Orion Minerals NL

ASX/JSE RELEASE: 30 October 2017

Quarterly Activities Report
For Period Ending 30 September 2017

HIGHLIGHTS

- **Safety, environment and community engagement ongoing:**
  - Another LTI-free quarter achieved for the Prieska Project with 78,922 hours worked.
  - Mine workings safety improved by upgrading the second means of exit from underground.
  - Engagement with the local business chamber indicates a supportive community.
- **Mine feasibility studies progressing as scheduled:**
  - Lead consultants advance Phase 1 of the feasibility studies and environmental impact assessments.
  - Reviews of historical data and existing conceptual plans nearing completion.
  - Environmental baseline studies and monitoring commenced.
- **Mine Re-entry and geotechnical studies progressed:**
  - Inspection of underground workings to collect geotechnical information for mine planning in progress.
  - Hutchings Shaft probed down to 900m, some 600m below the accumulated water level height and the shaft has determined to be clear of obstructions. This further confirms the integrity of the existing infrastructure for mine re-establishment.
- **Orion's intensive drill program on both the +105 Level Target (Open Pit) and Deep Sulphide Target are on track to deliver JORC compliant Mineral Resource estimates by Q4 CY17 and Q1 CY18 respectively.**
- **Regional exploration is planned to recommence in the December 2017 Quarter, including a large airborne electromagnetic survey and regional geochemistry.**
- **Leading mining-focused private equity group, Tembo Capital, confirms its continued support of Orion through a $1.75M Share Placement in the Company at 2.4 cents per Share and a $6M Bridge Loan, in addition to the previous $3M Share placement and $3M in Orion convertible notes which it already holds.**
- **Orion's shares listed on the Main Board of the Johannesburg Stock Exchange. The secondary listing is anticipated to add further momentum to Orion's base metal development strategy in South Africa and provides an additional market through which the funding of the Company's South African projects may be facilitated. Orion's primary listing will remain on the ASX.**
- **Post Quarter, commitments received for a Share placement of $5.5M at 2.4 cents per Share from sophisticated and professional investors. Tranche 1 totals $3.47M and Tranche 2, which is subject to shareholder approval, totals $2.03M. Shareholder approval to be sought for Orion's Chairman, Mr Denis Waddell, to subscribe for Shares at the same price as the Placement Shares.**

Exploration

Areachap Belt Projects (South Africa)

The Company continued an intensive drilling campaign at the Prieska Zinc-Copper (**Prieska**) Project. Work intensified on drilling at the Deep Sulphide Target and +105 Level Target (Open Pit) with the aim of outlining Mineral Resources compliant with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 edition) (**JORC Code**). The Mineral Resources, along with other key studies, will be used as the basis of a Bankable Feasibility Study (**BFS**) which the Company has commenced and aims to complete by Q4 CY18.

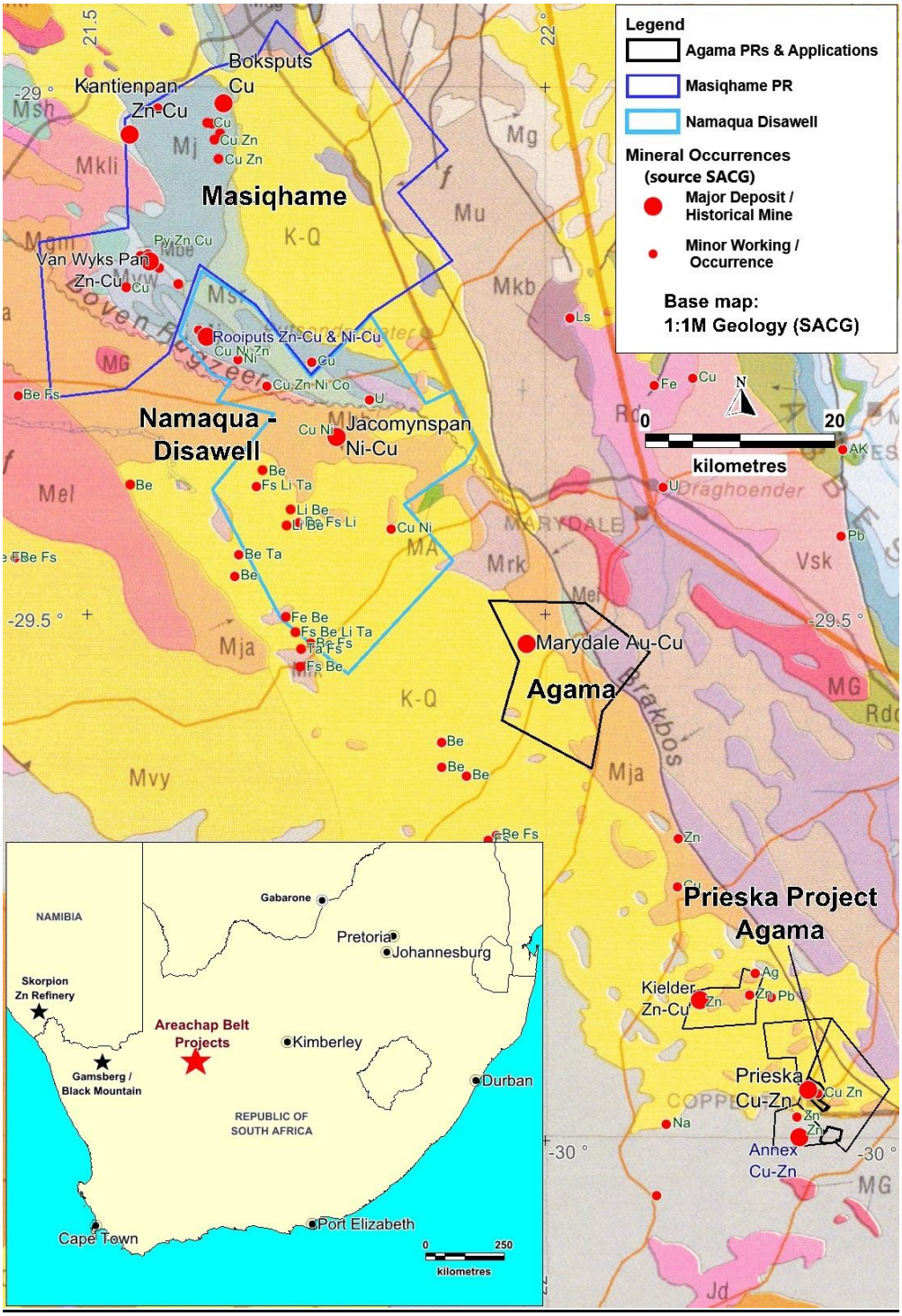

Figure 1: Regional geology map of the Areachap Belt showing prospecting rights owned by Orion and currently under option to Orion and noted mineral occurrences as per published data from South African Council for Geoscience.

Prieska Zinc-Copper Project

The Prieska Project covers unmined dip and strike extensions from a historical underground mining operation. Mineralisation was delineated by extensive drilling by the previous owners. Orion has digitally captured, validated and modelled all relevant project drilling data available from hard-copy sources. This work has enabled the Company to define targets for near surface mineralisation comprising oxide, supergene and primary sulphide material to a depth of 100m which is potentially accessible via an initial open pit (+105 Level Target (Open Pit)) and the deeper sulphide mineralisation identified by historic drilling (Deep Sulphide Target) (Figure 2). The targets are based on 182 historical drill intersections, which can be relied on for width and depth of mineralisation, while 88 historical drill holes provide information on the grade of mineralisation (Table 1). Since the acquisition of Agama, 160 additional drill holes have been digitized from historic mine plans below the -800m level. While the data has shortcomings due to loss of some historic records which prevent estimation of Mineral Resources compliant with the JORC Code, the Company is encouraged by the infill and confirmatory drilling results to date.

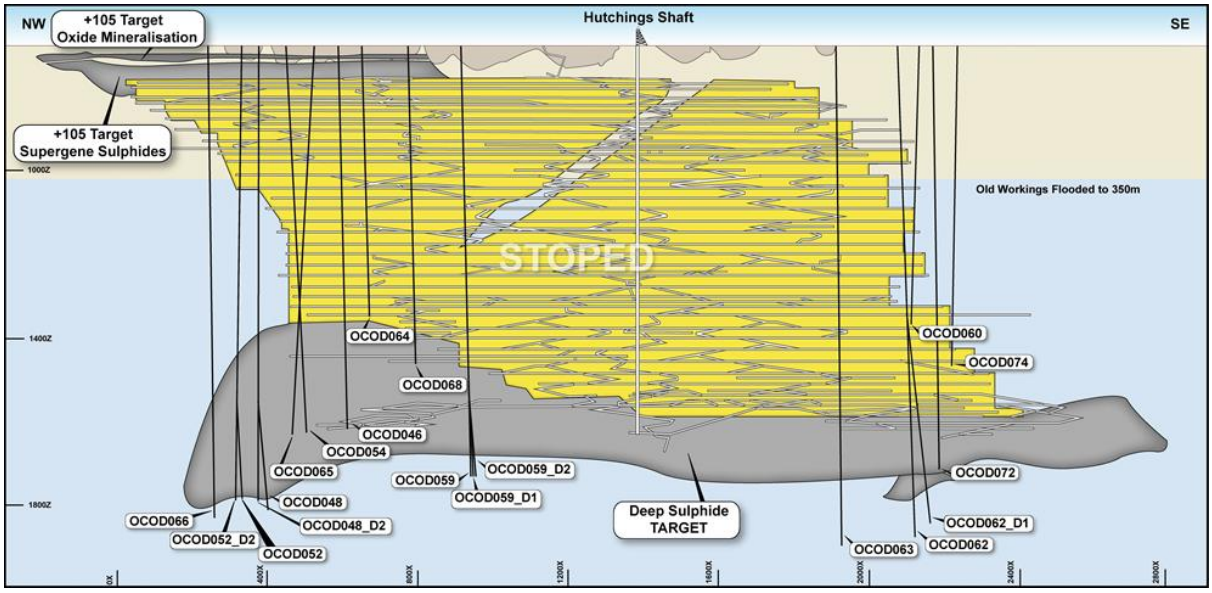

Figure 2: Longitudinal projection showing the +105 Level and Deep Sulphide targets as well as drilling on the Deep Sulphide Target.

Safety and Environment

No lost time injuries were reported during the Quarter.

Category of Work	**Hours Worked**	
	Quarter	**Year to Date**
Exploration	73,113	109,234
Mine re-entry	5,809	7,394
Total	**78,922**	**116,628**

The year to date Lost Time Injury Frequency Rate (**LTIFR**) for 200,000 hours worked is 1.71. The Quarterly LTIFR for 200,000 hours worked is zero. These compare well to industry averages of 10.32 and 1.50 respectively.

