NORTHERN STAR
RESOURCES LIMITED

ASX ANNOUNCEMENT
17 March 2016

Australian Securities
Exchange Code: NST

Board of Directors
Mr Chris Rowe
Non-Executive Chairman

Mr Bill Beament
Managing Director

Mr Peter O'Connor
Non-Executive Director

Mr John Fitzgerald
Non-Executive Director

Ms Liza Carpene
Company Secretary

Issued Capital
Shares 600M
Options 4M

Current Share Price A$3.41

Market Capitalisation
A$2 billion

Cash and Cash Equivalents
31 Dec 2015 - A$226 million

Level 1, 388 Hay St
Subiaco WA 6008
T +6 8 6188 2100
F +6 8 6188 2111
E info@nsrltd.com
www.nsrltd.com
ABN: 43 092 832 892

Kanowna Belle production on track to rise by ~50% following more strong drilling results and cost cuts

Kalgoorlie project to play key role in lifting Northern Star's output to 700,000ozpa by CY18 via organic growth

KEY POINTS

- **Recent high-grade drilling results, such as 24.5m at 30.6gpt, show the gold inventory at Kanowna Belle is set to continue growing**
- **Results come from the Velvet discovery adjacent to Kanowna, below and along strike of the existing Kanowna mine and at the 100 per cent-owned Millennium deposit**
- **Outstanding historic results just unearthed as part of a geological review of Kanowna underground show high-grade mineralisation continues below and along strike of current workings. This has the potential to grow mine life materially. The results include:**
  - **43m at 9.7gpt**
  - **24m at 7.9gpt**
  - **50m at 4.7gpt**
  - **11m at 4.1gpt (deepest hole in the orebody, 450m below workings)**
- **Significant operational efficiencies have cut Kanowna's all-in sustaining costs to just A$800/oz, allowing more material from the global Resource to be included in the existing mine plan**
- **The results further underpin Northern Star's plan to increase production at Kanowna by almost 50% to 125,000ozpa by 2017**
- **This is part of the strategy to grow the Company's total production from ~570,000ozpa currently to 700,000ozpa by CY2018**
- **All this growth will come from organic sources, enabling Northern Star to maintain debt-free status and high rate of return on equity**
- **Latest results from Velvet include:**
  - **24.5m at 30.6gpt (est true width 18.1m); inc 8.8m at 79.9gpt**
  - **42.7m at 13.4gpt (est true width 26.9m); inc 12.1m at 37.1gpt**
  - **36.3m at 13.7gpt (est true width 26.0m); inc 22.0m at 18.5gpt**
  - **58.6m at 3.3gpt (est true width 37.8m); inc 26.0m at 5.0gpt**
- **Production set to start at Millennium deposit next year, with pit dewatering underway to establish underground access**
- **Latest drilling results at Millennium include:**
  - **6.7m at 15.4gpt (est true width 5.2m)**
  - **10.2m at 5.5gpt (est true width 7.1m)**
  - **3.4m at 11.4gpt (est true width 2.7m)**
- **Kanowna satellite deposits also returning significant results:**
  - **Paradigm:**
    - **107.5m at 3.1gpt; inc 10.1m at 28.8gpt and 17.7m at 4.2gpt**
  - **White Feather:**
    - **0.4m at 134gpt and 3.5m at 10.5gpt**
  - **Six Mile:**
    - **5.0m at 5.0gpt and 15.0m at 2.0gpt**

Northern Star Resources Limited (ASX: NST) is pleased to advise that it continues to make strong progress in its strategy to become a 700,000 ounce-a-year gold producer, with high-grade drilling results highlighting significant potential for additional mineralisation at the Kanowna Belle project near Kalgoorlie.

A geological review of Kanowna underground has unearthed a series of outstanding historical high-grade intersections both below and along strike from the existing workings.

At the same time, recent drilling has returned significant high-grade hits at the adjacent Velvet discovery and several other nearby deposits.

The Company is also pleased to report that all-in sustaining costs at Kanowna Belle have been reduced to just A$800 an ounce.

These reduced costs, coupled with an increase in the Australian gold price to +A$1,600/oz, has enabled substantial incremental material to be extracted from the global Resource and added to the existing life-of-mine plan.

These latest results and cost reductions will make a significant contribution to the gold inventory at Kanowna Belle, in turn enabling production there to rise from 85,000oz a year in FY16 to 125,000oz from 2017.

The 125,000ozpa Kanowna Belle production target includes ore from the Kanowna mine, the adjacent satellite deposits, and Millennium, all of which are 100 per cent-owned by Northern Star. It does not include ore from the East Kundana Joint Venture, which is 51 per cent-owned by Northern Star. This JV production is reported separately as EKJV production.

This increase will form part of Northern Star's planned production growth from ~570,000ozpa currently to 700,000ozpa in 2018.

More than 5.5Moz at ~5gpt has been mined at Kanowna out of a ~7Moz global Resource (from surface to a depth of 1,250m). This has come from five discrete mining blocks (A,B,C,D and E blocks).

The geological review recently initiated by Northern Star has identified a number of opportunities along strike and at depth which require further analysis. These include a historical drill intercept of 11m at 4.1gpt which intersects the main lode 450m below the bottom of the mine (see Figure 1 & 2).

Further drilling at the Velvet discovery adjacent to Kanowna continues to return outstanding results such as 24.5m at 30.6gpt (including 8.8m at 79.9gpt) and 42.7m at 13.4gpt (including 12.1m at 37.1gpt) (see Figure 4).

Due to the significant drilling success, Northern Star's Board gave approval to access Velvet early this year, with development now only 100m from the mineralisation, which is expected to be intersected in two months' time.

At the 100%-owned Millennium deposit, preparations are on track for first production next year. There are also currently four surface diamond drill rigs completing a reserve and infill drill out, which is scheduled to be reported by the middle of this year (see fFgure 5). As part of this drill out, supergene gold enrichment at the surface was intersected and could have potential for a small open pit (see Figure 6).

The initial Millennium scoping study has identified a Stage 1 mine producing at 40,000-50,000oz per annum over at least four years. Stage 1 capital is estimated at A$20M to dewater Centenary pit (this commenced late last year), develop 200m vertically to access ore and setup stand-alone surface infrastructure. First ore is scheduled to be developed in late 2017.

Mining Millennium presents another significant opportunity for the Company because it provides underground access to the previously mined and unmined orebodies on the 100 per cent-owned Kundana tenements. Historical production (1990-2004) from the three main deposits on these tenements totaled 6.7 million tonnes at 6gpt for 1.25Moz. All three deposits remain open at depth (see Figure 7).

Follow up exploration on the satellite discoveries made in the past 12-18 months around Kanowna has added substantial upside to Kanowna's future production growth. Significant drilling results were received from the Paradigm discovery, including 107.5m at 3.1gpt (including 10.1m at 28.8gpt), at the White Feather discovery, with results such as 0.4m at 134gpt, and at Six Mile, with 5.0m at 5.0gpt (see Figure 8).

Northern Star Managing Director Bill Beament said the latest results showed the Kanowna Belle project, including the Millennium and satellite deposits which will feed the plant, is well-placed to play its role in Northern Star's 700,000ozpa growth strategy.

"These results show there is still a lot of gold to be found at Kanowna and on its surrounding tenements," Mr. Beament said.

"By growing the inventory in this manner, we can increase our production using existing infrastructure and ensure Kanowna plays a key role in enabling us to deliver on our 700,000ozpa target.

"This will in turn drive our cashflow while enabling us to remain debt-free and maintain high rates of return due to the fact that the growth will come purely from organic sources."

Kanowna Belle Underground

The Velvet discovery success has driven a detailed geological review of the exploration opportunities within the Kanowna Belle deposit.

Analysis of historical drilling at Kanowna Belle has highlighted several targets that will be the focus of ongoing exploration.

Historically, the Kanowna Belle deposit's ounce per vertical metre profile (Figure 1) has ranged from 2,000oz to 8,000 ounces per vertical metre, controlled in part, by a series of shallow plunging high grade trends (shown in yellow) as indicated by the mining activity. In addition, the geometry of the Lowe's deposit is influenced by these trends resulting in series of "blank" zones in the vertical mineralisation profile.

Future drilling will target the considerable potential to extend these high trends down plunge of all previously mined blocks (A to E) as evidenced by the highlighted historical drill intersections such as KDU1425, KDU2941, KDU141526A and KDU1601 (Figure 1).

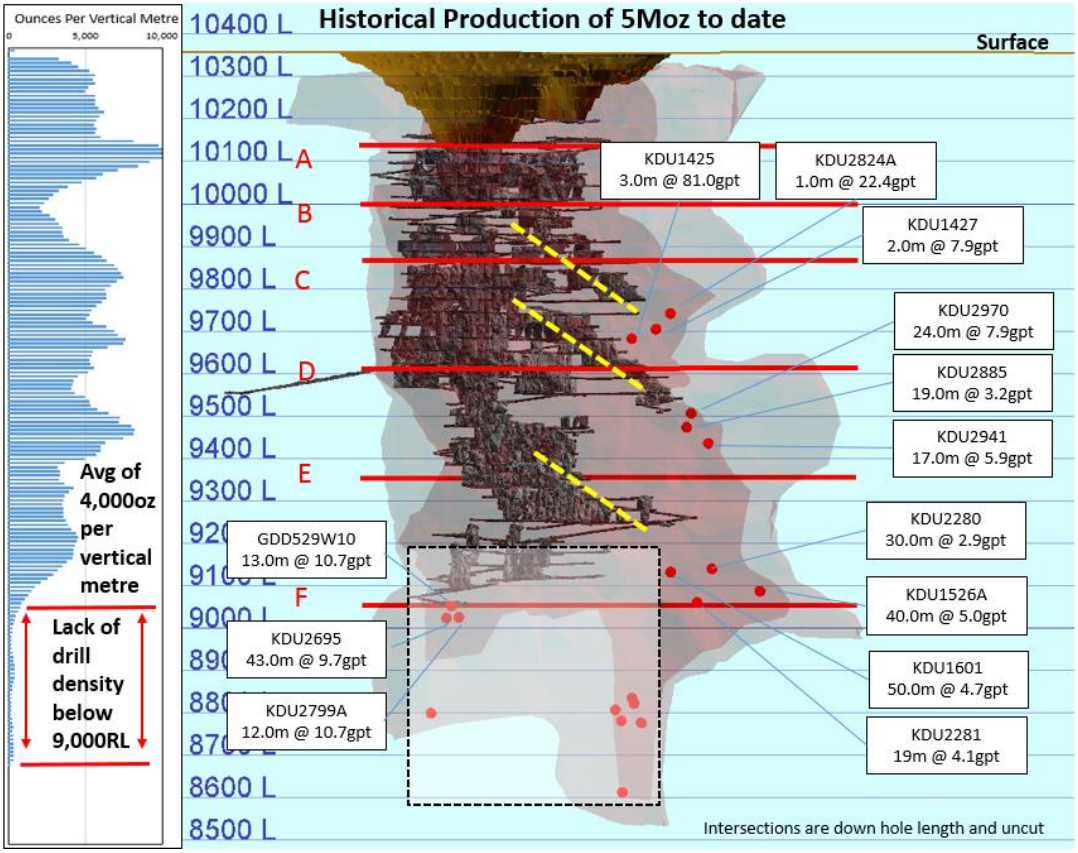

Figure 1: Kanowna Belle long section through the main 5Moz Lowes orebody

In addition, the Lowes deposit continues unabated at depth with limited drilling returning significant historical drill (Hole GDD540) intersections up to 450m below the existing production area at the base of "E Block" (Figure 2). The apparent thinning of the orebody at the base of E Block is considered to reflect similar occurrences at the 9500L and 10000L where the economic strike of the Lowes deposit temporarily narrowed.

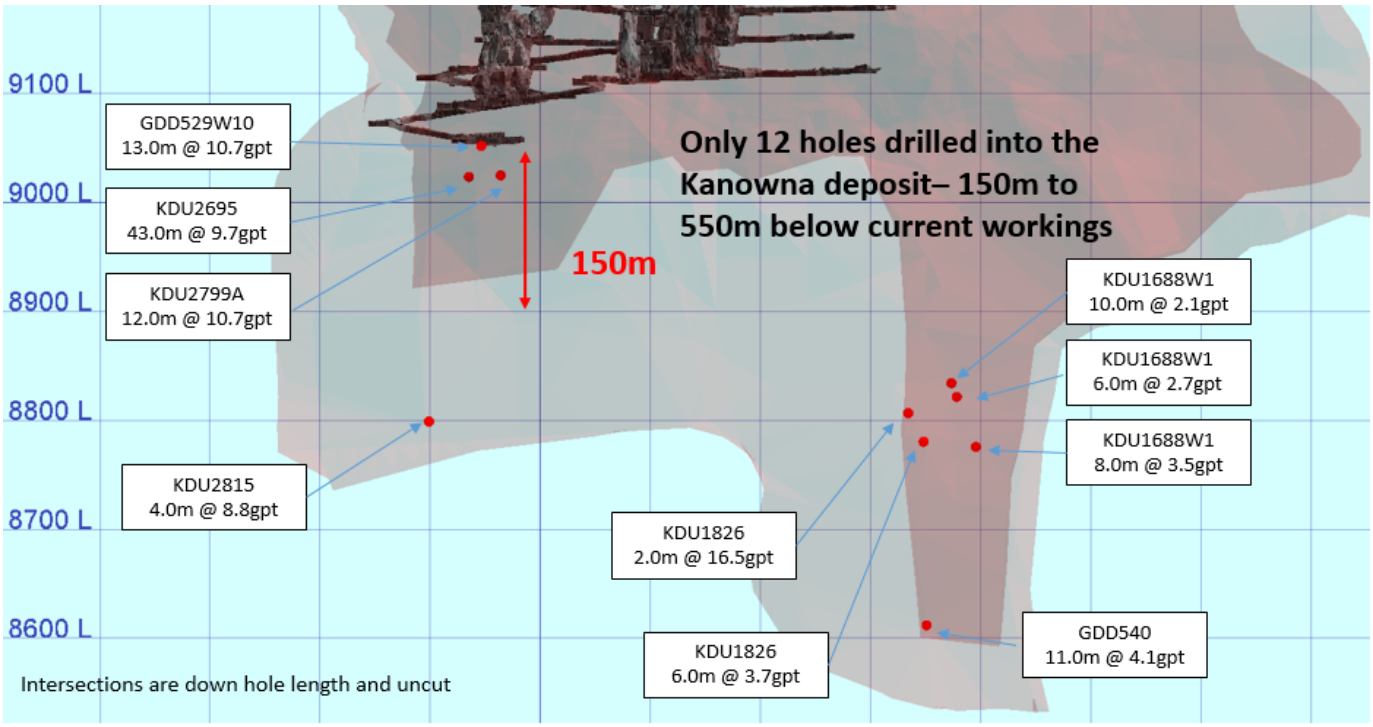

Figure 2 – Historic drill hole intersections beneath E Block (bottom of the current mine) – Lowes deposit

To test the potential of this 450 vertical metre target zone, an existing exploration drill drive access on the 9245L is being re-established and extended as a platform for a phased diamond drilling program (see Figure 3). This program has the potential to outline an additional mineralisation block of the scale which could extend the mine life for multiple years.

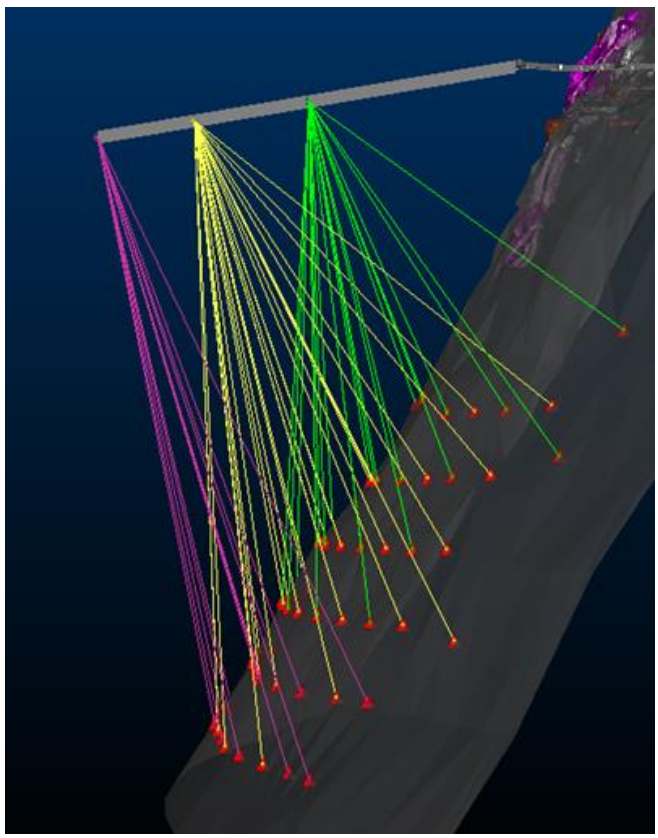

Figure 3 – Planned 9245L Exploration drilling to test Lowes deposit at depth

The exciting Velvet discovery encompasses a new geological setting within the Kanowna Belle area and has highlighted the prospectivity of a largely unexplored surrounding area. Drilling conducted late last year through till the start of March has yielded some spectacular intersections including (see Figure 4);

- 24.5m at 30.6gpt (est true width 18.1m); inc 8.8m at 79.9gpt
- 42.7m at 13.4gpt (est true width 26.9m); inc 12.1m at 37.1gpt
- 36.3m at 13.7gpt (est true width 26.0m); inc 22.0m at 18.5gpt
- 58.6m at 3.3gpt (est true width 37.8m); inc 26.0m at 5.0gpt

In conjunction with the access development which is only 100m from the Velvet orebody, a new 150 metre exploration drill drive is planned to provide a platform to test the potential extensions of the Velvet mineralisation along plunge to the northwest and along the Fitzroy Fault trend.

