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GROUP ELEVEN RESOURCES CORP.

NI43-101 INDEPENDENT REPORT ON
A BASE METAL EXPLORATION PROJECT AT
SILVERMINES, COUNTY TIPPERARY, IRELAND

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Table of Contents

List of Figures

List of Tables

1.0 SUMMARY

In January 2017, SLR Consulting (Ireland) Ltd. (SLR) was requested by the directors of Group Eleven Resources Corp. (GERC), registered in Ireland with offices at 2200-885 West Georgia St, Vancouver, BC, Canada, to complete an independent National Instrument 43-101 format technical report (the 'Independent Report') on the Silvermines project (the Project), located in Ireland.

The Independent Report was prepared by EurGeol Dr John G. Kelly, PGeo, MIMMM, MIQ and EurGeol Paul Gordon, PGeo, MSc both of whom are "qualified persons" and independent of GERC and all its subsidiaries within the meaning of National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("NI43-101"). As independent geologists, the Authors were requested to review the available exploration data for the Project and confirm that it is an exploration project of considerable technical merit, warranting further work.

The Authors have been requested to opine on the efficacy and effectiveness of the exploration programme set out in this report to be implemented by Group Eleven Mining & Exploration Limited (GEM), a wholly-owned subsidiary of GERC. This report outlines the previous work carried out on the Project by GEM. This Independent Report aims to support an upcoming initial public offering of shares in GERC and listing of its securities on the TSX Venture Exchange.

The Silvermines base metal project ('the Project') area consists of five (5) prospecting licenses ('PLs') covering a total of 133 km^2, which form a contiguous block of claims located within County Tipperary, immediately south and southeast of Nenagh town, in County Tipperary, Ireland. The PLs were awarded to GEM on in September 2016 and are valid for six years. The Silvermines area has excellent access and infrastructure, as well as, mild climate which allows year-round fieldwork.

The Project area is considered to be highly prospective for Irish-type zinc-lead deposits within the Lower Carboniferous sedimentary package and specifically zinc-lead-silver mineralization typically concentrated at or near the base of Waulsortian Reef. Prospectivity is based on the untested extension of the major regional Navan-Silvermines fault system, favourable Lower Carboniferous geology and local structure. An effective hiatus in exploration from 1996 until the present time resulted from mine closure issues at Silvermines which were unresolved until the reissue of the key license (PL 4503) in May 2015.

The PLs contain the Cooleen zinc-lead-silver prospect, located down-dip from the shallower Cooleen residual non-sulphide zinc-lead occurrences closer to the main fault system. The Cooleen mineralization is also very proximal (one kilometre) to the historic Silvermines deposit, located within the adjacent license to the south. Cooleen shows general high prospectivity along the structural trend towards the north-east (NE).

GERC's primary focus is on zinc-lead exploration immediately east and north of the historic Silvermines deposit. This trend has only been sporadically drill tested by previous operators and remains very much underexplored (especially relative to the intense systematic exploration seen in the Rathdowney Trend, located on the other side of a major NE trending sub-basin; see Figure 9-4). In the Author's opinion, there is ample room for a new discovery within the Project area, along this NE-trending structural corridor.

Since being awarded the licenses, GEM has conducted (i) extensive data compilation (including the compilation of a detailed geological map of the project area, registering of all relevant historic maps into the MapInfo program, digitizing data from past soil geochemical surveys, etc), (ii) commissioning a reprocessing and reinterpretation of several key historical geophysical surveys, (iii) executing a ground magnetics program and (iv) completing one diamond drill hole to test historic mineralization.

GEM plans to integrate a 3D model of the historic Silvermines deposit (generated by its research partner iCRAG, a government-industry collaborative body) and integrate it with new geophysical data in order to better understand structural controls and depths to target in the Project area. GEM has committed to completing a regional exploration approach to its large strategic land holding by completing a tectono-stratigraphic basin analysis to guide target selection. The above initiatives will be integrated with management's deep knowledge of Irish-style zinc-lead deposits in order to maximize the probability of exploration success.

