

## NEW NICKEL SULPHIDE DISCOVERY AT GOLDEN RIDGE

### 22 metres at 1.02% Ni and 475ppm Cu at Leo's Dam Nickel Prospect

**Perth, Western Australia, 25 January 2018:** Pioneer Resources Limited ("Pioneer" or the "Company" (ASX: PIO)) is pleased to announce it has intersected significant nickel sulphide mineralisation in recently completed drilling at its 100%-owned Golden Ridge Project in the Eastern Goldfields of Western Australia.

The Company advises that drilling at the Leo's Dam Prospect within the Golden Ridge project area has returned a highly significant nickel sulphide intersection of **22m at 1.02% Ni and 475ppm Cu from 202m**.

Results of the Company's cobalt-focused drilling at the Project were released to the ASX on 24 January 2018.

The results of this phase of drilling validate and strengthen Pioneer's geological model for the Golden Ridge Project, and it will now make plans for the next phase of field work at the Project as a priority.

### The Discovery of a Broad Zone of Disseminated Nickel Sulphides at Leo's Dam Validates the Blair Dome Structural Model and Enhances the Projects Prospectivity.

In an announcement to ASX dated 20 July 2015 the Company outlined an advance in the geological model for the Golden Ridge Project, including the proposition that an ultramafic dome (Figures 3a and 3b) is the dominant geological structure for the Project. This is analogous to other major nickel sulphide mining camps located to the south of the Blair Nickel Mine (within the Golden Ridge Project), such as Kambalda and Widgiemooltha.

An additional hole drilled at the Leo's Dam Prospect has provided further validation to this model, through the intersection of significant nickeliferous sulphides.

- **GRRC38: 22m at 1.02% Ni and 475ppm Cu from 202m**

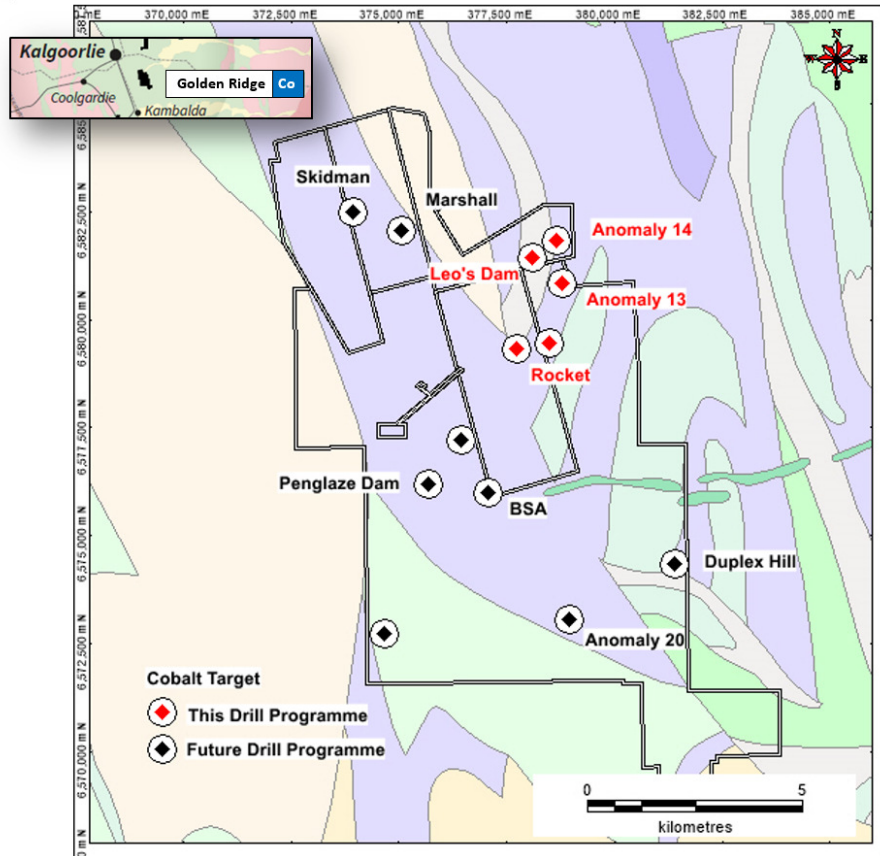
Including:

- **3m at 1.27% Ni and 526 ppm Cu from 202m**
- **4m at 1.23% Ni and 503 ppm Cu from 213m**
- **4m at 1.08% Ni and 616 ppm Cu from 220m**

Samples have been submitted for additional analysis and petrographic description, and results will be conveyed to the market when received.

