

HITS OF UP TO 231GPT EXTEND VOYAGER 2 LODE BY 200M

Mining of this parallel lode at Paulsens will further cut costs and extend mine life

KEY POINTS

- ▶ Outstanding drilling results from Paulsens' Voyager 2 lode, which runs parallel and immediately adjacent to the producing Voyager 1 lode
- ▶ The results, which grade up to 231gpt, extend the Voyager 2 lode a further 200m down plunge from Paulsens' current 555,000oz¹ resource model; this lode remains open at depth
- ▶ First development ore from Voyager 2 expected in the September Quarter, 2013
- ▶ The two Voyager lodes will be mined simultaneously, reducing capital development costs and extending mine life significantly
- ▶ Extension of known mineralisation at Voyager 2 will help underpin a further resource upgrade at Paulsens
- ▶ Significant results from Voyager 2 include (uncut):
 - 4.5 m @ 20.0gpt gold (true width 4.0m) 334mRL UZ including 0.24m @ 231 gpt
 - 0.7 m @ 117.0gpt gold (true width 0.6m) 340mRL UZ
 - 2.2 m @ 47.3gpt gold (true width 1.4m) 481mRL LZ
 - 1.5 m @ 48.0gpt gold (true width 1.0m) 503mRL UZ
 - 2.2 m @ 24.7gpt gold (true width 1.6m) 410mRL UZ
 - 1.1 m @ 27.7gpt gold (true width 0.4m) 438mRL UZ
 - 3.7 m @ 22.8gpt gold (true width 1.9m) 467mRL LZ
 - 1.9 m @ 14.2gpt gold (true width 1.3m) 452mRL UZ
 - 6.7 m @ 7.1gpt gold (true width 5.1m) 427mRL LZ
- ▶ Further assays pending for Voyager 1 and 2

Northern Star Resources Limited (ASX: NST) is pleased to announce more high-grade drilling results at its Paulsens Gold Mine in WA.

The latest results extend the known mineralisation at Paulsens' Voyager 2 lode by 200m down plunge from the last resource shape (see Figure 1). This high-grade mineralisation, which remains open at depth, will be included in future resource upgrades, potentially extending Paulsens' mine life.

The Voyager 1 lode has provided all the gold produced to date by Northern Star at Paulsens. But Northern Star has now established Voyager 2, which runs parallel and immediately adjacent to Voyager 1, as a significant part of the growing Paulsens resource inventory.

ASX ANNOUNCEMENT
29 MAY 2013

Australian Securities
Exchange Code: NST

Board of Directors

Mr Chris Rowe
Non-Executive Chairman

Mr Bill Beament
Managing Director

Mr Michael Fotios
Non-Executive Director

Mr Peter O'Connor
Non-Executive Director

Mr John Fitzgerald
Non-Executive Director

Ms Liza Carpena
Company Secretary

Issued Capital

Shares 424M

Options 5.13M

Current Share Price \$0.675

Market Capitalisation
\$286 million

Cash/Bullion and Investments
31 Mar 13 - \$66.5 million

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The initial development ore from Voyager 2 will be mined in the September Quarter, at which point the two lodes will be mined simultaneously for the first time, reducing capital development costs.

Northern Star is now preparing a resource upgrade for Paulsens, which it expects to release in the September Quarter. This will include the in-fill and resource definition drilling undertaken in the Voyager 2 lode since the March 2013 resource upgrade.

It will also include a host of results from the Voyager 1 lode, where drilling recently returned grades of up to 184gpt from 100m below the previously known mineralisation.

Importantly, the new high-grade Voyager 2 intersection of 4.5m at 20.0gpt is the deepest intersection to date in the main mineralisation at Paulsens and is 250m vertically below the current production level, further highlighting the potential for increases in mine life (see *Figure 1*).

