

# ASX announcement

17 April 2023

## Thick pegmatite intercepts from surface at Higginsville

Argonaut Resources NL (ASX: ARE) (*Argonaut* or the *Company*) is pleased to advise that a drilling program targeting lithium, caesium, tantalum (LCT) pegmatites has intercepted thick pegmatites from surface at the Darson prospect within its 80% held Higginsville project in Western Australia.

The current phase of drilling program is complete.

### Highlights

#### Drilling program

- Argonaut has completed a 30-hole reverse circulation (RC) drilling program for a total of 3,246m. The drilling program targeted LCT pegmatites at the Darson prospect near Higginsville.
- Drill holes at a newly defined LCT pegmatite target called Darson West intercepted thick LCT pegmatite intercepts at Traverse J. Visual pegmatite intercepts are:
  - 30m from surface in drill hole DSRC022 (see Figure 1, Figure 3 and Photo 1); and
  - 36m from surface in drill hole DSRC023 (See Figure 1, Figure 3 and Photo 2).
- A total of 132 pegmatitic intervals were logged across the 30 drill holes for a cumulative total of 431 metres of logged pegmatite (full results shown in Table B).
- Thirteen percent of metres drilled were logged as pegmatite.
- Highlights of logged pegmatite intervals are summarised in Table A.

**Table A: Highlights of geologically logged pegmatite intervals.**

Hole	Interval (m)	From (m)	Logged lithology*
DSRC003	6	93	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC004	11	109	Pegmatite with quartz veins at 110m
DSRC008	8	66	Pegmatite
DSRC010	11	Surface	Pegmatite
DSRC013	14	5	Pegmatite
DSRC014	7	Surface	Pegmatitic granite with quartz veins
DSRC016	9	20	Pegmatite with interleaved biotite schist at 24m
DSRC017	8	Surface	Pegmatite. Weathered to 5m
DSRC018	8	4	Weathered pegmatite with interleaved biotite schist
DSRC020	10	2	Pegmatite
DSRC020	6	24	Pegmatite
DSRC021	6	Surface	Pegmatite
DSRC022	30	Surface	Pegmatite
DSRC022	14	84	Pegmatite
DSRC023	36	Surface	Pegmatite
DSRC023	6	42	Pegmatite
DSRC023	7	71	Pegmatite
DCRC002	6	71	Pegmatite with abundant muscovite

- All samples have been submitted to the laboratory and assay results are expected in two to four weeks.

## Sampling program

- Soil sampling has generated a new LCT pegmatite drilling target called Darson West (Figure 3).
- Results were received shortly before the conclusion of drilling. More drilling is warranted.

## Prime geological setting for discovery

- The Darson pegmatite swarm is located within the Tier 1, world-class Norseman – Coolgardie LCT pegmatite corridor (Figure 2).
- This is a prime geological setting for the discovery of a commercial lithium deposit and is located within:
  - four kilometres of the Dome North lithium deposits held by Essential Metals, and
  - 12 kilometres of the Sinclair caesium mine (see Figure 2).
- Regionally, the Darson pegmatite swarm is located at the centre of a cluster of major lithium Resources (Figure 2), including:
  - Liontown Resources – Buldania,
  - Essential Metals – Dome North,
  - Mineral Resources – Mount Marion and
  - Alliance – Bald Hill.

\* Field-based geological logging of RC (percussion drilling) rock chips. Rocks logged as pegmatite are feldspathic igneous rock with a variable texture and crystals up to centimetre-scale. Most logged pegmatite drilling intercepts reported are supported by related pegmatitic surface outcrop or subcrop.

# Higginsville Project

## Lithium exploration – Darson pegmatite swarm

### Drilling program

Argonaut has completed a 30-hole, 3,246m RC drilling program at the Darson prospect, near Higginsville, WA. The program targeted LCT pegmatites on the basis outcrop mapping and soil geochemistry.

Drilling succeeded in intersecting pegmatitic rocks in all 30 drill holes. A total of 132 pegmatitic intervals were logged across the 30 drill holes for a cumulative total of 431 metres of logged pegmatitic rock (see Table B).

Drill holes DSRC022 and DSRC023 at the newly defined Darson West prospect returned excellent LCT pegmatite intercepts of 30m from surface and 36m from surface respectively (see Figure 1, Figure 3, Photo 1 and Photo 2).

Significant visual pegmatite intervals logged at Darson South include 11m from 109m in DSRC004, 11m from surface in DSRC010 and 14m from 5m in DSRC013 (Figure 3).

The drilling program was twice extended to include newly or better defined targets at Darson Central and Darson West.

All drill samples have been submitted to the laboratory for analysis. Assay results are expected in two to four weeks.

### Soil sampling

The Company has been progressively extending and infilling soil sampling grids at Darson. Soil sampling is ongoing. These efforts have been rewarded by the delineation of four major target zones (Darson South, Central, East and West).

Recent soil sampling results have revealed a significant new “fishhook-shaped” anomaly at Darson West. The Darson West anomaly is defined by a geochemical signature (RbKTaNb) that indicates primary pegmatite rock (rubidium and potassium) and weathered pegmatite minerals (tantalum and niobium).

The Darson West anomaly was tested by two drill holes, mentioned above (Figure 1, Photo 1 and Photo 2). Further drilling of the Darson West anomaly is warranted.

The current phase of soil sampling is expected to be completed within seven days. Soil sampling assay results will be received progressively, and these results will assist in defining future drilling programs at Darson.

