NORTHERN STAR
RESOURCES LIMITED

Fresh drilling and metallurgical results advance plan to establish 100,000ozpa operation at Ashburton Project

Latest intersections point to increase in current 1Moz resource

Highlights

- **New metallurgical tests show total gold recoveries of 85% - up from 80% recorded in earlier tests using bacterial oxidation**
- **Significant new RC and diamond drilling results further support Northern Star's plan to make the Ashburton Project its second 100,000ozpa stand-alone operation**
- **Resource drilling at Ashburton's Mt Olympus deposit confirms potential to upgrade the current sulphide Inferred Resource with results including:**
  - **8.0m @ 13.3g/t Au** ***including 3.0m @ 29.6g/t***
  - **2.0m @ 17.7g/t Au**
  - **29.0m @ 4.3g/t Au**
  - **31.0m @ 3.1g/t Au** ***including 6.0m @ 6.5g/t***
  - **13.0m @ 4.1g/t Au** ***including 3.5m @ 8.8g/t***
  - **14.0m @ 3.2g/t Au**
  - **14.0m @ 3.1g/t Au** **including 1.5m @ 7.0g/t**
  - **12.0m @ 3.0g/t Au** **including 1.7m @ 7.3g/t**
  - **18.0m @ 3.0g/t Au**
  - **9.0m @ 5.4g/t Au**
- **Infill drilling at Mt Olympus almost complete, paving way for scoping study to start**
- **Results highlight growing free-milling oxide potential of the Ashburton, further de-risking the neighbouring Paulsens operations in future years**
- **Strong potential to grow Mt Olympus resource through satellite deposits such as Peake and Waugh**
- **The results further point to an increase in Ashburton's current 1Moz[1] resource, as well as an upgrade in the classification, enabling a Reserve to be estimated**
- **Next phase of drilling to test for substantial down-plunge extensions to the current resources at Mt Olympus and Peake**

Northern Star Resources (ASX: NST) is pleased to announce that its plans to develop a 100,000-ounce-a-year operation at its Ashburton Gold Project in WA have been further boosted by fresh high-grade drilling results and increased recoveries from metallurgical test work.

The latest drilling results at Ashburton's flagship Mt Olympus deposit also confirm Northern Star's geological interpretation, pointing to a potential increase in the current 1 million ounce[1] resource.

ASX ANNOUNCEMENT
10 SEPTEMBER 2012

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 Farris
Non-Executive Director

Mr Peter O'Connor
Non-Executive Director

Ms Karen Brown
Company Secretary

Issued Capital
Shares
424 M

Options 3.5M

Current Share Price
$1.145

Market Capitalisation
$485 million

Cash/Bullion in Bank: 30 Jun 2012
$75 million

Projects	Commodities
Paulsens	gold
Ashburton	gold
Range	gold, silver
Emull	Zn, Cu, gold

Investments	Commodities
Venturex (15%)	Cu, Zn, Ag & gold

Mt Olympus is at the hub of a number of satellite prospects that have been returning high grades in recent drilling.

The new results include outstanding broad intersections of 29m at 4.3gpt gold from Mt Olympus and a host of encouraging results from nearby satellite prospects including Sparta, Waugh, Electric Dingo and Cheela reported previously.

Northern Star aims to establish a stand-alone 100,000ozpa operation at Ashburton. At the same time, it is expanding production at its neighbouring Paulsens Project from around 80,000ozpa to over 100,000ozpa.

Metallurgy:

The Company embarked on an accelerated, multi-phase exploration program over several targets at Ashburton early this year after initial metallurgical tests showed gold recoveries of 96.4 per cent from the sulphide concentrate and an overall total gold recovery of 80 per cent.

Since then, further metallurgical benchmarking has been completed on the Albion and Pressure Oxidation processes with improving results of up to 85% total gold recovery.