In addition, recent re-evaluation of historical surface drilling has indicated the presence of several unrecognised gold mineralisation intersections in similar prospective stratigraphy several hundred metres above the Velvet mineralisation opening up the potential for repetitions of the Velvet mineralisation. Drilling from the new platform is expected to commence in the June quarter.

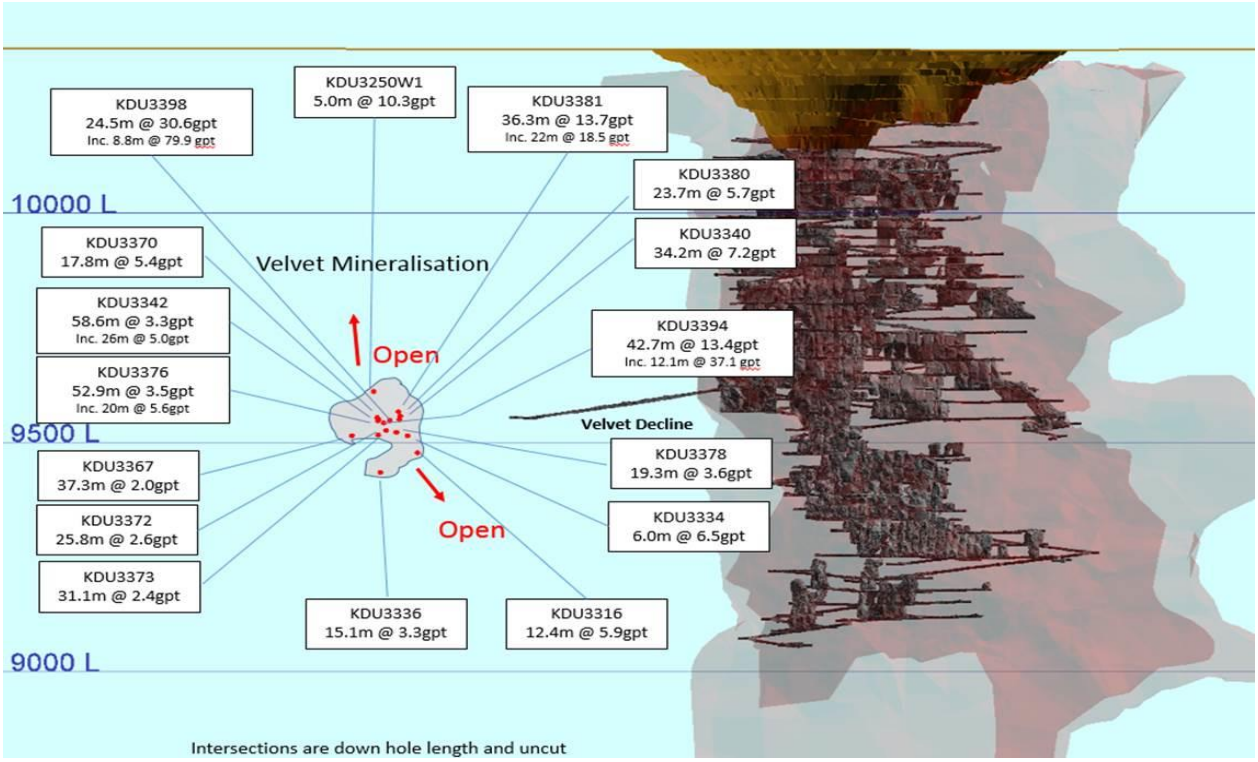

Figure 4 – Velvet deposit significant drill intersections

Millennium Project

Building on the success of the earlier Pegasus discovery, the Millennium discovery in late 2014 represents the north plunging extension to the original Centenary deposit at Kundana.

At Millennium, a five rig (4 diamond, 1 RC) Resource infill and definition drilling program is nearing completion in preparation for an updated Resource and maiden ore Reserve statement for mid this year. Drilling results to date have confirmed the extent of the original discovery and new results have also highlighted the potential for further extensions at depth and down plunge to the north where the deposit still remains open (see Figure 5).

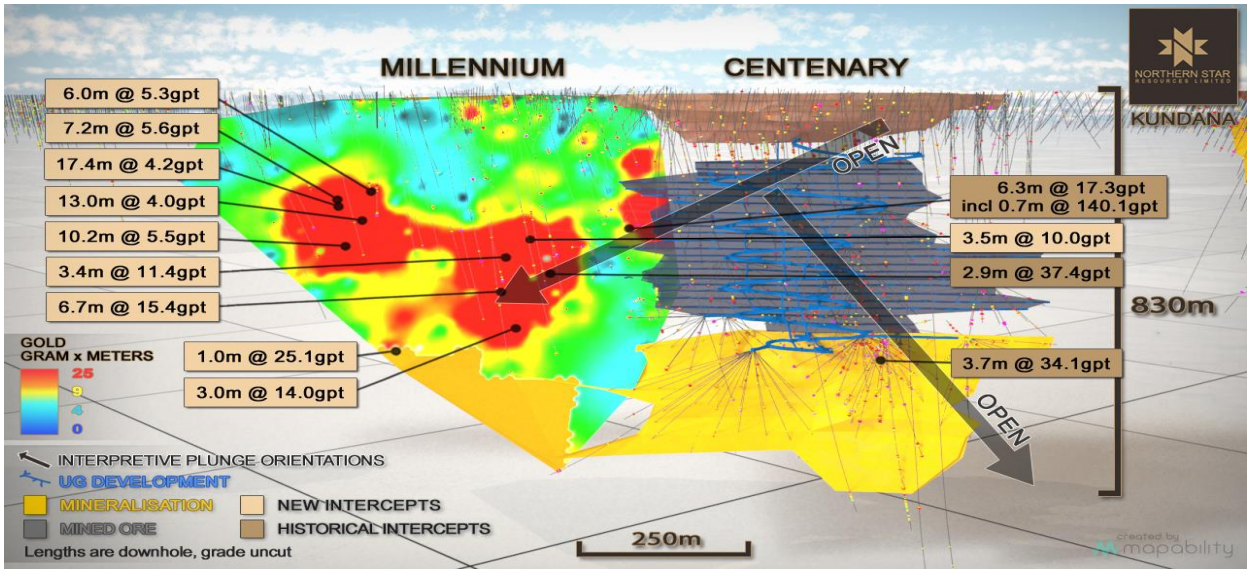

Figure 5 – Long section of the Millennium deposit

In addition, recent drilling up dip of the Millennium deposit has intersected significant shallow oxide gold mineralisation (including 8m at 4.4gpt, 11m at 3.3gpt, 0.6m at 46.6gpt) potentially accessible via a new open pit (see Figure 6). An RC infill drilling program is currently in progress to assess the extent of this new zone of oxide mineralisation.

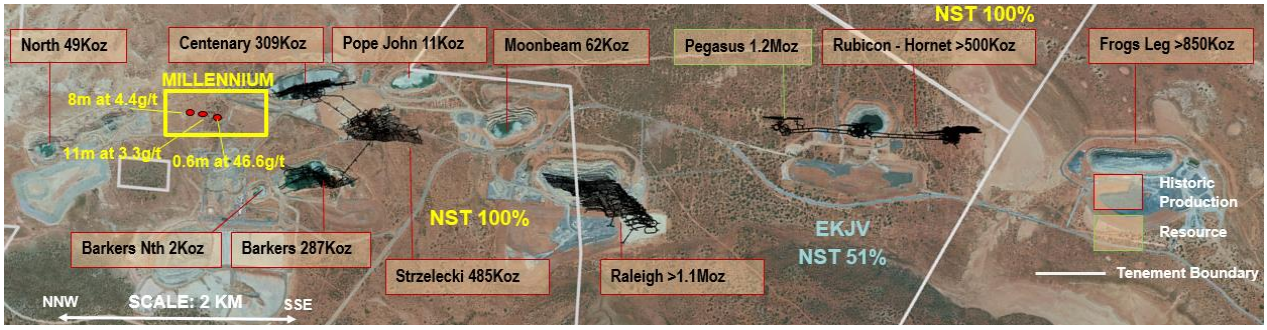

Figure 6 - Plan view of the Kundana Operations with the Millennium deposit inset in Figure 5.

Establishment of underground access to Millennium will open up additional exploration opportunities beneath the established Centenary, Strzelecki, Barkers and Pope John deposits all on 100%-owned Kundana tenements. Historical production (1990-2004) from the three main deposits on these tenements totaled 6.7 million tonnes at 6gpt for 1.25Moz.

Significant mineralisation continues below the existing Centenary underground development (ie. 3.7m at 34.1 gpt) on the main K2 structure, at the Strzelecki underground mine (Strzelecki/Raleigh trend), the adjacent high grade Barkers underground and the unmined mineralisation of Pope John deposit (see Figure 7).

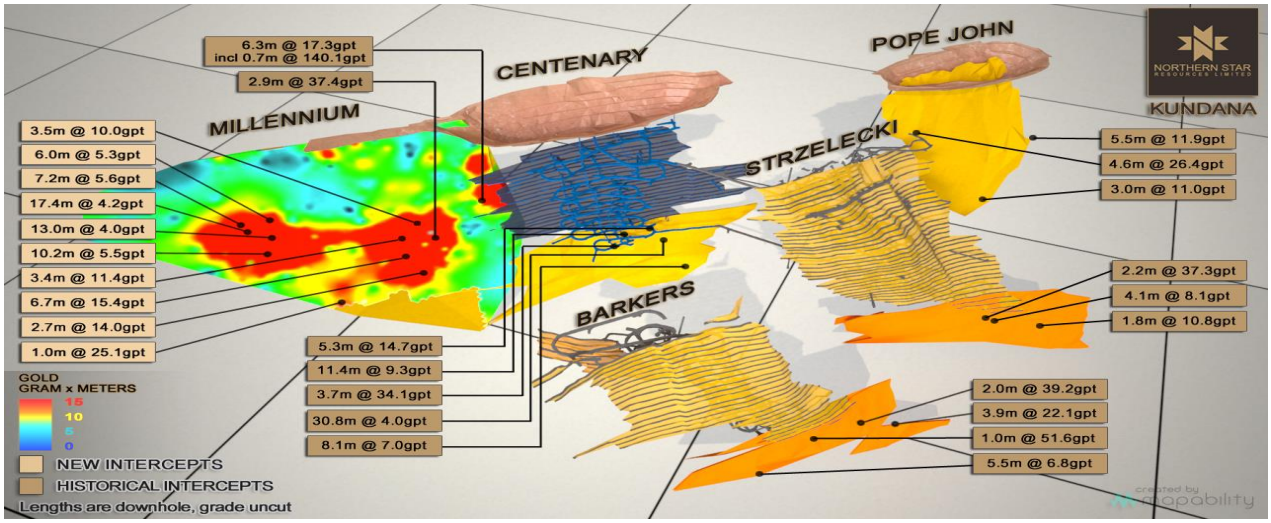

Figure 7 – Millennium, Centenary, Barkers, Strzelecki and Pope John deposits

Surrounding Satellite Deposits

Paradigm North

The Paradigm North discovery, 65km from the Kanowna Belle processing centre, continues to deliver exceptional results including 107.5m at 3.1gpt gold which includes a high grade zone of 10.1m at 28.8 gpt gold (see Figure 8).

The mineralisation is present as a broad zone of en-echelon mineralised veins representing a possible repetition of the historically mined, high grade Paradigm mine. Gold mineralisation occurs in in a combination of discrete veins, stockwork veins and disseminated sulphide zones. Recent drilling has defined significant gold mineralisation over a strike length of 540m with potential for both open pit and underground Resource positions and remains open in both directions.

Preparations are underway for a 10,000m RC and diamond drilling program to fully define the mineralised trends along strike and at depth from the existing intersections.

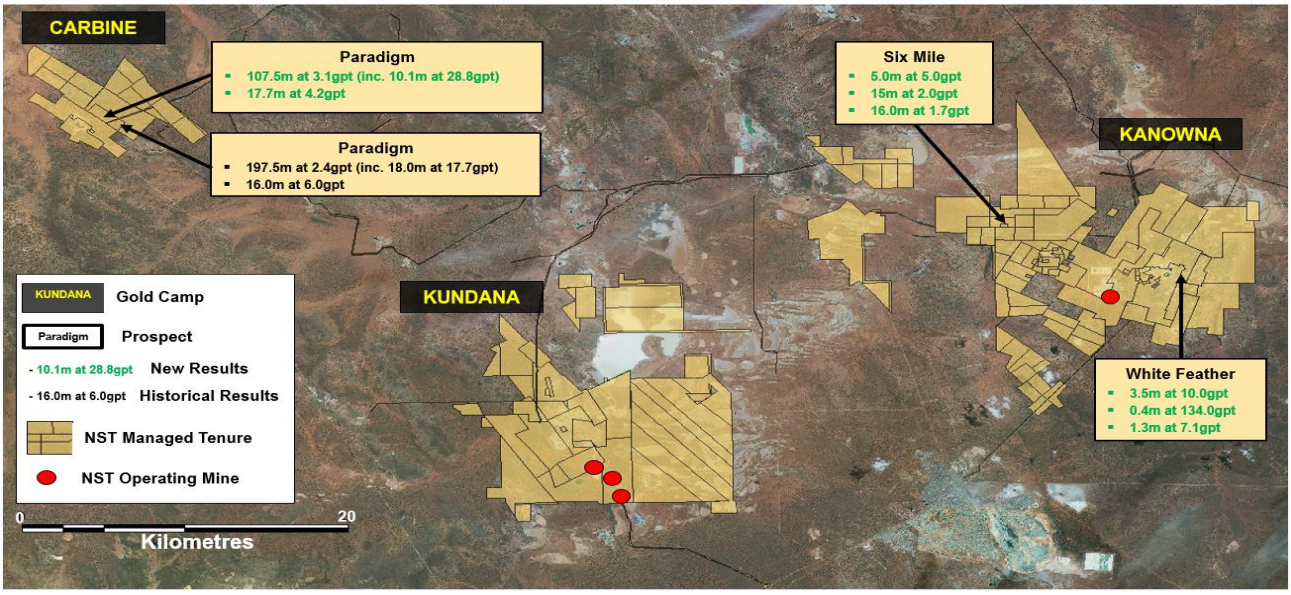

Figure 8 – Kanowna Satellite Projects

White Feather

At the old Kanowna town site area, diamond drilling beneath the historic White Feather underground workings continues to intersect narrow widths of high grade, coarse gold mineralisation within discrete quartz veins (see Figure 8). Best intersections include 0.4m at 134.0 gpt and 3.5m at 10.0 gpt gold.

Six Mile

At Six Mile, located 5.1km north-west of Kanowna Belle, gold mineralisation is hosted in a sheeted vein system associated with porphyry intrusions into a sequence of basic volcanics.

Ongoing RC drilling programs continue to achieve significant results successfully extending the mineralised trend north of the current Resource area (see Figure 8) with a best result of 15.0m at 2.0 gpt gold. The mineralisation remains open along strike to the north into an area with no historic drilling. Interpretation of the results is underway prior to updating the Resource model.

