



STRONG DHEM RESPONSES AT SMITHS WELL

HIGHLIGHTS

- Downhole electromagnetic (DHEM) surveys define very high conductance modelled plate (**> 20,000S**) within the sulphide horizon
- Modelling indicates channel-like geometry plunging at -45° to the north
- Drilling planned to test the modelled plate down plunge of previously intercepted massive-disseminated sulphides ^[1]
- Assay results for the remainder of YDD22-02 and hole YDD22-03 due in May

Empire Managing Director, Sean Richardson commented:

“The results from this downhole geophysical survey are very encouraging. The modelled channel structure in the presence of massive to disseminated sulphides enhances the potential for a significant copper-nickel-cobalt discovery at the Smiths Well prospect.

“The work completed at Smiths Well, along with highly prospective exploration targets including YT01, A-Zone and Constantine highlight the exceptional prospectivity of the Yuinmery Project. The potential for the project to host multi-element mineral deposits that could build on the existing Resource endowment is evident.

“Drilling has been planned for mid-2022 to target extensions to the Smith Well channel conductor. Empire looks forward to providing updates to the market as information becomes available.”

SUMMARY

Empire Resources (ASX:ERL, Empire) advises that downhole electromagnetic (DHEM) surveys have been completed at the Smiths Well Prospect, Yuinmery Project. The DHEM surveys and modelling were completed by Empire's geophysical consultant Southern Geoscience Consultants (SGC).

The DHEM surveys completed in hole YDD22-03 were designed to better define the extent and orientation of the conductor intercepted in hole YDD22-02 ^[1]. Hole YDD22-03 failed to intercept a conductor despite targeting a plate modelled from previous DHEM surveys.

Two loops were planned for the YDD22-03 DHEM survey. Loop 1 was designed to couple the known conductor intercepted in YDD22-02. Loop 2 was designed to null couple the known conductor and test for any secondary conductors in the vicinity.

The quality of the captured data was very good. The observed responses were very strong and no readings decayed completely to noise levels. SGC modelled the YDD22-03 survey data from both hole and loop configurations concurrently with previous DHEM survey data from holes YDD21-01 and YRC21-25. The latest time channels possible were used to model the strong conductor, in this case channels 33-35.

The DHEM modelling has greatly improved the understanding of the Smiths Well conductor. Using data from three holes concurrently results in a well constrained model. A single plate 445m long and 77m wide adequately fits the observed response in all the holes. Any residual misfit between the modelled and observed data is due to the rectangular flat model not accurately representing the true geometry of the sulphide body which is likely to be more complex.

The second loop designed to null-couple the main conductor did not identify any responses from conductors other than the main conductor.

The modelling suggests the main Smiths Well conductor has channel-like geometry that plunges at approximately -45° to the north and dips at approximately 60° to the west. The modelled plate has a high conductance >20,000S.

A series of planned drillholes will test the down dip and down plunge extensions of the Smiths Well channel conductor. Drilling contractors have advised their availability and it is expected that drilling will commence during the June quarter and continue through the mid-year.

