

## Corporate Directory

ASX Code: POS  
Shares on Issue: 2,643M  
Market Cap: \$106M  
Cash and equivalents at 31 March 2019  
\$63.5M

## Board of Directors

**Non-Executive Chairman**  
Geoffrey Brayshaw

**Non-Executive Directors**  
Felicity Gooding  
Karl Paganin

**Managing Director and CEO**  
Robert Dennis

**Company Secretary**  
Eryn Kestel

## Key Shareholders

Black Mountain Metals: 19.8%  
Squadron Resources: 17.1%

## Key Operating Nickel Assets (100%)

Black Swan/Silver Swan  
Lake Johnston  
Windarra

## Principal & Registered Office

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Western Australia

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## CONTINUING HIGH GRADE NICKEL INTERSECTIONS AT SILVER SWAN

12 JUNE 2019

### HIGHLIGHTS

- Silver Swan drilling continues to expand high grade nickel sulphide mineralisation
- Hole PBS006A has encountered high grade nickel ore outside the Tundra-Mute Resource envelope for Silver Swan
- Current and recent drilling results now provides the basis for Silver Swan Resource revision in August 2019
- Latest results demonstrate high grade nickel intercepts:
  - PBS004 13.6m @ 5.61% Ni (true width 4.7m) including
    - 3.5m @ 14.01% Ni (true width 1.2m)
  - PBS006A 15.1m @8.64% Ni (true width 3.5m) including
    - 5.99m @ 12.85% Ni (true width 1.4m)
  - PBS009 37.9m @3.4% Ni (true width) including
    - 6.92m @ 11.66% Ni (true width 2.4m)
    - 19.85m @ 5.6%ni (true width 6.9m)
- Completion of this 3,000m Silver Swan drilling program in June and remaining assays early in July 2019

**Poseidon Nickel (ASX: POS, “the Company”)** is pleased to provide this update on its ongoing drilling program at the Silver Swan high grade nickel deposit. The Silver Swan underground deposit is immediately adjacent to Poseidon’s Black Swan concentrator and is important for the prospective restart of the Black Swan operations. The Black Swan operations are located approximately 50 kilometres north of Kalgoorlie.

Poseidon’s Managing Director Rob Dennis commented:

*“The results we are achieving with the Silver Swan drilling program continue to impress. Most importantly the drilling has also demonstrated that some of the DHEM indicators of sulphide potential outside the current resource envelope are being converted into the assays we are now seeing.*

*The Silver Swan program will finish up shortly with the remaining assays being released to market in July.*

*We envisage that the impact on the resource revisions for Silver Swan will follow by the end of August 2019 and build on our goal and plans for a restart at Black Swan.”*

Silver Swan, historically, returned some of the highest-grade nickel sulphides assays in the world. The current 3,000 metre program is intended to verify the current Silver Swan resource base underpinning the restart economics and also extend the deposit where previous work by Poseidon has shown additional opportunities.

In conjunction with the recently completed initial drilling program into the Black Swan deposit, the outcomes at Silver Swan will be considered as part of the mine-life extension and optimisation of the Company’s proposed restart program.

## SILVER SWAN DRILL HOLE RESULTS

Diamond core drilling at Poseidon’s Silver Swan underground mine has continued to intersect significant high-grade nickel sulphides at widths greater than predicted from historical results.

The latest results are compiled in Table 1 below.

Hole	m From	m To	Interval	Ni%	Cu%	Co%	As%	True Width
<b>PBSD004</b>	119.4	133	13.6	5.61	0.13	0.01	0.2	4.7m
<b>including</b>	119.4	122.9	3.5	14.01	0.23	0.24	0.35	
<b>PBSD006A</b>	180	195.15	15.15	8.64	0.24	0.19	0.37	3.5m
<b>including</b>	186.2	192.19	5.99	12.85	0.18	0.22	0.2	
<b>PBSD008</b>	151	154	3	1.08	0.06	0.02	0.21	N/A -Dyke
<b>PBSD009</b>	159.07	197	37.93	3.44	0.14	0.06	0.25	13.2m
<b>with</b>	177.15	197	19.85	5.6	0.24	0.1	0.18	6.9m
<b>including</b>	180.85	187.77	6.92	11.66	0.41	0.22	0.38	2.4m

**Table 1: Selected assay results for holes PBSD 004, 006A, 008, 009**

By way of an overview, PBSD009 was designed to test the thickest part of the proposed Lower Tundra-Mute mining zone as shown in Figure 1 below. The hole intersected a massive sulphide true width of 2.4m as expected as well as a much thicker halo of disseminated mineralisation. This geology indicates the central channel position of the komatiite flow. This central channel position was also targeted by PBSD003\*, PBSD004 and PBSD005\* with all holes intersecting massive sulphide widths on par or greater than was previously modelled on the information available (\*ASX announcement 27<sup>th</sup> May 2019).

Drillhole PBSD006A has intersected thick, massive sulphide mineralization outside of the current Tundra-Mute interpreted resource. The hole was positioned with the objective of extending mineralization in this area based on observed geology in surrounding holes. The success of this hole together with good historical intersections both below and above this zone is positive for the success of the current mine plan and for the continuation of the deposit at greater depth.

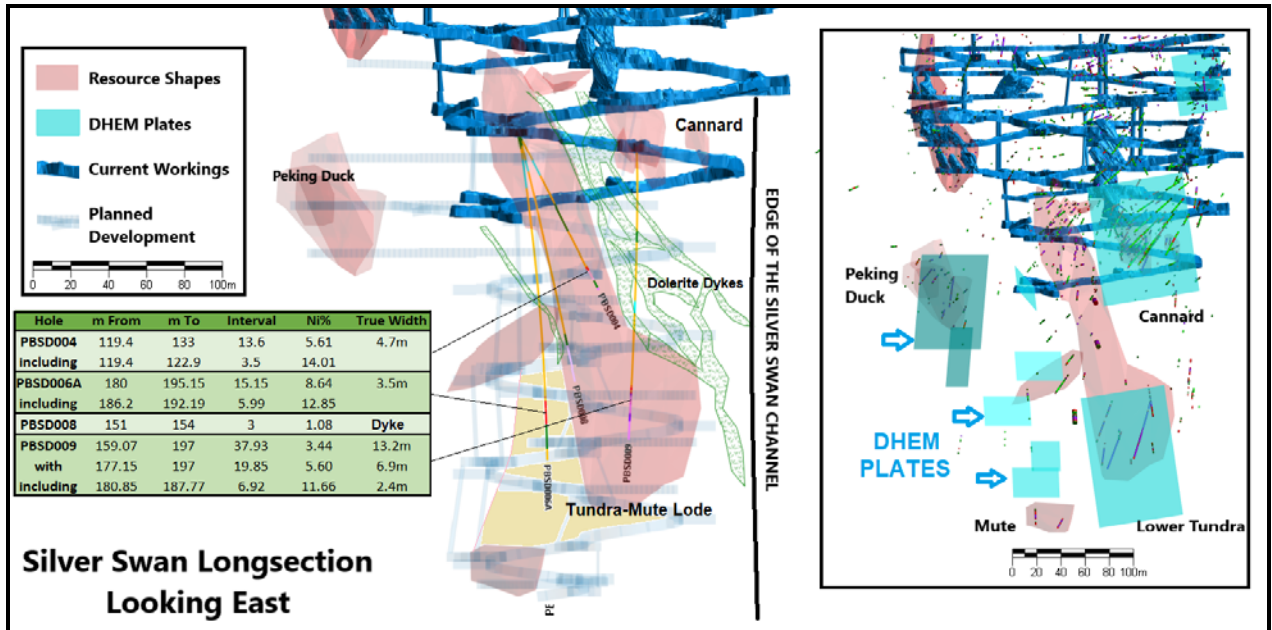


Figure 1: Longsection of drilling results and correlation with DHEM areas of interest



Figure 2: Core from PBSD006A showing massive sulphide mineralisation outside of the current resource

Figure 2 profiles the mineralisation intersected outside the current resource envelope where substantial lengths of massive sulphides were intersected.

Poseidon continues to be encouraged with the ongoing successes being achieved at Silver Swan. The drilling program is an integral part of the ongoing de-risking of the project and optimisation processes, including mine life extension in an anticipated higher nickel price environment.



**Robert Dennis**  
Managing Director and CEO

12 June 2019

For further information contact Mr Rob Dennis, Managing Director & CEO : + 61 (0)8 6167 6600.

#### **About Poseidon Nickel Limited**

*Poseidon Nickel Limited (ASX: POS, "Poseidon"), is an Australia focussed nickel company that owns three previously operating Nickel Sulphide mines: Windarra, Black Swan/Silver Swan and Lake Johnston. These 100% owned assets collectively had an operating capacity of 3.6mtpa (Lake Johnston 1.5mtpa; Black Swan 2.1mta). The processing facilities at Lake Johnston and Black Swan have been maintained through company managed, care and maintenance programs.*

*On 18 July 2018, POS released to ASX a definitive feasibility study regarding the restart of operations and potential outcomes for Black Swan/Silver Swan, located 50 kms from Kalgoorlie. Poseidon is currently undertaking a number of de-risking initiatives including additional underground diamond drilling at Black Swan.*

*Poseidon has continued to explore at Lake Johnston, with recent diamond drilling at the Abi Rose prospect. These exploration results were released to ASX on 22 October 2018 and 21 November 2018.*

*Windarra has a number of near mine exploration projects including the extension of the original Windarra deposit, Cerberus, South Windarra and Woodline Well.*

*The current Resource Statement below shows a combined Nickel resource of 391,900 tonnes of Nickel (which should be read with the Competent Person statements below).*

**Table 2: Collar Tables – Black Swan and Silver Swan**

Hole ID	Loc_E	Loc_N	Loc_RL	MGA_E	MGA_N	MGA_RL	Depth	Dip	Loc_Azi	MGA_Azi
PBSD004	10505	11796	10014	370132	6637263	14.2	141.9	-34.8	66.0	31
PBSD006A	10505	11796	10014	370132	6637263	4.9	220.2	-48.6	80.0	45
PBSD008	10505	11796	10014	370132	6637263	14.2	184.4	-44.8	39.2	4.2
PBSD009	10498	11859	10005	370089	6637267	4.9	221.8	-41.5	53.6	18.6