Yours faithfully

Bill Beament

BILL BEAMENT
Managing Director
Northern Star Resources Limited

Investor Enquiries: **Luke Gleeson, Investor Relations, Northern Star Resources Limited**
T: +61 8 6188 2103 E: lgleeson@nsrltd.com

Competent Persons Statements

The information in this announcement that relates to exploration results, data quality and geological interpretations, is based on information compiled by Darren Cooke, a Competent Person who is a Member of the Australian Institute of Geoscientists and a full-time employee of Northern Star Resources Limited. Mr Cooke 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" for the Company's Kanowna, Kundana and Carbine Project areas. Mr Cooke consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

Forward Looking Statements

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APPENDIX 1 – RESULTS

KB DEEP, SELECTED SIGNIFICANT INTERSECTIONS

Drill Hole #	Easting (Mine Grid)	Northing (Mine Grid)	Drill hole collar RL (Mine Grid)	Dip (degrees)	Azimuth (degrees, Mine Grid)	End of hole depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
KDU2695	19895	49605	9112	-28	166	291	163.0	206.0	43.0	9.7	7.0
KDU2799A	20042	49561	9100	-27	210	219	138.0	150.0	12.0	10.7	6.0
KDU3068	20030	49563	9099	-22	212	162	158.0	170.0	12.0	7.8	8.5
KDU1676	20147	49661	9312	-38	209	476	378.0	433.0	55.0	5.7	13.0
GDD529W10	20102	48821	10362	-63	353	1693	1460.0	1473.0	13.0	10.7	8.7
KDU1526A	20215	49589	9377	-36	123	897	546.0	586.0	40.0	5.0	11.0
KDU1526A	Including						565.0	585.0	20.0	9.1	6.5
KDU2280	20463	49294	9240	-33	38	243	175.0	205.0	30.0	2.9	25.0
KDU2280	Including						186.0	198.0	12.0	5.0	10.0
KDU1601	20214	49587	9376	-41	132	635	382.0	432.0	50.0	4.7	17.0
KDU1601	Including						382.0	402.0	20.0	7.6	7.0
KDU1601	20214	49587	9376	-41	132	635	493.0	508.0	15.0	5.4	5.0
KDU1779	20459	49581	9266	-39	168	317	239.0	276.0	37.0	3.1	14.0
KDU1779	Including						251.0	265.0	14.0	5.0	4.0
KDU1825	20432	49578	9269	-37	175	333	236.0	290.0	54.0	3.5	20.0
KDU1825	Including						241.0	269.0	28.0	4.9	12.0
KDU2285	20441	49299	9239	-59	351	213	152.0	160.9	8.9	9.8	8.5
KDU2284	20440	49299	9239	-72	351	219	161.0	170.0	9.0	6.7	8.8
KDU1520							376.0	397.0	21.0	5.6	13.0
KDU2281	20461	49294	9240	-61	37	252	199.0	218.0	19.0	4.9	17.0
KDU2552	20464	49291	9240	-76	109	387	282.0	294.0	12.0	3.3	3.5
KDU2941	20462	49294	9243	31	12	456	348.0	365.0	17.0	5.9	14.0
KDU2970	20488	49688	9539	-31	152	178	53.0	77.0	24.0	7.9	10.0
KDU2885	20461	49295	9243	33	2	455	405.0	424.0	19.0	3.2	14.0
KDU2954A	20486	49688	9539	-33	179	177	86.0	95.0	9.0	10.3	4.0
KDU2588	20405	49702	9552	-32	125	363	138.0	158.0	30.0	3.4	11.0
KDU2808	20404	49701	9552	-31	133	300	129.0	186.0	57.0	2.9	10.0
KDU2722	20405	49702	9552	-25	149	204	139.0	147.0	8.0	5.4	4.0
KDU2958	20488	49689	9538	-41	151	192	142.0	180.0	38.0	1.7	9.0
KDU2724	20405	49702	9551	-33	141	237	140.0	191.0	51.0	1.6	7.0
KDU2146	20267	49915	9676	28	152	232	175.0	183.0	8.0	2.9	6.0
KDU1423	20267	49621	9740	9	28	220	172.0	191.0	19.0	4.5	11.6
KDU1424	20267	49621	9740	3	24	221	178.0	181.0	3.0	7.0	1.7
KDU1427	20267	49621	9739	-10	50	250	209.0	211.0	2.0	7.9	1.7
KDU1425	20266	49621	9739	-20	40	201	164.0	167.0	3.0	81.0	1.7
KDU2824A	20379	49911	9860	-33	152	259	212.0	213.0	1.0	22.4	0.7
KDU2827	20380	49912	9860	-37	179	195	181.0	192.0	11.0	4.7	3.0
KDU3288	20244	49661	9740	8	50	202	197.0	201.3	4.3	3.9	2.3
KDU2815	20020	49611	9095	-37	195	495	485.0	489.0	4.0	8.8	2.0
GDD540	20363	48270	10365	-66	1	2230	1914.0	1925.0	11.0	4.1	9.0
KDU1826	20256	49610	9295	-55	175	902	668.0	670.0	2.0	16.5	1.0
KDU1826	20256	49610	9295	-55	175	902	711.0	717.0	6.0	3.7	2.0
KDU1688W1	20317	49582	9287	-56	178	710	580.0	590.0	10.0	2.1	3.0
KDU1688W1	20317	49582	9287	-56	178	710	602.0	608.0	6.0	2.7	2.0
KDU1688W1	20317	49582	9287	-56	178	710	673.0	681.0	8.0	3.5	3.0

VELVET SIGNIFICANT INTERSECTIONS

Drill Hole #	Easting (Mine Grid)	Northing (Mine Grid)	Drill hole collar RL (Mine Grid)	Dip (degrees)	Azimuth (degrees, Mine Grid)	End of hole depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
KDU3250W1	19766	49919	9728	-16	289	720.1	653.0	658.0	5.0	10.3	3.0
KDU3250W2	19766	49919	9728	-16	289	693.1	590.0	593.0	3.0	3.0	2.0
KDU3253	19625	49965	9585	-19	268	397.9			NSI		
KDU3254	19625	49965	9585	-11	270	349.1			NSI		
KDU3312	19624	49967	9586	-3	279	525.1			NSI		
KDU3313C	19453	50116	9553	3	272	335.1	271.0	274.2	3.2	2.5	2.1
KDU3313C	19453	50116	9553	3	272	335.1	276.0	284.0	8.0	3.4	5.2
KDU3313C	19453	50116	9553	3	272	335.1	319.4	321.2	1.8	6.4	1.2
KDU3314	19624	49967	9586	-3	285	488.8	404.0	405.9	1.9	3.7	1.5
KDU3314	19624	49967	9586	-3	285	488.8	439.0	451.1	12.1	3.4	6.5
KDU3315	19624	49967	9586	-7	282	480.2	394.7	400.4	5.8	4.1	4.6
KDU3316	19624	49967	9585	-15	278	537.9	395.2	398.0	2.9	5.4	1.7
KDU3316	19624	49967	9585	-15	278	537.9	401.0	413.4	12.4	5.9	7.3
KDU3316	19624	49967	9585	-15	278	537.9	463.0	474.9	11.9	2.5	7.0
KDU3316	19624	49967	9585	-15	278	537.9	507.0	511.0	4.0	1.9	2.3
KDU3326	19876	49706	9568	10	294	550.1			NSI		
KDU3327	19876	49707	9567	1	288	549.6			NSI		
KDU3328	19876	49706	9567	-7	283	549.7			NSI		
KDU3332	19452	50093	9553	-7	268	357.1	245.1	249.0	3.9	4.0	2.8
KDU3333	19452	50094	9553	-13	265	345.1	247.9	260.1	12.2	2.9	9.2
KDU3333	19452	50094	9553	-13	265	345.1	279.0	288.0	9.0	1.2	6.8
KDU3334	19452	50093	9553	-9	263	315.0	235.6	241.6	6.0	6.5	4.6
KDU3335	19452	50093	9553	-10	256	303.7	228.0	230.6	2.6	3.5	2.0
KDU3335	19452	50093	9553	-10	256	303.7	248.7	254.0	5.3	2.6	4.2
KDU3336	19452	50093	9552	-23	259	381.3	260.0	267.0	7.0	1.5	4.9
KDU3336	19452	50093	9552	-23	259	381.3	301.0	316.1	15.1	3.3	10.5
KDU3337	19452	50093	9552	-14	256	318.0	232.0	234.7	2.7	3.0	2.4
KDU3337	19452	50093	9552	-14	256	318.0	239.0	244.0	5.0	3.0	4.6
KDU3337	19452	50093	9552	-14	256	318.0	284.0	289.0	5.0	1.3	3.8
KDU3338	19453	50115	9552	-10	267	388.7	290.1	320.4	30.3	1.6	27.9
KDU3338	including						303.0	309.0	6.0	2.1	5.5
KDU3340	19453	50115	9552	0	266	282.2	242.0	276.2	34.2	7.2	25.2
KDU3341	19453	50115	9552	3	268	303.3	260.0	266.5	6.4	3.7	4.4
KDU3341	19453	50115	9552	3	268	303.3	274.0	277.2	3.2	4.5	2.2
KDU3342	19453	50115	9553	-2	271	340.1	267.0	325.6	58.6	3.3	37.8
KDU3342	including						268.0	273.0	5.0	4.3	3.2
KDU3342	including						275.0	301.0	26.0	5.0	24.0
KDU3342	19453	50115	9552	-2	271	340.1	316.0	325.6	9.6	1.2	8.8

VELVET SIGNIFICANT INTERSECTIONS

Drill Hole #	Easting (Mine Grid)	Northing (Mine Grid)	Drill hole collar RL (Mine Grid)	Dip (degrees)	Azimuth (degrees, Mine Grid)	End of hole depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
KDU3365	19453	50115	9552	-5	273	419.9	316.0	347.3	31.3	1.8	17.5
KDU3365	19453	50115	9552	-5	273	419.9	359.2	370.3	11.1	1.8	6.5
KDU3367	19453	50115	9552	-8	273	397.7	324.0	361.3	37.3	2.0	22.8
KDU3369	19453	50115	9551	-28	243	347.9	290.3	293.5	3.2	2.4	2.3
KDU3369	19453	50115	9551	-28	243	347.9	298.0	303.0	5.0	1.5	3.5
KDU3370	19453	50116	9553	1	269	345.1	281.3	299.1	17.8	5.4	11.4
KDU3370	19453	50116	9553	1	269	345.1	315.0	319.1	4.1	8.9	2.6
KDU3371	19453	50116	9552	1	273	380.9	310.5	337.5	27.0	1.9	16.2
KDU3371	including						310.5	326.0	15.6	2.0	9.3
KDU3372	19453	50115	9552	-6	264	347.1	265.0	290.8	25.8	2.6	17.7
KDU3372	including						265.3	275.2	9.9	3.9	6.8
KDU3373	19453	50114	9552	-6	272	378.1	297.9	329.0	31.1	2.4	21.3
KDU3373	including						299.5	309.5	9.9	3.0	6.8
KDU3374	19453	50115	9552	-9	266	376.4	287.0	291.6	4.6	4.5	3.1
KDU3374	19453	50115	9552	-9	266	376.4	300.0	322.6	22.6	1.2	14.9
KDU3375	19453	50116	9552	-12	257	330.0	257.2	260.0	2.8	6.2	2.0
KDU3375	19453	50116	9552	-12	257	330.0	269.0	271.0	2.0	2.1	1.5
KDU3376	19452	50094	9553	-2	270	370.3	268.0	276.0	8.0	5.0	4.6
KDU3376	19452	50094	9553	-2	270	370.3	281.0	333.9	52.9	3.5	29.8
KDU3376	including						282.0	302.0	20.0	5.6	11.3
KDU3377	19452	50093	9552	-11	265	357.0	272.5	278.4	5.9	2.5	3.8
KDU3377	19452	50093	9552	-11	265	357.0	285.0	317.0	32.0	1.4	20.5
KDU3378	19452	50093	9553	-7	269	337.0	250.0	269.3	19.3	3.6	12.4
KDU3378	including						251.2	255.0	3.8	10.5	2.5
KDU3379	19452	50093	9553	-3	268	326.9	235.2	237.0	1.8	1.5	1.4
KDU3379	19452	50093	9553	-3	268	326.9	258.0	259.0	1.0	18.5	0.7
KDU3380	19452	50093	9553	2	268	302.8	227.4	236.0	8.7	4.4	6.4
KDU3380	19452	50093	9553	2	268	302.8	241.7	265.4	23.7	5.7	17.5
KDU3380	including						250.0	252.5	2.5	32.2	1.9
KDU3381	19452	50094	9553	4	271	320.0	234.8	271.0	36.3	13.7	26.0
KDU3381	including						235.4	243.0	7.7	10.0	5.5
KDU3381	including						245.0	267.0	22.0	18.5	15.8
KDU3386	19437	50122	9552	6	276	341.4	270.0	279.0	9.0	3.6	6.1
KDU3386	19437	50122	9552	6	276	341.4	303.0	307.0	4.0	2.9	2.7
KDU3389	19453	50114	9552	0	277	392.9	319.0	358.0	39.0	1.7	24.6
KDU3389	including						319.0	338.0	19.0	2.3	13.7
KDU3390	19453	50116	9552	-4	275	368.1	299.0	315.3	16.3	2.2	10.7
KDU3390	19453	50116	9552	-4	275	368.1	316.5	318.0	1.6	2.6	1.5
KDU3390	19453	50116	9552	-4	275	368.1	322.0	339.9	17.9	1.9	11.7
KDU3391	19453	50115	9552	-5	269	356.5	268.5	271.6	3.1	1.7	2.1
KDU3391	19453	50115	9552	-5	269	356.5	275.0	299.5	24.5	2.4	16.9
KDU3392	19437	50122	9552	3	278	353.0	286.0	289.0	3.0	1.3	2.0
KDU3392	19437	50122	9552	3	278	353.0	297.1	300.7	3.6	2.1	2.4
KDU3392	19437	50122	9552	3	278	353.0	307.0	315.0	8.0	2.5	5.2
KDU3392	19437	50122	9552	3	278	353.0	318.0	325.6	7.6	2.1	5.0
KDU3393A	19452	50093	9552	-14	255	306.4	238.5	241.0	2.6	1.9	2.0
KDU3393A	19452	50093	9552	-14	255	306.4	263.0	264.6	1.6	2.9	1.2
KDU3393A	19452	50093	9552	-14	255	306.4	297.0	299.0	2.0	2.1	1.6
KDU3394	19452	50094	9553	-2	275	369.1	265.7	308.3	42.7	13.4	26.9
KDU3394	including						265.7	277.8	12.1	37.1	7.6
KDU3395	19458	50131	9552	-3	282	579.1	455.2	464.6	9.4	1.9	5.3
KDU3395	19458	50131	9552	-3	282	579.1	530.0	532.0	2.0	1.8	1.1
KDU3396	19458	50131	9552	6	282	564.7	406.5	412.0	5.5	1.9	2.9
KDU3396	19458	50131	9552	6	282	564.7	418.0	419.0	1.0	2.5	0.5
KDU3396	19458	50131	9552	6	282	564.7	435.0	440.0	5.0	1.6	2.6
KDU3396	19458	50131	9552	6	282	564.7	442.0	464.0	22.0	1.2	11.4
KDU3396	19458	50131	9552	6	282	564.7	561.0	564.7	3.6	3.5	3.0
KDU3398	19437	50121	9551	-1	269	340.3	241.5	266.0	24.5	30.6	18.1
KDU3398	Including				269	340.3	247.0	255.8	8.8	79.9	6.5
KDU3399	19438	50122	9551	-5	264	322.2	229.0	233.1	4.1	2.0	3.2
KDU3399	19438	50122	9551	-5	264	322.2	240.0	256.0	16.0	1.2	12.5
KDU3400	19437	50122	9552	11	263	290.1	230.4	237.4	6.9	2.5	5.7
KDU3401	19437	50122	9551	-14	257	310.3	235.2	246.9	11.7	5.3	9.1
KDU3401	19437	50122	9551	-14	257	310.3	274.8	278.0	3.2	14.9	2.5
KDU3403	19438	50123	9552	-23	246	375.2	243.5	254.9	11.4	4.2	9.1
KDU3403							244.5	248.9	4.4	7.3	3.5
KDU3403	19438	50123	9552	-23	246	375.2	275.0	278.0	3.0	2.0	2.4
KDU3403	19438	50123	9552	-23	246	375.2	336.0	338.0	2.0	6.5	
KDU3404	19438	50123	9552	-27	245	350.2	281.9	283.9	2.0	3.1	1.6
KDU3405	19437	50121	9552	7	273	326.9	243.5	251.0	7.5	3.0	5.3
KDU3405	19437	50121	9552	7	273	326.9	253.0	258.9	5.9	1.9	4.2
KDU3405	19437	50121	9552	7	273	326.9	263.0	272.0	9.0	1.6	6.4
KDU3405	19437	50121	9552	7	273	326.9	305.0	307.9	2.9	2.8	2.1

MILLENNIUM SIGNIFICANT INTERSECTIONS

Drill Hole #	Easting (MGA)	Northing (MGA)	Drill hole collar RL (MGA)	Dip (degrees)	Azimuth (degrees, MGA)	End of hole depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
CNDD15086A	330616	6601642	345	-68	51	599	547.0	549.0	2.0	3.7	1.4
CNDD15088	330479	6601647	345	-62	44	696	672.3	674.1	1.8	1.3	1.2
CNDD15089	330346	6601778	344	-57	49	621	605.0	606.5	1.5	2.1	1.1
CNDD15090	330580	6601818	344	-62	38	402	383.1	386.0	2.9	1.8	2.0
CNDD15091	330498	6601977	343	-56	49	312	285.3	302.7	17.4	4.2	13.3
CNDD15092	330615	6601649	345	-65	46	561	329.0	332.0	3.0	9.6	2.0
CNDD15092	330615	6601649	345	-65	46	561	538.5	541.1	2.7	14.0	1.7
CNDD15093	330615	6601649	345	-62	44	516	302.5	303.0	0.5	10.8	0.4
CNDD15093	330615	6601649	345	-62	44	516	488.0	491.0	3.0	12.1	2.2
CNDD15094	330613	6601687	344	-65	42	510	488.0	492.9	4.9	3.5	3.2
CNDD15095	330664	6601676	344	-63	47	474	295.0	298.0	3.0	2.5	2.2
CNDD15095	330664	6601676	344	-63	47	474	434.5	436.6	2.1	3.7	1.5

