

# ASX ANNOUNCEMENT

24 October 2024



## Drilling Successfully Intersecting Geophysical Targets at Tuckanarra

**Odyssey Gold (ASX:ODY) (“Odyssey” or “Company”)** is pleased to advise that diamond drilling is underway and has successfully intersected sulphides following the completion of a fixed loop electromagnetic (“FLEM”) survey on a number of priority targets at the high-grade Tuckanarra Gold Project (“Tuckanarra” or “Project”).

A FLEM survey completed in September 2024 defined a 350m x 350m electromagnetic (“EM”) conductor coincident with the interpreted strike and dip extension of the Highway Zone Mineral Resource. Gold mineralisation is often intersected in the quartz veining occurring above sulphide-replaced banded iron formation (“BIF”). This sulphide is detectable from surface using FLEM.

The modelled EM conductor (Figure 1) extends beyond the area of previous high-grade intersections and was utilised to target a number of diamond drill holes designed to extend the Inferred Mineral Resource at the Highway Zone (currently estimated at 0.79 million tonnes at 3.9g/t Au for 97,000oz). The deepest previous intersection at the Highway Zone is 7.35m @ 9.5g/t Au from 271.65m.

The current drilling campaign includes five holes, including four holes at the Highway Zone and also one diamond tail extending a reverse circulation (“RC”) hole at Bollard.

Three holes have been completed to date with drilling continuing. All three holes have intersected sulphides which are an alteration often associated with gold mineralisation at Tuckanarra, providing strong validation of EM as an exploration tool for targeting sulphide rich primary mineralisation. Assay results are pending.

A broader airborne EM survey is also planned over the regional hinge zone target area at Tuckanarra.

Director of Odyssey, Matt Syme, said:

*“The diamond drilling confirms the effectiveness of the EM survey with sulphide intersected in the target position in the three holes drilled so far. This demonstrates the potential for additional primary discoveries at Tuckanarra based on the planned airborne EM survey.”*

*Our shallow oxide resources are located right in the heart of the Murchison gold district and EM targeted drilling provides a sound technique to rapidly add sulphide mineralisation.”*

**For further information, please contact:**

**Matt Syme**

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## HIGHWAY ZONE EXPLORATION

### Previous Drilling

RC and diamond drilling previously completed at the Highway Zone defined a new 350m long zone of mineralisation containing a shoot with more continuous, wide, high-grade mineralisation. The Highway Zone structure is typically a 12-33m wide shear on an ENE-WSW trend.

The primary mineralisation is associated with quartz veining and sulphide in sheared ultramafic rocks and sulphidic sediments. Internal to the structure are multiple zones of mineralisation, with the thickest, highest grades associated with quartz veining in a steeply dipping shoot correlating with the hinge of the regional anticline. BIF is often sulphide replaced immediately adjacent to mineralisation.

The extension of the Highway Zone high-grade shoot is the first of several underground targets extending below the open pit resources. The first diamond drillhole into the Highway Zone was completed in late 2023. This hole intersected quartz breccias and laminated veining with visible gold, and pyrrhotite in ultramafic and BIF with a result of 7.35m @ 9.5g/t Au, including 3.25m @ 20.6g/t Au from 274.25m. The intersection was approximately 120m down dip of a previous result of 11m @ 4.3g/t Au, including 2m @ 21.6g/t Au.

The high-grade shoot on the Highway Zone remains open along strike to the East and down plunge.

### Ground EM survey

The recognition of the relationship between gold mineralisation and the sulphide replacement of nearby sediments over the last year has opened up the use for electrical geophysical techniques for targeting at Tuckanarra. Downhole EM and moving loop EM ("MLEM") anomalies and modelled conductors have correlated very well with alteration minerals, including pyrrhotite and pyrite.

Recent fixed loop EM surveys completed by Southern Geoscience highlighted a 350m long modelled anomaly coincident with the position of sulphide replaced BIF in the footwall of the Highway Zone. A second anomaly extends 150m to the east of the Highway Zone on an east-west trend.

### Current Diamond Drilling

A four-hole diamond drill program is currently underway at the Highway Zone. Three holes have been completed and have successfully intersected sulphide mineralisation in the target position predicted by geological modelling and the FLEM (Figure 3). Drilling is being completed on an approximate 80 x 60m spacing.

Results will be available in due course.

### Airborne EM Survey

Based on the success of downhole EM, MLEM, and FLEM, an extensive airborne EM survey is planned across the Project area (Figure 5), including the fold hinge target area.