GEM's ground magnetic survey completed in early 2017 was primarily aimed at identifying prospective northwest trending faults. The diamond drill hole completed at Cooleen (G11-4503-01) intersected significant hydrothermal alteration and base-metal mineralization over a 78.3m interval at the base of the target stratigraphic unit, the Waulsortian Limestone Formation. Available drill core, stored both locally and at the Geological Survey of Ireland (GSI) storage facility in Dublin, will be re-logged and integrated into the basin analysis study.

SLR concludes that the Project area has a number of key features that are characteristic of many major zinc-lead deposits in Ireland. These features indicate that the Silvermines Project area has the potential to host an economic 'Irish-type' zinc-lead deposit.

SLR supports the two-phase exploration program proposed by GERC, with planned expenditure in Phase 1 and Phase 2 of C$1,040,100 and C$619,800, respectively, for a total of C$1,659,900.

2.0 INTRODUCTION

At the request of Group Eleven Resource Corp. (GERC), SLR conducted a technical review of the Silvermines Project, located in County Tipperary, Ireland (Figure 4-1). The prospecting licenses (PLs) were granted to the operating subsidiary, Group Eleven Mining & Exploration Limited (GEM) in September 2016.

GEM is a wholly-owned subsidiary of Group Eleven Resources Ltd. (GERL), which is a wholly-owned subsidiary of GERC.

The PLs cover approximately 133 km^2, which surround, but exclude, the former Silvermines mining leases which contained the zinc, lead and barite deposits mined in the late 1960's, 1970's and early 1980's. The PLs were granted to GEM, by the Minister of Communications, Climate Action and Environment, Republic of Ireland, for a period of six years from 26th September 2016.

The Project area contains relatively shallow non-sulphide zinc-lead-silver mineralized bodies composed of smithsonite, hemimorphite and cerussite. The largest of these bodies is the Cooleen occurrence which is dominated by hemimorphite (as distinct from the Cooleen sulphide body further to the north). Historic exploration of these deposits has defined an unclassified historical resource of 1,090,000 short tonnes averaging 8.9% Zn, 1.85% Pb, sufficiently shallow for open cast mining to be considered a possibility by Boland et al. in 1992. The deposit is partially within, and partially outside the Project area (see Figure 6.1). It is not possible, within the scope of this report, to determine what portion of the body lies within the property. The historical estimates and the Company is not treating them as current resources.

There is no detail available regarding the resource assumptions, parameters and methods.

Significant compilation of data, re-drilling and re-sampling and data verification would need to be carried out by a qualified person before the historical estimates can be classified as current resources. Such work is not considered to be a priority at this time.

A qualified person has not done sufficient work to classify the historical estimates as current estimates. GERC is not treating the historical estimates as current estimates.

Since the award of the PLs, GERC has conducted data compilation, including the compilation of a detailed geological map of the project area, registering of all relevant historic maps into the MapInfo program, digitizing of data from past soil geochemical surveys. GERC also commissioned Paterson, Grant & Watson Ltd. (PGW, a geophysics consultant) to reprocess and reinterpret several key historical geophysical surveys.

