



# UMR Company Presentation: January 2018



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# UMR- AIM Listing and Funding

- UMR's exploration strategy has been focused on the prospective 'Irish Midlands Orefield' where UMR has four licence blocks: Clonmel, Gort, Kilcormick, Kilmallock and a block of sixteen licences over the volcano-sedimentary terrain with potential for VMS deposits in Waterford. See map with 31 UMR licences shown together with existing mining deposits and new discoveries at Pallasgreen, Stonepark and Kilbricken.
- Unicorn currently has approx. 44 Million shares in issue and aprox 6 million options. (Approx. 50 Million shares fully diluted).
- Proposal to place 25 million shares to raise STG£2.5 million as part of Listing Unicorn shares on the AIM Market in London and to cover Exploration costs over next 18 to 24months period.
- The company has been managed in a very cost effective manner with due regard to maximising the potential of every euro spent to contribute to making a discovery.
- There are currently 44 Shareholders with the majority being family and friends of the Directors. (Tightly held).
- UMR plans to concentrate its exploration effort on developing the quality drill targets on its highly prospective blocks over next 18 months.

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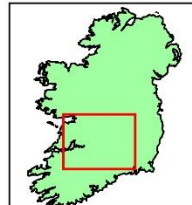
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- <http://unicornmineralresources.com/>



# Unicorn Mineral Resources

## Ground Position



- Unicorn Licence
- Glencore - Pallas Green
- Hannon - Kilbricken
- Mineral Deposit
- Mineral Occurrence

### Economic Waulsortian Hosted Deposits

**Lisheen**  
22.8Mt, 12% Zn / 2.1% Pb / 26g/t Ag

**Galmoy**  
9.7Mt, 13.2% Zn / 3% Pb

**Silvermines**  
17.7Mt, 6.4% Zn / 2.5% Pb / 23g/t Ag

**Tynagh**  
9.2Mt, 5.0% Zn / 6.2% Pb / 0.5% Cu / 66g/t Ag

**Gortdrum (Cu / Ag Deposit)**  
3.8Mt, 1.2% Cu / 25g/t Ag



Unicorn Mineral Resources  
Ireland - Ground Position

Project: UMR Ground Position	Scale: 1:50,000
Author: J. J. O'Reilly	Version: 1.0
Approved by: J. J. O'Reilly	Approved by: J. J. O'Reilly
Date: 10/10/2010	Date: 10/10/2010
File Name: UMR Ground Position	File Name: UMR Ground Position



# Unicorn Mineral Resources

## UMR Summary

- ❖ Zinc is at an inflection point with demand exceeding supply, a situation that is analogous to the 2006 price breakout
- ❖ Ireland is the world's leading zinc province, in terms of zinc tonnes / km<sup>2</sup>.
- ❖ Unicorn Mineral Resources holds 31 prospecting licences covering a surface area of 1,249km<sup>2</sup>, divided into five contiguous blocks
- ❖ All of the licence blocks are positioned at highly prospective locations along regional mineralising trends close to known economic deposits.
- ❖ Highly significant zinc and lead sulphide mineralisation and / or alteration has been discovered on all licence blocks.
- ❖ Drill ready targets in areas with prospective geology and relatively shallow depths.



# Unicorn Mineral Resources

## Corporate Overview

Highly experienced Board and Management – Strong Technical Base

### Directors

#### **Paddy Doherty – Chairman**

Mr Doherty is a founding partner, Chairman and Managing Director of the Electro Automation Group, operating across Europe since 1984 in Design, Commissioning and Maintenance of Car Parking Equipment, Automatic Gates and Doors, Security Equipment, Tolling and one off Design Projects.

#### **Richard O'Shea – CEO**

Over 25 years experience in Exploration Companies including CEO of AIM listed Ovoca Gold plc. Mr O'Shea is a director of BTU Metals Corp (TSX.V BTU) and his background is in engineering and management.

#### **John O'Connor FCA– CFO**

An E-Y Chartered Accountant with over 30 years experience in Exploration Companies including CFO of AIM listed Ovoca Gold plc. Mr O'Connor's background is in practice, industry and planning.

#### **Dave Blaney P.Geo – COO**

30 Years experience in the exploration industry with a particular focus on the Irish Midlands Orefield. Mr Blaney is founder and partner in BRG Ltd., who have worked on a number of significant Irish discoveries in the last 20 years.

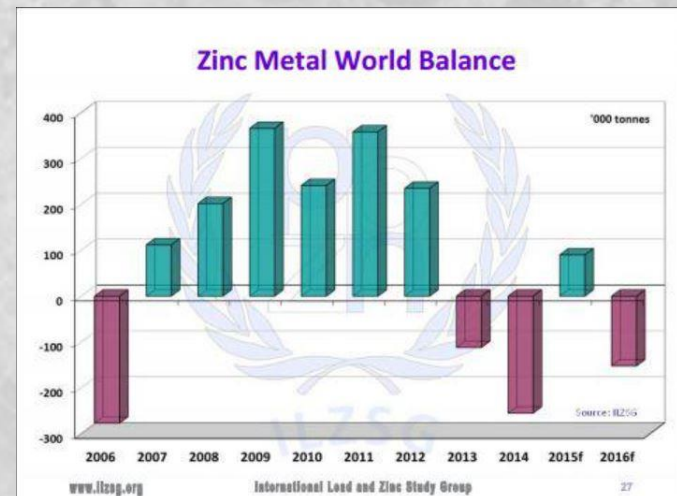
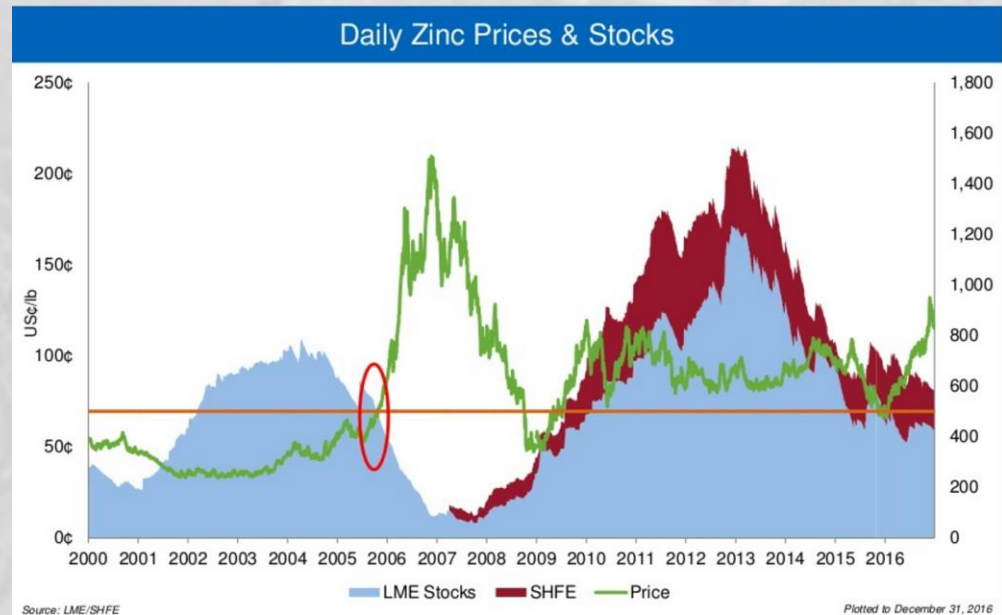
#### **Paul Smithwick – Non-executive Director**



# Unicorn Mineral Resources

## Zinc is Poised for Record Price Levels

- ❖ LME Stocks are at 12 year lows.
- ❖ Demand continuing to accelerate
- ❖ Zinc supply shows a sustained fall since the beginning of 2013 and continues to fall.
- ❖ Very few large scale projects in the pipeline
- ❖ Supply / demand fundamentals analogous to 2006 when the zinc price rose by c. 300%
- ❖ Strong potential for price to increase above \$2.00/lb