### Geochemical results and prospectivity index

Argonaut commissioned geochemist Dr Nigel Brand<sup>1</sup>, a recognised expert in Western Australian LCT pegmatite geochemistry, to analyse the results of recent field work at Darson. Dr Brand concluded:

- A combination of LCT elements and host lithic elements combined to generate a Prospectivity Index has identified areas of probable LCT mineralisation within five parallel trends.
- Modelling of the soil data indicate that the Li, Be and Cs represent the highly fractionated portion (Zone 4 and Zone 5) of the LCT pegmatite whilst Nb and Ta are proximal (Zone 3 and Zone 4) based on Cerny 1991 diagram<sup>2</sup>.
- Rock chip classification indicates “fertile granites” along two trends and potentially represents the outer shell of a fractionated pegmatite.

The recommendations that resulted from Dr Brand's analysis are:

- Further systematic regional soil sampling to identify any near surface potential pegmatite trends.
- Drill testing of the defined area of interest (Darson South) and trends (Darson Central and Darson East) should be considered as a high priority.

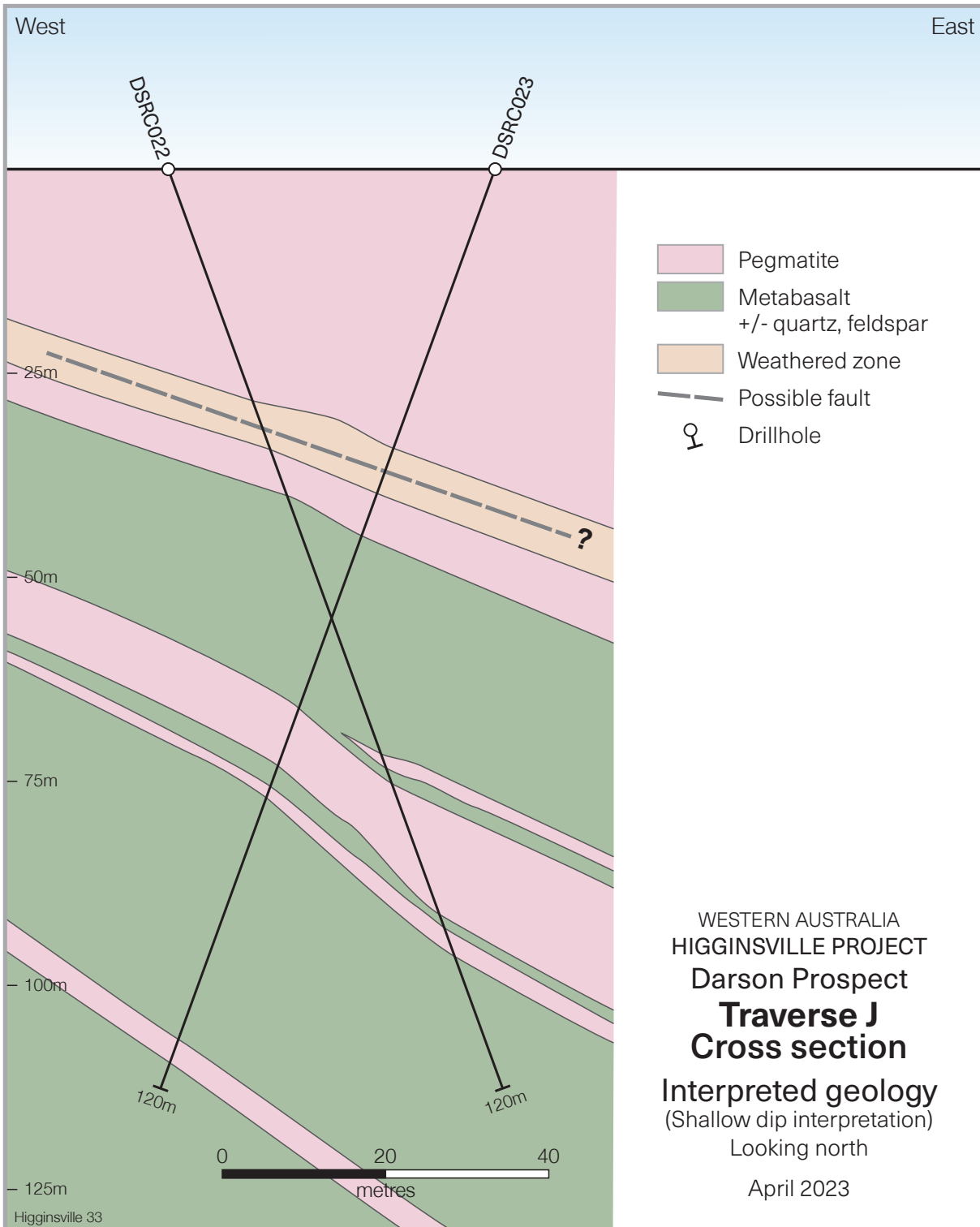
Argonaut will soon complete these recommended works.

Nigel Brand is the co-author of several papers regarding LCT pegmatite exploration and discovery in the area of the Pioneer Dome. Dr Brand has worked extensively in the area with several explorers as a consulting geochemist.

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<sup>1</sup> Dr Brand holds Argonaut shares directly and indirectly.

<sup>2</sup> Cerny 1991b, Figure 2(b) [https://www.researchgate.net/figure/Regional-zoning-in-fertile-granites-and-pegmatites-Cerny-1991b-a-Regional-zonation-of\\_fig2\\_42797128](https://www.researchgate.net/figure/Regional-zoning-in-fertile-granites-and-pegmatites-Cerny-1991b-a-Regional-zonation-of_fig2_42797128).