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

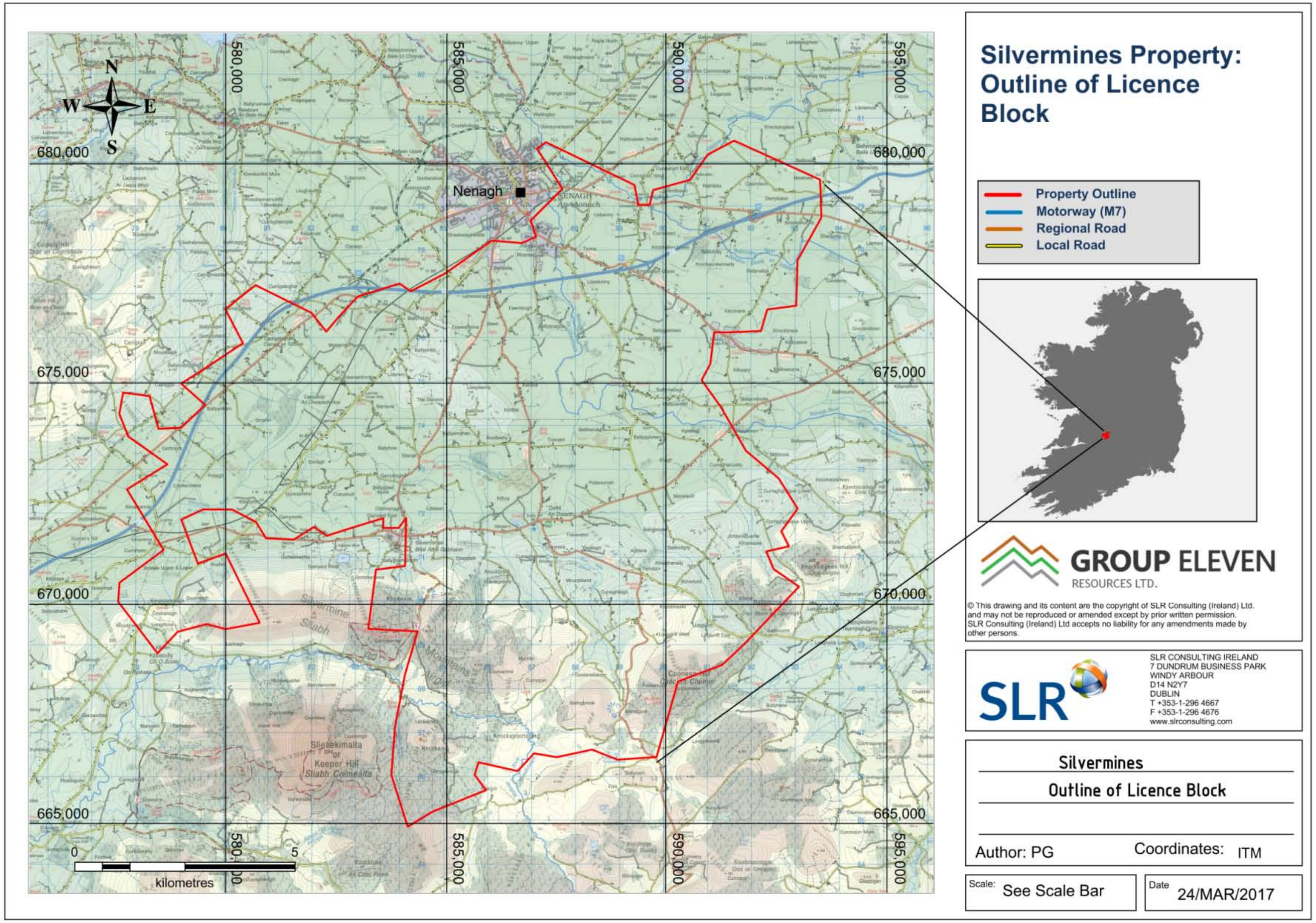

Figure 2.1 Outline of Silvermines Licence Block

2.1 Sources of Information

This Independent Report is based on:

- Technical data, documents, reports and information from GERC, including particularly historic reports obtained from the Geological Survey of Ireland ('GSI') Open File archive and copies of exploration permit documents;
- Published papers on the geology and mineral deposits of the region.
- A site visit and review meeting undertaken by the Authors in January 2017 to the Project area.
- Reports and data in the public domain.
- Previous extensive SLR experience with base metal exploration and mining projects in the region.

The principal sources of information used in preparing this report are listed in Section 27 of this report.