Table 3: Assay Results PBSD004, PBSD006A, PBSD008 & PBSD009

Hole ID	m From	m To	Sample No	Ni%	Cu%	Co%	As%	Mg%	S.G.	Lithology
PBSD004	117	118	PN31730	0.02	X	X	X	1.96	2.79	Felsic
PBSD004	118	119	PN31731	0.01	X	X	0.01	1.67	2.75	Felsic
PBSD004	119	119.4	PN31732	0.06	0.03	X	0.02	1.53	2.75	Felsic
PBSD004	119.4	120	PN31733	6.03	0.9	0.43	1.92	2.27	3.82	Felsic + Ni Stringers
PBSD004	120	121	PN31734	14.7	0.06	0.14	0.05	0.45	4.67	Massive Sulphide
PBSD004	121	122	PN31735	15.8	0.07	0.23	0.06	0.38	4.68	Massive Sulphide
PBSD004	122	122.9	PN31736	15.6	0.24	0.27	0.14	0.43	4.71	Massive Sulphide
PBSD004	122.9	123.4	PN31738	1.54	0.08	0.07	0.36	2.84	3.05	Komatiite + Disseminated
PBSD004	123.4	124	PN31739	0.32	0.04	0.01	0.11	3.10	2.78	Komatiite + Disseminated
PBSD004	124	125	PN31740	0.68	0.2	0.03	0.14	4.16	2.73	Komatiite + Disseminated
PBSD004	125	126	PN31741	0.37	0.1	X	0.01	2.47	2.75	Komatiite + Disseminated
PBSD004	126	127	PN31742	0.92	0.05	0.02	0.06	4.59	2.83	Komatiite + Disseminated
PBSD004	127	128	PN31743	0.22	0.02	X	0.21	6.85	2.79	Komatiite + Disseminated
PBSD004	128	129	PN31744	0.92	0.04	0.02	0.02	6.68	2.79	Komatiite + Disseminated
PBSD004	129	130.4	PN31745	0.39	0.05	X	0.04	6.67	2.77	Komatiite + Disseminated
PBSD004	130.4	131.1	PN31746	1.06	0.15	0.02	0.07	5.04	2.84	Komatiite + Disseminated
PBSD004	131.1	132	PN31747	1.04	0.06	0.03	0.34	9.53	2.78	Komatiite + Disseminated
PBSD004	132	133	PN31748	2.65	0.05	0.04	0.04	11.37	2.91	Komatiite + Disseminated
PBSD004	133	134	PN31749	0.18	X	X	X	25.20	2.88	Pyroxenite Dyke
PBSD004	134	135	PN31750	0.18	X	X	X	27.36	2.86	Pyroxenite Dyke
PBSD004	135	136	PN31751	0.25	X	0.01	X	26.86	2.88	Pyroxenite Dyke
PBSD004	136	137	PN31753	0.24	X	X	X	29.02	2.91	Pyroxenite Dyke
PBSD004	137	138	PN31754	0.3	X	0.01	X	30.34	2.92	Pyroxenite Dyke
PBSD004	138	139	PN31755	0.1	X	X	X	20.06	2.77	Pyroxenite Dyke
PBSD004	139	139.9	PN31756	0.08	X	X	X	16.58	2.79	Pyroxenite Dyke

Hole ID	m From	m To	Sample No	Ni%	Cu%	Co%	As%	Mg%	S.G.	Lithology
PBSD006A	176	177.33	PN31648	0.03	X	X	0.05	2.50	2.77	Felsic
PBSD006A	177.33	177.87	PN31649	1.38	0.06	0.03	0.02	3.08	3.08	Felsic + Ni Stringers
PBSD006A	177.87	179	PN31650	0.04	0.01	X	0.04	2.45	2.75	Felsic
PBSD006A	179	180	PN31651	0.12	0.01	X	0.04	2.60	2.79	Felsic
PBSD006A	180	180.65	PN31652	1.33	0.46	0.06	0.22	1.94	3.16	Felsic + Ni Stringers
PBSD006A	180.65	181.68	PN31653	12.4	0.07	0.41	1.34	1.21	4.43	Massive Sulphide
PBSD006A	181.68	183.07	PN31654	6.49	0.36	0.35	1.37	1.99	3.2	Massive Sulphide
PBSD006A	183.07	184	PN31655	3.25	0.19	0.06	0.11	1.97	3.08	
PBSD006A	184	184.82	PN31656	0.66	0.14	0.02	0.04	2.93	3.06	
PBSD006A	184.82	185.54	PN31657	6.85	0.1	0.22	0.81	2.54	3.84	Massive Sulphide
PBSD006A	185.54	185.96	PN31658	0.18	0.02	0.01	0.08	5.62	2.83	Felsic + Ni Stringers
PBSD006A	185.96	186.2	PN31659	0.34	0.05	0.03	0.21	4.74	2.82	Felsic + Ni Stringers
PBSD006A	186.2	187	PN31660	12.7	0.1	0.15	0.31	1.51	4.64	Massive Sulphide
PBSD006A	187	188	PN31661	14	0.11	0.2	0.07	0.73	4.58	Massive Sulphide
PBSD006A	188	189	PN31662	14.9	0.31	0.31	0.37	0.80	4.68	Massive Sulphide
PBSD006A	189	190	PN31663	15.6	0.13	0.26	0.09	0.61	4.7	Massive Sulphide
PBSD006A	190	191.22	PN31664	12.3	0.23	0.25	0.2	0.85	4.67	Massive Sulphide

PBSD006A	191.22	191.85	PN31666	2.34	0.3	0.07	0.25	2.54	3.14	Komatiite + Disseminated
PBSD006A	191.85	192.19	PN31667	10.8	0.05	0.14	0.15	0.95	4.67	Massive Sulphide
PBSD006A	192.19	193.3	PN31668	4.38	0.92	0.14	0.08	2.92	3.77	Komatiite + Disseminated
PBSD006A	193.3	194.11	PN31669	0.25	0.01	X	0.01	3.17	2.79	Komatiite + Disseminated
PBSD006A	194.11	195.15	PN31670	5.06	0.24	0.07	0.01	3.98	3.59	Komatiite + Disseminated
PBSD006A	195.15	196	PN31671	0.62	0.02	0.01	X	3.63	2.87	Komatiite + Disseminated
PBSD006A	196	196.2	PN31672	0.32	0.03	0.01	0.04	6.98	2.84	Pyroxenite Dyke
PBSD006A	196.2	197	PN31673	0.15	X	X	X	17.41	2.85	Pyroxenite Dyke
PBSD006A	197	198	PN31674	0.17	X	X	X	21.89	2.85	Pyroxenite Dyke
PBSD006A	198	199	PN31675	0.56	0.02	0.02	X	23.38	2.87	Pyroxenite Dyke
PBSD006A	199	200	PN31676	0.26	X	0.01	X	24.71	2.88	Pyroxenite Dyke
PBSD006A	211	212.12	PN31677	0.09	X	X	0.02	14.84	2.83	Pyroxenite Dyke
PBSD006A	212.12	212.47	PN31678	0.12	X	X	0.03	12.25	2.88	Pyroxenite Dyke
PBSD006A	212.47	212.79	PN31679	0.01	X	X	0.01	1.91	2.7	Felsic + Ni Stringers
PBSD006A	212.79	213.77	PN31680	0.02	X	X	X	1.06	2.74	Felsic + Ni Stringers
PBSD006A	213.77	214.25	PN31681	0.26	X	X	0.39	2.79	2.81	Felsic + Ni Stringers
PBSD006A	214.25	215.25	PN31682	0.25	0.01	X	0.38	1.99	2.74	Felsic + Ni Stringers

Hole ID	m From	m To	Sample No	Ni%	Cu%	Co%	As%	Mg%	S.G.	Lithology
PBSD008	148	149.1	PN31757	0.06	X	X	0.07	2.06	2.69	Felsic
PBSD008	149.1	149.8	PN31758	0.12	0.01	X	0.13	5.84	2.84	Felsic
PBSD008	149.8	150.1	PN31759	0.18	0.02	0.01	0.05	14.61	2.9	Pyroxenite Dyke
PBSD008	150.1	151	PN31760	0.42	0.01	0.02	0.29	18.90	2.92	Pyroxenite Dyke
PBSD008	151	152	PN31761	0.99	0.03	0.03	0.49	22.22	3.05	Pyroxenite Dyke
PBSD008	152	153	PN31762	1.2	0.07	0.02	0.05	23.38	3.03	Pyroxenite Dyke
PBSD008	153	153.5	PN31763	0.97	0.1	0.02	X	22.72	3	Pyroxenite Dyke
PBSD008	153.5	154	PN31764	1.14	0.06	0.02	0.16	17.41	2.88	Pyroxenite Dyke

Hole ID	m From	m To	Sample No	Ni%	Cu%	Co%	As%	Mg%	S.G.	Lithology
PBSD009	158	159.07	PN31683	0.16	X	X	0.05	2.09	2.75	Felsic
PBSD009	159.07	160	PN31684	1.13	X	X	0.34	1.28	2.76	Felsic + Ni Stringers
PBSD009	160	161.5	PN31685	2.22	X	X	1.23	1.51	2.79	Felsic + Ni Stringers
PBSD009	161.5	163	PN31686	1.41	X	X	0.63	1.39	2.73	Felsic + Ni Stringers
PBSD009	163	164.5	PN31687	0.58	0.01	X	0.03	1.18	2.74	Felsic + Ni Stringers
PBSD009	164.5	166	PN31688	0.72	0.01	X	0.13	1.03	2.77	Felsic + Ni Stringers
PBSD009	166	167.5	PN31689	0.59	0.01	X	0.22	1.41	2.74	Felsic + Ni Stringers
PBSD009	167.5	169	PN31690	0.04	0.01	X	0.04	1.39	2.73	Felsic
PBSD009	169	170.5	PN31691	0.64	0.02	X	0.83	1.66	2.74	Felsic + Ni Stringers
PBSD009	170.5	172	PN31692	0.31	X	X	0.39	1.19	2.74	Felsic
PBSD009	172	173.5	PN31693	0.04	X	X	0.03	2.04	2.78	Felsic
PBSD009	173.5	174.9	PN31694	0.12	0.02	X	0.05	2.26	2.79	Felsic
PBSD009	174.9	176.05	PN31695	0.42	0.02	X	0.05	2.19	2.75	Felsic + Ni Stringers
PBSD009	176.05	177.15	PN31696	0.54	0.03	X	0.09	2.45	2.73	Felsic + Ni Stringers
PBSD009	177.15	178.65	PN31697	3.44	0.27	0.07	0.21	1.79	2.87	Felsic + Ni Stringers
PBSD009	178.65	179.6	PN31698	0.13	0.04	X	0.03	1.77	2.69	Felsic
PBSD009	179.6	180.85	PN31699	0.11	0.12	X	0.03	2.39	2.69	Felsic