### Notes on GRRC38 from Pioneer's Consultant Geochemist.

- Disseminated Ni sulphides are associated with two host rocks:
  - Peridotite: best intersection 3m at 0.82% Ni and 157 ppm Cu from 170m
  - Pyroxenite: best intersection 22m at 1.02% Ni and 473ppm Cu from 202m.
- The sulphides are probably hydrothermally remobilised in origin.
- The sulphides are considered very high tenor: Peridotite nickel tenor of ~53%; Pyroxenite ~32%



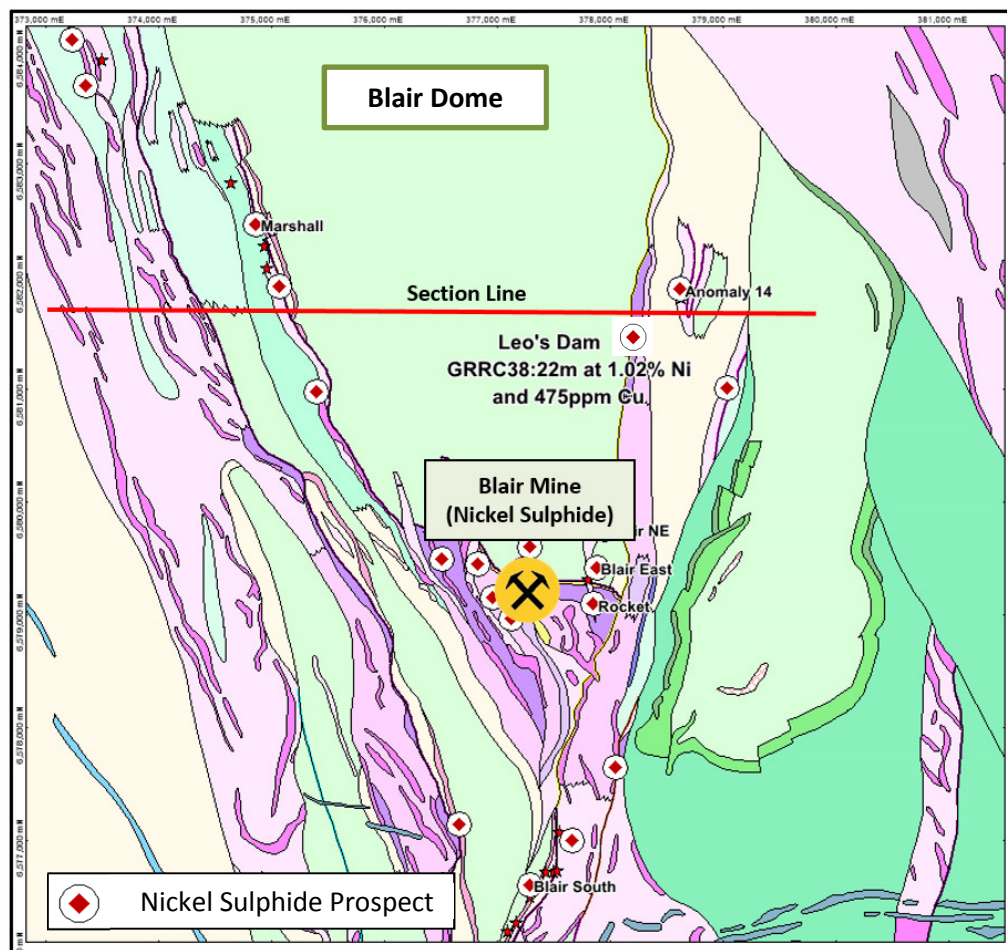
**Figure 1:** Golden Ridge Project Tenements and Prospect Map. The Project is located 30km southeast of Kalgoorlie, W.A.

## Positive Nickel Sulphide Vectors

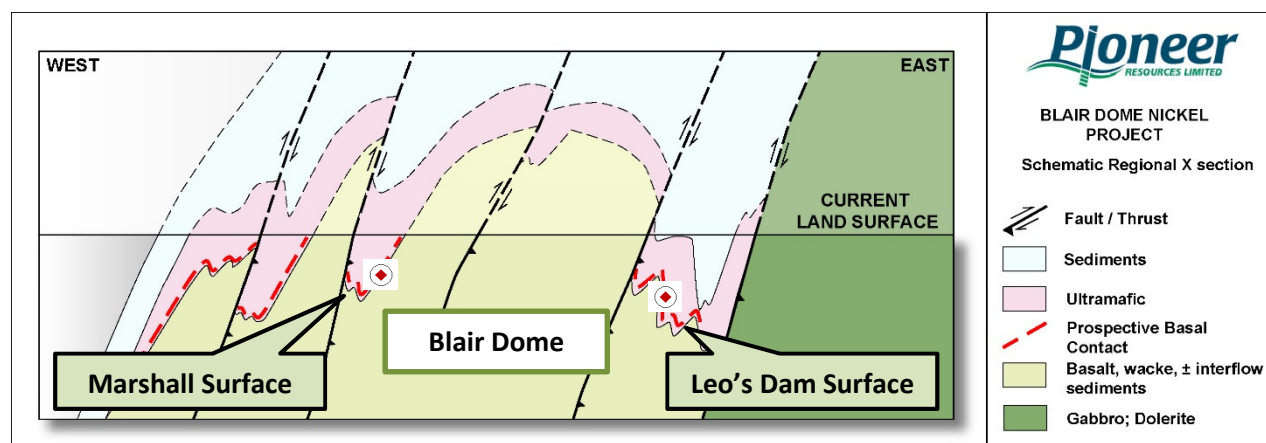
In addition to hole GRRC38, based on ratios of elements including Ni, Cr, Mg and Cu; holes GRRC10 and GRRC028 have anomalous geochemistry that suggest proximity to nickel sulphide mineralisation).

