, followed by a pit optimisation study completed by Maptek Pty Ltd. Two development scenarios (heap leach and gravity recovery) were modeled, with operational, opex and capex assumptions supplied by consultant metallurgists and mining engineers and bench marked to industry. The study indicates the project conceptually has potential to be economic at a gold price of A\$1500/oz on assumed resource parameters (scale, grade, recovery). The first pass conceptual pit optimisation study by Maptek Pty Ltd, finds a number of conceptual pits at Barns ranging up to 470m strike and 170m depth.

**Strategy:** ADN intends to leverage the economic potential of Barns by delineating additional near surface resources at satellite deposits - initially Baggy Green. At currently envisaged scale, grade and recovery, the project would be highly leveraged to the gold price. If the price of gold stays above A\$1600-1700/oz, and subject to results 2H16, ADN will likely advance the project through PFS (1H17).

Exploration 2H16: ADN intends to bring Barns to JORC resource status 2H16 for a cost of ~\$100k with limited drilling, met test and bulk density work; and possibly bring Baggy Green to JORC status also (~\$400k). Resource and extension drilling is proposed at Barns, White Tank, Baggy Green and Baggy Green North (subject to funding).

**Drummond Epithermal Gold Project:** (Gold, QLD, 100% ADN) The Drummond Basin is host to high grade epithermal gold deposits in which ADN has a strategic land position 70km east of the best known high grade Pajingo Field (>3Moz Au) and Vera Nancy lodes. Its Glenroy Field tenements are considered highly prospective containing volcanic dominated stratigraphy from Cycle 1 of the Drummond Basin, the main epithermal gold hostrocks in the region. It has recently pegged 2 other licences in the area increasing its total regional land position to 838km².

The company has four drill ready targets: one at Bunyip defined 2015, and 3 new targets defined 2016:

Bunyip drill target: ADN's primary target; never drilled. In 2015 ADN defined outcropping quartz veins totalling 2000m in strike with confirmed epithermal system characteristics, anomalous gold and pathfinder metals arsenic and molybdenum. Best surface rock chip sample 19.65g/t Au. Other drill targets: ADN completed a surface sampling program 1Q16 at 15 sites collecting 155 rock chip samples. Five sites returned results over 1g/t Au from which three new drill targets have been defined coincident with quartz veins and geological features associated with epithermal systems: viz, Poppi's (quartz veining with results to 6.04g/t Au), Roo Tail (epithermal quartz veining

in a brecciated rhyolite), and **East Central Limey Dam** (extensive gold anomaly with chalcedonic vein textures). **Exploration 2H16:** 2000m RC/DD drill program (\$300-500k), including holes at Bunyip up to 200m depth (subject to funding). Upon grant of the 2 new EPMs, low cost surface exploration, rock chip and soil sampling to develop new drill targets.

**Lithium Prospects:** ADN has three early stage, lithium prospective projects (1H16). Its lithium exploration interests are complementary to its priority and advancing gold projects in the Eyre Peninsula and Drummond Basin.

**Davenport Ranges prospect** (NT, ADN 100%, ELA): Hard rock target. Lithium prospectivity indicated by presence of associated metals tungsten-tantalum-niobium identified by the Northern Territory Geological Survey. Initial sampling expected 2-3Q16.

Prince of Wales lithium-gold prospect (WA, ADN 100%, ELA): 40kms SW of Coolgardie in greenstones intruded by pegmatite dykes on the western contact of the Burra Monzogranite analogous to the Lepidolite Hill lithium project of Lithium Australia Ltd/Focus Minerals Ltd (ASX:LIT, ASX:FML) 25km to the east. Also prospective for gold and nickel.

Lithium brine prospects (SA, ADN 100%): ADN has tenements in the Eyre Peninsula over parts of two salt lakes that could be prospective for lithium brines: Lake Gilles (232km²) identified by Geoscience Australia as prospective for lithium brines (ELA); and Lake Acraman (EL). There are no historic records of lithium exploration at either. Preliminary sampling of lake brines to establish lithium concentrations expected 3Q16 after access approvals in place. Subsequent exploration may entail drilling to define aquifer potential.