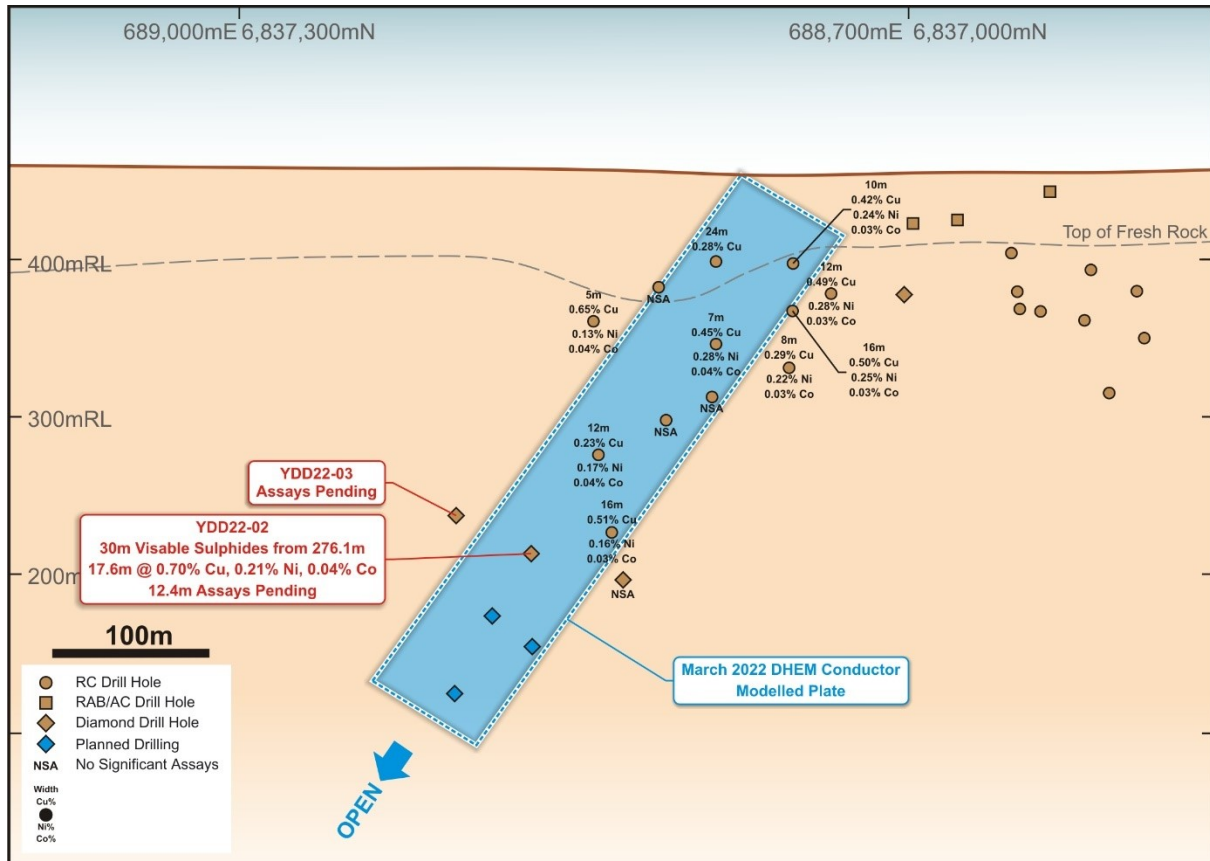


Figure 1 – Smiths Well Long Section

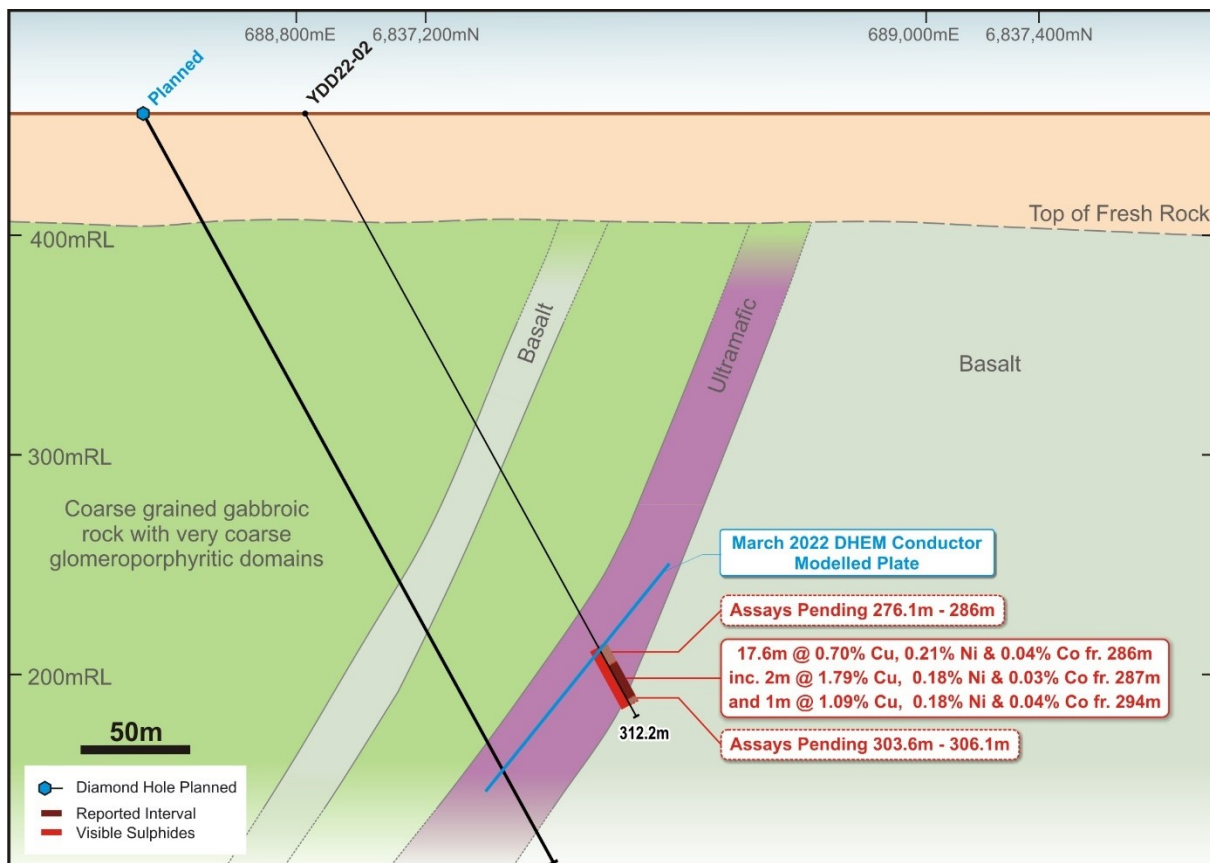


Figure 2 – Smiths Well Oblique Cross Section YDD22-02

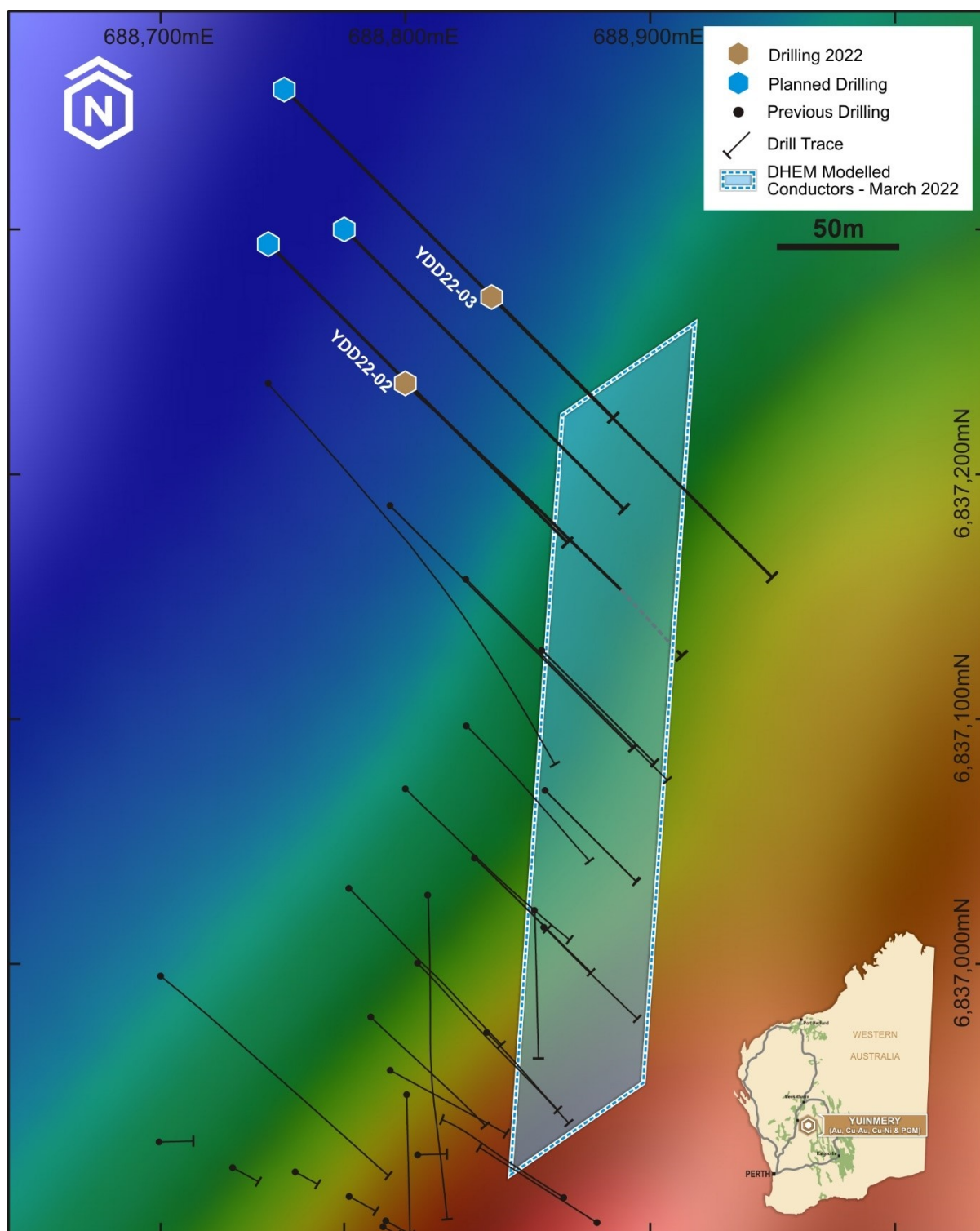


Figure 3 – March 2022 DHEM Conductor & Drill Collars
Base Image RTP_Eagcs50nl

FORWARD PLAN

All samples from the recently completed diamond drilling program ^[2] have been submitted to Empire's preferred commercial laboratory for chemical analysis. Current advice for laboratory analysis turnaround times is 8 to 10 weeks from submission. Samples from hole YDD22-01 (YT01) are expected to be returned during April, while the remaining samples from holes YDD22-02 and YDD22-03 (Smiths Well) are expected to be returned in May 2022.

Further diamond drilling is planned to commence in the June 2022 quarter when a drilling contractor becomes available. Drilling contractors have advised their rig availability and the Company continues to work with their preferred contractors to lock in a firm commencement date.

Samples of drill core have been collected and submitted to a reputable petrographer to characterise the host geology and sulphide mineralogy. Further petrographic samples will be collected as drilling progresses. The results of petrographic analysis will be used to refine exploration targeting and data processing.

ASX Announcement 11 April 2022