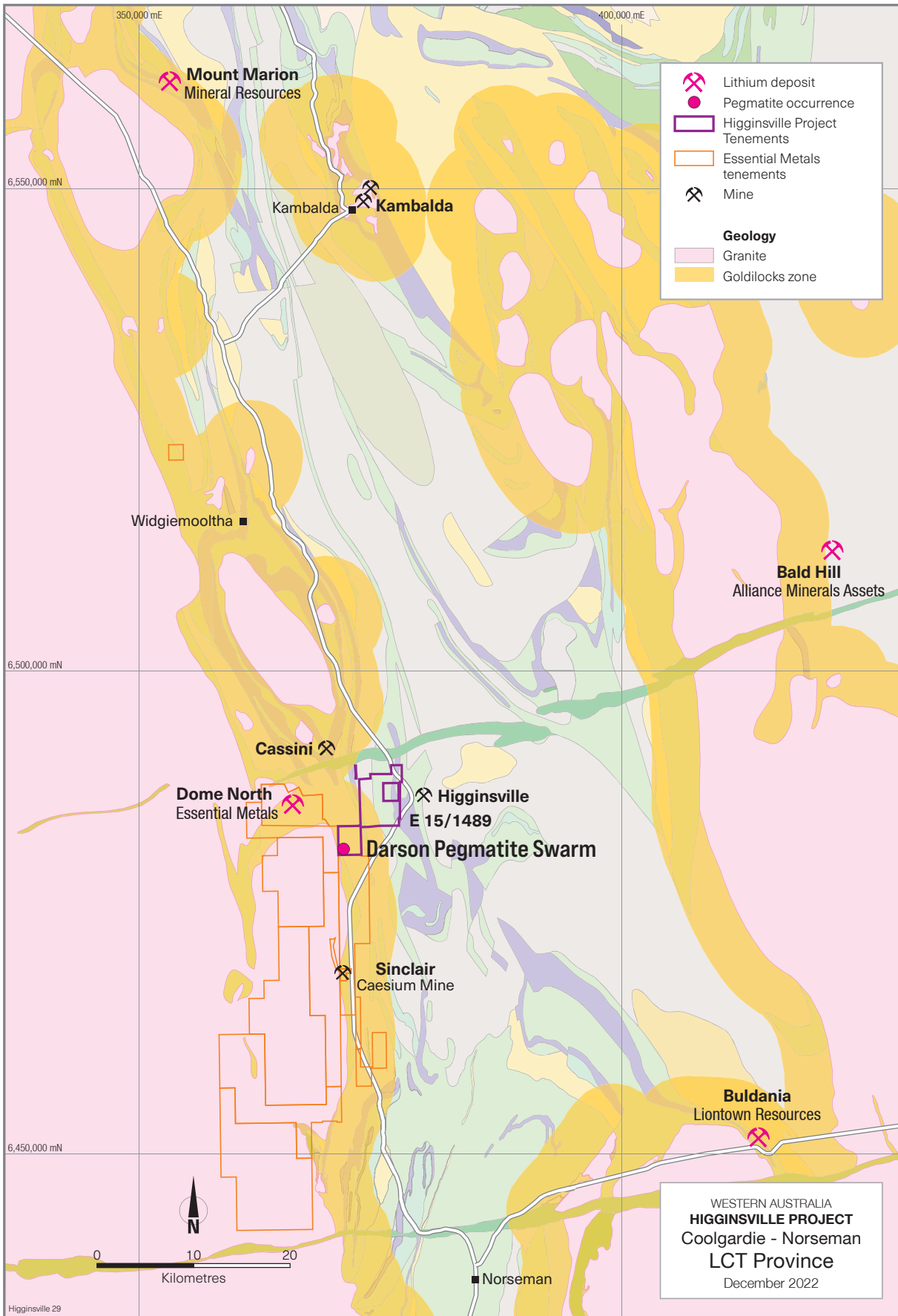
**Figure 1** Traverse J, Darson West. Thick LCT pegmatite from surface plus additional pegmatites at depth.