# Unicorn Mineral Resources

## Ireland – A First Class Global Zinc Destination

- ❖ The world's most fertile geological terrain (tonnes/km<sup>2</sup>)

- ❖ Large, high grade zinc / lead mines:

<b>Navan</b>	>125Mt (8% Zn / 2% Pb)
<b>Lisheen</b>	22Mt (14% Zn / 2% Pb)
<b>Galmoy</b>	9Mt (12% Zn / 2% Pb)
<b>Silvermines</b>	18Mt (5% Zn / 4% Pb)
<b>Tynagh</b>	11Mt (5% Zn / 6% Pb)

- ❖ The world's 10<sup>th</sup> largest Zinc producer

- ❖ Stable, mining friendly government with a low corporate tax regime and highly educated workforce

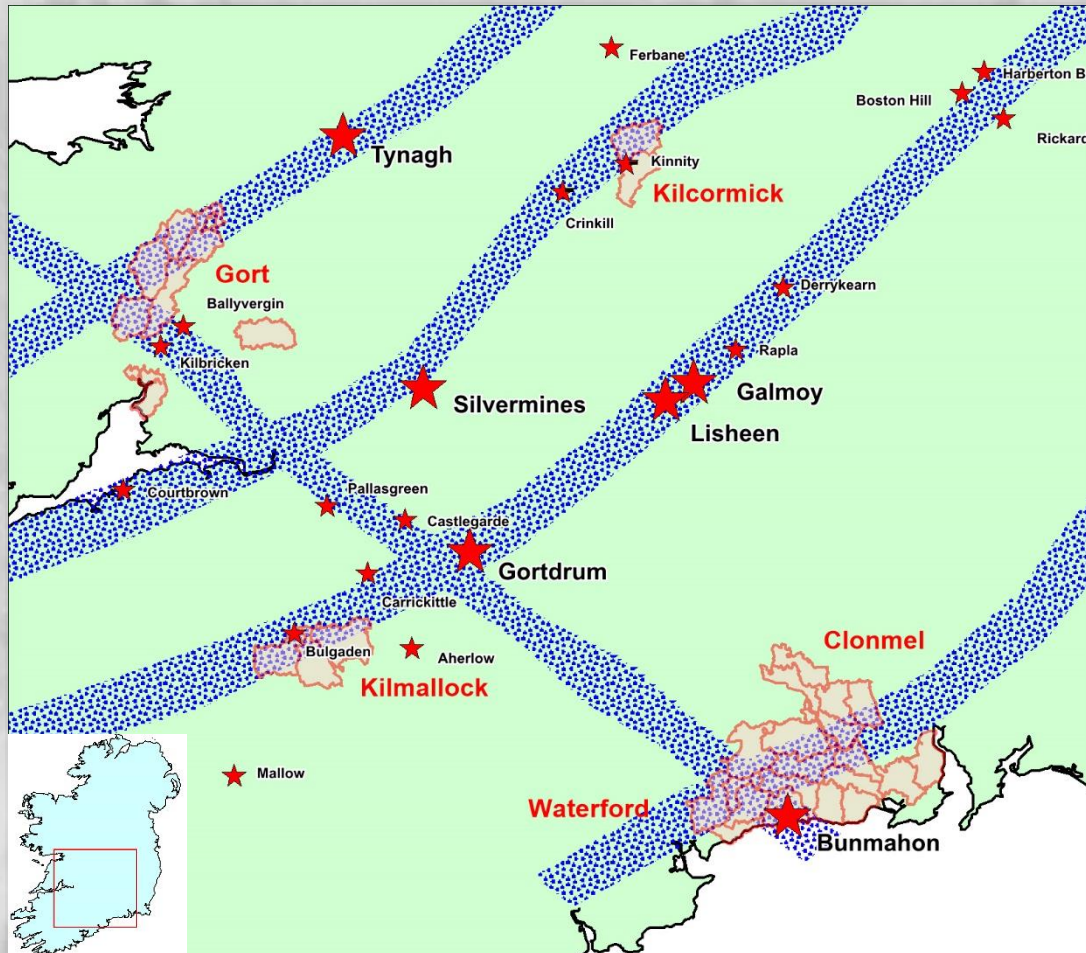
- ❖ Highly developed transport and power infrastructure, part of the European Union

- ❖ UMR has been ahead of the competition by acquiring high quality zinc prospects before the current rush



# Unicorn Mineral Resources

## UMR – Ground Position



- ❖ Licence Blocks targeted along the major, regional mineralising Trends
- ❖ Targeting shallow (<300m) base of Waulsortian Reef, Massive Sulphide Mineralisation – analogous to Lisheen, Galmoy and Silvermines
- ❖ Significant mineral occurrences on or proximal to the UMR licence blocks
- ❖ Mineralised drillhole intersections on three of the five blocks

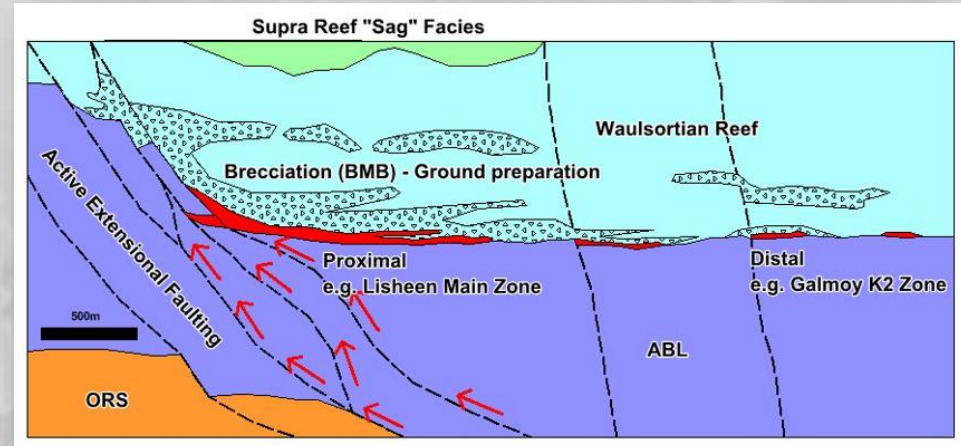


# Unicorn Mineral Resources

## UMR Target Models

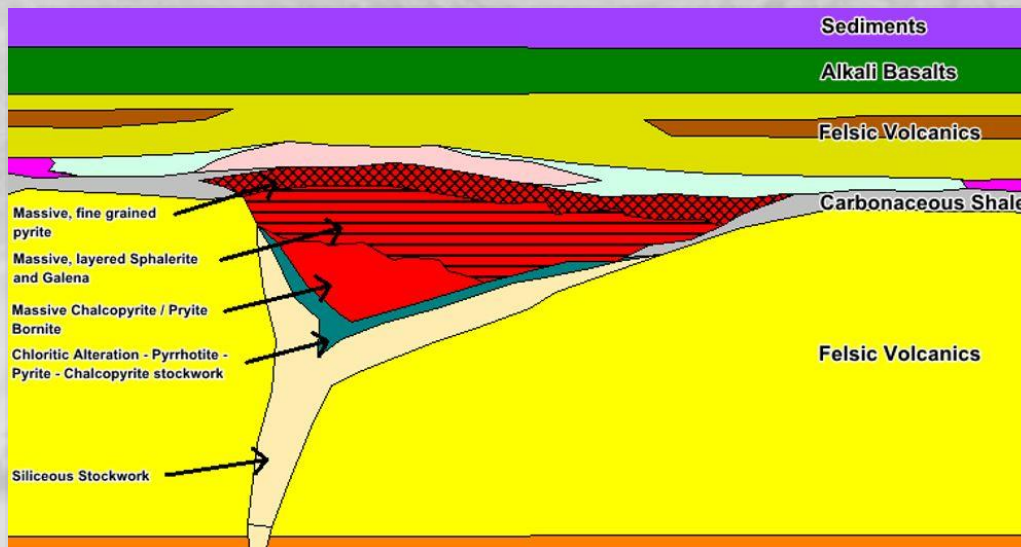
### Midland Blocks

- ❖ Carbonate hosted – Zn / Pb / Ag
- ❖ Strongly fault controlled
- ❖ Flat Lying, basal Waulsortian Reef, Stratiform / Stratabound
- ❖ Massive Pyrite, Sphalerite, Galena
- ❖ Multiple lenses “string of pearls” morphology



