



**NORTHERN STAR**  
RESOURCES LIMITED

# FRESH DRILLING RESULTS HIGHLIGHT POTENTIAL OF TITAN DISCOVERY

## KEY POINTS

- ▶ **Latest drilling at the Titan discovery at Paulsens returns results of up to 41gpt**
- ▶ **Importantly, results include large intersections of quartz up to 22m (true width), which is the host rock for all mineralisation at Paulsens**
- ▶ **More high-grade drilling results at both the Voyager 1 and Voyager 2 lodes at Paulsens**
- ▶ **Ore development of Voyager 2 lode is underway; Voyager 1 and 2 lodes will be mined in parallel**
- ▶ **Significant results from Titan include (uncut):**
  - 1.4 m @ 14.2gpt gold                      488mRL Titan
  - 0.7 m @ 41.6gpt gold                      352mRL Titan
  - 0.8 m @ 14.0gpt gold                      407mRL Titan
- ▶ **Significant results from Voyager 1 include (uncut):**
  - 5.1 m @ 31.7gpt gold                      (true width 2.5m) 413mRL UZ
  - 1.0 m @ 37.5gpt gold                      (true width 0.9m) 431mRL UZ2
  - 9.7m @ 17.8gpt gold                      (true width 1.7m) 430mRL UZ
  - 4.5 m @ 15.2gpt gold                      (true width 3.5m) 473mRL UZ
  - 3.0 m @ 15.2gpt gold                      (true width 2.0m) 430mRL UZ
  - 2.5 m @ 10.2gpt gold                      (true width 2.2m) 447mRL UZ
  - 8.2 m @ 8.7gpt gold                      (true width 5.5m) 429mRL UZ
- ▶ **Significant results from Voyager 2 include (uncut):**
  - 1.1 m @ 51.7gpt gold                      (true width 0.4m) 417mRL UZ2
  - 1.0 m @ 39.9gpt gold                      (true width 0.6m) 395mRL UZ2
  - 0.9 m @ 26.6gpt gold                      (true width 0.9m) 431mRL UZ
  - 2.0 m @ 13.6gpt gold                      (true width 1.1m) 507m RL UZ
  - 4.7 m @ 8.7gpt gold                      (true width 4.0m) 426mRL LZ
- ▶ **Further assays pending for Voyager 1 and 2 lodes**
- ▶ **Further Titan drilling is planned**

Northern Star Resources Limited (ASX: NST) is pleased to announce that fresh drilling results from the recent Titan gold discovery at its Paulsens Project in WA have highlighted the substantial potential of this find.

The results include high-grade hits such as 0.7m at 41.6gpt and 1.4m at 14.2gpt. The vast majority of the drilling so far in Titan has contained large intersections of quartz up to 22m true-width, which is considered important because all the known mineralisation at Paulsens is contained within the quartz host rock.

**ASX ANNOUNCEMENT**  
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**Australian Securities**  
**Exchange Code: NST**

### Board of Directors

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*Managing Director*

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### Issued Capital

Shares 424M

Options 5M

Current Share Price \$0.86

Market Capitalisation  
\$365 million

Cash/Bullion and Investments  
30 Jun 13 - \$61 million

Level 1, 1 Puccini Court  
Stirling WA 6021  
T +6 8 6188 2100  
F +6 8 6188 2111  
E info@nsr ltd.com  
www.nsr ltd.com

The latest drilling at Paulsens has also intersected more high-grade gold in the Voyager 1 and Voyager 2 lodes (see Figure 1).

These results provide more firm evidence of the continuity of the high-grade mineralisation, which in turn underpins the consistent production, low costs and strong cashflow enjoyed by Northern Star.

Ore development is now underway at Voyager 2 as part of the strategy to mine the Voyager lodes in parallel, providing scope for further cost savings.

The next round of drilling at Titan will be underway shortly with a view to defining the extremities of the quartz rock and then will progress to narrowing down to find where the mineralisation sits inside the quartz.

The Titan discovery has potential to add substantial value to Northern Star due to its strong grade and location just 100m from the existing Paulsens mine (see Figure 2).

