

Adelaide Resources Limited ABN: 75 061 503 375

#### **Corporate details:**

ASX Code: ADN Cash: \$0.701million (at 31 Mar 2016) Issued Capital: 357,922,352 ordinary shares 37,222,104 listed options (ADNO)

#### **Directors:**

Colin G Jackson Non-executive Chairman

Chris Drown Managing Director

Nick Harding Executive Director and Company Secretary

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**Fact:** Hydrothermal vein hosted gold deposits formed at shallow depths below boiling hot spring systems are commonly referred to as epithermal. Epithermal veins can be exceedingly rich in gold and deserving of the term "bonanza grade".



# ASX announcement

9 May 2016

# **Drummond epithermal gold project** (100% owned), Queensland

# Positive gold surface sampling results deliver further drill targets at Drummond.

#### Summary

Surface sampling has been completed on the Company's granted Drummond Basin gold tenements in Queensland with the goal being the identification of additional targets to drill test in conjunction with the highly regarded Bunyip prospect.

- Fifteen target areas, generated through the assessment of historical geochemical surveys and geological mapping, were prospected and 155 rock chip samples assayed.
- Five target areas (Poppi's, Anna Splay, Roo Tail, East Central Limey Dam and MR205) delivered positive results with rock chips assaying 1.0g/t gold or higher recorded.
- Best results were returned from Poppi's, where high grade results included 6.04g/t gold and 4.06g/t gold. Roo Tail returned assays including 2.19g/t gold and 1.09g/t gold.
- East Central Limey Dam recorded numerous gold anomalous samples to a maximum of 1.27g/t gold, while anomalous arsenic and high level vein textures are consistent with the preservation of gold targets at depth.
- Poppi's, Roo Tail and East Central Limey Dam are designated drill targets along with Bunyip this year.

Chris Drown Managing Director

Direct enquiries to Chris Drown. Ph (08) 8271 0600 or 0427 770 653.

#### Introduction

Adelaide Resources holds two granted tenements and two recently lodged tenement applications in the Drummond Basin in Queensland, (Figure 1). These four wholly owned licences, which total 838km<sup>2</sup> in area, secure ground that is prospective for epithermal gold deposits similar to those mined at Pajingo, Wirralie and Yandan.

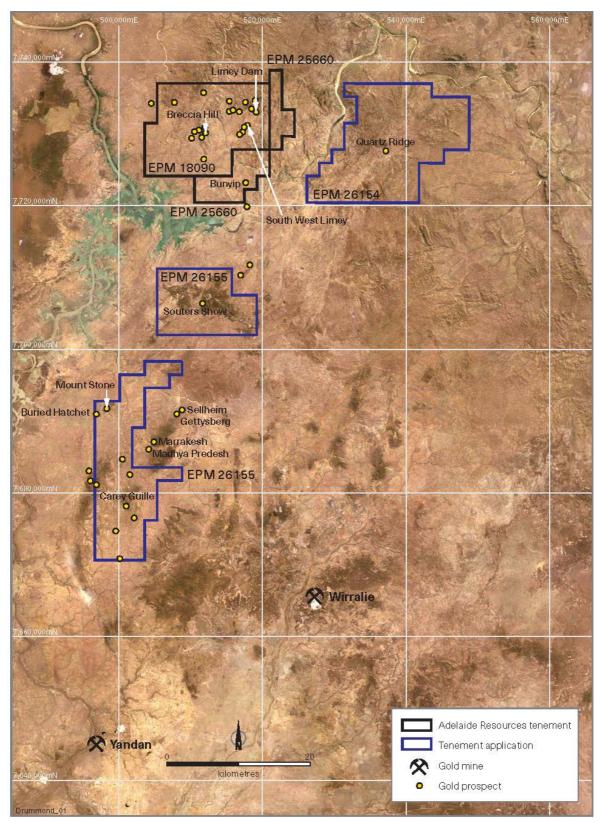


Figure 1: Plan of Drummond Epithermal Gold tenements

#### Surface sampling programme

A programme of surface exploration has been completed on granted Drummond tenements EPM18090 and EPM25660.

