# **ASX ANNOUNCEMENT**

27 September 2022



# **Compelling Gold Shoot Emerging at the Highway Zone**

Odyssey Gold Limited (ASX:ODY) ("Odyssey" or "Company") has received final assays from the Highway Zone where a wide 300m long shoot drilled to 200m below surface has been discovered on the Tuckanarra JV Project.

#### **HIGHLIGHTS**

**ASX:ODY** 

- RC drilling completed by Odyssey has defined a significant mineralised shoot at the **Highway Zone**
- Substantial scale already defined and open along strike and down dip
  - o 300m long shoot is open along strike to the east and west
  - Consistent wide mineralisation 10-30m true width
  - Continuous mineralisation drilled from 10m to 200m vertical below surface and open down dip
- **Predictable high-grade mineralisation** 
  - o All holes intersect mineralisation and five of the eight RC holes drilled into the mineralised shoot intersect > 25 gram metres (length x grade)
  - Exceptional drill result hit rate for this stage of exploration
  - Emerging high-grade shoot > 50 gram metres demonstrating strong underground potential
- Shallow oxide mineralisation to support open pit development
  - Intersections starting at 9m below surface and up to 84m wide in oxide
- RC drilling campaign has produced a target with scale potential in a district with over 7.5Mtpa of processing capacity
- 7,800m multiphase resource development and definition RC drilling program planned to prove up thick oxide mineralisation and high grade shoot along 300m of strike
- Mapping and geochemical sampling has identified high-grade rock chips up to 18.5g/t Au, 400m to the east of the Highway Zone Target

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Perth WA 6000



#### Commenting on the Highway Zone, Managing Director, Matt Briggs said:

"The Highway Zone is a substantial and compelling target. Wide shallow oxide intersections and higher-grade mineralisation extending to 200m vertical below surface. The mineralised shoot, currently 300m long, is open along strike and at depth.

Results during 2022 have been exceptional with >3g/t Au across +10m wide intervals. Five out of eight RC holes drilled into the Highway Zone structure contain over 25 gram metres representing a material new shoot. The strike length, thickness and grade of mineralisation have the potential to generate the ounces per vertical metre required to support underground mining.

The focus of drilling going forward is to infill the 300m long shoot at a drill spacing to allow resource estimation, and to continue to grow the mineralisation along strike toward a historic 3g/t Au RAB result 800m to the northeast.

The last mining on the Tuckanarra Project was in the mid 1990's when the gold price was A\$550/oz. The 3.4g/t Au mined from the pits at that time compared with 0.89-2.8g/t Au<sup>i</sup> currently being mined in the district.

The Company has an emerging portfolio of advanced targets, many on a granted mining lease in a district containing 7.5Mtpa of processing capacity."

### For further information, please contact:

### **Matt Briggs**

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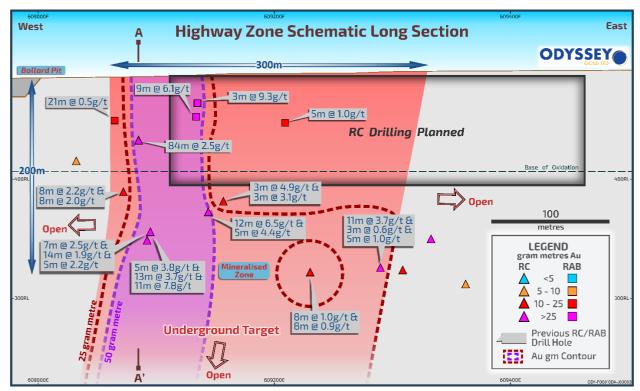


Figure 1 – Highway Zone Long Section. Note the historic RAB holes (square symbols) did not penetrate the full width of mineralisation



# **Highway Zone**

Odyssey's Tuckanarra Project is part of the prolific Murchison Goldfields (Figure 5). The Murchison Goldfields are host to a +35Moz gold endowment (historic production plus current resources) with 7.5Mtpa of processing capacity within 120km of the Tuckanarra Project.

Odyssey's 2022 reverse circulation ("RC") drilling campaign has identified a mineralised shoot with significant scale potential. The first hole at the Highway Zone was drilled in late 2021 with a result of 2021 of 7m @ 2.5g/t Au, 14m @ 1.9g/t and 5m @ 2.2g/t Au in TCKRC0101<sup>II</sup> at the Highway Zone.

Subsequent drilling in 2022 has defined a 10-20m true width structure with a 300m long mineralised shoot (Figure 1).

