

The logo for Archer Exploration Limited, featuring the word "ARCHER" in white, uppercase, sans-serif font, followed by a stylized orange and yellow oval graphic. The logo is set against a dark teal rectangular background.

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***Campoona Shaft Mining Lease Proposal Update***

March 2015

Gerard Anderson

Managing Director



- Eyre Peninsula graphite project
  - Largest graphite resource in Australia
  - Further exploration upside
- First project
  - Campoona Shaft - Mining Lease Proposal to be submitted in April 2015
  - Project can be scalable to meet demand
  - High IRR – in excess of 28% on current estimates. Scoping Study results to be released at time of MLP submission.
  - Critical infrastructure available:
    - ✓ water
    - ✓ power
    - ✓ transport
    - ✓ processing site
    - ✓ workforce accommodation and services
- Graphite product
  - High purity micronised 15-28 micron product at 98.5 – 99.7% Cg
  - Testing under way to confirm range of commercial uses from batteries to expandable graphite
  - Graphite/graphene research with Adelaide University for new applications
- Marketing of graphite being undertaken

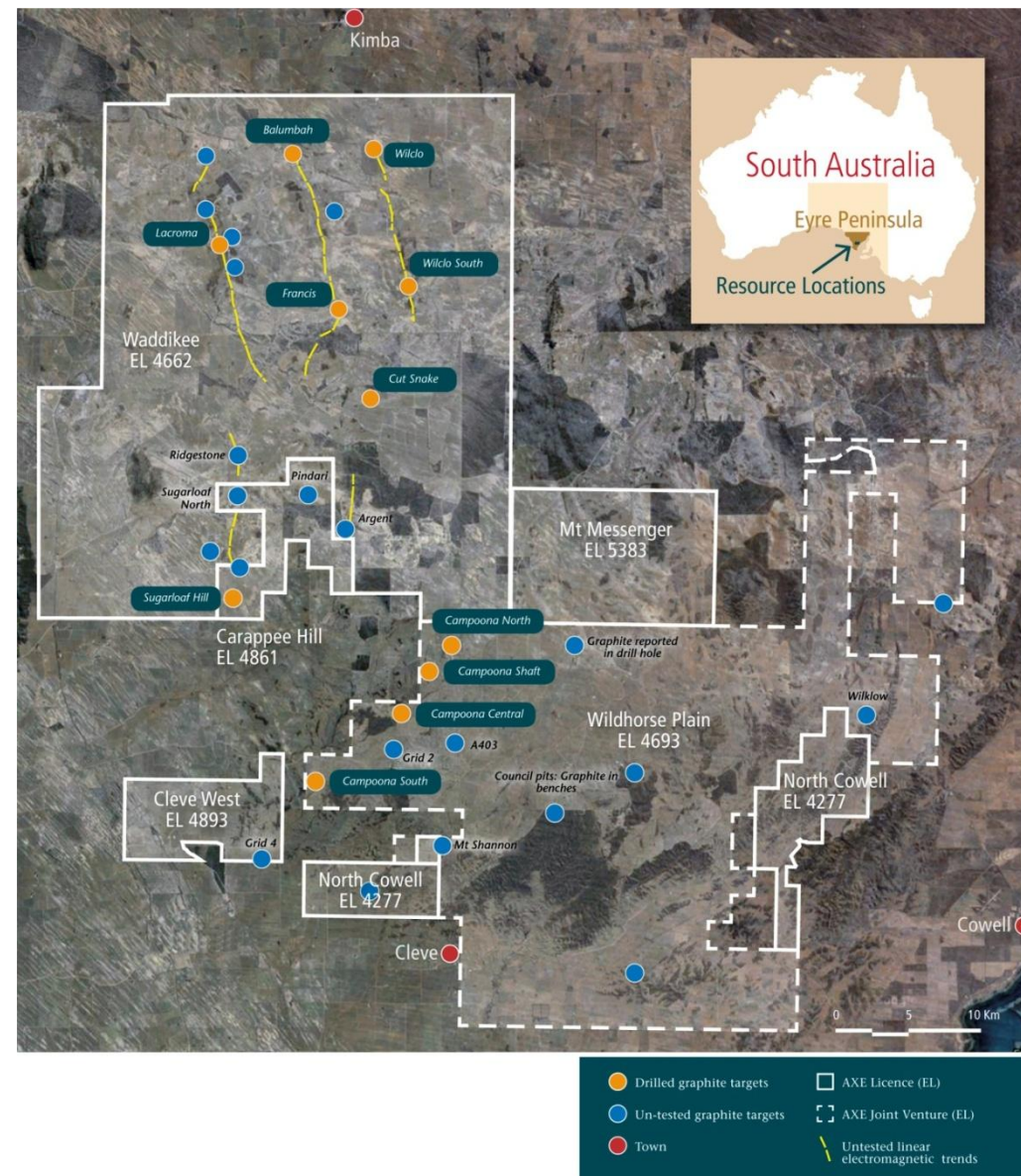
## Australia's largest combined JORC 2012 graphite resource

8.55Mt @ 9.0 Cg% (lower cut-off grade of 5% Cg)\*

Area	Resource Category	Tonnes (Mt)	Graphite (% Cg)	Contained Graphite (tonnes)
Campoonna Shaft	Measured	0.32	12.7	40,600
	Indicated	0.78	8.2	64,000
	Inferred	0.55	8.5	46,800
Central Campoonna	Indicated	0.22	12.3	27,100
	Inferred	0.30	10.3	30,900
Wilclo South	Inferred	6.38	8.8	561,400
<b>Combined</b>	<b>Total</b>	<b>8.55</b>	<b>9.0</b>	<b>770,800</b>