Level 3 first aid training was undertaken to provide continuous onsite coverage for first response to any injuries that may occur onsite. The second means of egress from underground was upgraded by the installation of a Skyjack hoisting assembly and supplementary emergency communications infrastructure. Preventative safety audits continued with an illuminations assessment conducted sitewide to ensure all workplaces were adequately illuminated for safe working.

Community and Stakeholder Engagement

The Company continued constructive engagements with the local government and communities in preparation for mine development. A collaboration framework is being negotiated with the Siyathemba Municipality to facilitate cooperation on community and social investment projects. A memorandum of understanding is expected to be entered into between the Company and the Municipality in Q4 2017. The Municipality will be co-opted to participate in some of the social and labour planning projects that are a mandatory requirement during mine development and operations.

During the Quarter, a meeting was held with a local business chamber to give an update on the progress of the Prieska Project. The key topic raised by the business community was the need for collaboration in creating opportunities for jobs and commerce locally. Further briefings will be held with the community throughout the development of the Prieska Project, and the Company will establish an office in the town of Prieska by Q4 2017 to facilitate more communications with the local residents.

Feasibility Studies and Environmental Impact Assessment

Mining studies are being progressed in three stages, these being: Phase 1 – a review of historical information and all existing conceptual studies; Phase 2 – option studies; Phase 3 – detailed design and completion of a BFS.

Phase 1 work is nearing conclusion with project management protocols now established and the review of historical data and conceptual plans encapsulated in draft reports.

<u>Mining</u>

Geotechnical investigations to determine inputs into open pit and underground mine designs are in progress. Geotechnical logging of core and structural mapping of underground excavations are being conducted. High resolution digital scanning of excavations is scheduled for Q4 2017. All gathered information is being interactively incorporated into mine designs.

A technical review of historical data and conceptual mine studies (e.g. Figure 3) is almost complete with a draft report being reviewed internally.

Pit optimisation models have been prepared and await preliminary results from mineral resources evaluation, geotechnical investigations, mine design review and metallurgical scouting testwork programs, before assessing preliminary pit dimensions and likely mine layouts.

Ore processing investigations during the Quarter have involved a progressive review of historical testwork, scouting testwork on both hypogene and supergene rock types, metallurgical domaining of the various exploration targets and formulating a metallurgical testwork roadmap to ensure sample representatively and guide spacial variability of metallurgical characteristics in the targeted mining zones. Results of Phase 1 work will be reported in Q4 2017.

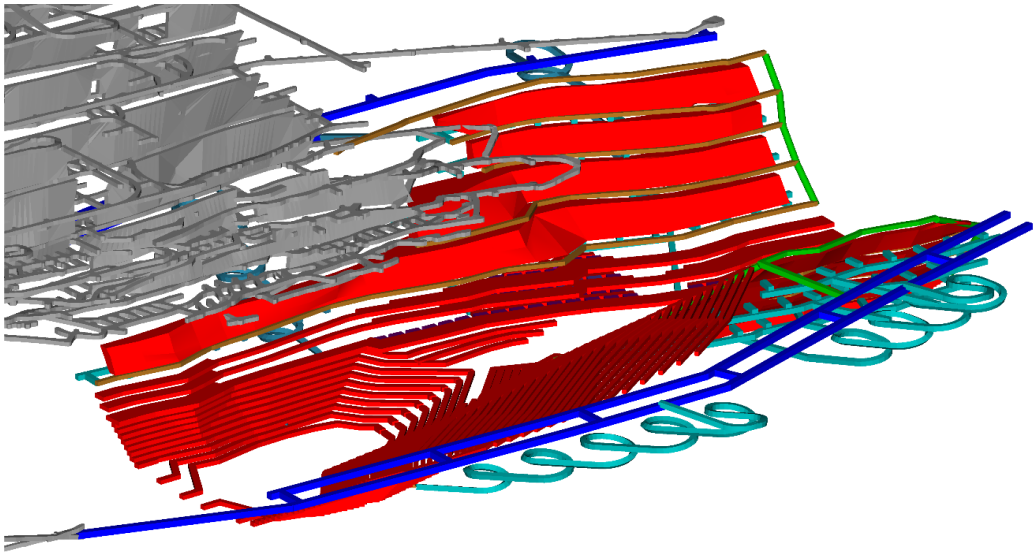

Figure 3: Conceptual Mine Layout of Deep Sulphide Target.

Environmental

Preparation of a Social and Labour Plan (**SLP**) is a mandatory requirement when building or operating a mine. Work on the SLP commenced during the Quarter, with the appointment of a specialist consultant, engagements with both the Department of Mineral Resources and Siyathemba Municipality and drafting of an SLP template. Several potential SLP projects were identified and are being discussed with various potential collaborators.

Draft baseline reports on soils, ecology, heritage, and hydrology were completed. Sample preparation of potential ore and waste rock for geochemical characterisation work was also completed.

A draft environmental design criteria, to be used to guide the feasibility studies, was completed. Baseline dust monitoring network was established and monitoring commenced.

A water use licence application was prepared for the use of accumulated underground water for prospecting activities. This application will be submitted to the Department of Water and Sanitation in Q4 2017.

Mine Re-entry and Geotechnical Appraisal

Orion has further improved its understanding of the existing mine workings with continued inspections of underground workings to collect geotechnical information for mine planning and design purposes. The Hutchings Shaft was probed down to 910m, some 600m below the accumulated water level height and the shaft was determined to be clear of obstructions. This further confirms the integrity of the existing infrastructure for mine re-establishment.

Deep Sulphide Target Drilling program

During the Quarter, the Company continued with an intensive drill program on the Deep Sulphide Target aiming to extend and validate the mineralisation along strike. At the date of this report, 11 surface diamond drill rigs were in operation. A total of 18,140m of diamond drilling and 8,456m of percussion drilling was completed to systematically test and confirm the extensive historical drilling data. Results from Orion's drilling aim to provide statistical validation of historic drilling that intersected unmined mineralised zones and add infill data so that the resultant data spacing meets the requirements for a Mineral Resource estimate.

During the Quarter, the Company announced drilling results of 11 drill holes from the Deep Sulphide Target (refer ASX releases 17 July 2017, 27 July 2017, 6 September 2017 and 19 September 2017, Figure 4, Table 1).

Drill hole	Deflection	East (UTMz34S)	North (UTMz34S)	Depth (m)	From (m)	To (m)	Length (m)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)
OCOD046		624610	6686251	1074.05	1017.00	1027.65	10.65	0.80	4.19	0.15	5.72
					1031.70	1034.00	2.30	1.04	4.14	0.33	5.4
		Including			1022.00	1027.65	5.65	1.16	6.19	0.20	7.5
OCOD048	Parent	624452	6686375	1179	1060.00	1082.45	22.45	1.34	5.33	0.26	10.60
				Including	1060.80	1066.50	5.70	0.54	10.89	0.07	3.45
	D2	From 702m down hole parent		---	1064.00	1066.35	2.35	0.56	5.13	0.09	3.45
				---	1070.59	1089.69	19.10	1.58	3.38	0.39	15.30
OCOD052	Parent	624419	6686406	1164	1089	1091	2	0.08	1.40	0.39	5.51
					1116.00	1132.15	16.15	1.72	3.30	0.26	13.72
				Including	1119.55	1123.55	4.00	1.35	5.34	0.26	8.45
	D2	From 785m down hole parent		---	1117.59	1133.51	15.92	0.95	5.55	0.22	7.5
OCOD054	Parent	624576	6686282	1080	1026.20	1037.94	11.74	1.23	3.11	0.17	10
OCOD059	Parent	624824	6686282	1096.51	1003.43	1004.11	0.68	0.09	5.45	0.08	14.0
					1010.89	1011.89	1.00	0.07	4.5	0.08	9.0
	D1				998.00	1009.15	11.15	0.33	3.42	0.15	9.7
				Including	1004.83	1009.15	4.32	0.31	5.08	0.22	15.9
					1023.60	1033.40	9.80	0.72	7.96	0.13	5.5
					1040.86	1045.32	4.46	0.55	5.06	0.10	8.42
OCOD062	Parent	625647	6685275	1230.02	1122.26	1123.30	1.04	0.20	7.93	0.08	3.0
					1124.70	1127.60	2.90	0.74	3.51	0.21	11.3
	D1				1108.45	1110.52	2.07	0.61	5.33	0.28	7.60
OCOD063	Parent	625400	6685250	1250	1045.00	1048.00	3.00	0.43	2.41	0.16	5.3
OCOD065	Parent	624520	6686338	1052.72	1022.20	1029.45	7.25	1.09	5.07	0.22	6.69
OCOD066	Parent	624349	6686476	1221.49	1111.95	1114.50	2.55	0.70	0.99	0.05	4.9
					1126.15	1126.78	0.63	5.39	2.61	0.91	38.0
OCOD068	Parent	624691	6686077	1037	974.55	997.85	23.30	0.84	5.45	0.18	6.8
				Including	977.65	988.00	10.35	0.70	6.92	0.18	5.95
OCOD072	Parent	625714	6685217	1303.23	1101.70	1107.05	5.35	0.72	5.14	0.22	6.28

Table 1: All drill hole intersections from the Deep Sulphide Target (refer ASX releases 6 September 2017, 17 September 2017, 5 October 2017 and 9 October 2017). All intersections weighted by length and specific gravity.