### Waterford Block

- ❖ VHMS - Volcanics / Volcanics & sediments Zn / Pb / Cu / Ag / Au
- ❖ Productive rhyolites (felsic volcanics)
- ❖ Extensional basins
- ❖ Fault control / facies changes
- ❖ Thick massive sulphide bodies Pyrite, Sphalerite, Galena, Chalcopyrite, Bornite, +/- Gold
- ❖ Associated feeder / stringer / alteration zones



# Unicorn Mineral Resources

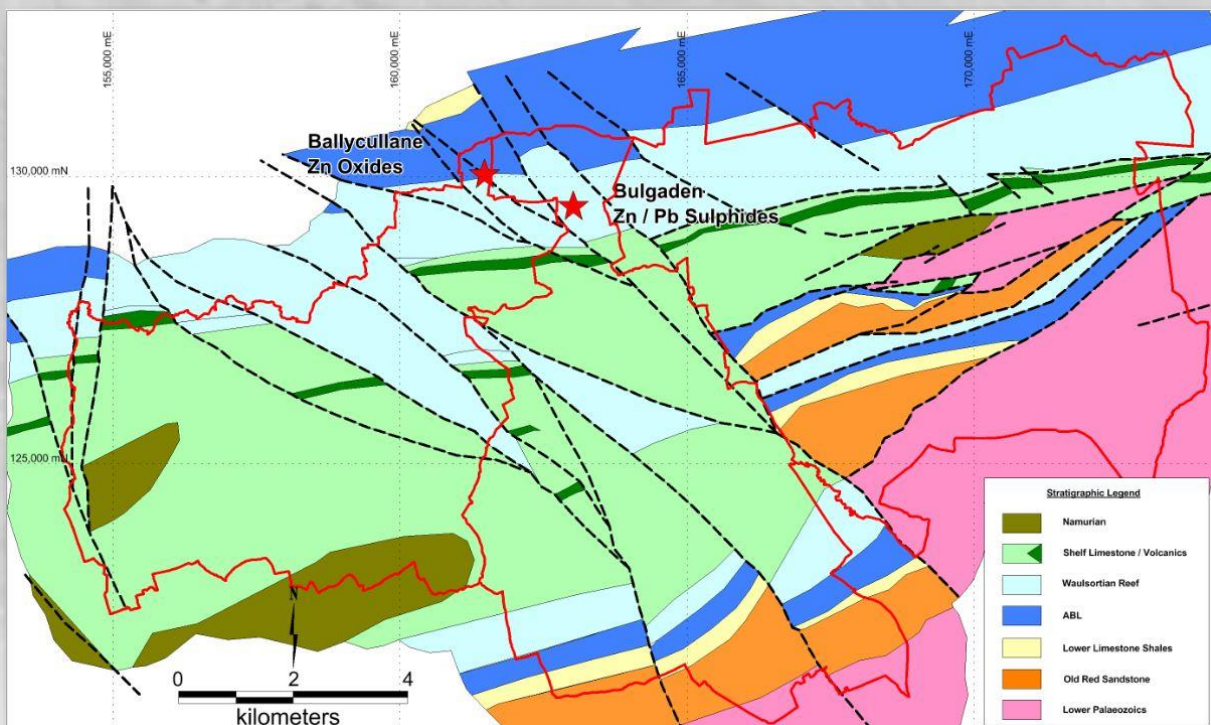
## Kilmallock Block

Block	Three Contiguous Prospecting Licences, Surface Area 129.70km <sup>2</sup>
Infrastructure	Well developed minor and regional class road network, south of the small town of Kilmallock. Land use is dominated by pasture land for grazing of sheep, cattle and horses.
Regional location	Located along the southwestern extension of the Rathdowney Mineralising Trend
Strategic Location	20km South of the Pallas Green Zn / Pb Deposit (The largest undeveloped deposit in Ireland) and 25km southwest from the Gortdrum Cu/Ag Deposit.
Target	Base of Waulsortian Reef - Carbonate Hosted, Zinc / Lead Massive Sulphides
Geological Setting	Southern side of the Limerick Basin in a region with well developed Waulsortian Reef. Structurally complex with a strong northwest-southeast grain, highly analogous to Pallas Green. Well developed basal Waulsortian Reef breccias, essential ground preparation for carbonate hosted massive sulphide mineralisation. Geology is well constrained by historic, shallow stratigraphic drilling
Significant Results	<p>Basal Waulsortian Reef hosted, secondary, oxide deposit was found at Ballycullane. Discovered in the 1970's by soil sampling and follow up drilling. BC3 intersected 1.5m grading 13% Zn; BC4 intersected 5.0m grading 20% Zn; BC5 intersected 3.0m grading 11% Zn and BC6 intersected 3.0m grading 13% Zn</p> <p>Historic Stratigraphic Diamond Drilling has been used to develop an outstanding geological and structural model. Primary, base of Waulsortian Reef hosted, massive sulphide mineralisation was discovered by Boliden at Bulgaden. Best Results include:</p> <p><b>3249-14:</b> 6.00m, grading 10.43% Zn / 1.78% Pb  <b>3249-16:</b> 12.00m, grading 4.29% Zn / 0.91% Pb  <b>3249-18:</b> 2.40m, grading 12.76% Zn / 2.0% Pb  <b>3249-19:</b> 5.30m, grading 9.55% Zn / 2.09% Pb (including 3.80m grading 14.66% Zn / 4.82% Pb)  <b>3249-24:</b> 10.50m, grading 8.34% Zn / 1.52% Pb (including 3.40m grading 20.62% Zn / 3.43% Pb)  <b>3249-25:</b> 4.50m grading 16.53% Zn / 1.25% Pb</p>