This announcement is authorised for release by:

Sean Richardson
Managing Director

For further information on the Company

Phone: +61 (0)8 6389 1032

www.resourcesempire.com.au

Additional Information

Further details relating to the information in this release can be found in the following ASX announcements:

1. ASX:ERL “*Massive Sulphides at Smiths Well Prospect (Amendment)*” 16 February 2022
2. ASX:ERL “*Excellent Assay Results From Smiths Well*” 2 March 2022

Competent Person Statements

The information in this report that relates to Exploration Results is based on information compiled and/or reviewed by Mr Mark Shelverton, who is a Member of the Australian Institute of Geoscientists. Mr Shelverton is a full-time employee of Empire Resources and has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity 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 Shelverton consents to the inclusion in this presentation of the matters based on this information in the form and context in which they appear.

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About Empire

Empire Resources Limited (ASX:ERL) is a gold and copper focussed exploration and development company. Empire owns four highly prospective projects. The Yuinmery Copper-Gold Project 470km northeast of Perth in the Youanmi Greenstone Belt, the Barloweerie multi-element precious and base metal project, the Nanadie Copper-Gold Project southeast of Meekatharra in the Murchison Region and the Penny's Gold Project 45km northeast of Kalgoorlie in the prolific Eastern Goldfields Region of Western Australia. Empire's projects have numerous exploration targets with excellent potential.

Empire has an experienced team of exploration, development and financial professionals who are committed to developing a sustainable and profitable mineral business. Empire seeks to extract value from direct exploration of its existing projects as well as identifying value accretive investment opportunities that complement the Company's development objectives.



Empire Resources Project Locations

Prospect	Hole ID	East	North	RL	Depth	Az	Dip
Smiths Well	YDD22-03	688,835	6,837,272	455	330.5	135	-60

Table 1 – DHEM Drillhole Summary

Item	Specification
Planning/Supervision	Southern Geoscience Consultants (SGC)
Data Acquisition	SGC in-house crew
Survey Configuration	DHEM
TX Loop Size	200m x 100m – single turn
Transmitter	DRTX
Transmitter Power	2 x 72 Li-ion battery packs
Receiver	EMIT DigiAtlantis
Sensor	3 component B field fluxgate (DigiAtlantis Probe)
Component Directions	A, U and V
Station Spacing	Background 10 to 20m with infill @ 5m over anomalies of interest
TX Frequency	0.25 Hz (500 msec off-time)
Duty Cycle	50%
Current	30 Amp
Readings	2 or 3 repeatable readings per station @ 64 stacks
Powerline Frequency	50 Hz