2.2 Data Gathering and Site Visit by SLR

A site visit to the Project area was carried out on behalf of SLR by Dr Kelly and Mr Gordon on the 18th January, 2017, which comprised a visit to the Project area, the Ballynoe barite open pit and the historic Shallee Mine and then onto the Cooleen and other prospects within the GERC exploration ground to the east.

The SLR team was accompanied by Mr. John Barry, Mr. David Furlong and Mr. Bart Jaworski founding directors of GERC. GERC provided SLR with hard and electronic copies of documentation pertinent to the Project and maps showing geology, geochemical anomalies, past drilling, and the results of geophysical surveys.

By reason of their education, experience and affiliation with the Institute of Geologists of Ireland and the European Federation of Geologists, Dr Kelly and Mr Gordon are qualified persons and fulfil the requirements for conducting a technical review for the purpose of NI 43-101.

2.3 Units and Abbreviations

For the purpose of this report, all measurements are given in metric units. All tonnages are in metric tonnes of 1,000 kilograms, and silver values are given in grams per metric tonne.

The following is a list of abbreviations used in this report:

Table 2.1 List of Units and Abbreviations Used.

Abb.	Description	Abb.	Description
%	Percent	**IP**	Induced Polarisation
<	Less than	**ITM**	Irish Transverse Mercator Grid (2001)
>	Greater than	**Kg**	Kilogram
°	Degree	**kg/m^2**	Kilograms per square metre
°C	degrees Celsius	**kg/t**	Kilograms per tonne
µm	Micrometre (micron)	**km**	kilometre(s)
1 gram	0.3215 troy oz.	**km^2**	Square kilometre
1 oz./Ton	28.22 gm/tonne	**Kt**	Thousand tonnes
1 troy oz.	31.104 gm	**M**	Metre
A	Year (annum)	**M**	Million
Ag	Silver	**m^2**	Square metre
Asl	above sea level	**Ma**	Million years ago
Ba	Barite	**Masl**	Metres above sea level
c.	circa (approximately)	**mm**	millimetre(s)
CAD	Canadian Dollars	**Mt**	Million tonnes
Cm	Centimetre	**n.a.**	not available/applicable
Cu	Copper	**NI 43-101**	Canadian National Instrument 43-101
DDH	Diamond drill hole	**NSR**	Net Smelter Royalty
DEM	digital elevation model	**oz.**	troy ounce
EMD	Exploration and Mining Division of Ireland	**PGeo.**	Professional Geoscientist
Fn, FMn	Formation	**Pb**	Lead
g or gm	gram(s)	**PLs**	Prospecting Licences
g/t	grams per metric tonne	**ppb**	parts per billion
GPS	Global Positioning System	**ppm**	parts per million
GSI	Geological Survey of Ireland	**Project**	Silvermines base metal exploration project
H	Hour	**QA**	quality assurance
Ha	hectare(s)	**QC**	quality control
ICP-MS	Inductively Coupled Plasma - Mass Spectrometry	**QP**	Qualified Person
In	Inch(es)	**TSX**	Toronto Stock Exchange
ING	Irish National Grid	**Zn**	Zinc

3.0 RELIANCE ON OTHER EXPERTS

The Authors acknowledge the full cooperation of GERC management and field staff, who made any and all data requested available and responded openly and helpfully to all questions, queries and requests for material. The maps and figures for this Independent Report were supplied by GERC and reviewed, amended and updated by SLR.

As of the time of this report, the Authors are not aware of any material change with respect to the content of this technical report that is not contained within, or which omission to disclose could make this report misleading.