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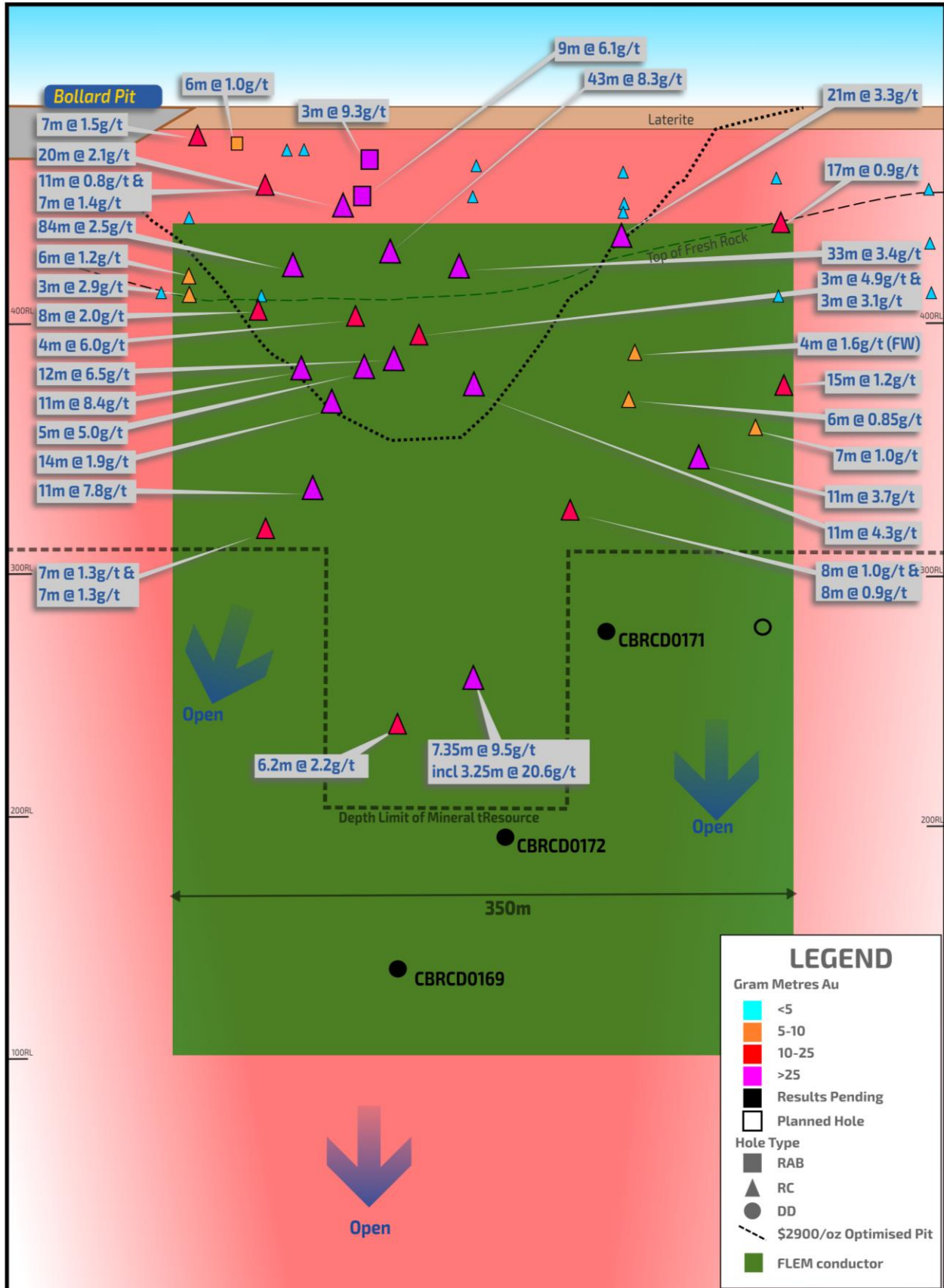


Figure 1 - Highway Zone long section showing the FLEM modelled conductor (green) and current diamond drill program.

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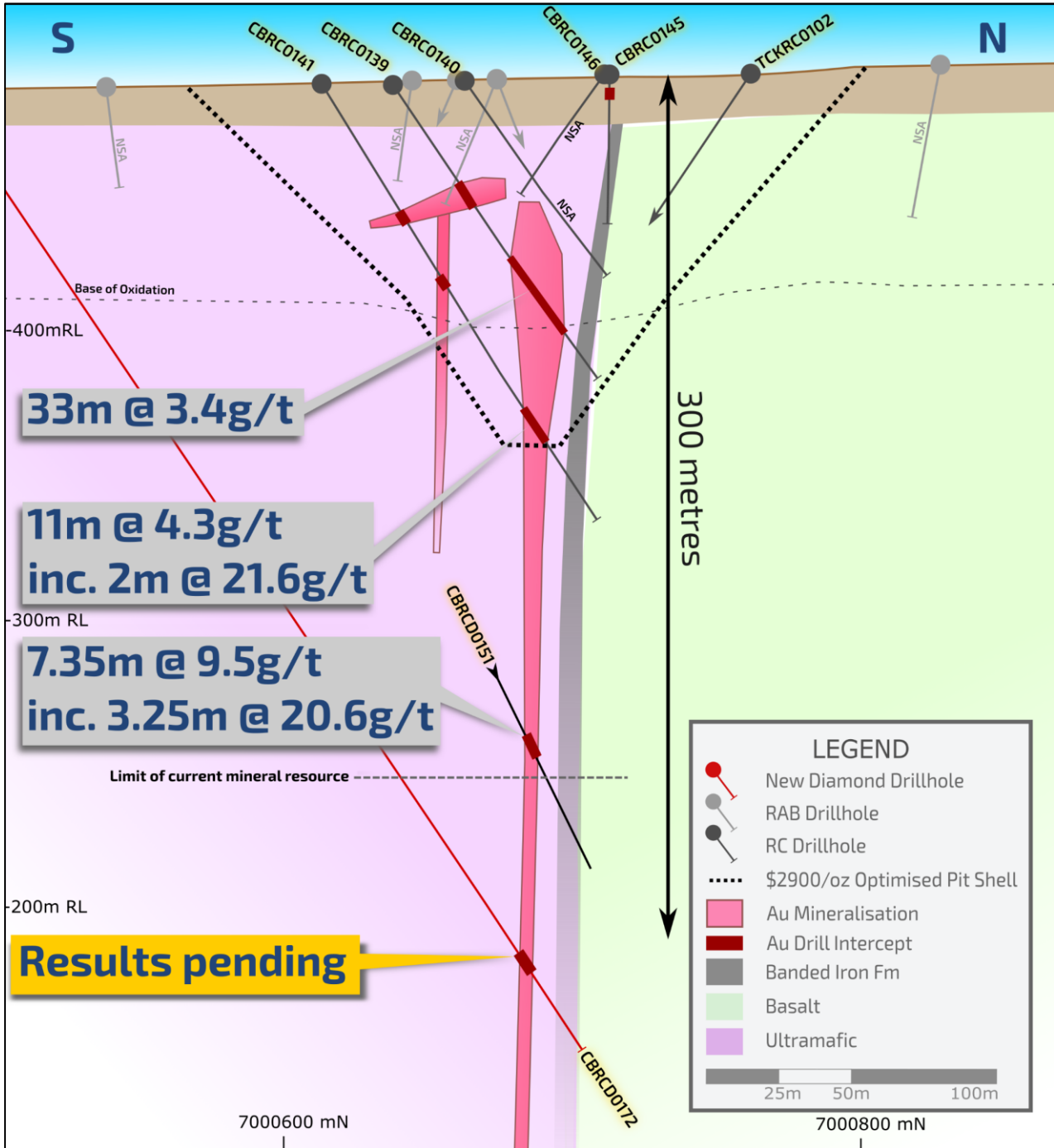


