ASX Announcement

6 October 2021

EM Survey Defines Discrete, Conspicuous and Shallow VMS Targets at Yandal West

Highlights

- An EM survey has identified four high priority, discrete, conspicuous, shallow drill ready VMS targets
- Geophysical interpretation and modelling of the four EM plates by Great Western's consultants, Newexco has defined the anomalies as strong bedrock conductors within a volcanic succession, proximal to the contact with HFSE granite, with a geophysical signature that is consistent with sulphide ore bodies
- Previous regional drilling targeting gold by Great Western at Yandal West intersected a sequence of chert, mafic & felsic volcanics with gold associated with micro veining and sulphides (including chalcopyrite) that is more typically associated with VMS-style mineralisation. Subsequent a complete review of the Project and HTDEM survey has led to the identification of these entirely untested anomalies
- Drill planning for all four high priority anomalies has now commenced
- Preparations for drilling at the Thunder Copper-Gold Target are well progressed for an early November 2021 start

High Priority VMS Targets

GTE 100% (E53/1369), GTE 80% (E53/1612 & E53/1816)

Four high priority EM anomalies have been defined by Great Western's consultants Newexco, from a recently completed Xcite™ (Xcite) helicopter time-domain electromagnetic (HTDEM) survey.

The high priority EM anomalies (See **Figure 1**) have a geophysical signature that is consistent with an accumulation of sulphides. The anomalies sit within a regional volcanic succession that includes basalts, high mg basalts, ultramafics, felsic volcanics and cherts, proximal to HFSE granites, are shallow (<55m below surface), and are both conspicuous and discrete.

The four high priority EM anomalies are very exciting VMS targets, which are drill ready.

In previous drilling targeting gold mineralisation at the Yandal West Project, Great Western intersected the preferred volcanic succession of chert, mafic & felsic volcanics with anomalous gold, associated with micro veining and sulphides (including chalcopyrite)[4]. This succession of geology, in proximity to high-field strength element (HFSE) granites and the mode of sulphide emplacement is more typically associated with VMS-style mineralisation than lode style gold mineralisation. This previous drilling with VMS signatures was within 300m (to the north) of Anomaly 1. None of the 4 high priority EM anomalies have been drill tested.