# Unicorn Mineral Resources

## Kilmallock Block

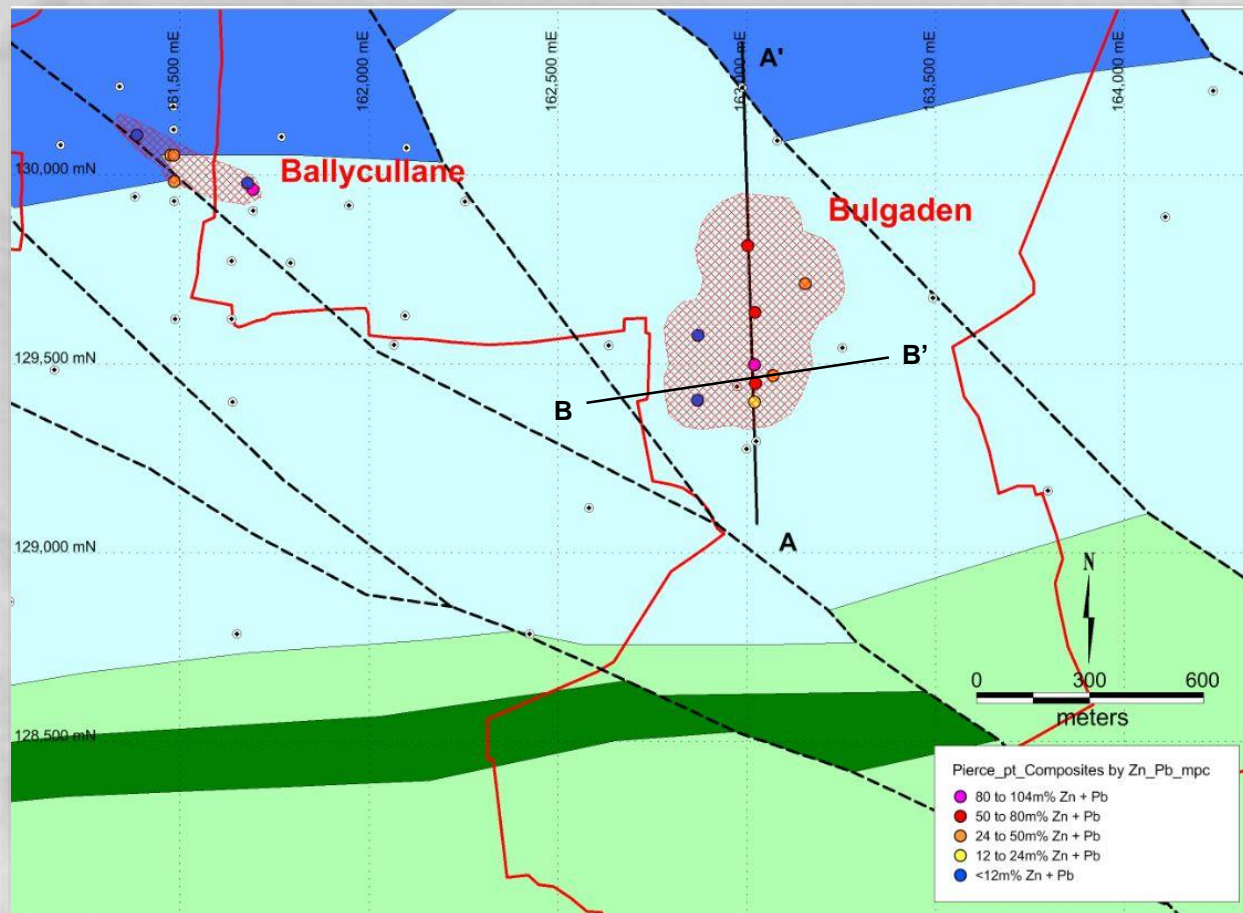


- ❖ High grade Zn / Pb mineralisation at Ballycullane and Bulgaden.
- ❖ This mineralisation is open and has not been defined or delineated.
- ❖ The targets are shallow (<300m).
- ❖ Extensive development of the untested target horizon.
- ❖ Well developed northwest – southeast faulting, analogous to Pallas Green.



# Unicorn Mineral Resources

## Kilmallock Block



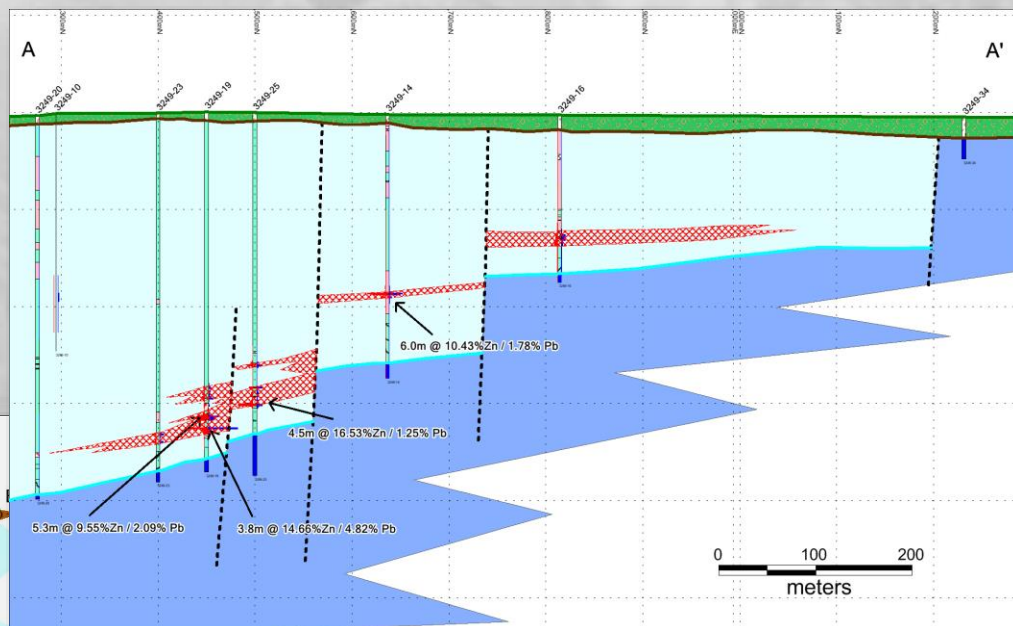
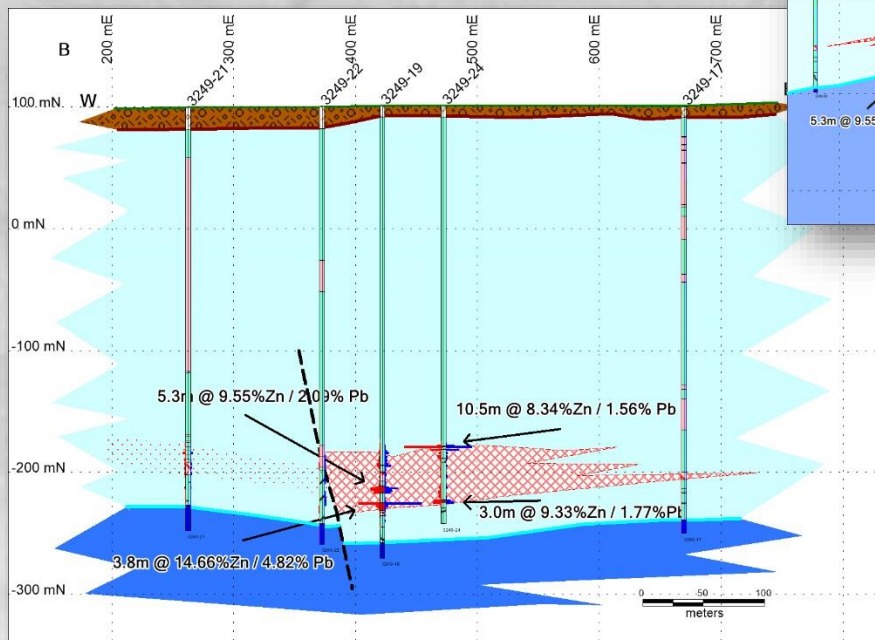
- ❖ Extensive mineralised footprint c.500m x 300m
- ❖ Margins of mineralised body are unconstrained
- ❖ Drilling within the mineralised envelope is widely spaced 50 – 150m.
- ❖ Clear evidence of structural control on mineralised bodies
- ❖ Blue Sky potential is very high. Waulsortian hosted deposits always occur as clusters of high grade lenses.