Figure 2 - Highway Zone cross section 609220mE showing recently completed hole CBRC0172. Sulphide in the target position is intersected 60m below previous drilling and 300m vertical below surface.

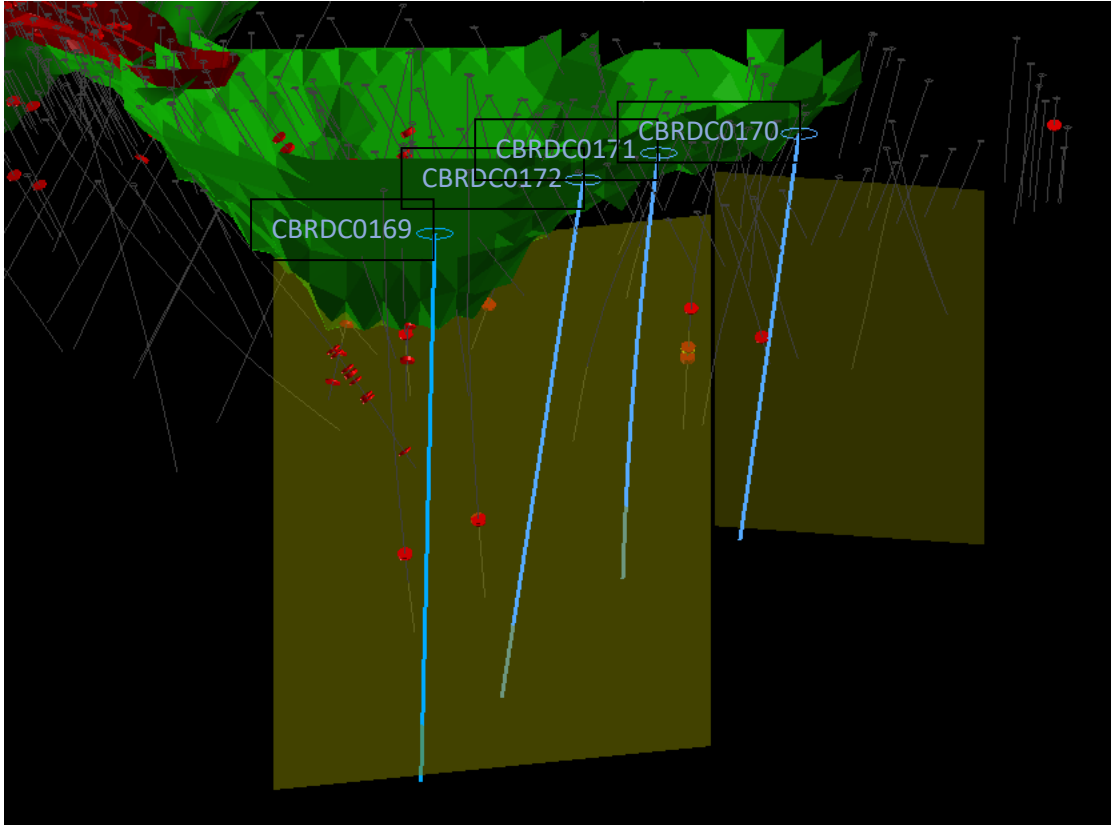


Figure 3 – Highway Zone with AUD2900 pit optimisations (green), fixed loop EM conductors (olive green), 2024 diamond drill holes in blue. Previous intersections of over 5g/t Au are highlighted in red.