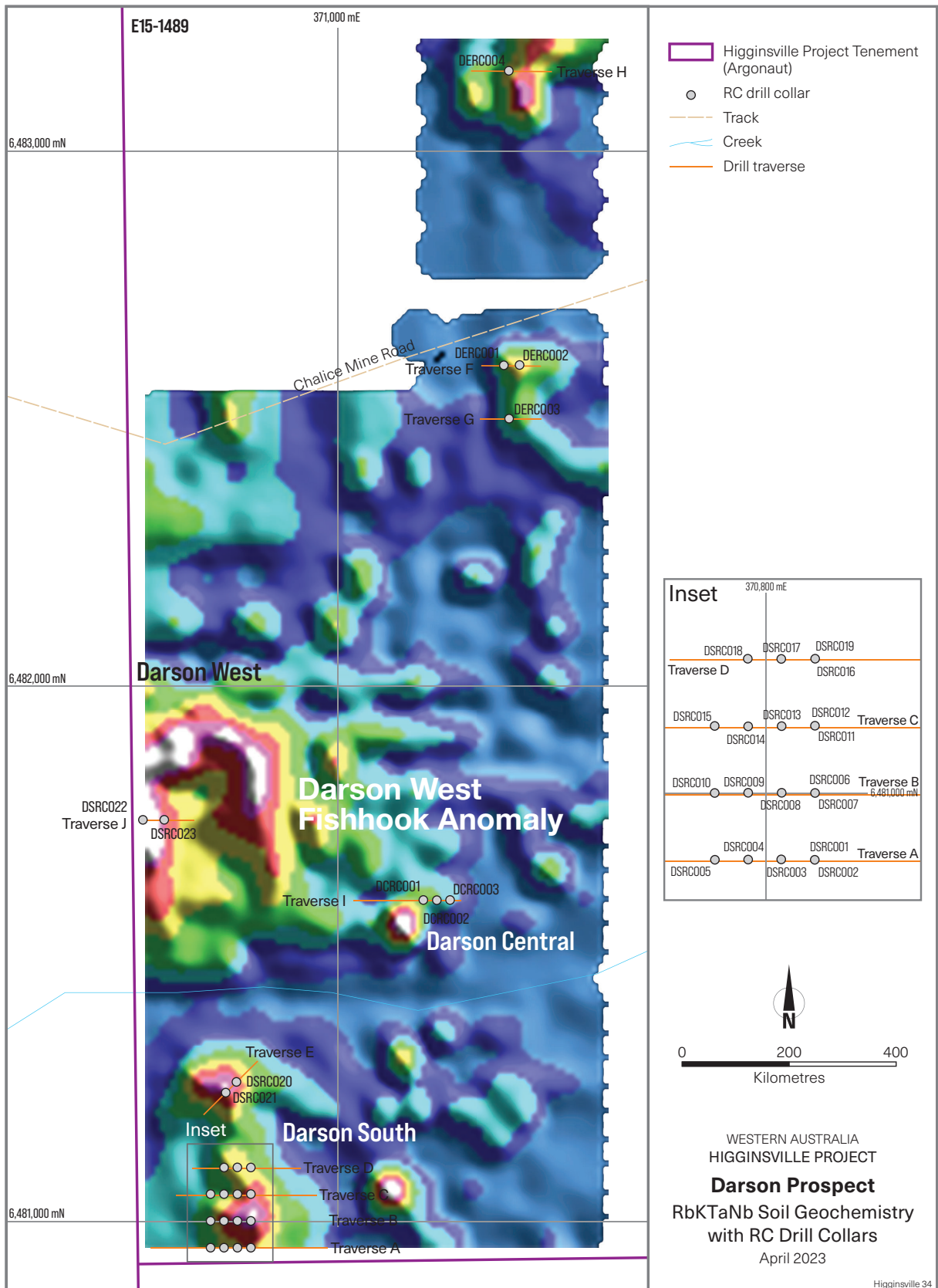
Photo 1 Drill hole DSRC022, Darson West – RC rock chip trays. White rock chips are pegmatitic.



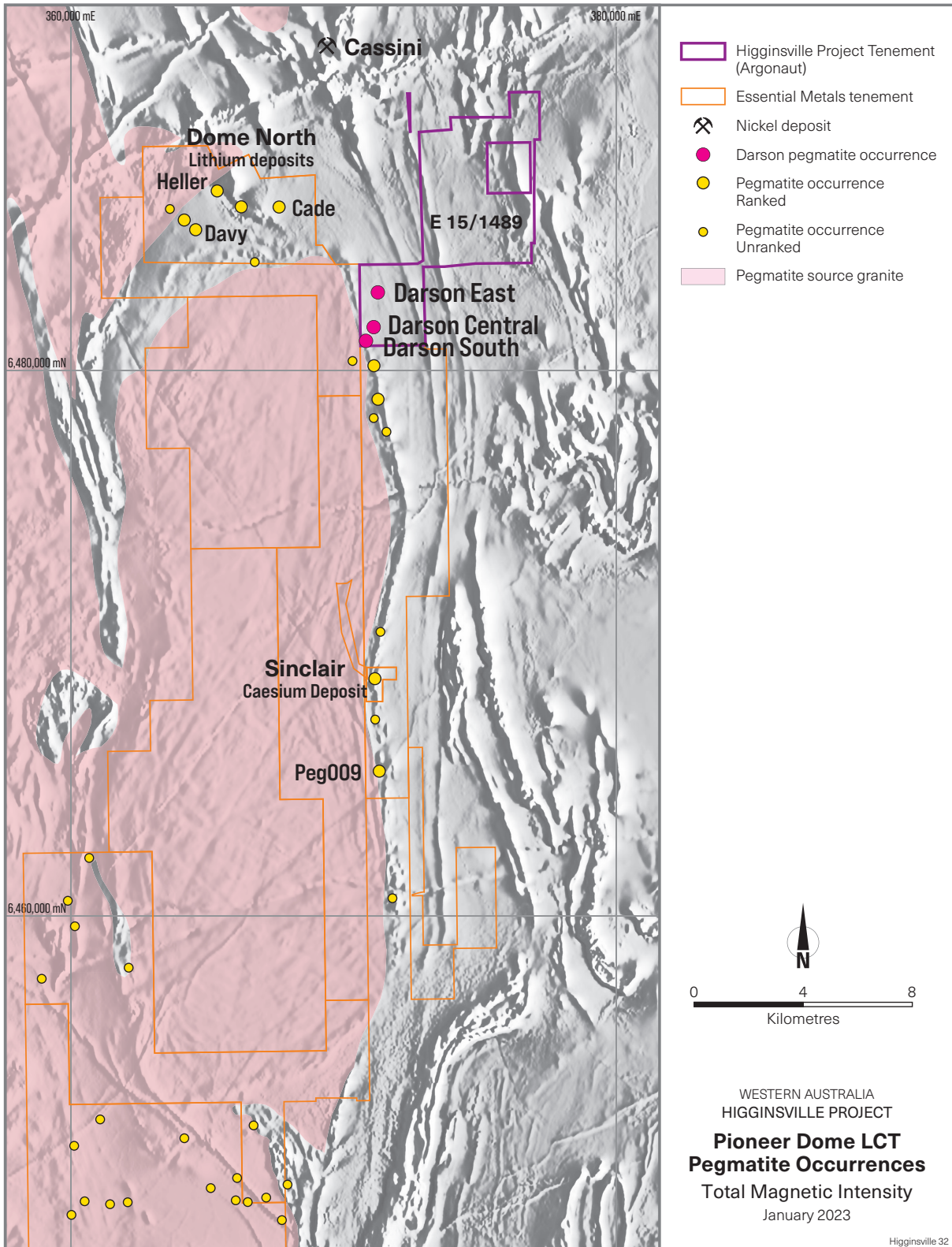
Photo 2 Drill hole DSRC023, Darson West – RC rock chip trays. White rock chips are pegmatitic.