PBSD009	180.85	181.79	PN31700	1.31	0.61	0.02	0.04	1.72	2.78	Felsic + Ni Stringers
PBSD009	181.79	182.33	PN31701	12.9	0.73	0.18	0.12	1.06	3.73	Massive Sulphide
PBSD009	182.33	182.87	PN31702	0.73	0.46	0.01	0.04	1.09	2.73	Felsic + Ni Stringers
PBSD009	182.87	184	PN31703	15.4	0.46	0.41	0.73	0.50	4.78	Massive Sulphide
PBSD009	184	185.25	PN31704	16.7	0.15	0.23	0.49	0.65	4.2	Massive Sulphide
PBSD009	185.25	186.06	PN31706	0.52	0.92	0.01	0.05	2.01	2.77	Felsic + Ni Stringers
PBSD009	186.06	187.5	PN31707	15.5	0.22	0.27	0.42	0.60	4.42	Massive Sulphide
PBSD009	187.5	187.77	PN31708	6.71	0.41	0.13	0.34	9.98	4.01	Semi-Massive Sulphide
PBSD009	187.77	189	PN31709	1.27	0.14	0.02	0.15	23.05	2.91	Komatiite + Disseminated
PBSD009	189	190	PN31710	1.14	0.12	0.01	X	27.86	2.93	Komatiite + Disseminated
PBSD009	190	191	PN31711	2.36	0.22	0.03	X	26.86	2.96	Komatiite + Disseminated
PBSD009	191	192	PN31712	1.72	0.15	0.02	0.02	27.03	2.93	Komatiite + Disseminated
PBSD009	192	193	PN31713	0.91	0.1	0.01	X	28.69	2.92	Komatiite + Disseminated
PBSD009	193	194	PN31714	0.95	0.09	0.01	X	28.85	2.92	Komatiite + Disseminated
PBSD009	194	195	PN31715	1.09	0.1	0.01	X	29.51	2.95	Komatiite + Disseminated
PBSD009	195	195.37	PN31716	0.68	0.07	0.01	X	29.35	2.92	Komatiite + Disseminated
PBSD009	195.37	196	PN31717	0.42	0.03	X	X	30.51	2.91	Komatiite + Disseminated
PBSD009	196	197	PN31718	0.84	0.02	0.02	X	29.18	2.9	Komatiite + Disseminated
PBSD009	197	198	PN31719	0.21	X	X	X	31.17	2.9	Komatiite
PBSD009	198	199	PN31720	0.24	X	X	X	31.67	2.92	Komatiite
PBSD009	199	200	PN31721	1.76	0.21	0.02	X	26.36	2.81	Komatiite + Disseminated
PBSD009	200	201	PN31722	0.35	0.02	X	X	30.67	2.93	Komatiite
PBSD009	201	202	PN31723	0.36	0.01	X	X	30.18	2.92	Komatiite
PBSD009	202	203	PN31725	0.39	0.02	X	X	31.01	2.9	Komatiite
PBSD009	203	204	PN31726	0.25	X	X	X	32.00	2.94	Komatiite
PBSD009	204	205	PN31727	0.5	0.05	X	X	30.34	2.95	Komatiite + Disseminated
PBSD009	205	206	PN31728	0.27	X	X	X	31.67	2.92	Komatiite
PBSD009	206	207	PN31765	0.26	X	0.01	0.07	24.71	2.89	Komatiite
PBSD009	207	208	PN31729	0.29	X	X	X	31.84	2.93	Komatiite

**COMPETENT PERSON STATEMENTS:**

*The information in this report that relates to Exploration Results is based on, and fairly represents, information compiled and reviewed by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists.*

*The information in this report which relates to the Black Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd. The information in this report which relates to the Black Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and who is a Members of the Australasian Institute of Mining and Metallurgy.*

*The information in this report which relates to the Silver Swan Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Ian Glacken who is a full time employee of Optiro Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy. The information in this report which relates to the Silver Swan Ore Reserve is based on, and fairly represents, information compiled by Mr Matthew Keenan who is a full-time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.*

*The information in this report which relates to the Lake Johnston Mineral Resource is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Andrew Weeks who is a full-time employee of Golder Associates Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. The information in this report which relates to the Lake Johnston Ore Reserves Project is based on, and fairly represents, information compiled by Mr Matthew Keenan who is a full time employee of Entech Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy.*

*The information in this report that relates to Mineral Resources at the Windarra Nickel Project and Gold Tailings Project is based on, and fairly represents, information compiled by Mr Steve Warriner, Chief Geologist, who is a full-time employee at Poseidon Nickel, and is a Member of The Australian Institute of Geoscientists and Mr Ian Glacken who is a full time employee of Optiro Pty Ltd and is a Fellow of the Australasian Institute of Mining and Metallurgy. The Windarra Project contains Mineral Resources which are reported under JORC 2004 Guidelines as there has been no Material Change or Re-estimation of the Mineral Resource since the introduction of the JORC 2012 Codes. Future estimations will be completed to JORC 2012 Guidelines.*

*Mr Warriner, Mr Glacken, Mr Weeks, and Mr Keenan all have sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which they are 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' (the JORC Code 2012). Mr Warriner, Mr Glacken, Mr Weeks, and Mr Keenan have consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*The Australian Securities Exchange has not reviewed and does not accept responsibility for the accuracy or adequacy of this release.*

**FORWARD LOOKING STATEMENT – INFERRED RESOURCE STATEMENTS:**

*The Company notes that an Inferred Resource has a lower level of confidence than an Indicated Resource and that the JORC Codes, 2012 advises that to be an Inferred Resource it is reasonable to expect that the majority of the Inferred Resource would be upgraded to an Indicated Resource with continued exploration. Based on advice from relevant competent Persons, the Company has a high degree of confidence that the Inferred Resource for the Silver Swan deposit will upgrade to an Indicated Resource with further exploration work.*

*The Company believes it has a reasonable basis for making the forward looking statement in this announcement, including with respect to any production targets, based on the information contained in this announcement and in particular, the JORC Code, 2012 Mineral Resource for Silver Swan as of May 2016, together with independent geotechnical studies, determination of production targets, mine design and scheduling, metallurgical testwork, external commodity price and exchange rate forecasts and worldwide operating cost data.*

**FORWARD LOOKING STATEMENTS:**

*This release contains certain forward looking statements including nickel production targets. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "except", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production and expected costs. Indications of, and guidance on future earnings, cash flows, costs, financial position and performance are also forward looking statements*

*Forward looking statements, opinions and estimates included in this announcement are based on assumptions and contingencies which are subject to change, without notice, as are statements about market and industry trends, which are based on interpretation of current market conditions. Forward looking statements are provided as a general guide only and should not be relied on as a guarantee of future performance.*

*Forward looking statements may be affected by a range of variables that could cause actual results or trends to differ materially. These variations, if materially adverse, may affect the timing or the feasibility and potential development of the Silver Swan underground mine.*



**ATTACHMENT A  
JORC (2012) Table 1  
BLACK SWAN EXPLORATION AND RESERVE ESTIMATE**

**BLACK SWAN EXPLORATION AND RESERVE ESTIMATE**  
**SECTION 1 Sampling Techniques and Data**

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

JORC Code explanation	Commentary
<b>Sampling techniques</b>	
<p><i>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.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>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.</i></p>	<p>Reverse circulation and diamond drilling have been used to obtain samples. Sampling is a mixture of full core, half core, quarter core and chip sampling. Generally, 1 m samples or smaller have been used for exploration drilling, whilst grade control drilling in the Black Swan pit is on 2 m sample lengths.</p> <p>Samples have been obtained from drilling carried out on the tenements since 1968, incorporating several lease owners. Sampling protocols from drilling between 1968 and 1991 have not been well documented.</p> <p>Diamond drilling sampling protocol since 1995 has followed accepted industry practice for the time, with all mineralised core sampled and intervals selected by geologists to ensure samples did not cross geological or lithological contacts. Core was halved, with a half quartered, with one quarter core sent for assay, half core kept for metallurgical testing, and the remaining quarter core retained for geological reference.</p> <p>Samples from reverse circulation drilling were collected using cone splitters, with field splits taken every 20 samples.</p>
<b>Drilling techniques</b>	
<p><i>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.).</i></p>	<p>Diamond and reverse circulation drilling are the primary methods by which drilling has been conducted.</p> <p>The majority of diamond core is NQ, the rest being HQ size. Core orientation was carried out using either spear marks or the Ezimark system.</p>
<b>Drill sample recovery</b>	
<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>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.</i></p>	<p>Core recovery and presentation has been documented as being good to excellent, with the exception of one hole used in the estimation, BSD189, which suffered significant core rotation, but little loss, within the oxide zone.</p> <p>Due to the good to excellent core recovery, Golder has no reason to believe that there is bias due to either sample recovery or loss/gain of fines.</p>
<b>Logging</b>	
<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>Much of the drill core has been oriented prior to the core being logged. Recent data was electronically captured and uploaded in to the site Acquire® geology SQL database.</p> <p>Golder has been provided with no record of core photography, nor the extent to which drilling was logged geologically.</p>
<b>Sub-sampling techniques and sample preparation</b>	
<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>Early diamond core is assumed to have been chisel cut, whilst most core was cut using a core saw, with either half or quarter core used for sampling.</p> <p>RC samples were collected by use of a cone splitter, with duplicates collected every 20 samples.</p> <p>Later resource and grade control drilling was crushed to &lt;3 mm and then split to 3 kg lots, then pulverised. This is appropriate given the sample interval and mass.</p>
<b>Quality of assay data and laboratory tests</b>	
<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is</i></p>	<p>Pulps were prepared by acid digest and analysed by ICP-OES using standard laboratory practices. Both independent and laboratory internal</p>

JORC Code explanation	Commentary
<p><i>considered partial or total.</i></p> <p><i>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.</i></p> <p><i>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.</i></p>	<p>QAQC were used.</p> <p>Site specific standards were derived from two RC drill holes specifically designed for the purpose and prepared by ORE Pty Ltd in Melbourne. Analysis for these standards was for Ni, As, Fe and Mg.</p> <p>For RC grade control drilling, blank samples were inserted 1 in 50 and 1 in 19 samples as standard.</p> <p>Standard samples have a well-defined margin of error suitable for the deposit.</p> <p>No external laboratory checks were conducted for drill samples.</p>
<p><b>Verification of sampling and assaying</b></p>	
<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Logging and assay data is electronically captured and up loaded in to the site Acquire® geology SQL database.</p>
<p><b>Location of data points</b></p>	
<p><i>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.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>All collar surveys were completed to an accuracy of ±10 mm. A local grid based on seven known AMG references was created. The Department of Land Information (formerly the Department of Land Administration) benchmark UO51 on the Yarri Road opposite 14 Mile Dam was used to tie the survey control stations to the Australian Height Datum (AHD). A height datum of AHD + 1000 m was adopted for the Black Swan project.</p> <p>All Black Swan diamond drill holes have been routinely surveyed—generally every 30 m or less. In the case of the some early drill holes, however, only the hole dip component was measured, using the acid vial method. All subsequent diamond drill holes have been surveyed using Eastman single shot down hole survey instruments.</p>
<p><b>Data spacing and distribution</b></p>	
<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Surface drilling used a spacing of 20 m to 50 m across strike and approximately 50 m along strike.</p> <p>In pit drilling is on a 10 m by 10 m staggered pattern.</p> <p>Underground drill data was also used in the estimate.</p> <p>Sample data was composited to 2 m.</p>
<p><b>Orientation of data in relation to geological structure</b></p>	
<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></p>	<p>Drill hole orientation was dominantly perpendicular to geological continuity and befits the requirements of resource estimation.</p>
<p><b>Sample security</b></p>	
<p><i>The measures taken to ensure sample security.</i></p>	<p>There are no documented details available for sample security.</p>
<p><b>Audits or reviews</b></p>	
<p><i>The results of any audits or reviews of sampling techniques and data.</i></p>	<p>Examination of duplicate, blank and standard data does not highlight any material bias or systematic error.</p>

**Section 2 Reporting of Exploration Results**  
**(Criteria listed in the preceding section also apply to this section.)**

**Section 2: Reporting of Exploration Results**

**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.*

Black Swan open-pit is centred on M27/39 and extends into M27/200. Silver Swan is wholly located on M27/200. They are located 42.5km NE of Kalgoorlie. They are registered to Poseidon Nickel Atlantis Operations Pty Ltd, a wholly owned subsidiary of Poseidon Nickel Ltd, following the purchase of the assets.