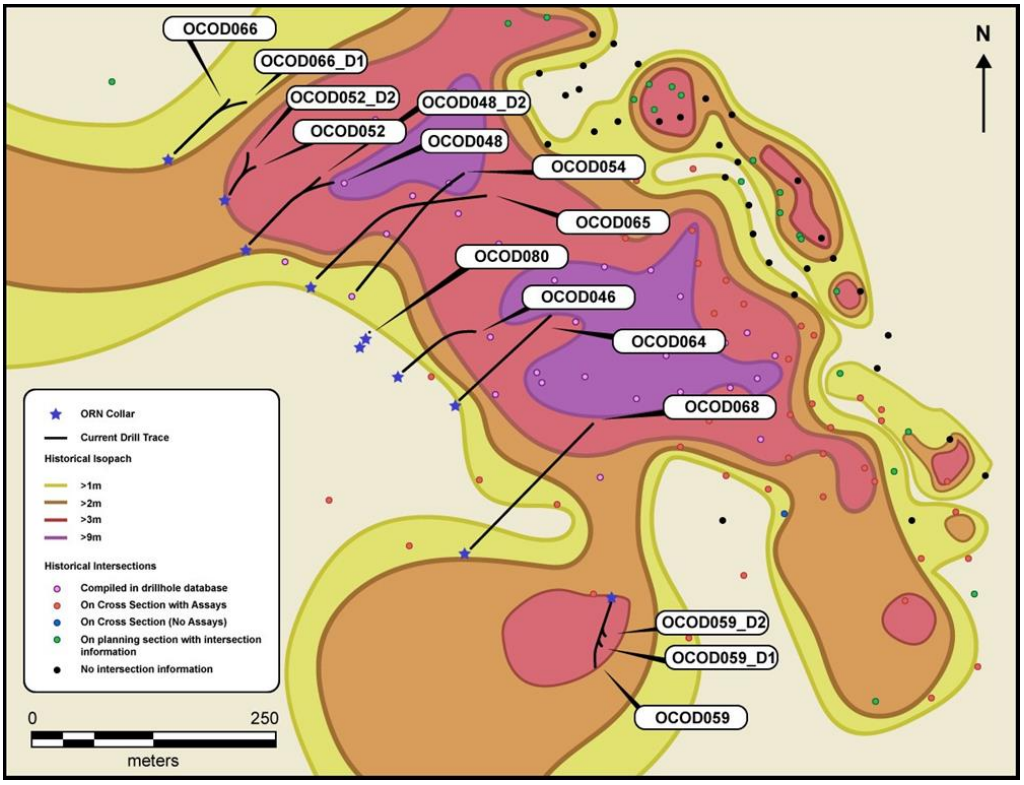

Figure 4: Plan showing Orion drilling on the Prieska Deep Sulphide northwest target plotted on a historic isopach map.

A number of holes validated intersections returned in historical drilling. OCOD048_D2 was drilled as a deflection from OCOD048 and intersected mineralisation 21m from OCOD048 and 27m away from the historic hole F2007 drilled from underground (Figure 5). The correlation between these holes is shown in table 2.

Hole number	Distance from OCOD48 (m)	Intersection length (m)	Zn %	Cu %	Au g/t	Ag g/t
OCOD048	0	22.45	5.33	1.34	0.26	10.6
OCOD048_D2	21	19.10	3.38	1.58	0.39	19.1
F2007	27	19.39	3.56	1.38	No Assay	No Assay

Table 2: Comparison of the intersection made in OCOD048_2 with adjacent holes.

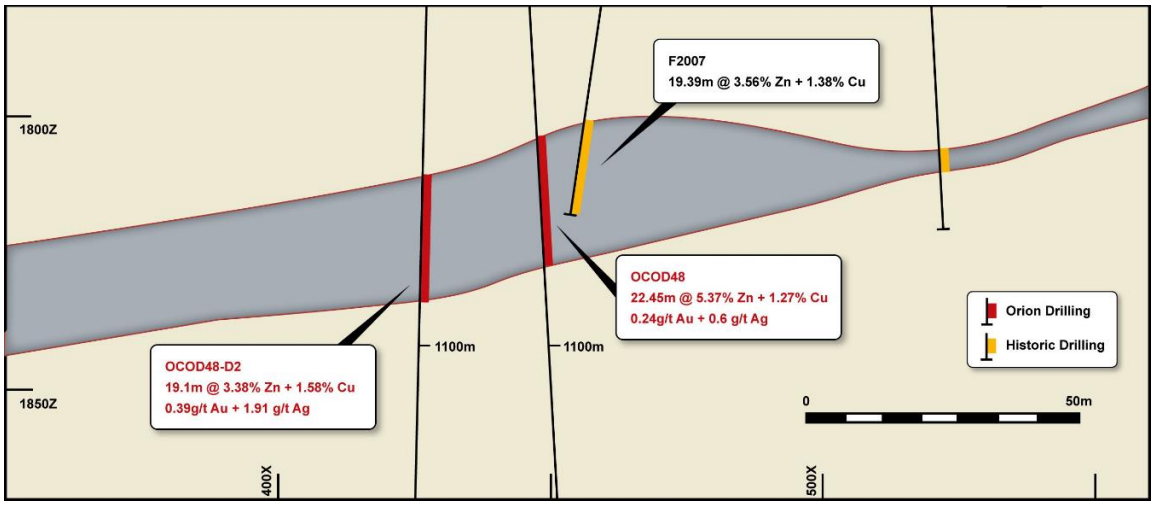

Figure 5: Section through drill hole OCOD048.

Drill hole OCOD065 tested mineralisation 160m east of OCOD048_D2 and intersected 7.25m at 5.07% Zn, 1.09% Cu, 0.22g/t Au and 6.7g/t Ag (Figure 6). Again, the results compare favourably with and validate historic drill results as shown in table 3.

Hole number	Distance from OCOD065 (m)	Intersection length (m)	Zn %	Cu %	Au g/t	Ag g/t
OCOD065	0	7.25	5.07	1.09	0.22	7.25
F1712	28	8.85	4.96	0.90	No Assay	No Assay
F2028	25	14.76	2.99	0.58	No Assay	No Assay

Table 3: Comparison of the intersection made in OCOD065 with adjacent holes.

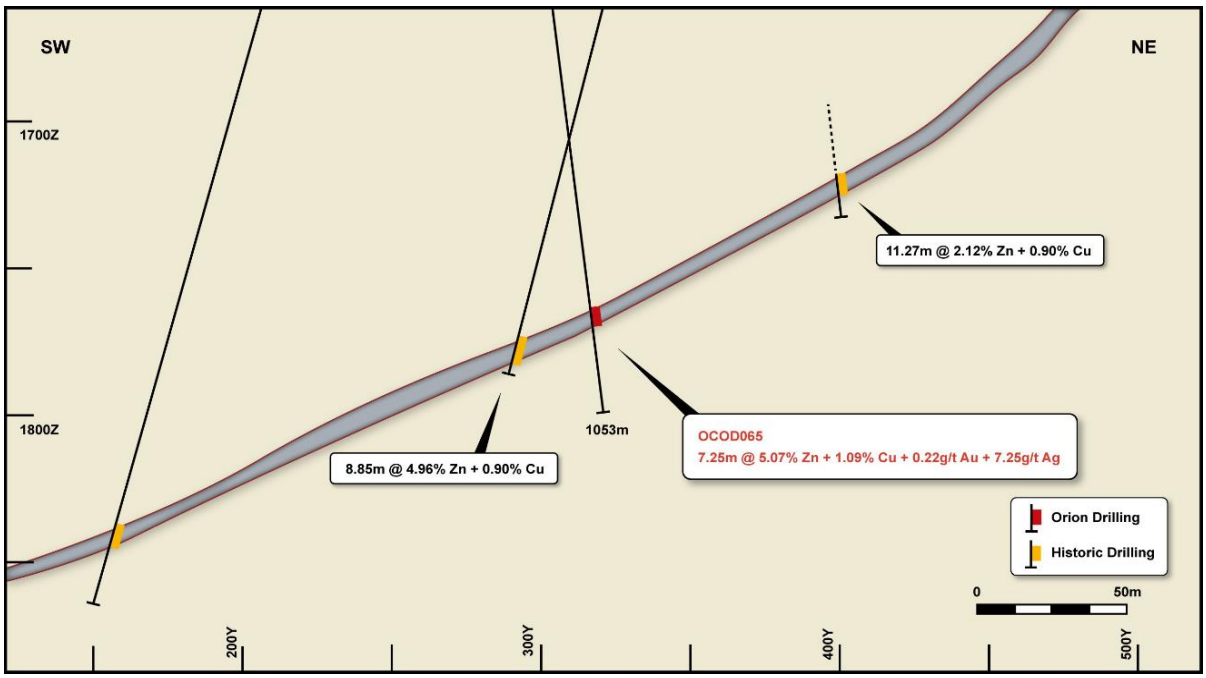

Figure 6: Section through drill hole OCOD065.

OCOD046 and OCOD068 intersected mineralisation in an area where historic mine plans show mineralisation to be blocked out but not stoped prior to the mine closing in 1991. The intersection of mineralisation in this area represents a key finding as it confirms the limited extent of previous mining. Importantly, this is in an area of high tenor in accessed mineralisation and strong geotechnical conditions, presenting an attractive target for potential early development

OCOD046 intersected mineralisation 20m away from historic hole F2001 (Figure 7). Both holes intersected two zones of mineralisation separated by 9.70m and 6.97m respectively.

The correlation between these holes is shown in table 4.

Hole number	Distance from OCOD46 (m)	Intersection length (m)	Zn%	Cu%	Au g/t	Ag g/t
OCOD046	0	10.65	4.19	0.80	0.15	5.7
OCOD046	0	2.30	4.14	1.04	0.33	5.4
F2001	20	8.47	4.42	0.72	No Assay	No Assay
F2001	20	6.39	4.45	0.52	No Assay	No Assay

Table 4: Comparison of the intersection made in OCOD046 with adjacent holes.

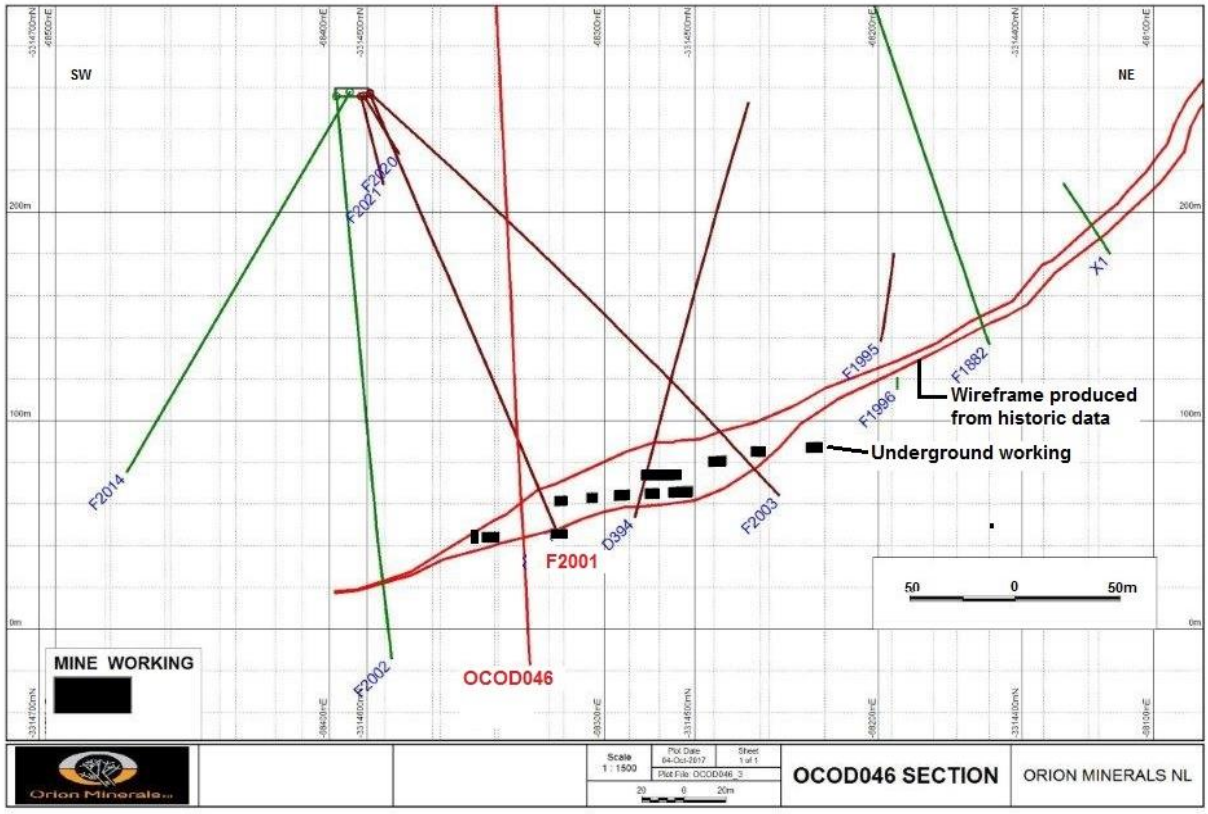

Figure 7: Cross - section through drill hole OCOD046.