**Table 1: Significant Nickel Results from RC Drilling**

Hole ID	Prospect	From (m)	To (m)	Intersection
GRRC10	Anomaly 14	92	95	3m at 1.08% Ni and 1074ppm Cu
and		103	111	8m at 0.82% Ni and 864ppm Cu
GRRC28	Leo's Dam	84	89	5m at 0.84% Ni and 302ppm Cu
and		99	102	3m at 0.86% Ni and 532ppm Cu
GRRC38	Leo's Dam	170	173	3m at 0.82% Ni and 157ppm Cu
and		192	194	2m at 0.91% Ni and 120ppm Cu
and		202	224	22m at 1.02% Ni and 475ppm Cu Including nickel sulphides



**Figure 3a:** Plan view of the Blair Dome showing the Blair Nickel Sulphide Mine and the location of Leo's Dam and drill hole GRRC38, which returned 22m at 1.02% Ni and 475ppm Cu from 202m.



**Figure 3b:** Conceptual geological cross section through the Blair Dome at the Section Line shown on Figure 3a.

**Figure 3a and b:** In an announcement to ASX dated 20 July 2015 the Company proposed an alternative geological model for the Golden Ridge Project. This model invokes a mafic-ultramafic dome referred to as the Blair Dome, with at least 12km of demonstrably prospective basal ultramafic contact target zone outside of the immediate Blair Nickel Mine Deposit.

The Blair Dome is analogous, both geologically and in size, with other ultramafic domes at Kambalda, Tramways and Widgiemooltha, which all host major nickel sulphide mines

## Further Information about the Golden Ridge Project

The Golden Ridge Project covers an area of 115 km<sup>2</sup> of the Blair Dome and is located 30 kilometres south east of Kalgoorlie, WA. The Project is considered highly prospective for primary nickel sulphide mineralisation as well as lateritic cobalt mineralisation hosted within a well-developed weathered-ultramafic rock mantle.

The Project is well serviced by existing infrastructure due to its proximity to the modern mining centre of Kalgoorlie. The Project hosts the Company's Blair Nickel Mine, where mining ceased in 2008.

During 2017, 3 stratigraphic holes were drilled, partially funded by a grant of funds from the Exploration Incentive Scheme (EIS), a State Government initiative that aims to encourage exploration in Western Australia. The stratigraphic sequence observed was consistent with the "Blair Dome" model.

## The Blair Nickel Mine

The Mineral Resource estimate for the Blair Nickel Mine is: 222,710t of nickel sulphide ore with a grade of 2.92% Ni, as summarised by category in Table 2 below:

**Table 2. Mineral Resource Summary by Category: Blair Nickel Mine**

<b>Class</b>	<b>Tonnes</b>	<b>Ni</b>	<b>Ni Metal</b>
	<b>(t)</b>	<b>(%)</b>	<b>(t)</b>
Indicated	75,560	4.37	3,300
Inferred	147,150	2.18	3,210
Total	222,710	2.92	6,510

### Notes

- Appropriate rounding applied
- Announced to ASX 18 November 2013

## OUTLOOK

Nickel sulphides discovered at Leo's Dam have reinforced the Blair Dome exploration model and the regional fertility of specific ultramafic environments.

- Petrography: Samples have been submitted for description, to better understand the genesis of the nickel mineralisation;
- Further drilling along the fertile prospective contact: Nickel sulphides form in specific geological environments and drilling coupled with litho-geochemistry is used to identify and confirm rock units that are prospective. Early diamond core drilling provides the greatest geological information;
- Down-hole Electromagnetic (EM) surveys are used to identify conductive rock units (which may include nickel sulphides) adjacent to a prospective drill hole.