Lithium market: Growth in the global clean energy sector is driving a massive increase in demand for lithium, the main ingredient in lithium-ion batteries, used widely in technology, electric automotive and renewable energy sectors. The price of lithium has risen strongly over the past 12 months with lithium metal up 37%; lithium carbonate up around 75%; and lithium hydroxide up around 100%.

Copper Projects: The company has numerous prospects in the world class Olympic Copper-Gold Province a region best known for its IOCG deposits at Olympic Dam and Prominent Hill, and a strategic landholding in the Tennant Creek district. ADN has discovered significant bodies of copper and gold both at Moonta Copper Gold Project: (IOCG, SA, ADN 90,100%) and at its Rover Gold Copper Project (NT, ADN 100%). Both are advanced, high quality exploration projects best progressed through third party funding.

**Gold Price Outlook:** The spot gold price is ~A\$1737/oz (US\$1278/oz). The AUD gold price has traded on an upward trend since 2014 from around A\$1400/oz. There has been a resurgence of investor interest in gold ETFs since the Fed raised rates December 2015 (when gold was ~US\$1050/oz), the first rise in 10 years, and which many believe was too soon given the fragile global economic outlook. Central Banks have also been actively buying gold.

Investment Comment: ADN has had good share price performance since the beginning of the year, up from a low of 0.6cps to 1.9cps driven by improved market sentiment for gold and buoyed by ADN's recent move into lithium. Share price catalysts 2H16 include potential for a maiden JORC resource at the Eyre Peninsula Gold Project (Barns and Baggy Green); potential discovery holes at the Drummond Epithermal Gold Project (2,000m); confirmation of lithium mineralisation at its 3 projects; and farm in agreements at Moonta and/or Rover. The company had \$700k in cash as at 31 March. There is potential for exploration funding from PACE 2H16 and we anticipate a capital raising 2-3Q16.

### **KEY PROJECTS**

	Ownership/	J۷	Target	Process	Project		
Project	Option	Partner	Туре	Route	Status	Location	
Gold and Copper							
Eyre Peninsula Gold Project  Includes: Thurlga JV  Barns, White Tank, Baggy Green	various 100/25% 100%	na ASX:IVR na	Au Au,Cu,Ag Au	na na na	Adv Expl. Early Expl. Adv Expl.	Aust (SA)	
Drummond Epithermal Gold Project	100%	na	Au, epithermal	na	Mid Expl.	Aust (QLD)	
Moonta Copper Gold Project Rover Gold Copper Project	90,100%^ 100%*	na^ na*	IOCG Au-Cu	na na	Adv Expl. Adv Expl.	Aust (SA) Aust (NT)	
<u>Lithium</u>		Πά		Πα		,	
Davenport Ranges	100%	na	hardrock	na	Early Expl.	Aust (NT)	
Prince of Wales	100%	na	pegmatite	na	Early Expl.	Aust (WA)	
Lake Gilles/Acraman	100%	na	brines	na	Early Expl.	Aust (SA)	

<sup>^</sup> A small portion of the Moonta Project is under JV with Minotaur Exploration (ASX:MEP) holding 10%.

## RESERVES AND RESOURCES; CONCEPTUAL EXPLORATION TARGET

Code for reporting mineral resources - Australian: (JORC)							
Gold	Classification	Project	Ore	Grade	Cut Off	Au	Au Eg
Au		Equity	Mt	g/t	g/t	Koz	Koz
Reserves			0			0	0
Resources			0			0	0
Conceptual Exploration Target							
Barns, White Tank, Baggy Green*	Exploration Target	100%	2.5-3.5	1.3-2.0	na	100-225	100-225

<sup>\*</sup> Updated aggregate target released 16 October 2015; to 200m depth.

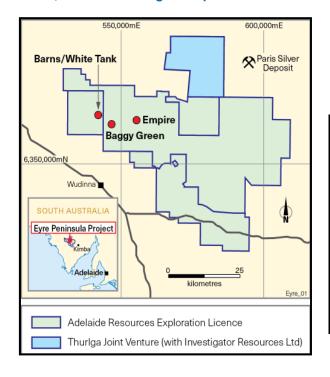
Adelaide Resources project location plan: ADN is focused on copper and gold exploration in Australia. It expanded into lithium 1H16 picking up projects with lithium brine potential in South Australia; hardrock in the NT; and lithium pegmatites in Western Australia.