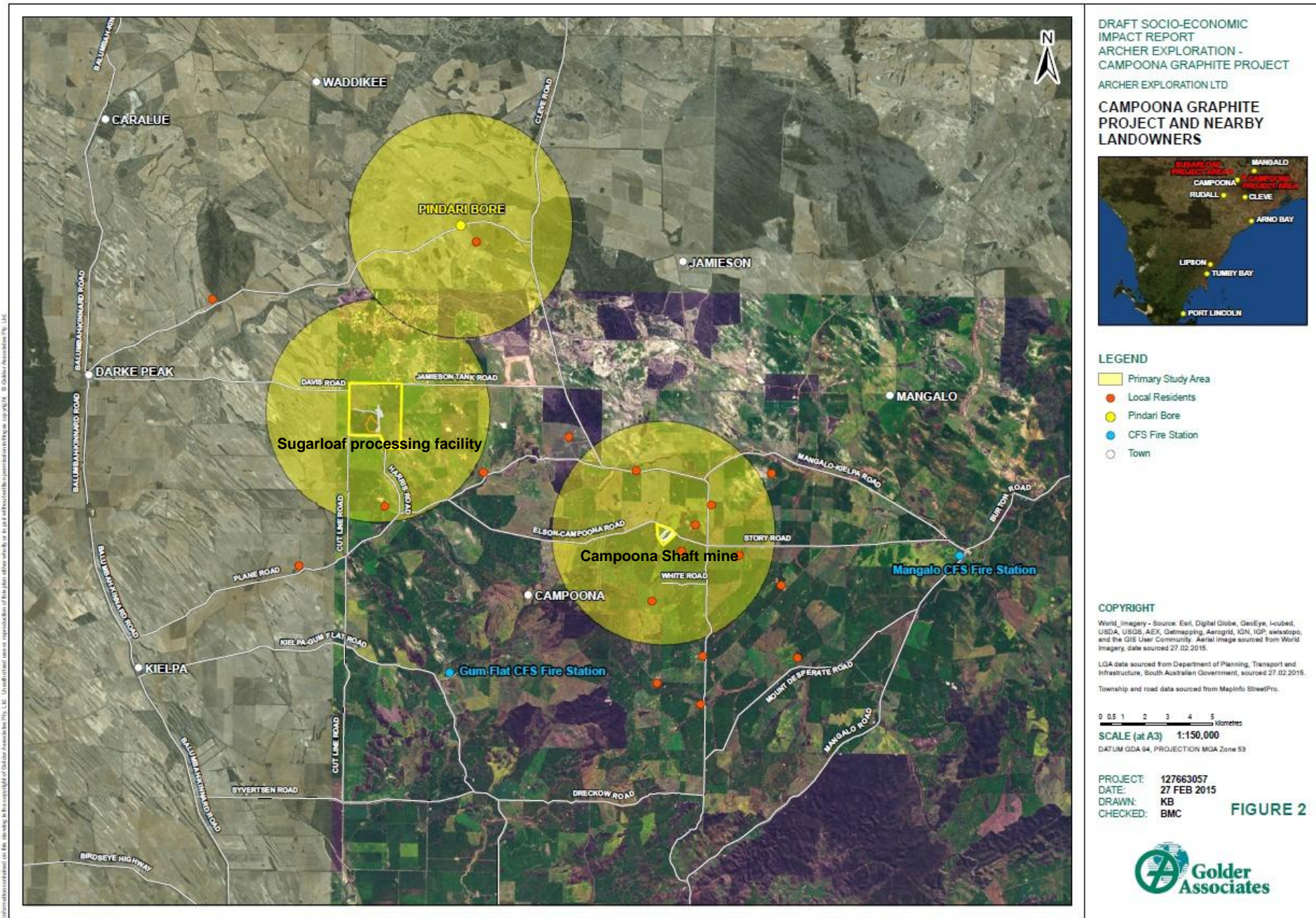
\* This information was prepared and first disclosed under the JORC Code 2012 (Archer Exploration Limited, ASX Announcement 6<sup>th</sup> August 2014)

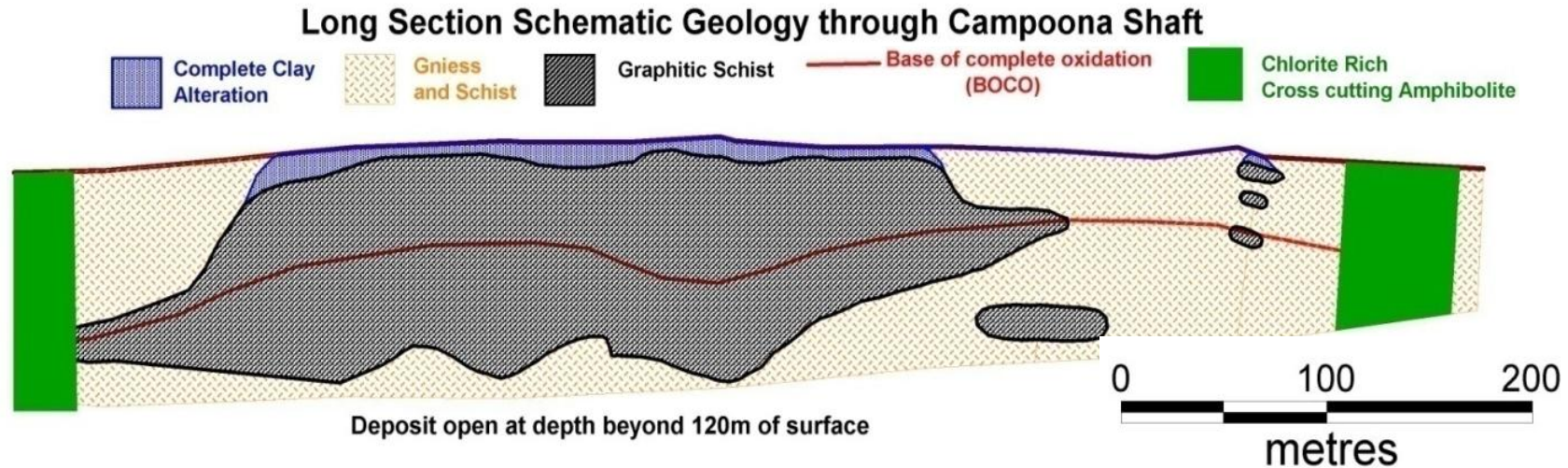
- Substantial tenement holding in graphite province
- Further prospects offer large resource upside
  - high quality EM identifies numerous conductors
  - recent drilling intersected large flake at Wilco, Wilclo South, Cut-Snake and Argent graphite prospects
  - current contained resource could grow appreciably with further drilling



# Campoona Shaft – key elements

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- Traditional open cut mining processes can be utilised across the project areas – free dig to at least 70 metres
- Graphitic zones occur within 0.5m of surface
- Complete oxidation is a defining characteristic that greatly enhances the liberation of graphite



Hangingwall contact with highly weathered gneiss passing directly into completely weathered graphitic schist



Highly weathered graphitic schist representing the graphite deposit above the base of complete oxidation (BOCO).