Figure 4 - Diamond drilling at the Highway Zone October 2024

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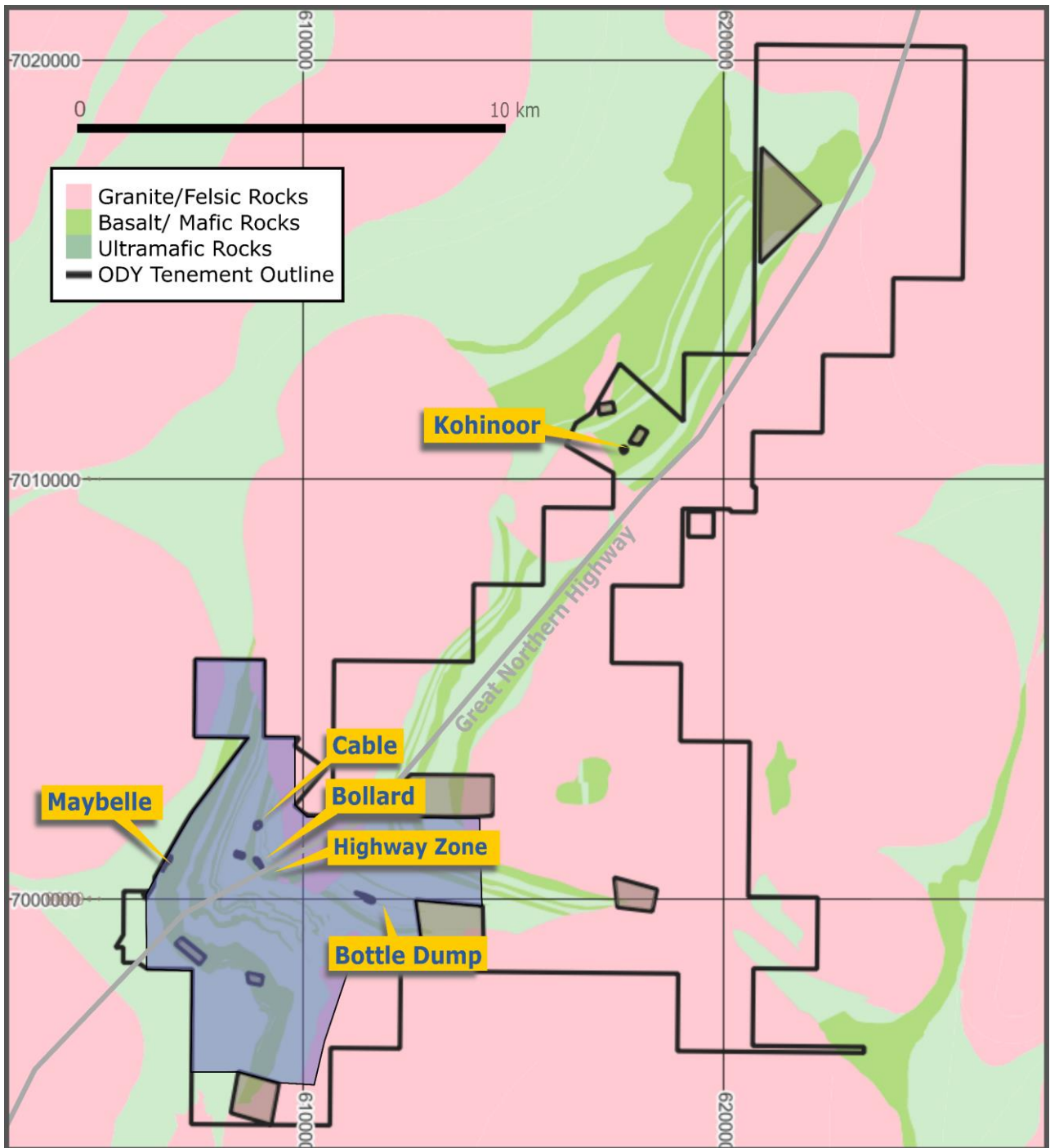


Figure 5 - Tuckanarra Project resource areas and planned airborne EM survey (blue).

## Forward Looking Statements

Statements regarding plans with respect to Odyssey's projects 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.

## Competent Persons Statements

The information in this announcement that relates to Exploration Results is based on, and fairly represents, information compiled by Mr Matthew Briggs, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Briggs is a non-executive Director and technical consultant to Odyssey and is a holder of shares, options, and performance rights in Odyssey. Mr Briggs 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 Briggs consents to the inclusion in the announcement of the matters based on their information in the form and context in which it appears.

The information in this announcement that relates to all other Exploration Results is extracted from announcements dated 27 November 2020, 20 January 2022, 15 June 2022, 23 June 2022, 4 August 2022, 1 September 2022, 8 November 2022, 21 November 2022, 28 November 2022, 8 December 2022, 15 December 2022, 9 March 2023, 8 November 2023, 15 February 2024, and 12 March 2024 respectively, which are available to view at [www.odysseygold.com.au](http://www.odysseygold.com.au) and is based on, and fairly represents information compiled by the relevant Competent Person, Mr Matthew Briggs.

The information in this announcement that relates to Mineral Resources is extracted from the announcements dated 15 February 2024 and entitled 'Odyssey Increases Mineral Resources to 407koz at 2.5g/t Au' respectively, which is available to view at [www.odysseygold.com.au](http://www.odysseygold.com.au) and is based on, and fairly represents information compiled by the relevant Competent Persons', Messrs Matthew Walker, Matthew Briggs and Ms Justine Tracey.

The Company confirms that: (a) it is not aware of any new information or data that materially affects the information included in the original announcements; (b) all material assumptions included in the original announcements continue to apply and have not materially changed; and (c) the form and context in which the relevant Competent Persons' findings are presented in this announcement have not been materially changed from the original announcements.