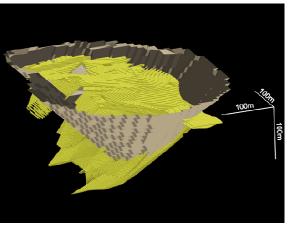
<sup>\*</sup> Franco Nevada have a claw back right to 70% or a royalty option.

### **GOLD PROJECTS**

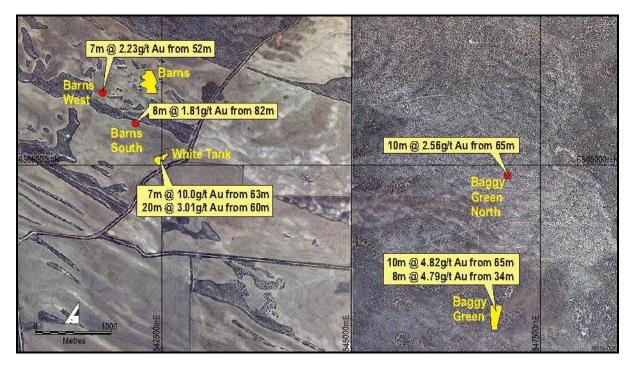
Eyre Peninsula Gold Project location plan: (Gold, SA) ADN has a large regional landholding of 3,123km<sup>2</sup> mostly within the Central Gawler Gold Province. It's most advanced project is Barns, one of several gold deposits within a 6km radius.



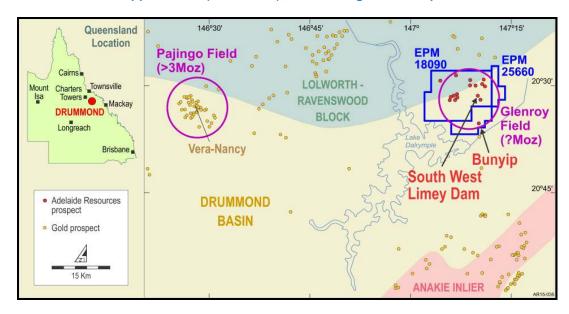
Barns mineral inventory block model showing conceptual open pit.



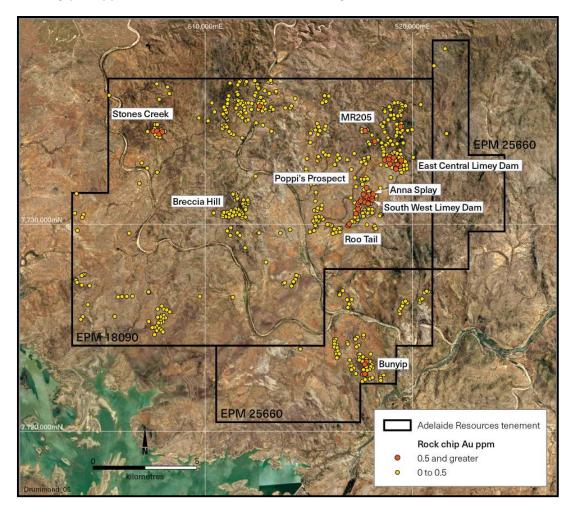
Eyre Peninsula Gold Project exploration program 2H16: ADN intends to bring Barns and possibly Baggy Green to JORC status 2H16 and extend regional exploration drilling to delineate additional near surface resources at satellite deposits (subject to funding). Best regional drill intercepts include Baggy Green: 10m @ 4.82g/t Au from 65m; Baggy Green North: 10m at 2.56g/t Au from 65m; and Barns West: 7m at 2.23g/t Au from 52m.



Drummond Epithermal Gold Project (QLD, ADN 100%) location plan: ADN has a prospective land position 70km east of the high grade Pajingo Field (>3Moz Au) and Vera Nancy. In addition to the Glenroy Field tenements shown it has 2 other licences in the area which are recent tenement applications (not shown); it's total regional land position is 838km<sup>2</sup>.