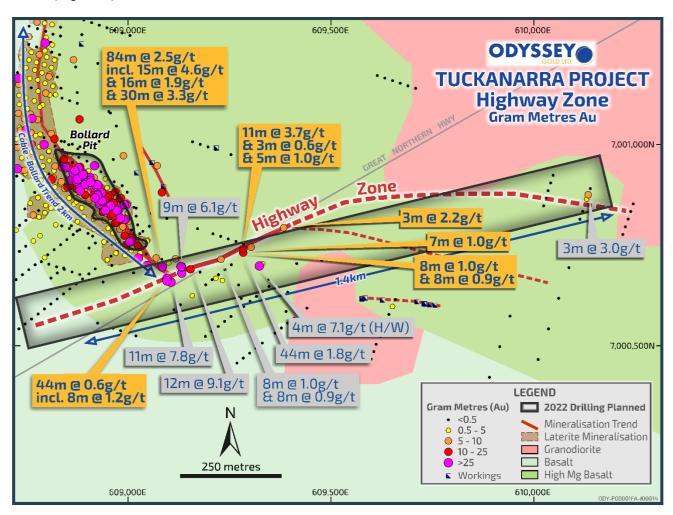


Figure 2 - Exceptional at the Highway Zone Target. Holes contain up to 7 intersections so highlights are labelled.

## Oxide Mineralisation

Historic rotary air blast ("RAB") drilling intersected oxide mineralisation starts as shallow as 9m vertically below surface. Enrichment of gold in oxide is seen in several open pits mined at Tuckanarra. The Highway Zone shows the same enrichment of widths and gold grades in oxide (Figures 1, and 3).



Drillholes intersecting the structure in oxide include intervals of:

- 84m @ 2.5g/t Au from 25m including 15m @ 4.6g/t Au from 25m (CBRC0055)
- 44m @ 0.6g/t Au from 32m including 8m @ 1.2g/t Au from 64 (CBRC0117)
- 9m @ 6.1g/t Au from 41m (TPH0238 does not drill the full width of the structure)<sup>v</sup>
- 3m @ 9.3g/t Au from 27m (TPH0134 does not drill full width of the structure)vi

Growing the shallow oxide mineralisation along strike to the east is a focus for the next campaign of drilling.

#### A Wide Predictable Structure

The Highway Zone structure is typically a 12-33m wide shear on an ENE-SSE trend. Internal to the structure are multiple zones of mineralisation, with the highest grades on the footwall (Figure 3).

The structure is consistently mineralised and five of the eight RC holes drilled into the shoot intersecting over 25 gram metres (width x grade), an exceptional success rate at this early stage of drilling.

The mineralisation is associated with quartz veining and sulphide in sheared ultramafic and sulphidic sediments. A tholeitic basalt forms a predictable footwall to the mineralisation (Figure 3).

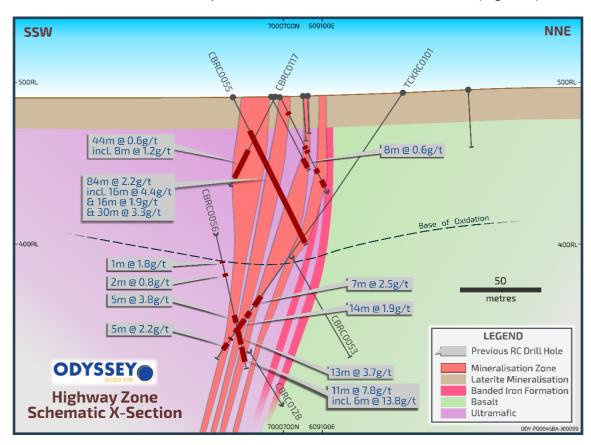


Figure 3 - Cross section through the Highway Zone showing the wide mineralisation extending 200m below surface.



## High-grade shoot extending to depth

An emerging high-grade shoot currently extends to 200m vertically below surface and with five holes including intervals of over 5g/t Au (Figure 1) including:

- 7m @ 10g/t Au from 89m (CBRC0055)<sup>viii</sup>
- 12m @ 9.1g/t Au from 132m (TCKRC0100)<sup>viii</sup>
- 11m @ 7.8g/t Au from 199m (CBRC0056)ix
- 4m @ 7.1g/t Au from 176m (CBRC0058)<sup>x</sup>
- 3m @ 8.0g/t Au from 194m (CBRC0057)xi

The consistency of high grade gives strong encouragement of future underground mining potential. The structure is open down dip and future diamond drilling is targeted to define extensions to the high-grade shoot.

#### **Scale Potential**

RC drilling has successfully intersected the structure along 300m of strike. The structure is open to the northeast, the southwest, and down dip. Shallow cover masks the surface expression of the target, which is the reason why it has not been discovered previously.