# Unicorn Mineral Resources

## Kilmallock Block

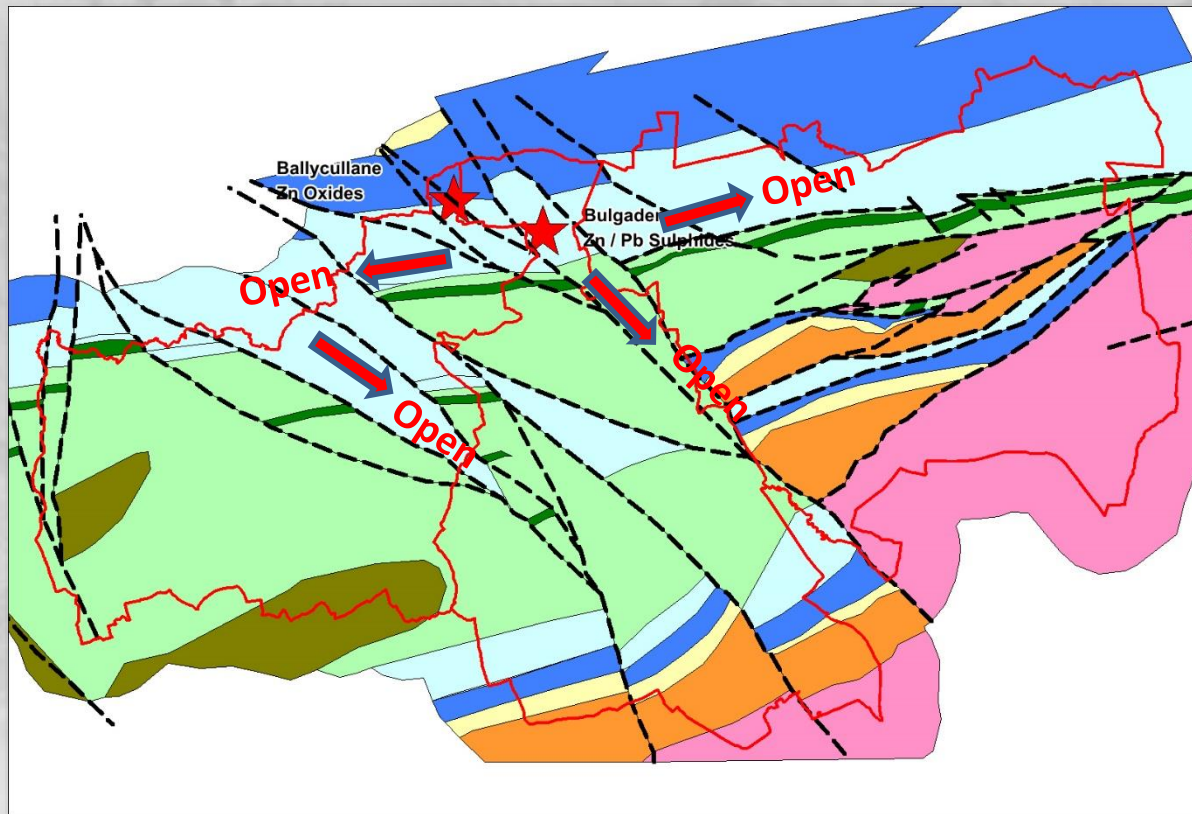
### Sections A – A' and B – B'



- ❖ Stratiform / Stratabound mineralisation
- ❖ Structural control
- ❖ Carbonate breccia hosted
- ❖ Target depth 180 – 300m.

# Unicorn Mineral Resources

## Kilmallock Block



- ❖ Area is remarkably untested given the style, grade and thickness of mineralisation
- ❖ Potential to extend and develop known mineralised bodies
- ❖ Potential to discover new mineralised zones
- ❖ Aggressive drilling campaign required to fully assess the potential of the block



# Unicorn Mineral Resources

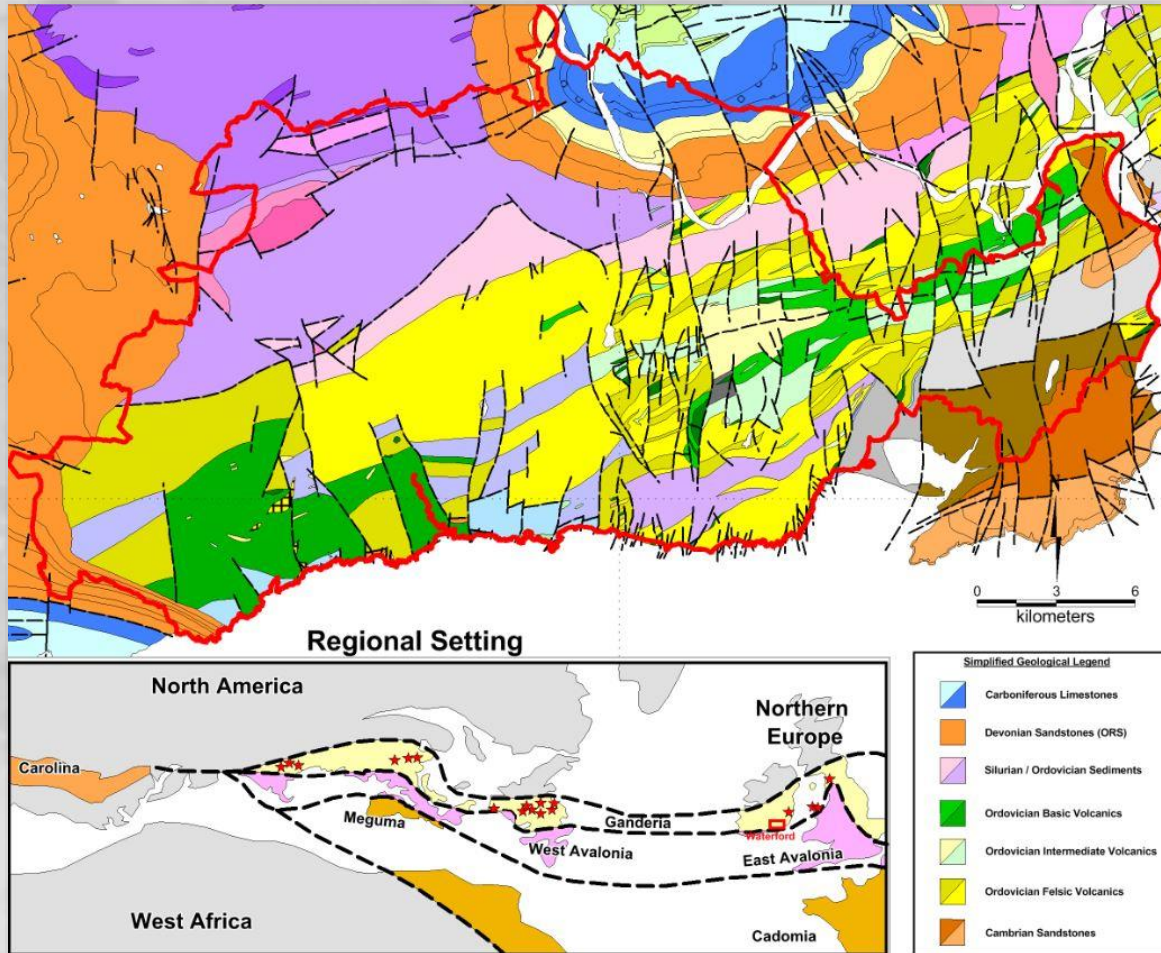
## Waterford Block

Block	Sixteen Contiguous Prospecting Licences, Surface Area 608.86km <sup>2</sup>
Infrastructure	Well developed minor and motorway class road network. South and west of the major regional City of Waterford. Port facilities at Waterford and New Ross, located just 15km northeast of the Licence Block. Extensive copper workings and occurrences form part of Copper Coast Geopark.
Regional location	Located along the southern extension of the Avoca / Parys Mountain Mineralising Trend. In a region of Ordovician / Silurian aged bimodal volcanics and metasediments.
Strategic Location	The historic Bunmahon Copper mine is located within the licence block and outcrops on the coast. Between 1826 and 1879, official records note that c.211,000 tonnes of copper metal was produced from Bunmahon.
Target	Volcanogenic Hosted Massive Sulphide deposits, Sediment Hosted Deposits and Shear Hosted copper and gold deposits
Geological Setting	Ordovician aged bimodal (basic - acidic) volcanics, interdigitating with metasediments overlain by Silurian aged sediments. Depositional environment is an Island Arc / Back Arc setting. Located along strike from major mining camps; Avoca and Parys Mountain to the east / northeast and Bathurst (New Brunswick) to the west (pre-Atlantic opening). Clear evidence of large scale active faulting and regional subsidence. Crustal thinning, basin development, high heat flow and alkali basalt extrusives. Nb / Zr plots confirm the prospectivity of the acid volcanics (rhyolites).
Significant Results	<p>Mapping has confirmed that the region hosts prospective stratigraphy for the targeted deposit types.</p> <p>Very little modern exploration has been carried out. The last significant work was carried out by Aquitaine in the early 1980's. Discussions with Aquitaine personnel confirm that the ground was surrendered because of internal company politics and the mineral potential of the Waterford region was untested.</p> <p>UMR recognised that the geological model for the region was not fit for purpose and have, in partnership with the Geological Survey of Ireland, recently carried out an Airborne Magnetism, EM and Radiometrics survey. The results of which are being used to more effectively target areas of significant potential.</p> <p>Historic diamond drilling is quite limited, given the scale of the region. The results of historic diamond drilling confirm that there is significant potential for VHMS and SEDEX style mineralisation in this region with stringers and lenses of low grade massive sulphides intersected but not followed up.</p> <p>UMR has carried out detailed Lithogeochemical and deep overburden sampling supported by ground geophysics to confirm and extend historic work. The results have developed and refined targets, bringing them to stage where some are ready for a drilling campaign</p>