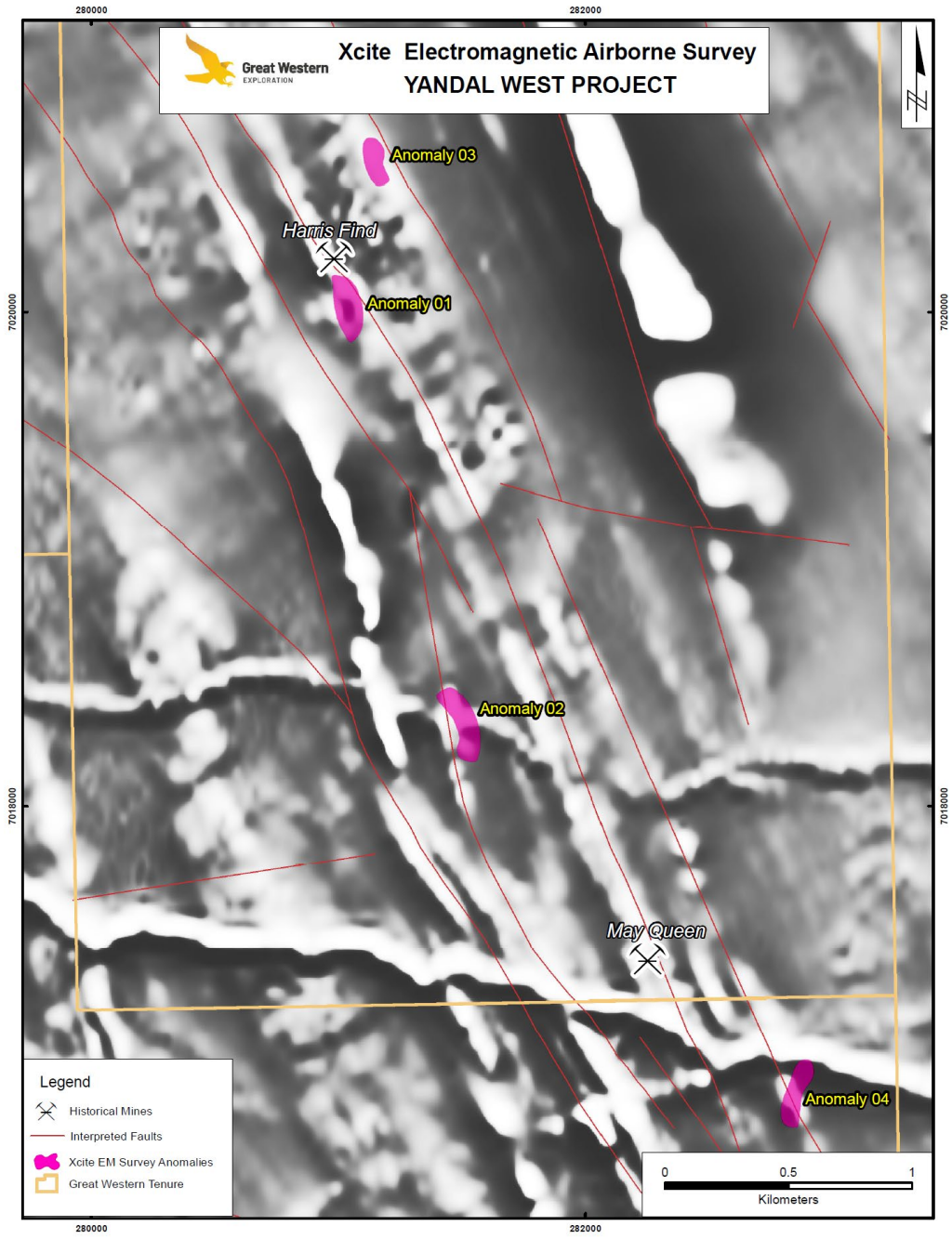

Figure 1. *Location of Four High Priority EM anomalies and Historic Gold Mines over TMI 1st VD at the Yandal West Project*

Following a considerable review of the historical drilling, geochemical data (both drilling and surface sampling), regional GSWA mapping and recognising the local geological setting as having potential for VMS mineralisation, Great Western worked with its consultant Newexco to plan and execute an airborne EM survey. New Resolution Geophysics (NRG) has developed the Xcite system that was used at the Yandal West Project, which is an innovative helicopter time-domain electromagnetic system (HTDEM), incorporating the latest high-speed electronics and sophisticated aeronautical engineering.

The four high priority anomalies defined from the survey are well defined, discrete and conspicuous anomalies and do not model as longer stratigraphic conductors such as sulphidic or iron rich sediments.

Anomaly 1

Anomaly 1 is coincident with a magnetic high and directly along strike to the south of the historic Harris Find gold mine, where the Company has previously identified VMS potential and intercepted high-grade gold[4]. The modelled plate for Anomaly 1 (See **Figure 2**) is 95m x 150m, 307 siemens (S) and models at approximately 25m below surface (upper limits) with a depth extension of 150m, dipping moderately towards the east. Anomaly 1 has a well-defined geophysical profile; is adjacent to a fault; and within favourable stratigraphy.

Significantly Anomaly 1 is also 300m to the south along strike from high-grade gold in drilling intersected including 2m @ 7.75g/t Au from 20m in HFRC02 and anomalous rock chips of 12.2 g/t Au and 28g/t Au[3].