The structure trends towards historic RAB holes of 3m @ 3.0g/t Au from 9m in hole (TPH0150)<sup>xii</sup> (Figure 4) and 3m @ 0.7g/t Au from 27m to end of hole ("EOH") in hole TPH0151<sup>xii</sup>, 800m to the northeast, and undrilled >10ppb soil anomalies 500m to the east northeast.

Recent mapping and sampling has identified high-grade rock chips up to 18.5g/t Au 400m to the East of the Highway Zone Target. These confirm historic rock chip samples collected from prospector's test pits of up to 34.7g/t Au (see Table 1 for full details).

Mapping with geochemistry confirm the presence of ultramafic adjacent to banded iron formation ("BIF"). This is the same stratigraphic position as the Cable-Bollard Trend and likely represents the extension of the system to the east of the Highway Zone.



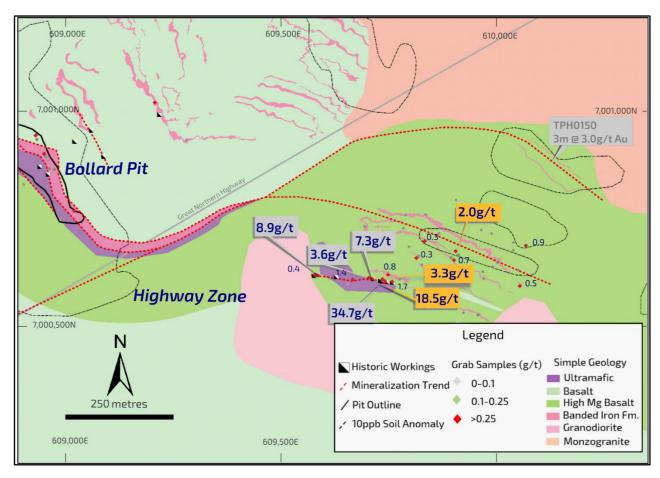


Figure 4 - Rock Chip samples collected east of the Highway Zone. Ultramafic rock (purple) with quartz veining have been mapped 200m to the east of Highway Zone. This has now been confirmed with geochemistry. Samples over 2g/t are labelled - recent results in yellow.

## **Future Work**

Three phases of drilling are planned at the Highway Zone. The first will drill the structure in the oxide zone to add shallow mineralisation to support open pit evaluation. The second phase of drilling will extend the structure along strike, in particular to the northeast towards the encouraging RAB, rock chip and soil samples. The third phase of drilling will grow >5g/t Au mineralisation down dip to demonstrate the scale of underground mining potential. Underground mines in the area extend to over 1km depth. The deepest intersection at the Highway Zone intersected the structure 200m below surface. The structure is open down dip.

The Company has a portfolio of advanced open pit and underground targets being actively explored.

#### **Tuckanarra Project Background**

Five shallow oxide pits were mined on the Tuckanarra Project in the 1990's producing 101.1koz at an average grade of 3.9g/t Au. Additionally, ~40koz were produced at an average grade of 7.2g/t Au from the only modern underground mine on the Project. The Project is located between Meekatharra and Mount Magnet, proximal to multiple gold processing plants, along the Great Northern Highway.



Previous resource development and open pit mining was focused on laterite and oxide mineralisation due to low gold prices. Odyssey has recognised the potential for significant strike and plunge extensions to the mineralisation. The potential has been demonstrated in 2021 along over 2km of strike with results from drilling including 2.3m @ 600.2g/t Au from 249m<sup>xiii</sup>, 24m @ 4.5g/t Au from 179m<sup>xiv</sup> and 7m @ 14.3g/t Au from 112m<sup>xv</sup>.

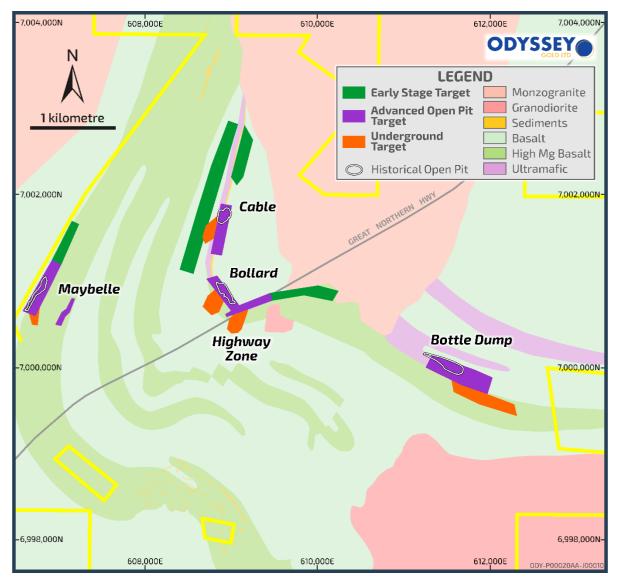


Figure 5 - The Tuckanarra Project has a portfolio of advanced open pit and underground targets being actively explored.