**Figure 2** Coolgardie-Norseman LCT Province showing major lithium deposits and the “Goldilocks Zone” in relation to the Darson Pegmatite Swarm, Higginsville, WA. After Brand et al 2021.



**Figure 3** Darson Pegmatite Swarm, soil geochemistry – RbK-TaNb image shown chemical signature of LCT pegmatite rocks in soil.



**Figure 4** Pioneer Dome LCT pegmatite occurrences and source granites over greyscale magnetic image.



## Joint venture agreement

The Higginsville project is governed by a joint venture agreement between Argonaut and Loded Dog Prospecting Pty Ltd titled "Eastern Goldfields New Joint Venture and Royalty Agreement". This JVA relates to exploration licence E15/1489. Argonaut holds an 80% interest and will sole fund joint venture activities through until completion of a bankable feasibility study and a decision to mine is made.

## About Argonaut

Argonaut Resources NL is an Australian Securities Exchange listed exploration and development company focused on the Higginsville lithium project in Western Australia, Murdie copper project in South Australia, and copper exploration in North-western Zambia.

This report was authorised for release by the Board of Argonaut Resources NL

### **Lindsay Owler**

Director and CEO

Argonaut Resources NL

### **Competent Person Statement**

*Sections of information contained in this report that relate to Exploration Results were compiled or supervised by Mr Lindsay Owler BSc, MAusIMM who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of Argonaut Resources NL. Mr Owler holds shares and options in Argonaut Resources NL, details of which are disclosed in the Company's 2022 Annual Report. Mr Owler has sufficient experience which is relevant to the style of mineral deposits 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 Mineral Resources and Ore Reserves". Mr Owler consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.*

### **About Dr Nigel Brand**

*Nigel worked for WMC Resources for eleven years until 1999. During his time at WMC he worked throughout the Norseman-Wiluna Greenstone belt on various regional Ni & Au exploitation programs and at WMC operations at Norseman, Kambalda, Kalgoorlie, Leinster and Mt Keith.*

*He completed his PhD in 1997 on weathering process associated with nickel sulphides.*

*On leaving WMC, Nigel joined Anglo American for four and a half years as their geochemist in the Asian-Pacific region, including India, Philippines and Australia exploring for Zn, Ni and Cu-Au PC/IOCG deposits. In 2004, Nigel and Dr David Lawie co-founded ioGeochemistry, a global independent geochemical consulting group based in Perth, Western Australia.*

*In January 2005 Nigel established an independent geochemical consulting Geochemical Services Pty Ltd to provide hands-on and applied geochemical expertise to international mineral exploration.*

**Table B: Geologically logged pegmatite intervals, Darson prospect, March-April 2023.**

Hole	From (m)	Interval (m)	Logged lithology
DSRC001	12	3	Pegmatite
DSRC001	76	2	Pegmatite
DSRC001	98	1	Pegmatite
DSRC001	104	1	Pegmatite
DSRC001	110	1	Pegmatite
DSRC001	113	1	Pegmatite
DSRC002	6	3	Pegmatite with interleaved biotite schist
DSRC002	12	3	Pegmatite
DSRC002	17	4	Pegmatite
DSRC002	26	2	Pegmatite
DSRC002	31	2	Pegmatite
DSRC002	86	1	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC003	0	3	Pegmatite
DSRC003	9	2	Pegmatite
DSRC003	14	3	Pegmatite
DSRC003	65	1	Pegmatite
DSRC003	93	6	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC004	18	1	Pegmatite
DSRC004	35	1	Pegmatite
DSRC004	37	2	Pegmatite
DSRC004	99	3	Pegmatite
DSRC004	109	11	Pegmatite with quartz veins at 110m
DSRC005	2	3	Pegmatite
DSRC005	13	4	Pegmatite
DSRC005	22	2	Pegmatite
DSRC005	32	1	Pegmatite
DSRC006	0	2	Pegmatite
DSRC006	73	2	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC007	17	1	Pegmatite
DSRC007	30	2	Pegmatite
DSRC007	68	1	Pegmatite with interleaved biotite schist
DSRC007	80	1	Pegmatite
DSRC008	0	5	Pegmatite
DSRC008	6	3	Pegmatite
DSRC008	10	1	Pegmatite
DSRC008	31	1	Pegmatite
DSRC008	34	1	Pegmatite
DSRC008	66	8	Pegmatite
DSRC009	68	4	Pegmatite
DSRC009	83	1	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC009	87	3	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC009	92	2	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC009	103	3	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC009	110	3	Pegmatite with interleaved quartzo-feldspathic biotite schist