Strongly weathered graphitic schist below BOCO. Graphitic schist progressively more competent with depth.



Isometric view of open cut layout looking north showing the steep westerly dipping graphite orebody as a grade block model within the pit. Open pit is shown in grey, the waste rock noise bund to the right (east) of the open pit and the waste rock dump to the left (west) of the pit. Pit contains 1,700,000 tonnes of ROM graphite.

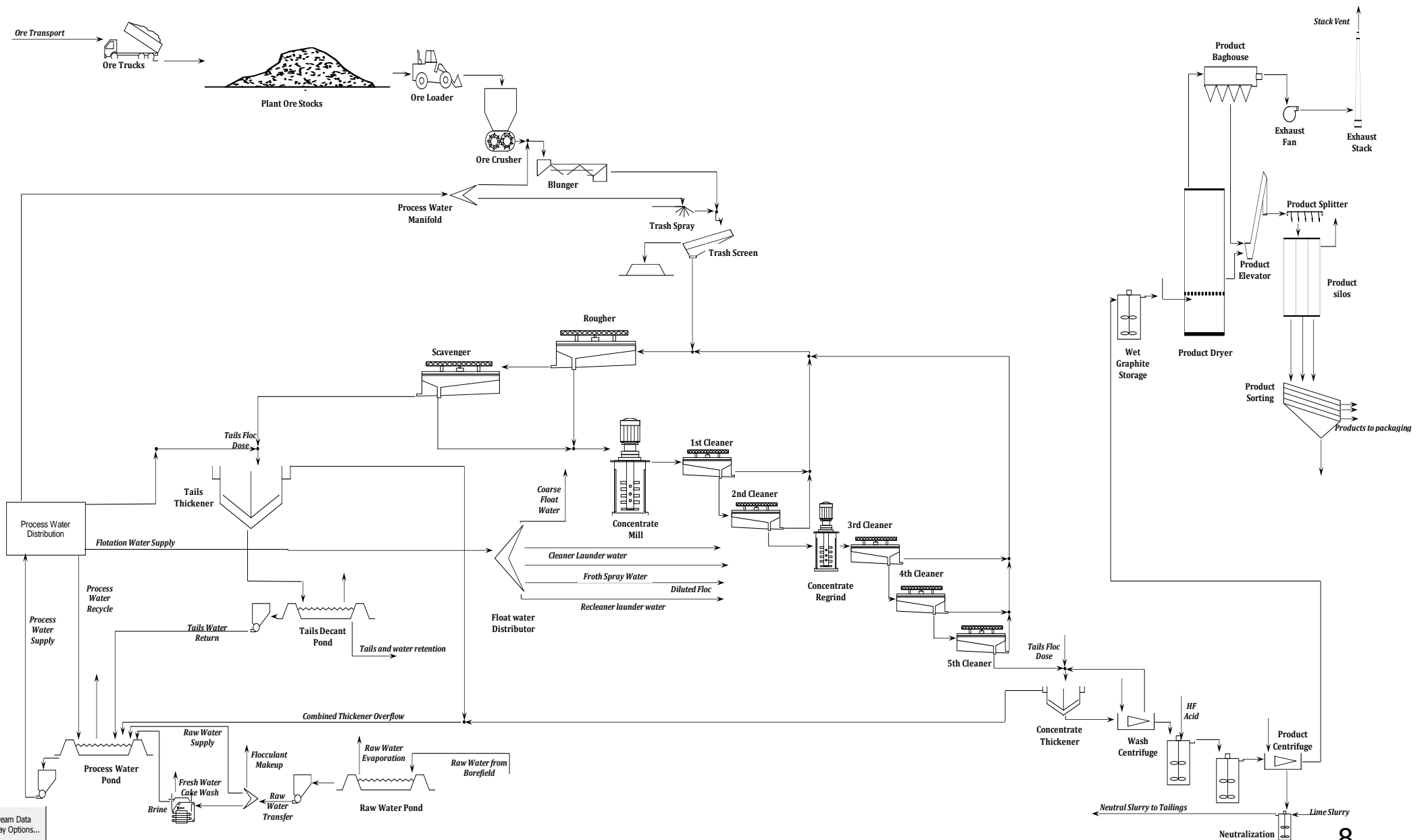
- Comprehensive metallurgical studies have defined optimum processing conditions.
- Process steps:
  - Crushing
  - Blunging
  - Rougher Flotation
  - Concentrate Milling
  - Cleaner/Recleaner Flotation
  - Screening
  - Drying
  - Bagging
- Deposit displays improved flotation recovery and improved concentrate grade with depth