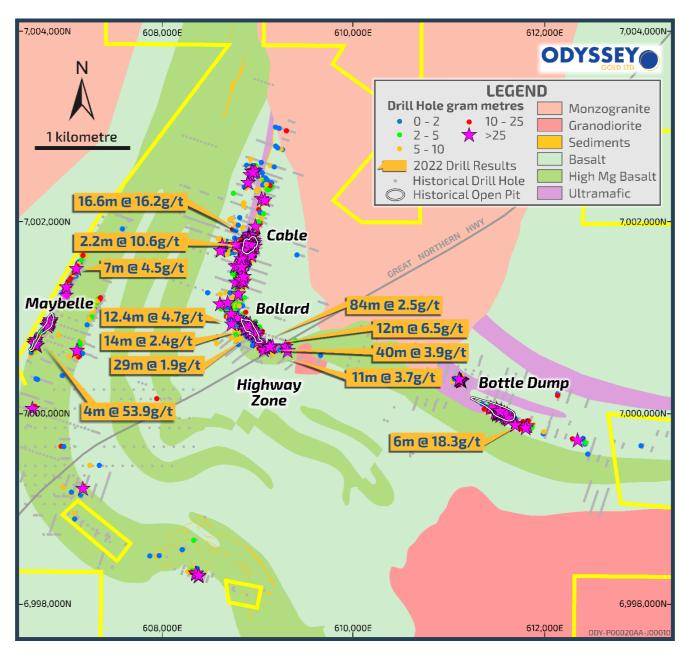


Figure 6 - Highlight drill results from 2022. ~30% of 2022 drillhole results include 25 gram metres Au or more highlighting the quality of the Tuckanarra Deposits



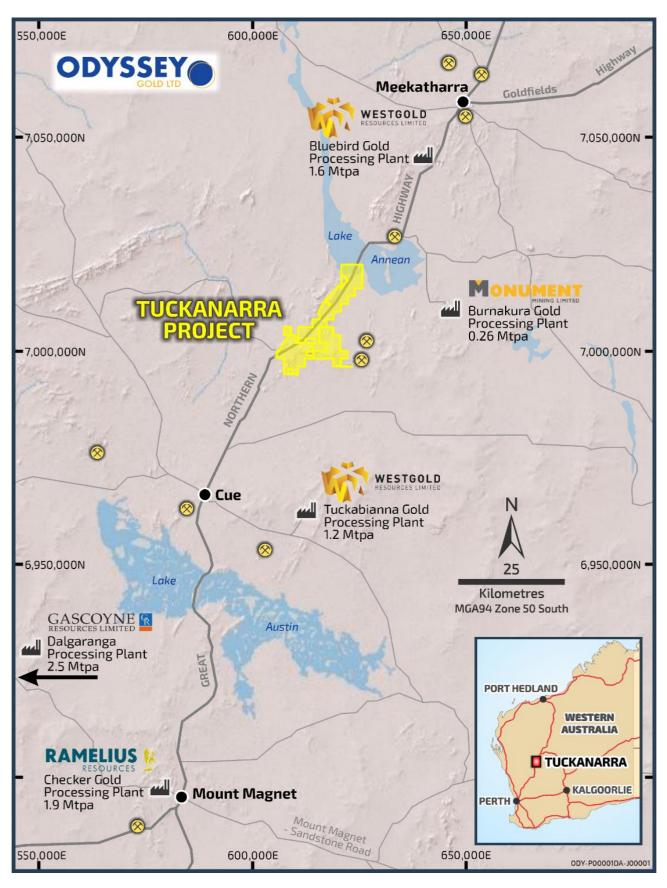


Figure 7 - Tuckanarra Project Location Map highlighting the multiple proximal gold processing plants (combined 7.5Mtpa capacity)



# **APPENDIX 1 - SURFACE SAMPLES RESULTS**

Table 1. Drillhole details for reported Tuckanarra Project results.