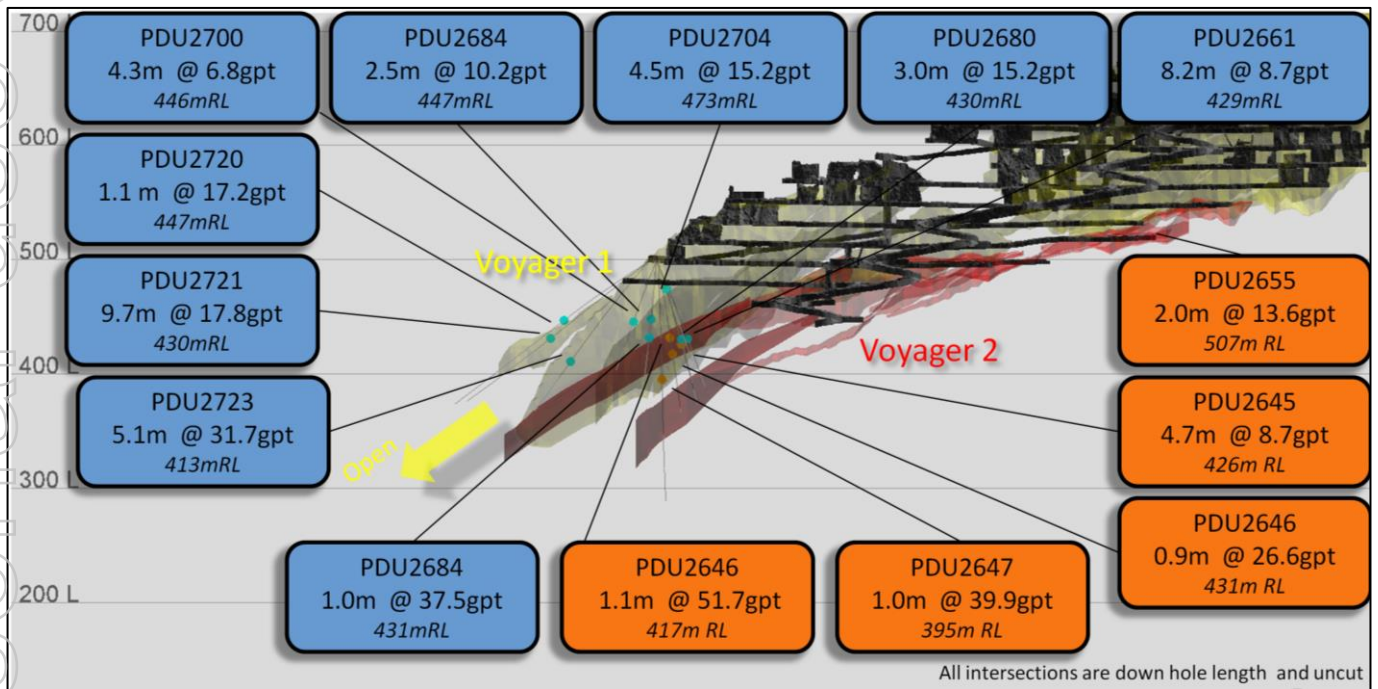


Figure 1 - Long section view (looking North) of significant drill results for Voyager 1 and 2