*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.*

Historical royalties of 3% NSR exist over the minerals produced.

**Exploration Done by Other Parties**

*Acknowledgment and appraisal of exploration by other parties.*

Refer to Section 1 (above)

The Black Swan Disseminated Resource has been explored by both MPI and Norilsk Nickel. Both companies followed best practise and Poseidon has validated all data handed over as a part of the purchase. Only minor errors have been found and corrected.

**Geology**

*Deposit type, geological setting and style of mineralisation.*

Refer to Section 3 (below)

**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:*

- easting and northing of the drill hole collar*
- elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
- dip and azimuth of the hole*
- down hole length and interception depth*
- hole length.*

Refer to the body of the announcement above.

*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.*

**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.*

Grades have been aggregated using the length x SG weighted average.

*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.*

See body of text for individual sample grades.

*The assumptions used for any reporting of metal equivalent values should be clearly stated.*

**Relationship Between Mineralisation Widths and Intercept Lengths**

*These relationships are particularly important in the reporting of Exploration Results.*

True widths are stated where necessary.

*If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be 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').*

**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.*

Refer to the body of text above.

**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*

Not applicable.

<i>Results.</i>	
<b>Other Substantive Exploration Data</b>	
<p><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></p>	<p>Refer to body of text above.</p> <p>Metallurgical recoveries for the stockpiled ore from the Black Swan Open Pit have been determined by stockpile as follows, based on historical processing data;</p> <ul style="list-style-type: none"> <li>- Yellow Stockpile: 73-78%%</li> <li>- HG Talc Stockpile: 49-61%%</li> </ul> <p>Where possible exploration results and geological logging will reflect the Yellow Stockpile (Serpentinite Mineralisation &gt; 0.5% Ni) or the HG Talc Stockpile (Talc Mineralisation &gt; 0.5% Ni). The other stockpiles and associated recoveries come from blends of the above or low grade and not applicable to exploration results.</p> <p>Metallurgical testing is yet to be conducted on the core subject to this announcement.</p>
<b>Further work</b>	
<p><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></p> <p><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>Poseidon expects to undertake further resource definition and grade control drilling at Black Swan.</p> <p>Mineralogical and metallurgical recovery studies will be conducted on the drill samples.</p>

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

JORC Code explanation	Commentary
<b>Database integrity</b>	
<p><i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></p> <p><i>Data validation procedures used.</i></p>	<p>Logging and assay data has been electronically captured and uploaded in to the site Acquire® geology SQL database.</p> <p>The database has been previously reviewed by Golder and was found to be in excellent condition. It is very clean and contains few errors, but does not contain sample and assay quality control information.</p> <p>Golder conducted visual validation checks on the drill hole data, with holes not relevant to the estimation removed from the dataset.</p>
<b>Site visits</b>	
<p><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></p> <p><i>If no site visits have been undertaken indicate why this is the case.</i></p>	<p>Golder has previously visited the Black Swan site, with several visits conducted within the last five years. A further visit was not made for this resource estimate. Black Swan has a long history of exploration and has been an operating mine, with both open pit and underground mining operations taking place.</p>
<b>Geological interpretation</b>	
<p><i>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</i></p> <p><i>Nature of the data used and of any assumptions made.</i></p> <p><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></p> <p><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></p> <p><i>The factors affecting continuity both of grade and geology.</i></p>	<p>The geological interpretation is validated by drill and mining activity, as well as in-pit mapping by previous owners.</p> <p>Where possible, estimation has been restricted to lithologies controlling and surrounding mineralisation. The geological domaining is based on data from previous resource estimates completed by Norilsk Nickel Pty Ltd and Gipronickel that have been reviewed by Golder previously, and for this resource estimate.</p> <p>The interpretation for this Mineral Resource estimate relies solely upon data from drilling, and not on mapping or surface sampling.</p>
<b>Dimensions</b>	
<p><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></p>	<p>The mineralisation associated with the Black Swan deposit runs along a strike length of approximately 250 m north-south and approximately 100 m east-west. Drilling has intercepted Ni mineralisation at up to 600 m below surface.</p>
<b>Estimation and modelling techniques</b>	
<p><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance</i></p>	<p>Mineralisation was estimated within domains defined by lithological information and statistical analysis of sample data in the composite file was used for estimation purposes.</p>



JORC Code explanation	Commentary
<p><i>of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></p> <p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p> <p><i>The assumptions made regarding recovery of by-products.</i></p> <p><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></p> <p><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></p> <p><i>Any assumptions behind modelling of selective mining units.</i></p> <p><i>Any assumptions about correlation between variables.</i></p> <p><i>Description of how the geological interpretation was used to control the resource estimates.</i></p> <p><i>Discussion of basis for using or not using grade cutting or capping.</i></p> <p><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></p>	<p>The block size is 12.5 m (X) by 25 m (Y) by 5 m (Z). The sub-block size is 3.125 m (X) by 12.5 m (Y) by 2.5 m (Z).</p> <p>High-grade restraining was applied to Ni in one domain, based on data analysis of assayed samples. The high-grade samples were used only in the estimation of blocks within a 25 m radius of the high grade sample.</p> <p>Using parameters derived from the modelled variograms, Ordinary Kriging (OK) was used to estimate average block grades for Ni, As, MgO, Fe, and S.</p> <p>The estimation was conducted in three passes with the search size increasing for each pass. In some domains, where blocks had not been filled after three passes, a fourth pass was used, with samples from outside the domain of interest used to fill the remaining blocks.</p> <p>The model was validated visually and statistically using swath plots and comparison to sample statistics.</p>
<p><b>Moisture</b></p> <p><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></p>	<p>Density measurements were performed using the immersion technique. The density was calculated as a wet density even though core was often left to dry for some time. In some sampling programmes a representative section of core was used for measurements, rather than the entire core. Therefore a 5% moisture factor was applied to the Specific Gravity (SG) values used in the resource estimate.</p>
<p><b>Cut-off parameters</b></p> <p><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></p>	<p>The resource model is constrained by assumptions about economic cut-off grades. The Mineral Resources were reported using a cut-off grade of 0.4% Ni which was applied on a block by block basis.</p>
<p><b>Mining factors or assumptions</b></p> <p><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></p>	<p>The block model uses a parent cell size of 12.5 m (X) by 25 m (Y) by 5 m (Z), primarily determined by data availability and the dimensions of the mineralisation.</p>
<p><b>Metallurgical factors or assumptions</b></p> <p><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p>	<p>Metallurgical recovery of nickel was assigned based on data calculated by the Black Swan mill whilst mining operations were in progress.</p>
<p><b>Environmental factors or assumptions</b></p> <p><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></p>	<p>As the project has previously been mined, there are existing waste storage facilities and environmental considerations are not expected to pose any issues to the resumption of mining activity.</p>
<p><b>Bulk density</b></p> <p><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></p>	<p>Bulk density estimates were calculated from core obtained from drilling programmes. Golder applied a moisture factor of 5% to account for the bulk density measurements being based on wet core, and that in some drilling programmes, selected portions of core being used to represent the</p>

JORC Code explanation	Commentary
<p><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i></p> <p><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></p>	<p>whole, rather than all core being measured for bulk density.</p>
<p><b>Classification</b></p>	
<p><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></p> <p><i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></p> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<p>Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).</p> <p>The classification of Mineral Resources was completed by Golder based on geological confidence, drill hole spacing and grade continuity. The Competent Person is satisfied that the result appropriately reflects his view of the deposit.</p> <p>Continuous zones meeting the following criteria were used to define the resource class:</p> <p><u>Indicated Resource</u></p> <ul style="list-style-type: none"> <li>■ Blocks that were estimated with samples with an average of less than 30 m distance from blocks.</li> <li>■ Number of drill holes confirming grade continuity.</li> </ul> <p><u>Inferred Resource</u></p> <ul style="list-style-type: none"> <li>■ Blocks that were estimated with samples with an average of less than 50 m distance from blocks.</li> <li>■ Limited number of drill holes.</li> </ul> <p>Mineral Resource classification was restricted to a Lerch-Grossman pit shell using a potential future nickel price. This was combined with the accuracy of the estimate ascertained by geological confidence, drill hole spacing and grade continuity from available drilling data.</p>

<p><b>Audits or reviews</b></p>	
<p><i>The results of any audits or reviews of Mineral Resource estimates.</i></p>	<p>This Mineral Resource estimate is based on data from previous resource estimates completed by Norilsk Nickel Pty Ltd and Gipronickel that have been reviewed by Golder.</p>

<p><b>Discussion of relative accuracy/confidence</b></p>	
<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>The relative accuracy is reflected in the resource classification discussed above that is in line with industry acceptable standards.</p> <p>This is a Mineral Resource estimate that includes knowledge gained from mining and milling recovery data during production.</p>

## Section 4 Estimation and Reporting of Ore Reserves

JORC Code explanation	Commentary
<p><b>Mineral Resource estimate for conversion to Ore Reserves</b></p>	
<p><i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i></p> <p><i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i></p>	<p>The Black Swan open pit and surface stockpile Ni Mineral Resources used as the basis of this Ore Reserve were estimated by Golder Resources Pty Ltd and announced to market with the previous Ore Reserve estimate in November 2014. This Resource contains both in-situ material and previously mined material in surveyed ex-pit stockpiles.</p> <p>The Co Resource used as the basis of this Ore Reserve was estimated by Entech Pty Ltd in April 2017 and has been announced concurrently with this</p>

JORC Code explanation	Commentary
	Reserve. Mineral Resources are reported inclusive of the Ore Reserves.
<b>Site visits</b>	
<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.</i>	The Competent Person (Mr Matthew Keenan) visited the BSNO site on 7 <sup>th</sup> June 2016. The visit included inspection of the Black Swan open pit and surface stockpiles.  The site visits did not give the Competent Person any reason to believe that any portion of the Reserve Estimate will not be mineable.
<b>Study status</b>	
<i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i>	The Black Swan and surface stockpile material being converted from Mineral Resource to Ore Reserve is based on a Preliminary Feasibility Study undertaken in 2014.  Modifying factors accurate to the study level have been applied based on detailed selective mining unit (SMU) analysis. Modelling indicates that the resulting mine plan is technically achievable and economically viable.
<b>Cut-off parameters</b>	
<i>The basis of the cut-off grade(s) or quality parameters applied.</i>	For the Black Swan open pit, a recovered nickel cut-off grade of 0.21% Ni was used to define ore and waste. This is approximately equivalent to an in-situ cut-off grade of 0.46% Ni for the serpentinite ore and 0.56% for the talc carbonate ore.  A nickel price of \$US6.50/lb and a USD:AUD exchange rate of 0.76 was used to determine the cut-off grades.
<b>Mining factors or assumptions</b>	
<i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling. The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i> <ul style="list-style-type: none"> <li>■ <i>The mining dilution factors used.</i></li> <li>■ <i>The mining recovery factors used.</i></li> <li>■ <i>Any minimum mining widths used.</i></li> <li>■ <i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i></li> <li>■ <i>The infrastructure requirements of the selected mining methods.</i></li> </ul>	Detailed mine designs were carried out on the Black Swan open pit, and these were used as the basis of the Reserve estimate.  The Black Swan open pit Ore Reserves are based on a conventional open pit mining method using hydraulic excavators and off-road trucks to haul the ore and waste from the pit and stockpiles.  The pit has already been developed. The current pit floor is approximately 120 m below the original surface. The strip ratio of the Reserve pit design is approximately 0.3:1 (waste:ore).  Open pit wall angles were determined based on independent geotechnical analysis and historical pit wall designs. A slip in the SE corner of the pit has been reviewed by independent geotechnical consultants and considered in the Reserve design.  Open pit grade control will be carried out by 25 m deep RC holes ahead of production.  Open pit mining dilution was estimated locally by modelling a selective mining unit of 12.5m x 12.5m x 5m. This was achieved by regularising the block model to conform to this block size.  A 95% open pit mining recovery factor was applied to the ore tonnage to account for mining related losses.  Surface stockpile tonnages are based on detailed site surveys carried out at cessation of previous mining operations. Stockpiles grades are based on site grade control models.  Surface stockpiles are assumed to be reclaimed by the processing plant ROM loader if <500 m from the plant. If >500m from the plant, an additional allowance has been made for reclaim load and haul.