# Unicorn Mineral Resources

## Waterford Block



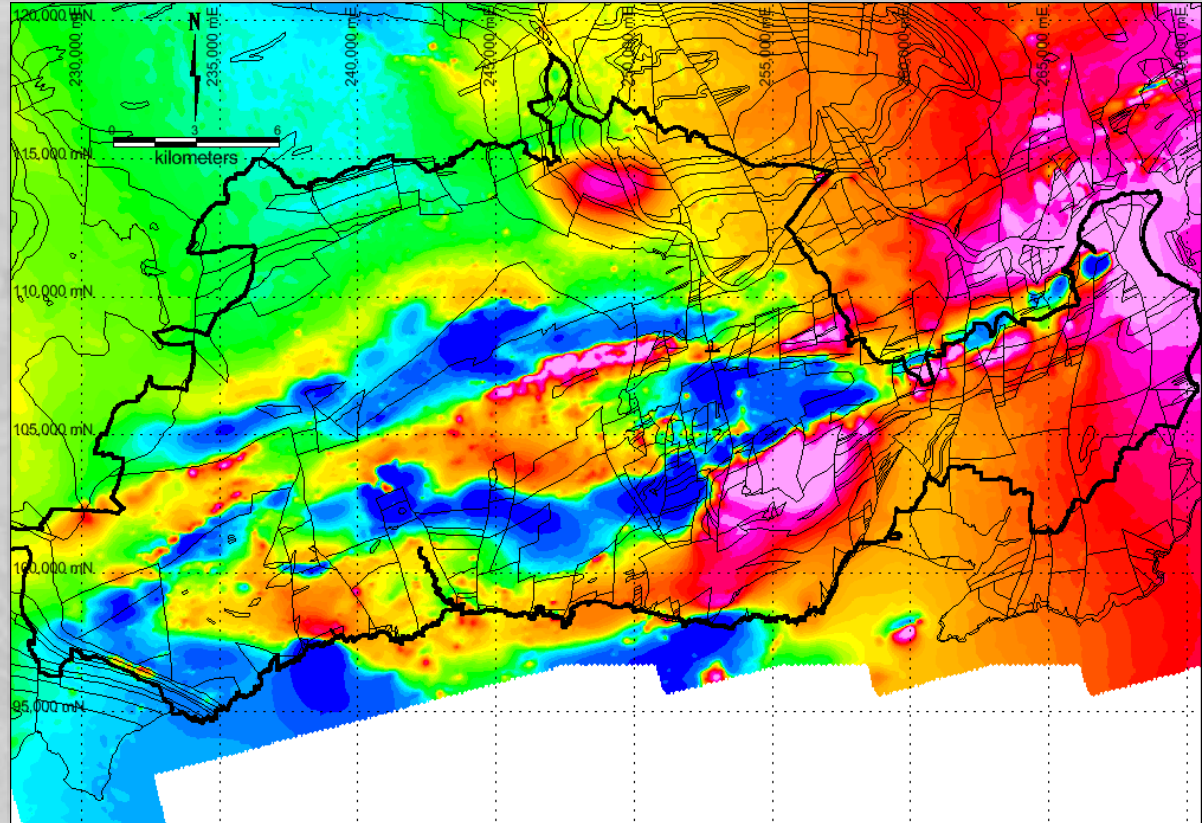
- ❖ Bimodal Ordovician Volcanics deposited in an extensional Arc environment
- ❖ Numerous Zn / Pb / Cu mineral occurrences
- ❖ Along strike from significant VHMS camps to the northeast and across the Atlantic to the west.
- ❖ Poorly explored, due to a variety of non-technical reasons



# Unicorn Mineral Resources

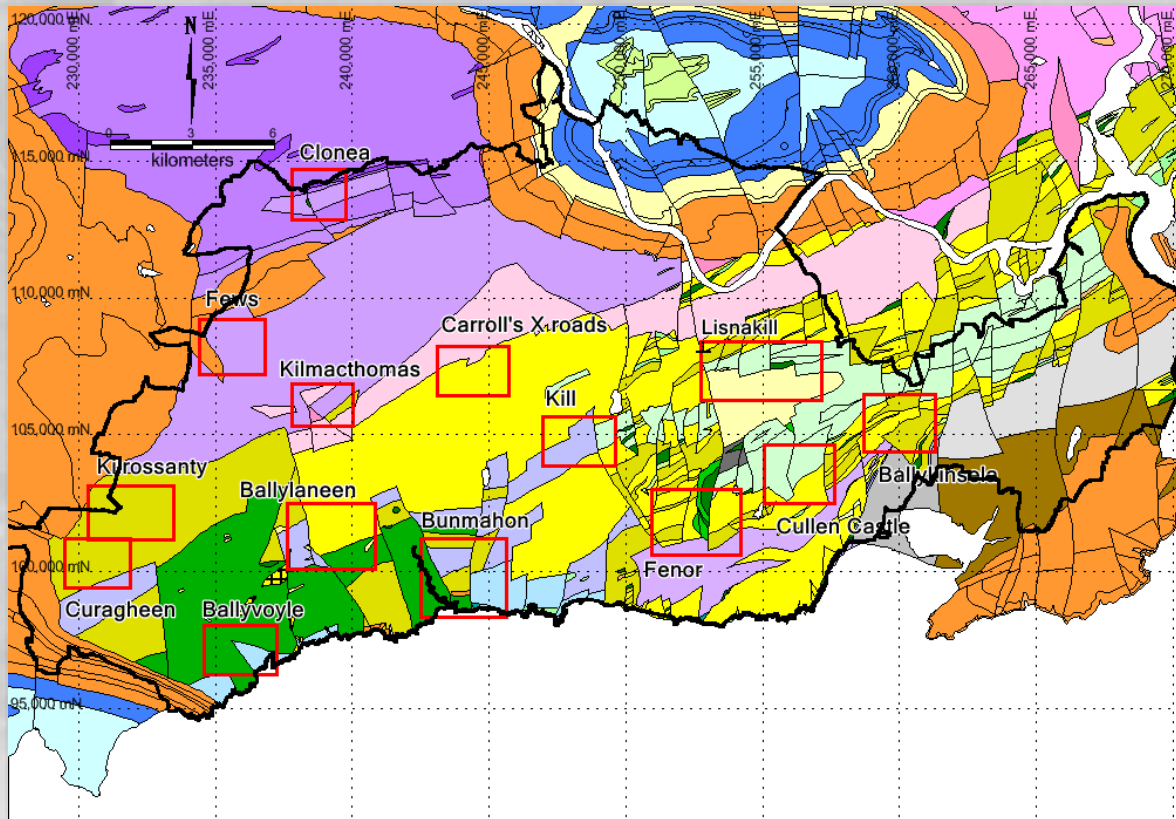
## Waterford Block

- ❖ Airborne geophysical survey flown in May / June 2016. UMR / GSI collaboration.
- ❖ Confirms the inaccuracy of the historic geological models – reinterpretation is in progress
- ❖ Geological / Structural contacts defined by the airborne geophysics are being used to more accurately define and refine targets to improve targeting efficiency



# Unicorn Mineral Resources

## Waterford Block



- ❖ Preliminary work has identified sixteen target areas for follow up groundwork.
- ❖ This work is ongoing and includes: deep overburden sampling, gravity and electromagnetic surveying.
- ❖ Results from the first few areas tested are encouraging and high quality drill targets are being identified.