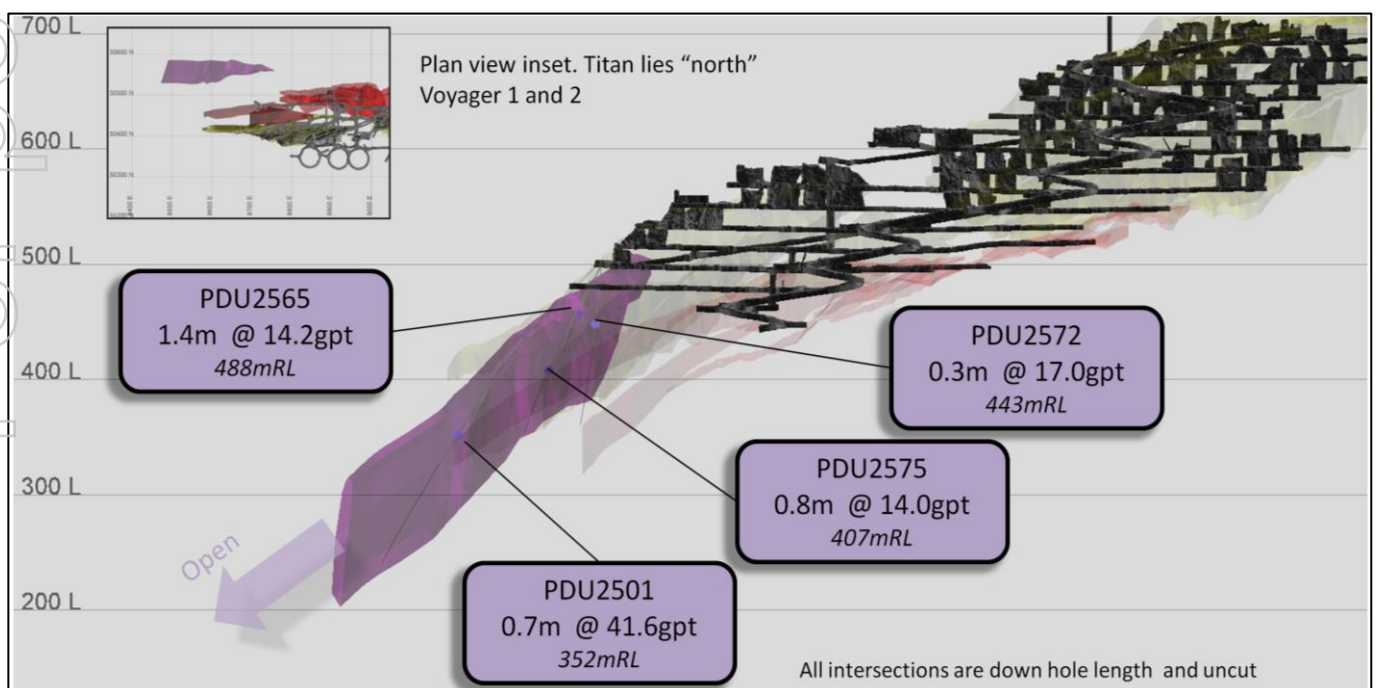


Figure 2 - Long section view (looking North) of significant drill results for Titan

Further announcements will be released regarding the ongoing underground diamond drilling as results become available.

Assay results from underground diamond drilling completed on Voyager 1, Voyager 2 and Titan since the last releases are listed in the attached tables.

Yours faithfully



**BILL BEAMENT**  
Managing Director  
**Northern Star Resources Limited**

### Competent Persons Statements

The information in this announcement that relates to Paulsens mineral resource estimations, exploration results, data quality, geological interpretations, potential for eventual economic extraction and estimates of exploration potential, is based on and fairly represents information compiled by or under the supervision of Brook Ekers, who is an AIG member who is a full-time employee of Northern Star Resources Ltd. Mr Ekers has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Ekers consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### Forward Looking Statements

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### **GOLD MINERAL RESOURCES <sup>1</sup>**

As at 30 June 2013	MEASURED (M)			INDICATED (I)			(M) + (I)	INFERRED (Inf)			TOTAL (Ml & Inf)			Cut Off Grade	
	Tonnes (000s)	Grade (gpt)	Ounces (000s)	Tonnes (000s)	Grade (gpt)	Ounces (000s)		Ounces (000s)	Tonnes (000s)	Grade (gpt)	Ounces (000s)	Tonnes (000s)	Grade (gpt)		Ounces (000s)
Based on attributable ounces															
<b>PAULSENS GOLD PROJECT</b>															
<b>Surface</b>															
	Paulsens			573	2.5	47	47	169	2.5	14	742	2.5	61	1.0 gpt Au	
	Belvedere			168	3.6	19	19	99	5.2	16	267	4.2	35	1.0 gpt Au	
	Merlin						-	523	1.4	24	523	1.4	24	1.0 gpt Au	
	Mt Clement (20%)						-	226	1.8	13	226	1.8	13	0.5 gpt Au	
<b>Underground</b>															
	Upper Paulsens	63	9.7	20	98	13.1	41	61	119	8.0	31	280	10.2	92	2.5 gpt Au
	Voyager UG	517	12.1	201	173	11.9	66	267	61	13.3	26	751	12.2	293	2.5 gpt Au
	Stockpiles	118	2.6	10				10			118	2.6	10	1.0 gpt Au	
	Gold in Circuit/Transit			4				4					4		
<b>TOTAL</b>	<b>698</b>	<b>10.5</b>	<b>235</b>	<b>1,012</b>	<b>5.3</b>	<b>173</b>	<b>408</b>	<b>1,197</b>	<b>3.2</b>	<b>124</b>	<b>2,907</b>	<b>5.6</b>	<b>532</b>		

<sup>1</sup>Resources are inclusive of Reserves

<sup>1</sup>Table 1 - Paulsens Resources @ 2.5gpt Au Lower Cut-Off Underground and 1.0gpt Au Lower Cut-Off Open Pit