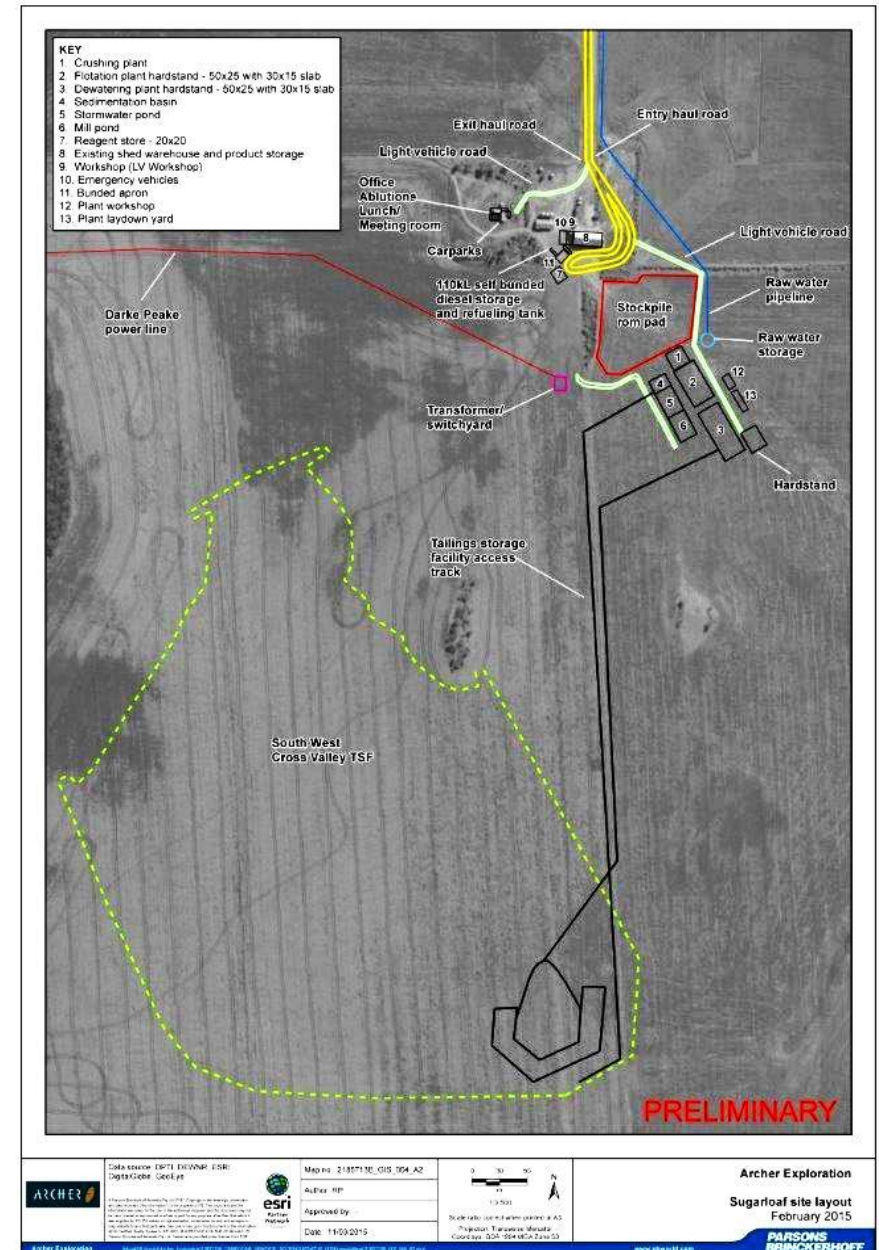
Free flowing well ordered froth conditions during bulk flotation results in less entrainment and excellent launder flow

# Campoona ore treatment process

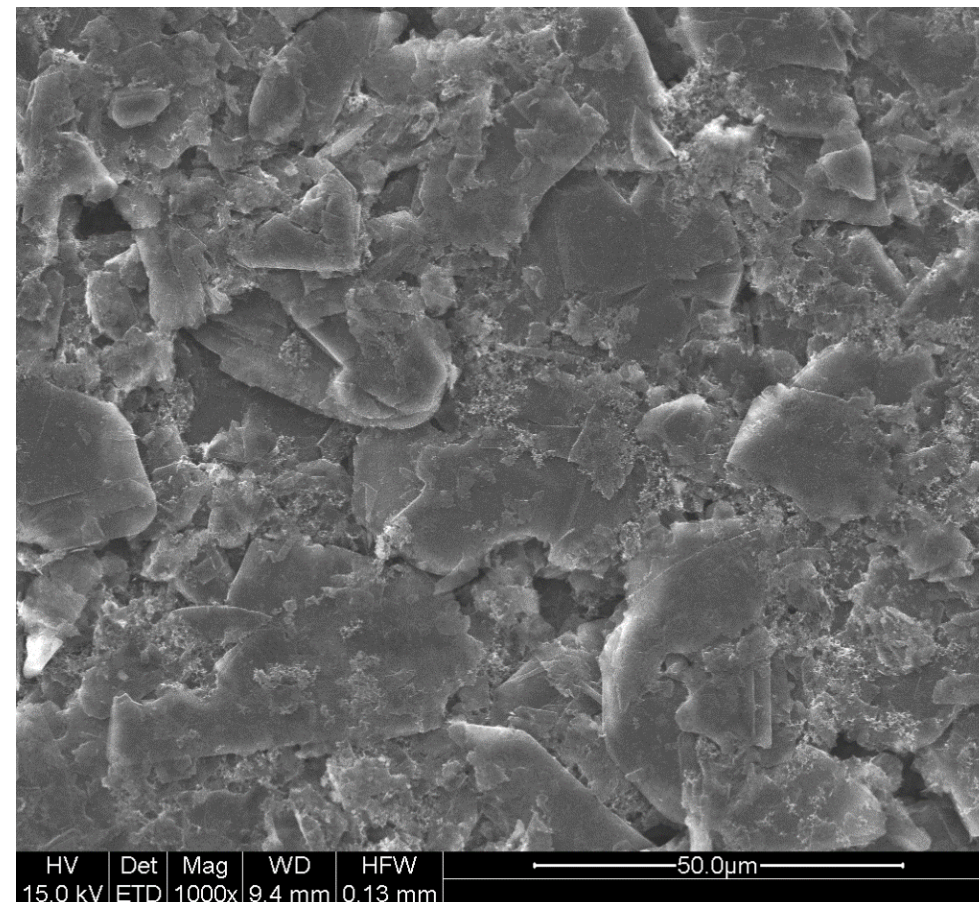
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- Campoona Shaft will produce high purity fine graphite and is the first priority for Archer's greater Eyre Peninsula project
  - Bulk flotation tests provided Campoona concentrates grading 92 - 98% Cg and acid cleaning upgraded concentrates to >98 - 99.7% Cg
- Current estimates suggest IRR of greater than 28% based on processing 140,000tpa of ROM graphite ore to produce ≈10,700tpa high purity concentrate
- At 140,000tpa Campoona Shaft's mine life >12 years:
  - Total cost of upgraded concentrate is A\$1,600 per tonne
  - Capex for plant and mine is approximately A\$36M
  - Estimated revenue is USD\$2,500 per tonne
  - Resources capable of supporting expanded production
- Site advantages:
  - Road access for B Doubles and various port options
  - Processing plant electricity (0.8 megawatts) from grid
  - Water supply secured