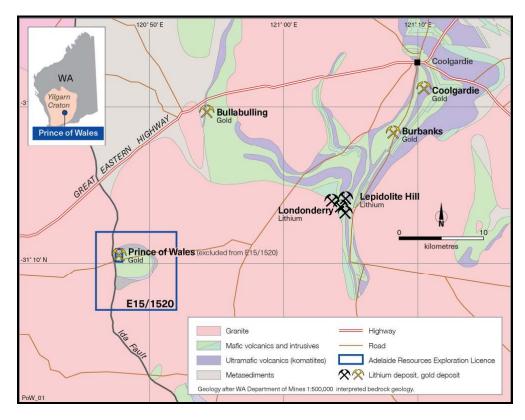


Drummond Epithermal Gold Project drill targets: ADN has four drill ready prospects targeting high grade epithermal gold systems on granted exploration tenement: Drilling expected 2H16 at Bunyip, Poppi's, Roo Tail, and East Central Limey Dam.

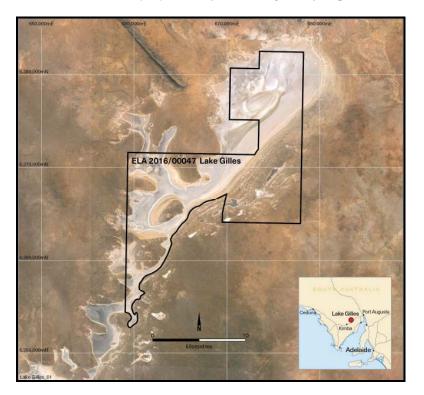


## **LITHIUM PROSPECTS**

Prince of Wales lithium-gold prospect (WA, ADN 100%, ELA): 40kms SW of Coolgardie in greenstones intruded by pegmatite dykes on the western contact of the Burra Monzogranite analogous to the Lepidolite Hill lithium project of Lithium Australia 25km to the east.



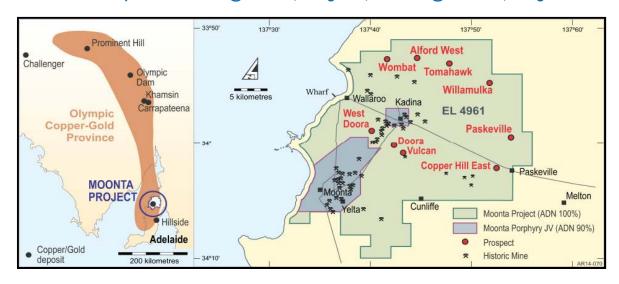
Lithium brine prospects (SA, ADN 100%): ADN has two tenements in the Eyre Peninsula over parts of two salt lakes that could be prospective for lithium brines: Lake Gilles (ELA, below); and Lake Acraman (EL) where preliminary sampling of lake brines is expected 3Q16.



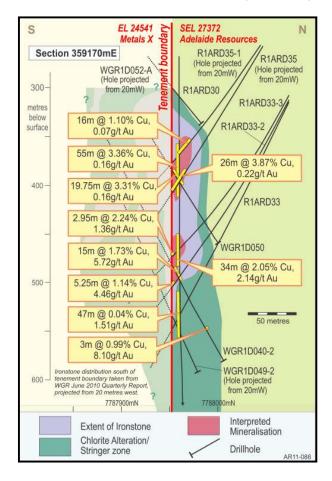
Lake Gilles (232km<sup>2</sup>) identified by Geoscience Australia as prospective for lithium brines.

### **COPPER PROJECTS**

Moonta Copper Gold Project location chart: (IOCG, SA, ADN 90,100%) The company has numerous advanced, high quality exploration projects in the world class Olympic Copper-Gold Province a region best known for its IOCG deposits at Olympic Dam and Prominent Hill. Copper deposits include Alford West, Willamulka, Paskeville, Wombat and West Doora. Alford West drill intercepts include 20m @4.2% Cu, 0.27g/t Au; and 15m @2.89% Cu, 0.15g/t Au.