OCOD068 intersected mineralisation in an area with a number of historic intersections (Figure 8). The correlation between these holes is shown in table 5. True widths are quoted for the historic underground holes, while OCOD068 intersection is at high angle to mineralisation and is close to true width. The results of OCOD068 fall well within the range of the historic intersections and further validate the historic data.

Hole number	Distance from OCOD068 (m)	Intersection length (m)	Zn%	Cu%	Au g/t	Ag g/t
OCOD068	0	23.30	5.45	0.84	0.18	6.8
		True Width (m)				
D348	25	19.46	5.29	1.52	No Assay	No Assay
F1991	32	9.06	6.59	1.84	No Assay	No Assay
And		5.41	2.66	2.31	No Assay	No Assay
And		19.37	4.22	1.13	No Assay	No Assay
F1985	53	6.07	4.60	1.59	No Assay	No Assay
And		2.88	3.90	1.87	No Assay	No Assay
F1990	55	3.27	5.53	1.05	No Assay	No Assay
And		8.66	3.58	2.11	No Assay	No Assay
And		3.32	3.27	0.99	No Assay	No Assay

Table 5: Comparison of the intersection made in OCOD068 with adjacent holes.

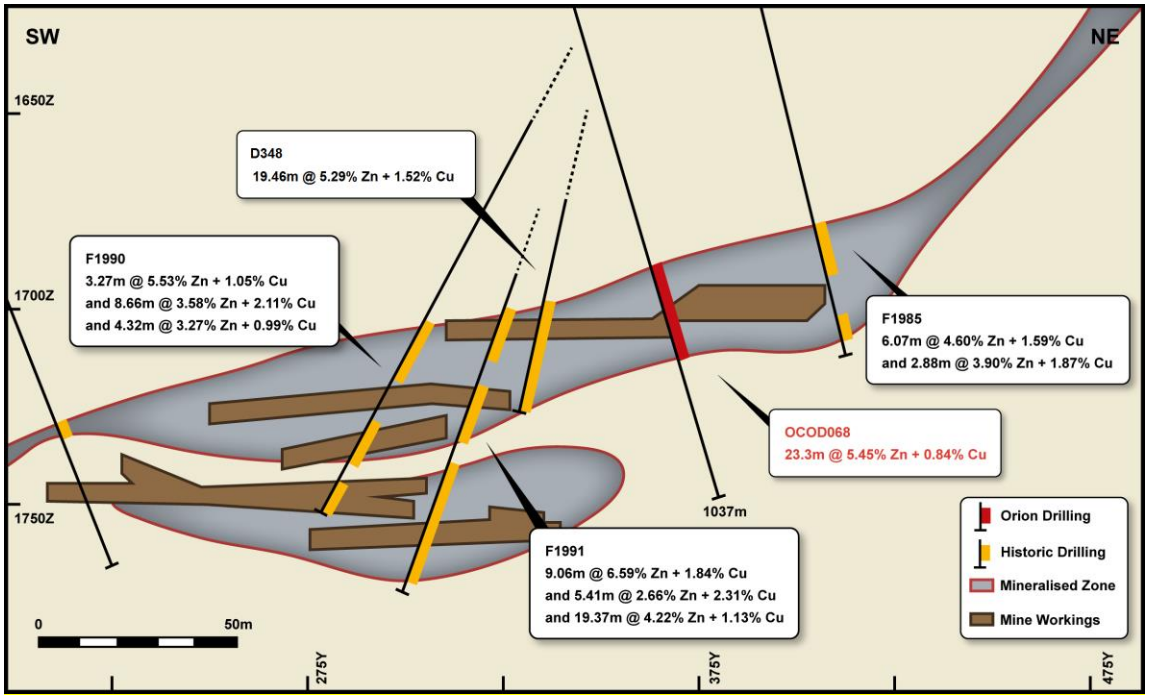

Figure 8: Section through OCOD068 and adjacent historic holes.

Down hole electromagnetic (**EM**) surveys conducted in two holes prove EM to be a successful geophysical method to apply. Down hole EM surveys in drill holes OCOD59_D1 and OCOD_66 identified off-hole conductors. Significantly, both conductors were drill tested and were explained by massive sulphides. The intersection in hole OCOD066_D1, drilled as a deflection from OCOD066 intersected two zones of massive sulphides. The main intersection consists of 14.50m of massive sulphides between 1072.20m and 1086.70m. A second intersection of 3.15m of massive sulphides appears 4m into the footwall of the main zone. The massive sulphides causing the conductor were intersected 100m along strike and to the north western most historic drill intersections (Figure 9). It defines a priority target for additional drilling and proves the potential for discovery extensions to known mineralisation, beyond the margins of historic drilling.

Drilling continues on the Deep Sulphide Target.

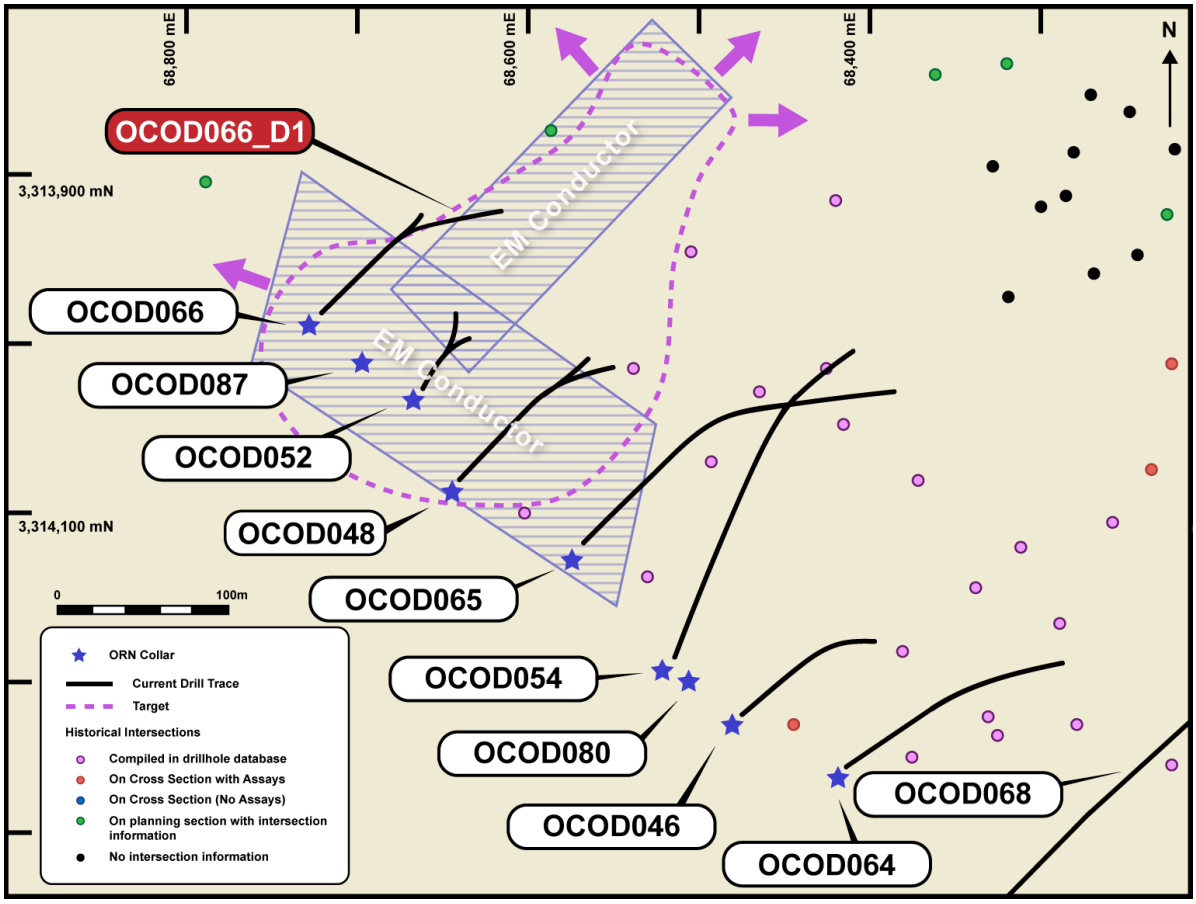

Figure 9: Plan of OCOD066 showing newly identified wide mineralisation target in the Northwest Deep Sulphide Target.

+105 Level Target (Open Pit) Area

The drilling program at the +105 Level Target (Open Pit) is designed to confirm, in-fill, extend the historical drilling and target mineralisation expected to be amenable to open pit mining (Figure 10).

Resource drilling from surface on the +105 Level Target (Open Pit) is completed and Orion is currently operating 3 rigs drilling from underground to test the supergene and primary sulphide zone immediately up-dip of historical stoping (Figures 11 and 12).

The Company has announced drilling results of 24 drill holes from the +105 Level Target (Open Pit). Best results at time of printing are shown in table 6.