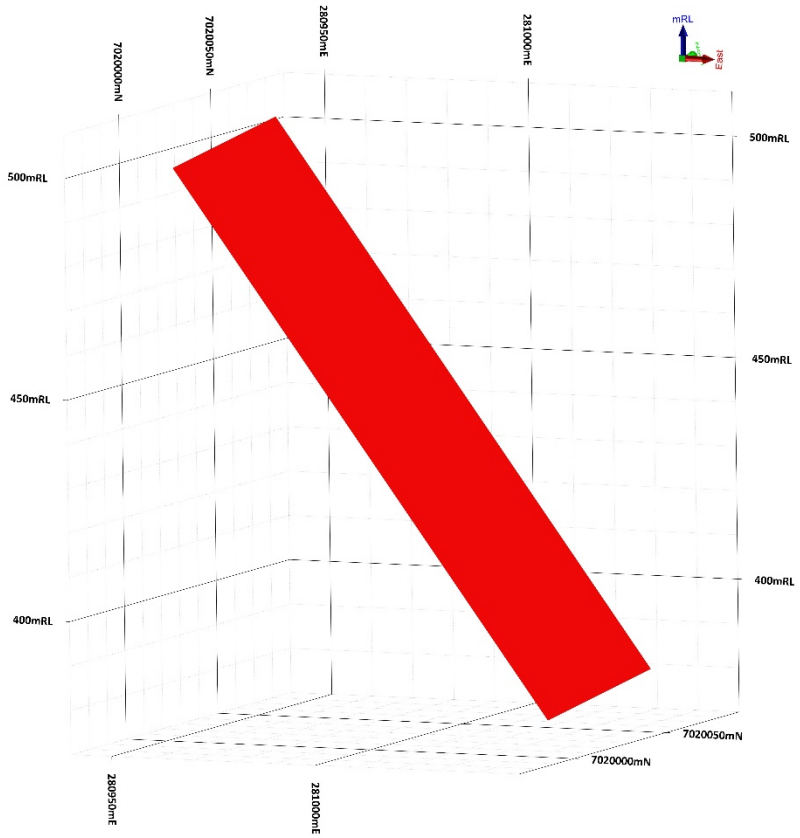

Figure 2. *Anomaly 1 Modelled EM Plate*

Anomaly 2

Anomaly 2 (See **Figure 3**) has been modelled as a 270m x 80m plate with a conductance of 130S. It has a well-defined geophysical profile; is adjacent to a fault; coincident with gold in soil anomalism[19]; within favourable stratigraphy and models at approximately 27m below surface (upper limits) with a depth extension of 80m, dipping steeply to the east.

Near to Anomaly 2 and Anomaly 4, Great Western intersected significant gold mineralisation including 3m @ 5.01 g/t from 44m gold in HFRC070 and has reported rock chips assays of up to 33.1g/t Au[6].

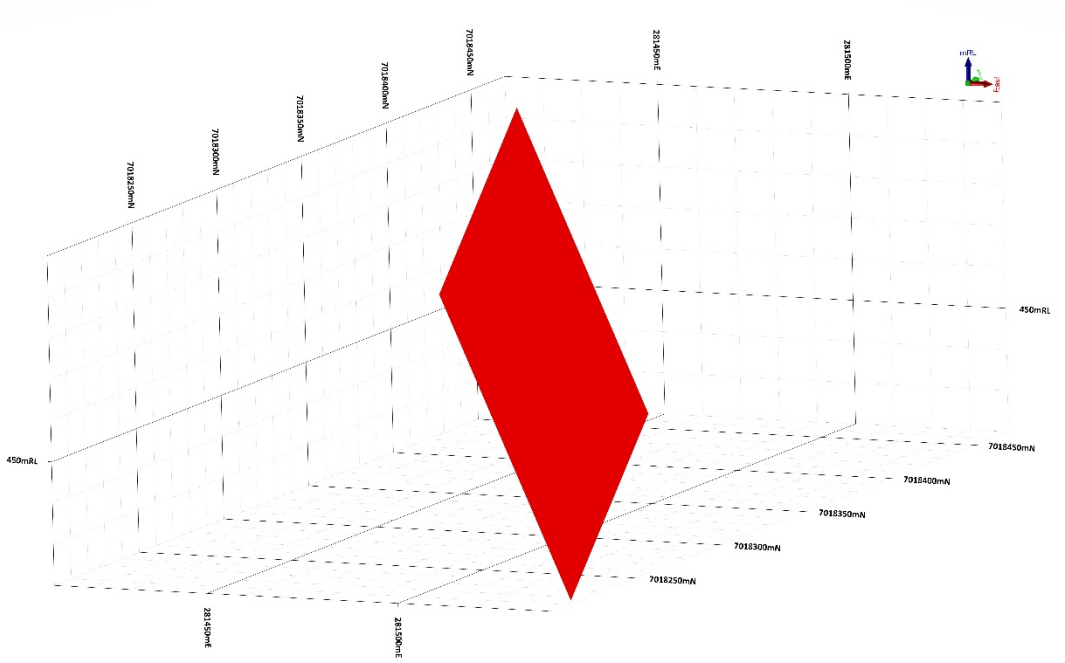

Figure 3. Anomaly 2 Modelled EM Plate

Anomaly 3

Anomaly 3 (See **Figure 4**) is coincident with a magnetic anomaly that is parallel to and immediately east of the Historical Harris Find Mine. The modelled plate dips steeply to the east and is 160m x 200m, 42S and models as approximately 12m below surface (upper limits), with a depth extension of 200m.