The sulphide component of the Ashburton ore produces a bulk pyrite concentrate with gold recovery to the concentrate being well above 90% with proven sulphide flotation techniques.

As part of the metallurgical benchmarking process, numerous sulphide ore treatment techniques have been evaluated on Mt Olympus flotation concentrate by well recognised metallurgical testing laboratories and technology vendors including bacterial oxidation, pressure oxidation and the Albion Process.

Preliminary results from the latter two of these processes have yielded higher cyanide leach results indicating the possibility to achieve greater than 90% gold recovery from produced concentrate.

	Pressure Oxidation		Albion Process
Recovery	**Mt Olympus**	**Peake**	**Mt Olympus**
Flotation	92.0%	92.0%	92.0%
Cyanidation	92.5%	96.5%	95.0%
Overall	85.1%	88.8%	87.4%

This metallurgical test work indicates a total overall gold recovery of 85% is achievable using either pressure oxidation or the Albion Process which is a marked improvement on historical biological oxidation work previously announced.

"These latest results show why we are increasingly confident in Ashburton's ability to host a standalone 100,000ozpa operation," Northern Star Managing Director Bill Beament said.

"They also show that there is significant scope to grow the one million-ounce[1] resource through drilling at the satellite deposits around Mt Olympus."

Mt Olympus Drilling:

Northern Star has received assays for 13 Reverse Circulation holes and 7 diamond holes since the last release at Mt Olympus Project (*see ASX Announcement 26 July 2012*).

This is the third batch of assays from that program targeting geological domains and lower grade areas of the orebody. Further assays are pending from new target high-grade zones in the Mt Olympus orebody.

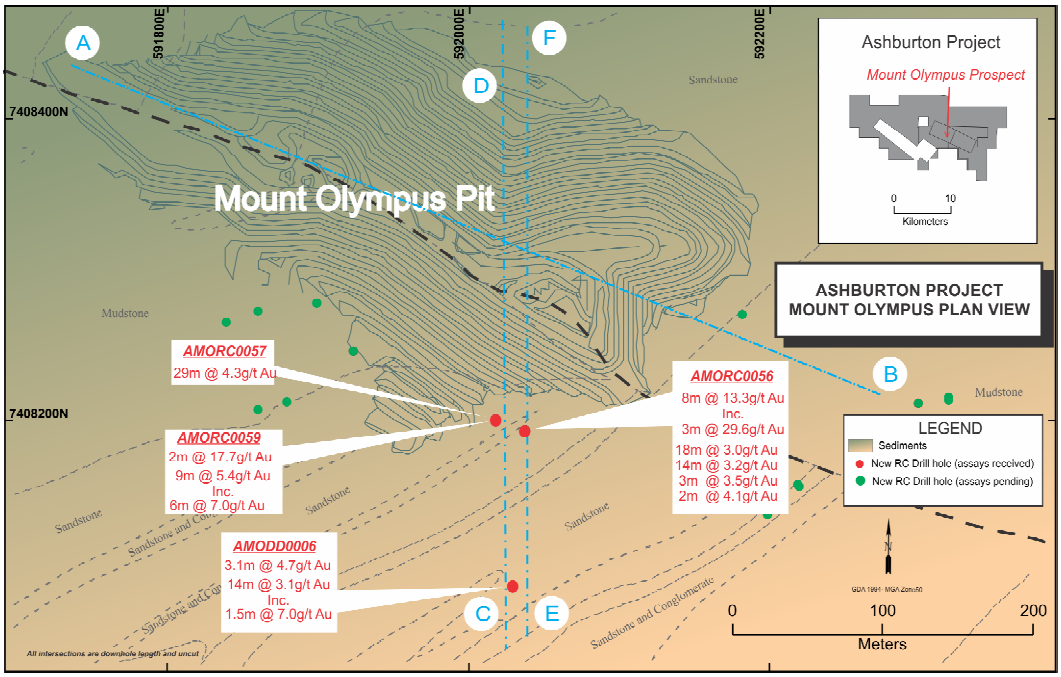

Figure 1 - Mt Olympus Surface drilling, plan view

Importantly, these high grade results confirm the current geological and mineralisation models. With sulphide mineralisation now amenable to more modern processing techniques, these results will lead to further upgrades in the Mineral Resource as well as potential down-plunge extensions *(Figures 1, 2 and 3)*.