Hole	From (m)	Interval (m)	Logged lithology
DSRC010	0	11	Pegmatite
DSRC010	19	2	Pegmatite with interleaved biotite schist
DSRC010	45	1	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC010	76	4	Pegmatite
DSRC010	98	2	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC010	107	1	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC010	109	1	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC011	12	1	Pegmatite
DSRC011	103	1	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC011	112	1	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC012	0	2	Pegmatite
DSRC012	10	3	Pegmatite
DSRC013	0	3	Pegmatite
DSRC013	5	14	Pegmatite
DSRC013	19	3	Pegmatite
DSRC013	23	2	Pegmatite
DSRC013	27	2	Pegmatite
DSRC013	54	2	Pegmatite with interleaved biotite schist
DSRC013	70	2	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC014	0	7	Pegmatitic granite with quartz veins
DSRC014	53	1	Pegmatite with interleaved biotite schist
DSRC014	70	1	Pegmatite with interleaved biotite schist
DSRC014	79	1	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC014	83	1	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC014	89	5	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC014	114	1	Pegmatite with interleaved quartzo-feldspathic biotite schist
DSRC015	21	2	Pegmatite
DSRC015	26	3	Pegmatite with interleaved biotite schist
DSRC015	57	1	Leucocratic pegmatite
DSRC016	2	4	Pegmatite
DSRC016	8	2	Pegmatite
DSRC016	15	2	Pegmatite
DSRC016	20	9	Pegmatite with interleaved biotite schist at 24m
DSRC016	64	1	Pegmatite
DSRC016	78	1	Pegmatite
DSRC017	0	8	Pegmatite. Weathered to 5m
DSRC017	12	5	Pegmatite
DSRC017	40	1	Pegmatite
DSRC017	45	1	Pegmatite
DSRC017	50	1	Pegmatite
DSRC017	53	1	Pegmatite
DSRC018	4	8	Weathered pegmatite with interleaved biotite schist
DSRC019	2	1	Weathered pegmatite?
DSRC019	14	1	Weathered pegmatite?
DSRC020	2	10	Pegmatite
DSRC020	20	2	Pegmatite
DSRC020	24	6	Pegmatite
DSRC020	47	3	Pegmatite

Hole	From (m)	Interval (m)	Logged lithology
DSRC021	0	6	Pegmatite
DSRC021	10	3	Pegmatite
DSRC021	17	2	Pegmatite
DSRC021	20	4	Pegmatite
DSRC021	39	3	Pegmatite
DSRC021	101	1	Pegmatite
DSRC022	0	30	Pegmatite
DSRC022	35	1	Weathered pegmatite
DSRC022	39	3	Pegmatite
DSRC022	76	1	Pegmatite
DSRC022	78	1	Pegmatite
DSRC022	81	2	Pegmatite
DSRC022	84	14	Pegmatite
DSRC022	99	4	Pegmatite
DSRC023	0	36	Pegmatite
DSRC023	42	6	Pegmatite
DSRC023	71	7	Pegmatite
DSRC023	81	1	Pegmatite
DSRC023	115	2	Pegmatite with interleaved biotite schist at 116m
DCRC001	11	1	Pegmatite
DCRC002	3	2	Pegmatite
DCRC002	7	1	Pegmatite
DCRC002	10	1	Pegmatite
DCRC002	32	2	Pegmatite with abundant muscovite
DCRC002	48	1	Pegmatite with abundant muscovite
DCRC002	59	5	Pegmatite with abundant muscovite
DCRC002	71	6	Pegmatite with abundant muscovite
DCRC002	78	3	Pegmatite
DCRC003	4	1	Pegmatite
DCRC003	9	1	Pegmatite
DCRC003	16	1	Pegmatite
DCRC003	22	2	Pegmatite
DCRC003	28	1	Pegmatite with abundant muscovite
DERC001	13	2	Pegmatite
DERC001	19	2	Pegmatite
DERC002	5	1	Pegmatite
DERC002	15	2	Pegmatite
DERC003	2	4	Pegmatite
DERC003	28	2	Pegmatite
DERC004	11	4	Pegmatite