The high priority Anomaly 3 sits on a structural trend that is yet to be explored by Great Western and provides an exciting greenfields target potentially opening up the eastern portion of the Yandal West Project.

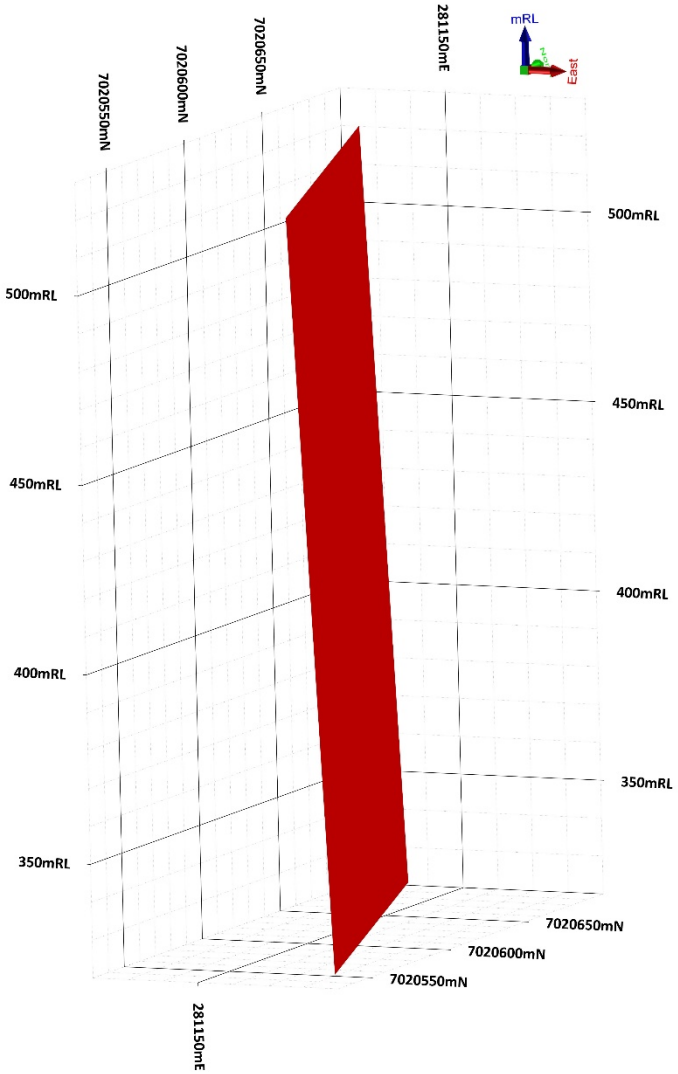

Figure 4. *Anomaly 3 Modelled EM Plate*

Anomaly 4

Anomaly 4 (See **Figure 5**) has been modelled as a 100m x 60m plate with a conductance of 697S. It is interpreted to dip steeply to the east and models at approximately 55m below surface (upper limits), with a depth extent of 63m. Anomaly 4 has a well-defined geophysical profile; is adjacent to a fault; within favourable stratigraphy; is coincident with geochemical pathfinder element anomalism[19] and appears to follow a subtle structure interpreted in the magnetics.

Anomaly 4 is located south of the historic May Queen gold mine, near to where high-grade gold in drilling and rock chips have been previously reported by Great Western[6].