## PAULSENS GRADE CONTROL DRILLING VOYAGER 1

Drill Hole #	Easting (Mine Grid)	Northing (Mine Grid)	Drill hole collar RL (Mine Grid)	Dip (degrees)	Azimuth (degrees, Mine Grid)	End of hole dept (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
PDU2643	8715	50459	498	-55	124	128	77.38	78.24	0.86	20.0	0.7
PDU2643	8715	50459	498	-55	124	128	90.4	91	0.60	3.2	0.5
PDU2643	8715	50459	498	-55	124	128	108	108.37	0.37	11.4	0.3
PDU2643	8715	50459	498	-55	124	128	111.9	112.3	0.40	5.8	0.3
PDU2641	8715	50459	497	-41	124	110	67	67.5	0.50	2.2	0.5
PDU2560	8712	50460	498	-56	232	200	80.7	81.15	0.45	2.5	0.4
PDU2656	8716	50458	498	-13	137	130	58.75	59.5	0.75	2.2	0.8
PDU2656	8716	50458	498	-13	137	130	60.7	61.12	0.42	5.6	0.4
<b>PDU2661</b>	8715	50458	497	-59	137	125	74.84	83	8.16	8.7	5.5
PDU2661	8715	50458	497	-59	137	125	99.48	101	1.52	5.0	1.1
PDU2663	8714	50459	498	-73	139	98			NSI		
PDU2657	8716	50459	498	-25	137	89	50.58	52.3	1.72	6.5	1.7
PDU2680	8714	50459	498	-60	145	122	70.81	71.3	0.49	27.8	0.4
<b>PDU2680</b>	8714	50459	498	-60	145	122	77	80	3.00	15.2	2.1
PDU2684	8713	50459	498	-55	189	122	94.02	94.38	0.36	10.6	0.3
<b>PDU2684</b>	8713	50459	498	-55	189	122	61.33	63.87	2.54	10.2	2.2
<b>PDU2684</b>	8713	50459	498	-55	189	122	81	82	1.00	37.5	0.9
PDU2694	8713	50458	498	-43	191	114	47.7	48.1	0.40	6.6	0.4
PDU2694	8713	50458	498	-43	191	114	55.95	57.95	2.00	3.4	1.7
PDU2699	8713	50458	498	-35	211	229	67.38	70.42	3.04	4.9	3.0
<b>PDU2700</b>	8713	50459	497	-51	212	120	63.13	67.45	4.32	6.8	3.5
PDU2700	8713	50459	497	-51	212	120	104	105	1.00	5.5	0.8
PDU2707	8713	50458	498	-21	200	169	47.55	48.08	0.53	13.5	0.5
<b>PDU2704</b>	8715	50458	497	-29	170	188	47.32	51.77	4.45	15.2	3.5
PDU2704	8715	50458	497	-29	170	188	53.96	54.65	0.69	7.9	0.7
PDU2708	8713	50458	498	-43	201	117	47.34	47.9	0.56	7.4	0.5
PDU2709	8713	50458	497	-62	200	140	72.67	74	1.33	12.0	1.0
PDU2709	8713	50458	497	-62	200	140	76.59	77.06	0.47	2.3	0.3
PDU2709	8713	50458	497	-62	200	140	81.84	82.52	0.68	4.2	0.5
PDU2688	8713	50459	498	-59	211	134	71.99	74	2.01	6.2	1.6
PDU2688	8713	50459	498	-59	211	134	82.2	82.5	0.30	73.5	0.3
PDU2688	8713	50459	498	-59	211	134	89.2	89.44	0.24	9.3	0.2
PDU2702	8715	50458	497	-53	145	104	55.1	55.9	0.80	10.6	0.6
PDU2702	8715	50458	497	-53	145	104	59.7	60.74	1.04	14.6	0.8
PDU2702	8715	50458	497	-53	145	104	64	64.35	0.35	2.8	0.3
PDU2702	8715	50458	497	-53	145	104	84.86	87.86	3.00	8.3	2.3
PDU2705	8715	50459	498	-57	169	107	58	61.3	3.30	6.2	2.2
PDU2706	9111	50507	518	-7	199	63	86.4	87	0.60	3.7	0.5
PDU2707	8713	50458	498	-21	200	169	96.7	97.85	1.15	2.1	1.0
PDU2660	9135	50463	518	24	79	93	3	4.38	1.38	16.2	0.6
<b>PDU2720</b>	8706	50481	498	-28	234	249	105.38	106.45	1.07	17.2	0.6
PDU2721	8705	50481	498	-33	235	224	116.85	117.45	0.60	74.5	0.3
<b>PDU2721</b>	8705	50481	498	-33	235	224	119.55	129.3	9.75	17.8	4.8
PDU2721	8705	50481	498	-33	235	224	136.75	137.6	0.85	43.7	0.4
PDU2723	8705	50481	498	-45	235	180	111	111.95	0.95	14.8	0.5
<b>PDU2723</b>	8705	50481	498	-45	235	180	117.87	123	5.13	31.7	2.5
PDU2723	8705	50481	498	-45	235	180	131.6	132.3	0.70	3.8	0.4

NSI = No significant intersection

Table 2 – Complete Table of Voyager 1 since the last releases 1/8/2013 and 2/8/2013