MILLENNIUM SIGNIFICANT INTERSECTIONS

Drill Hole #	Easting (MGA)	Northing (MGA)	Drill hole collar RL (MGA)	Dip (degrees)	Azimuth (degrees, MGA)	End of hole depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
CNDD15096	330672	6601730	344	-63	53	387	246.0	247.3	1.3	23.6	0.9
CNDD15096	330672	6601730	344	-63	53	387	362.6	366.0	3.4	5.5	2.3
CNDD15097	330702	6601721	343	-64	54	408	163.0	164.1	1.1	1.3	0.8
CNDD15097	330702	6601721	343	-64	54	408	345.1	348.7	3.5	10.0	2.4
CNDD15098	Abandoned										
CNDD15099	330502	6601833	344	-62	47	471	442.0	446.0	4.0	3.8	2.8
CNDD15100	330562	6601870	344	-66	44	417	372.0	379.0	7.0	4.0	4.6
CNDD15101	330563	6601870	344	-61	40	381	346.0	355.5	9.5	4.6	6.7
CNDD15102	330462	6602040	344	-67	54	369	321.0	324.6	3.6	3.6	2.2
CNDD15103	330535	6601945	343	-60	41	360	301.0	316.0	15.0	3.1	10.5
CNDD15103	including						301.0	310.0	9.0	4.1	6.3
CNDD15104	330656	6601577	344	-61	39	546	367.2	369.1	1.9	8.8	1.3
CNDD15104	330656	6601577	344	-61	39	546	516.0	517.9	1.9	1.9	1.2
CNDD15105	330559	6601725	344	-64	49	528	310.1	311.0	0.9	3.0	0.6
CNDD15105	330559	6601725	344	-64	49	528	513.0	514.9	1.9	12.6	1.3
CNDD15106	330536	6601947	344	-63	48	351	301.0	314.0	13.0	4.0	8.9
CNDD15107	330548	6601983	345	-63	50	282	259.0	264.0	5.0	3.7	3.5
CNDD15108	330456	6601939	344	-60	53	408	376.0	386.2	10.2	5.5	7.1
CNDD15109	330454	6602034	345	-57	60	324	285.4	297.7	12.3	2.5	9.1
CNDD15109	including						286.5	290.7	4.2	4.8	3.1
CNDD15116	330450	6601844	344	-60	36	486	463.1	463.4	0.3	3.1	0.2
CNDD15117	330430	6601732	345	-62	43	627	612.7	613.7	1.0	25.1	0.8
CNDD15118	330299	6601894	345	-62	55	606	589.9	590.7	0.8	0.6	0.6
CNDD16138	330672	6601630	346	-64	48	498	468.1	469.2	1.1	3.9	0.9
CNDD16139	330637	6601701	343	-61	47	423	403.0	406.4	3.4	11.4	2.7
CNDD16150	330539	6602010	346	-63	49	285	251.8	259.0	7.2	5.6	5.4
CNDD16151	330449	6602030	345	-62	49	336	312.9	315.6	2.7	8.2	2.1
CNDD16152	330472	6602057	345	-62	49	297	272.8	276.0	3.3	6.7	2.5
CNDD16162	330597	6601585	344	-60	44	585	556.1	558.8	2.7	6.0	2.2
CNDD16163	330590	6601683	344	-60	49	506	475.0	481.7	6.7	15.4	5.2
CNDD16163	including						477.0	480.0	3.0	32.5	2.3
CNRC16119	330797	6601659	342	-60	47	336	303.0	312.0	9.0	0.8	6.5
CNRC16119	including						305.0	306.0	1.0	3.4	0.7
CNRC16121	330785	6601694	343	-56	44	281	259.0	261.0	2.0	1.7	1.4
CNRC16123	330760	6601720	342	-57	48	300	270.0	272.0	2.0	2.3	1.5
CNRC16124	330762	6601782	343	-55	49	216	202.0	204.0	2.0	6.1	1.6
CNRC16125	330759	6601779	343	-62	50	252	235.0	239.0	4.0	2.5	2.8
CNRC16128	330717	6601809	343	-58	41	246	223.0	224.0	1.0	2.7	0.9
CNRC16129	330649	6601817	344	-61	50	312	300.0	303.0	3.0	1.7	2.2
CNRC16130	330649	6601817	344	-54	48	294	274.0	275.0	1.0	3.4	0.8
CNRC16131	330662	6601879	344	-58	46	246	226.0	228.0	2.0	1.0	0.8
CNRC16132	330662	6601882	344	-60	30	252	238.0	239.0	1.0	1.3	0.8
CNRC16133	330620	6601955	345	-61	51	240	220.0	222.0	2.0	1.4	1.5
CNRC16134	330618	6601954	345	-64	50	270	250.0	251.0	1.0	4.3	0.6
CNRC16135	330576	6601960	347	-62	48	264	248.0	254.0	6.0	5.3	4.6
CNRC16136	330560	6602031	346	-62	48	228	201.0	205.0	4.0	3.8	3.1
CNCD16156*	330406	6602125	345	-61	46	288	20.0	28.0	8.0	4.4	6.0
CNDD14010#	330449	6602033	345	-62	33	330	23.8	24.4	0.6	46.6	0.4
CNRC14018	330436	6602094	348	-52	51	246	18.0	23.0	5.0	5.9	4.0

* Speared composite data only. Final assays on one-metre cone split samples still pending.
# Intercept was truncated uphole by 1.8m of core loss and downhole by 2.9m of core loss.

HISTORICAL SIGNIFICANT INTERSECTIONS

Drill Hole #	Easting (MGA)	Northing (MGA)	Drill hole collar RL (MGA)	Dip (degrees)	Azimuth (degrees, MGA)	End of hole depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
BDD367	330712	6600940	-194	-29	245	255	216.0	221.5	5.5	6.8	2.2
BDD398	330789	6600840	-191	-26	199	170	140.0	143.9	3.9	22.1	2.1
BDD410	330788	6600844	-191	-22	247	188	153.0	154.0	1.0	51.6	0.5
BDD417	330789	6600840	-191	-31	171	259	231.0	233.0	2.0	39.2	0.6
CD153	331164	6601375	-134	-28	358	114	87.9	99.4	11.4	9.3	7.6
CD155	331164	6601375	-134	-45	348	154	134.0	137.7	3.7	34.1	1.8
CD161	331167	6601375	-135	-41	61	95	76.1	81.4	5.3	14.7	4.7
CD167	331166	6601372	-135	-59	88	152	129.0	137.0	8.1	7.0	5.1
CD174	331190	6601345	-133	-75	105	311	272.3	303.1	30.8	4.0	12.7
CNDD14011	330717	6601696	343	-70	50	438	411.8	414.6	2.9	37.4	2.9
CRD74	330806	6601619	343	-61	63	338	316.5	322.8	6.3	17.3	4.9
CRD74	including						318.0	318.7	0.7	140.1	0.5
JRD004	331493	6600789	345	-62	30	285	210.5	215.0	4.6	26.4	3.2
PJRD012	331740	6600450	345	-60	27	434	360.0	365.5	5.5	11.9	3.5
PJRD032	331588	6600524	347	-71	29	561	537.0	540.0	3.0	11.0	1.6
ZD398A	331347	6600671	-201	-29	205	232	202.3	206.5	4.1	8.1	1.9
ZD411	331347	6600671	-201	-28	209	221	191.4	193.5	2.2	37.3	1.5
ZD457	331385	6600564	-242	-26	201	233	199.7	201.5	1.8	10.8	1.1

PARADIGM SIGNIFICANT INTERSECTIONS

Drill Hole #	Easting (MGA)	Northing (MGA)	Drill hole collar RL (MGA)	Dip (degrees)	Azimuth (degrees, MGA)	End of hole depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
PDDD15011	301896	6627101	424	-60	41	386.9	269.0	270.0	1.0	7.7	unknown
PDDD15011	301896	6627101	424	-60	41	386.9	282.8	291.0	8.2	4.9	unknown
	Including						282.8	285.1	2.3	13.7	unknown
PDDD15013	301976	6627193	424	-60	39	281.6	57.0	59.2	2.2	1.4	unknown
PDDD15013	301976	6627193	424	-60	39	281.6	243.1	245.0	1.9	1.1	unknown
PDDD15013	301976	6627193	424	-60	39	281.6	268.0	269.1	1.1	1.2	unknown
PDDD15014	302086	6627092	422	-61	305	249.0	44.0	45.0	1.0	1.7	unknown
PDDD15014	302086	6627092	422	-61	305	249.0	66.6	91.1	24.5	2.0	unknown
PDDD15014	302086	6627092	422	-61	305	249.0	153.0	161.5	8.5	3.2	unknown
PDDD15015	301938	6627138	424	-61	39	395.8	254.5	362.0	107.5	3.1	unknown
	including						260.0	264.5	4.5	62.9	unknown
	including						301.0	304.0	3.0	7.5	unknown
	including						361.4	362.0	0.6	11.5	unknown
PDDD15015	301938	6627138	424	-61	39	395.8	392.0	395.8	3.8	1.7	unknown
PDDD15016	301771	6627205	425	-60	41	480.0	105.5	107.0	1.6	1.4	unknown
PDDD15016	301771	6627205	425	-60	41	480.0	276.0	277.1	1.1	10.9	unknown
PDDD15016	301771	6627205	425	-60	41	480.0	342.3	360.0	17.7	4.2	unknown
PDDD15016	301771	6627205	425	-60	41	480.0	397.0	398.0	1.0	2.5	unknown
PDDD15016	301771	6627205	425	-60	41	480.0	419.3	420.0	0.7	5.9	unknown
PDDD15017	302226	6626907	421	-60	40	382.4	63.8	65.0	1.2	1.2	unknown
PDDD15017	302226	6626907	421	-60	40	382.4	302.4	309.0	6.6	3.4	unknown
PDDD15018	302069	6626971	422	-60	41	288.0	43.0	51.0	8.0	3.8	unknown
PDDD15018	302069	6626971	422	-60	41	288.0	100.0	111.2	11.2	1.6	unknown
	including						100.0	100.6	0.6	19.4	unknown
PDDD15018	302069	6626971	422	-60	41	288.0	190.7	194.0	3.4	1.6	unknown
PDDD15019	302101	6627007	422	-60	40	372.0	95.0	96.0	1.0	1.3	unknown
PDDD15019	302101	6627007	422	-60	40	372.0	136.0	140.0	4.0	1.5	unknown
PDDD15019	302101	6627007	422	-60	40	372.0	183.0	184.0	1.0	1.7	unknown
PDDD15020	302140	6627053	422	-60	39	275.2	38.0	39.0	1.0	1.6	unknown
PDDD15020	302140	6627053	422	-60	39	275.2	45.9	75.1	29.2	1.5	unknown
	including						45.9	49.0	3.1	6.7	unknown

PARADIGM PREVIOUSLY RELEASED INTERSECTIONS

Drill Hole #	Easting (MGA)	Northing (MGA)	Drill hole collar RL (MGA)	Dip (degrees)	Azimuth (degrees, MGA)	End of hole depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
PDDD15010	301978	6627107	424	-60	40	273.0	**40.0**	**237.0**	**197.0**	**2.4**	unknown
PDDD15010	including						**65.0**	**83.0**	**18.0**	**17.7**	unknown
PDCD15006	302016	6626996	422	-60	40	402.0	**192.0**	**195.0**	**3.0**	**50.4**	unknown
PDRC14003	302055	6627028	419	-55	360	250.0	**192.0**	**208.0**	**16.0**	**6.0**	unknown

WHITE FEATHER SIGNIFICANT INTERSECTIONS

Drill Hole #	Easting (MGA)	Northing (MGA)	Drill hole collar RL (MGA)	Dip (degrees)	Azimuth (degrees, MGA)	End of hole depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
WFDD15003	367315	6614206	381	-70	324	165.5	92.0	92.9	0.9	2.2	0.8
WFDD15003	367315	6614206	381	-70	324	165.5	102.0	103.0	1.0	2.9	0.9
WFDD15003	367315	6614206	381	-70	324	165.5	111.1	111.6	0.4	1.5	0.4
WFDD15003	367315	6614206	381	-70	324	165.5	133.0	133.4	0.4	1.9	0.3
WFDD15003	367315	6614206	381	-70	324	165.5	144.0	144.7	0.7	1.6	0.6
WFDD15003	367315	6614206	381	-70	324	165.5	147.5	148.1	0.6	4.4	0.6
WFDD15003	367315	6614206	381	-70	324	165.5	151.0	154.5	3.5	10.5	3.0
WFDD15004	367361	6614241	376	-60	300	140.9	16.0	17.0	1.0	2.4	1.0
WFDD15004	367361	6614241	376	-60	300	140.9	26.8	27.1	0.3	4.9	0.3
WFDD15004	367361	6614241	376	-60	300	140.9	108.0	109.3	1.3	7.1	1.1
WFDD15004	367361	6614241	376	-60	300	140.9	129.1	129.4	0.3	2.0	0.3
WFDD15006	367398	6614125	372	-53	315	177.6	36.5	37.0	0.5	2.8	0.5
WFDD15006	367398	6614125	372	-53	315	177.6	116.6	117.3	0.7	1.3	0.6
WFDD15007	367440	6614219	373	-60	300	299.9	34.0	35.0	1.0	3.3	1.0
WFDD15007	367440	6614219	373	-60	300	299.9	48.0	49.0	1.0	1.6	1.0
WFDD15007	367440	6614219	373	-60	300	299.9	61.5	62.0	0.5	1.4	0.4
WFDD15007	367440	6614219	373	-60	300	299.9	75.2	75.8	0.7	1.3	0.6
WFDD15007	367440	6614219	373	-60	300	299.9	82.2	82.9	0.6	3.2	0.6
WFDD15007	367440	6614219	373	-60	300	299.9	159.8	162.6	2.9	1.5	2.8
WFDD15007	367440	6614219	373	-60	300	299.9	175.0	175.4	0.4	1.7	0.4
WFDD15007	367440	6614219	373	-60	300	299.9	202.0	204.0	2.0	1.1	2.0
WFDD15009	367477	6614142	371	-60	302	315.3	44.2	48.0	3.8	3.6	3.0
WFDD15009	367477	6614142	371	-60	302	315.3	76.5	78.9	2.4	1.9	2.0
WFDD15009	367477	6614142	371	-60	302	315.3	153.6	154.0	0.4	134.0	0.3
WFDD15009	367477	6614142	371	-60	302	315.3	297.0	297.5	0.5	2.5	0.5
WFDD15010	367548	6614183	370	-55	306	324.1	63.5	64.4	0.9	1.5	0.9
WFDD15010	367548	6614183	370	-55	306	324.1	81.7	82.6	0.9	1.1	0.9
WFDD15010	367548	6614183	370	-55	306	324.1	104.3	104.9	0.6	2.6	0.5
WFDD15010	367548	6614183	370	-55	306	324.1	111.1	111.5	0.4	7.2	0.4
WFDD15010	367548	6614183	370	-55	306	324.1	143.9	144.4	0.5	1.5	0.5
WFDD15010	367548	6614183	370	-55	306	324.1	189.2	189.6	0.3	53.4	0.3
WFDD15010	367548	6614183	370	-55	306	324.1	194.9	197.4	2.4	4.7	2.4
WFDD15010	367548	6614183	370	-55	306	324.1	241.9	242.2	0.3	0.4	0.3
WFDD15010	367548	6614183	370	-55	306	324.1	248.1	248.6	0.5	2.6	0.4
WFDD15010	367548	6614183	370	-55	306	324.1	254.1	254.7	0.6	2.5	0.5
WFDD15010	367548	6614183	370	-55	306	324.1	297.0	298.0	1.0	1.8	1.0
WFDD15010	367548	6614183	370	-55	306	324.1	304.0	304.4	0.3	14.5	0.3
WFDD15010	367548	6614183	370	-55	306	324.1	318.9	319.6	0.7	1.3	0.7