Further to this phase of drilling at Mt Olympus there has been 17,500 metres of a 20,000 metre program completed including 41 reverse circulation and 29 diamond drill holes. There are currently results awaited from 17 holes which are expected to provide further valuable information in addition to those already reported.

The following sections indicate continued confidence in the Resource Model

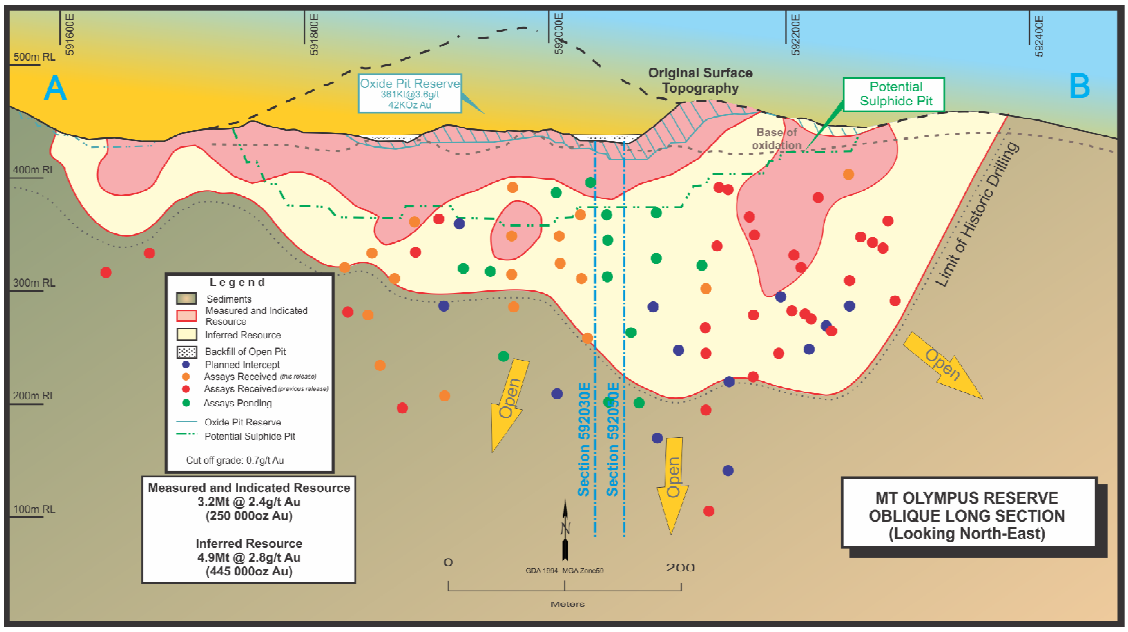

Figure 2 - Mt. Olympus Long Section of Recent and Planned drill intersections

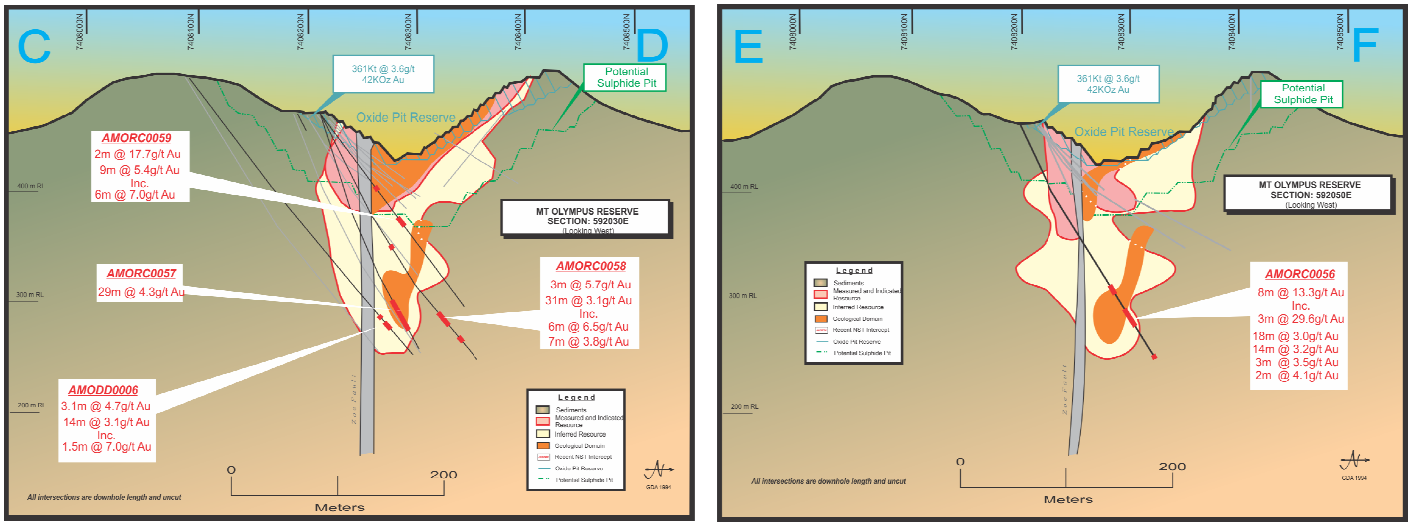

Figure 3 - Mt Olympus Cross Sections of recent drill intersections looking west

Assays received are attached in the appended table. Further announcements will be released regarding the ongoing surface diamond and reverse circulation drilling as more results become available.

Yours faithfully,

Bill Beament
Managing Director

Competent Persons Statements

The information in this announcement that relates to the mineral resource estimation, exploration results, data quality, geological interpretations and potential for eventual economic extraction, is based on information compiled by or under the supervision of Brook Ekers, (Member AIG), 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 Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Ekers consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

Information in this announcement that relates to the Ore Reserves has been compiled by Shane McLeay, Principal Engineer – Entech Pty Ltd, who has sufficient experience 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 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Shane McLeay is a Member of the Australasian Institute of Mining and Metallurgy and 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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31 December 2011	Measured		Indicated		Inferred		Total		
	Tonnes (,000)	Grade (g/t)	Tonnes (,000)	Grade (g/t)	Tonnes (,000)	Grade (g/t)	Tonnes (,000)	Grade (g/t)	Oz Au (,000)
Mt Olympus	1,712	2.5	1,533	2.3	4,956	2.8	8,201	2.6	695
Peake			95	5.6	794	4.2	889	4.3	123
Waugh			347	3.6	240	3.6	587	3.6	68
Zeus			508	2.1	532	2.2	1,040	2.2	72
Electric Dingo			98	1.6	444	1.2	542	1.3	22
Romulus					329	2.6	329	2.6	27
Total	**1,712**	**2.5**	**2,581**	**2.5**	**7,295**	**2.8**	**11,588**	**2.7**	**1,007**

[1]Table 1 - Ashburton Mineral Resources Inclusive of Reserves - 0.7g/t lower cut used for Mt Olympus and 0.9g/t lower cut for others.