- Campoona final product 15-28µm micronised graphite grading 98.5 – 99.7% Cg
- Tech Minerals Consulting Group\* ("Tech") was engaged to review the Campoona graphite product
- Tech reported:
  - In assessing the potential markets for this graphite "*such a product, properly introduced, is likely to be highly sought after by specialist manufacturers and end-users to include battery, polymers, ceramics, and high tech lubricants*"
  - "*prices for flake graphite of 99.0% and higher in particle size ranges from 5 microns to 100 microns will command between A\$2,500 to A\$5,000 per metric tonne*"
- Additional physical and electrical testing of concentrate underway



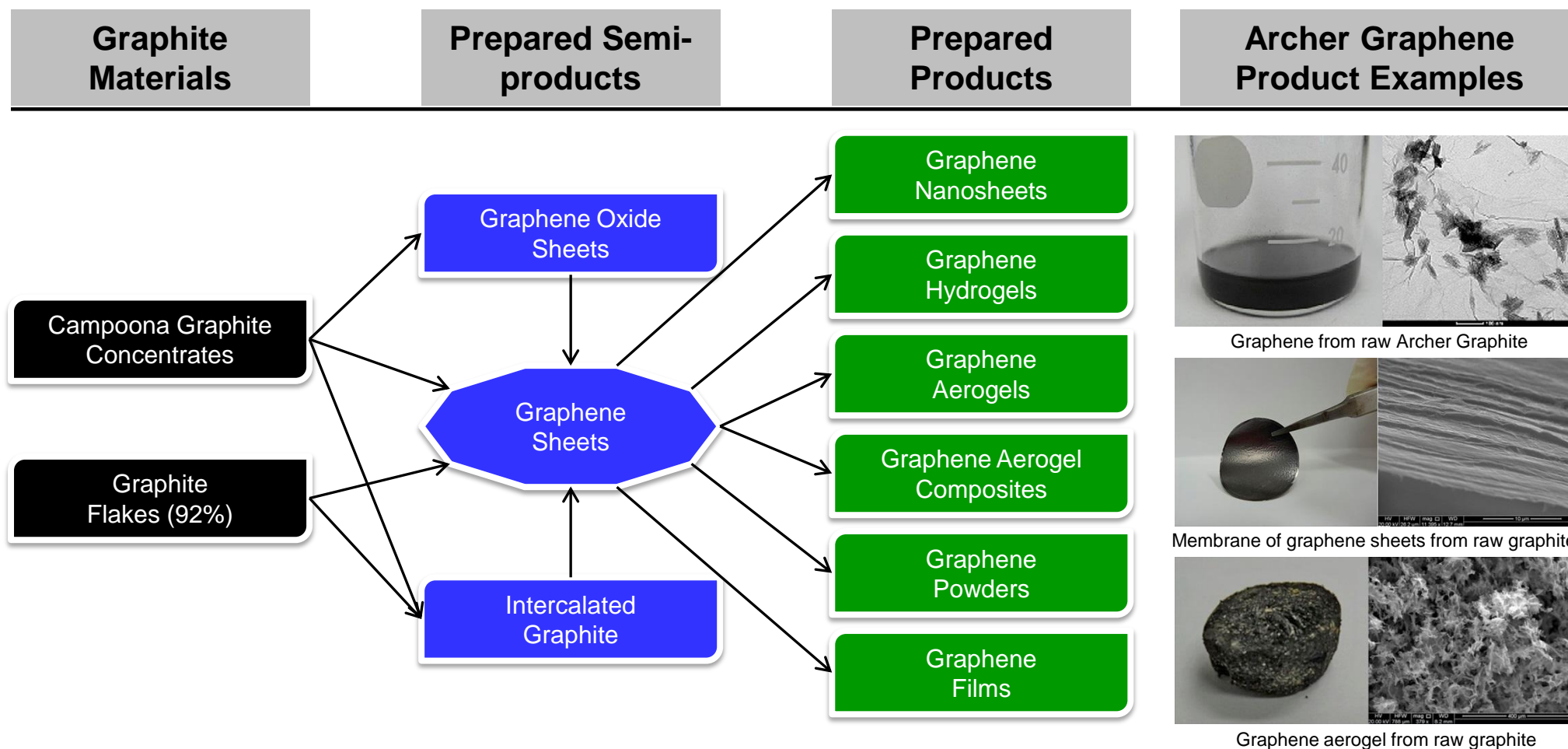
**SEM image of 99.5% Cg Campoona micronised graphite**

\* Tech Minerals Consulting Group included an experienced graphite marketer with extensive experience with major graphite suppliers and purchasers to assess the results and make comment on the likely markets and prices for such concentrates