Twelve areas were identified where historical reconnaissance scale geochemical surveys or geological mapping indicated the possible presence of epithermal gold systems. A lack of follow-up work by past explorers in these areas presented an opportunity for Adelaide Resources to conduct focused work and potentially define new drill targets to be tested in conjunction with the Bunyip prospect.

Three additional areas, located in very rugged terrain, were identified using low level helicopter reconnaissance with ground access also facilitated using helicopter support.

Each target area was prospected for quartz veins and other epithermal geological features. Surface rock chip samples were collected from the majority of areas, with 155 samples assayed for gold and a suite of other elements.

Of the fifteen target areas sampled, five returned rock chip gold assays of 1.0g/t gold or higher. These five areas are Poppi's Prospect, Anna Splay, Roo Tail, East Central Limey Dam and MR205 (Figure 2).

A listing of significant rock chip assay results recorded in the recent sampling programme appears as Table 1 (page 5).

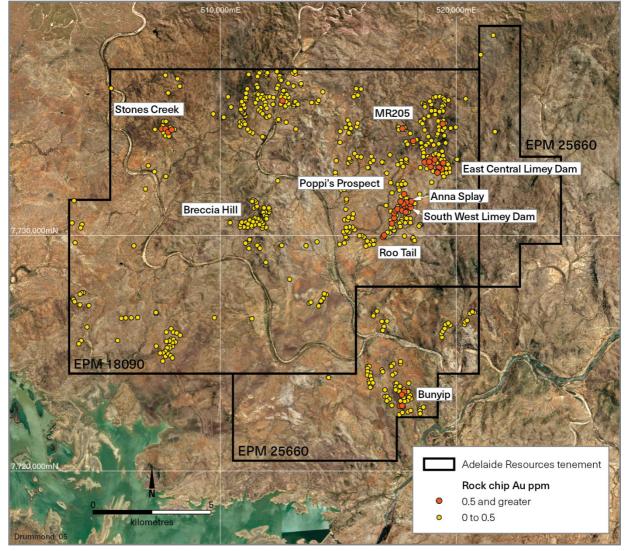


Figure 2: EPM18090 and EPM25660 prospect location plan.

#### Poppi's Prospect

Poppi's Prospect falls on the interpreted northern extension of the structure that hosts the Anna Vein at South West Limey Dam, located 800 metres to the south.

Intermittent quartz veining can be traced over the 800 metre interval with multiple zones found where samples have returned encouraging assays.

At Poppi's Prospect a cluster of samples taken along a 40 metre zone of colloform banded quartz veining recorded gold assays of 2.70g/t, 6.04g/t, 4.06g/t (see figure 3a) and 3.54 g/t gold, with this last sample the northern-most sample taken. Silver is also present with results up to 22.7g/t accompanying gold.

#### Anna Splay

Anna Splay is an interpreted northeast striking structural splay off the Anna-Poppi's structure immediately north of South West Limey Dam. Five rock chip samples returned anomalous gold to a maximum of 2.49g/t. Vein textures include colloform banded styles (figure 3b).

#### Roo Tail

Roo Tail sits on the southern extension of the structure hosting the Anna and Poppi's vein systems.

Epithermal quartz veining (figure 3c) is present in a brecciated rhyolitic host over a strike length of about 100 metres. Better new results include 2.19g/t and 1.09g/t gold, while arsenic reaches 76 ppm.



Figure 3: Rock and vein textures from recent sampling. a) Poppi's Prospect. Colloform banded quartz vein, 4.06g/t Au. b) Anna Splay. Colloform banded quartz vein, 2.49g/t Au. c) Roo Tail. Colloform banded quartz veined silicified rhyolite, 2.19g/t Au. d) East Central Limey Dam. High level chalcedonic quartz vein textures.