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

## References

ASX Announcement 27 November 2020 - Replacement Prospectus  
ASX Announcement 20 January 2022 - High-Grade Results Continue at Cable-Bollard  
ASX Announcement 23 June 2022 - Further High-Grade Gold Mineralisation Intersected  
ASX Announcement 2 August 2023 - Maiden Shallow Mineral Resource at Tuckanarra Gold Project  
ASX Announcement 8 November 2023 - Drilling Intersects Highway Zone 80m Below Existing Resource  
ASX Announcement 15 February 2024 - Odyssey Increases Mineral Resources to 407koz at 2.5g/t Au  
ASX Announcement 27 August 2024 - Drilling and Geophysics Programs at Compelling Tuckanarra Targets

Table 1 - Tuckanarra Project 2024 Diamond Drilling Collars

Hole ID	East	North	RL	Dip	Azimuth	RC Precollar	Length
CBRCD0171	609267	7000584	485	-60	350	120	296
CBRCD0172	609225	7000535	485	-60	350	150	374.9
CBRCD0169	609142	7000437	489	-55	360	246	440.8

MGA94 Zone 50 Grid. Collar coordinates are preliminary and sourced via handheld GPS measurements.

Table 2 - October 2024 Diamond Drilling Referenced Mineral Observations

Hole ID	Target depth	From	To	Description
CBRCD0171	260	265.5	267	3% pyrrhotite
		273.3	275.7	1% pyrrhotite
		280.9	283.1	3% pyrrhotite
CBRCD0172	320	327.6	330.1	2-15% pyrrhotite
		335	337.8	1-10% pyrrhotite
CBRCD0169	420	403	406.2	3-6% pyrrhotite

Sulphides are an alteration that may, but not always, occur proximal to and in the footwall of mineralisation. Sulphides are not necessarily coincident with, gold mineralisation at Tuckanarra. It is unlikely that the intervals above will directly correlate to vein hosted gold mineralisation. In relation to the disclosure of visual estimates of sulphides, the Company cautions that visual methods of mineral identification and estimation of mineral abundance should not be considered as a proxy or substitute for laboratory analysis. Laboratory analysis is required to determine the widths and grades of the visible mineralisation reported herein. Visual information also potentially provides no information regarding impurities or deleterious physical properties relevant to valuations. The Company will update the market when the laboratory assay results are received.

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## APPENDIX 1 – 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
<b>Sampling techniques</b>	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.	Fixed loop EM (FLEM) survey was completed by Southern Geoscience Consultants (SGC)  Visual observations of NQ diamond core
	Include reference to measures taken to ensure sample representation and the appropriate calibration of any measurement tools or systems used.	Quality checks are conducted by SGC. FLEM surveys are conducted perpendicular to strike.  Visual observations may not be quantitative and should be regarded as qualitative at low levels.
	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.	Gold mineralisation is associated with quartz veining, or sulphide replacement of iron rich sediments. Sediments proximal to quartz vein hosted gold mineralisation are often sulphide replaced but are not necessarily contain gold mineralisation of interest. The pyrrhotite and sulphide are amenable to detection by electrical techniques. Previous downhole EM surveys are Cable, Bottle Dump and the Highway Zone have defined conductors coincident with, or adjacent to gold mineralisation.  Visual observations of trace amounts of minerals in core qualitative. Sulphide may predate mineralisation, be contemporaneous or be remobilized post mineralisation.
<b>Drilling techniques</b>	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, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	The survey completed is FLEM. No previously unreported drilling is included in this announcement.  Drilling under way is drillholes with face sampling RC precollars and NQ diamond core tails. The precollar length is reported in the drilling details table.
<b>Drill sample recovery</b>	Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond core is reassembled and validated against drillers core blocks. No core loss occurred in the intervals referred to. A length of core was overdrilled higher in CBRC0172. This is outside any zone of interest.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The survey completed is FLEM. No previously unreported drilling is included in this announcement.  Diamond core is recovered for the intervals of interest. Core recovery is consistently 100% at the target depths.
	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.	The survey completed is FLEM. No previously unreported drilling is included in this announcement. No results are being reported for gold mineralisation.
<b>Logging</b>	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.	The survey completed is FLEM. No previously unreported drilling is included in this announcement.  Logging is incomplete and continuing. Logging will be to a detail to allow future resource estimation and some mining studies.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	The survey completed is FLEM.  The reported sulphide intervals are qualitative. These are visual estimates by experienced geologists.
	The total length and percentage of the relevant intersections logged	The survey completed is FLEM. No previously unreported drilling is included in this announcement.