# Unicorn Mineral Resources

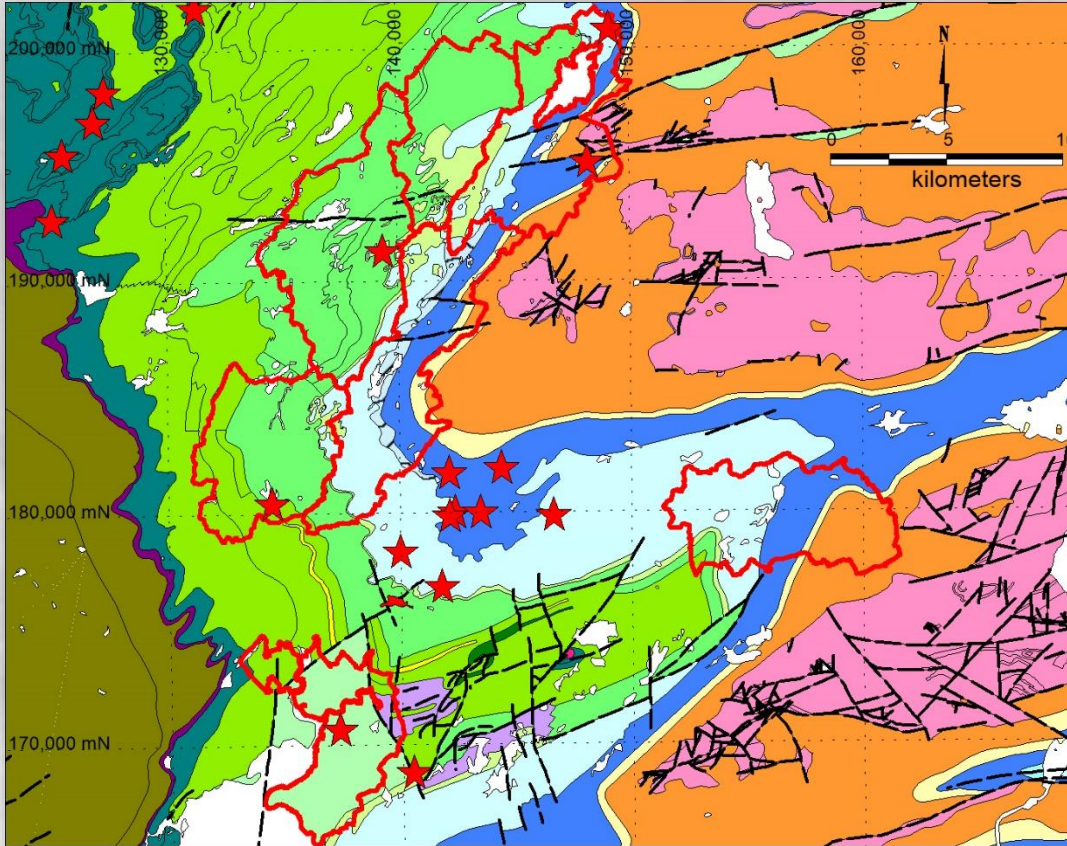
## Gort Block

Block	Seven Non Contiguous Prospecting Licences, Surface Area 292.65km <sup>2</sup>
Infrastructure	Well developed minor and motorway class road network, north and east of the major regional town of Ennis
Regional location	Located at the intersection between the Tynagh-Ballinalack and Limerick Mineralising Trends
Strategic Location	25km Southwest of the Tynagh Deposit and 5km west / northwest from the Kilbricken Deposit.
Target	Base of Waulsortian Reef - Carbonate Hosted, Zinc / Lead Massive Sulphides
Geological Setting	Western side of the Sleive Barnagh Lower Palaeozoic Inlier and around the margins of the Clare Syncline. Structurally complex with early stage fault movement controlling local shelf / basin margins.
Significant Results	<p>Prospecting has discovered lead and copper mineralisation in float and outcrop</p> <p>Mapping has defined major basement faults, with low grade Cu mineralisation that can be traced through the Carbonate Stratigraphy</p> <p>Diamond drilling has intersected Waulsortian Reef hosted massive pyrite, significant faulting with well developed breccias, dolomite and disseminated pyrite.</p>



# Unicorn Mineral Resources

## Gort Block



- ❖ Extensive untested Waulsortian Reef on UMR ground
- ❖ Highly significant prospect being drilled by Hannan Metals at Kilbricken, just 5km away.
- ❖ The targets are relatively shallow (<300m).
- ❖ Numerous mineral occurrences across the Clare region developed high in the stratigraphy, can be associated with deeper, high grade, massive sulphides located at the base of the Waulsortian Reef



# Unicorn Mineral Resources

## Gort Block

- ❖ Ground geochemical surveying is ongoing
- ❖ Target generation is using the new data / models to focus exploration
- ❖ An Airborne Geophysical Survey (Magnetics, EM and Radiometrics) will be flown in the Spring
- ❖ Future Exploration Program will be decided on interpretation of current ground exploration together with results from Airborne Survey