#### East Central Limey Dam

One of the most widespread areas of gold anomalism on the Drummond tenements occurs at Central Limey Dam, located 3km northeast of South West Limey Dam.

The eastern part of the prospect comprises numerous discontinuous epithermal veins and rock chips in the 0.1-1.0g/t gold range abound. Nine of 21 recent samples assay over 0.1g/t gold with a highest result of 1.27g/t gold recorded.

Vein textures are often chalcedonic (figure 3d). Chalcedonic quartz forms in the upper levels of epithermal systems, suggesting potential for preserved higher grade gold zones at depth.

Eight historical reverse circulation holes drilled at Limey Dam intersected zones of anomalous gold, however these holes were likely sited too far west to have tested this eastern target area.

#### MR205

MR205 is located about 2km northwest of Central Limey Dam. MR205 was the number of an isolated historical rock chip sample that assayed 3.35g/t gold taken to follow-up strongly anomalous stream sediment samples. Recent sampling has confirmed the presence of gold at MR205 with a result of 0.98g/t gold (and 10.5g/t silver) achieved. The gold-bearing rock is not a quartz vein but a silicified rhyolite.

#### **Drill Targets**

Work in 2015 at Bunyip defined 2000 metres of outcropping quartz veins with anomalous gold and high level epithermal pathfinders, and Bunyip is already confirmed as a high quality drill target.

Following the recent sampling, Poppi's, Roo Tail and East Central Limey Dam are considered to be targets worthy of drilling concurrently with Bunyip this year.

Importantly, all four of these targets were covered by aboriginal heritage surveys in 2015 and will not require any further clearances prior to drilling.

The MR205 results confirm the presence of gold mineralisation, but the lack of an obvious quartz vein to target with a drill hole requires that detailed infill soil and rock chip sampling will need to be completed before drilling can be planned with confidence.

Prospect Name	Easting	Easting Northing (mga94) (mga94)	Au (g/t)	Ag (g/t)	Epithermal pathfinders (ppm)		
	(mga94)				As	Bi	Sb
Poppi's Prospect	517783	7731768	6.04	22.7	15	<2	<5
	517793	7731769	4.06	3.5	<5	<2	<5
	517791	7731783	3.54	5.2	5	<2	<5
Anna Splay	517518	7731138	2.49	<0.5	18	<2	19
	517736	7731420	1.23	0.5	<5	<2	9
Anna	518000	7731350	1.16	<0.5	5	<2	13
Roo Tail	516916	7730034	2.19	1.0	33	<2	7
	516900	7729970	1.09	0.9	31	<2	7
East Central Limey Dam	519452	7733102	1.27	0.5	<5	<2	12
MR205	517705	7734557	0.98	10.5	15	22	5

Table 1: Significant rock chip results - 2016 Drummond surface sampling programme.

Sample weights range from 0.66kg to 2.92kg. Gold determined by Fire Assay with AAS finish on 30gm sample weight. Other metals determined using four-acid digest with ICP-AES finish. Company introduced OA/QC samples indicate acceptable analytical quality.

#### **Competent Person Statement**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mark Manly, a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Manly is employed by the Company on a full time basis. Mr Manly has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Mr Manly consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### 1 JORC CODE, 2012 EDITION – TABLE 1