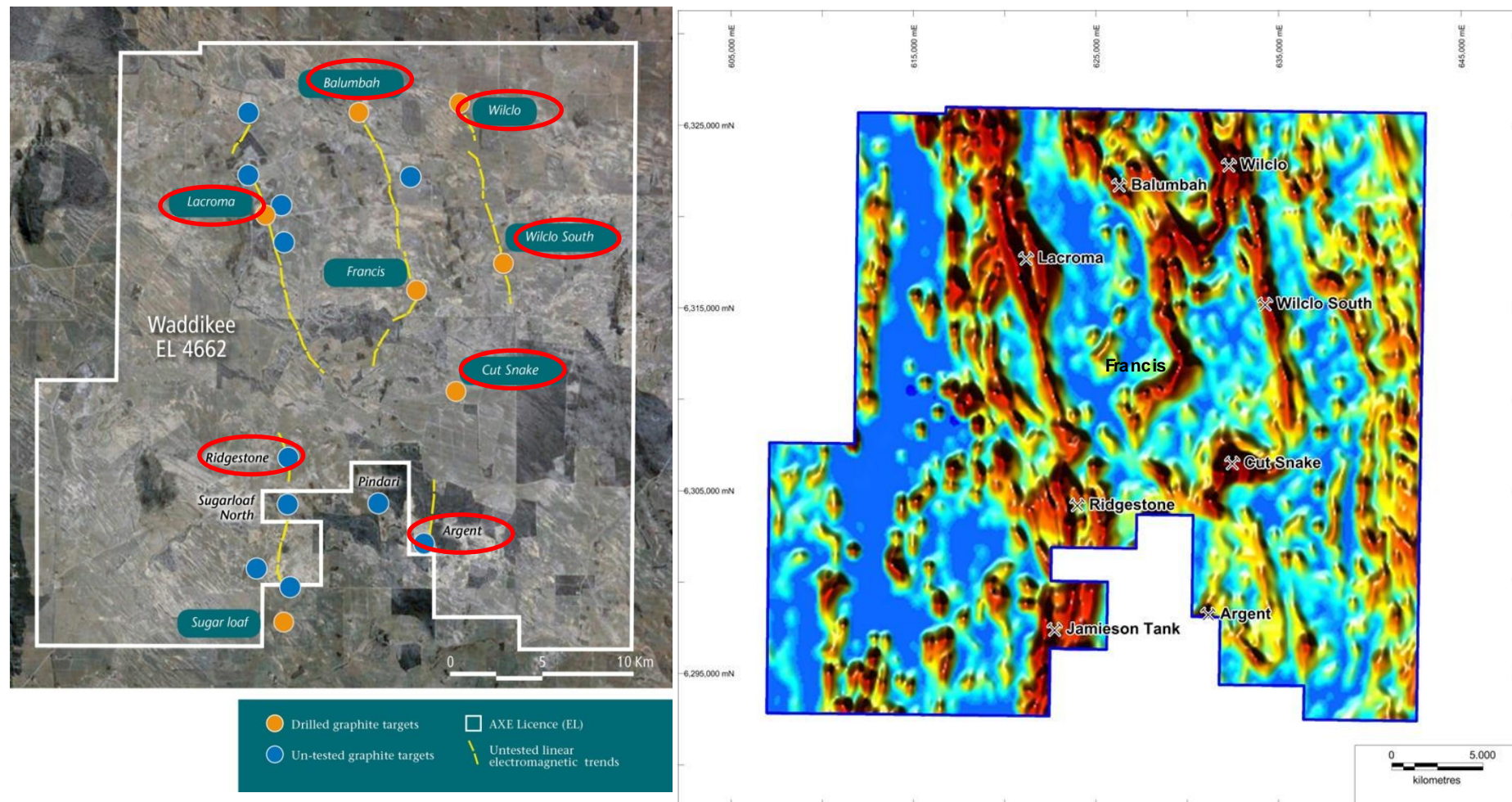
## *Eyre Peninsula Graphite - Campoona Mining Lease Proposal to be submitted April 2015*

	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016
Submit Mining Lease proposal							
Incorporate feedback into Mining Lease Application							
Lodge Mining Lease Application							
Earliest date for grant of Mining Lease							
Processing plant construction (earliest date)							
Mining operations (earliest date)							
Ship first graphite (earliest date)							

*Two-year research program with University of Adelaide into graphite and graphene related products. Early work closing in on “proof of concept” agricultural application*



- Archer Exploration completed an additional scout drilling program in December
- 7 prospects were targeted and drilling confirming the presence of additional graphite in each
- Large flake graphite was intersected at Wilclo, Wilclo South, Cut-Snake and Argent prospects adding to flake previously identified at Francis.

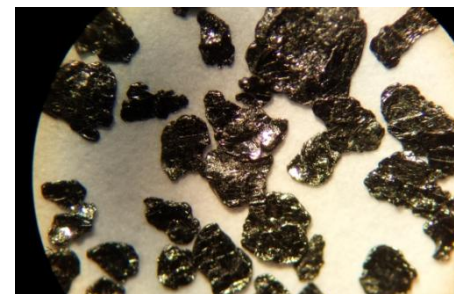


## *Wilclo South: ≈50% of graphite recovered as Extra Large, Large, Medium and Fine Flake*

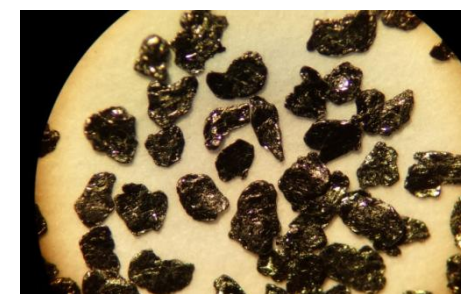
- The Wilclo South deposit and Francis prospect produced Extra Large, Large, Medium and Fine Flake graphite at grades of 91-92% Cg from basic Halutain superpanner sorting
  - grades to improve with additional standard processing
  - preliminary laboratory tests show excellent flake recovery
  - inferred 42-55% of the graphite recoverable as Flake
- Argent deposit has shown the presence of exceptionally coarse graphite

Indicative Flake distribution from the oxide profile at Wilclo South

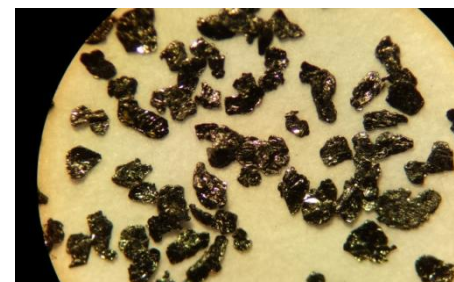
Graphite size (μm)	Grade (% Cg)	Graphite distribution in flake product (%)
Extra large / Jumbo flake +425μm	92.2	5%
Extra large flake +300μm	91.6	10%
Large flake +180μm	91.8	29%
Fine & Medium flake +75μm	92.3	56%