Drill hole	East (UTMz34S)	North (UTMz34S)	Depth (m)	From (m)	To (m)	Length (m)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)
OCOR012A	624166	6686808	39	23	31	8	0.31	0.92	0.03	0.5
				36	39	3	0.50	1.36	0.02	0.6
OCOR013A	624199	6686776	42	15	20	5	0.92	1.56	0.04	0
				36	42	6	0.60	0.68	0.03	0.3
OCOR014	624228	6686776	42	35	40	5	2.10	0.34	0.01	0
OCOR015	624228	6686744	108	83	86	3	0.40	1.40	0.05	2.3
OCOR016	624340	6686653	108	57	79	22	1.38	10.8	0.30	9.7
			incl.	62	69	7	1.41	17.8	0.26	6.9
OCOR017	624361	6686618	77	57	69	12	4.14	1.89	0.29	9.9
			incl.	63	66	3	7.40	4.34	0.08	1.3
OCOR020	624300	6686626	38	10	20	10	0.39	1.13	0.16	1.0
OCOR023	624347	6686621	85	48	68	20	2.21	8.58	0.36	12.1

Drill hole	East (UTMz34S)	North (UTMz34S)	Depth (m)	From (m)	To (m)	Length (m)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)
			incl.	63	66	17	2.01	9.98	0.37	2.3
OCOR025	624378	6686544	49	8	25	17	0.86	1.00	0.55	8.1
OCOR027	624393	6686556	110	55	97	42	2.36	4.41	0.42	13.6
			incl.	55	60	5	9.28	0.10	0.65	31.6
			incl.	75	81	6	0.90	12.4	0.29	6.7
OCOR028	624363	6686561	43	7	24	14	0.94	0.56	0.09	0.9
OCOR029	624394	6686534	46	5	25	20	0.53	0.65	0.10	1.5
OCOR030	624292	6686713	103	71	77	6	1.90	0.85	0.39	8.2
OCOR031	624252	6686723	61	17	20	3	1.22	0.26	0.03	1.0
				46	60	14	0.30	0.71	0.01	0.6
OCOD033	624503	6686323	186.14	161	163	2	0.14	1.02	0.14	7.0
				170.71	180.05	9.34	1.40	4.00	0.13	9.0
OCOD035	624477	6686355	184.7	156.1	176.7	20.6	0.63	1.36	0.11	8.9
			incl.	167.9	170.5	2.6	0.49	5.20	0.11	13.9
OCOD036	624375	6686455	149.25	103	105	2	3.25	0.52	0.37	20.1
				112.6	142	29.4	1.52	3.06	0.36	9.0
			incl.	115	123.5	8.5	2.17	4.33	0.35	11.3
			incl.	129.06	131.11	2.05	1.09	4.86	0.24	7.4
			incl.	134	137.35	3.35	3.82	3.31	0.47	23.5
			incl.	139	142	3	0.44	7.13	0.13	2.9
OCOD037	624406	6686417	157.29	147.53	152.75	5.22	1.42	4.95	0.38	15.6
OCOD038	624406	6686417	141.21	103.8	106.5	2.70	1.20	1.02	0.21	2.7
				110.98	111.90	0.92	3.04	0.06	0.14	4.0
				113.80	115.63	1.83	1.38	0.50	0.07	3.3
				126.44	130.88	4.44	1.46	3.03	0.13	4.2
				132.28	137.17	4.89	1.19	1.78	0.16	5.7
OCOD040	624553	6686302	149	119.48	123.60	4.12	2.83	0.35	0.01	0.5
OCOD043	624563	6686287	202.3	187.76	199.29	11.53	0.97	3.23	0.22	8.8
			incl.	189.22	192.56	3.34	1.51	5.26	0.36	8.3
OCOD044	624483	6686360	94.6	59.56	65.50	5.94	0.58	1.16	0.01	0.9
OCOD047	624844	6686154	117.8	143.70	147.47	3.07	0.47	1.06	0.09	1.3
OCOU073	624777	6686284	75	50.00	54.82	4.82	1.10	0.63	0.33	12.7
				56.00	59.00	3.00	5.65	1.00	0.34	17.0

Table 6: Drill hole intersections from the +105 Level Target (Open Pit) (refer ASX release 6 September 2017). All intersections are length weighted.

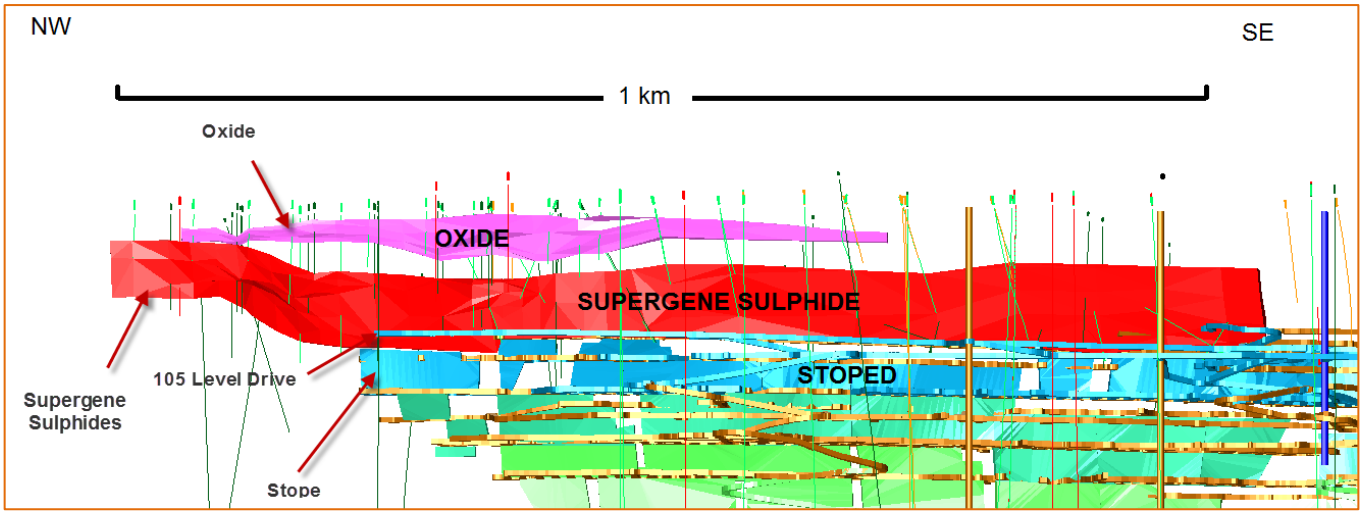

Figure 10: Longitudinal projection showing the +105 Level Target (Open Pit) drilling.

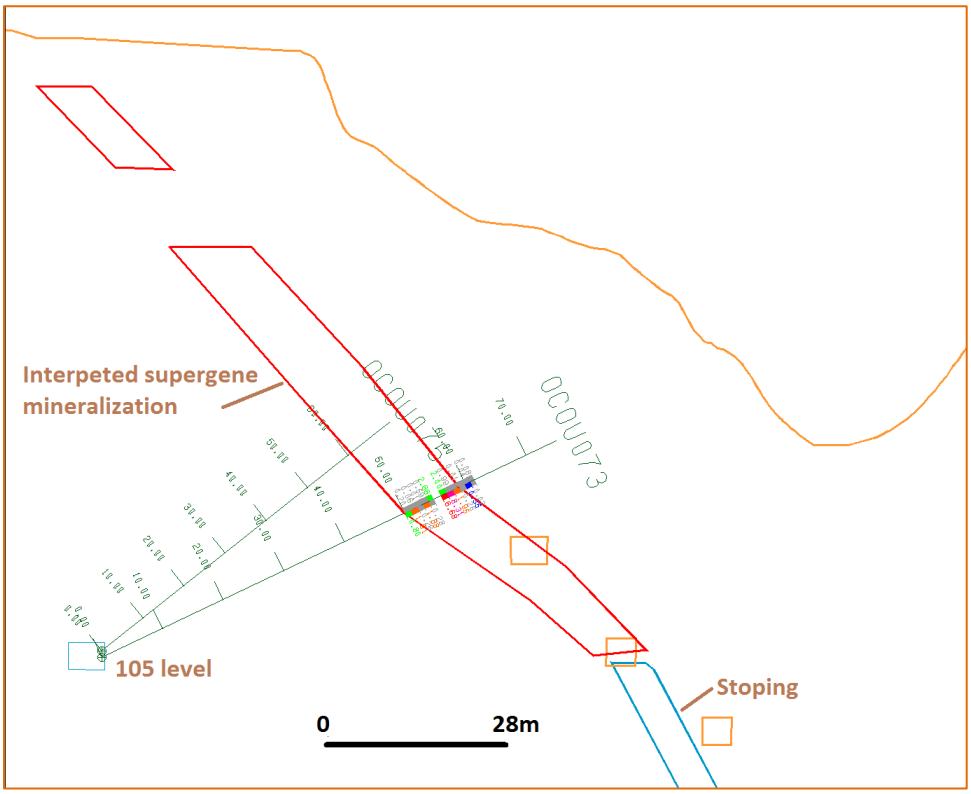

Figure 11: Section showing results from OCOU073 at the +105 Level Target (Open Pit).

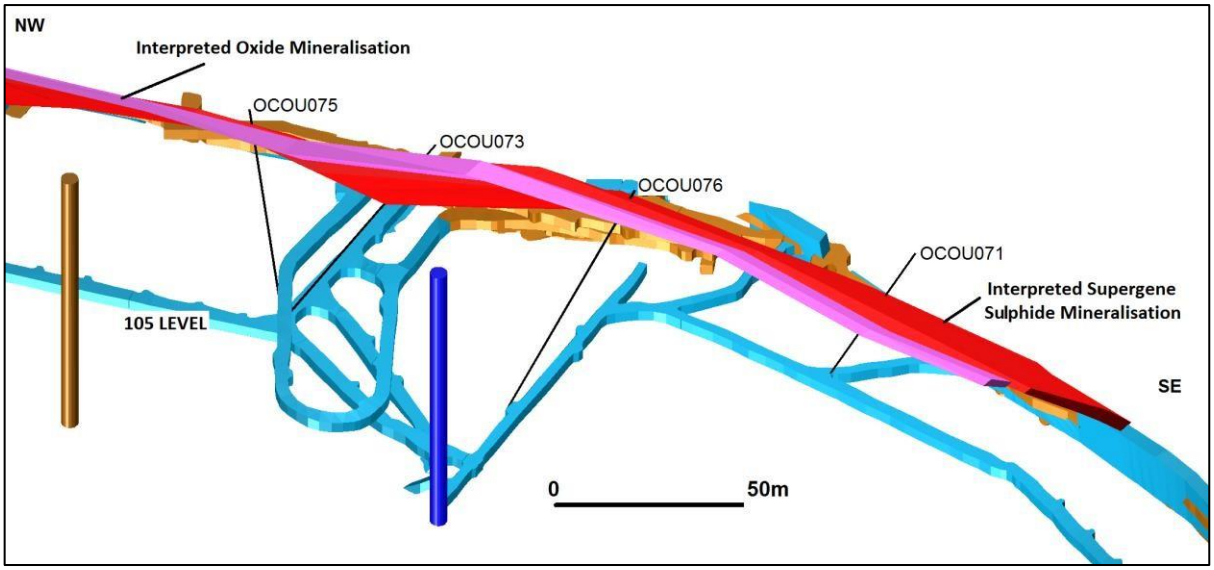

Figure 12: Oblique view showing current underground drilling at the Prieska Project.