SIX MILE SIGNIFICANT INTERSECTIONS											
Drill Hole #	Easting (MGA)	Northing (MGA)	Drill hole collar RL (MGA)	Dip (degrees)	Azimuth (degrees, MGA)	End of hole depth (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
SMRC15021	359388	6615890	362	-60	192	138.0	20.0	21.0	1.0	1.0	0.7
SMRC15021	359388	6615890	362	-60	192	138.0	28.0	29.0	1.0	2.8	0.7
SMRC15021	359388	6615890	362	-60	192	138.0	36.0	37.0	1.0	1.1	0.7
SMRC15021	359388	6615890	362	-60	192	138.0	42.0	43.0	1.0	1.2	0.7
SMRC15021	359388	6615890	362	-60	192	138.0	44.0	45.0	1.0	1.4	0.7
SMRC15021	359388	6615890	362	-60	192	138.0	84.0	85.0	1.0	1.1	0.7
SMRC15021	359388	6615890	362	-60	192	138.0	126.0	127.0	1.0	1.8	0.7
SMRC15022	359404	6615933	361	-60	188	150.0	28.0	29.0	1.0	1.0	0.7
SMRC15022	359404	6615933	361	-60	188	150.0	33.0	34.0	1.0	1.7	0.7
SMRC15022	359404	6615933	361	-60	188	150.0	57.0	62.0	5.0	2.8	3.5
SMRC15022	359404	6615933	361	-60	188	150.0	65.0	68.0	3.0	2.0	2.1
SMRC15022	359404	6615933	361	-60	188	150.0	82.0	83.0	1.0	1.3	0.7
SMRC15022	359404	6615933	361	-60	188	150.0	85.0	89.0	4.0	1.5	2.8
SMRC15022	359404	6615933	361	-60	188	150.0	112.0	113.0	1.0	1.0	0.7
SMRC15023	359276	6615785	365	-70	190	90.0	41.0	42.0	1.0	1.6	0.7
SMRC15023	359276	6615785	365	-70	190	90.0	44.0	45.0	1.0	1.1	0.7
SMRC15023	359276	6615785	365	-70	190	90.0	61.0	62.0	1.0	1.2	0.7
SMRC15023	359276	6615785	365	-70	190	90.0	66.0	68.0	2.0	1.3	1.4
SMRC15023	359276	6615785	365	-70	190	90.0	83.0	88.0	5.0	5.0	3.5
SMRC15024	359290	6615812	364	-69	11	90.0	29.0	30.0	1.0	1.5	0.7
SMRC15024	359290	6615812	364	-69	11	90.0	37.0	41.0	4.0	1.1	2.8
SMRC15025	359221	6615837	363	-60	190	120.0			NSI		
SMRC15026	359578	6616098	359	-62	190	90.0	34.0	36.0	2.0	1.4	1.4
SMRC15026	359578	6616098	359	-62	190	90.0	39.0	40.0	1.0	1.4	0.7
SMRC15026	359578	6616098	359	-62	190	90.0	41.0	42.0	1.0	2.4	0.7
SMRC15026	359578	6616098	359	-62	190	90.0	45.0	51.0	6.0	1.5	4.2
SMRC15026	359578	6616098	359	-62	190	90.0	55.0	62.0	7.0	1.6	4.9
SMRC15027	359580	6615870	363	-61	188	102.0	95.0	97.0	2.0	1.6	1.4
SMRC15028	359617	6615967	360	-55	187	60.0			NSI		
SMRC15029	359678	6615964	361	-59	190	66.0	32.0	35.0	3.0	1.1	2.1
SMRC15029	359678	6615964	361	-59	190	66.0	41.0	44.0	3.0	2.0	2.1
SMRC15030	359569	6615974	361	-54	1	60.0	45.0	48.0	3.0	1.5	2.1
SMRC15031	359549	6615972	361	-55	3	60.0			NSI		
SMRC15032	359515	6616100	360	-59	188	90.0	43.0	45.0	2.0	4.0	1.4
SMRC15032	359515	6616100	360	-59	188	90.0	67.0	73.0	6.0	3.7	4.2
SMRC15033	359616	6616077	358	-58	187	90.0	35.0	51.0	16.0	1.7	11.0
SMRC15033	359616	6616077	358	-58	187	90.0	62.0	77.0	15.0	2.0	10.5
SMRC15034	359740	6616092	358	-61	189	60.0	36.0	41.0	5.0	3.2	3.5
SMRC15035	359727	6616059	362	-59	193	60.0	1.0	2.0	1.0	1.5	0.7
SMRC15035	359727	6616059	362	-59	193	60.0	46.0	47.0	1.0	1.2	0.7
SMRC15036	359728	6616016	364	-59	188	72.0	6.0	10.0	4.0	2.5	2.8
SMRC15036	359728	6616016	364	-59	188	72.0	58.0	61.0	3.0	1.1	2.1
SMRC15037	359595	6615914	362	-56	189	66.0			NSI		
SMRC15038	359568	6615927	361	-54	191	60.0			NSI		
SMRC15039	359626	6615913	362	-59	171	138.0	118.0	122.0	4.0	1.5	2.8
SMRC15039	359626	6615913	362	-59	171	138.0	125.0	128.0	3.0	1.1	2.1
SMRC15040	359418	6615911	362	-59	191	102.0	45.0	50.0	5.0	2.3	3.5
SMRC15040	359418	6615911	362	-59	191	102.0	55.0	56.0	1.0	4.7	0.7
SMRC15040	359418	6615911	362	-59	191	102.0	76.0	77.0	1.0	1.5	0.7
SMRC15041	359516	6615884	363	-61	189	66.0	64.0	65.0	1.0	1.2	0.7

JORC Code, 2012 Edition – Table 1 Report: Kanowna Belle / Velvet Drill Results at February 2016

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	The deposit is sampled by diamond drilling. Sample intervals are defined by the geologist to honour geological boundaries. Diamond drill core was aligned, measured and then sampled by cutting the core in half longitudinally using an "Almonté" diamond saw. Cutting was along orientation lines which are retained in the tray or, where orientation lines are absent, along cutting lines marked on the pieced together core.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Sample intervals are marked on the core by a geologist, typically at 1m intervals. Where significant changes in geology were encountered, the sample boundary was marked there. Sample interval lengths were usually kept between 0.3m and 1.2m (NQ). The same half of the core was selected for each sample interval and placed in numbered calico bags and submitted to the laboratory for analysis. The other half of the core was left in the core tray which was stamped for identification, stored and catalogued. A minor amount of infill or grade control drilling was submitted as whole core Due to the refractory nature of the mineralisation there is very little free, coarse gold. It is considered that the half core samples submitted for assay are representative of the ore being sampled.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	The main assaying method employed by the company is normal fire assay with a 40 or 50g charge and AAS analysis for Au. All sampling data was entered onto logging sheets or tablet computer and entered into the central Acquire database. Some historic RC holes from surface and the pit were also used for resource estimation. These holes typically have 2m sample intervals.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	Velvet: Diamond drilling (HQ and NQ2 diameter drill core). Where appropriate diamond core was orientated using a spear, Ballmark™, Ezimark™, or ACE multi electronic tool Deeper historic KB drilled / surveyed to standards of the time
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Recovery factors for core drilling were generally very high, in excess of 95% recovery. Historic diamond drilling stored onsite shows excellent recovery.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	For diamond drilling, the contractors adjust their rate of drilling and method if recovery issues arise. All recovery is recorded by the drillers on core blocks. This is checked and compared to the measurements of the core by the geological team. Any issues are communicated back to the drilling contractor. Some loss occurred when drilling through fault zones such as the Kanowna Belle's Fitzroy Fault. Areas of potential lower recovery were generally known beforehand and controlled drilling techniques were employed to maximise recovery.
	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.	There is no known relationship between sample recovery and grade.
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.	All diamond core was inspected by geologists; lithology, mineralisation, structure, alteration, veining and specific gravity were recorded. Quantitative measures were also recorded where possible such as structural measurements, intensity of alteration, percentage of mineralisation, thickness of veins and veins per metre. Geotechnical measurements on diamond core include RQD, Recovery, and Fracture Frequency. Prior to Apr-12; Joint sets, infill, infill thickness and roughness were also geotechnically measured. Photographs are taken of each core tray when wet. All mineralised intersections are logged and sampled.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is qualitative and all core is photographed. Visual estimates are made for mineralisation percentages for core.
	The total length and percentage of the relevant intersections logged.	100% of the drill core is logged
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Diamond core samples from exploration and resource definition targets are sampled by half-core on intervals controlled by geological domaining represented by mineralisation, alteration and lithology. Mineralised intersections are sampled with a maximum and minimum length of 1.2m and 0.2m, respecting lithological or alteration contacts. The down hole depth of all sample interval extents are recorded.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	There are no non-core samples being reported
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation is considered appropriate

Criteria	JORC Code explanation	Commentary
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Most holes have all intervals sampled
	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.	Quarter core sampling is often undertaken as a check
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Grind checks are performed at both the crushing stage(3mm) and pulverising stage (75µm), requiring 90% of material to pass through the relevant size.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	All samples from Kanowna Belle / Velvet are prepared and assayed at commercial laboratories. No Northern Star personnel are involved in the preparation or analysis procedures. Preparation involves crushing/pulverising the entire sample to 95% minus 75µm, splitting off 200g, and preparing a 50g charge for fire assay. Kanowna Belle samples are tested by fire assay with an atomic absorption finish (FA/AA) for Au, LECO for S and inductively coupled plasma (ICP) for As and other multi-elements. Monthly QAQC reports are prepared to check for any bias or trends with conclusions discussed with the laboratory management. Holes that do not pass QAQC are not used for resource estimation.
	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.	No geophysical tools were used to determine any element concentrations
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Sampling and assaying QAQC procedures include: - Periodical resubmission of samples (umpires) to primary and secondary laboratories in Kalgoorlie (minimum >5%). - Submittal of independent certified reference material - Review of internal laboratory quality control standards - Review of laboratory (analytical) duplicates - Sieve testing to check grind size - Sample recovery checks. - Unannounced laboratory inspections Standard control samples and blanks are inserted into the sample stream at a ratio of 1:20. The samples are purchased from certified commercial suppliers and range from 0.29gpt Au to 9.85gpt Au. The standard control samples are changed on a three month rotation. The results are reviewed on a per batch basis and batches of samples are re-analysed if the result is greater than three standard deviations from the expected result. Any result outside of two standard deviations is flagged for investigation by a geologist and may also be re-assayed. Primary laboratory Bureau Veritas meets ISO 9001:2000.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	All significant intersections are verified by Northern Star senior geologists during the drill hole validation process, and later by a Competent person prior to being signed off
	The use of twinned holes.	No twinned holes were drilled for this data set
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All assay data adheres to Kanowna QAQC standards and is further validated by a qualified person before it can be used in the resource estimation process. All data is stored in the site Acquire database with hard copies of all logging and sample results filed for each hole. Assay files are received in csv format and loaded directly into the database by the supervising geologist who then checks that the results have inserted correctly. Hardcopy and electronic copies of these are also kept. Holes that cannot be accurately validated or do not meet the requirements of Kanowna QAQC are excluded prior to estimation.
	Discuss any adjustment to assay data.	
Location of data points	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.	All holes were surveyed for collar positions. All recent diamond drill holes were surveyed down hole by various methods; including a single shot down hole camera, EMS (Electronic Multi Shot) method or in-rod gyroscopic survey tools. Holes are typically surveyed at 15m and 30m intervals down hole thereafter. Since the 1st of June 2015, the Reflex TN14 tool is used for rig alignment and true north gyroscopic survey. Any poor surveys are re-surveyed and in some cases holes have been gyroscope surveyed by ABIMS for non-magnetic affected survey. Since April 2014, a Reflex Gyro has been used on holes with a depth >500m. If survey data is missing or quality is suspect and not replaced by more recent drilling, affected data was not used.
	Specification of the grid system used.	A local grid system (KBMINE grid) is used. It is rotated anticlockwise 29.16 degrees to the MGA94 grid.

Criteria	JORC Code explanation	Commentary
	Quality and adequacy of topographic control.	Drill hole collars were located by the underground mine surveyors using a Laser system, respective to the local mine grid and to the overall property in UTM or Australian grid coordinates Topographic control is not relevant to the underground mine.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill hole spacing is a nominal 40m x 40m that has been in-filled to a nominal 20m x 20m in the main zones. The above spacing of 20x20 and 15x15 in conjunction with geological continuity and confidence is used to assign classifications of indicated plus in the resource estimation model. Samples have been composited to 1m, which is the dominant sample length, prior to estimation. The Velvet drill core results are composited into significant intersections
	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.	The data spacing is considered appropriate
	Whether sample compositing has been applied.	No compositing has been applied to these exploration results, although composite intersections are reported.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The majority of Velvet drilled data ranges from almost sub parallel to 45-50 degrees to the interpreted mineralisation. It is not known what effect this bias will have on future estimations.
	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.	The precise orientation of mineralisation at the Velvet prospect is not fully understood at this point in time.
Sample security	The measures taken to ensure sample security.	All core is kept within the site perimeter fence on the Mining Lease 27/103. Samples are dispatched and/or collected by an offsite delivery service on a regular basis. Each sample batch is accompanied with a - Job number - Number of Samples - Sample Numbers (including standards and duplicates) - Required analytical methods - A job priority rating A Chain of Custody is demonstrated by both Company and Bureau Veritas in the delivery and receipt of sample materials. Any damage to or loss of samples within each batch (e.g., total loss, spillage or obvious contamination), must also be reported to the Company in the form of a list of samples affected and detailing the nature of the problem(s).
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The last external audit was conducted in 2009 with the conclusion that industry best practice was being followed. Standards and procedures have remained largely unchanged since this time. A review of sampling techniques, assay results and data usage was conducted internally by the companies' principal resource geologist during the model peer review process with no material issues found.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	Mines of the Kanowna Operations operate subject to the requirements of the Western Australian Mining Act 1978 and its amendments, and the Mines Safety and Inspection Act 1994, regulated by the Department of Consumer Protection (DoCEP) and the Department of Industry and Resources (DoIR). Mining leases issued by the DoIR covering mining operations stipulate environmental conditions for operation, rehabilitation, and reporting, as well as the requirement to lodge unconditional performance bonds The mine and associated infrastructure is located on granted Mining Leases 27/92 and 27/103. Mining Lease 27/92 was granted on March 14, 1988 and has an area of 972.65 ha. Mining Lease 27/103 was granted on January 12 1989 and has an area of 944.25 ha. Both leases were granted for periods of 21 years after which they can be renewed for a further 21 years. The tenements were surveyed as part of the application process. The mining leases which contain the deposit and most of the surrounding tenement holdings are 100% owned by Northern Star Resources. The mining tenements are located on vacant crown land.

Criteria	JORC Code explanation	Commentary
		The leases containing the deposit are pre-1994 leases so are not subject to Native Title claims.
	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.	No known impediments exist and the tenements are in good standing
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Kanowna was discovered in 1989 by Delta Gold, open pit mining commenced between 1993 and 1998 resulting in a 220m deep pit. Underground operation began in 1998. In 2002, Delta Gold Limited and Goldfields Limited merged to form Aurion Gold Limited and Placer Dome Inc. (Placer Dome) subsequently acquired Aurion Gold Limited. In 2006 Barrick Gold Corporation acquired Placer Dome and in 2014 Northern Star acquired the operation from Barrick. Velvet was discovered in the mid 200's when the mine exploration team intersected mineralisation adjacent to the Fitzroy Fault, 550m from existing KB development. Follow up drilling failed to replicate initial results. In 2014 the Velvet area was reviewed and an exploration program developed. Exploration drilling is ongoing from underground to extend the known mineral resources.
Geology	Deposit type, geological setting and style of mineralisation.	Kanowna Belle is located within the Kalgoorlie Terrane, one of a number of elongate, broadly NNW-SSE striking structural-stratigraphic late Archaean greenstone terranes of the Eastern Goldfields of Western Australia. The Kanowna Belle gold mine is located close to the centre of the NNW-SSE trending, greenstone-dominated Boorara Domain, the eastern most subdivision of the Kalgoorlie Terrane. The Kanowna Belle deposit can be categorised as a refractory, Archean lode-gold type deposit. The orebody is comprised of several ore shoots, including the large Lowes Shoot, and several smaller lodes including Troy, Hilder, Hangingwall and Footwall shoots controlled by sets of structures of various orientations oblique to Lowes. Lowes contains some 80% of known gold mineralisation and strikes ENE (mine grid east), dips steeply SSW, and plunges steeply SW. Lowes Shoot has a strike length of 500m, width of 5m to 50m, and down-plunge extent greater than 1250m. The overall steep SE plunge is interpreted to reflect the intersection of D1 (ENE) and D2 (NW) structures Kanowna Belle is one of the only few known refractory pyritic orebodies in the Yilgarn Craton. Arsenopyrite is not a major sulphide phase. Gold in the Kanowna Belle deposit occurs mostly as fine-grained (<10 µm) inclusions in pyrite or as very fine-grained gold located in arsenic-rich growth zones in pyrite. Typical ore assemblages contain 0.5% S to 1.5% S and 40 ppm As. The Kanowna Belle deposit is hosted by sedimentary volcanoclastic and conglomeratic rocks, which are separated into hangingwall and footwall sequences by a major, steeply SSE dipping zone of structural disruption. This structure represents the product of at least three temporally distinct stages of deformation, comprising the Fitzroy Mylonite, the Fitzroy Shear Zone and the Fitzroy Fault, which have produced clear structural overprinting relations. Importantly, this structure has localised emplacement of the Kanowna Belle porphyry, which hosts at least 70% of known mineralisation. Localisation of highest grade mineralisation and most intense alteration around the composite structure emphasises its importance for acting as the major plumbing system for auriferous fluids. Formation of the Fitzroy Mylonite and Fitzroy Shear Zone are interpreted to have occurred during regional south-to-north D1 thrusting. A switch in far-field stress axes to the approximately ENE-WSW D2 orientation caused reactivation of the Fitzroy Shear Zone, resulting in sigmoidal folding of pre-existing structures and formation of a shallow lineation associated with sinistral transcurrent shearing. The Kanowna Belle porphyry cross-cuts fabrics associated with the D1 Fitzroy Mylonite and Fitzroy Shear Zone and is in turn overprinted by S2. The Velvet mineralisation appears to be in a preferentially mineralised volcanic unit adjacent to the Fitzroy Fault.
Drill hole Information	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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length.	All unreleased significant Velvet drill intersections are presented with this report
	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.	Information is not being excluded, all holes are reported
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All reported assay results have been length weighted to provide an intersection width. A maximum of 2m of barren material between mineralised samples has been permitted in the calculation of these widths.
	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.	No assay results have been top-cut for the purpose of this report. A lower cut-off of 1gpt has been used to identify significant results, although lower results are included where a known ore zone has been intercepted, and the entire intercept is low grade.