### 1.1 Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

techniqueschips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or hond held XRF instruments, etc) These examples should not be taken as limiting the broad meaning of sampling.collected on an opportunistic basis from outcropping veins displaying epithermal textures and the appropriate calibration of any measurement tools or systems used.collected on an opportunistic basis from outcropping veins displaying epithermal textures and the vein hor rocks.• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.• By their nature rock chi samples are not considered to be sample of high representivity.• In cases where 'industry standard' work has been done this would be relatively simple (eg reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.• No drilling results are included in the report.Drilling Techniques• Drill type (air core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and diamond tails, face sampling bit or other type, whether core is orientated and if so, by what method, etc).• No drilling results are included in the report.Drill Sample Recovery• Method of recording and assessing core and chip sample representative nature of the sample.• No drilling results are included in the r	Criteria	JORC Code explanation	Commentary
Techniqueshammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face sampling bit or other type, whether core is orientated and if so, by what method, etc).included in the report.Drill Sample Recovery• Method of recording and assessing core and chip sample recoveries and results assessed.• No drilling results are included in the report.• Measures taken to maximise sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of coarse/fine material.• No drilling results are included in the report.Logging• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.• No drilling results are included in the report.• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.• The total length and percentage of the relevant	Sampling	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or hand held XRF instruments, etc) These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may</li> </ul>	<ul> <li>Rock chip samples were collected on an opportunistic basis from outcropping veins displaying epithermal textures and the vein host rocks.</li> <li>By their nature rock chip samples are not considered to be samples</li> </ul>
Drill Sample Recovery• Method of recording and assessing core and chip sample recoveries and results assessed.• No drilling results are included in the report.• Measures taken to maximise sample recovery and ensure representative nature of the sample.• No drilling results are included in the report.• Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of coarse/fine material.• No drilling results are included in the report.Logging• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.• No drilling results are included in the report.• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.• The total length and percentage of the relevant	•	• Drill type (air core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face sampling bit or other type, whether	
<ul> <li>and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant</li> </ul>		<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the sample.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred</li> </ul>	
Sub-       • If core, whether cut or sawn and whether quarter, half or       • No sample preparation	Logging	<ul> <li>and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	

campling	all core taken.	was completed on the
sampling techniques	<ul> <li>If non-core, whether riffled, tube sampled, rotary split,</li> </ul>	rock chips other than
and sample	etc and whether sampled wet or dry.	crushing and pulverising
preparation	• For all sample types, the nature, quality and	by the analytical
preparation	appropriateness of the sample preparation technique.	laboratory, which is the
	• Quality control procedures adopted for all sub-	standard preparation used
	sampling stages to maximise representativity of	for rock chip samples.
	samples.	• A portion of each sample
	• Measures taken to ensure that the sampling is	has been retained as a
	representative of the in situ material collected,	geological record and for
	including for instance results for field	photographic purposes.
	duplicate/second-half sampling.	• The sample sizes are
	• Whether sample sizes are appropriate to the grain size	considered appropriate
	of the material being sampled.	for epithermal gold which
		is present as very fine
Quality of	• The mature quality and appropriate and of the assaulte	(micron sized) grains.
Quality of assay data	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the	<ul> <li>Rock chips were assayed in a commercial lab using</li> </ul>
and	technique is considered partial or total.	standard methods.
laboratory	<ul> <li>For geophysical tools, spectrometers, handheld XRF</li> </ul>	<ul> <li>Gold was determined by</li> </ul>
tests	instruments, etc, the parameters used in determining	fire assay with AAS
10313	the analysis including instrument make and mode,	finish utilising a 30gm
	reading times, calibration factors applied and their	charge weight.
	derivation, etc.	• Other metals were
	• Nature and quality control procedures adopted (eg	determined using four-
	standards, blanks, duplicates, external laboratory	acid digest with ICP-AES
	checks) and whether acceptable levels of accuracy (ie	finish.
	lack of bias) and precision have been established.	<ul> <li>Laboratory QA/QC</li> </ul>
		samples were introduced
		into the rock chip assay
Verification	• The verification of significant intersections by either	<ul><li>stream.</li><li>No drilling results are</li></ul>
of sampling	independent or alternative company personnel.	included in the report.
and	<ul> <li>The use of twinned holes.</li> </ul>	<ul> <li>No assay results have</li> </ul>
assaying	<ul> <li>Documentation of primary data, data entry procedures,</li> </ul>	been adjusted.
ussuying	data verification, data storage (physical or electronic)	
	protocols.	
	• Discuss any adjustment to assay data.	
Location of	• Accuracy and quality of surveys used to locate drill	Rock chip sample
data points	holes (collar and down-hole surveys), trenches, mine	location points were
	workings and other locations used in Mineral Resource	collected using a Trimble
	estimation.	Juno 3D GPS with
	• Specification of the grid system used.	autonomous accuracy of
	• <i>Quality and adequacy of topographic control.</i>	+/-5 meters.
Data	• Data angoing for non-orting of Fund. (* D. 1)	• GDA94 (Zone 55)
Data spacing and	<ul> <li>Data spacing for reporting of Exploration Results</li> <li>Whathan the data spacing and distribution is sufficient</li> </ul>	• The samples were collected on an
spacing and distribution	• Whether the data spacing and distribution is sufficient to establish the degree of geological and grade	opportunistic basis. The
aistribution	continuity appropriate for the Mineral Resource and	data is not appropriate for
	Ore Reserve estimation procedure(s) and classification	use in estimating a
	applied.	Mineral Resource and is
	<ul> <li>Whether sample compositing has been applied.</li> </ul>	not intended for such use.
Orientation	• Whether the orientation of sampling achieves unbiased	• The samples were
of data in	sampling of possible structures and the extent to which	collected on an
relation to	this is known, considering the deposit type.	opportunistic basis and it
geological	• If the relationship between the drilling orientation and	is unknown if this results
structure	the orientation of key mineralised structures is	in biased or unbiased
	considered to have introduced a sampling bias, this should be assessed and reported if material.	sampling.