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		Logging is underway. All intervals will be logged.																															
<b>Sub-sampling techniques and sample preparation</b>	If core, whether cut or sawn and whether quarter, half or all core taken.	The survey completed is FLEM. No previously unreported drilling is included in this announcement.  Sulphide estimates are from uncut NQ core.																															
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	The survey completed is FLEM. No previously unreported drilling is included in this announcement.  Sulphide estimates are from uncut core																															
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The survey completed is FLEM. Subsampling is under guidance of a trained experienced geophysicist.  Sample preparation include washing of core and marking of geological boundaries. This is highly appropriate for observing sulphide.																															
<b>Quality of assay data and laboratory tests</b>	Quality control procedures adopted for all sub- sampling stages to maximise representation of samples.	SGC conduct QC as the survey is collected. Data is reviewed by a geophysicist as the field data is underway. This may occur remotely to the project.  No subsampling occurred for the generation of sulphide observations.																															
	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.	Not applicable.  Core is oriented. Core is uncut. The area being drilled is pre resource so requires additional drilling to determine if the sampling is representative. Sulphide intervals are qualitative and will not be treated as an assay quality in resource estimation.																															
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Not applicable.  Sample sizes are appropriate for the stage of exploration.																															
<b>Quality of assay data and laboratory tests</b>	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Not applicable. FLEM is not a quantitative measure of gold mineralisation and no correlation should be drawn between EM anomalism and the tenor of gold mineralisation in the data presented.  Observations of sulphide are not quantitative and no correlation should be drawn between sulphide content and the tenor of gold mineralisation in the data presented.																															
	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.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #0056b3; color: white;">Planning/Supervision</th> <th style="background-color: #0056b3; color: white;">Southern Geoscience Consultants Pty Ltd (SGC)</th> </tr> </thead> <tbody> <tr> <td><b>Contractor</b></td> <td>SGC</td> </tr> <tr> <td><b>Survey Configuration</b></td> <td>Fixed Loop TEM (FLTEM)</td> </tr> <tr> <td><b>Survey Dates</b></td> <td>September 2024</td> </tr> <tr> <td><b>TX Loop Size</b></td> <td>400m x 400m/ 250m x 250m</td> </tr> <tr> <td><b>TX Loop wire</b></td> <td>25mm<sup>2</sup> Aluminium core</td> </tr> <tr> <td><b>Transmitter</b></td> <td>GeoResults DRTX (120 V / 100 A)</td> </tr> <tr> <td><b>Transmitter Power</b></td> <td>160v LiFePO4 Battery</td> </tr> <tr> <td><b>Receiver</b></td> <td>EMIT DigiAtlantis Receiver SN:1675</td> </tr> <tr> <td><b>Sensor</b></td> <td>EMIT 3 component B field fluxgate magnetometer SN:1714</td> </tr> <tr> <td><b>Station Spacing</b></td> <td>50m with 25m infill</td> </tr> <tr> <td><b>TX Frequency</b></td> <td>1.0 Hz</td> </tr> <tr> <td><b>Duty cycle</b></td> <td>50%</td> </tr> <tr> <td><b>Current</b></td> <td>38/60 Amps</td> </tr> <tr> <td><b>Readings</b></td> <td>3 to 5 repeatable readings per station @ 64 stacks</td> </tr> <tr> <td><b>Powerline Frequency</b></td> <td>60 Hz</td> </tr> </tbody> </table>	Planning/Supervision	Southern Geoscience Consultants Pty Ltd (SGC)	<b>Contractor</b>	SGC	<b>Survey Configuration</b>	Fixed Loop TEM (FLTEM)	<b>Survey Dates</b>	September 2024	<b>TX Loop Size</b>	400m x 400m/ 250m x 250m	<b>TX Loop wire</b>	25mm <sup>2</sup> Aluminium core	<b>Transmitter</b>	GeoResults DRTX (120 V / 100 A)	<b>Transmitter Power</b>	160v LiFePO4 Battery	<b>Receiver</b>	EMIT DigiAtlantis Receiver SN:1675	<b>Sensor</b>	EMIT 3 component B field fluxgate magnetometer SN:1714	<b>Station Spacing</b>	50m with 25m infill	<b>TX Frequency</b>	1.0 Hz	<b>Duty cycle</b>	50%	<b>Current</b>	38/60 Amps	<b>Readings</b>	3 to 5 repeatable readings per station @ 64 stacks	<b>Powerline Frequency</b>
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Criteria	JORC Code explanation	Commentary
		<b>Data Positioning</b> Handheld GPS for TX loop
	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.	3 to 5 repeatable readings per station @ 64 stacks  No QC is conducted on sulphide observations
<b>Verification of sampling and assaying</b>	The verification of significant intersections by either independent or alternative company personnel.	Not applicable. Two holes were physically inspected by the competent person and the third in core photos. The intersection of sulphide verifies to EM anomaly.  The CP personally observed the sulphide intervals in CBRC0171 and CBRC0172. Core photos of CBRC0169 were sighted.
	The use of twinned holes.	No twinned holes have been completed at the Highway Zone.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data were delivered by SGC as AMIRA format ASCII text files. Geophysical data were downloaded in the field then emailed to the SGC supervising geophysicist.  Logging is conducted on toughbooks into excel spreadsheets. These are updated into cloud software on a daily basis and archived on the server at the end of the program. Logging is loaded into a SQL server database with tiered access permissions.
	Discuss any adjustment to assay data.	Not applicable.
<b>Location of data points</b>	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.	Geophysical measurement locations were determined using a hand-held Garmin GPSMAP64. The accuracy of this unit at most sample sites was +/- 3m to 5m.  Drillhole collars are located via garmin handheld GPS. These should be treated as preliminary.
	Specification of the grid system used.	The project currently uses the MGA94, Zone 50 grid system.
<b>Data spacing and distribution</b>	Quality and adequacy of topographic control.	EM stations were planned perpendicular to the dominant geological strike, and all were surveyed with hand-held GPS in the GDA94 zone 50 coordinate system. The area surveyed has relatively low relief. Same for the diamond holes.
	Data spacing for reporting of Exploration Results.	50m station spacing with 25m infill.  Drillholes are approximate 80x60m step off from previous holes.
	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.	The station spacings are considered to be sufficient for sampling the anomalous response for qualitative modelling.  If the drilling demonstrates geological and/or grade continuity it is expected to be appropriate for resource estimation.
	Whether sample compositing has been applied.	Not applicable.
<b>Orientation of data in relation to geological structure</b>	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	EM lines were planned perpendicular to the strike or mineralisation and the main lithological contacts.  Drilling is perpendicular to the strike of mineralisation. No cross cutting mineralised structures have been observed.
	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.	The geometry, depth and connectedness of sulphides will have an impact the EM response. The survey is targeting sulphide alteration that is parallel to stratigraphy. If may be less effective at discriminating sulphide which is parallel to survey lines and at depth.  There is no known sampling bias in the drilling related to the orientation.
<b>Sample security</b>	The measures taken to ensure sample security.	Geophysical data were recorded by the Smartem24 receiver and downloaded in the field then emailed to the SGC supervising geophysicist. All data are backed up weekly.