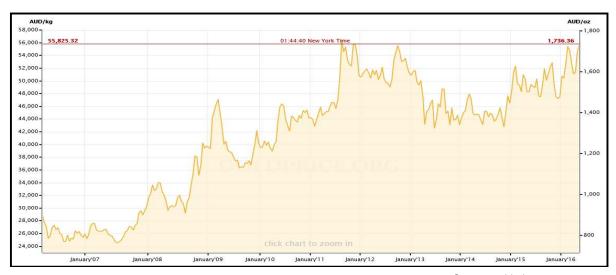
Rover Gold Copper Project: (NT, ADN 100%) ADN has a strategic landholding in the Tennant Creek district, also with advanced, high quality exploration projects. Rover 1 (section below) drill intercepts include 55m @ 3.35% Cu, 0.16g/t Au; and 34m @ 2.05% Cu, 2.14g/t Au and is the northern extension of Metal X's (ASX:MLX) Rover 1 deposit.



### **GOLD PRICE CHARTS**

## 10 Year Gold Price Chart - May 2006 to 17 May 2016 (AUD/oz):

The Australian dollar gold price has been on an upward trend since 2014 from around A\$1400/oz, helping maintain robust operating margins for Australian producers. The spot price is currently A\$1737/oz.

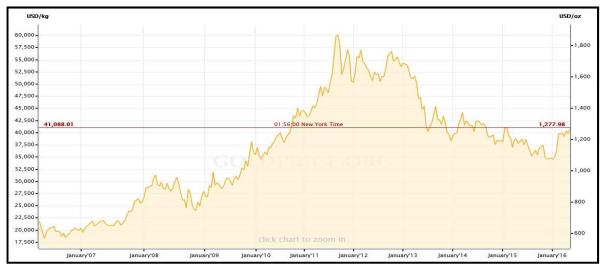


Source: goldprice.org

Note: The gold spot price is A\$1737/oz (US\$1278/oz). The spot currency is AUD/USD 0.74. RCR gold price forecasts are US\$1231/oz for calendar 2016, US\$1237.50/oz 2017, US\$1239/oz 2018, and long term price of US\$1200/oz. RCR's AUD/USD exchange rate assumptions are 0.71 for 2016, 0.70 for 2017, 0.70 for 2018 and long term 0.80.

## 10 Year Gold Price Chart - May 2006 to 17 May 2016 (USD/oz):

The spot gold price in US dollars is US\$1278/oz. The downward trend in the USD gold price over the past several years found a recent bottom at US\$1050/oz mid December 2015 coinciding with the Fed's first rate increase in 10 years. We expect the gold price will be buoyed by continued Chinese reserve buying and ongoing safe haven status in a global economy in which high levels of debt continue to pose unprecedented risks. RCR's longterm gold price forecast is US\$1200/oz.



Source: goldprice.org

Note: The steep run up in the gold price from 2009 was driven by a policy of quantitative easing, implemented in the U.S. after the GFC. QE had a noticeable positive impact on the gold price from 2009 when the program started - clearly evident in the chart above. Tapering of QE began December 2013 and the final \$15bn purchase occurred in October 2014 during which time the Fed added US\$3.5 trillion dollars to its balance sheet. As a result of the end of QE, the gold price bubble burst and the price has returned to on trend growth from 2009 levels.





### CONTACT

## **Resource Capital Research**

ACN 111 622 489

Level 21, 68 Pitt Street Sydney NSW 2000

**T** +612 9439 1919 **E** info@rcresearch.com.au

www.rcresearch.com.au

## **DISCLOSURE AND DISCLAIMER**

Important Information

Resource Capital Research Pty Limited (referred to as "we", "our", or "RCR" herein) ACN 111 622 489 holds an Australian Financial Services Licence (AFS Licence number 325340). General advice is provided by RCR's Authorised Representatives Dr Tony Parry (Authorised Representative number 328842) and Mr Brad George (Authorised Representative number 466523). The FSG is available at www.rcresearch.com.au. All references to currency are in Australian dollars unless otherwise noted.

This report and its contents are intended to be used or viewed only by persons resident and located in Australia and therein only where RCR's services and products may lawfully be offered. The information provided in this report is not intended for distribution to, or use by, any person or entity in any jurisdiction or country where such distribution or use would be contrary to law or regulation or which would subject RCR or its affiliates to any registration requirement within such jurisdiction or country.