Criteria	JORC Code explanation	Commentary
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been used for the reporting of these exploration results
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	True widths have been calculated for intersections of the known ore zones, based on existing knowledge of the nature of these structures. The orientation of the Velvet mineralisation is not fully known at this point in time
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Both the downhole width and true width have been clearly specified when used.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Best estimates of the true thicknesses are reported.
Diagrams	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.	Appropriate plans and section have been included in this 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.	Both high and low grades have been reported accurately, clearly identified with the drill hole attributes and 'From' and 'To' depths.
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, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No other exploration data is being reported
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further drilling is planned for Velvet. Expectation is to mine the Velvet mineralisation
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Velvet: Because of the difficulty in targeting the mineralisation from existing KB development, an exploration decline was established. This latest drilling was from this new access, half way to Velvet. The Velvet mineralisation is open up dip and along strike

JORC Code, 2012 Edition – Table 1 Report: White Feather Reward Drill Results at February 2016

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	Sampling was completed using full and half core samples from HQ3 drill core. Friable oxide material was sampled full core to prevent loss during splitting. Competent core was sampled on a half core basis.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Samples varied between 0.3 – 1.5m in length, with a nominal length of 1m. Samples were assigned by the logging geologist respecting geological boundaries. The core was split using an industry standard Almonté core diamond blade core saw.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	Full and half core samples were taken to a nominal 1m sample. This sample was pulverised to produce a 50g charge for fire assay. Where visible gold was observed, samples were submitted for 1kg screen fire assay utilising a 75um screen. The entire half core sample is pulverised, then split to produce a 1kg sample. The sample is passed through a 75um screen to produce a coarse and fine fraction sample. The entire coarse fraction (and screen) are fired to calculate the amount of coarse gold. Two 50g charges of the fine fraction are fire to assay the fine fraction. The weighted average grade of the coarse and fine fraction assays are reported as the Calculated Grade for the interval.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	Diamond drilling completed as part of this program in HQ gauge. Due to difficult drilling, a wedge was drilled off one hole in NQ2 gauge which failed. The hole was re-drilled by RC to 115m, then continued to the planned EOH depth by HQ gauge diamond.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond drilling contractors completed core blocks for each run recording the length of the run and whether any core loss occurred.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Most sample recovery issues occurred in the top 50m of the holes in the oxide zone. As this was not the target of the program and no significant mineralisation was expected, no additional measures were taken to increase recovery through this zone.
	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.	There is no relationship between sample recovery and grade, or any evidence of bias in the data
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.	Diamond drill core has been logged geologically, recording lithology, alteration, mineralisation, veining and structural data. Basic geotechnical logging including RQD and fracture frequency are being recorded approximately +/- 50m of the targeted mineralised structures. Logging of alteration intensity is semi-quantitative. Logging of mineralisation and veining intensity is quantitative. The entire length of each drill hole was logged.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	All logging is quantitative where possible and qualitative elsewhere. A photograph is taken of every core tray.
	The total length and percentage of the relevant intersections logged.	The entire hole is logged
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	For diamond drill core samples in highly oxidised saprolite, full core samples were submitted for assay as the sample deteriorates significantly upon cutting. Once competent core is reached, sampling switches to half core sampling.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	N/A
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation is considered appropriate.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	All core is sampled
	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.	One half of the core is sampled, with the remainder stored for future reference. Occasionally quarter core sampling may be undertaken.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Grind checks are performed at both the crushing stage(3mm) and pulverising stage (75µm), requiring 90% of material to pass through the relevant size.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	A 50g Fire assay charge is used with a lead flux, dissolved in the furnace. The prill is totally digested by HCl and HNO_3 acids before Atomic Absorption Spectroscopy (AAS) determination for gold analysis.

Criteria	JORC Code explanation	Commentary
	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.	No geophysical tools were used to determine any element concentrations.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Certified reference materials (CRMs) are inserted into the sample sequence randomly at a rate of 1 per 20 samples to ensure correct calibration. All standards passed within acceptable limits for this results in this report Blanks are inserted into the sample sequence at a rate of 1 per 20 samples, This is random, except where high grade mineralisation is expected. Here, a Blank is inserted after the high grade sample to test for contamination. All blanks returned values below detection limits for results in this report.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	All significant intersections are verified by another Northern Star geologist during the drill hole validation process, and later by a Competent person to be signed off.
	The use of twinned holes.	No twinned holes were drilled for this data set.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Geological logging logged directly into an Acquire database at the drill rig. Data was transferred to the main Acquire database at the completion of the project utilising a briefcase transfer. Assay files are received in csv format and loaded directly into the database by the Database administrator (DBA). A geologist then checks that the results have inserted correctly. Hardcopy and electronic copies of these are also kept. No adjustments are made to this assay data.
	Discuss any adjustment to assay data.	
Location of data points	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.	A planned hole is pegged using a Differential GPS (DGPS) by field assistants. During drilling single-shot magnetic surveys are taken every 30m to ensure the hole remains close to design. This is performed by the driller using the Globaltech Pathfinder DS1 survey system, and checked by the supervising geologist. A final survey is taken once the end of hole is reached For 2015 Diamond drilling, each hole had a Gyroscopic survey performed, to verify the single shot surveys.
	Specification of the grid system used.	The final collar is picked up after hole completion by Differential GPS in the MGA 94 Zone 51 grid.
	Quality and adequacy of topographic control.	Topographic control has been achieved through an airborne survey conducted in 2009 by Survey Graphics mapping consultants. This was achieved using airborne DGPS (Differential Global Positioning System). Alternative frames were ortho-rectified using a 30m DEM within the mapping area, and a 50m DEM outside the mapping area, captured using photogrammetry. This topographic control has been verified by the DGPS pickup of numerous hole collars.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill hole spacing across the area varies. Typical spacing within the area tested is approximately varies from 40m by 40m to greater than 80m by 80m. The current drill program was designed to infill existing drilling so the maximum spacing between holes was 40m x 80m No compositing has been applied to these exploration results, although composite intersections are reported.
	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.	The data spacing is considered appropriate
	Whether sample compositing has been applied.	No compositing has been applied to these exploration results, although composite intersections are reported.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Drilling is targeting an array of moderately southeast dipping quartz veins. Drilling was designed to intersect the target veins in an orientation close to orthogonal. In some instances due to topography and historic surface workings, holes were drilled on less than optimal azimuths. True width of drill intercepts have been reported.
	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.	No sampling bias is considered to have been introduced by the drilling orientation
Sample security	The measures taken to ensure sample security.	Drilling was conducted on a 24hr basis. Drill core was collected from the rig by Northern Star personnel and transferred the exploration core yard at 14 Williams St, West Kalgoorlie. The yard is fully fenced and locked every evening. Random security patrols are completed overnight. Samples are dispatched and/or collected by an offsite delivery service on a regular basis. Each sample batch is accompanied with a: - Job number - Number of Samples - Sample Numbers (including standards and duplicates) - Required analytical methods - A job priority rating

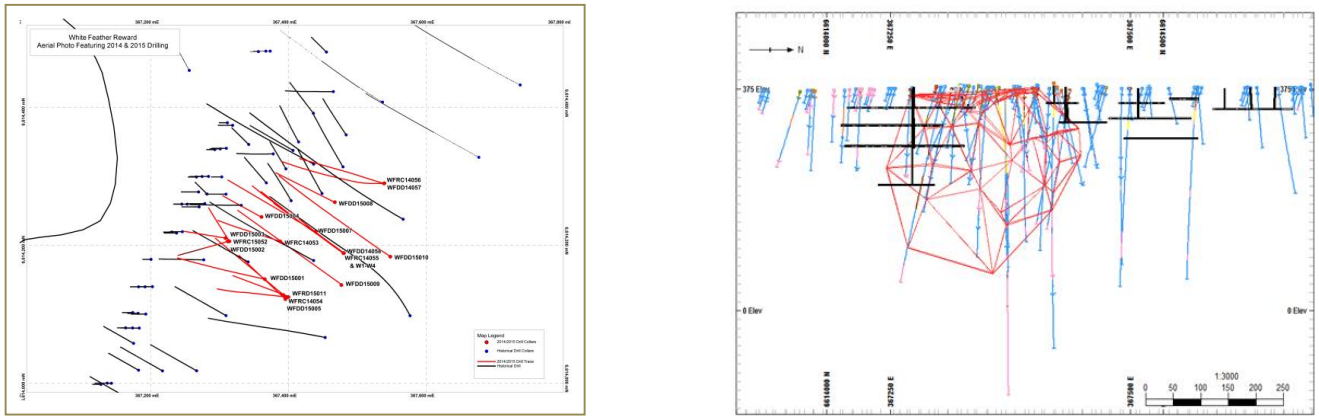
Criteria	JORC Code explanation	Commentary
		A Chain of Custody is demonstrated by both Company and Bureau Veritas in the delivery and receipt of sample materials. Any damage to or loss of samples within each batch (e.g., total loss, spillage or obvious contamination), must also be reported to the Company in the form of a list of samples affected and detailing the nature of the problem(s).
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have recently been conducted on sampling techniques.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	All holes mentioned in this report are located within the Mining Lease 27/164 held by Kanowna Mines Ltd, a wholly owned subsidiary of Northern Star Resources Ltd. The tenement on which the White Feather Reward deposit is hosted (M27/164) covers the historic Kanowna Town site which remains gazetted. The town site boundary is approximately 500m south-west of White Feather Reward. White Feather Reward is located on Crown Reserve 4459 – Common M27/164 has a partial royalty to Oxford Credits Corporation Pty Ltd however this royalty does not extend over the area of drilling that is the subject of this release.
	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.	No known impediments exist and the tenements are in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The original gold discovery at Kanowna in 1893 was White Feather Reward (McAuliffe's Reward as it was known then), with subsequent discovery of the Main Reef and Lily Australis lodes to the South. Historic production (1895-1939) from the White Feather Line of workings is recorded at 457K Tonnes at 16gpt for 230K oz. Production from the Reward lodes is recorded at 457K Tonnes at 16gpt for 230K oz. Production from the Reward lode (1895 – 1907) is recorded as 38,798 Tonnes at 17.8gpt for 22,255 Oz. Production from 1907 onwards mainly by tributors and is poorly recorded. Sporadic production may have occurred through till 1939. Recent gold exploration commenced in the 1980's. Placer Dome completed 59 RC drill holes in 2004 targeting shallow remnant mineralisation over a strike of 1200m to a depth of 40mbs assess the potential for an open pit. Placer Dome completed 8 DD holes in 2005 testing down-dip from the White Feather Reward workings to assess the potential for underground mining below historic workings. The drilling identified mineralisation over a strike of at least 100m with a down-dip extent of 80m. Further drilling was recommended to extend the strike and down-dip extent of the high grade shoot, and to improve confidence in the grade continuity, but not completed at that time.
Geology	Deposit type, geological setting and style of mineralisation.	The Kanowna camp is situated within the Norseman-Wiluna Greenstone Belt, within the Boorara domain which sits in the southern closure of the SE dipping Scotia-Kanowna anticline. The target area is within the Black Flag Formation which manifests as a sequence of clastic sedimentary units. Within the target area, the main unit is the Ballarat Conglomerate which is a mafic dominated, but polymictic conglomerate with well-rounded clasts typically between 2cm and 40cm in diameter. The Ballarat Conglomerate is cut by the White Feather Fault, which is interpreted as a reactivated D1 fault, similar to the Fitzroy Fault which hosts the Kanowna Belle Deposit. Mineralisation is hosted by laminated to bucky quartz carbonate veins which outcrop over a strike of approximate 3.5km.
Drill hole Information	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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length.	See attached drill hole tables.
	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.	No data is excluded from this report

Criteria	JORC Code explanation	Commentary
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All reported assay results have been length weighted to provide an intersection width. A maximum of 2m of barren material between mineralised samples has been permitted in the calculation of these widths.
	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.	No assay results have been top-cut for the purpose of this report. A lower cut-off of 1gpt has been used to identify significant results, although lower results are included where a known ore zone has been intercepted, and the entire intercept is low grade.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been used for the reporting of these exploration results.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	The geometry of the mineralisation with respect to the drill holes is well constrained. Holes have been planned such that downhole widths are generally close to the actual true width. In some instances, topography and historic surface infrastructure prevented holes being drilled at the optimal azimuth. Downhole and true width for intercepts have been reported.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Both the downhole width and true width have been clearly specified when used.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Estimated true width is reported.
Diagrams	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.	Appropriate plans and section have been included in this 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.	The assays presented in this release are representative of all results received during the drill program being reported. At the time of release, not all results had been received. Further results will be released as they become available.
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, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No further relevant work has been carried out at the White Feather project.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Follow up work will include testing along strike in both directions of current mineralisation.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	



Plan view and section of White Feather Reward Drilling

JORC Code, 2012 Edition – Table 1 Report: Six Mile Drill Results at February 2016

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	Samples were obtained using Reverse Circulation (RC) drilling and HQ diamond drilling (DD).
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	For 2015, RC samples were split using a rig-mounted cone splitter on 1m intervals to obtain a sample for assay. 4m Composite spear samples were collected for the entirety each hole. The 1m split samples were then taken for any composite sample that returned an assay grade >0.1gpt. The 1m splits were also taken for composite samples either side of the anomalous composite. For 2015 RC drilling the 1m cone-split sample was submitted for assay for all intervals. For DD drilling, half core samples were submitted for assay. Holes were sampled at a nominal 1m sample interval, although this was varied to match geological criteria. The minimum sample size used is 0.3m.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	Samples were taken to Genalysis Kalgoorlie for preparation by drying, crushing to <3mm, and pulverising the entire sample to <75µm. 300g Pulps splits were then dispatched to Genalysis Perth for 50g Fire assay charge and AAS analysis. Anticipated high grade zones were analysed by 1kg Leachwell or triplicate fire assay analysis.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	RC Drilling was completed using a 5.75" drill bit, downsized to 5.25" at depth. Historically, RAB, Aircore, RC and diamond holes have been drilled in the area. Historic diamond drilling in the area has been conducted in NQ2 diameter (50.5mm). Diamond Core was drilled in HQ diameter and oriented using the Reflex ACT Core orientation system.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Core is measured and any determined loss recorded in the database. RC samples are routinely weighed to assess recovery.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC drilling contractors adjust their drilling approach to specific conditions to maximise sample recovery. Moisture content and sample recovery is recorded for each RC sample. No recovery issues were identified during 2015 RC drilling. For diamond drilling the contractors adjust their rate of drilling and method if recovery issues arise. All recovery is recorded by the drillers on core blocks. This is checked and compared to the measurements of the core by the geological team. Any issues are communicated back to the drilling contractor.
	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.	No bias has been noted
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.	Chips from all metres were sieved, washed and logged. RC sample chips are logged in 1m intervals, for the entire length of each hole. Regolith, Lithology, alteration, veining and mineralisation are all logged separately for each metre. Where possible, quantitative measures are used such as percentage values for individual minerals or vein types. All RC drilling was logged. All diamond holes were logged from start of hole to end of hole for regolith, lithology, alteration, veining and mineralisation. Where possible, quantitative measures are used such as percentage values for individual minerals or vein types. Quantitative structural measurements were also taken.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	All logging is quantitative where possible and qualitative elsewhere. A photograph is taken of every core tray.
	The total length and percentage of the relevant intersections logged.	RC sample chips are logged in 1m intervals. For the entire length of each hole. Regolith, Lithology, alteration, veining and mineralisation are all recorded.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	For diamond drill core samples in highly oxidised saprolite, full core samples were submitted for assay as the sample deteriorates significantly upon cutting. Once competent core is reached, sampling switches to half core sampling.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	All RC samples are split using a rig-mounted cone splitter to collect a 1m sample 3-4kg in size. These samples were submitted to the lab from any zones approaching known mineralisation and from any areas identified as having anomalous gold. Outside of mineralised zones spear samples were taken over a 4m interval for composite sampling.