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Criteria	JORC Code explanation	Commentary
		Drill core is relocated from the drill site to the camp on a daily basis. Missing core would be noted during length reconciliation.
<b>Audits or reviews</b>	The results of any audits or reviews of sampling techniques and data.	No audits or reviews were completed.  No audits of visual logging have been conducted other than collaborative logging and discussion of core.

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	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.	Odyssey's subsidiary, Tuckanarra Resources Pty Ltd, owns an 80% interest in the Tuckanarra Project, The Highway Zone is wholly within Mining Lease M20/527 and exploration licence E20/783. Monument Mining retains 20% interest in the project and a 1% royalty over ODY's share of production for this project.
	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.	The tenement package is understood to be in good standing with the WA DMIRS. M20/527 expires in September 2035 and E20/783 expires January 2026. The CP expects the renewal of the leases at this time. The application for a Mining Lease over the resource will also extend tenure. Mining of the Highway Zone open pit will require relocation of the highway reserve, Great Northern Highway and associated infrastructure. This is not uncommon in Western Australia. The highway is not seen as an impediment to mining of the underground resource.
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	<p><b>Exploration History Tuckanarra</b></p> <p>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.</p> <p>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 BIF lithologies. In general, these historic gold mines were mined down to the water table, which is approximately 20m deep at Tuckanarra.</p> <p>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.</p> <p>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.</p> <p>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 managing joint venture partner in late 2000. Anglo focused on the central Tuckanarra tenement area and completed detailed GIS compilation, soil sampling, rock chip sampling and the drilling of a total of 21 RC holes for 3512 metres and the drilling of 109 aircore and RAB holes for 5127 metres.</p> <p>2003 to 2006: Mercator Gold Pty Ltd Following the withdrawal of Anglo from the joint venture, St Barbara entered into a joint venture with Mercator Gold Australia Pty Ltd ("Mercator"). Mercator completed GIS compilation work, mapped the existing pits and completed a</p>

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Criteria	JORC Code explanation	Commentary
		<p>number of lines of geophysical induced polarisation to test for the presence of chargeable zones that may have a gold-sulphide association.</p> <p>2006 to 2011: No field work was carried out on the Tuckanarra Project post 2006-2011</p> <p>2011 to 2015: The Tuckanarra tenement package was acquired by Phosphate Australia in late 2011. Phosphate Australia focused on drilling laterite and oxide resources on the Cable-Bollard Trend, and Anchor with aircore drilling before selling the Project to Monument mining in 2014.</p> <p>2015-2020 Monument mining</p> <p>Monument Mining (Monument) acquired the licenses from Phosphate Australia in 2014 to complement the Company's existing Murchison gold assets at Burnakura. Monument has undertaken one program of resource definition drilling in 2015 for a total of 1,930m. This included 27 shallow RC holes for 1,613m and 4 diamond holes for 317m. The drilling targeted positions at Cable, Cable West, Bollard, Drogue and Maybelle</p> <p>Odyssey acquired the Project in late 2020.</p>
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	<p>The Project area is located within the Meekatharra-Wydege Greenstone belt within the north-eastern Murchison Domain. The majority of greenstones within the Meekatharra-Wydege belt have been stratigraphically placed within the Polelle Group and the Norie Group of the Murchison Supergroup.</p> <p>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-Wydege 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).</p> <p>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-porphyrific 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.</p> <p>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.</p> <p>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).</p> <p>The area has four small open pits, extensive minor gold workings, and prospecting pits principally associated with mafic lithologies and Altered Ferruginous Transitional (<b>AFT</b>) and Altered Ferruginous Fresh (<b>AFF</b>) 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.</p> <p>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.</p> <p>A number of styles of gold mineralisation have been identified in the area including:</p> <ul style="list-style-type: none"> <li>• Mineralised AFT and AFF material ± quartz veining (Cable East, Cable Central);</li> <li>• Quartz veins ± altered basalts (Cable West, Lucknow, Maybelle, Maybelle North, Miners' Dream); and</li> </ul>