JORC Code explanation	Commentary
	<p>The mining method chosen is well-known and widely used in the local mining industry and production rates and costing can be predicted with a suitable degree of accuracy. Suitable access exists for all ore sources.</p> <p>Allowance has been made for dewatering of the Black Swan open pit.</p> <p>Independent geotechnical consultants MineGeotech Pty Ltd and Snowden Mining Industry Consultants Pty Ltd (2008) contributed appropriate geotechnical analyses to a suitable level of detail. These form the basis of mine design for the open pit Reserve estimate.</p> <p>Only the Indicated portion of the Mineral Resource was used to estimate the Ore Reserve. All Inferred material has had grade set to waste for the purposes of evaluation. The Ore Reserve is technically and economically viable without the inclusion of Inferred Mineral Resource material.</p> <p>Most of the infrastructure required for the operations is already in place and has been under care and maintenance for approximately 8 years, including a processing plant and associated infrastructure, access roads, offices and ablutions, connections to the Western Power grid, power reticulation, and borefields. Allowance has been made for refurbishment of this infrastructure where required based on quotes provided by reputable independent vendors to an appropriate standard of detail.</p>
<p><b>Metallurgical factors or assumptions</b></p> <p><i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i></p> <p><i>Whether the metallurgical process is well-tested technology or novel in nature.</i></p> <p><i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i></p> <p><i>Any assumptions or allowances made for deleterious elements.</i></p> <p><i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i></p> <p><i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></p>	<p>The Black Swan concentrator was successfully operated at throughput rates up to 2.2Mtpa on the Reserve deposits during previous operations. All Reserve ore is expected to be processed through this concentrator at a rate of 1.1Mtpa. Suitable associated infrastructure is in place including water supply and storage, reagents storage, and tailings disposal and storage systems.</p> <p>Extensive historical data exists on metallurgical characteristics of the Reserve orebodies.</p> <p>The cost of plant refurbishment has been determined to a PFS standard of accuracy.</p> <p>The metallurgical process is conventional, well understood and has many years of operational data to support the flotation responses of the Black Swan and Silver Swan ores.</p> <p>The Black Swan Talc Carbonate ore has not, historically, been processed in large quantities at the Black Swan plant although it has been incorporated as a minor part of the feed blend at times. The majority mined has been stockpiled.</p> <p>The metallurgical recovery of Black Swan Talc Carbonate ore has been tested and assessed by various groups in 2008 (Norilsk, AMEC and Ammtec) and 2010 (Gipronickel). The results from this testwork demonstrate that the recovery from Talc Carbonate ore is lower than Serpentinite ore but that flotation is technically feasible. Based on this work, the metallurgical recovery for the Black Swan open pit ore has been assumed at 65% for this Ore Reserve estimate.</p>

JORC Code explanation	Commentary
	<p>Cobalt has been included as a by-product in the Ore Reserve estimate.</p> <p>Metallurgical recoveries for the stockpiled ore have been determined by stockpile as follows, based on historical processing data;</p> <ul style="list-style-type: none"> <li>- Crushed Stockpile: 64%</li> <li>- Yellow Stockpile: 73%</li> <li>- Lime Stockpile: 69%</li> <li>- HG Talc Stockpile: 49%</li> <li>- Blue Indicated Stockpile: 52%</li> </ul>
<p><b>Environmental</b></p> <p><i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i></p>	<p>Geochemical characterisation studies have been conducted that indicate that the rock mass is non-acid forming.</p> <p>An additional geochemical study was conducted by MBS Environmental to assess the potential implications of storing tailings from the proposed ore blend on top of existing material in the tailings storage facility (TSF).</p> <p>Works for the Stage 5 lift of the TSF commenced prior to the project being placed in care and maintenance. These works were incomplete and, as such, certification of the works by the Department of Environmental Regulation (DER) could not be obtained. The Works Approval authorising construction of the new embankment raise has since lapsed. A new Works Approval will be required prior to completing the lift. Under current approvals tailings cannot be deposited above RL11378.5 m.</p> <p>Based on current approvals, it is estimated that there is currently 4 years of storage capacity in the TSF. This is sufficient to cover storage of tailings generated by processing the estimated Reserve ore.</p> <p>POS has advised that most required approvals already issued under the <i>Mining Act</i> and <i>Environmental Protection Act</i> from previous operations remain current.</p> <p>At this point in time the Competent Person sees no reason permitting will not be granted within a reasonable time frame.</p>
<p><b>Infrastructure</b></p> <p><i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i></p>	<p>The project site is already developed and on care and maintenance.</p> <p>All required surface infrastructure is already in place and requires only minor refurbishment to the concentrator, TSF, workshops and haul roads.</p> <p>As the site is 53 km from Kalgoorlie, a residential workforce will commute to site daily.</p> <p>The mine is connected to the Western Power grid through two lines, one feeding the concentrator and one feeding the other surface infrastructure and underground workings.</p> <p>The existing water supplies from the Black Swan borefield, Silver Swan underground dewatering system, Black Swan pit dewatering and the Federal pit are sufficient to operate the plant at a throughput of 1.1Mtpa.</p>
<p><b>Costs</b></p> <p><i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i></p>	<p>The project capital cost has been estimate to an accuracy of +/-25% based on detailed cost modelling and design work carried out in the Black Swan</p>



JORC Code explanation	Commentary
<p><i>The methodology used to estimate operating costs.</i>  <i>Allowances made for the content of deleterious elements.</i>  <i>The source of exchange rates used in the study.</i>  <i>Derivation of transportation charges.</i>  <i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i>  <i>The allowances made for royalties payable, both Government and private.</i></p>	<p>PFS.</p> <p>More detailed costs have been sourced for refurbishment of site infrastructure.</p> <p>Operating costs for the open pit and processing plant were estimated from a combination of first principles, 2008/2009 historic operating costs and recent contractor quotations. They were also benchmarked against similar sized concentrators.</p> <p>The USD:AUD exchange rate assumed for the cost modelling was 0.76.</p> <p>Road transport charges for concentrate transport are based on factored quotes.</p> <p>WA state royalties of 2.5 % and a third-party royalty of 1% have been applied to gross concentrate nickel revenues.</p>
<p><b>Revenue factors</b></p>	
<p><i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i>  <i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i></p>	<p>Forecasts for head grade delivered to the plant are based on detailed mine plans and mining factors.</p> <p>A global payable 68% of contained nickel metal has been applied to factor downstream treatment and refining charges. Payabilities are based on information provided by POS following discussions with potential offtake partners.</p> <p>A flat USD:AUD exchange rate of 0.76 was used in the financial model.</p> <p>Co by-products have currently been modelled in the Black Swan open pit. No by-products have been modelled from the surface stockpiles.</p> <p>A flat nickel price of US\$6.50/lb has been assumed for the financial analysis, based on forecasts provided by POS.</p> <p>Deleterious elements (As and MgO) and associated penalties have been applied to the Black Swan pit concentrate pricing. These penalties are based on the historical concentrate grades generated by processing the Black Swan ore, and applying a penalty of US\$3/dmt of concentrate for every 0.01% As grade over 0.2%, and a penalty of \$40/dmt of concentrate for every unit of Fe:MgO ratio under 5. The penalties were advised by POS based on the 2014 study work and discussions with potential offtake partners. The total deleterious element penalty assumed for the Black Swan Reserve estimate works out to \$151.32 per dmt of concentrate.</p>
<p><b>Market assessment</b></p>	
<p><i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i>  <i>A customer and competitor analysis along with the identification of likely market windows for the product.</i>  <i>Price and volume forecasts and the basis for these forecasts.</i>  <i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i></p>	<p>POS is currently discussing offtake agreements with potential buyers.</p> <p>The volume of concentrate produced by processing the estimated Reserve will be too small to have an impact on the global market of nickel sulphide concentrate.</p>
<p><b>Economic</b></p>	
<p><i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i></p>	<p>The Black Swan pit and surface stockpiles Ore Reserves have been assessed both as combined and stand-alone projects in detailed financial models.</p>

JORC Code explanation	Commentary
<i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i>	<p>All cases are economically viable and have a positive NPV at a 10% discount rate at the stated commodity price and exchange rate.</p> <p>Sensitivity analysis shows that the project is most sensitive to commodity price/exchange rate movements. The project is still economically viable at unfavourable commodity price/exchange rate adjustments of 10%.</p>
<b>Social</b>	
<i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i>	<p>A compensation agreement exists between the Black Swan Nickel Operations and Mt Veters Pastoral Station. This has been updated periodically as the operation has changed. Compensation previously paid under this agreement has been adequate to address all impacts of the project. No further compensation is required under the terms of this agreement. However, previous practice may have resulted in an expectation of additional compensation if significant additional land clearance is proposed. Significant land clearance is not required under the current Reserve estimate plan.</p> <p>POS will continue to communicate and negotiate in good faith with key stakeholders</p>
<b>Other</b>	
<p><i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i></p>	<p>A formal process to assess and mitigate naturally occurring risks will be undertaken prior to execution. Currently, all naturally occurring risks are assumed to have adequate prospects for control and mitigation.</p> <p>No marketing agreement has yet been signed but the Competent Person considers that such an agreement is reasonably likely. Interest has been expressed by various potential offtake partners for the concentrate and it was successfully marketed during previous operations.</p> <p>Based on the information provided, the Competent Person sees no reason all required approvals will not be successfully granted within the anticipated timeframe.</p>
<b>Classification</b>	
<p><i>The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></p>	<p>The Probable Ore Reserve is based on that portion of the Indicated Mineral Resource within the mine designs that may be economically extracted and includes an allowance for dilution and ore loss.</p> <p>None of the Probable Ore Reserves have been derived from Measured Mineral Resources.</p> <p>The result appropriately reflects the Competent Person's view of the deposit.</p>
<b>Audits or reviews</b>	
<i>The results of any audits or reviews of Ore Reserve estimates.</i>	The Ore Reserve estimate, along with the mine design and life of mine plan, has been peer-reviewed by Entech internally.
<b>Discussion of relative accuracy/confidence</b>	
<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i></p>	<p>The Black Swan pit and stockpile design, schedule, and financial model on which the Ore Reserve is based has been completed to a Pre-Feasibility study standard, with a corresponding level of confidence.</p> <p>Considerations in favour of a high confidence in the Ore Reserves include:</p> <ul style="list-style-type: none"> <li>- Approximately 17% of nickel metal tonnes are contained within ex-pit already mined surface stockpiles.</li> <li>- The mining process is simple, small scale and utilises proven technology</li> <li>- The Black Swan mill has a long operating history processing the Reserve material</li> <li>- The project, as previously operated, is fully permitted.</li> </ul>