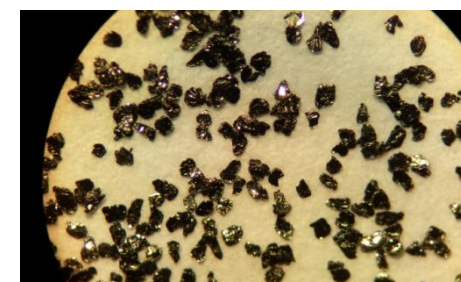
+425μm fraction showing Extra Large - Jumbo flake



Extra Large Flake +300μm



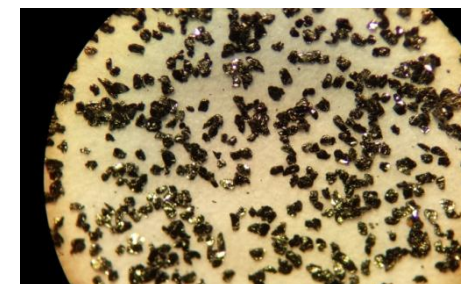
Large Flake +180μm



Fine Flake +125μm

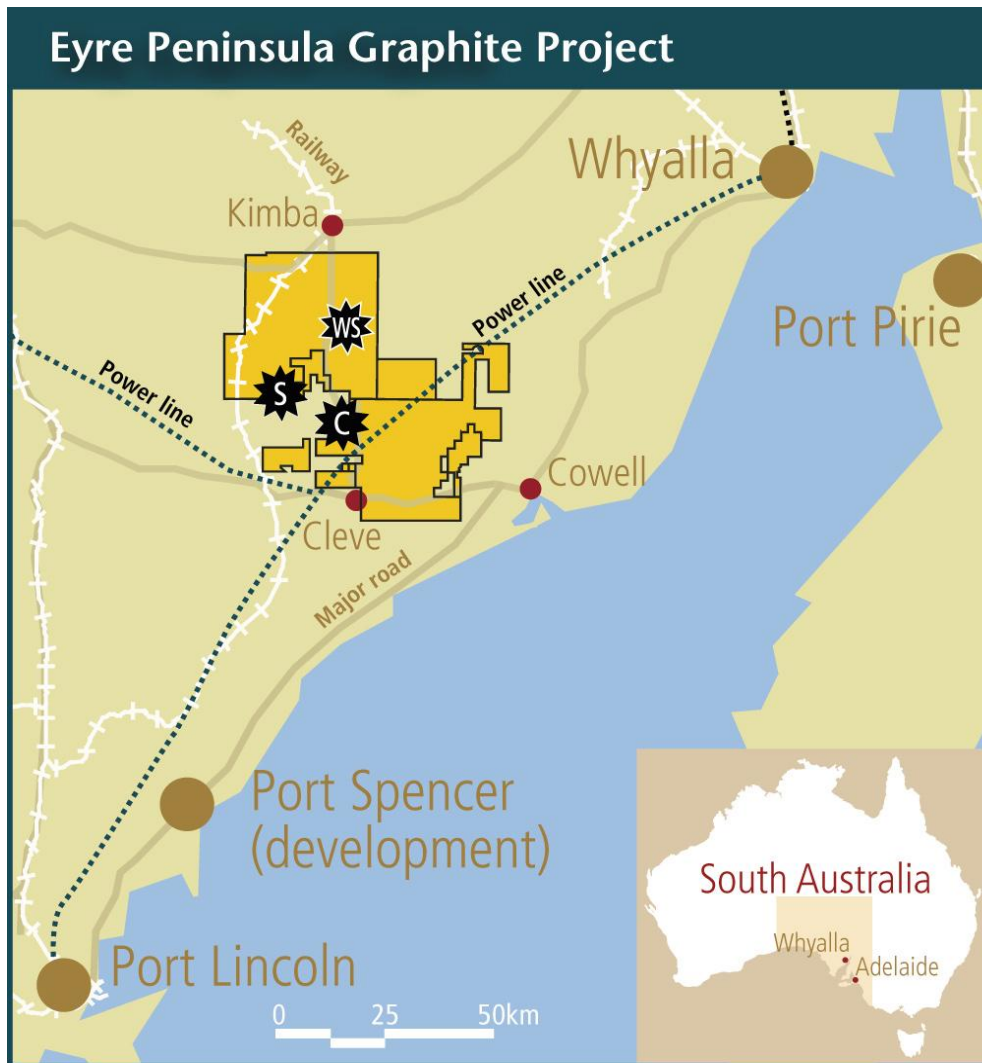


Argent graphite prospect extremely coarse graphite released by knapping a surface rock.  
Note: the square scale grid is 1 millimeter