## PAULSENS GRADE CONTROL DRILLING VOYAGER 2

Drill Hole #	Easting (Mine Grid)	Northing (Mine Grid)	Drill hole collar RL (Mine Grid)	Dip (degrees)	Azimuth (degrees, Mine Grid)	End of hole dept (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
PDU2536	9119	50464	519	28	28	44	0	0.5	0.50	7.7	0.3
PDU2536	9119	50464	519	28	28	44	1	1.6	0.60	8.7	0.3
PDU2536	9119	50464	519	28	28	44	2.02	2.4	0.38	9.0	0.2
PDU2536	9119	50464	519	28	28	44	9.34	9.47	0.13	17.4	0.1
PDU2561	8712	50460	498	-62	233	191	118.2	119.1	0.90	7.8	0.8
PDU2639	9119	50464	519	17	28	89	1.5	2.55	1.05	2.7	1.0
PDU2640	9119	50464	517	-9	28	29					
PDU2644	8715	50459	497	-63	124	126	100.34	101.91	1.57	3.9	0.9
<b>PDU2645</b>	8715	50459	497	-69	124	131	72	76.76	4.76	8.7	4.0
<b>PDU2646</b>	8715	50459	497	-78	129	134	66.16	67.1	0.94	26.6	0.9
<b>PDU2646</b>	8715	50459	497	-78	129	134	81.18	82.25	1.07	51.7	0.4
PDU2646	8715	50459	497	-78	129	134	101.65	101.9	0.25	3.2	0.2
PDU2647	8715	50459	498	-86	129	210	79.47	80	0.53	2.2	0.5
<b>PDU2647</b>	8715	50459	498	-86	129	210	103	104	1.00	39.9	0.6
PDU2647	8715	50459	498	-86	129	210	141.16	141.6	0.44	2.1	0.4
PDU2654	9119	50464	518	9	63	110	0	4	4.00	5.6	0.7
PDU2654	9119	50464	518	9	63	110	56.72	58.43	1.71	8.0	1.3
<b>PDU2655</b>	9119	50464	518	-2	63	47	0	2	2.00	13.6	1.1
PDU2658	9135	50463	520	39	79	53	11.92	13.18	1.26	6.3	0.3

## PAULSENS GRADE CONTROL DRILLING VOYAGER 2

Drill Hole #	Easting (Mine Grid)	Northing (Mine Grid)	Drill hole collar RL (Mine Grid)	Dip (degrees)	Azimuth (degrees, Mine Grid)	End of hole dept (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
PDU2658	9135	50463	520	39	79	53	37	38	1.00	5.8	0.3
PDU2660	9135	50463	518	24	79	93	3	4.38	1.38	16.2	0.6
PDU2660	9135	50463	518	24	79	93	6.4	6.69	0.29	32.7	0.1
PDU2660	9135	50463	518	24	79	93	15.69	17.2	1.51	2.0	0.6
PDU2660	9135	50463	518	24	79	93	80	81	1.00	4.0	0.5
PDU2662	9134	50462	518	4	79	62	22.5	23.9	1.40	2.3	0.4
PDU2662	9134	50462	518	4	79	62	38.4	39	0.60	2.5	0.2
PDU2693	9111	50507	518	-8	217	59	12.63	13.22	0.59	12.7	0.3
PDU2693	9111	50507	518	-8	217	59	48.3	48.6	0.30	9.3	0.2
PDU2701	9111	50508	517	-15	217	61	0	0.6	0.60	3.2	0.3
PDU2701	9111	50508	517	-15	217	61	28.11	29	0.89	22.3	0.5
PDU2701	9111	50508	517	-15	217	61	39.59	40	0.41	6.5	0.2
PDU2703	9112	50508	517	-25	217	59	0	0.62	0.62	20.1	0.3
PDU2703	9112	50508	517	-25	217	59	5	5.72	0.72	4.1	0.4
PDU2703	9112	50508	517	-25	217	59	48.37	49	0.63	6.7	0.3
PDU2703	9112	50508	517	-25	217	59	50.14	50.55	0.41	6.5	0.2

NSI = No significant intersection

Table 3 – Complete table of Voyager 2 drill results since the last releases 1/8/2013 and 2/8/2013