ENDS



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**Table 3: Selected Assay Results.**

Hole ID	From	To	Ni	Cu	Zn	Mn	Al	Cr	Fe	Mg	S	Co
	(m)	(m)	(pct)	(ppm)	(ppm)	(ppm)	(pct)	(ppm)	(pct)	(pct)	(pct)	(pct)
GRRC10	90	91	0.44	373	174	3062	3.05	2497	14.1	11.73	0.06	0.04
GRRC10	91	92	0.70	595	290	2031	2.82	3096	15.55	11.29	0.06	0.05
GRRC10	92	93	1.18	1034	626	395	3.19	5201	15.99	11.02	0.05	0.05
GRRC10	93	94	1.13	1100	430	823	2.91	3446	15.75	8.62	0.06	0.05
GRRC10	94	95	0.92	1089	368	1211	2.92	3389	17.12	6.28	0.06	0.04
GRRC10	95	96	0.70	694	344	5504	2.91	3219	18.83	6.58	0.07	0.07
GRRC10	96	97	0.50	417	241	2906	3.25	3493	14.57	9.52	0.08	0.04
GRRC10	97	98	0.61	548	186	7942	2.62	2755	24.09	7.88	0.08	0.05
GRRC10	98	99	0.59	534	183	7363	2.70	3043	23.19	8.15	0.08	0.05
GRRC10	99	100	0.29	289	107	1488	3.88	3244	9.2	12.42	0.07	0.03
GRRC10	100	101	0.40	358	148	2424	2.91	2874	21.75	9.00	0.06	0.03
GRRC10	101	102	0.47	730	185	6911	3.06	3119	15.99	10.86	0.07	0.07
GRRC10	102	103	0.57	999	404	786	3.49	4511	13.61	10.61	0.07	0.02
GRRC10	103	104	0.76	855	441	3839	2.96	3468	14.76	10.79	0.06	0.04
GRRC10	104	105	0.89	932	366	7984	2.81	2751	17.4	9.65	0.06	0.09
GRRC10	105	106	0.73	769	377	4793	2.61	2675	14.75	8.20	0.06	0.06
GRRC10	106	107	0.81	844	391	5566	2.60	2298	13.97	8.94	0.05	0.07
GRRC10	107	108	0.73	600	359	1557	3.04	2274	11.75	9.68	0.07	0.03
GRRC10	108	109	0.91	799	241	14489	2.22	1847	11.57	4.04	0.07	0.07
GRRC10	109	110	0.74	939	198	17235	2.27	2002	16.81	3.26	0.07	0.05
GRRC10	110	111	0.97	1174	184	10963	3.02	3142	12.67	8.22	0.06	0.04
GRRC10	111	112	0.69	597	101	864	2.73	2881	9.6	14.18	0.04	0.02
GRRC10	112	113	0.53	512	85	489	2.26	2451	7.24	15.03	0.04	0.02
GRRC10	113	114	0.63	695	91	629	2.59	2852	12.14	14.14	0.05	0.02
GRRC10	114	115	0.72	761	93	786	2.12	2487	16.72	12.57	0.05	0.02
GRRC10	115	116	0.58	475	75	283	2.41	2343	11.22	14.48	0.05	0.02
GRRC10	116	117	0.60	442	78	379	2.32	2059	12.48	14.29	0.05	0.02
GRRC10	117	118	0.58	300	85	353	2.29	2136	12.61	14.74	0.05	0.02
GRRC10	118	119	0.49	296	79	273	2.27	1906	10.66	15.79	0.04	0.02
GRRC28	78	79	0.65	450	218	447	1.47	2023	11.42	14.46	0.04	0.02
GRRC28	79	80	0.63	466	159	222	1.37	2199	10.26	14.89	0.03	0.01
GRRC28	80	81	0.73	552	152	268	1.40	2361	11.03	14.47	0.04	0.02
GRRC28	81	82	0.76	694	143	260	1.44	2466	11.03	14.44	0.04	0.02
GRRC28	82	83	0.73	805	103	139	1.29	2142	10.02	13.98	0.04	0.01