Criteria	JORC Code explanation	Commentary
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation is considered appropriate.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field duplicates were taken for RC samples at a rate of 1 in 20. For the composite samples the spearing process was repeated from the opposite side of the green bag. For 1m split samples the full rig sample was passed through a riffle splitter to provide a duplicate. For 2015 RC drilling, the duplicate was taken from the cone splitter. No duplicate sampling of core (sending the remaining half core sample) has been conducted as the geological value of the core is considered higher than the need to duplicate sample.
	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.	Sample preparation was conducted at Genalysis Kalgoorlie, commencing with sorting, checking and drying at less than 110°C to prevent sulphide breakdown. Core samples are jaw crushed to a nominal -6mm particle size. If the sample is greater than 3kg a Boyd crusher with rotary splitter is used to reduce the sample size to less than 3kg (typically 1.5kg) at a nominal <3mm particle size. The entire crushed sample (if less than 3kg) or sub-sample is then pulverised to 90% passing 75µm, using a Labtechnics LM5 bowl pulveriser. For Fire assay, 300g Pulp subsamples are then taken with an aluminium scoop and stored in labelled pulp packets. For leachwell, 1kg of pulped sample is taken.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Grind checks are performed at both the crushing stage(3mm) and pulverising stage (75µm), requiring 90% of material to pass through the relevant size.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	A 50g Fire assay charge is used with a lead flux, dissolved in the furnace. The prill is totally digested by HCl and HNO_3 acids before Atomic absorption spectroscopy. Repeatability of sub-samples was outside acceptable limits with 2014 DD drilling indicated the presence of coarse gold within cm scale stockwork veining as the likely cause for the poor repeatability. In order to improve assay repeatability test work analysing 1kg samples using the Leachwell technique with AAS finish, was completed on coarse bulk reject sample from RC and DD drilling. Leachwell is not to "total" technique, but is considered to approximate the cyanide extractable gold that would be recovered in routine metallurgical processes. The initial conditions involved a 12 hour bottle roll. A fire assay on the Leachwell tails was completed to assess how effective the method had been in extracting the gold. The initial test work indicates a slightly longer bottle roll is required to leach the coarse gold. Additional test work utilising a 24hr bottle roll is planned. Leachwell was not available for 2015 Diamond Drilling so a triplicate fire assay was sued for zones with anticipated coarse gold. The average was then taken as the final sample grade.
	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.	No geophysical tools were used to determine any element concentrations
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Certified reference materials (CRMs) are inserted into the sample sequence randomly at a rate of 1 per 20 samples to ensure correct calibration. Any values outside of 3 standard deviations are re-assayed with a new CRM. Blanks are inserted into the sample sequence at a rate of 1 per 20 samples, This is random, except where high grade mineralisation is expected. Here, a Blank is inserted after the high grade sample to test for contamination. Failures above 0.2gpt are followed up, and re-assayed. New pulps are prepared if failures remain. Field Duplicates are taken for all RC samples (1 in 20 sample). No Field duplicates are submitted for diamond core.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	All significant intersections are verified by another Northern Star geologist during the drill hole validation process, and later by a Competent person to be signed off
	The use of twinned holes.	No Twinned holes were drilled for this data set
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Geological logging was captured using excel templates. Both a hardcopy and electronic copy of these are stored, as well as being loaded in to the database using automatic acquire loaders. Assay files are received in csv format and loaded directly into the database by the Database administrator (DBA). A geologist then checks that the results have inserted correctly. Hardcopy and electronic copies of these are stored.
	Discuss any adjustment to assay data.	No adjustments are made to this assay data.
Location of data points	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.	A planned hole is pegged using a Differential GPS (DGPS) by field assistants During drilling single-shot magnetic surveys are taken every 30m to ensure the hole remains close to design. This is performed by the driller using the Globaltech Pathfinder DS1 survey system, and checked by the supervising geologist. A final survey is taken once the end of hole is reached For diamond drilling, each hole had a Gyroscopic survey performed to verify the single shot surveys.

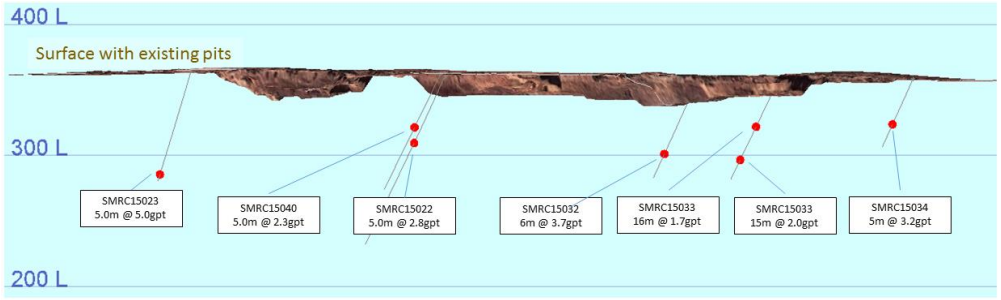
Criteria	JORC Code explanation	Commentary
	Specification of the grid system used.	The final collar is picked up after hole completion by DGPS in the MGA 94 Zone 51 grid.
	Quality and adequacy of topographic control.	Topographic control has been achieved through an airborne survey conducted in 2009 by Survey Graphics mapping consultants. This was achieved using airborne DGPS (Differential Global Positioning System). Alternative frames were ortho-rectified using a 30m DEM within the mapping area, and a 50m DEM outside the mapping area, captured using photogrammetry. This topographic control has been verified by the DGPS pickup of numerous hole collars
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill hole spacing across the area greatly varies. Up to 100m below surface, spacing is typically 40m x 40m. This is drastically reduced however at depth where few drill holes intersect ore. Beyond the original composite samples described earlier, no compositing has been applied to these exploration results, although composite intersections are reported.
	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.	The data spacing is considered appropriate.
	Whether sample compositing has been applied.	No compositing has been applied to these exploration results, although composite intersections are reported.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	There are various mineralised orientations at Six Mile, including porphyry contacts and stockwork lodes, with two main shear orientations; NW-trending shears dipping steeply (70-80°) to the SW, and ENE trending shears dipping steeply (70-80°) to the South. Many of the drill holes in the Six Mile area have been drilled at poor orientations to these structures. This is due to poor understanding of the project geology prior to the recent interpretation. Wherever this has occurred, it is clearly noted in the report. These holes are only suitable as an exploration tool for further targeting and are unlikely to be used in any future resource.
	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.	No sampling bias is considered to have been introduced by the drilling orientation.
Sample security	The measures taken to ensure sample security.	Prior to laboratory submission samples are stored by Northern Star Resources in a secure yard. Once submitted to the laboratories they are stored in a secure fenced compound, and tracked through their chain of custody and via audit trails.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Due to the poor duplicate repeatability seen in RC drilling at Six Mile, an internal review of RC sampling has been conducted to determine if the repeatability is due to coarse gold, poor sampling or both. This was conducted by the QAQC geologist. A number of steps have been taken to improve the primary sampling including the fitting of an additional arm and spirit level to the cone splitter to ensure it is kept straight, and training drill offsiders in sample theory to help ensure a more consistent sample.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	All holes mentioned in this report are located within on Mining Lease 27/63, held by The Kanowna Mines Ltd, a wholly owned subsidiary of Northern Star Resources.
	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.	No known impediments exist and the tenements are in good standing
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Western Mining Corporation (WMC) commenced exploration in the Six Mile Area in 1983. Early exploration consisted of costeans, followed by 28 RC holes. A resource of 119,482 tonnes at 3.2gpt was calculated and mining began in 1986. Mining ceased in 1988 due to reconciliation issues. In the mid 1990's, 3 diamond holes were drilled by WMC to test for mineralisation below the main pit, although assay results were poor. The current location of the core is unknown. Delta Gold acquired the tenement in 2000 and drilled 20 RC holes and 1 diamond hole below the existing pit. This resulted in a revised resource calculated of 2.6 million tonnes at 2.1gpt. Placer Dome subsequently acquired the tenement through their takeover of Aurion Gold in 2002 and conducted no further exploration until Placer Dome was taken over by Barrick Gold in 2004. Barrick Gold conducted channel sampling of the pit walls in 2007, followed by 2 diamond drill holes in 2008, with limited success.

Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	The Six Mile deposit is situated within the Boorara domain of the Kalgoorlie Terrane, part of the Norseman-Wiluna Greenstone Belt. The Scotia-Kanowna dome, a D2 granodiorite pluton, intrudes a Boorara domain sequence of lower basalt, komatiites, upper basalt and felsic volcanics The Six Mile area is dominated by massive chlorite-amphibole basalt with at least two phases of quartz feldspar porphyry intrusion. Two main shear orientations exist within the pit - NW-trending and ENE-trending. Mineralisation occurs within quartz-carbonate veins hosted by these discrete shears. Stockwork mineralisation is hosted within the basalt in proximity to shallow to moderately dipping lodes. Mineralisation also exists on the Footwall and Hangingwall of porphyry contacts. The Main Fletcher Porphyry hosts consistent low grade mineralisation and a supergene lode exists in the Main Pit zone (the Main Pit Pod).
Drill hole Information	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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length.	All recent drill intersections yet to be reported to the ASX are presented with this report.
	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.	No holes are excluded from this period of drilling.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All reported assay results have been length weighted to provide an intersection width. A maximum of 2m of barren material between mineralised samples has been permitted in the calculation of these widths.
	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.	No assay results have been top-cut for the purpose of this report. A lower cut-off of 1gpt has been used to identify significant results, although lower results are included where a known ore zone has been intercepted, and the entire intercept is low grade.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been used for the reporting of these exploration results.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	True widths have been calculated for intersections of the known ore zones, based on existing knowledge of the nature of these structures. Both the downhole width and true width have been clearly specified when used. A reinterpretation of the area has made it clear that many of the historic holes have been drilled in poor orientations, with regards to the mineralised structures. Further holes are being planned at more appropriate orientations to better test the mineralised structures
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Both the downhole width and true width have been clearly specified when used.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Estimated true width reported
Diagrams	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.	Appropriate plans and section have been included in this 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.	Both high and low grades have been reported accurately, clearly identified with the drill hole attributes and 'From' and 'To' depths.
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, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No further relevant work has been carried out at the Six Mile Project.

Criteria	JORC Code explanation	Commentary
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Following the reinterpretation of the Six Mile Project and the creation of a new geological model, resource estimation is currently underway. Once this is completed, further drill holes are planned to increase the confidence in the area as well as increasing the size of the reportable resource.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	

JORC Code, 2012 Edition – Table 1 Report: Paradigm Drill Results at February 2016

Section 1 Sampling Techniques and Data

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

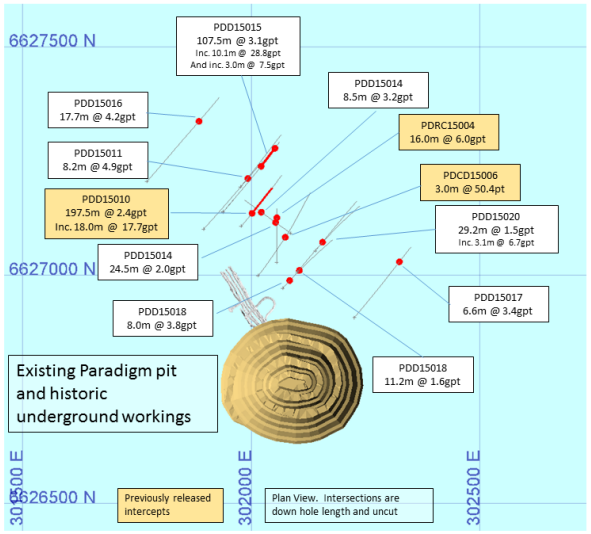
Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.	Sampling was historically completed using a combination of Reverse circulation (RC), Rotary air blast (RAB) and diamond (DD) drilling.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	RC samples were split using a rig-mounted cone splitter on 1m intervals to obtain a sample for assay.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	Samples were taken to Genalysis Kalgoorlie for preparation by drying, crushing to <3mm, and pulverising the entire sample to <75µm. 300g Pulps splits were then dispatched to Genalysis Perth for 50g Fire assay charge and AAS analysis.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	Both RC and diamond techniques were used for recent drilling. Diamond core was typically NQ2 and RC drilling was completed using a 5.75" drill bit.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Moisture content and sample recovery is recorded for each RC sample.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	RC drilling contractors adjust their drilling approach to specific conditions to maximise sample recovery. Moisture content and sample recovery is recorded for each RC sample. No recovery issues were identified during 2015 RC drilling. Recovery was poor at the very beginning of each hole, as is normal for this type of drilling in overburden.
	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.	No relationship or bias has identified between grade and sample recovery.
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.	RC sample chips are logged in 1m intervals. For the entire length of each hole. Regolith, Lithology, alteration, veining and mineralisation are all recorded.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	All logging is quantitative where possible and qualitative elsewhere. A photograph is taken of every chip tray.
	The total length and percentage of the relevant intersections logged.	In all instances, the entire drill hole is logged.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	For recent Paradigm results, all holes were cut and half core sent to the lab. The remained was stored for reference.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	All RC samples are split using a rig-mounted cone splitter to collect a 1m sample 3-4kg in size. All samples were intended and assumed to be dry, moisture content was recorded for every sample.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation was conducted at Genalysis Kalgoorlie, commencing with sorting, checking and drying at less than 110°C to prevent sulphide breakdown. Samples are jaw crushed to a nominal -6mm particle size. If the sample is greater than 3kg a Boyd crusher with rotary splitter is used to reduce the sample size to less than 3kg (typically 1.5kg) at a nominal <3mm particle size. The entire crushed sample (if less than 3kg) or sub-sample is then pulverised to 90% passing 75µm, using a Labtechnics LM5 bowl pulveriser. 300g Pulp subsamples are then taken with an aluminium scoop and stored in labelled pulp packets
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Grind checks are performed at both the crushing stage(3mm) and pulverising stage (75µm), requiring 90% of material to pass through the relevant size.
	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.	Field duplicates were taken for RC samples at a rate of 1 in 50.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	A 50g Fire assay charge is used with a lead flux, dissolved in the furnace. The prill is totally digested by HCl and HNO_3 acids before Atomic absorption spectroscopy (AAS) determination for gold analysis.

Criteria	JORC Code explanation	Commentary
	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.	No geophysical tools were used to determine any element concentrations.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Certified reference materials (CRMs) are inserted into the sample sequence randomly at a rate of 1 per 20 samples to ensure correct calibration. Any values outside of 3 standard deviations are re-assayed with a new CRM. Blanks are inserted into the sample sequence at a rate of 1 per 20 samples, This is random, except where high grade mineralisation is expected. Here, a Blank is inserted after the high grade sample to test for contamination. Failures above 0.2gpt are followed up and re-assayed. New pulps are prepared if failures remain. Field Duplicates are taken for all RC samples (1 in 50 samples). No Field duplicates are submitted for diamond core.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	All significant intersections are verified by another Northern Star geologist during the drill hole validation process, and later by a Competent person to be signed off.
	The use of twinned holes.	No Twinned holes were drilled for this data set.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Geological logging is directly entered into an Acquire database. Assay files are received in csv format and loaded directly into the database by the project's responsible geologist with an Acquire importer object. Hardcopy and electronic copies of these are stored.
	Discuss any adjustment to assay data.	No adjustments are made to this assay data.
Location of data points	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.	A planned hole is pegged using a Differential GPS by the field assistants. The final collar is picked up after hole completion by Differential GPS in the MGA 94_51 grid. During drilling single-shot surveys are every 30m to ensure the hole remains close to design. This is performed using the Reflex Ez-Trac system which measures the gravitational dip and magnetic azimuth results are uploaded directly from the Reflex software export into the Acquire database.
	Specification of the grid system used.	Collar coordinates are recorded in MGA94 Zone 51.
	Quality and adequacy of topographic control.	The Differential GPS returns reliable elevation data which has been confirmed against older (early 2000's) topographic surveys.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill hole spacing across the area varies.
	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.	Exploration results only being reported.
	Whether sample compositing has been applied.	No compositing has been applied to these exploration results, although composite intersections are reported.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The orientation of the target is still to be determined. But knowledge of previous orebodies in the area suggests drilling direction is perpendicular to the orientation of mineralisation.
	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.	No sampling bias is considered to have been introduced by the drilling orientation.
Sample security	The measures taken to ensure sample security.	Prior to laboratory submission samples are stored by Northern Star Resources in a secure yard. Once submitted to the laboratories they are stored in a secure fenced compound, and tracked through their chain of custody and via audit trails.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No such exercise has been undertaken for the drill holes at this stage.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	All holes mentioned in this report are located within the Mining Lease 16/239 which is owned by Kundana Gold Pty Ltd, a wholly owned subsidiary of Northern Star Resources. There are no private royalty agreements applicable to this tenement.
	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.	No known impediments exist and the tenements are in good standing
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Carbine/Paradigm area has been explored since the late 1800's. Numerous companies, including BHP, Newcrest, Centaur Mining, Goldfields, Placer Dome and Barrick have been active in the area. Drilling reported with this release is adjacent to the Paradigm underground and open cut mines.
Geology	Deposit type, geological setting and style of mineralisation.	The Carbine / Paradigm areas are considered to be northern extensions of the regionally significant Zuleika Shear Zone. The tenements are located in the Norseman-Wiluna Archaean greenstone belt in the Eastern Goldfields province of the Yilgarn Craton, Western Australia. Gold mineralisation in the Zuleika Shear Zone and adjacent greenstone sequences occurs in all rock types, although historical and recent production is dominated by two predominant styles: • Brittle D2 faults with laminated (multiple crack-seal) quartz veining containing gold and trace base metal sulphides (galena, sphalerite, chalcopyrite, scheelite), • Brittle quartz vein stockwork developed within granophyric gabbro within the Powder Sill Paradigm mineralisation is hosted in sub-vertical narrow laminated quartz veins. At the Carbine main deposit, gold is hosted in veins and disseminated sulphides associated with structural disruption caused by a series of thrust faults, where the lower mafic/ultramafic sequence has been thrust over younger sediments.
Drill hole Information	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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length.	See attached Appendix for a table of results.
	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.	No drilling has been excluded from this report.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All reported assay results have been length weighted to provide an intersection width. Barren material between mineralised samples has been permitted in the calculation of these widths where the resultant average composite grade of samples beyond (and not including) the core mineralised zone exceeds the 1gpt cut-off grade used for intercept calculation.
	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.	No assay results have been top-cut for the purpose of this report. A lower cut-off of 1gpt has been used to identify significant results. Where the target zone does not exceed the 1gpt cut-off the intercept has been calculated across the target structure with no cut-off grade applied.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been used for the reporting of these exploration results.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	The exact orientation of the Paradigm vein system and width has yet to be determined. There is enough historic data at Carbine to infer geological continuity in mineralisation.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The downhole widths have been clearly specified when used.