## PAULSENS RESOURCE DEFINITION DRILLING TITAN

Drill Hole #	Easting (Mine Grid)	Northing (Mine Grid)	Drill hole collar RL (Mine Grid)	Dip (degrees)	Azimuth (degrees, Mine Grid)	End of hole dept (m)	Downhole From (m)	Downhole To (m)	Downhole Intersection (m)	Au (gpt) uncut	Est True Thickness (m)
PDU2500	8706	50483	498	-32	292	216	143.22	143.55	0.33	2.0	0.3
PDU2500	8706	50483	498	-32	292	216	145.85	149.85	4.00	5.4	3.4
PDU2500	8706	50483	498	-32	292	216	168.45	169.6	1.15	2.8	1.0
PDU2501	8709	50482	500	-43	291	250	203.44	204.51	1.07	2.2	0.6
PDU2501	8709	50482	500	-43	291	250	207.68	208.34	0.66	41.6	0.4
PDU2533	8706	50483	497	-38	282	297			NSI		
PDU2534	8706	50483	498	-50	284	205			NSI		
PDU2565	8712	50484	499	-45	355	209	71.7	73.08	1.38	14.2	1.2
PDU2565	8712	50484	499	-45	355	209	99.6	101.03	1.43	3.5	1.2
PDU2565	8712	50484	499	-45	355	209	123.8	124.56	0.76	3.4	0.7
PDU2572	8712	50485	498	-30	342	150	110.8	111.07	0.27	17.0	0.2
PDU2572	8712	50485	498	-30	342	150	117.3	117.63	0.33	4.9	0.3
PDU2573	8712	50485	498	-14	330	150			NSI		
PDU2575	8711	50485	498	-40	331	230	142.64	143.39	0.75	14.0	0.7
PDU2673	8706	50485	498	-37	300	384	110.14	110.68	0.54	4.9	0.4
PDU2673	8706	50485	498	-37	300	384	117.93	118.29	0.36	3.6	0.3
PDU2683	8707	50484	498	-34	275	413	339.26	341.23	1.97	6.9	0.6
PDU2497	8712	50485	499	-12	20	206	72	72.6	0.60	3.6	0.6

NSI = No significant intersection

Table 4 – Complete table of Titan drill results since the last releases 1/8/2013 and 2/8/2013

## JORC Code, 2012 Edition – Table 1 Report: Voyager 1 and 2, Titan Drill Results

### 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 (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	This Table 1 relates to sampling by diamond drilling only. Sample intervals are defined by the geologist to honour geological boundaries.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Core is aligned and measured by tape, comparing back to down hole core blocks consistent with industry practice.
	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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	Diamond drilling and face sampling are completed to industry standard using varying sample lengths (0.15 to 1.5m) based on geological intervals, which are then crushed and pulverised to produce a ~200g pulp sub sample to use in the assay process. Diamond core samples are fire assayed (30g to 40g charge depending on lab) Visible gold is occasionally encountered in core.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Underground diamond drill core. The diamond holes are NQ2 size.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond drill recoveries are recorded as a percentage calculated from measured core against downhole drilled intervals (core blocks). Greater than 0.2 metre discrepancies are resolved with the drill supervisor. Achieving >95% recovery.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Standard drilling practice results in high recovery due to competent nature of the ground.
	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, sample recovery is very high.
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.	Core Logging is carried out by Company Geologists, who delineate intervals on geological, structural, alteration and/or mineralogical boundaries, to industry standard.
	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 of sulphide, quartz alteration percentages.
	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.	Grade control drilling NQ2 core is generally whole core sampled. If not whole core sampled, then core is half cut with Almonté diamond core saw and half core sampled. The right half is sampled, to sample intervals defined by the Logging Geologist along geological boundaries. The left half is archived. All major mineralised zones are sampled, plus associated visibly barren material, >5m of hangingwall/footwall. As well, quartz veins >0.3m, that are encountered outside the know orezone and ±1m on either side. Ideally, sample intervals are to be 1m in length, though range from 0.15m to 1.50m in length. Total weight of each sample generally does not exceed 5kg but can be as high as 7kg. All samples are oven-dried overnight (max 120°), jaw crushed to <6mm, and split to <3kg in a static riffle