Hole ID	From	To	Ni	Cu	Zn	Mn	Al	Cr	Fe	Mg	S	Co
	(m)	(m)	(pct)	(ppm)	(ppm)	(ppm)	(pct)	(ppm)	(pct)	(pct)	(pct)	(pct)
GRRC28	83	84	0.72	464	94	110	1.40	1992	9.27	15.24	0.04	0.01
GRRC28	84	85	0.87	377	97	83	1.56	1949	10.43	14.90	0.04	0.02
GRRC28	85	86	0.91	374	97	76	1.59	2029	10.2	14.82	0.04	0.02
GRRC28	86	87	0.86	353	103	102	1.79	2057	8.93	15.53	0.04	0.02
GRRC28	87	88	0.80	243	110	115	1.44	2063	10.83	14.88	0.04	0.02
GRRC38	168	169	0.39	42	30	545	0.83	853	5.64	21.13	0.02	0.01
GRRC38	169	170	0.65	166	26	1147	0.79	904	5.11	21.26	0.19	0.02
GRRC38	170	171	0.78	168	27	646	0.85	921	6.11	20.97	0.26	0.02
GRRC38	171	172	0.73	127	27	565	0.89	860	6.34	21.34	0.25	0.02
GRRC38	172	173	0.95	176	27	816	0.82	828	5.63	21.03	0.40	0.03
GRRC38	173	174	0.55	83	28	780	0.85	813	5.55	21.47	0.14	0.02
GRRC38	191	192	0.26	21	29	526	0.76	1134	5.88	21.29	0.02	0.01
GRRC38	192	193	0.86	111	33	679	0.80	1295	6.51	20.58	0.54	0.03
GRRC38	193	194	0.97	129	27	711	0.66	1294	6.61	20.27	0.76	0.04
GRRC38	194	195	0.72	98	27	761	0.68	1348	6.62	20.21	0.60	0.03
GRRC38	199	200	0.50	112	22	2378	0.61	642	3.05	18.70	0.29	0.01
GRRC38	200	201	0.51	329	47	1300	1.05	1557	5.13	20.45	0.31	0.01
GRRC38	201	202	0.79	485	38	3725	0.92	1237	6.27	9.10	0.76	0.02
GRRC38	202	203	1.23	451	36	4503	1.06	1515	8.9	5.15	1.26	0.03
GRRC38	203	204	1.28	560	39	5765	0.99	1720	9.51	3.03	1.25	0.03
GRRC38	204	205	1.29	568	39	5953	1.08	1624	8.7	2.05	1.16	0.03
GRRC38	205	206	0.87	530	37	6151	0.92	1506	10.28	2.09	0.82	0.02
GRRC38	206	207	0.93	583	41	5731	0.96	1578	9.61	2.07	0.81	0.02
GRRC38	207	208	0.99	499	39	4716	1.01	1441	9.25	2.15	0.83	0.02
GRRC38	208	209	1.00	452	38	4287	1.22	1541	8.13	2.68	0.78	0.02
GRRC38	209	210	0.96	408	36	4659	1.17	1513	8.23	2.52	0.74	0.02
GRRC38	210	211	0.99	398	54	4376	1.19	1792	8.38	3.21	0.74	0.02
GRRC38	211	212	0.91	370	51	4521	1.20	1991	9.21	3.52	0.67	0.02
GRRC38	212	213	0.95	379	51	6243	1.10	2258	13.38	4.27	0.73	0.02
GRRC38	213	214	1.03	384	55	7498	1.08	2335	15.83	3.19	0.93	0.03
GRRC38	214	215	1.33	492	37	4356	1.54	2644	8.82	3.57	1.12	0.03
GRRC38	215	216	1.23	421	61	5303	1.37	5627	10.99	3.19	1.03	0.03
GRRC38	216	217	1.33	715	66	3809	2.07	8938	9.56	3.26	1.25	0.04
GRRC38	217	218	0.76	229	38	4641	1.22	2933	7.46	2.56	0.70	0.02
GRRC38	218	219	0.30	97	34	4616	1.43	2554	7.34	2.41	0.24	0.01
GRRC38	219	220	0.92	460	31	4288	1.88	2165	7.57	2.83	0.93	0.02
GRRC38	220	221	1.23	607	49	4285	1.60	3339	8.56	3.01	1.29	0.03
GRRC38	221	222	1.03	424	43	5023	1.85	3634	7.84	2.36	1.13	0.03
GRRC38	222	223	0.94	565	56	4055	1.88	1974	6.87	2.85	0.97	0.02
GRRC38	223	224	1.12	869	68	2433	1.64	3193	8.22	5.50	1.43	0.02
GRRC38	224	225	0.72	473	39	1765	1.26	2130	6.8	5.60	0.89	0.02
GRRC38	225	226	0.50	304	33	3062	1.20	1604	7.41	3.14	0.56	0.02
GRRC38	226	227	0.17	59	30	3372	1.57	1288	7.19	4.33	0.13	0.01
GRRC38	227	228	0.14	43	37	2999	1.72	1492	6.44	4.08	0.09	0.01

## About Pioneer Resources Limited

Pioneer is an active exploration company focused on key global demand-driven commodities. The Company operates a portfolio of strategically located lithium, caesium, nickel, cobalt and gold projects in mining regions in Western Australia, plus a portfolio of high quality lithium assets in Canada.

### Pioneer Dome Project, WA

Caesium occurs in the mineral pollucite, a rare mineral that forms in extremely differentiated LCT pegmatite systems. It is primarily used in the manufacture of Caesium Formate brine, a high value, high density fluid used in high temperature/high pressure oil and gas drilling.