# Unicorn Mineral Resources

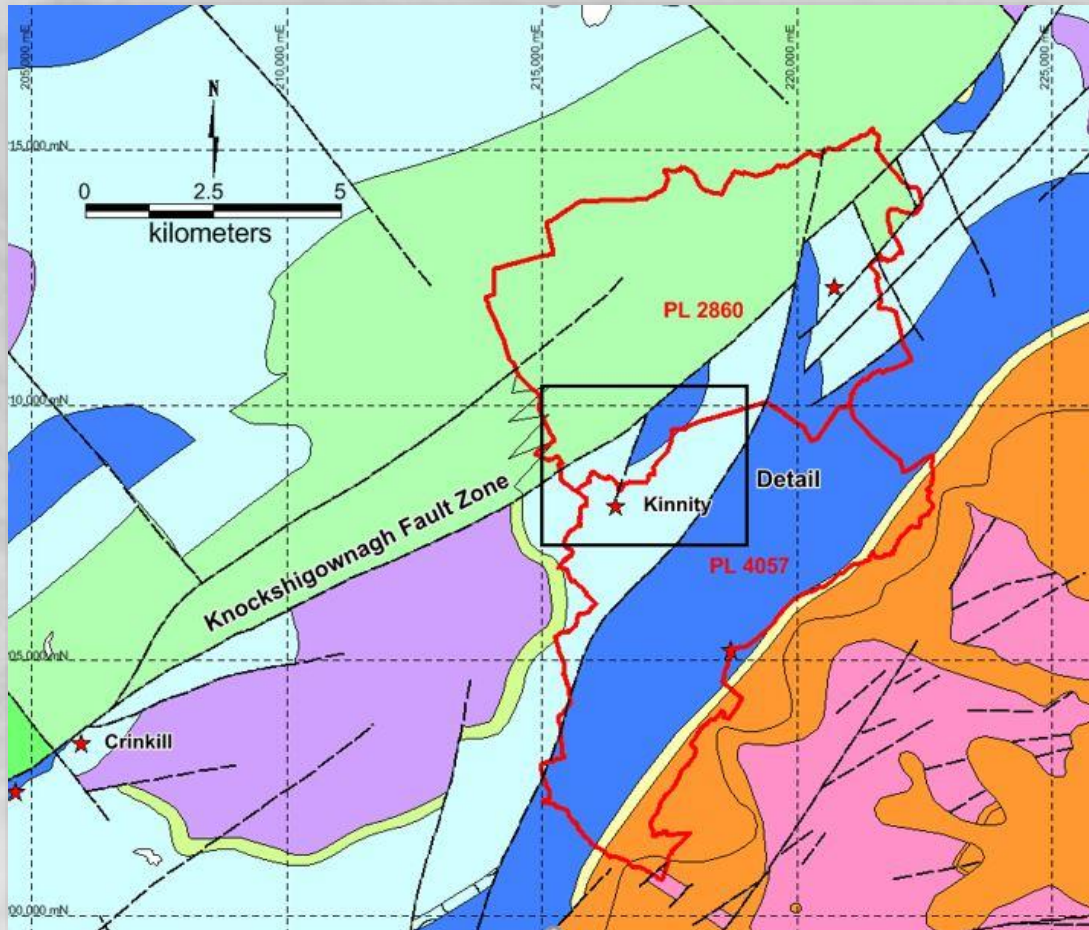
## Kilcormick Block

Block	Two contiguous Prospecting Licences, Surface Area 70.39km <sup>2</sup>
Infrastructure	Well developed minor and regional class road network, south of the small town of Kilcormick. Land use is dominated by pasture land for grazing of sheep, cattle with minor raised bog.
Regional location	Located along the major Navan - Silvermines Mineralising Trend.
Strategic Location	45km northeast of the Silvermines Zn / Pb Deposit and 11km northeast of the Crinkill base of Waulsortian Reef hosted Iron Formation.
Target	Waulsortian Reef hosted - Carbonate Hosted, Zinc / Lead Massive Sulphides. The target model in this area is different from the classic, flat lying, stratiform/stratabound model. Drilling has encountered dipping brecciated massive sulphides with a marcasite dominated iron sulphide speciation, it is felt that this mineralisation is more closely related to Mississippi Valley Type carbonate hosted Zn / Pb
Geological Setting	The Kilcormick Block is located along the structural hangingwall side of a regional scale, basin controlling fault zone - the Knockshigownagh Fault. This structure controlled the northern boundary of a major basin centred on the Slieve Bloom region and bounded to the south by the Rathdowney Trend. The Knockshigownagh Fault was reversed during Variscan compressional tectonics and now has a reverse throw of up to 900m. The Kilcormick Block is located along the structural hangingwall (southeastern side) of the Knockshigownagh Fault and accordingly the depth to target is relatively shallow, 100 - 300m. Waulsortian Reef is locally well developed, with structural complexity and facies variations related to depositional environment.
Significant Results	<p>Historic drilling by Arcon / Noranda in the 1990's intersected significant brecciated massive sulphide mineralisation hosted within the Waulsortian Reef at the Kinnity Prospect. The best intersections from this phase of drilling are:</p> <p><b>K10:</b> 1.75m, grading 5.54% Zn / 0.33% Pb  <b>K15:</b> 4.58m, grading 6.40% Zn / 0.29% Pb  <b>K16:</b> 2.87m, grading 8.14% Zn / 0.27% Pb and 4.62m grading 9.94% Zn / 0.81% Pb  <b>K21:</b> 10.21m, grading 9.45% Zn / 1.12% Pb</p> <p>UMR carried out some drilling, following up on the historic work and testing in hole geophysical techniques, the best hole returned:</p> <p><b>UMK-001:</b> 6.80m grading 4.23% Zn / 0.25% Pb and 4.30m grading 4.63% Zn / 1.00% Pb</p> <p>UMR has carried out a number of in-hole and surface geophysical surveys and have identified drill targets along strike from the Kinnity Occurrence</p>



# Unicorn Mineral Resources

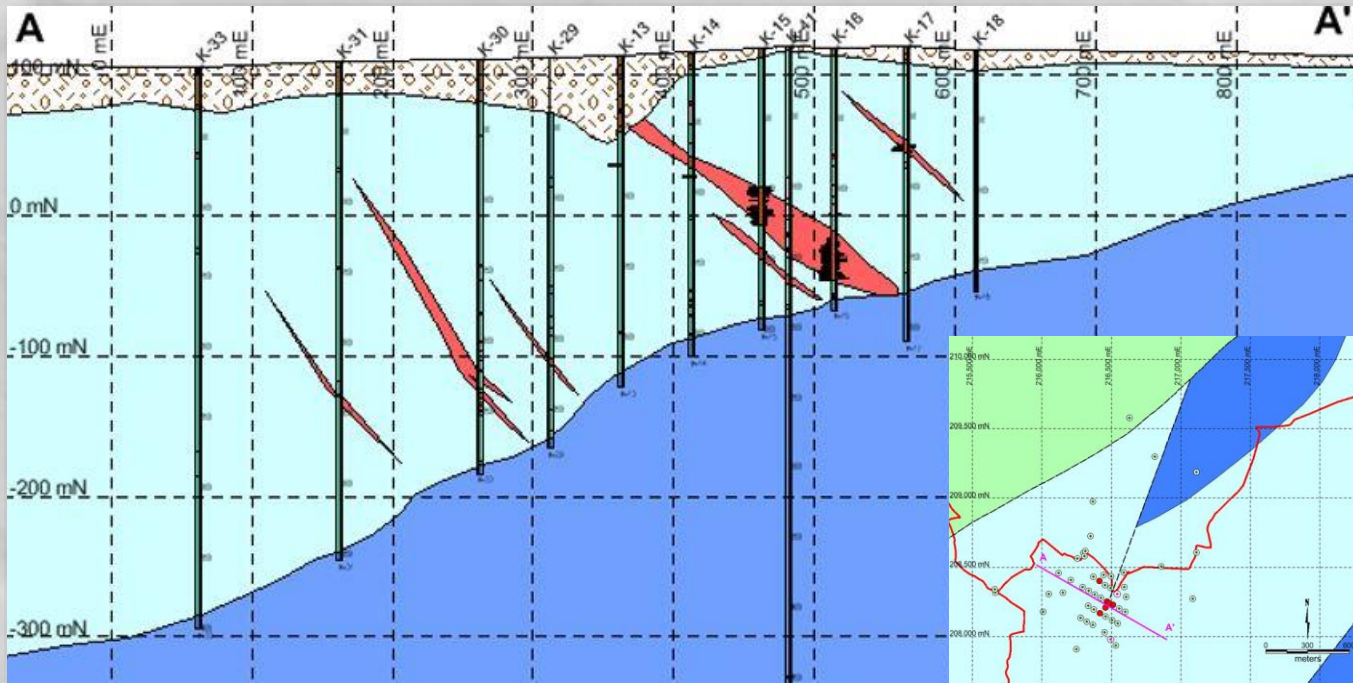
## Kilcormick Block



- ❖ Major Caledonian Fault Zone, that is controlling the basin margin
- ❖ Well developed Waulsortian Reef with depositional / structurally controlled facies variation
- ❖ High Grade MVT style massive sulphide occurrences
- ❖ Mineralisation not fully understood and opportunities exist to develop and extend the sulphide body

# Unicorn Mineral Resources

## Kilcormick Block



- ❖ Multiple Waulsortian Reef hosted, cross cutting, steeply dipping massive sulphide bodies
- ❖ Brecciated, multiphase, Marcasite clasts, rimmed and crosscut by later collomorphic sphalerite and galena
- ❖ Complex structural morphology
- ❖ Mineralisation potentially open along strike to the northeast and southwest.



# Unicorn Mineral Resources

## Kilcormick Block



Massive sulphides from UMK-001

- ❖ Geological complex area, intricate structural history, controls not well understood
- ❖ Well developed host lithology
- ❖ High Grade MVT style massive sulphide mineralisation intersected by drilling
- ❖ Further drilling is warranted

# Unicorn Mineral Resources

## What Next

- ❖ Use of ground and airborne geophysics to develop quality exploration targets on the Gort Licence Block in County Clare.
- ❖ Ongoing Geological, Geochemical, Lithogeochemical and Geophysical evaluation of the VHMS potential of the Waterford Block.
- ❖ 3D modelling and target definition of the Kilmallock ground.
- ❖ Drill ready, high quality targets at Kilmallock, Waterford and Kilcormick. Diamond drilling is scheduled to commence in the first half of 2018
- ❖ Ongoing target generation and identification / acquisition of high quality, prospective ground
- ❖ IPO and AIM Listing
- ❖ Funding required is c. STG£2.5 Million for Listing, Exploration and Administration costs over next two years. High probability of discovery, moving from exploration through to pre-feasibility programme