This report and its contents are not intended to constitute a solicitation for the purchase of securities or an offer of securities. The information provided in this report has been prepared without taking account of your particular objectives, financial situation or needs. You should, before acting on the information provided in this report, consider the appropriateness of the purchase or sale of the securities of the companies that are the subject of this report having regard to these matters and, if appropriate, seek professional financial, investment and taxation advice. RCR does not guarantee the performance of any investment discussed or recommended in this report. Any information in this report relating to the distribution history or performance history of the securities of the companies that are the subject of this report, should not be taken as an indication of the future value or performance of the relevant securities.

In preparing this report, RCR analysts have relied upon certain information provided by management of the companies that are the subject of this report or otherwise made publicly available by such companies. The information presented and opinions expressed herein are given as of the date hereof and are subject to change. We hereby disclaim any obligation to advise you of any change after the date hereof in any matter set forth in this report. THE INFORMATION PRESENTED, WHILE OBTAINED FROM SOURCES WE BELIEVE RELIABLE, IS CHECKED BUT NOT GUARANTEED AGAINST ERRORS OR OMISSIONS AND WE MAKE NO WARRANTY OR REPRESENTATION, EXPRESSED OR IMPLIED, AND DISCLAIM AND NEGATE ALL OTHER WARRANTIES OR LIABILITY CONCERNING THE ACCURACY, COMPLETENESS OR RELIABILITY OF, OR ANY FAILURE TO UPDATE, ANY CONTENT OR INFORMATION HEREIN.

This report and the information filed on which it is based may include estimates and projections which constitute forward looking statements that express an expectation or belief as to future events, results or returns. No guarantee of future events, results or returns is given or implied by RCR. Estimates and projections contained herein, whether or not our own, are based on assumptions that we believe to be reasonable at the time of publication, however, such forward-looking statements are subject to risks, uncertainties and other factors which could cause actual results to differ materially from the estimates and projections provided to RCR or contained within this report.

This report may, from time to time, contain information or material obtained from outside sources with the permission of the original author or links to web sites or references to products, services or publications other than those of RCR. The use or inclusion of such information, material, links or references does not imply our endorsement or approval thereof, nor do we warrant, in any manner, the accuracy of completeness of any information presented therein.

RCR, its affiliates and their respective officers, directors and employees may hold positions in the securities of the companies featured in this report and may purchase and/or sell them from time to time and RCR and its affiliates may also from time to time perform investment banking or other services for, or solicit investment banking or other business from, entities mentioned in this report. Adelaide Resources Limited commissioned RCR to compile this report. In consideration, RCR received from the company a consultancy fee of less than \$15,000 in a combination of cash and shares. RCR may receive ongoing consulting fees, and/or referral fees from issuing companies or their advisors in respect of investors that RCR refers to companies looking to raise capital. Those fees vary, but are generally between 0 - 1% of the value of capital raised from referrals made by RCR. At the date of this report, neither RCR, nor any of its associates, hold any interests or entitlements in shares mentioned in this report with the exception that either or both of John Wilson owns shares in BHP and Adelaide Resources.

Analyst Certification: All observations, conclusions and opinions expressed in this report reflect the personal views of RCR analysts and no part of the analyst's or RCR's compensation was, is, or will be, directly or indirectly related to specific recommendations or views expressed in the report. Officers, directors, consultants, employees and independent contractors of RCR are prohibited from trading in the securities of U.S. companies that are, or are expected to be, the subject of research reports or other investment advice transmitted to RCR clients for a blackout window of 14 days extending before and after the date such report is transmitted to clients or released to the market.

Cautionary Note to Foreign Investors Concerning Estimates of Measured, Indicated and Inferred Resources: RCR publishes mineral resources based on standards recognized and required under securities legislation where listed mining and exploration companies make their exchange filings and uses the terms "measured", "indicated" and "inferred" mineral resources. Foreign investors are advised that while such terms are recognized and required under foreign securities legislation, certain foreign exchanges (such as the U.S. SEC) allows disclosure only of mineral deposits that can be economically and legally extracted. Foreign investors are cautioned not to assume that all or any part of measured, indicated or inferred resources can be converted into reserves or economically or legally mined.

Not For Distribution Or Release In The United States.