Sample ID	Sample Type	Company	North	East	NAT_RL	Au (ppb)	Au (g/t)
TKRK043	ROCK	Odyssey Gold	7000602	609740	493	18500	18.5
NOV004	GRAB	Odyssey Gold	7000605	609741	494	3276	3.3
TKRK046	ROCK	Odyssey Gold	7000675	609905	499	2000	2.0
TKRK049	ROCK	Odyssey Gold	7000688	610068	497	860	0.9
NOV002	GRAB	Odyssey Gold	7000620	609748	494	814	0.8
NOV008	GRAB	Odyssey Gold	7000654	609901	494	656	0.7
NOV030	GRAB	Odyssey Gold	7000594	610054	494	458	0.5
NOV005	GRAB	Odyssey Gold	7000620	609578	494	410	0.4
TKRK044	ROCK	Odyssey Gold	7000659	609814	496	350	0.4
TKRK047	ROCK	Odyssey Gold	7000698	609833	497	290	0.3
NOV009	GRAB	Odyssey Gold	7000666	609911	494	236	0.2
NOV025	GRAB	Odyssey Gold	7000527	609957	494	209	0.2
NOV007	GRAB	Odyssey Gold	7000660	609894	494	183	0.2
NOV024	GRAB	Odyssey Gold	7000649	610002	494	167	0.2
NOV006	GRAB	Odyssey Gold	7000629	609878	494	80	0.1
NOV001	GRAB	Odyssey Gold	7000610	609775	494	69	0.1
NOV026	GRAB	Odyssey Gold	7000532	609923	494	66	0.1
NOV003	GRAB	Odyssey Gold	7000603	609742	494	64	0.1
NOV032	GRAB	Odyssey Gold	7000695	610039	494	54	0.1
NOV033	GRAB	Odyssey Gold	7000677	610039	494	52	0.1
NOV017	GRAB	Odyssey Gold	7000664	609819	494	42	0.0
NOV019	GRAB	Odyssey Gold	7000640	609939	494	33	0.0
NOV012	GRAB	Odyssey Gold	7000728	609784	494	30	0.0
TKRK045	ROCK	Odyssey Gold	7000716	609866	498	30	0.0
TKRK048	ROCK	Odyssey Gold	7000732	609694	491	30	0.0
NOV011	GRAB	Odyssey Gold	7000759	609789	494	29	0.0
NOV038	GRAB	Odyssey Gold	7000794	609906	494	26	0.0
NOV036	GRAB	Odyssey Gold	7000750	609962	494	25	0.0
NOV014	GRAB	Odyssey Gold	7000635	609843	494	24	0.0
NOV037	GRAB	Odyssey Gold	7000774	609908	494	21	0.0
NOV034	GRAB	Odyssey Gold	7000716	609988	494	16	0.0
NOV015	GRAB	Odyssey Gold	7000643	609827	494	10	0.0
NOV023	GRAB	Odyssey Gold	7000639	609991	494	10	0.0
NOV028	GRAB	Odyssey Gold	7000574	609841	494	10	0.0
NOV010	GRAB	Odyssey Gold	7000760	609835	494	7	0.0
NOV031	GRAB	Odyssey Gold	7000631	610050	494	7	0.0
NOV013	GRAB	Odyssey Gold	7000685	609797	494	6	0.0
NOV022	GRAB	Odyssey Gold	7000627	609968	494	6	0.0
NOV041	GRAB	Odyssey Gold	7000716	609840	494	6	0.0
NOV018	GRAB	Odyssey Gold	7000609	609892	494	5	0.0



Sample ID	Sample Type	Company	North	East	NAT_RL	Au (ppb)	Au (g/t)
NOV021	GRAB	Odyssey Gold	7000611	609970	494	5	0.0
NOV027	GRAB	Odyssey Gold	7000544	609881	494	5	0.0
NOV035	GRAB	Odyssey Gold	7000724	609964	494	5	0.0
NOV040	GRAB	Odyssey Gold	7000728	609868	494	5	0.0
16MR09779	Rock	Historic	7000610	609735	493	34700	34.7
16MR09784	Rock	Historic	7000619	609585	489	8870	8.9
16MR09781	Rock	Historic	7000611	609712	492	7260	7.3
16MR09782	Rock	Historic	7000613	609703	492	3590	3.6
16MR09780	Rock	Historic	7000604	609758	494	1740	1.7
16MR09783	Rock	Historic	7000609	609666	491	1440	1.4