### Mavis Lake and Raleigh Projects, Canada; Pioneer Dome Project, WA

Lithium has been classed as a 'critical metal' meaning it has a number of important uses across various parts of the modern, globalised economy including communication, electronic, digital, mobile and battery technologies; and transportation, particularly aerospace and automotive emissions reduction. Critical metals seem likely to play an important role in the nascent green economy, particularly solar and wind power; electric vehicle and rechargeable batteries; and energy-efficient lighting.

### Golden Ridge Project, WA

Cobalt is a global demand-driven commodity, with demand expanding in response to its requirement in the manufacture of cobalt-based batteries in certain electric vehicles and electricity stabilisation systems (powerwalls). Other uses for cobalt include in the manufacture of super-alloys, including jet engine turbine blades, and for corrosion resistant metal applications.

### Blair Dome/Golden Ridge Project, WA

The Company also owns the closed Blair Nickel Sulphide Mine located between Kalgoorlie and Kambalda, WA, where near-mine target generation is continuing.

#### Notes

1. Blair: Refer Company's announcements to ASX dated 18 November 2013 (Blair Resource Estimate), May 2014, 27 January 2015, 18 May 2015, 20 July 2015, 13 April 2017, 23 January 2018.
2. Further information is included in quarterly activity reports commencing in September 2008.

## Competent Person

The information in this report that relates to Exploration Results is based on information supplied to and compiled by Mr David Crook. Mr Crook is a full time employee of Pioneer Resources Limited and a member of The Australasian Institute of Mining and Metallurgy (member 105893) and the Australian Institute of Geoscientists (member 6034). Mr Crook has sufficient experience which is relevant to the exploration processes undertaken to qualify as a Competent Person as defined in the 2012 Editions of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr Crook consents to the inclusion of the matters presented in the announcement in the form and context in which they appear.

## Caution Regarding Forward Looking Information

This Announcement may contain forward looking statements concerning the projects owned or being earned in by the Company. Statements concerning mining reserves and resources may also be deemed to be forward looking statements in that they involve estimates based on specific assumptions.

Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward-looking statements are inherently subject to business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause the Company's actual results to differ materially from those expressed or implied in any forward-looking information provided by the Company, or on behalf of, the Company. Such factors include, among other things, risks relating to additional funding requirements, metal prices, exploration, development and operating risks, competition, production risks, regulatory restrictions, including environmental regulation and liability and potential title disputes.

Forward looking statements in this document are based on the Company's beliefs, opinions and estimates of the Company as of the dates the forward-looking statements are made, and no obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

There can be no assurance that the Company's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that the Company will be able to confirm the presence of additional mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of the Company's mineral properties. Circumstances or management's estimates or opinions could change. The reader is cautioned not to place undue reliance on forward-looking statements.

## Appendix 1. Drill Hole Information and Results Summary, Golden Ridge

**Table 4: RC Drill hole Information for Holes Referred to Herein**

Prospect	Hole ID	Type	Depth	Grid	Easting	Northing	RL	Dip	Azimuth	Date Completed
Anomaly 14	GRRC010	RC	126	MGA94_51	378690	6581780	363	-90	360	20/11/2017
Leo Dam	GRRC028	RC	108	MGA94_51	378225	6581370	361	-90	360	24/11/2017
Leo Dam	GRRC038	RC	246	MGA94_51	378100	6581385	361	-60	90	26/11/2017

Notes:

- Hole locations are in MGA 94 zone 51 by handheld GPS +/- 3m accuracy.
- The azimuth is in degrees magnetic.



## Appendix 2 - JORC Code, 2012 Edition – Table 1 Report

### Section 1 - Sampling Techniques and Data

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

#### Golden Ridge Project.

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut Faces, 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> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation (RC) samples from holes drilled from surface reported.</li> <li>Single metre samples were collected in calico bags via a cone splitter directly from the cyclone on the RC drill rig. Three metre composite samples for intervals that were considered to have low Co and/or Ni element concentrations from the pXRF data were collected from the sample piles via an aluminium scoop.</li> <li>pXRF analysis was undertaken on each sample using a Bruker S1 Titan 800 handheld portable XRF analyser.</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul style="list-style-type: none"> <li>Industry-standard reverse circulation drilling, using a face-sampling hammer with a booster and auxiliary compressors used to ensure dry samples.</li> <li>Individual one metre samples were collected using a cyclone and a cone splitter into sub samples of approximately 3.5kg weight, the cyclone was regularly cleaned to minimise contamination.</li> <li>Duplicate samples and Certified Reference Standards were inserted at regular intervals to provide assay quality checks. The standards and duplicates reported within acceptable limits.</li> </ul>
	<ul style="list-style-type: none"> <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 was used to obtain 1 m samples from which approximately 3.5 kg sampled.</li> <li>3.5kg samples were crushed and pulverised by pulp mill to nominal P80/75um to produce a 50 gram charge for analysis.</li> <li>Standard exploration package of elements were analysed by a four acid digestion with a Mass Spectrometer (MS) determination (Intertek analysis code 4A/OE33). The quoted detection limits for this method are a lower detection limit of 1ppm and an upper detection of 2% Co. Most other elements have a similar analytical range. Any over range samples were re analysed by a sodium peroxide zirconium crucible fusion analysed by inductively coupled plasma optical (atomic) emission spectrometry (Intertek analysis code FP1/OE).</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>Reverse Circulation Drilling. <ul style="list-style-type: none"> <li>4.5 inch drill string.</li> <li>5.25 - 5.75 inch Face-sampling hammer.</li> <li>Auxiliary and Booster compressors used to exclude ground water.</li> </ul> </li> </ul>