JORC Code explanation	Commentary
<p><i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>Additional approvals will be required for some tailings dam and road construction works.</p> <p>Considerations in favour of a lower confidence in Ore Reserves include;</p> <ul style="list-style-type: none"> <li>- Deleterious element penalties still need to be confirmed based on marketing agreements and metallurgical testwork on the proposed processing blend. Since the Black Swan concentrate was successfully sold during previous operations, it is not expected that such penalties will render the Reserve estimate unsaleable.</li> <li>- Future nickel price and exchange rate forecasts carry an inherent level of risk</li> <li>- There is a degree of uncertainty associated with geological estimates. The Reserve classifications reflect the levels of geological confidence in the estimates.</li> <li>- There is a degree of uncertainty regarding estimates of impacts of natural phenomena including geotechnical assumptions, hydrological assumptions, and the modifying mining factors, commensurate with the level of study.</li> <li>- A binding offtake agreement for the product has not yet been signed.</li> </ul> <p>The Ore Reserve is based on a global estimate. Modifying factors have been applied at a local scale.</p> <p>Further, i.e. quantitative, analysis of risk is not warranted or appropriate at the current level of technical and financial study.</p>

**ATTACHMENT B  
JORC (2012) Table 1  
SILVER SWAN EXPLORATION RESULTS AND RESERVE ESTIMATE**

**SILVER SWAN EXPLORATION RESULTS AND RESERVE ESTIMATE**

**SECTION 1 Sampling Techniques and Data**

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

JORC Code explanation	Commentary
<p><b>Sampling techniques</b></p> <p><i>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 downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></p> <p><i>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.</i></p> <p><i>Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i></p>	<p>Underground diamond drilling has been used to obtain core samples. Sampling is a mixture of full core, and half core sampling. In general, 1 m samples or smaller have been used for exploration and grade control drilling.</p> <p>Samples have been obtained from drilling carried out from underground drilling by LionOre and Norilsk Nickel Australia below the 10100mRL level. The drilling database and block model above this RL have been cut from the resource estimate data set as these have been mined out and are not reported in this document. Only drilling completed between 2006 and 2008 are included in the resource estimate.</p> <p>Diamond drilling sampling protocol has followed accepted industry practice, with all mineralised core sampled and intervals selected by geologists to ensure samples did not cross geological or lithological contacts. Core was halved, with a half sent for assay and the remaining core retained for geological reference.</p>
<p><b>Drilling techniques</b></p> <p><i>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.).</i></p>	<p>Underground diamond drilling is the method by which drilling has been conducted into the ore zones below the 10100mRL level of the mine.</p> <p>All of the diamond core below the reported 10100mRL is of NQ size. Core orientation was carried out using the EzyMark system.</p> <p>All core trays are digitally photographed to maintain a permanent record of core prior to any sampling operations. Hard copy photographs exist for core photographed before the advent of digital photography.</p>
<p><b>Drill sample recovery</b></p> <p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>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.</i></p>	<p>Core recovery and presentation has been documented as being good to excellent and inspection of core trays by Poseidon geologists has confirmed the quality of core recovery.</p> <p>Due to the good to excellent core recovery, Poseidon has no reason to believe that there is bias due to either sample recovery or loss/gain of core.</p>
<p><b>Logging</b></p> <p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>Much of the drill core has been oriented prior to the core being logged. Drilling data and geological logging was electronically captured and uploaded in to the site Acquire® geology SQL database. This has been exported to an Access database which has been converted to Surpac format for modelling.</p> <p>The entire length of the drillholes have been logged geologically and entered into the digital database.</p>
<p><b>Sub-sampling techniques and sample preparation</b></p> <p><i>If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<p>All of the deeper drill core used in this estimation was either full core or cut using a core saw, with half core used for sampling.</p> <p>Resource and grade control drilling was crushed to &lt;3 mm and then split to 3 kg lots, then pulverised. This is appropriate given the sample interval and mass.</p>



JORC Code explanation	Commentary
<p><b>Quality of assay data and laboratory tests</b></p> <p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>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.</i></p> <p><i>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.</i></p>	<p>All assaying since March 2004 has been carried out by Kalgoorlie Assay Laboratories (Kalassay, now Bureau Veritas) using ICP-OES on a 4 acid digest using standard laboratory practices. Both independent and laboratory internal QAQC were used.</p> <p>Site specific standards were derived from two RC drillholes specifically designed for the purpose and prepared by ORE Pty Ltd in Melbourne. Analysis for these standards was for Ni, As, Fe and Mg.</p> <p>The following QA/QC measures were adopted during the sampling and assaying of underground diamond drill core and include:</p> <ul style="list-style-type: none"> <li>• Blank inserted in 1:25 samples</li> <li>• Certified standards inserted in 1:25 samples</li> <li>• Sizing analysis of 1:20 samples</li> <li>• Duplicate analysis of quarter core for 1:25 holes</li> <li>• Analysis of laboratory QAQC. Repeat analysis completed by laboratory on 5% of samples</li> <li>• Monthly reporting of QAQC</li> <li>• Six monthly temporal and spatial analysis of the erroneous standards and blanks.</li> </ul> <p>The quality of the data received from the laboratory appears to be good, with no major issues being highlighted. Standard samples have a well-defined margin of error suitable for the deposit.</p> <p>No external laboratory checks were conducted on the drill samples.</p>
<p><b>Verification of sampling and assaying</b></p> <p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Logging and assay data is electronically captured and up loaded in to the site Acquire® geology SQL database which was handed over to Poseidon following the sale transaction. This has been exported to an Access database which has been converted to Surpac format for modelling.</p>
<p><b>Location of data points</b></p> <p><i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>All collar surveys were completed to an accuracy of ±10 mm and recorded by the underground surveyor. A local grid based on seven known AMG_84 references was created. The Department of Land Information (formerly the Department of Land Administration) benchmark UO51 on the Yarri Road opposite 14 Mile Dam was used to tie the survey control stations to the Australian Height Datum (AHD). A height datum of AHD + 1000 m was adopted for the Black Swan project.</p> <p>A local mine grid was established and used throughout the operation. Poseidon has also converted surveys to the current MGA_94 grid format.</p> <p>All Silver Swan diamond drillholes have been routinely surveyed downhole. All underground diamond drillholes have been surveyed using either Eastman Single Shot down hole survey instruments or Reflex Gyro instruments.</p>
<p><b>Data spacing and distribution</b></p> <p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Underground drilling used a maximum spacing of 10 m x 10 m for Indicated category resources and approximately 10m x 20m and 20 m x 40m for Inferred resources.</p> <p>Sample data was composited to 1 m.</p>
<p><b>Orientation of data in relation to geological structure</b></p> <p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></p>	<p>Drillhole orientation was dominantly between 20<sup>o</sup>-60<sup>o</sup> to geological continuity as the mineralisation is drilled from underground workings in the footwall of the deposit which dips 80<sup>o</sup> to grid east. The angle of intersection is factored into the resource shape interpretations and is well understood as it is verified by mining and reconciliation of the ore zones to a depth of 1300m below surface. The sampling and interpretations meets the requirements of the resource estimation.</p>

JORC Code explanation	Commentary
<b>Sample security</b>	
<i>The measures taken to ensure sample security.</i>	There are no documented details available regarding sample security. As the mine is not precious metals and the drilling consists of visually observable massive nickel sulphide mineralisation, security is not considered to have been compromised.
<b>Audits or reviews</b>	
<i>The results of any audits or reviews of sampling techniques and data.</i>	Examination of duplicate, blank and standard data does not highlight any material bias or systematic error. The drillhole intersections correlate well with the block model results.

## Section 2 Reporting of Exploration Results

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

### Section 2: Reporting of Exploration Results

<b>Mineral Tenement and Land Tenure Status</b>	
<i>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.</i>	Silver Swan underground mine is located in the Kalgoorlie District within M27/200. Silver Swan mine is part of the Black Swan Operation which is located 42.5km NE of Kalgoorlie. M27/200 is registered to MPI Nickel PTY Ltd which is a 100% subsidiary of OJSC MMC Norilsk Nickel. Following the purchase of the assets from Norilsk, the tenement is currently in the process of being transferred to Poseidon Nickel Limited.
<i>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.</i>	All operating licences are in place and are currently being renewed and transferred to Poseidon Nickel.  Historical royalties of 3% NSR exist over the minerals produced.
<b>Exploration Done by Other Parties</b>	
<i>Acknowledgment and appraisal of exploration by other parties.</i>	The Silver Swan Mine was discovered by MPI Mines Ltd, then was acquired by LionOre in 2004. Much of the exploration drilling and development was completed by these 2 companies. In turn LionOre was taken over by Norilsk in 2007 and continued mining and developing the underground mine at Silver Swan. Poseidon Nickel purchased the operation from Norilsk in late 2014.
<b>Geology</b>	
<i>Deposit type, geological setting and style of mineralisation.</i>	The Silver Swan deposit is a Kambalda style komatiite hosted nickel deposit.
<b>Drillhole Information</b>	
	Refer to body of text above
<b>Data Aggregation Methods</b>	
	Aggregation of grades utilised length weighting of assay results
<b>Relationship Between Mineralisation Widths and Intercept Lengths</b>	
	True widths have been stated with intercept lengths
<b>Diagrams</b>	
	Refer to body of text above
<b>Balance Reporting</b>	
	All relevant information has been reorted
<b>Other Substantive Exploration Data</b>	
	Refer to body of text above
<b>Further work</b>	
	Poseidon expects to undertake further resource definition and grade control drilling at Silver Swan to convert Inferred resources to Indicated resources.

## Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

JORC Code explanation	Commentary
<b>Database integrity</b>	
<i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.</i>	Logging and assay data has been electronically captured and uploaded in to the site Acquire® geology SQL database. Data was exported to csv and imported into Datamine Studio 3 for the resource estimation.  The database has been previously reviewed by Golder Associates and was found to be in excellent condition. It is very clean and contains few errors, but does not

JORC Code explanation	Commentary
	<p>contain sample and assay quality control information.</p> <p>Both Golder &amp; Poseidon have conducted visual validation checks on the drillhole data, with holes not relevant to the estimation (above the 10100mRL) removed from the dataset.</p>
<b>Site visits</b>	
<p><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></p> <p><i>If no site visits have been undertaken indicate why this is the case.</i></p>	<p>Mr Neil Hutchison, the General Manger-Geology and Competent Person for Poseidon, has visited the Black Swan site and Silver Swan underground mine on numerous occasions within the last 18 months. Underground inspections of access and ore development drives relevant to this resource estimate have been verified by Mr Hutchison on several visits. Black Swan has a long history of exploration and has been an operating mine, with both open pit and underground mining operations taking place.</p>
<b>Geological interpretation</b>	
<p><i>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</i></p> <p><i>Nature of the data used and of any assumptions made.</i></p> <p><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></p> <p><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></p> <p><i>The factors affecting continuity both of grade and geology.</i></p>	<p>The geological interpretation is validated by drill and mining activity, as well as face mapping by the previous owners.</p> <p>Estimation has been restricted to lithologies controlling and surrounding mineralisation. The geological domaining is based on 3D wireframes created from sectional interpretation in Surpac. A grade threshold of between 1.2 and 1.4% Ni was used to model the mineralisation. Grade proximal to these wireframes has been modelled using a 1 m dilution skin model which is unclassified and not reported.</p> <p>A total of 14 mineralised domains were interpreted and include the Goose, Fledgling-Canard, Peking Duck and Tundra-Mute ore bodies.</p> <p>The interpretation for this Mineral Resource estimate relies solely upon data from drilling below the 10250mRL, and not on mapping or face sampling. The Tundra-Mute has previously been modelled as two individual ore bodies, plunging at opposite directions. Re-evaluation of the drill information and geology, including the addition of assay information acquired through reconnaissance of data collection in progress at the time of the mine being put under care and maintenance (circa 2008).</p>
<b>Dimensions</b>	
<p><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></p>	<p>The mineralisation associated with the Silver Swan mine has a width of approximately 375 m striking grid north-south and has been defined to a down dip length of 1550 m plunging towards the east. Individual sulphide lenses are typically 3-5 m in thickness. Drilling has intercepted Ni mineralisation down to a depth of 1600 m below surface and is still open down plunge.</p>
<b>Estimation and modelling techniques</b>	
<p><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></p> <p><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></p> <p><i>The assumptions made regarding recovery of by-products.</i></p> <p><i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i></p> <p><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></p> <p><i>Any assumptions behind modelling of selective mining units.</i></p> <p><i>Any assumptions about correlation between variables.</i></p> <p><i>Description of how the geological interpretation was used to control the resource estimates.</i></p> <p><i>Discussion of basis for using or not using grade cutting or capping.</i></p> <p><i>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</i></p>	<p>Mineralisation within the 14 modelled domains was selected and composited to 1 m composites using s best fit approach. Top cuts were applied to Ni (21%), As (25,000), Co (5,000 ppm) and Cu (20,000 ppm) after population disintegration analysis and consideration of the domain statistics.</p> <p>Traditional variograms were used to model the variography of all grade variables with the exception of copper where a normal scores transformation was used. Variogram analysis was completed in Supervisor using the combined 1 m composited data due to the small domain populations. Variogram ranges for each variable ranged from 15 to 79 in the Major direction, 18 to 47 in the Semi-Major direction and 4 to 10 in the Minor direction. The nugget values were derived from the downhole variograms and were generally low (&lt;5%), with the exception of As and Co, which were 35%. As expected, the variogram orientations approximated the orientation of the mineralisation (~NNE strike, E 70° dip).</p> <p>A 3D block model was generated in Datamine Studio 3 using a block size of 2 m (X) by 5 m (Y) by 10 m (Z). The variable sub-block size was set to 0.25 m (X) by 0.5 m (Y) by 0.5 m (Z). This degree of sub-blocking is used because of the narrow and variable shoot geometry. Prior to estimation the block model was coded using domain wireframes (ore, dilution and waste domains). Mined out volumes and resource categories were also coded into the block model post estimation.</p> <p>Ordinary Kriging was used to estimate block grades for the following variables; Ni (%),As (ppm), Co (ppm), Cu (ppm), Fe (%), MgO (%) and S (%). Three estimation passes were used for each domain and hard estimation boundaries were used. Search parameters based on the results of the nickel variogram analysis and kriging neighbourhood analysis (KNA) were used. The orientations of search ellipses were set to mirror the orientation of each orebody lens. The first search pass was 25m E by 25 m N by 4 m RL using a minimum of 10 samples and a maximum of 24. The second pass was multiplied by a factor of 1.5 utilising the same min and max sample numbers. The third pass was factored by 5, and the minimum samples required was lowered to 4. A total of 79% of the resource was filled in the first estimation pass for nickel. Block discretisation points used were X:4, Y:10, Z:10. Un-estimated blocks were attributed the block domain averages.</p>

JORC Code explanation	Commentary
	A dilution skin model estimating Ni and As only was created by expanding the mineralised wireframe by 1 m. Drillholes were selected and composited as being outside the main ore zone, and within the 1 m dilution skin. A hard estimation boundary between the mineralisation and the dilution skin was used. Three estimation passes were used. The first search was restricted to 15m by 15m by 2m, the second to 22.5m by 22.5m by 3m and the final search was expanded to 75m by 75m by 10 m to estimate any remaining blocks. All searches used a minimum of 6 and a maximum of 24 samples.
<b>Moisture</b>	
<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	Density measurements were performed using the immersion technique. The density was calculated as a wet density. The core from underground is fresh, dense and non-porous therefore moisture content is not considered to be an issue.
<b>Cut-off parameters</b>	
<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	The resource model is constrained by assumptions about economic cut-off grades. The Mineral Resource was modelled using a 1.2-1.4% Ni wireframe threshold and reported using a cut-off grade of 4.5% Ni which was applied on a block by block basis.
<b>Mining factors or assumptions</b>	
<i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	The following assumptions have been factored regarding possible mining methods; <ul style="list-style-type: none"> <li>• A mining dilution of 25% has been applied to stopes.</li> <li>• 50% dilution has been applied to the 3.5m x 3.5m development ore drives.</li> <li>• Single boom jumbos are used for development ore drives.</li> <li>• Airleg flatback mining using 2m x 2.5m ore stoping is applied.</li> <li>• A mining recovery of 91% ore extraction has been used due to pillars.</li> <li>• Stopes are backfilled with development waste.</li> </ul>
<b>Metallurgical factors or assumptions</b>	
<i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i>	Metallurgical recovery of nickel was assigned based on data calculated by the Black Swan mill whilst mining operations were in progress.
<b>Environmental factors or assumptions</b>	
<i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i>	As the project has previously been mined, there are existing waste storage facilities and environmental considerations are not expected to pose any issues to the resumption of mining activity.
<b>Bulk density</b>	
<i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i>	Bulk density measurements were routinely collected for all underground drill core submitted for analysis. The majority of measurements have been made using the water immersion method where the weight of selected pieces of core is measured in both air and water. All weights were measured using an electronic balance. The bulk density measurements were used to determine a regression calculation that was used with the estimated nickel values to determine the SG. SGs above a value of 5 were top cut.

JORC Code explanation	Commentary
<b>Classification</b>	
<p><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></p> <p><i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></p> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p>	<p>Resources were classified in accordance with the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).</p> <p>The classification of Mineral Resources was completed by Optiro and Poseidon based on geological confidence, drillhole spacing, data density and grade continuity. The Competent Person is satisfied that the result appropriately reflects his view of the deposit.</p> <p>Continuous zones meeting the following criteria were used to define the resource class:</p> <p><u>Measured Resource</u></p> <ul style="list-style-type: none"> <li>Measured Mineral Resources consist of the high confidence material which has been grade control drilled (15x15m) and sill development has been completed both above and below.</li> <li>No material is categorised as Measured in this resource estimation</li> </ul> <p><u>Indicated Resource</u></p> <ul style="list-style-type: none"> <li>The Indicated Mineral Resources reflects moderate confidence material with good data density.</li> <li>Consistent strike and dip orientation and geological and grade continuity between drill intercepts.</li> <li>Reflects a nominal drill spacing of less than 25m x 25m resource definition drilling, through to grade control drilling (10 x 15m spacing), but not intersected by ore drive development.</li> </ul> <p><u>Inferred Resource</u></p> <ul style="list-style-type: none"> <li>The Inferred Mineral Resource reflects uncertainty in continuity of the massive sulphides confirmed by drill intersection with poor data density or drilled at a high angle to the mineralisation.</li> <li>Uncertainty in geological and grade continuity between drill intercepts.</li> </ul>
<b>Audits or reviews</b>	
<p><i>The results of any audits or reviews of Mineral Resource estimates.</i></p>	<p>This Mineral Resource estimate has been compared with previous non-JORC resource estimates completed by Poseidon and Norilsk Nickel Pty Ltd. Previous estimates used an accumulation model estimating Ni x "T", As x "T" and SG x "T" (where "T" is true thickness). Little correlation exists between true thickness and nickel grade at depth and consequently an OK modelling approach was adopted. The 2016 model also used a higher nominal grade threshold for interpretation of the mineralisation (1.2-1.4% compared to the previous 0.4%). The Tundra-Mute areas has also been significantly remodelled. The May 2016 is reporting the Mineral Resource is reporting more tonnes at a lower grade, for approximately the same amount of metal.</p> <p>No other audits or reviews have been completed.</p>
<b>Discussion of relative accuracy/confidence</b>	
<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>The relative accuracy is reflected in the resource classification discussed above that is in line with industry acceptable standards.</p> <p>This is a Mineral Resource estimate that includes knowledge gained from mining and milling recovery data during production.</p>