MGA94 Zone 50 Grid

# APPENDIX 2 - JORC Code, 2012 Edition - Table 1

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Sampling methods used for samples in this release are recent rock chips and grab samples. Historic results are reported to be rock samples. Grab samples are around 1-2kg.  Onsite XRF analysis is sometimes conducted on rock chips using a hand-held Olympus Vanta XRF These results are only used for onsite interpretation
	Include reference to measures taken to ensure sample representation and the appropriate calibration of any measurement tools or systems used.	Sampling was carried out under the ODY protocols. See further details below. Sampling is supervised by a geologist and/or trained field technician. Sampling is selective by the geologist and should be treated as qualitative for use in targeting.
		Details for historic samples are not known.
		Rock chip samples are recorded on a sampling sheet which includes nature of sampled site, rock type, structure site, structure orientation, size, mineralisation style.
		Samples are selected to give an understanding of mineralisation and alteration styles and are representative only based on sample site description.
	Aspects of the determination of mineralisation that are Material to the Public Report.  In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	Samples were submitted to Minanalytical Laboratory Perth where a 500g sample assayed by Photon Assay. Samples are sent to the NATA accredited MinAnalytical Laboratory in Canning Vale, Perth and analysed via Photon Assay technique (method code PAAU2) along with quality control samples. Individual samples are assayed for gold after drying and crushing to nominally 85% passing 2mm and 450-500g split taken for PhotonAssay). The PhotonAssay technique was developed by CSIRO and Chrysos Corporation and is a fast, chemical free non-destructive, alternative using high-energy X-rays to traditional fire assay and uses a significantly larger sample size (500g v's 50g for fire assay). This technique is accredited by the National Association of Testing Authorities (NATA). Repeat assays are routinely taken of elevated gold samples.



Criteria	JORC Code explanation	Commentary
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	No drilling results are reported in this announcement.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	No drilling results are reported in this announcement.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No drilling results are reported in this announcement.
	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.	No drilling results are reported in this announcement.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	No drilling results are reported in this announcement.  Relevant information on rock chip samples is recorded during collection sometimes lithogeochemical information is collected by the field XRF unit to help differentiate rock types.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging is qualitative and records lithology, grain size, texture, weathering, structure, alteration, veining and sulphides. Samples are routinely scanned with pXRF to aid the determination of rock type.
	The total length and percentage of the relevant intersections logged	No drilling results are reported in this announcement
Sub- sampling techniques	If core, whether cut or sawn and whether quarter, half or all core taken.	No core sampling results are reported in this announcement
and sample preparation	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No drilling results are reported in this announcement.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Rock chip and grab samples were submitted to Minanalytical Laboratory Perth where a 400-600g sample was assayed by Photon Assay.  The sample preparation procedures carried out are considered acceptable. All coarse and pulp rejects are retained on site.
	Quality control procedures adopted for all sub- sampling stages to maximise representation of samples.	No drilling results are reported in this announcement.
	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.	No drilling results are reported in this announcement.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	No drilling results are reported in this announcement.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	All samples were submitted to MinAnalytical Laboratory Perth where a 400-600g sample was assayed by Photon Assay for gold. The larger sample weight assists in producing a more accurate evaluation of the grade of the mineral domain at the pre-resource stage when compared to 30g fire assay,
	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.	No geophysical surveys reported in this release.
	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Certified reference material (CRM) samples sourced from Geostats and were inserted every 20. External lab check assays have not been completed for the current program.



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	All assays are reviewed by Odyssey. All significant results are checked by the Competent Person.
	The use of twinned holes.	No drilling results are reported in this announcement.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All sample logging is completed on digital logging templates with built-in validation. Logging spreadsheets are uploaded and validated in a central MS Access database. All original logging spreadsheets are also kept in archive. Duplicated copies of the database and drillhole data is routinely backed up through cloud server backups. Logging of key intersections has been reviewed by the Geology Manager / Managing Director.
	Discuss any adjustment to assay data.	No assay data was adjusted.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Sample locations are recorded using handheld GPS with 3-5m accuracy (sufficient for first pass reconnaissance).
	Specification of the grid system used.	The project currently uses the MGA94, Zone 50 grid system. Migration to MGA2020 is in progress.
	Quality and adequacy of topographic control.	The site topographic surveys including the pit surveys match well with the drill hole collars. Detailed aerial photography over the region has aided on locating historic drillhole collars. An updated digital terrain model has been generated from a recent UAV drone survey.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Rock Chip Samples: Surface rock chip samples taken of outcrop with visible alteration or mineralisation. Rock samples were selected by geologist to assist with identification of the nature of the mineralisation present at each location. No set sample spacing was used and samples were taken based on geological variation at the location.
	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.	No drilling results are reported in this announcement.
	Whether sample compositing has been applied.	No sample compositing has been applied
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Samples are selectively collected by geologists. The results are qualitative in use for future targeting.
Structure	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.	No drilling results are reported in this announcement.
Sample security	The measures taken to ensure sample security.	Samples are collected in prenumbered calico bags. Samples are delivered to the lab directly by Odyssey personnel or freighted via an independent freight provider.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	All QAQC data is reviewed to ensure quality of assays; batches containing standards that report greater than 2 standard deviations from expected values are re-assayed. Sampling techniques and procedures are regularly reviewed internally, as is data. To date, no external audits have been completed on the sampling programme.