Criteria	JORC Code explanation	Commentary
<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> </ul>	<ul style="list-style-type: none"> <li>During drilling the geologist recorded occasions when sample quality is poor, sample return was low, when the sample was wet or compromised in another way.</li> </ul>
	<ul style="list-style-type: none"> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	<ul style="list-style-type: none"> <li>Sample recovery is generally good for RC drilling using the equipment described.</li> <li>Sample recovery is mostly under the control of the drill operator and is generally influenced by the experience and knowledge of the operator.</li> </ul>
	<ul style="list-style-type: none"> <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>Because the sample recoveries are assumed to be high, any possible relationship between sample recovery and grade has not been investigated.</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> </ul>	<ul style="list-style-type: none"> <li>Lithological logs exist for these holes in a database. Fields captured include lithology, mineralogy, sulphide abundance and type, alteration, texture, recovery, weathering and colour.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, Face, etc) photography.</li> </ul>	<ul style="list-style-type: none"> <li>Logging has primarily been qualitative.</li> <li>Qualitative litho-geochemistry based on pXRF analyses is used to confirm rock types.</li> <li>A representative sample of each metre is sieved and retained in chip trays for future reference.</li> <li>Petrology of chips from selected samples has not been undertaken.</li> <li>XRD analysis of selected pulps retained from the chemical analysis may be undertaken once all chemical assays have been received.</li> </ul>
	<ul style="list-style-type: none"> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>The entire length of the drill holes were geologically logged.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>Individual one metre samples were collected via a cone splitter directly attached to the cyclone when dry. Some samples were wet and noted on the sample sheets and lithological logs. Individual samples were approximate 3.5kg. The bulk residue was collected via plastic drums and laid out in order on the drill pad.</li> <li>Individual metre samples of the laterite zone that were enriched in elements typically associated with Co-Ni mineralisation, as determined by a portable XRF (Bruker pXRF) were submitted to the laboratory. Three metre composites were collected for the remainder of the drill holes in areas where the pXRF analysis indicated low associated element concentrations. Anomalous three metre composite samples will have single metre samples resubmitted for that interval if necessary.</li> <li>The sample collection, splitting and sampling for this style of drilling is considered standard industry practise.</li> </ul>
	<ul style="list-style-type: none"> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul style="list-style-type: none"> <li>Cyclones are routinely cleaned after each 6m rod.</li> <li>Geologist looks for evidence of sample contamination, which was recorded where present.</li> <li>The use of booster and auxiliary compressors ensures samples are dry where possible, which best ensures a quality sample.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Standard Reference Material is included at a rate of 1 per 30 samples.</li> <li>Duplicate field samples are routinely inserted at a 1 per 30 samples.</li> <li>Laboratory quality control samples were inserted by the laboratory with the performance of these control samples monitored by the laboratory and the company.</li> </ul>
	<ul style="list-style-type: none"> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>The sample size is considered appropriate for the style of deposit being sampled.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	<ul style="list-style-type: none"> <li>The sample preparation and assay method used is considered standard industry practice and is appropriate for the deposit.</li> </ul>
	<ul style="list-style-type: none"> <li>For geophysical tools, spectrometres, 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.</li> </ul>	<ul style="list-style-type: none"> <li>Pioneer owns a Bruker S1 Titan 800 handheld XRF instrument which it used to assist with selecting zones for initial one metre sampling. Zones have been selected due to elevated manganese, nickel, and copper. Intervals not identified as elevated from the pXRF have been sampled with three metre composites.</li> <li>Standards, blanks and duplicates have been analysed with the Bruker to ensure the instrument is operating as expected and correctly calibrated.</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Standards and laboratory checks have been assessed. Most of the standards show results within acceptable limits of accuracy, with good precision in most cases. Internal laboratory checks indicate very high levels of precision.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	<ul style="list-style-type: none"> <li>Significant intersections are calculated by experienced staff with these intersections checked by other staff.</li> </ul>
	<ul style="list-style-type: none"> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul style="list-style-type: none"> <li>Pioneer has a digital SQL drilling database where information is stored.</li> <li>The Company uses a range of consultants to load and validate data, and appraise quality control samples.</li> </ul>
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Pioneer has not applied any adjustment to assay data.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Collar surveys were completed using a hand-held GPS with an accuracy of +/-3 metres.</li> <li>Collars will be picked up later using an RTK-DGPS.</li> </ul>
	<ul style="list-style-type: none"> <li>Specification of the grid system used.</li> </ul>	<ul style="list-style-type: none"> <li>MGA94 (Zone 51)</li> </ul>