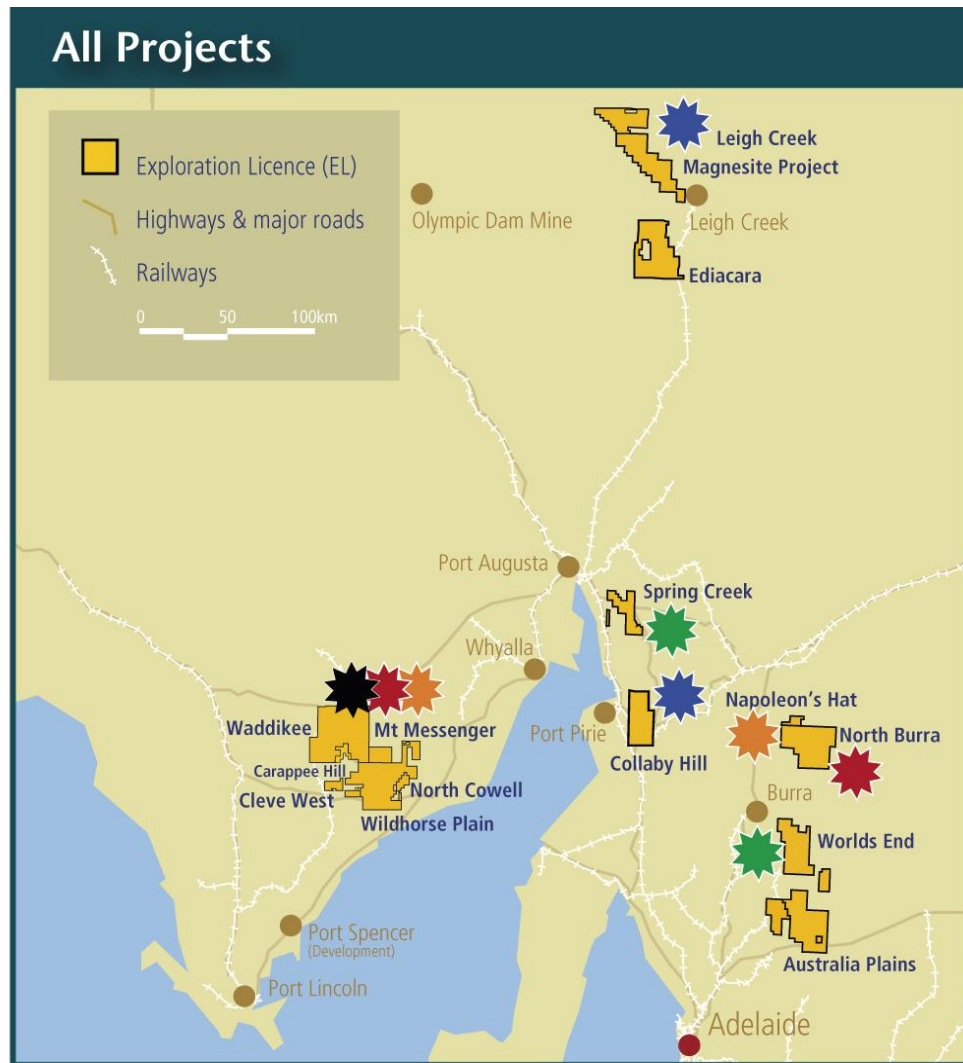
Fine Flake +75μm

## Portfolio of high quality assets



#### Advanced Graphite Projects

Campoona
 Sugarloaf
 Wilclo South

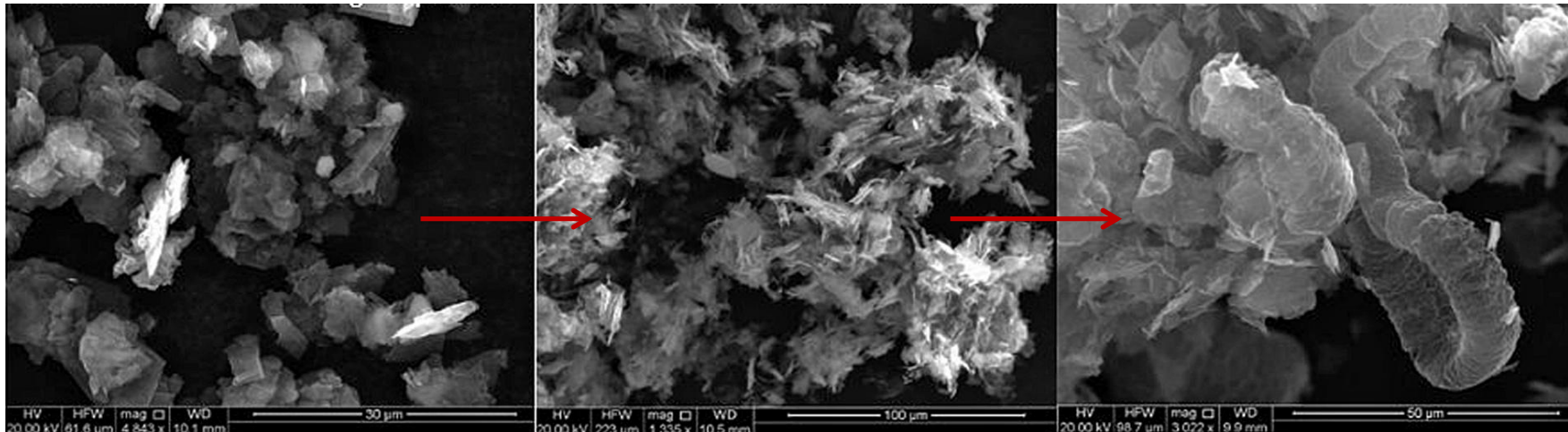


#### Priority 1 and 2 targets:

Graphite
 Magnesite
 Manganese
 Copper
 Gold

## *Progress graphite prospects and unlock magnesite potential*

- Market engagement commenced for Campoona graphite for off-take and/or JV partners
- Lodge Campoona MLP
- Project financing
- Progress research into specific graphite/graphene agricultural and environmental remediation products with a view to commercialisation
- Near-term monetisation of non-core projects – magnesite divestment process continuing
- Preliminary scoping of Spring Creek Copper progressing



*Archer graphite concentrates*

*Chemically intercalated graphite*

*Thermally intercalated graphite*

## Competent persons statement

*The exploration results and Exploration Target reported herein, insofar as they relate to mineralisation, are based on information compiled by Mr Wade Bollenhagen, Exploration Manager of Archer Exploration Limited. Mr Bollenhagen is a Member of the Australasian Institute of Mining and Metallurgy who has more than eighteen years experience in the field of activity being reported. Mr Bollenhagen has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activity that he is 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' relating to the reporting of Exploration Results. Mr Bollenhagen consents to the inclusion in the report of matters based on his information in the form and context in which it appears.*

*The information in this report that relates to the Campoona Shaft and Central Campoona JORC 2012 Mineral Resource estimation has been prepared by Mr B. Knell who is a Member of the AusIMM and peer reviewed by Dr. C Gee who is also a Member of the AusIMM (CP). Mr Knell is a full time employee of Mining Plus Pty Ltd and Dr. Gee is a full time employee of Mining Plus Pty Ltd., both have more than five years' experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Knell has consented in writing to the inclusion in this announcement of the Mineral Resource estimation information in the form and context in which it appears. This information was prepared and first disclosed under the JORC Code 2012.*

## Forward looking statements

*The information in this presentation is published to inform you about Archer Exploration Limited and its activities. Some statements in this presentation regarding estimates or future events are forward looking statements.*

*Although Archer Exploration Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results and outcomes will be consistent with these forward-looking statements.*