# JORC Code, 2012 Edition – Table 1 report template

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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 handheld 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 warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation drilling method using a Fixed Cyclone Cone Splitter to obtain one metre intervals from which a ~3.0 kg sample was split and collected for laboratory analysis.</li> <li>Pegmatite intervals were sampled as one (1) metre intervals of the split sample direct from the Cone Splitter.</li> <li>Country rock intervals were sampled as three (3) metre composites using an aluminum scoop to produce a nominal ~3.0 kg sample collected from the one metre intervals.</li> <li>All samples were submitted using Chain of Custody to a NATA accredited laboratory, Intertek Genalysis, Kalgoorlie.</li> <li>Primary preparation of RC samples included being sorted, weighed and dried at 105°C. Dried samples are then crushed through a Boyd Crusher to 2 mm and split through a Rotary Splitter, approximately 2.7 kg are retained, and excess is discarded. All samples are then pulverised in an LM5 Pulveriser for five to six minutes to achieve 85% passing 75um. Samples are then barcoded and sent to the Perth laboratory for analysis.</li> <li>All samples were analysed at Intertek Genalysis, Perth using one analytical method: 4A/MS48, 48 element analysis using mass spectrometry (MS); where samples exceed &gt;500 ppm Li, an additional method FP1-Li/MS applied.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>Drill type (eg 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 core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>A Schramm 685 Reverse Circulation (RC) drilling rig cut a face-sample using a 5-3/8 inch (137 mm) diameter hammer bit.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <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 samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>RC chip recoveries were logged using quantitative estimates recorded every metre interval.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</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>	<ul style="list-style-type: none"> <li>RC chips were geologically logged (lithology, alteration, mineralisation, structure, weathering) using qualitative and quantitative measures, recorded every metre interval.</li> <li>RC chips were photographed in chip trays by hole.</li> <li>RC chips have been transported to Adelaide.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The sample size of ~3.0 kg is considered appropriate for the style of deposit being sampled.</li> <li>• Each metre of drilling was split using a Fixed Cyclone Cone Splitter and sampled as one metre intervals.</li> <li>• Pegmatite intervals were sampled as one (1) metre intervals of the split sample direct from the Cone Splitter.</li> <li>• Country rock intervals were sampled as three (3) metre composites using an aluminum scoop to produce a nominal ~3.0 kg sample collected from the one metre intervals.</li> <li>• Preparation of samples by SP02 method, dry and pulverize.</li> <li>• 48 multi-element package analysis by four-acid digest followed by mass spectrometry (MS) to include: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn, Zr.</li> <li>• Lithium analysis for samples &gt;500 ppm Li by sodium peroxide fusion zirconium crucible followed by mass spectrometry (MS).</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Duplicate samples and Certified Reference Material (Standards and Blanks) were inserted every 10 samples, i.e. one Duplicate, one Standard and one Blank sample every 30 metres that maintains 10% quality control procedure for laboratory assays.</li> <li>• All samples were submitted to NATA Accredited Laboratory, Intertek Genalysis.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Sampling techniques are considered industry standard for exploration purposes.</li> <li>• Sampling techniques and hygiene was monitored throughout the program by Company and contract geologists.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill hole collar locations were surveyed +/-5 metres averaged with a handheld GPS, Garmin GPSMAP 66sr model. This is considered a suitable survey method for exploration purposes.</li> <li>• Grid system for the Higginsville Project is GDA94 (MGA) Zone 51.</li> <li>• Elevation data was recorded +/-10 metres with averaged with a handheld GPS, Garmin GPSMAP 66sr model.</li> <li>• Downhole surveys were recorded by the drilling contractor using a Gyro multi-shot survey tool after completion of drilling. Downhole azimuth and dip angles were recorded every 30 metres.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drillholes at the Darson South prospect were planned to drill for the purposes of sectional interpretation; four drillholes on each traverse spaced 25 metres E-W on traverses spaced 50 metre N-S, angled holes toward 90° planned to target depths of 100 metres to allow for a 9.5 metre overlap on section. In addition, a scissor hole was drilled toward 270° on most traverses to identify whether there was more than one orientation of the intersected pegmatites.</li> <li>• Drillholes at Darson Central and Darson East prospects comprised one to two E-W drill traverses with one to two drillholes toward 90° and one scissor drillhole toward 270°.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Drillholes were planned by geological prospecting based on orientations of subcropping pegmatites.</li> <li>Due to the unknown pegmatite orientations, a scissor hole was drilled on most traverses.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>The Chain of Custody for sample dispatch comprised samples collected in calico bags were collected at the drill site in polywoven bags and secured using cable ties, remained at the drill site until transported direct to the freight pick-up designated location on approximately half-weekly basis and freighted to Intertek Genalysis in Kalgoorlie on the same day as pick-up. Sample submission forms were provided to the laboratory and monitored via online submission tracking, LabTrak.</li> <li>Samples were progressively submitted to the laboratory throughout the drilling campaign. A total of three submissions of RC chip samples was conducted in ongoing consultation with laboratories.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>The Cone Splitter attached to the drilling rig was levelled and inspected every metre by the drilling contractors and cleaned using a handheld air compressor hose.</li> <li>Sampling techniques and hygiene was monitored throughout the program by Company and contract geologists.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title 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 licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Darson Prospect areas are located within Exploration Licence E15/1489, Higginsville project. The Exploration Licence is operated under the Eastern Goldfields New Joint Venture and Royalty Agreement that is operated by Argonaut Resources NL (80%) in joint venture with Loded Dog Prospecting Pty Ltd (20%).</li> <li>The Higginsville project is situated within the Ngadju Native Title Claim (WC99/002).</li> <li>Appropriate approvals were sought prior to drilling and include a Heritage Survey conducted by members of the Ngadju Native Title Aboriginal Corporation RNTBC and a Program of Works approved by the Department of Mines, Industry Regulation and Safety, Government of Western Australia.</li> <li>No other known impediments.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Resolute Samantha Limited (early to mid 1990's) conducted soil sampling, mapping, rock chip sampling. Shallow blade refusal Aircore drilling in early 1990's over the Amorphous gold in soil anomaly. RAB and RC drilling in 1994 at Amorphous.</li> <li>Australian Gold Resources Pty Ltd (mid 2000's) conducted soil sampling, RAB drilling on selected traverses over gold in soil anomalies. Follow-up RC drilling at Amorphous.</li> <li>Previous mapping by the Western Australian Geological Survey have pegmatite mapped within the licence area on the 1:250,000 Cowan mapsheet.</li> <li>There has been no known exploration for Lithium-Caesium-Tantalum 'LCT' pegmatites within the area of the Darson Prospect other than that conducted by the Company.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Geology</b>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The Higginsville project area is located within the Archaean Yilgarn Craton, Western Australia, within the Coolgardie Domain of the Norseman–Wiluna Greenstone Belt that hosts the large Mt Marion Lithium Project and a growing number of Lithium Caesium Tantalum (LCT) pegmatite occurrences including Bald Hill and Buldania (Crook, 2019). The Coolgardie Domain is dominated by two large granitoid domes - the Pioneer and Widgiemooltha Domes. The Pioneer Dome consists of a granitoid core that has intruded older Archaean gneiss (Fifty Mile Tank Gneiss) and a greenstone sequence. The greenstone sequence comprises a mafic suite stratigraphically overlain by a thick sedimentary sequence. Pegmatites have preferentially intruded into the greenstone sequence. The East Pioneer pegmatite corridor comprises pegmatite dykes intruded into both the gneiss and greenstones (Griffin, 1990). The pegmatites typically display mineralogical zonation. The pegmatite wall zones typically consist of quartz, K and Na feldspars, and muscovite, while the distal pegmatite core consists of quartz, potassium feldspar (microcline), micas (lepidolite, zinnwaldite), petalite and pollucite (where present), tourmaline, and beryl. Late-stage sodium feldspar (cleavelandite) zones cross cut this zonation. Less deformed pegmatites consistently cross cut more deformed pegmatites, suggesting that there were several episodes of pegmatite intrusion. Outcrop within the assessed tenement areas is generally poor, with areas of Quaternary soil cover and colluvium and alluvium wash zones within drainage areas.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>• <i>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:</i> <ul style="list-style-type: none"> <li>– easting and northing of the drill hole collar</li> <li>– elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole 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>• <i>If the exclusion of this information is justified on the basis 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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• See drill hole collar file; Table – Higginsville Project – Darson Prospect Drill Hole Locations.</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>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 detail.</i></li> <li>• <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Weighted average Li<sub>2</sub>O assays within the report are calculated using 0.5% Li<sub>2</sub>O lower cut-off grade, minimum thickness of one metre.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• <i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <i>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').</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drillholes were oriented approximately perpendicular to strike of outcropping and subcropping pegmatite units where possible, and/or on results of surface geochemistry.</li> <li>• Drillholes intersected pegmatites of varying thicknesses of between 6 and 36 metre intervals. Based on drilling thicknesses of logged pegmatites, true thicknesses are estimated to be approximately 70% of intersected widths.</li> </ul>