Table 2 – DHEM Survey and Equipment Specification

JORC TABLE 1 FOR THE YUINMERY PROJECT

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The project consists of six granted tenements (two mining and four exploration), for a total area of 106.7 km² Mining tenements; M57/265 and M57/636 and exploration tenement; E57/1037 and E57/1159 are 100% owned by Empire Exploration tenements are; E57/681 and E57/1027 are 91.89% owned by Empire and are subject to a Net Smelter Royalty (NSR) of 1.25%
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Western Mining Corporation Ltd commenced base metal exploration in the area in 1969 and continued until 1981. Soil sampling, ground magnetics, IP and EM were exploration methods used to target their vacuum, percussion and diamond drilling programs. Esso Australia Ltd explored the area between 1979 and 1984 using EM, RAB and diamond drilling in the search for Golden Grove - Scuddles type base metal deposits. Black Hill Minerals Ltd explored part of the area for base metals between 1986 and 1991. This involved rock chip sampling and limited percussion drilling. Meekal Pty Ltd commenced an exploration program in 1985 by remapping parts of the syncline and rock chip sampling. In 1986 Meekal introduced Arboyne NL into the project who carried out gold exploration by drilling reverse circulation holes under old gold workings. Between 1989 and 1991 RGC Exploration Pty Ltd explored the area concentrating on the potential for gold mineralization. This exploration consisted of geological mapping, rock chip sampling and some RAB drilling. In 1992 Meekal Pty Ltd joint ventured the project to Giralda Resources NL, who brought in CRAE as a partner in 1993. CRAE completed a ground EM survey and drilled three diamond holes in its search for base metals. Gindalbie Gold NL then explored the area for gold between 1995 and 2000. This work entailed a wide spaced soil

		<p>sampling program but although several anomalous zones were identified no drilling was undertaken.</p> <ul style="list-style-type: none"> Mineral Resources Australia / La Mancha explored the northern end of the project area between 2002 and 2010 completing; extensive soil sampling (Auger), reconnaissance (RAB / Aircore) drilling and geophysical surveys (VTEM and aeromagnetic surveys). Empire Resources Ltd commenced exploration in the area during 2006. To date a number of RAB, RC and diamond drilling programmes have been completed as well as aerial, surface and downhole electromagnetic (EM) surveys.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Yuinmery project area covers the eastern portion of the Archaean Youanmi greenstone belt with rock types consisting largely of altered mafic and ultramafic volcanic and intrusive rocks with chloritic felsic and intermediate volcanic units. The volcanic units contain several intercalated strongly sulphidic cherty sediments which are host to VMS copper-gold mineralization. In the project area these rocks lie on the eastern side of the regional Youanmi Fault and form the southern closure of a northerly plunging syncline. The volcanic rocks have been intruded by dolerites, gabbros, pyroxenites and other ultramafic rocks which probably form part of the layered Youanmi Gabbro Complex. Several zones of copper - gold mineralization have been identified within the project area by previous surface sampling and drilling. The volcanogenic massive sulphide style mineralization is associated with cherts, felsic volcanic breccias and tuffs. Gold mineralisation is interpreted to be associated with lower order shears subsidiary to either the Youanmi or Yuinmery Shear zones. Gold sits in sub-vertical shears, and forms narrow, steep plunging high grade shoots at minor flexures in the shears as quartz-sulphide lodes.
Drill hole Information	<ul style="list-style-type: none"> <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i> <i>easting and northing of the</i> 	<ul style="list-style-type: none"> Hole locations are tabulated along with accompanying collar location diagrams within this report

	<ul style="list-style-type: none"> drillhole collar elevation or RL (elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole down hole length and interception depth hole length. 	
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. 	<ul style="list-style-type: none"> No drilling data reported
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> If the geometry of the mineralisation with respect to the drillhole 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. 	<ul style="list-style-type: none"> No drilling data reported
Diagrams	<ul style="list-style-type: none"> 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 drillhole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Diagrams are included within the report
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All data from the program is provided in the report
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Downhole electromagnetic surveys were completed and EM plates were modelled by Empires Geophysical Consultant to aid in drill design. DHEM survey specifics included in tables in this report
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). 	<ul style="list-style-type: none"> A full review of results will be undertaken prior to planning and execution of future programs

- Reconnaissance drilling programs planned to test high priority target areas.
- Soil and rock sampling programs
- Prospect scale mapping
- Reinterpretation of geophysical data, including EM and aeromagnetic / radiometric data
- RC and diamond drilling
- Geophysical surveys