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		<ul style="list-style-type: none"> <li>Gold mineralisation within laterite (Anchor, Bollard, Drogue).</li> </ul> <p>Below the base of complete oxidation (~40m) gold mineralisation is commonly seen associated with quartz veins often with trace sulphide, 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.</p>
<b>Drill hole Information</b>	<p>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:</p> <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> <p>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.</p>	<p>The collars and surveys and progress length at the commencement of the preparation of the announcement of holes underway are included in the document. See resource announcements 15 February 2024 and 2 August 2023 for a detailed description of historic drilling.</p> <p>No information about gold mineralisation is being reported. Sulphur in sulphides is not an element of economic interest at Tuckanarra.</p>
<b>Data aggregation methods</b>	<p>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.</p> <p>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.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>No gold exploration results are being reported. The intersection of sulphides explaining the modelled EM conductor is being reported confirming the effectiveness of EM on the project.</p> <p>No gold exploration results are being reported. The intersection of sulphides explaining the modelled EM conductor is being reported confirming the effectiveness of EM on the project.</p> <p>No metal equivalents are being reported.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>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').</p>	<p>EM conductors are modelled as a zero width plate. The survey was completed perpendicular to the strike of mineralisation and the expected sulphide alteration.</p>
<b>Diagrams</b>	<p>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.</p>	<p>Refer to Figures in the body of this announcement and Appendix 1. No significant discovery is being reported. See previous announcements, in particular ASX announcement dated 15 of February 2024 for more description. Cross sections, long sections and 3D oblique views are provided for clarity.</p>

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<b>Balanced reporting</b>	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. Due to the large volume of data not all results are shown. This announcement should be read in conjunction with historic announcements, in particular those referenced. The intersections reported are not exhaustive but provide context for the Company's interest in continued exploration of the styles described.
<b>Other substantive exploration data</b>	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 and previous announcements at <a href="https://odysseygold.com.au/investors/asx-announcements/">https://odysseygold.com.au/investors/asx-announcements/</a> in particular those referenced. DHEM has been completed north of the Cable Pit, at the Highway Zone and down plunge at Bottle Dump. These have successfully defined zones of elevated pyrrhotite and sulphide replacement of iron rich sediments. FLEM and MLEM completed over the Highway Zone have also generated EM anomalies in similar positions giving confidence in the technique. Forward modelling by SGC has also confirmed airborne EM should be effective in this terrain.
<b>Further work</b>	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.	Following the current drilling planned future work includes: <ul style="list-style-type: none"> <li>• RC drilling south of the Cable Pit to add to and upgrade inferred resources in that area,</li> <li>• Airborne EM surveying the regional Hinge Zone for aiming to detect sulphide associated with additional high grade mineralisation.</li> <li>• Diamond drilling to extend the strike length and plunge extent of underground resources at the Highway Zone</li> <li>• RC Drilling of EM anomalies generated from the current EM survey</li> </ul>

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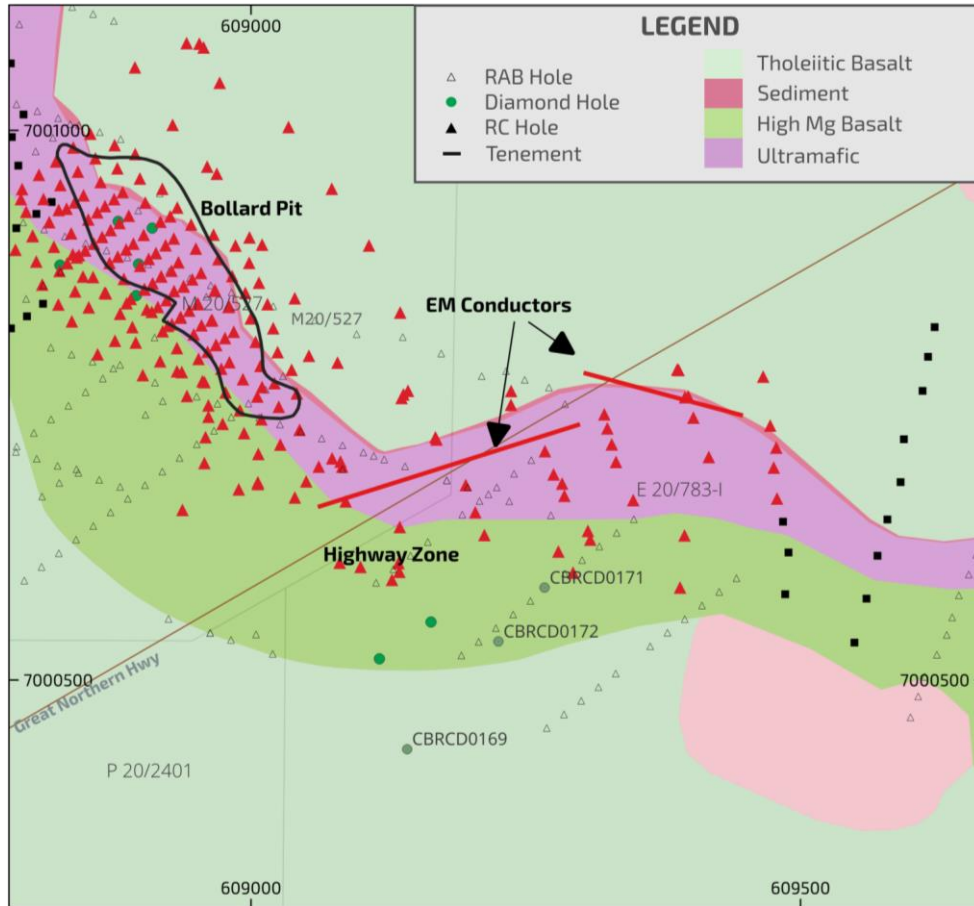


Figure 6 - Highway Zone Collar Map

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