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Criteria	JORC Code explanation	Commentary
		<p>splitter. The coarse reject is then discarded. The remainder is pulverised in an LM5 to &gt;85% passing 75µm (Tyler 200 mesh) and bagged. The analytical sample is further reduced to a 30gm or 40gm charge weight using a spatula, and the pulp packet is stored awaiting collection by Northern Star Resources Limited (NSR).</p> <p>Changes are in progress to crush to 90% passing 3mm before a rotary split to 2.5 kg, all of which is then pulverised to 90% passing 75 micron.</p>
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	All core.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation is deemed adequate though further improvement is underway.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	For drill core the external labs coarse duplicates are used.
	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, ie. other half of cut core are occasionally but not routinely assayed.
	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.	<p>For all drill core samples, gold concentration is determined by fire assay using the lead collection technique with a 30 – 40g gram sample charge weight (dependant on lab) An AAS finish is used, considered to be total gold.</p> <p>Various multi-element suites are analysed using a four acid digest with an ICP-OES finish.</p>
	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.	Not applicable to this report.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie. lack of bias) and precision have been established.	<p>The QAQC protocols used include the following for all drill samples:</p> <p>Commercial blanks are inserted at an incidence of 1 in 40 samples, and ad hoc within potentially high grade sample runs.</p> <p>Commercially prepared certified reference materials are inserted at an incidence of 1 in 40 samples. The CRM used is not identifiable to the laboratory.</p> <p>NSR's Blanks and Standards data is assessed on import to the database and reported monthly and yearly.</p> <p>The primary laboratory QAQC protocols used include the following for all drill samples:</p> <ul style="list-style-type: none"> <li>- Repeat of pulps at a rate of 2%.</li> <li>- Screen tests (percentage of pulverised sample passing a 75µm mesh) are undertaken on 1 in 100 samples.</li> </ul> <p>The laboratory reports its own QAQC data on a monthly basis.</p> <p>Failed standards are followed up by re-assaying a second 40g pulp sample of the failed standard ± 10 samples either side by the same method at the primary laboratory.</p> <p>Both the accuracy component (CRM's and umpire checks) and the precision component (duplicates and repeats) are deemed acceptable.</p>
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections are reviewed by the geology manager and senior corporate personnel.
	The use of twinned holes.	Twinned holes are not specifically designed. Occasionally deviating holes could be considered twins,

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Criteria	JORC Code explanation	Commentary
		showing similar tenor of mineralisation.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data is hard keyed or copied into excel spreadsheets for transfer and storage in an access database. Hard copies of face and core / assays and surveys are kept on site. Internal checks are made comparing database to raw assays files. Visual checks are part of daily use of the data in Vulcan.
	Discuss any adjustment to assay data.	No adjustments are made to any assay data. First gold assay is utilised for any resource estimation.
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.	Drill hole collar positions are picked up by survey using a calibrated total station Leica 1203+ instrument. Drill hole, downhole surveys are recorded at 15m and 30m, and then every 30m after, by calibrated Pathfinder downhole cameras.
	Specification of the grid system used.	A local grid system (Paulsen Mine Grid) is used. It is rotated 41.5 degrees to the west of MGA94 grid. Local origin is 50,000N and 10,000E Conversion. MGA E = (East_LOC*0.75107808+North_LOC*0.659680194+381504.5)+137.5 MGA N = (East_LOC*-0.65968062+North_LOC*0.751079811+7471806)+153.7 MGA RL = mRL_LOC-1000
	Quality and adequacy of topographic control.	Topographic control is not that relevant to the underground mine. For general use a Kevron photogrammetric survey is used with +/- 5m resolution.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Exploration result data spacing can be highly variable, as little as 10m and up to 50m.
	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.	Measured data spacing is better than 7m x 7m, and restricted to areas in immediate proximity to mined development. Data spacing for indicated material is approximately, or better than, 20m x 20m. All other areas where sample data is greater than 20m x 20m, or where intercept angle is low, is classified as inferred.
	Whether sample compositing has been applied.	Sampling to geology, sample compositing is not applied until the estimation stage.
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.	Intercept angles are mixed, however, all material remains inferred until reconciled by moderate to high angle (45° to 90°) grade control drilling, or mining activities. Hanging-wall drill drives provide excellent intercept orientation to the geological structures used in the estimate.
	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 drill orientation to mineralised structures biases the number of samples per drill hole. It is not thought to make a material difference in the resource estimation. As the opportunity arises, better angled holes are drilled with higher intersection angles.
Sample security	The measures taken to ensure sample security.	All samples are selected, cut and bagged in tied numbered calico bags, grouped in larger tied plastic bags, and placed in large sample cages with a sample submission sheet. The cages are transported via freight truck to Perth, with consignment note and receipted by ALS Laboratories ISO9001 accredited or Bureau Veritas (BV) currently pursuing ISO17025 accreditation. All sample submissions are documented via ALS tracking system, or in the case of BV, reconciliation email. All assays are returned via email. Sample pulp splits are returned to NSR via return freight and stored in shelved containers on site.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Recent external review confirmed sampling techniques are to industry standard. Data handling is considered adequate and will be improved with a new database system.