	<ul style="list-style-type: none"> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Topographic control is from a Digital Terrain Model (DTM). Once all exploration has been completed the RL of each drill collar will be assigned from this DTM. This is considered adequate for work at the early exploration stage. Once the RTK-DGPS has picked up all collars then this will take precedence in the database.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>As a first pass phase 1 drill program Individual drill hole traverses were drilled between 80m x 40m in some areas to very wide spaced up to 1km apart in others.</li> </ul>
	<ul style="list-style-type: none"> <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> </ul>	<ul style="list-style-type: none"> <li>There has been insufficient work conducted to allow the estimation of a mineral resource.</li> </ul>
	<ul style="list-style-type: none"> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>In most cases reported assays are of 1m samples. Where 3m composite samples are reported, samples are noted in table of results.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>The strike of the mineralisation is estimated at to be broadly north – south across multiple parallel zones and majority flat lying therefore RC drillholes were mostly vertical with some drilling 090 azi and -60 degrees where a steeper westerly dip was interpreted. Cross sections were drawn as the holes progressed to ensure the drilling was optimal to the interpreted orientation of the mineralisation.</li> <li>Down hole intercept widths are estimated to closely approximate true widths based on the interpretation of the cobalt-nickel zones and the orientation of the drilling.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>Pioneer uses standard industry practices when collecting, transporting, and storing samples for analysis.</li> <li>Drilling pulps are retained by Pioneer off site in a designated storage container.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>Sampling techniques for assays have not been specifically audited but follow common practice in the Western Australian exploration industry.</li> <li>The assay data and quality control samples are periodically audited by an independent consultant.</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</li> </ul>	<ul style="list-style-type: none"> <li>The Golden Ridge drilling reported herein is within Mining Leases M26/220 and M26/285 and E26/0186 which is a granted Exploration Licence.</li> <li>The tenements are located approximately 30km SE of Kalgoorlie, WA.</li> <li>Pioneer Resources Limited is the registered holder of the tenements and holds a 100% unencumbered interest in all minerals within the tenements.</li> <li>The tenements are on the Mount Monger Pastoral Lease.</li> <li>The Maduwongga Native Title Claimant Group has a registered Native Title Claim that covers the Golden Ridge Project.</li> </ul>
	<ul style="list-style-type: none"> <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>At the time of this Statement, Mining Leases M26/220 &amp; M26/285 and Exploration Licence E26/0186 is in Good Standing. To the best of the Company's knowledge, other than industry standard permits to operate there are no impediments to Pioneer's operations within the tenements.</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>There has been previous exploration drilling and sampling on the Golden Ridge project. Previous work by Western Mining Corporation (WMC) began in the 1960's Nickel boom and identified the project area as prospective for Ni-Sulphide systems, discovery of the Blair Ni-Sulphide Deposit lead to it's opening in 1990 and produced 32,900t of contained Ni treated in Kambalda before closure in 2008. Australian Mines acquired the Blair Ni Mine and surrounding tenure from WMC in 2005 prior to Pioneer. These Ni-sulphide targets were not systematically explored for Cobalt-Nickel laterite systems.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>The work herein is for nickel sulphide mineralisation. At this time the model is unclear. Most NiS mines in the Kalgoorlie area are komatiite-hosted, however geochemical interpretations suggest that the rock that hosts the Leo's Dam mineralisation may be more mafic, such as a pyroxenite.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <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, including easting and northing of the drill hole collar, elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth plus hole length.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Appendix 1 of this announcement.</li> </ul>

Criteria	JORC Code explanation	Commentary
<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>Intercepts noted are from 1m sample intervals unless stated as three metre composite samples.</li> <li>Intersections are based on a 0.6% (lower) cut-off for Nickel, with supporting copper (nickel sulphide indicator) with a minimum width of 1m, a maximum of three metres internal dilution and no external dilution.</li> <li>No metal equivalent values have been used.</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>Downhole lengths are reported in Appendix 1. The current geological interpretation, based on current RC drilling and historic RAB and aircore drilling, suggests that the true widths are similar to the down hole widths.</li> </ul>
<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 maps and figures in this 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>Comprehensive reporting of drill details has been provided in Appendix 1 of this announcement.</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>All meaningful and material exploration data has been reported.</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>Additional drilling will be undertaken but is not yet defined. 3D modelling of the geology and mineralisation will be carried out.</li> </ul>