Sample security			• The samples were collected, packaged and delivered to the laboratory by senior company staff.
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data	• No audits or reviews have been completed.

## **1.2 Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section may apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements of material issues with third parties such as joint ventures, overriding royalties, native titles interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</li> </ul>	<ul> <li>Commentary</li> <li>The area the subject of this report falls within EPMs 18090 and 25660, which is 100% owned by Adelaide Exploration Pty Ltd, a wholly owned subsidiary of Adelaide Resources Limited.</li> <li>There are no third party agreements, non govt royalties, or historical sites known. Underlying land title is Pastoral leasehold. The tenement area is covered by a Native Title claim and an Exploration Agreement has been executed with the Native Title Claimants. The report advises that aboriginal heritage surveys have been completed. Part of EPM 18090 falls within Restricted Area 206 – Burdekin Falls Dam Catchment.</li> <li>EPMs 18090 and 25660 are in good standing.</li> </ul>
Exploration done by other parties	Acknowledgement and appraisal of exploration by other parties.	<ul> <li>The general area the subject of this report has been explored in the past by various companies including Cormepar Minerals, Otter Exploration, Hunter Resources, Poseidon Gold, Dalrymple Resources and MIM Exploration. The Company has reviewed past exploration data generated by these companies.</li> </ul>
Geology	• Deposit type, geological setting and style of mineralisation.	• Deposits in the general region are considered to be of low sulphidation

		epithermal vein style.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>Easting and northing of the drill collar</li> <li>Elevation or RL (Reduced Level – elevation above sea level in meters) of the drill collar.</li> <li>Dip and azimuth of the hole.</li> <li>Down hole length and interception depth.</li> <li>Hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the axis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	• The report does not include drilling results.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/ or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in some detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	• The report does not include drilling results.
Relationship between mineralisati on widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	• The report does not include drilling results.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	• Appropriate maps are included as Figures 1, 2 and 5 in the report.
Balanced Reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• Results of samples with gold assays of 0.98g/t Au or greater are listed in Table 1 of the report. Other samples returned lower gold grades.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, ground water, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• Historic rock chip sample results are discussed and shown on Figure 2.
Further work	<ul> <li>The nature and scale of planned further work (eg tests of lateral extensions or depth extensions or large scale stepout drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	• The report advises that the company is planning to drill test the Poppi's, Roo Tail, East Central Limey Dam and Bunyip prospects in 2016.