Estimation of Mineral Resources compliant with the JORC Code is anticipated to be completed during November 2017, with these resource estimates to be fed, along with inputs from other studies, including metallurgical testwork, into feasibility studies with a target completion date of Q4 CY18.

Regional Exploration

With the completion of the Agama transaction in March 2017, the focus of the Company has been on rapidly advancing the Prieska Project through feasibility studies towards a development decision point. The Company maintains a substantial and highly prospective landholding in the Areachap Belt (Figure 1) and intends to continue systematic exploration for potential satellite deposits to feed into the life of mine plan for the Prieska Project and for new discoveries. It is noteworthy that Volcanogenic Massive Sulphide (**VMS**) deposits almost always occur as "clusters" associated with volcanic centres with four such centres having been identified in the Areachap Belt. The Company's prospecting rights overlie the bulk of the Copperton and Boksputs Volcanic Centres. Further details of the work programs will be released as they are designed and implemented, with results to be released as they are received. Regional exploration is planned to recommence in the December 2017 Quarter, including a large airborne EM survey and regional geochemistry.

Marydale Gold-Copper Project

In addition to the Prieska Project, the Agama transaction gives the Company exploration rights over the Marydale Gold-Copper Project, a virgin gold discovery of possible high sulphidation epithermal origin located 60km from the Prieska Project (Figure 1). Historical drilling following the discovery was carried out in various orientations and, despite wide zones of mineralisation being returned at the NW Quadrant Prospect, the majority of these are now seen to be sub optimal.

Orion drilled 6 holes on the property, including two at the NW Quadrant, which intersected broad zones of mineralisation consistent with historical drilling and four holes testing an extensive induced polarization (**IP**) anomaly which returned low levels of Cu-Au mineralisation from zones of disseminated sulphides.

The IP survey was undertaken in 3D array using high powered modern instruments. The IP survey delineated several strong, shallow chargeability features (Figure 13) which are interpreted to be related to the gold-copper anomalism intersected in drill holes and further work is planned to explore the project for gold-copper mineralisation.

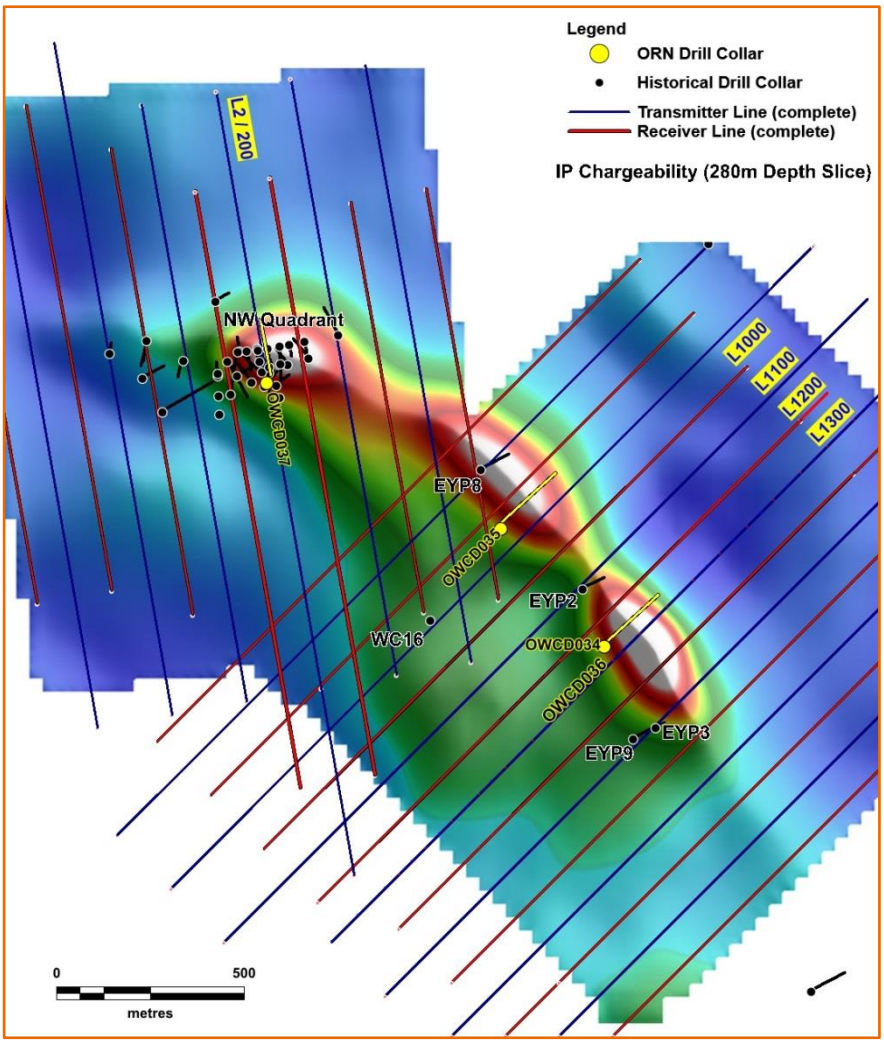

Figure 13: 134m depth slice of IP response (chargeability) over the Marydale Gold – Copper Project.

Kantienpan Zinc-Copper Deposit (Masiqhame)

Orion has previously conducted reverse circulation (**RC**) drilling, EM and magnetic surveys at the Kantienpan Deposit. A high-powered fixed loop electromagnetic survey identified a highly conductive body below the extent of historical drilling at the Kantienpan deposit. The KN1 conductor was modelled to be substantially larger and 3-4 times more conductive than the shallower portion of the deposit (Figure 14).

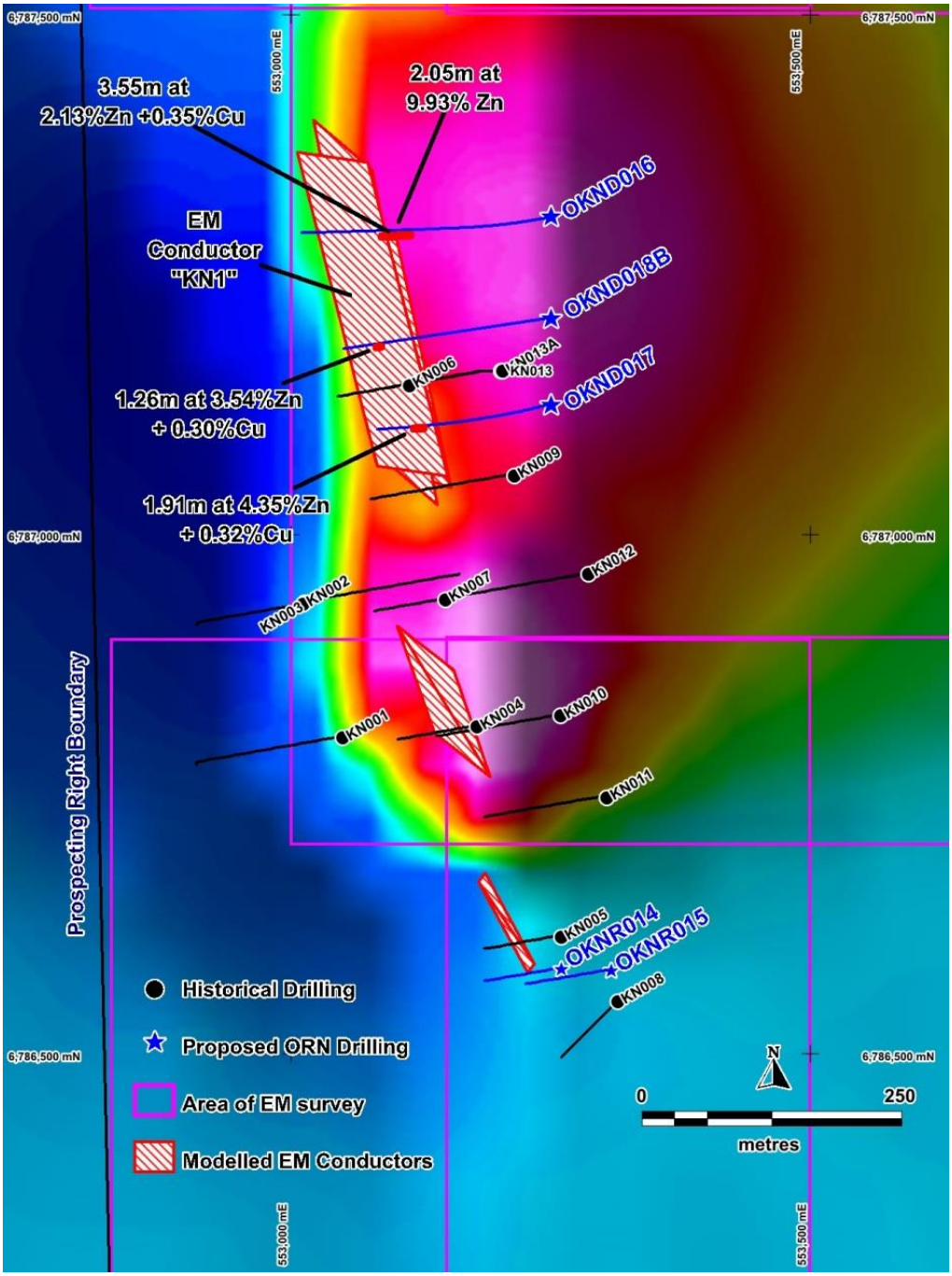

Figure 14: Plan showing historical and proposed drilling at Kantienpan with EM conductors modelled from the current, ongoing HP_FLEM survey including KN1. Note the survey has not yet effectively tested south of OKNR014.

The survey also detected smaller conductors in the footwall of the current known mineralisation. Stacking of mineralised bodies is a common occurrence in VMS deposits.

Drill testing of the conductors yielded encouraging results including 2.05m at 9.93% Zn and 1.91m at 4.35% Zn (Figure 15, refer ASX release 29 September 2016).

Detection of the previously unknown, deeper KN1 conductor, using modern geophysical methods highlights the potential for new discoveries and extensions of known mineralisation in the Areachap Belt. An exploration program consisting of geological mapping, airborne EM and geochemistry to identify further drill targets within the Masiqhame Prospecting Right is intended to intensify during late 2017.