	Measured			Indicated			Inferred			Total		
	Tonnes (,000)	Grade (g/t)	Oz Au (,000)	Tonnes (,000)	Grade (g/t)	Oz Au (,000)	Tonnes (,000)	Grade (g/t)	Oz Au (,000)	Tonnes (,000)	Grade (g/t)	Oz Au (,000)
Oxide and Transitional	655	2.4	50	1,425	2.6	120	1,995	2.3	148	4,075	2.4	318
Sulphide	1,057	2.6	86	1,156	2.4	90	5,300	3.0	513	7,513	2.9	689
Total	**1,712**	**2.5**	**136**	**2,581**	**2.5**	**210**	**7,295**	**2.8**	**661**	**11,588**	**2.7**	**1,007**

[2]Table 2 - Ashburton Mineral Resource split by material type (free milling and sulphide)

31 December 2011	Proved		Probable		Total		
	Tonnes (,000)	Grade (g/t)	Tonnes (,000)	Grade (g/t)	Tonnes (,000)	Grade (g/t)	Oz Au (,000)
Mt Olympus	248	3.6	113	3.6	361	3.6	42
Peake			47	5.0	47	5.0	8
Waugh							
Zeus			38	2.4	38	2.4	3
Electric dingo							
Romulus							
Total					**446**	**3.7**	**53**

[3]Table 3 - Ashburton Reserves @ A$1600 gold price based on oxide and transitional material only (free milling)

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Mt Olympus Resource Definition drilling						
Drill Hole #		**Downhole From (m)**	**Downhole To (m)**	**Downhole Intersection (m)**	**Au (g/t)**	**Oxide / Transitional / Sulphide**
AMORC0032		136	142	6	3.1	Sulphide
AMORC0034		128	134	6	3.2	Sulphide
AMORC0035					NSI	
AMORC0038		131	133	2	3.1	Sulphide
AMORC0050		154	161	7	3.2	Sulphide
	including	*158*	*160*	***2***	***6.3***	
AMORC0051		127	130	3	3.2	Sulphide
		154	157	3	3.1	
AMORC0053					NSI	
AMORC0054					NSI	
AMORC0055					NSI	
AMORC0056		120	128	8	13.3	Sulphide
	including	*120*	*123*	***3***	***29.6***	
		174	192	18	3.0	
		203	217	14	3.2	
		220	223	3	3.5	
		255	257	2	4.1	
AMORC0057		189	218	29	4.3	Sulphide
AMORC0058		153	156	3	5.7	Sulphide
		208	239	31	3.1	
	including	*216*	*222*	***6***	***6.5***	
		246	253	7	3.8	
AMORC0059		88	90	2	17.7	Sulphide
		117	126	9	5.4	
	including	*119*	*125*	***6***	***7.0***	
AMODD0003					NSI	
AMODD0006		275	278.1	3.1	4.7	Sulphide
		285	299	14	3.1	
	including	*288.5*	*290*	***1.5***	***7.0***	
AMODD0007					NSI	
AMODD0008		234.7	238.6	3.9	3.20	Sulphide
AMODD0009					NSI	
AMODD0010					NSI	
AMODD0012		102	105	3	4.9	Sulphide
		151	154	3	3.8	
		164	176	12	3.0	
	including	*173.35*	*175*	***1.65***	***7.3***	
		180	182	2	5.9	
		232	245	13	4.1	
	including	*242*	*245.5*	***3.5***	***8.8***	

At a nominal 0.7g /t lower cut off and no upper cut off, with <2m internal dilution. NSI means no significant result

Quality Control – Mt Olympus. All core is logged and cut for sampling. The half core is sampled and sent to SGS Australia Pty Ltd ('SGS') in Perth Western Australia for assaying. The remaining half core is stored at Mt Olympus. At SGS, samples are dried then crushed. The reverse circulation samples are crushed material and split with a proportion pulverised. A 50-gram portion of the pulp is treated by Fire Assay method with an Atomic Absorption finish. Northern Star Resources inserts on average one standard and blank every 25 samples. Laboratory standards and blanks are inserted by SGS and several pulp duplicates are also assayed as a determinant of mineralisation variability and to their ISO 9001 standard and a NATA Technical certificate.