The Authors have relied on legal representations by the Company's legal team Mason Hayes Curran (MHC), as communicated on 16th February 2017 by Justin McKenna (a registered lawyer and partner in MHC), in relation to Item 4 (Property Description and Location). MHC's address is South Bank House, Barrow Street, Grand Canal Dock, Dublin 4 particularly with regard to exploration rights held by Group Eleven Resources Corp. to the relevant prospecting licences through its Irish subsidiaries Group Eleven Resources Ltd. and Group Eleven Mining & Exploration Limited

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Location

The Project is made up of five contiguous PLs which form a single strategic block of exploration ground (Figure 4.1). The Project area lies predominantly south of Nenagh and the M7 motorway. The block covers an area of 133 km^2 and is roughly centred on the townland of Boolteeny, at the triple point between PL 3954, 3955 and 3156 (586689E, 673400N ITM; 186736E, 173360N ING; 8° 11' 51" W', 52° 48' 41"N). All five PLs are held 100 percent by GEM.

The Project area is located eight kilometres south of the market town of Nenagh on the northern flank of the Silvermines Mountains of northern County Tipperary. Nenagh is the county town of Tipperary and second largest town in the county, with a population of 8,000 people. Access is excellent. Nenagh is 162 kilometres southwest of Ireland's capital, Dublin, along the M7; and 40km northeast of Limerick, the Republic of Ireland's third largest city. The villages of Silvermines and nearby Dolla are just 5km from the M7 motorway, accessed from the M7 on R497 for five kilometres to Dolla and then west along the R499.

The old silver-rich lead mines and the footprint of the old Silvermines zinc lead mine lie close to a major fault (Silvermines Fault) which down-throws Lower Carboniferous carbonates on the north of the fault against more resistant Devonian Old Red Sandstone and Silurian meta-sediments, which form the core of the Silvermines Mountains to the south of the fault.

Table 4.1, below, shows the furthest extents of the property in each cardinal direction.

Table 4.1 Project area bounding coordinates

Area Boundaries	ITM
North	680508 (northing)
South	664831 (northing)
East	593638 (easting)
West	577631 (easting)

4.2 Property Description

The Project area consists of five prospecting licenses covering a total of 133km^2, as listed in Table 4.2 below. It is an area of good quality agricultural land, with extensive tillage and grassland for grazing.

The boundaries of the exploration licenses correspond to official, pre-defined, administrative boundaries as outlined by the Exploration and Mining Division (EMD) of the Department of Communications, Climate Action and Environment, Republic of Ireland. The license outlines are irregular, based on river and stream drainages and townland boundaries.

A line of old silver rich lead mines and the abandoned opencast barite mine at Ballynoe extend along the trace of the Silvermines fault which runs close to the break in slope roughly through Dolla and Silvermines villages.

Table 4.2 PL summary information

License No.	Area No.	County	Area (km^2)	Metals	Expiry date
275159619	PL 4503	Tipperary	21	Base Metals, Ba, Ag, Au	26/9/2022
275159666	PL 3953	Tipperary	22	Base Metals, Ba, Ag, Au	26/9/2022
275159713	PL 3954	Tipperary	22	Base Metals, Ba, Ag, Au	26/9/2022
275159760	PL 3955	Tipperary	25	Base Metals, Ba, Ag, Au	26/9/2022
275159807	PL 3156	Tipperary	43	Base Metals, Ba, Ag, Au	26/9/2022
		Total:	**133**		