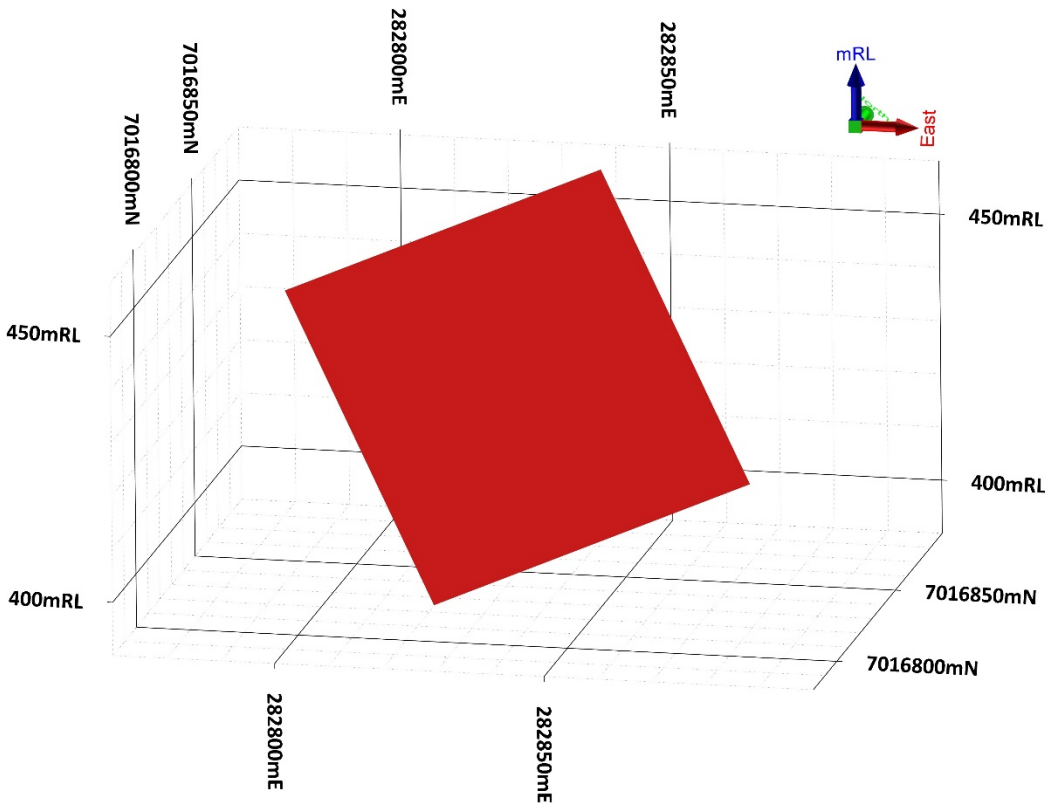

Figure 5. *Anomaly 4 Modelled EM Plate*

In their reporting of the Xcite HDTEM survey results, Newexco stated "*the anomalies are interpreted as high priority bedrock conductors and require immediate follow-up. Given that they are close to surface they can be reliably targeted with shallow RC drilling.*"

VMS Prospectivity of Yandal West Defined

In previous drilling by Great Western a sequence of chert, mafic & felsic volcanics with gold associated with micro veining and sulphides (including chalcopyrite)[3] were intersected. This succession of geology, proximal to HFSE granites combine with the mode of sulphide emplacement is more typically associated with VMS-style mineralisation than lode style gold mineralisation. Prior to this drilling the Company had other indirect evidence of the Project's VMS potential from historical exploration, multi-element geochemistry, rock types intersected and a recent government study (2017)[1] which identified the region as being highly prospective for VMS given its proximity to the HFSE granites.

The potential for VMS within the Yandal greenstone belt, which occurs on the eastern margin of the Kalgoorlie Terrane in the Eastern Goldfields Superterrane, has been previously identified in GSWA Report 165[1] (titled *VMS mineralization in the Yilgarn Craton, Western Australia : a review of known deposits and prospectivity analysis of felsic volcanic rocks*). In their report GSWA highlighted that the close temporal and spatial association of HFSE-enriched granitic rocks with VMS-bearing volcanic successions at Teutonic Bore – Jaguar– Bentley, Hollandaire, Anaconda, and a number of other VMS deposits suggests that HFSE-enriched granitic rocks may be used to identify VMS prospective volcanic successions. The occurrence of HFSE-enriched granitic rocks in the northern part of the

Kalgoorlie Terrane, where the Yandal greenstone belt is located, suggests that these areas may also be prospective for VMS mineralisation[1].

The Yandal West Project area hosts the HFSE–enriched granites and work previously completed by the Company, exploring for gold, has confirmed these granites are intruding a volcanic succession of ultramafics, basalts, high mg basalts, chert (and/or BIF), shales and felsic volcanics.

The Yandal Greenstone Belt has been historically explored predominantly for gold. There has been little focus on base metal mineralisation despite the fact that there are favourable geological sequences for both VMS and nickel sulphide mineralisation.

Due to this historical focus on gold at the Yandal West Project and the Yandal greenstone belt in general, drilling has often been assayed for gold only and the sample mediums and analysis methods chosen for soil sampling not designed for base metals exploration.