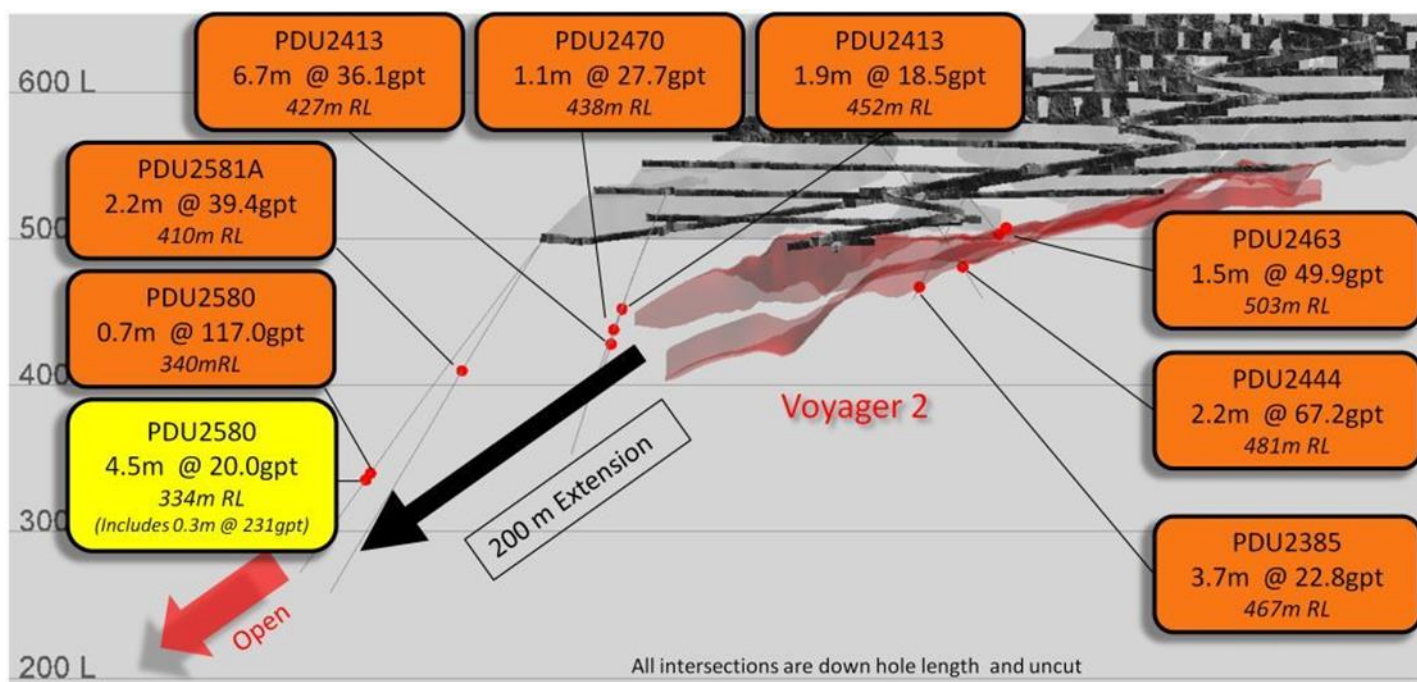


Figure 1 - Voyager 2, 200m Extension to Current Resource Shape
(the lower part of Voyager 1 interpretation has been deleted from this diagram for clarity)

None of the latest results from Voyager 2 are included in the current 555,000-ounce¹ resource estimate at Paulsens.

Northern Star Managing Director Bill Beament said the latest results showed that Paulsens continued to go from strength to strength in every respect.

“We continue to extend the known limits of the mineralisation at depth in both Voyager 1 and Voyager 2, setting us up for another resource upgrade.

“The start of mining in Voyager 2 will deliver cost savings as well as flexibility and extended mine life, further underpinning our ability to continue paying strong fully-franked dividends. And we are hitting high-grade gold in the gabbro host rock which surrounds Paulsens and was long-thought to be unmineralised.” (refer ASX release dated 9 May 2013)

Assay results from underground diamond drilling are listed in the attached tables.