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



Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  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.	Odyssey's subsidiary, Tuckanarra Resources Pty Ltd, owns an 80% interest in the Tuckanarra Project, comprising two Exploration Licences (E20/782-783), one Mining Licence (M20/527), and seven Prospecting Licences. The selling parties retain a 1% NSR royalty on JV tenements. Terms are detailed in the ODY ASX Announcement 11 November 2020 – "Notice of General Meeting/Proxy Form – Acquisitions"  The tenement package is understood to be in good standing with the WA DMIRS.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Refer to the body of the report and to previous announcements. Exploration History Gold was discovered at Tuckanarra in the late 1890s by prospectors searching further afield from Cue and Mt Magnet, with the first mine (Nemesis) discovered and developed in 1900. Subsequent exploration and development located additional deposits in the general area with the majority of deposits being developed as small underground mines exploiting narrow, highly mineralised quartz veins associated with Banded Iron Formation lithologies. In general, these historic gold mines were mined down to the water table, which is approximately 20m deep at Tuckanarra.  1980 to 1987: Tuckanarra Minerals By the mid-1980s Tuckanarra Minerals had completed in excess of 64 RAB holes, defining gold mineralisation at the Maybelle prospect and identifying numerous additional areas which were prospective for gold resources. They concluded that the area hosted excellent potential for the delineation of small-to-medium gold mines and noted that little drilling had been completed at depth. Following the 1987 stock market crash, Metana Minerals purchased the Tuckanarra group of tenements.  1988 to 1996: Metana Minerals (Gold Mines of Australia)  Between 1988 and 1990 Metana Minerals (renamed Gold Mines of Australia ("GMA")) completed a systematic 200m x 40m soil geochemistry program over a large portion of their tenement holding, including Tuckanarra. Between 1990 and 1995 GMA undertook numerous drilling programs encompassing Rotary Air Blast ("RAB"), Reverse Circulation ("RC") and Diamond Drilling ("DD") over the defined gold anomalies and historic workings. This resulted in the delineation of gold mineral resources at the Maybelle, Bollard, Bottle Dump and Cable Prospects, which were mined between 1990-1994.  1996 to 2003: St Barbara Mines Limited  In 1996 St Barbara Gold Mines ("St Barbara") purchased the Reedys plant and tenements from GMA. Minimal exploration was undertaken until Anglo Gold Australia ("Anglo") became manging joint venture partner in
Geology	Deposit type, geological setting and style of mineralisation.	The Project area is located within the Meekatharra-Wydgee Greenstone belt within the north-eastern Murchison Domain. The majority of greenstones within the Meekatharra-Wydgee belt have been stratigraphically placed within the Polelle Group and the Norie Group of the Murchison Supergroup.



Criteria	JORC Code explanation	Commentary
		The Project area covers Archean basement rocks assigned to the 2815-2805 Ma basal Norie group of the Murchison Supergroup, which covers the eastern margin of the Meekatharra-Wydgee greenstone belt. The Norie group comprises a thick succession of pillowed and massive tholeiitic basalts of the Muroulli Basalt, and conformably overlying and mafic schist and felsic volcanoclastics with interbedded BIF and felsic volcanic rocks of the Yaloginda Formation (Van Kranendonk et al, 2013). These rocks are folded around the south-plunging Besley Anticline. Adjacent to these rocks are the mafic sequences of the Meekatharra Formation (Polelle Group).
		Granitoids in the Project area comprise of the Jungar Suite and Annean Supersuite to the east and the Munarra Monzogranite of the Tuckanarra Suite to the west. The Jungar Suite comprises of foliated to strongly sheared K-feldspar-porphyritic monzogranites. These rocks are characterized by strong shear fabrics that suggest they may have been emplaced during, or just before, shearing. The Annean Supersuite includes hornblende tonalite and monzogranitic rocks. The Tuckanarra Suite consists of strongly foliated and locally magmatically layered granodiorite to monzogranitic rocks.
		The Project is situated within the 'Meekatharra structural zone', a major regional, NE-trending shear dominated zone, about 50 to 60km wide, stretching from Meekatharra through the Cue region as far south as Mount Magnet. This major shear zone is dominated by north and northeast-trending folds and shears (e.g. Kohinoor shear). The Mt Magnet fault is the major east-bounding structure of the Meekatharra structural zone.
		The mineralised zones of the Project are located in the Tuckanarra greenstone belt comprising a series of mafic and inter-banded mafic and iron formations, with a variable component of clastic sediments, (greywackes and minor shales). The sequence is folded into a south-westerly plunging anticline with a well-developed axial plane cleavage and numerous fractures, bedding parallel faults and shears. The belt extends northwards to Stake Well and east towards the Reedys mining centre.
		The area has four small open pits, extensive minor gold workings, and prospecting pits principally associated with mafic lithologies and Altered Ferruginous Transitional (AFT) and Altered Ferruginous Fresh (AFF) material which were originally banded iron formations. The magnetite content within the AFT/AFF's has been destroyed and predominantly altered to an assemblage of hematite with the relic structure of the banded iron intact.
		Where mineralised veins intersect major competency contrasts such as high magnesium basalt or AFT/AFF, veining becomes layer parallel resulting in larger deposits such as the Bollard and Cable deposits.
		A number of styles of gold mineralisation have been identified in the area including:
		Mineralised AFT and AFF material ± quartz veining (Cable East, Cable Central).
		Quartz veins ± altered basalts (Cable West, Lucknow, Maybelle, Maybelle North, Miners' Dream); and
		Gold mineralisation within laterite (Anchor, Bollard, Drogue).  Below the base of complete oxidation (~40m) gold mineralisation is commonly seen associated with quartz-pyrrhotite veins and pyrrhotite replacement of the host rocks. Prospective models for the discovery of additional gold deposits in the area are related to the intersection of shear zones with prospective lithologies.