Newexco and Great Western will continue to work together, with the aim of delineating other high priority anomalies from the Xcite HDTEM survey.

Drill planning for an RC programme testing all four high priority anomalies will now commence.

Thunder Copper Gold Target (100% GTE)

Preparations for drilling at the Thunder Copper-Gold Target located 112km south east of DeGrussa, are well progressed. Both drilling and downhole geophysical contractors have been confirmed for an early November 2021 start.

Authorised for release by the board of directors of Great Western Exploration Limited.

Tony Walsh
Company Secretary
Great Western Exploration Limited
Tel: 08 6311 2852
Email: enquiries@greatwestex.com.au

References:

1. Hollis, SP, Yeats, CJ, Wyche, S, Barnes, SJ and Ivanic, TJ 2017, VMS mineralization in the Yilgarn Craton, Western Australia: a review of known deposits and prospectivity analysis of felsic volcanic rocks: Geological Survey of Western Australia, Report 165, 68p.
2. Slack, J.F., 2012, Exploration-resource assessment guides in volcanogenic massive sulfide occurrence model: U.S. Geological Survey Scientific Investigations Report 2010–5070 –C, chap. 19, 10 p.

Previous ASX Releases – GTE.ASX

3.	20 December 2019	Further sampling confirms High Grade Gold at Yandal West
4.	27 November 2019	Further Gold Intersected at Yandal West and VMS Potential
5.	11 November 2019	Harris Find High Grade Gold Target and Drilling Completed at Yandal West
6.	31 October 2019	High-Grade Gold Outcropping at Yandal West
7.	23 September 2019	Multiple Gold Bearing Shear Zones at Yandal West
8.	16 August 2019	Drilling Completed at Yandal West Gold Project
9.	7 August 2019	Drilling Commenced at Yandal West Gold Project
10.	16 July 2019	Initial Results from latest RC Drilling at Yandal West
11.	4 June 2019	Drilling Completed at Yandal West Gold Project
12.	8 April 2019	High Impact Gold Drilling Planned at Yandal West
13.	13 February 019	High-Grade Gold Continues at Yandal West Gold Project
14.	27 November 2018	Further High-Grade Gold at Yandal West
15.	16 August 2018	Second Significant Gold Trend at Yandal West
16.	14 May 2018	Further High-Grade Gold and RC Drilling at Yandal West

17. 13 March 2018 Drilling Resumes at Yandal West Gold Project
18. 30 January 2018 Further Strong Results and High-Grade Gold at Yandal West
19. 4 September 2017 Further Strong Gold Results from Infill Soils at Yandal West

Competent Person Statement

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Thomas Ridges who is a member of the Australian Institute of Mining and Metallurgy. Mr. Thomas Ridges is an employee of Great Western Exploration Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Ridges consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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
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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *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 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	•Newexco Exploration Pty Ltd were engaged by Great Western Exploration to design a Xcite™ Time Domain Electromagnetic (TDEM) airborne (helicopter) Electromagnetic (EM) survey programme at Yandal West project. •New Resolution Geophysics (NRG) carried out a high resolution Xcite™ time domain electromagnetic and magnetic survey between the 23 July 2021 and 25 July 2021. •NRG has developed Xcite, which is an innovative helicopter time-domain electromagnetic system (HTDEM), incorporating the latest high-speed electronics and sophisticated aeronautical engineering. The system provides a superior and efficient alternative to other HTDEM technologies for

Criteria	JORC Code explanation	Commentary
		mineral exploration. •62 lines spaced 150m north to south including 18 infill lines spaced 75m north to south. A total of 393 kilometres were surveyed. •EM locations were simultaneously collected by Xcite in-built GPS with the EM data. •The processing software platform used by NRG was Geosoft Oasis Montaj and Proprietary Software. •Equipment and Data Sampling Specifications **Electromagnetic System** Type: Xcite™ Weight: ~450kg Structure: Fully inflatable frame Aircraft Type: AS350B Series Engine Type: Turbine Fuel Type: JetA1 **Transmitter** Diameter 18.4m Number of turns 4 Current 280A