Figure 15: Massive sulphides in OKNR014 which returned 7m at 6.45% Zn and 0.43% Cu from 60m.
Note each divider shows chips from a 1m interval

Jacomynspan Nickel-Copper-PGE Project (Namaqua- Disawell)

During the Quarter, the Company continued to review data relating to the Namaqua – Disawell Tenure (Figure 1). A substantial amount of pre-digital data exists from exploration pre 2000 by (amongst others) Anglo American/AAPS, Phelps Dodge, Anglovaal and Iscor (now Kumba). Richard Hornsey, an internationally renowned nickel geologist with extensive knowledge of the area was contracted to complete a data review and target generation exercise.

The Jacomynspan Project area contains numerous known occurrences of VHMS style zinc-copper deposits and is highly prospective for magmatic hosted nickel-copper mineralisation similar to that seen in Proterozoic mobile belts worldwide including the Thompsons Belt in Canada and the Albany-Fraser Belt in Western Australia. A number of mafic-ultramafic intrusions have been recognised within the project area, with most historical work focusing on the Jacomynspan Deposit (Figure 16).

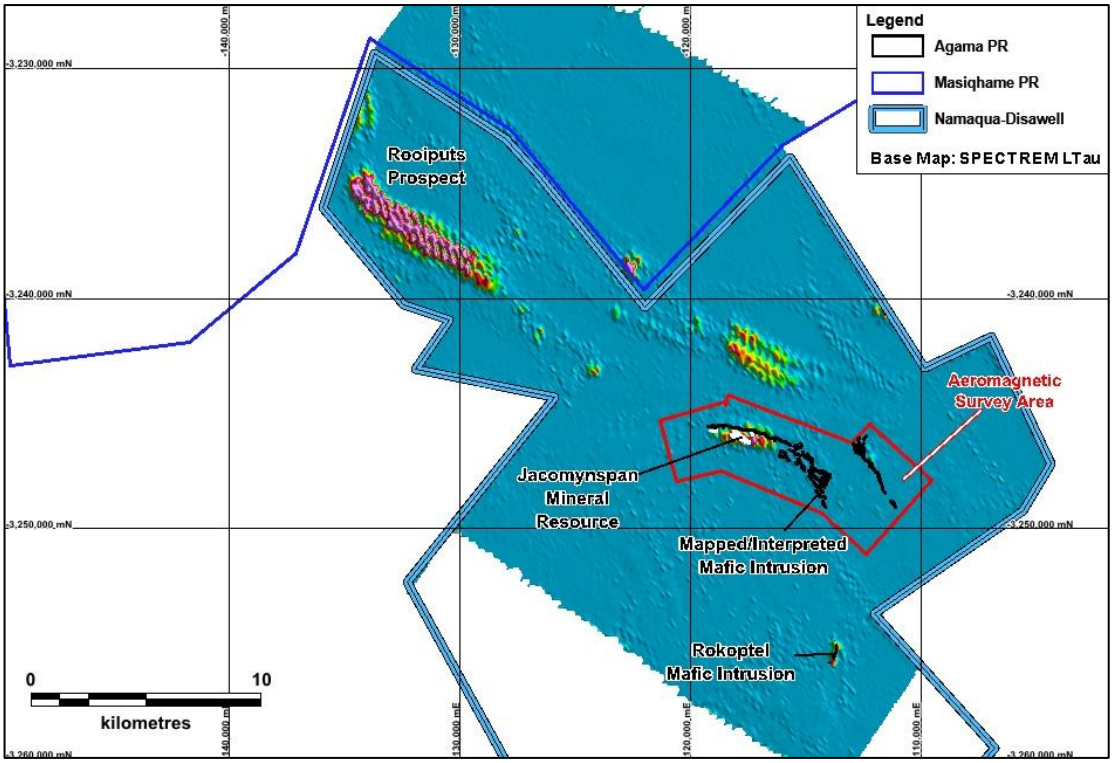

Figure 16: Late time constant (Tau) data from the Namaqua – Disawell SPECTREM airborne EM survey showing the high resolution magnetic survey area including the Jacomynspan Mineral Resource and hartzburgite hosted Nickel-Copper targets.

The Jacomynspan Deposit was first identified by Anglo American Prospecting Services (**AAPS**) with drilling carried out along a 4km strike length. In one portion of the deposit, AAPS drilled to a depth of 900m. Disseminated nickel sulphide mineralisation was intersected with widths between 30 – 70m.

Orion believes a substantial exploration opportunity exists within the project area to search for higher grade, massive and semi-massive accumulations of nickel-bearing sulphides, analogous to the Nova-Bollinger deposit in the Fraser Range Province of Western Australia.

Orion has identified many similarities to the Fraser Range-style of mineralisation from historical data available for the project area and the surrounding Areachap belt. This includes:

- mafic-ultramafic intrusives of late Proterozoic age;
- intruded in intercratonic/craton margin tectonic setting;
- hosted in high metamorphic grade rocks (garnet, amphibolite gneisses) within a mobile belt;
- the presence of evolving magmas yielding multi-phase intrusives, including mafic to ultramafic rocks. Importantly, lithologies observed at the Jacomynspan Project include anorthosites, hartzburgites and various metamorphic equivalents;
- the identification of nickel and copper-bearing sulphides with minor cobalt and PGE's (higher concentrations than in Fraser Range) at numerous localities;
- low-grade, disseminated nickel-copper sulphide bodies are re-intruded by cumulate textured mafics, with net textured and massive sulphides present; and
- shallow, recent cover sequences (calcrete and soil) obscures much of the surface expression on the belt.

Orion will be utilising its experience and expertise developed in exploring for magmatic nickel-copper deposit in the Fraser Range Province of Western Australia to reinterpret the extensive database for the Jacomynspan Project area and rank the exploration targets. These will then be followed up with modern high-powered geophysical tools and methods which have not previously been applied in the Areachap belt before drill testing.

Connors Arc Epithermal Gold Project (Queensland)

During the Quarter, no work was undertaken at the Connors Arc Project due to the fast tracking of drilling and the BFS at the Prieska Project. The Company is actively seeking opportunities to progress the Connors Arc Project through a joint venture or similar partnership.

Fraser Range - Nickel-Copper Projects (Western Australia)

Orion maintains a sizeable tenement package in the Fraser Range Province of Western Australia which Independence Group NL (ASX: IGO) is currently earning into via a Joint Venture Agreement (**JVA**, refer ASX release 10 March 2017).

During the Quarter, Orion was advised by IGO that aircore drilling is continuing on the tenements which form the JVA, specifically in the northern portion of the package. IGO stated that the exploration aims to better map the bedrock geology in the project area. Under the JVA, Orion will receive data from this drilling at the end of the program and will release any results which are material to the Company at this time.

Walhalla Gold and Polymetals Project (Victoria)

During the Quarter, the Company did not carry out any exploration activity on the Walhalla Project.

Tenement Schedule

Tenement	Project	Ownership Interest	Change in Quarter	Joint Venture Partner
South Africa				
NC30/5/1/1/2/10445PR	PCM	73.33%	---	---
NC30/5/1/2/2/10244PR	Marydale	73.33%	---	---
Western Australia				
E28/2367	Fraser Range	30%	---	Independence Group NL
E28/2378	Fraser Range	30%	---	Independence Group NL
E28/2462	Fraser Range	30%	---	Independence Group NL
E28/2596	Fraser Range	30%	---	Independence Group NL
E39/1653	Fraser Range	35%	---	Independence Group NL & Geological Resources Pty Ltd
E39/1654	Fraser Range	10%	---	Independence Group NL & NBX Pty Ltd
E69/2379	Fraser Range	10%	---	Independence Group NL & Ponton Minerals Pty Ltd
E69/2380	Fraser Range	10%	---	Independence Group NL & Ponton Minerals Pty Ltd
E69/2707	Fraser Range	10%	---	Independence Group NL & Ponton Minerals Pty Ltd
Queensland				
EPM19825	Connors Arc	100%	---	---
EPM25122	Connors Arc	100%	---	---
EPM25283	Connors Arc	100%	---	---

Tenement	Project	Ownership Interest	Change in Quarter	Joint Venture Partner
EPM25703	Connors Arc	100%	---	---
EPM25708	Connors Arc	100%	---	---
EPM25712	Connors Arc	100%	---	---
EPM25714	Connors Arc	100%	---	---
EPM25763	Connors Arc	100%	---	---
EPM25764	Connors Arc	100%	---	---
EPM25813	Connors Arc	100%	---	---
EPM26081	Connors Arc	100%	---	---
EPM26082	Connors Arc	100%	---	---
EPM26083	Connors Arc	100%	---	---
Victoria				
MIN5487[(1)]	Walhalla	100%	---	---
EL5340	Walhalla	100%	---	---
EL5348	Walhalla	100%	---	---

[(1)] MIN 5487 has been sold to Centennial Mining Ltd.

Corporate

Cash and Finance

Cash on hand at the end of the Quarter was $4.2 million.

Placement

Following Quarter end, on 30 October 2017 the Company announced that it is undertaking a capital raising of $5.5 million, made up of $3.47 million in Tranche 1 and an additional $2.03 million in Tranche 2.

The Placement to sophisticated and professional investors will be for up to 229.167 million ordinary fully paid shares (**Shares**) at an issue price of 2.4 cents per Share to raise up to $5.5 million. It is proposed that the capital raising will occur in two stages, being:

- Tranche 1 – 144.583 million Shares using the Company's 15% placement capacity under ASX Listing Rule 7.1 to raise $3.47 million; and
- Tranche 2 - up to 84.583 million Shares to raise $2.03 million (subject to shareholder approval, at a general meeting planned to be held mid-December 2017),

(together the **Placement**).

The Company has received commitments from investors to subscribe for the Placement, with Tranche 2 being subject to shareholder approval.

Proceeds from the Placement will be used principally to progress the intensive resource drilling campaign at the Company's Prieska Zinc-Copper Project, where significant drill results have been returned in recent months (refer ASX releases 9 October 2017, 5 October 2017, 19 September 2017 and 6 September 2017). The current program is the next step in the process to define a maiden Mineral Resource estimate as defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and will be fed into the bankable feasibility study (**BFS**) (refer ASX release 11 July 2017). The BFS will build on both the substantial existing historical dataset relating to mining and processing activities as well as the new information being generated by the onsite activities. Funds will also be used to continue exploration programs, including a large airborne electromagnetic survey and regional geochemistry on the Company's Northern Cape South African tenements, and for working capital purposes.

The Company will seek the required shareholder approvals (to ratify Tranche 1 and for the issue of Tranche 2 of the Placement) at a General Meeting of shareholders planned to be held mid-December 2017. In addition, approval will also be sought at the General Meeting for Orion's Chairman, Mr Denis Waddell to subscribe for Shares at the same price as the Placement Shares.