Criteria	JORC Code explanation	Commentary
Diagrams	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.	Appropriate plans and section have been included in this release.
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.	Both high and low grades have been reported accurately, clearly identified with the drill hole attributes and 'From' and 'To' depths. All target zone intercepts for all eight holes have been reported for this drill program regardless of grade
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, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No other material exploration data has been collected for this drill program.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work will continue in 2016 to determine the extents of the Paradigm North system and define the orientation of mineralisation.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	

JORC Code, 2012 Edition – Table 1 Report: Millennium Drill Results at March 2016

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	Sampling was completed using a combination of Reverse Circulation (RC) and Diamond Drilling (DD). RC drilling was used to drill pre-collars for many of the Resource Definition holes with diamond tails. Diamond drilling constitutes the rest of the drilling.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Diamond core was transferred to core trays for logging and sampling. Half core samples were nominated by the geologist from both NQ2 and HQ diamond core, with a minimum sample width of either 20cm (HQ) or 30cm (NQ2). RC samples were split using a rig-mounted cone splitter on 1m intervals to obtain a sample for assay. 4m Composite spear samples were collected for most of each hole, with 1m samples submitted for areas of known mineralisation or anomalism.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	Samples were taken to Genalysis Kalgoorlie for preparation by drying, crushing to <3mm, and pulverising the entire sample to <75µm. 300g Pulps splits were then dispatched to Genalysis Perth for 50g Fire assay charge and AAS analysis.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).	Both RC and Diamond Drilling techniques were used at Millennium. Diamond drill holes completed pre-2011 were predominantly NQ2 (50.5mm). All resource definition holes completed post 2011 were drilled using HQ (63.5mm) diameter core. Core was orientated using the Reflex ACT Core orientation system. RC Drilling was completed using a 5.75" drill bit, downsized to 5.25" at depth.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	RC drilling contractors adjust their drilling approach to specific conditions to maximise sample recovery. Moisture content and sample recovery is recorded for each RC sample. No recovery issues were identified during 2013 RC drilling. Recovery was poor at the very beginning of each hole, as is normal for this type of drilling in overburden.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	For diamond drilling the contractors adjust their rate of drilling and method if recovery issues arise. All recovery is recorded by the drillers on core blocks. This is checked and compared to the measurements of the core by the geological team. Any issues are communicated back to the drilling contractor.
	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.	Recovery was excellent for diamond core and no relationship between grade and recovery was observed. For RC drilling, pre-collars were ended before known zones of mineralisation and recovery was very good through any anomalous zones, so no issues occurred.
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.	All diamond core is logged for Regolith, Lithology, veining, alteration, mineralisation and structure. Structural measurements of specific features are also taken through oriented zones.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	All logging is quantitative where possible and qualitative elsewhere. A photograph is taken of every core tray.
	The total length and percentage of the relevant intersections logged.	RC sample chips are logged in 1m intervals. For the entire length of each hole. Regolith, Lithology, alteration, veining and mineralisation are all recorded.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	All diamond core is cut and half the core is taken for sampling. The remaining half is stored for later use.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	All RC samples are split using a rig-mounted cone splitter to collect a 1m sample 3-4kg in size. These samples were submitted to the lab from any zones approaching known mineralisation and from any areas identified as having anomalous gold. Outside of mineralised zones spear samples were taken over a 4m interval for composite sampling.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation is considered appropriate.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field duplicates were taken for RC samples at a rate of 1 in 20.
	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.	Sample preparation was conducted at Genalysis Kalgoorlie, commencing with sorting, checking and drying at less than 110°C to prevent sulphide breakdown. Samples are jaw crushed to a nominal -6mm particle size. If the sample is greater than 3kg a Boyd crusher with rotary splitter is used to reduce the sample size to less than 3kg (typically 1.5kg) at a nominal <3mm particle size. The

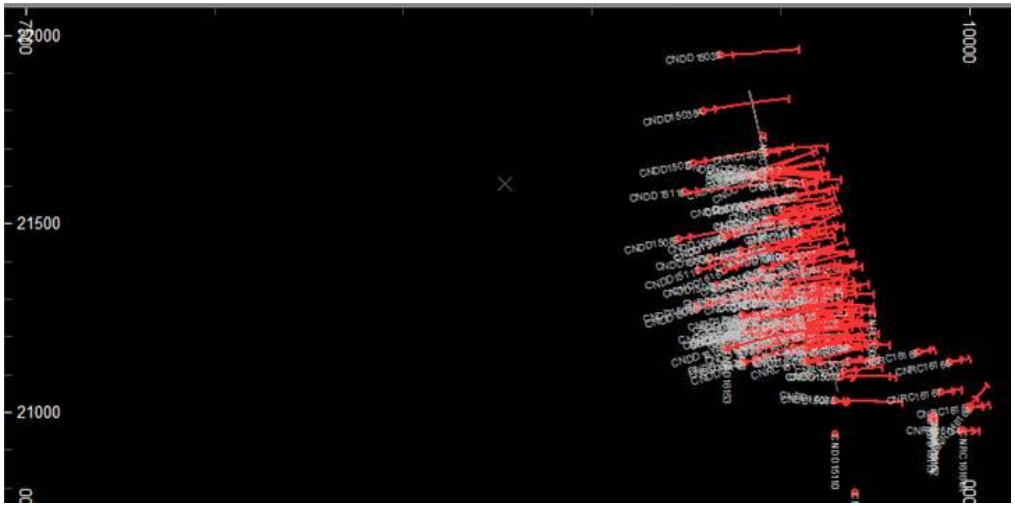
Criteria	JORC Code explanation	Commentary
		entire crushed sample (if less than 3kg) or sub-sample is then pulverised to 90% passing 75µm, using a Labtechnics LM5 bowl pulveriser. 300g Pulp subsamples are then taken with an aluminium scoop and stored in labelled pulp packets.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Grind checks are performed at both the crushing stage(3mm) and pulverising stage (75µm), requiring 90% of material to pass through the relevant size.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	A 50g Fire assay charge is used with a lead flux, dissolved in the furnace. The prill is totally digested by HCl and HNO_3 acids before Atomic absorption spectroscopy (AAS) determination for gold analysis.
	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.	No geophysical tools were used to determine any element concentrations.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Certified reference materials (CRMs) are inserted into the sample sequence randomly at a rate of 1 per 20 samples to ensure correct calibration. Any values outside of 3 standard deviations are re-assayed with a new CRM. Blanks are inserted into the sample sequence at a rate of 1 per 20 samples, This is random, except where high grade mineralisation is expected. Here, a Blank is inserted after the high grade sample to test for contamination. Failures above 0.2gpt are followed up, and re-assayed. New pulps are prepared if failures remain. Field Duplicates are taken for all RC samples (1 in 20 sample). No Field duplicates are submitted for diamond core.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	All significant intersections are verified by another Northern Star geologist during the drill hole validation process, and later by a Competent person to be signed off.
	The use of twinned holes.	No twinned holes were drilled for this data set.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Geological logging was captured using excel templates. Both a hardcopy and electronic copy of these are stored, as well as being loaded in to the database using automatic acquire loaders. Assay files are received in csv format and loaded directly into the database by the Database administrator (DBA). A geologist then checks that the results have inserted correctly. Hardcopy and electronic copies of these are stored. No adjustments are made to this assay data.
	Discuss any adjustment to assay data.	
Location of data points	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.	A planned hole is pegged using a Differential GPS by the field assistants. During drilling single-shot surveys are every 30m to ensure the hole remains close to design. This is performed using the Reflex Ez-Trac system. Upon hole completion, a Gyroscopic survey is conducted by ABIMS or Gyro Australia, taking readings every 5m for improved accuracy. This is done in true north. The final collar is picked up after hole completion by Differential GPS in the MGA 94_51 grid. Quality topographic control has been achieved through Lidar data and survey pickups of holes over the last 15 years.
	Specification of the grid system used.	
	Quality and adequacy of topographic control.	
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill hole spacing across the area varies. For Resource Definition drilling, drill hole spacing was typically 40m x 40m.
	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.	The data spacing is considered appropriate.
	Whether sample compositing has been applied.	No compositing has been applied to these exploration results, although composite intersections are reported.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The majority of the structures in the Kundana camp dip steeply (80°) to WSW. To target these orientations the drill hole dips of 60-70° towards ~060° achieve high angle intersections on all structures.
	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.	No sampling bias is considered to have been introduced by the drilling orientation.
Sample security	The measures taken to ensure sample security.	Prior to laboratory submission samples are stored by Northern Star Resources in a secure yard. Once submitted to the laboratories they are stored in a secure fenced compound, and tracked through their chain of custody and via audit trails.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have recently been conducted on sampling techniques.

Section 2 Reporting of Exploration Results

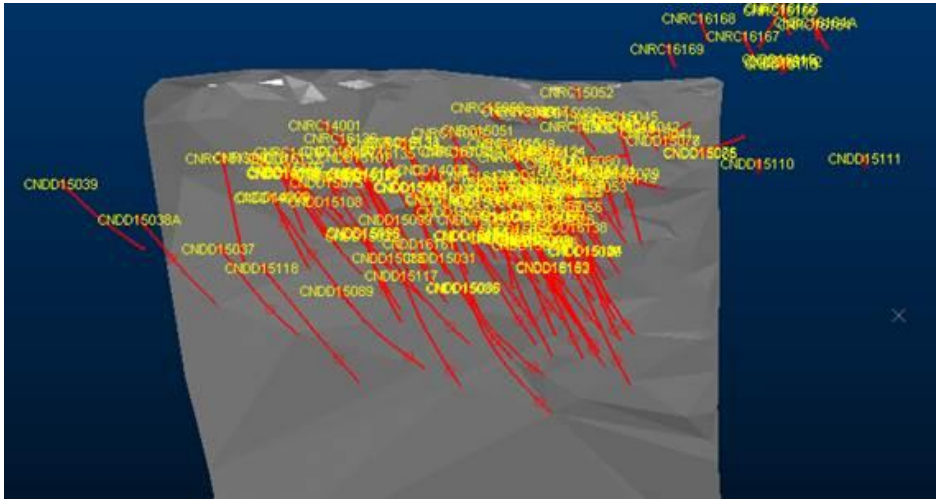
(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	The Millennium and Centenary deposits are within M16/87. Millennium is owned 100% by Northern Star Resources. Millennium mineralisation extends onto the adjacent M16/72, also 100% owned by Northern Star Resources.
	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.	No known impediments exist and the tenements are in good standing
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Centenary deposit was first discovered in the 1980's, with open pit mining of south pit commencing in 1988. Centenary underground was established in 1993 until it closed in 2000. Millennium was discovered in mid-2014 using the Pegasus exploration model. Millennium is the blind northern shoot of the Centenary deposit which was missed during the first phase of mining.
Geology	Deposit type, geological setting and style of mineralisation.	The Kundana camp is situated within the Norseman-Wiluna Greenstone Belt, in an area dominated by the Zuleika shear zone, which separates the Coolgardie domain from the Ora Banda domain. K2-style mineralisation (Pegasus, Rubicon, Hornet, Millennium) consists of narrow vein deposits hosted by shear zones located along steeply-dipping overturned lithological contacts. The K2 structure is present along the contact between a black shale unit (Centenary shale) and intermediate volcanoclastics (Spargoville formation).
Drill hole Information	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: o easting and northing of the drill hole collar o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar o dip and azimuth of the hole o down hole length and interception depth o hole length.	Too many holes to practically list the complete dataset, the long section and plan reflect the hole positions used for previous estimation stated. All recent drill intersections yet to be reported to the ASX are presented with this report.
	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.	No relevant information has been excluded.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All reported assay results have been length weighted to provide an intersection width. A maximum of 2m of barren material between mineralised samples has been permitted in the calculation of these widths.
	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.	No assay results have been top-cut for the purpose of this report. A lower cut-off of 1gpt has been used to identify significant results, although lower results are included where a known ore zone has been intercepted, and the entire intercept is low grade.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been used for the reporting of these exploration results.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	True widths have been calculated for intersections of the known ore zones, based on existing knowledge of the nature of these structures.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Both the downhole width and true width have been clearly specified when used.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Both the downhole width and true width have been clearly specified when used.
Diagrams	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.	Appropriate plans and section have been included in this report.

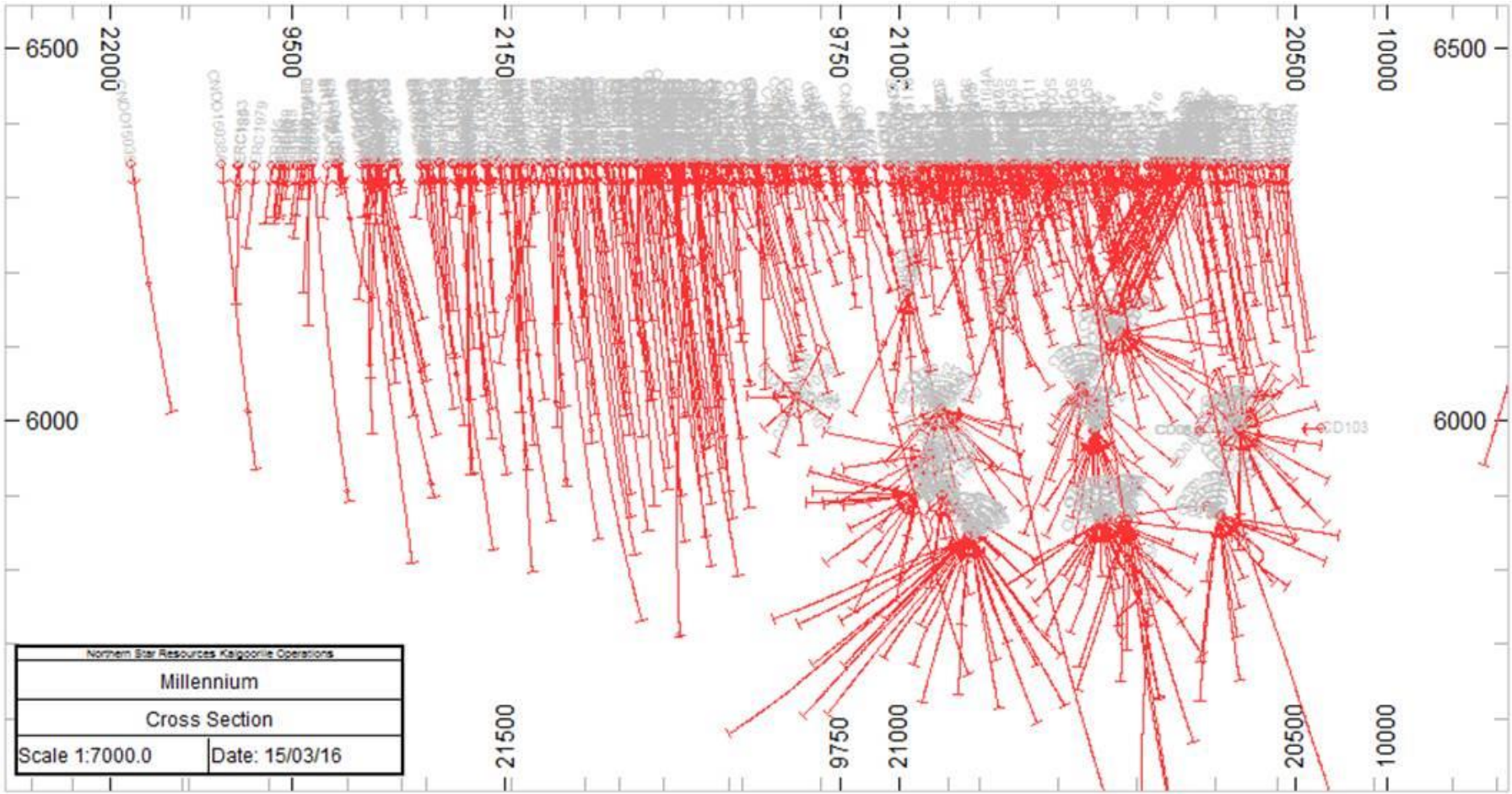
Criteria	JORC Code explanation	Commentary
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Both high and low grades have been reported accurately, clearly identified with the drill hole attributes and 'From' and 'To' depths. Where the target zone does not reach the 1gpt threshold for reporting significant intercepts, the result is still reported as the grade and width of the K2 target zone.
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, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Metallurgical test work has been completed on Millennium samples. Results indicate the Millennium vein samples are mineralogically and metallurgically consistent with other ores on the K2 line of lode which have been successfully treated since 1988.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work will continue in FY2016 and FY2017 to extend the indicated resource deeper by additional drilling and identify new mineralised shoots on the K2 structure.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	



Plan view of Millennium drill holes



3D view of Millennium drill hole traces



Long Section view of Millennium drill hole traces