Yours faithfully



BILL BEAMENT
Managing Director
Northern Star Resources Limited

GOLD MINERAL RESOURCES ¹													
As at 31 December 2012													
	MEASURED (M)			INDICATED (I)			INFERRED (Inf)			TOTAL (M&Inf)			
Based on attributable ounces	Tonnes (000's)	Grade (g/t)	Ounces (000's)	Tonnes (000's)	Grade (g/t)	Ounces (000's)	Tonnes (000's)	Grade (g/t)	Ounces (000's)	Tonnes (000's)	Grade (g/t)	Ounces (000's)	Cut Off Grade
PAULSENS GOLD PROJECT													
Surface													
Paulsens	-	-	-	573	2.5	47	169	2.5	14	742	2.5	61	1.0 gpt Au
Belvedere	-	-	-	168	3.6	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
Underground													
Upper Paulsens	63	9.7	20	98	13.1	41	119	8.0	31	280	10.2	92	2.5 gpt Au
Voyager UG	450	11.8	171	129	14.5	60	224	11.7	84	803	12.2	315	2.5 gpt Au
Stockpiles	102	3.3	11	-	-	-	-	-	-	102	3.3	11	1.0 gpt Au
Gold in Circuit/Transit	-	-	4	-	-	-	-	-	-	-	-	4	-
Subtotal Paulsens	615	10.4	206	968	5.4	167	1,360	4.2	182	2,943	5.7	555	
ASHBURTON GOLD PROJECT													
Surface													
Mt Olympus	-	-	-	6,038	2.3	448	9,138	2.2	632	15,176	2.2	1,080	0.7 gpt Au
Peake	-	-	-	113	5.2	19	3,544	3.3	380	3,657	3.3	399	0.9 gpt Au
Waugh	-	-	-	347	3.6	40	240	3.6	28	587	3.6	68	0.9 gpt Au
Zeus	-	-	-	508	2.1	34	532	2.2	38	1,040	2.2	72	0.9 gpt Au
Electric Dingo	-	-	-	98	1.6	5	444	1.2	17	542	1.3	22	0.9 gpt Au
Romulus	-	-	-	-	-	-	329	2.6	27	329	2.6	27	0.9 gpt Au
Subtotal Ashburton	-	-	-	7,104	2.4	546	14,227	2.5	1,122	21,331	2.4	1,668	
TOTAL RESOURCES	615	10.4	206	8,072	2.7	713	15,587	2.6	1,304	24,274	2.8	2,223	

¹ Resources are inclusive of Reserves

² Rounding errors may occur

¹Table 1 - Paulsens and Ashburton Mineral Resources inclusive of Reserves effective 31 December 2012

Competent Persons Statements

The information in this announcement that relates to Paulsens and Ashburton mineral resource estimations, exploration results, data quality, geological interpretations, potential for eventual economic extraction and estimates of exploration potential, is based on 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 Limited. 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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PAULSENS RESOURCE DEFINITION 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)
PDU2385	8996	50472	530	94	321	-50	80.3	84.0	3.7	22.8	1.9
PDU2413	8791	50407	530	182	327	-52	100.1	102.0	1.9	14.2	1.3
PDU2413	8791	50407	530	182	327	-52	107.3	108.1	0.8	5.1	0.6
PDU2413	8791	50407	530	182	327	-52	129.0	135.7	6.7	7.1	5.1
PDU2413	8791	50407	530	182	327	-52	139.3	141.6	2.3	4.4	1.5
PDU2450	8996	50473	530	48	19	-80			NSI		
PDU2451	8996	50473	530	86	36	-36			NSI		
PDU2452	8996	50473	530	62	36	-48	39.5	40.5	1.1	10.7	0.6
PDU2452	8996	50473	530	62	36	-48	42.6	43.2	0.6	12.5	0.4
PDU2452	8996	50473	530	62	36	-48	47.8	49.1	1.3	10.1	0.8
PDU2452	8996	50473	530	62	36	-48	51.5	52.1	0.6	8.4	0.4
PDU2453	8996	50473	530	49	36	-62	36.0	37.4	1.4	2.6	1.3
PDU2454	8996	50472	530	47	35	-74			NSI		
PDU2461	8997	50473	530	89	50	-19			NSI		
PDU2462	8997	50473	530	85	51	-30			NSI		
PDU2570	8707	50480	497	185	261	-70			NSI		
PDU2576	8705	50481	498	486	262	-33			NSI		
PDU2578	8706	50482	498	329	251	-39			NSI		
PDU2579	8707	50782	498	308	253	-44	163.7	164.0	0.3	5.0	0.3
PDU2579	8707	50782	498	308	253	-44	166.5	168.3	1.8	1.8	1.6
PDU2579	8707	50782	498	308	253	-44	173.0	174.0	1.0	5.1	0.9
PDU2580	8707	50482	498	279	253	-49	197.3	198.0	0.7	117.0	0.6
PDU2580	8707	50482	498	279	253	-49	203.0	207.6	4.5	20.0	4.0
PDU2580	8707	50482	498	279	253	-49	249.1	249.4	0.3	35.7	0.2
PDU2581A	8706	50482	497	280	253	-55	101.8	104.0	2.2	24.7	1.6
PDU2581A	8706	50482	497	280	253	-55	207.1	207.9	0.8	7.4	0.6
PDU2581A	8706	50482	497	280	253	-55	218.2	220.3	2.1	4.4	1.7
PDU2582	8707	50482	497	230	256	-62	184.0	187.0	3.0	3.3	0.8

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)
PDU2444	8922	50477	587	162	63	-58	134.6	136.8	2.2	47.3	1.4
PDU2463	8997	50472	530	59	50	-42	38.6	40.1	1.5	48.0	1.0
PDU2463	8997	50472	530	59	50	-42	46.5	47.3	0.8	5.2	0.5
PDU2470	8791	50407	530	204	313	-61	104.4	105.5	1.1	27.7	0.4