Johannesburg Stock Exchange

On 18 September 2017, the secondary listing of the Company's Shares on the main board of the Johannesburg Stock Exchange (**JSE**) commenced. Orion's secondary listing of its Shares is in the "Gold Mining" sector, under the abbreviated name "ORIONMIN", JSE share code "ORN" and ISIN "AU000000ORN1". The Company's primary listing remains on the ASX and the Company continues to be regulated by the Australian Securities and Investment Commission.

Bridge Loan Facility and Share Placement

On 18 August 2017, the Company announced that it had issued 73,000,000 Shares at 2.4 cents per Share to raise $1.752 million by way of placement (**Placement**) to leading mining-focused private equity group Tembo Capital Mining Fund II LP (**Tembo**), and that a $6.0 million bridge loan facility has been agreed with Tembo (**Bridge Loan Agreement**).

Tembo's agreement to the Placement and the Bridge Loan Agreement follows its decision to become a cornerstone shareholder in Orion to facilitate the acquisition of the Prieska Project via its initial $3.0 million investment in Orion by way of convertible notes issued as part of the convertible notes issued in March 2017 and the placement of 125,000,000 Shares to Tembo in June 2017, at an issue price of $0.024 per Share raising $3.0 million.

Under the terms of Bridge Loan Agreement, Orion agreed that it will use best endeavours to undertake a capital raising by 15 December 2017, to raise additional equity to progress the Prieska Project BFS and to continue its South African exploration programs. Orion has also agreed that Tembo will be offered the opportunity to participate in the sub-underwriting of any rights issue on standard market terms and conditions.

The key terms of the Bridge Loan Agreement are:

- Bridge Loan Amount - Up to $6.0 million, available in two $3.0 million tranches;
- Interest - capitalised at 12% per annum accrued daily on the amount drawn down;
- Repayment – repayable on the earlier of 15 December 2017 and the completion of a capital raising(s) whether by way of a pro rata issue and/ or security purchase plan of Shares and/or a placement or placements of Shares undertaken by the Company to raise such amount as is required, in Tembo's reasonable opinion, to progress the Prieska Project BFS, continue exploration programs at the Company's South African projects and for working capital (**Equity Capital Raising**);
- Equity Capital Raising - the Company will use its best endeavours to undertake an Equity Capital Raising before 15 December 2017. Orion shall procure that Tembo (or its affiliate) is offered the right to underwrite or sub-underwrite any pro rata issue and/or security purchase plan which form part of an Equity Capital Raising, on standard market terms and conditions;
- Set-off under Entitlement Offer – repayment of the Bridge Loan will be set off against the amount to be paid by Tembo for the issue and allotment of Shares to Tembo under the Equity Capital Raising and/or at Tembo's election against the underwriting amount payable by Tembo in respect of any shortfall under any 'pro rata issue' which form part of an Equity Capital Raising in its capacity as underwriter or sub-underwriter. Any surplus amount owing by Tembo after the set-off will be paid by Tembo in accordance with the terms of the relevant Equity Capital Raising and the underwriting arrangements (as applicable);
- Establishment fee - capitalised at 5% of the Bridge Loan facility amount; and
- Security - the Bridge Loan is unsecured.

As at the end of the Quarter, $3.0 million had been drawn down against the Bridge Loan.

Anglo American Sefa Mining Fund Loan

On 2 November 2015, Repli Trading No 27 (Pty) Ltd (**Repli**) (a subsidiary of the Company) and Anglo American Sefa Mining Fund (**AASMF**) entered into a loan agreement for the further exploration and development of the Prieska Project. Under the terms of the loan, AASMF shall advance R14.25 million to Repli. The key terms of the agreement are as follows:

- Loan amount R14.25 million;
- Interest rate will be the prime lending rate in South Africa;
- The disbursement of the loan will be subject to AASMF notifying Repli that it is satisfied with the results of the updated scoping study;
- Repayment date will be the earlier of 3 years from the date of the advance or on the date which Repli raises any additional finance for the further development of the Prieska Project; and
- On the advancement of the loan, 29.17% of the shares held in Repli by the Agama group (a wholly owned subsidiary of Orion), will be pledged as security to AASMF for the performance of Repli's obligations in terms of the loan.

On 1 August 2017, Repli drew down on the available AASMF loan in full (~$1.350 million (R14.25 million)).

Earn-In Right - Jacomynspan Nickel-Copper-PGE Project (South Africa)

On 14 July 2016, the Company announced that it had entered into a binding term sheet to acquire the earn-in rights over the Jacomynspan Project from two companies, Namaqua and Disawell, which hold partly overlapping prospecting rights and mining right applications.

Orion's earn-in right is via a South African-registered special-purpose vehicle (**SPV**), which will be established by Orion as its vehicle for investment in the joint ventures and of which historically-disadvantaged South African (**HDSA**) shall hold a minimum of 26% of the issued shares. Key terms of the transaction are set out below:

- Orion SPV has the exclusive opportunity to earn up to an 80% interest (Orion 59.2%) in the Companies. The Companies are privately owned South African companies with 26% or greater HDSA ownership.

- Conditions precedent to the commencement of earn in rights (**Earn-In Commencement Date**) include:
    - Due diligence to be conducted by Orion;
    - Orion providing the Companies with an initial exploration program to be carried out for the first 6 month period following the Earn-In Commencement Date (**Initial Program**);
    - The Companies obtaining all necessary approvals for Orion to access the Jacomynspan Project and conduct exploration activities including the Initial Program;
    - Orion providing proof of financial capacity to execute the Initial Program; and
    - The parties entering into a comprehensive earn-in agreement.

- Orion SPV is able to earn an initial interest of 25% (Orion 18.5%) in the Companies via staged expenditure of US$0.5 million on the Jacomynspan Project over the 12 months from the Earn In Commencement Date (**First Earn In Right**) including:
    - Expenditure commitment of US$0.25 million in the first 6 months; and
    - A further $0.25 million must be spent within 12 months of the Earn-In Commencement Date (US$0.5 million in total expenditure).

- Once Orion SPV has earnt the initial 25% interest:
    - The Companies will issue Orion with fully paid ordinary shares in the Companies (**Shares**) which shall result in Orion SPV being the holder of 25% of the total Shares on issue immediately following such issue of Shares;

- The Companies will record a shareholder loan account in favour of Orion SPV to the value of the First Earn In Right expenditure incurred by Orion and shall continue to record further expenditure by the Orion SPV as an increase in the shareholder loan account (**Orion Loan**);
- Orion can elect to increase its interest via further expenditure, as detailed below, or maintain its 25% interest by contributing pro-rata to exploration; and
- Within 30 days, the parties will negotiate the terms of a shareholders agreement to govern the terms of relationship between the shareholders.

- Following the First Earn-in Right, should Orion elect to increase its interest via further expenditure, the Orion SPV can earn a further 25% interest (making its total interest 50% (Orion 37%)) by expending a further US$1 million on the Jacomynspan Project (US$1.5 million total expenditure) over a further 12 months (2 years from Earn-In Commencement Date) (**Second Earn In Right**).

- Once Orion SPV has earnt a 50% interest:
  - The Companies will issue Orion with Shares which shall result in Orion SPV being the holder of 50% of the total Shares on issue immediately following such issue of Shares; and
  - Orion can elect to increase its interest via further expenditure, as detailed below, or maintain its 50% interest by contributing pro-rata to exploration.

- Following the Second Earn in Right, should Orion elect to increase its interest via further expenditure, Orion SPV can earn a further 30% interest (making its total interest 80% (Orion 59.2%)) by:
  - Expending a further US$0.5 million on the Jacomynspan Project (US$2 million total expenditure) over a further 12 months (3 years from Earn In Commencement Date);
  - Completing a bankable feasibility study, which has been reviewed and signed off by an independent external expert; and
  - Providing or securing project finance terms to develop a mining operation within the Project Area as per the bankable feasibility study and which shall not result in any Shareholder dilution.

- On the Earn-In Commencement Date, Orion will be appointed as the operator and manager of the joint ventures and will have the right to appoint a minimum of one director to the boards of the Companies.

- The Companies shareholders on the date of execution of the Term Sheet (**Signature Date**) shall be entitled to a 2% royalty in proportion to their beneficial interest in the Companies at the Signature Date, on net smelter returns arising from the production and sale of metals from the Jacomynspan Project's SAMREC resource as at the Signature Date (**Royalty**). At any time following the Earn-In Commencement Date, Orion shall have the right at its sole discretion to buy out the Royalty for an aggregate value of US$2 million.

- As noted above, all expenditure by Orion shall be advanced to the Companies as an Orion Loan. In addition to the Orion Loan, the Companies have existing shareholder loans of ZAR78.5 million (~US$5.4 million) as at the Signature Date (together **Shareholder Loans**). Following the completion of the First Stage Earn In, the parties will negotiate the terms of a Shareholders Loan to govern the terms of the Shareholder Loans. The Shareholder Loan agreement will contain clauses normally contemplated by a formal agreement negotiated in good faith between the parties.

Should Orion fail to meet its earn in right commitments, then either the parties will re-negotiate the terms of the Term Sheet or, if the parties are unable to agree those new terms, then Orion will relinquish its rights to earn any further interest in the Companies and the Term Sheet will be at an end.

In September 2017, the Company entered into a binding earn in agreement principally on the same terms as the binding term sheet.

Board Change

With the Company's focus being on its South African Projects and Tembo now able to appoint a member to the Orion Board, on 1 August 2017 Mr Bill Oliver changed his role within the Company and became a Non-Executive Director. Mr Oliver will continue to consult to the Company on technical matters in his new role, including supervision of the Fraser Range JVA and the Connors Arc Project.

Chamber of Mines, South Africa

During the Quarter, the Company applied for membership to the Chamber of Mines, South Africa. In August 2017 the application was successful and admission, through full membership, commenced in September 2017.

Fivemark Capital

During the Quarter, the Company appointed Fivemark Capital as its corporate advisor. As part of the fee payable to Fivemark, the Company issued the 2,200,000 unlisted options to Fivemark on 8 September 2017. The Options have an exercise price of 5 cents, an expiry date of 30 June 2020 and will not be quoted on the ASX.

Annual Financial Report

The Company recorded a loss of $7.93 million after tax for the year ended 30 June 2017. The result was affected considerably by impairment of exploration assets of $1.62 million and exploration expenditure incurred of $3.54 million which, under the Company's deferred exploration, evaluation and development policy, did not qualify to be capitalised and was expensed. Net cash used in operating activities totalled $6.54 million and net cash used in investing activities totaled $4.13 million. Net cash used in exploration and evaluation activities was $5.12 million.

Annual General Meeting

The Annual General Meeting of shareholders of the Company will be held at RSM Australia Pty Ltd, Level 32, 2 The Esplanade, Perth, Western Australia on Wednesday, 29 November 2017 commencing at 4:00 p. m. (Perth time).