**Section 4 Estimation and Reporting of Ore Reserves**

JORC Code explanation	Commentary
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JORC Code explanation	Commentary
<b>Mineral Resource estimate for conversion to Ore Reserves</b>	
<p><i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i></p> <p><i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i></p>	<p>The Silver Swan Ni Mineral Resource used as the basis of this Ore Reserve were estimated by Poseidon Nickel Ltd and Optiro Pty Ltd and was announced to market in June 2016. Cu and Co Mineral Resources have been announced to the market concurrently with this Ore Reserve.</p> <p>Mineral Resources are reported inclusive of the Ore Reserves.</p>
<b>Site visits</b>	
<p><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></p> <p><i>If no site visits have been undertaken indicate why this is the case.</i></p>	<p>The Competent Person (Mr Matthew Keenan) visited the site on 7<sup>th</sup> June 2016. The visit included inspection of the Silver Swan underground workings and surface infrastructure.</p> <p>The site visits did not give the Competent Person any reason to believe that any portion of the Reserve Estimate will not be mineable.</p>
<b>Study status</b>	
<p><i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i></p> <p><i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i></p>	<p>A Pre- Feasibility Study has been completed for the Silver Swan material being converted from Mineral Resource to Ore Reserve.</p> <p>Modifying factors accurate to the study level have been applied based on detailed stope design analysis. Modelling indicates that the resulting mine plan is technically achievable and economically viable.</p>
<b>Cut-off parameters</b>	
<p><i>The basis of the cut-off grade(s) or quality parameters applied.</i></p>	<p>Cut-off grade parameters for the underground ore were determined based on the 2017 financial analysis, assuming toll treatment of ore by a third party. The fully costed stoping cut-off grade applied for the Silver Swan underground was 3.0% Ni, and the incremental stoping cut-off grade was 2.1% Ni.</p> <p>A nickel price of \$US6.50/lb and a USD:AUD exchange rate of 0.76 was used to determine the cut-off grades.</p>
<b>Mining factors or assumptions</b>	
<p><i>The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).</i></p> <p><i>The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.</i></p> <p><i>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.</i></p> <p><i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i></p> <p><i>The mining dilution factors used.</i></p> <p><i>The mining recovery factors used.</i></p> <p><i>Any minimum mining widths used.</i></p> <p><i>The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.</i></p> <p><i>The infrastructure requirements of the selected mining methods.</i></p>	<p>Detailed mine designs were carried out on the Silver Swan underground, and these were used as the basis of the Reserve estimate.</p> <p>The Silver Swan Ore Reserve is planned to be mined using a bottom-up modified Avoca method with unconsolidated backfill. This mining method is based on detailed dynamic geotechnical modelling. Diesel powered trucks and loaders will be used for materials handling. Diesel-electric jumbo drill rigs will be used for development and ground support installation, and diesel-electric longhole rigs used for production drilling.</p> <p>The mining methods chosen are well-known and widely used in the local mining industry and production rates and costing can be predicted with a suitable degree of accuracy. Suitable access is available through the existing workings, which have been kept pumped dry during care and maintenance.</p> <p>Re-entry and refurbishment of capital development was costed in the Silver Swan mine plan based on detailed independent expert inspection.</p> <p>Independent geotechnical consultants MineGeotech Pty Ltd and Beck Engineering Pty Ltd contributed appropriate geotechnical analyses to a suitable level of detail. These form the basis of mine design, ground support and mining method selection for the Reserve estimate.</p> <p>Only the Indicated portion of the Mineral Resource was used to estimate the Ore Reserve. All Inferred material has had grade set to waste for the purposes of evaluation. The Ore Reserve is technically and economically viable without the inclusion of Inferred Mineral Resource material.</p> <p>Underground stopes were designed inclusive of minimum mining width of 2.5 m plus dilution volumes determined by independent geotechnical analysis and dynamic modelling. Global planned waste dilution is 35%, and unplanned waste dilution is 7%. An extra 2% of waste dilution was applied to allow for overbog of fill. Non-fill dilution was assumed to carry a grade of 0.35% Ni, based on Mineral Resource information provided by POS. Sub-level intervals are 25 m based on geotechnical advice. Maximum stope spans opened prior to filling are 5 m along</p>



JORC Code explanation	Commentary
	<p>strike. A mining recovery of 95% has been applied to all stopes. Ore development had an assumed 100% mining recovery, based on historical experience and industry standards.</p> <p>Most of the infrastructure required for the operations is already in place and has been under care and maintenance for approximately 8 years, including a processing plant and associated infrastructure, access roads, offices and ablutions, connections to the Western Power grid, power reticulation, and borefields. Allowance has been made for refurbishment of this infrastructure where required based on quotes provided by reputable independent vendors to an appropriate standard of detail.</p>
<b>Metallurgical factors or assumptions</b>	
<p><i>The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.</i></p> <p><i>Whether the metallurgical process is well-tested technology or novel in nature.</i></p> <p><i>The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.</i></p> <p><i>Any assumptions or allowances made for deleterious elements.</i></p> <p><i>The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.</i></p> <p><i>For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?</i></p>	<p>The Silver Swan Reserve estimate has been determined based on a sale of DSO to a customer in China. The payability of the ore has been provided by POS based on discussions with this potential offtake partner.</p> <p>The DSO sale is based on payability of 67% of the contained nickel only. Based on information provided by POS, this payability is assumed to cover any contained by-products, metallurgical recovery, and deleterious elements.</p>
<b>Environmental</b>	
<p><i>The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i></p>	<p>Geochemical characterisation studies have been conducted that indicate that the rock mass is non-acid forming.</p> <p>POS has advised that most required approvals already issued under the <i>Mining Act</i> and <i>Environmental Protection Act</i> from previous operations remain current.</p> <p>At this point in time the Competent Person sees no reason permitting will not be granted within a reasonable time frame.</p>
<b>Infrastructure</b>	
<p><i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i></p>	<p>The project site is already developed and on care and maintenance. The underground workings are powered and kept dry through the installed pumping system.</p> <p>All required surface infrastructure is already in place and requires only minor refurbishment.</p> <p>All required underground infrastructure is in place to commence mining including primary ventilation fans, escapeways, high voltage power reticulation, service water and compressed air. Allowance has been made for refurbishment and recommissioning of this infrastructure based on inspections and detailed quotes.</p> <p>As the site is 53 km from Kalgoorlie, a residential workforce will commute to site daily.</p> <p>The mine is connected to the Western Power grid through two lines, one feeding the concentrator and one feeding the other surface infrastructure and underground workings. Allowance has been made for additional diesel generated power to supplement this underground feed.</p>
<b>Costs</b>	
<p><i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i></p> <p><i>The methodology used to estimate operating costs.</i></p> <p><i>Allowances made for the content of deleterious elements.</i></p> <p><i>The source of exchange rates used in the study.</i></p> <p><i>Derivation of transportation charges.</i></p> <p><i>The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.</i></p> <p><i>The allowances made for royalties payable, both Government</i></p>	<p>The Silver Swan PFS mining costs are based on detailed quotes from suppliers and mining contractors gathered as part of a Request for Quotation process involving three reputable and experienced underground contractor firms. These were also benchmarked against similar operations in the WA Goldfields and historical data from previous operations at Silver Swan.</p> <p>The USD:AUD exchange rate assumed for the cost modelling was 0.76.</p>

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<p>and private.</p>	<p>Road and sea transport charges for DSO are based on factored quotes provided by POS.</p> <p>WA state royalties of 2.5 % and a third-party royalty of 1% have been applied to gross concentrate nickel revenues.</p>
<b>Revenue factors</b>	
<p><i>The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.</i></p> <p><i>The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.</i></p>	<p>Forecasts for head grade delivered to the plant are based on detailed mine plans and mining factors.</p> <p>A global payability of 67% contained nickel metal has been applied to the DSO.</p> <p>Any by-product credits from contained Cu and co have been assumed to be incorporated into the payability, based on advice from POs following discussions with potential offtake partners.</p> <p>A flat USD:AUD exchange rate of 0.76 was used in the financial model.</p> <p>A flat nickel price of US\$6.50/lb has been assumed for the financial analysis, based on forecasts provided by POS.</p>
<b>Market assessment</b>	
<p><i>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</i></p> <p><i>A customer and competitor analysis along with the identification of likely market windows for the product.</i></p> <p><i>Price and volume forecasts and the basis for these forecasts.</i></p> <p><i>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</i></p>	<p>POS is currently discussing offtake agreements with several potential offtake partners, including the partner offering the DSO sale option used to determine the Reserve estimate.</p> <p>The volume of concentrate produced by processing the estimated Reserve will be too small to have an impact on the global market of nickel sulphide concentrate.</p>
<b>Economic</b>	
<p><i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i></p> <p><i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i></p>	<p>The Silver Swan underground Ore Reserve has been assessed in a detailed financial model.</p> <p>The Reserve plan is economically viable and has a positive NPV at a 10% discount rate at the stated commodity price and exchange rate.</p> <p>Sensitivity analysis shows that the project is most sensitive to commodity price/exchange rate movements. The project is still economically viable at unfavourable commodity price/exchange rate adjustments of 10%.</p>
<b>Social</b>	
<p><i>The status of agreements with key stakeholders and matters leading to social licence to operate.</i></p>	<p>A compensation agreement exists between the Black Swan Nickel Operations and Mt Vettors Pastoral Station. This has been updated periodically as the operation has changed. Compensation previously paid under this agreement has been adequate to address all impacts of the project. No further compensation is required under the terms of this agreement. However, previous practice may have resulted in an expectation of additional compensation if significant additional land clearance is proposed. Significant land clearance is not required under the current Reserve estimate plan.</p> <p>POS will continue to communicate and negotiate in good faith with key stakeholders</p>
<b>Other</b>	
<p><i>To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:</i></p>	<p>A formal process to assess and mitigate naturally occurring risks will be undertaken prior to execution. Currently, all naturally occurring risks are assumed to have adequate prospects for control and mitigation.</p>

JORC Code explanation	Commentary
<p><i>Any identified material naturally occurring risks.</i></p> <p><i>The status of material legal agreements and marketing arrangements.</i></p> <p><i>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</i></p>	<p>No marketing agreement has been signed but it is expected that such an agreement is likely to be arrived upon. Interest has been expressed by various potential offtake partners for the concentrate and it was successfully marketed during previous operations.</p> <p>Based on the information provided, the Competent Person sees no reason all required approvals will not be successfully granted within the anticipated timeframe.</p>
<b>Classification</b>	
<p><i>The basis for the classification of the Ore Reserves into varying confidence categories.</i></p> <p><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></p> <p><i>The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i></p>	<p>The Probable Ore Reserve is based on that portion of the Indicated Mineral Resource within the mine designs that may be economically extracted and includes an allowance for dilution and ore loss.</p> <p>None of the Probable Ore Reserves have been derived from Measured Mineral Resources.</p> <p>The result appropriately reflects the Competent Person's view of the deposit.</p>
<b>Audits or reviews</b>	
<p><i>The results of any audits or reviews of Ore Reserve estimates.</i></p>	<p>The Ore Reserve estimate, along with the mine design and life of mine plan, has been peer-reviewed by Entech internally.</p>
<b>Discussion of relative accuracy/confidence</b>	
<p><i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.</i></p> <p><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p> <p><i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></p>	<p>The Silver Swan design, schedule, and financial model on which the Ore Reserve is based has been completed to a Pre- Feasibility study standard, with a corresponding level of confidence.</p> <p>Considerations in favour of a high confidence in the Ore Reserves include:</p> <ul style="list-style-type: none"> <li>- The mining process is well-known, small scale and utilises proven technology</li> <li>- The revenue is derived from a simple DSO model which disregards metallurgical factors</li> <li>- The project, as previously operated, is fully permitted.</li> </ul> <p>Considerations in favour of a lower confidence in Ore Reserves include;</p> <ul style="list-style-type: none"> <li>- Future nickel price and exchange rate forecasts carry an inherent level of risk</li> <li>- There is a degree of uncertainty associated with geological estimates. The Reserve classifications reflect the levels of geological confidence in the estimates.</li> <li>- There is a degree of uncertainty regarding estimates of impacts of natural phenomena including geotechnical assumptions, hydrological assumptions, and the modifying mining factors, commensurate with the level of study.</li> <li>- A binding offtake agreement for the product has not yet been signed.</li> </ul> <p>The Ore Reserve is based on a global estimate. Modifying factors have been applied at a local scale.</p> <p>Further, i.e. quantitative, analysis of risk is not warranted or appropriate at the current level of technical and financial study.</p>