Criteria	JORC Code explanation	Commentary
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to figures within report.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Reporting comprises information specifically on pegmatite intervals and assays of intervals collected of pegmatite lithologies.</li> <li>• The Company believes the report is balanced for reporting purposes.</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <i>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, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Surface geochemistry (soil sampling of the B horizon) has been progressing through March and April 2023. Samples have been collected on a 25 m by 50 m, 50 m by 50 m, 50 m by 100 m and 50 m by 200 m grid spacing patterns and samples have been progressively submitted to the laboratory for analysis to assist with the planning of RC drillholes.</li> <li>• Rock chip sampling and mapping of outcropping and subcropping pegmatites has been progressively conducted to assist with the planning of RC drillholes.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up surface geochemistry (soil sampling and rock chip sampling) continues and is currently in progress.</li> <li>• Further RC drilling in areas identified from the results of surface geochemistry is planned.</li> <li>• Follow-up RC drilling in areas identified from the initial phase of drilling, targeting the pegmatite intervals at depth and in areas untested along strike.</li> <li>• Possible diamond drilling of pegmatite intersections to better constrain orientations of pegmatite units.</li> </ul>

Project	Prospect	Hole ID	Total depth	Drill type	Easting	Northing	Dip	Azim Mag
Higginsville	Darson South	DSRC001	120	RC	370837	6480950	-70	270
Higginsville	Darson South	DSRC002	102	RC	370837	6480950	-70	90
Higginsville	Darson South	DSRC003	102	RC	370812	6480950	-70	90
Higginsville	Darson South	DSRC004	132	RC	370787	6480950	-70	90
Higginsville	Darson South	DSRC005	102	RC	370762	6480950	-70	90
Higginsville	Darson South	DSRC006	120	RC	370837	6481000	-70	270
Higginsville	Darson South	DSRC007	108	RC	370837	6481000	-70	90
Higginsville	Darson South	DSRC008	120	RC	370812	6481000	-70	90
Higginsville	Darson South	DSRC009	120	RC	370787	6481000	-70	90
Higginsville	Darson South	DSRC010	120	RC	370762	6481000	-70	90
Higginsville	Darson South	DSRC011	120	RC	370837	6481050	-70	270
Higginsville	Darson South	DSRC012	120	RC	370837	6481050	-70	90
Higginsville	Darson South	DSRC013	120	RC	370812	6481050	-70	90
Higginsville	Darson South	DSRC014	120	RC	370787	6481050	-70	90
Higginsville	Darson South	DSRC015	120	RC	370762	6481050	-70	90
Higginsville	Darson South	DSRC016	102	RC	370812	6481100	-70	90
Higginsville	Darson South	DSRC017	102	RC	370787	6481100	-70	90
Higginsville	Darson South	DSRC018	102	RC	370762	6481100	-70	90
Higginsville	Darson South	DSRC019	126	RC	370837	6481100	-70	270
Higginsville	Darson South	DSRC020	102	RC	370810	6481260	-70	225
Higginsville	Darson South	DSRC021	108	RC	370790	6481240	-70	45
Higginsville	Darson West	DSRC022	120	RC	370635	6481750	-70	90
Higginsville	Darson West	DSRC023	120	RC	370675	6481750	-70	270
Higginsville	Darson Central	DCRC001	108	RC	371160	6481600	-70	90
Higginsville	Darson Central	DCRC002	102	RC	371185	6481600	-70	90
Higginsville	Darson Central	DCRC003	102	RC	371210	6481600	-70	270
Higginsville	Darson East	DERC001	102	RC	371310	6482600	-70	90
Higginsville	Darson East	DERC002	102	RC	371340	6482600	-70	270
Higginsville	Darson East	DERC003	42	RC	371320	6482500	-70	90
Higginsville	Darson East	DERC004	60	RC	371320	6483150	-70	90