JORC Table 1

Sampling techniques and data

Sampling techniques	<ul style="list-style-type: none"> DD - Resource Definition: Core is half cut using an Almonté Diamond Core-saw. The right half is sampled (preferentially) to sample intervals defined by the Logging Geologist along geological boundaries. The left half is archived. Where possible, sample intervals are 0.30m to 1.20m in length, and the total weight of each sample does not exceed 5kg. DD - Grade Control: Core is whole core sampled along geological boundaries established by the Logging Geologist. Where possible, sample intervals are 0.30m to 1.20m in length, and the total weight of each sample does not exceed 5kg. All defined orezones are sampled, plus visibly barren material associated with orezones, >5m of hangingwall/footwall, plus >0.3m quartz veins that are encountered outside the orezone and ±1m on either side.
Drilling techniques	<ul style="list-style-type: none"> DD – Diamond drilling is carried out using NQ2 (standard tube) and LTK60 (conventional) techniques. In most instances, Grade Control holes are drilled using LTK60 and Resource Definition holes are drilled using NQ2.
Drill sample recovery	<ul style="list-style-type: none"> DD – Recovery is not estimated, although core-loss and cavities are recorded by the Logging Geologist. Overall Paulsens core recovery is very good.
Logging	<ul style="list-style-type: none"> Core Logging is carried out by the Logging Geologist, who delineates intervals on geological, structural, alteration and/or mineralogical boundaries. All core is photographed.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> DD - Core is half cut with Almonté diamond core saw and half core sampled, or whole core sampled. Samples are oven-dried overnight (<82.5°C), jaw crushed to <6mm, and split to <3kg in a static riffle splitter. The coarse reject is then discarded. The remainder is pulverised in an LM5 to >80% passing 75µm (Tyler 200 mesh) and bagged. The analytical sample is further reduced to a 50gm charge weight using a spatula, and the pulp packet is stored awaiting collection by NSR.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> DD - For all drill samples the total gold is determined by fire assay using the lead collection technique with a 30 gram sample charge weight. An AAS finish is used. The QAQC protocols used include the following for all drill samples: Site sourced coarse blanks are inserted at an incidence of 1 in 40 samples, Commercially prepared certified reference materials are inserted at an incidence of 1 in 40 samples. The CRM used is not identifiable to the laboratory. NSR's Blanks and Standards data is assessed on import to the database and reported monthly and yearly. The laboratory QAQC protocols used include the following for all drill samples: Screen tests (percentage of pulverised sample passing a 75µm mesh) are undertaken on 1 in 100 samples. The laboratory reports its own QAQC data on a monthly basis. Failed standards are followed up by re-assaying a second 30g pulp sample of the failed standard ± 10 samples either side by the same method at the primary laboratory.
Verification of sampling and assaying	<ul style="list-style-type: none"> Significant intersections are collated and reviewed by senior staff and reviewed by corporate geologist. Twinned holes are not used.
Location of data points	<ul style="list-style-type: none"> Drill holes are surveyed every 30m downhole, collars are picked up post drilling by mine surveyors
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing varies due to the nature of drilling radiating fans but will be on the order of 10 to 20m for Grade control, 20m to 100m for resource definition.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> It is not thought that drilling orientation would have a biased effect on this resource though restricted drill access has led to some less than optimal drill intersection angles.
Audits or reviews	<ul style="list-style-type: none"> Sampling and QAQC protocols along with the QAQC data are assessed by a consultant on a quarterly basis as part of an ongoing series of QAQC meetings.
Reporting of Exploration Results	
Mineral tenement and land tenure status	<ul style="list-style-type: none"> M08/196 and M08/99 are wholly owned by NSR and in good standing. Currently contains the operating Paulsens Gold Mine.
Exploration done by other parties	<ul style="list-style-type: none"> All relevant work at these depths has been drilled by NSR.
Geology	<ul style="list-style-type: none"> Paulsens is a high grade, quartz hosted, mesothermal gold deposit within metasediments.
Data aggregation methods	<ul style="list-style-type: none"> Grades are uncut.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> 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 length are reported
Diagrams.	<ul style="list-style-type: none"> Diagrams and tables included
Balanced reporting	<ul style="list-style-type: none"> All Exploration Results are reported for this period and this area (Voyager 2)
Further work	<ul style="list-style-type: none"> Drilling will continue down plunge and as grade control in line with the mine plan.