Criteria	JORC Code explanation	Commentary
		Dipole Moment 300,000 NIA Base Frequency 25Hz Waveform Nominal square wave – typically 5.4 mS ontime **Receiver** Diameter 0.613m (effective) (X), 1.0m (Z) Number of turns 200 (X), 100 (Z) Orientation X & Z axis Configuration Concentric to Tx Recording Digitally at 625 kbps Time gates Extracted from streamed data – Typically 24gates Time gate windows 0.04ms to >11ms Measurements dB/dT & Integrated B-field **Magnetometer Sensor** Type: Single Sensor Scintrex CS3 Measurement Range: 15 000 – 105 000 nT

Criteria	JORC Code explanation	Commentary
		Gradient Tolerance: 40 000 nT/m Operating Temperature: -40 to +50 Degrees C Recording Rate: 20 Hz (capable of >1kHz)
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, face-sampling bit, or other type, whether core is oriented and if so, by what method, etc).*	Not applicable
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *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.*	Not applicable
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.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	Not applicable
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality, and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *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.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	No new drilling is being 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.*	No new drilling is being reported in this announcement.

Criteria	JORC Code explanation	Commentary
	• *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.* • *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.*	
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	For the EM Xcite survey, Newexco have inspected the data and applying quality control protocols. All digital data was inspected on a daily basis to ensure that good quality data was acquired in the field.
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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	The grid system used for the survey flight lines is GDA94 - MGA (Zone 51).
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *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.* • *Whether sample compositing has been applied.*	62 lines spaced 150m north to south including 18 infill lines spaced 75m north to south. A total of 393 kilometres were surveyed.
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.* • *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.*	Survey lines were orientated on a west to east grid, crossing locally key geological lithologies and structures that are orientated NW/SE.
Sample security	• *The measures taken to ensure sample security.*	Data was transmitted by New Resolution Geophysics (NRG) in a raw data format from site to Newexco Exploration Pty Ltd for review and QAQC, Newexco Services provided data analysis, which was then

Criteria	JORC Code explanation	Commentary
		reported to the Company's representatives.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	Data reviewed by third party geophysical consultant Newexco Exploration Pty Ltd.

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.*	**Tenement No:**	E53/1612, E53/1816 and E53/1369
		Tenement Type:	Exploration Licenses
		Status:	Granted - 18/10/2011, 4/02/2015 and 25/09/2008
		Location:	Wiluna
		Size (km2)	61
		Ownership:	100% E53/1369; 80% E53/1612 & E53/1816
		Native Title:	Prospect area covered by Determined Native Title claim; Kultju (Aboriginal Corporation) RNTBC; Regional Land Access Agreement executed.
		Other Agreements:	Land Access Agreement with Barwidgee Pastoral Lease
		Non-State Royalties:	none

Criteria	JORC Code explanation	Commentary
		Other Encumbrances: none **National Parks:** none **Other Environmental:** none
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Base metals exploration was completed over a broader area in the 1970s by Mines Exploration and Esso exploration Aust Inc which included a regional magnetometry survey. Despite the broadness of the explorational works, the drilling targeting in this cycle might have been affected by the limited geophysical survey technology of the time. After the 1970s cycle to today, mainly gold was targeted by various explorers including GTE.
Geology	• *Deposit type, geological setting, and style of mineralisation.*	• Volcanic Massive Sulphides (VMS) • The Yandal West tenements are located on the western margin of the Yandal greenstone belt, along the trace of Moiler's Fault and within 3 kilometres of the granite-greenstone contact. Moiler's Fault traverses the tenements in a south-easterly direction and divides the area into a dominantly mafic sequence to the west of the fault and a felsic volcano-sedimentary sequence interlayered with mafic volcanic rocks, east of the fault. Moiler's Fault is associated with outcropping weathered banded iron formation, layered chert and intermediate volcanic rocks that form both a local and regional topographic feature.
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*	Historical drilling all previously reported within reference GTE.ASX announcements.

Criteria	JORC Code explanation	Commentary
	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.*	
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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No applicable
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*	• Not applicable

Criteria	JORC Code explanation	Commentary
	this effect (eg 'down hole length, true width not known').	
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• See body of announcement for image highlighting location of high priority anomalies
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 avoiding misleading reporting of Exploration Results.*	• All high priority EM anomalies have been modelled. Interpretation work in respect of the remaining EM survey data is continuing.
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.*	• Not applicable
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.*	• Soil Sampling • Geological mapping • Aircore and/or RC drilling