## Section 2 Reporting of Exploration Results

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

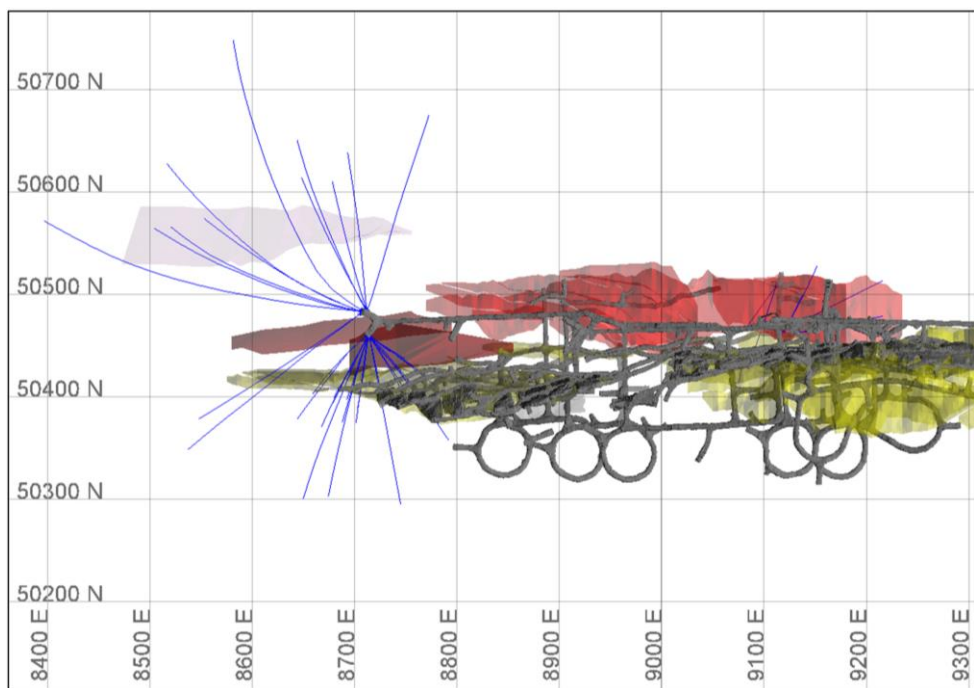
Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	M08/196 and M08/99 are wholly owned by Northern Star Resources (NSR) and in good standing. Surface expression of the Paulsens Gold Mine is on M08/99, most of underground workings are on neighbouring M08/196.  There are no heritage issues with the current operation. Relationship with the traditional owners is good.
	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.	M08/196 and M08/99 are valid until 2020 and 2032 respectively.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	All relevant work at these depths has been completed by NSR.
Geology	Deposit type, geological setting and style of mineralisation.	Paulsens is a high grade, quartz hosted, mesothermal gold deposit within metasediments.
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: <ul style="list-style-type: none"> <li>o easting and northing of the drill hole collar</li> <li>o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>o dip and azimuth of the hole</li> <li>o down hole length and interception depth</li> <li>o hole length.</li> </ul>	Drill hole summary attached for all holes in Voyager 1, Voyager 2 and Titan drilled since the last release.
	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.	All material data is periodically released on the ASX: 02/08/2013, 01/8/2013, 29/05/2013, 16/05/2013, 20/01/2013, 12/12/2012, 1/10/2012, 24/8/2012, 04/07/2012, 07/06/12, 29/05/2012, 12/04/2012, 6/03/2012, 25/11/2011, 17/11/2011, 09/11/2011, 13/10/2011, 12/09/11, 30/05/2011, 12/04/2011, 16/03/2011, 06/01/2011, 04/01/2011, 22/12/2010, 10/12/2010, 02/12/2010, 14/10/2010, 04/08/2010
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.	Length weighted averages are used, uncut grades reported. Lower cut off is nominally 1g/t with a maximum of 2m sub 1g/t permissible to make up the full intersection, however these may be manually modified to match logged geology as required.
	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.	In general short high grades do not bias the reported intersections. One exception in this release is PDU2704 where 0.3m at 193g/t has a significant impact on overall grade. In this case the intersection is realised as a whole as it matches the ore zone.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Exploration results include an estimate of true thickness.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Due to complex mineralisation geometry and varying intercept angles the true thickness is manually estimated on a hole by hole basis. Both true width and downhole lengths are reported.
	If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	Exploration results are released with downhole depth and estimated true thickness.
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.	See long section in main release and previous ASX releases.  See plan view with drill traces.

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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.	All exploration results for Voyager 1, Voyager 2 and Titan are included for this period.
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.	Exploration drill results only being released this time.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Drilling will continue down plunge, and as needed for grade control and resource development in line with the mine plan.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Included as part of this ASX announcement.

**Table 5: Paulsens JORC Table 1 for Voyager 1, Voyager 2 and Titan Drill Results**



**Figure 3: Plan view of all drilling related to this release**