Criteria	JORC Code explanation	Commentary
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.  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.	No drilling results are reported in this announcement.
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.	No drilling results are reported in this announcement.
	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.	No drilling results are reported in this announcement.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are used.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  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	The samples are collected from surface exposures/outcrops.
Diagrams	known').  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 Figures in the body of this announcement and Appendix 1.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Balanced reporting has been used. The exploration results should be considered indicative of mineralisation styles in the region. Exploration results stated are not meant to represent prospect scale mineralisation.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No other meaningful data is required to be presented other than what has been presented in the body of this announcement. The reader is referred to the Independent Geologists Report in the Odyssey Gold Prospectus.  Only a few RAB holes were drilled at the extension of the highway zone. Prior to Odyssey Gold, limited drilling work had been conducted in the area known as the Highway Zone.



Criteria	JORC Code explanation	Commentary
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Updates to the geological interpretation are currently underway to allow for future resource estimation. RC drilling to define oxide resources is being planned. Planning of Rotary Air Blast ("RAB") and RC drilling is planned along for the screening of earlier stage targets across the project is in progress. Field mapping and soil sampling will be undertaken over newly identified prospective targets.  Mapping and soil geochemistry is continuing ahead of planned RAB drilling on early-stage targets.

#### **COMPETENT PERSONS STATEMENT**

The information in this announcement that relates to Exploration Results is based on, and fairly represents, information compiled or reviewed by Steve Le Brun, who is a Competent Person. Mr Le Brun is a Fellow of the Australasian Institute of Mining and Metallurgy and the Australasian Institute of Geologists and is a full-time employee of Odyssey and is a holder of shares and performance rights in Odyssey Gold Limited. Mr Le Brun has sufficient experience that is relevant to exploration and the style of mineralisation and type of deposit under consideration, and to the activity being undertaken, to qualify as a Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr Le Brun consents to the inclusion in the announcement of the matters based on their information in the form and context in which it appears.

#### FORWARD LOOKING STATEMENTS

Statements regarding plans with respect to Odyssey's project are forward-looking statements. There can be no assurance that the Company's plans for development of its projects will proceed as currently expected. These forward-looking statements are based on the Company's expectations and beliefs concerning future events. Forward looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of the Company, which could cause actual results to differ materially from such statements. The Company makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of that announcement.

This ASX Announcement has been approved in accordance with the Company's published continuous disclosure policy and authorised for release by the Managing Director.

https://www.aurumanalytics.com.au/pdf/2022 Q2 Aurum Analytics Quarterly Gold Report Final.pdf Gascoyne Dalgaranga 0.89g/t Au, Ramelius Mt Magnet 2.3g/t Au, Westgold Murchison 2.8g/t Au.

<sup>&</sup>lt;sup>1</sup> Refer Aurum Analytics 2022 Q2 Gold Report.

<sup>&</sup>quot;Refer ASX Announcement dated 20 January 2022

iii Refer ASX announcement dated 8 August 2022

iv Refer ASX announcement dated 8 August 2022

<sup>&</sup>lt;sup>v</sup> Refer ASX announcement dated 27 November 2020

vi Refer ASX announcement dated 27 November 2020

vii Refer ASX announcement dated 8 August 2022

viii Refer ASX announcement dated 1 September 2022

ix Refer ASX announcement dated 14 June 2022

<sup>\*</sup> Refer ASX announcement dated 10 May 2022

xi Refer ASX announcement dated 10 May 2022

xii Refer ASX announcement dated 27 November 2020

xiii Refer ASX announcement dated 2 July 2021

xiv Refer ASX announcement dated 20 January 2021

xv Refer ASX announcement dated 2 November 2021