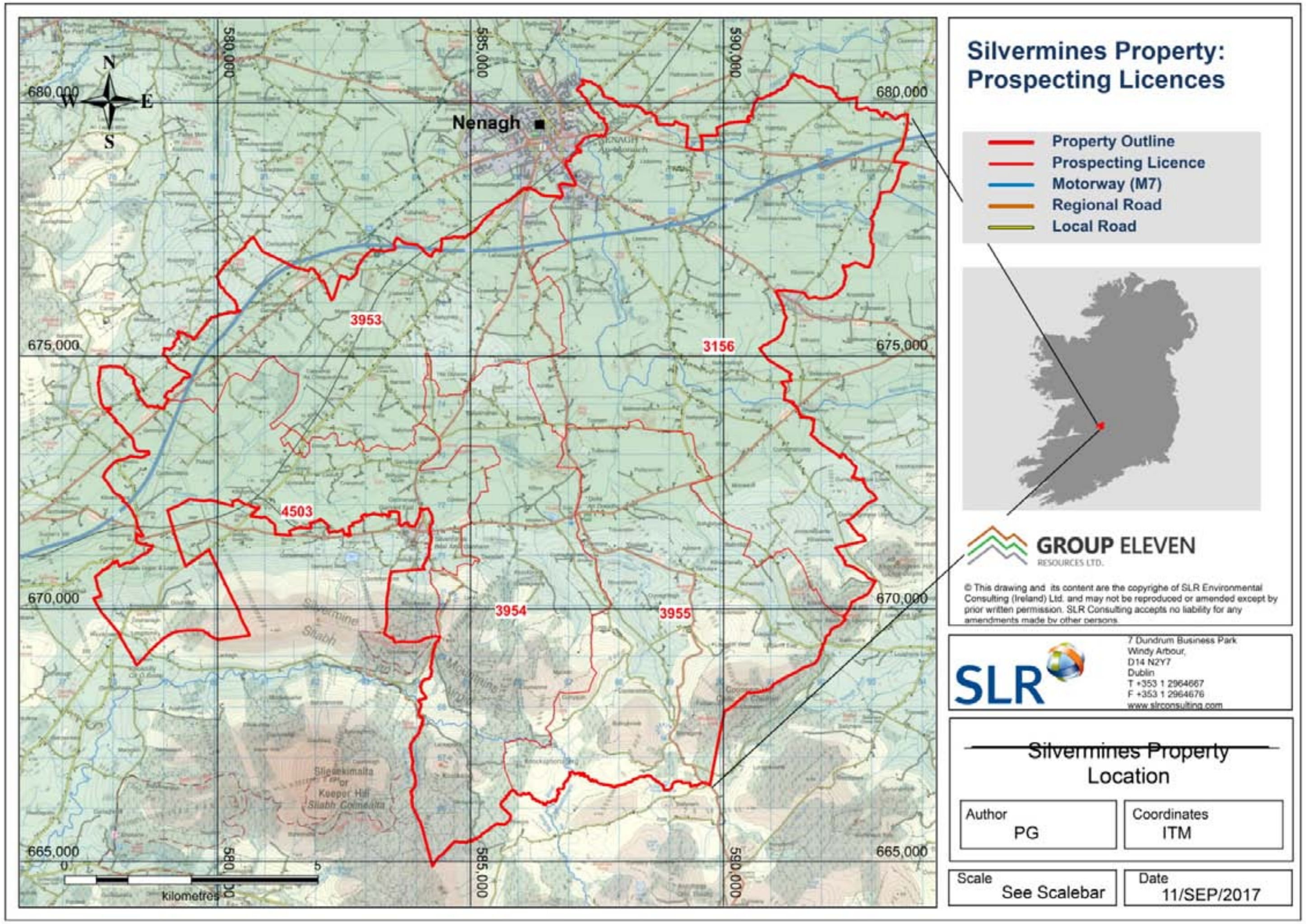

Figure 4.1 Silvermines Property Prospecting Licences

4.3 Prospecting License Regulations in Ireland

The right to explore and the associated access rights are inherent in the terms of a valid prospecting licence. In practice, surface rights are negotiated with individual landowners without the need to invoke the terms of a prospecting licence. To date, GERC has not had any difficulty in gaining access for the purposes of either drilling or geophysical surveying, nor are difficulties anticipated. The Authors have extensive experience of exploring in Ireland, and are in agreement with GERC that it will not be necessary to invoke the terms of the prospecting licences in order to gain access to land.

Mineral ownership in Ireland is, in most cases, vested in the State, although some landowners hold private mineral rights. Mineral exploration is carried out entirely by the private sector, using a permitting system governed by several Minerals Development Acts dating from 1940 to 1999. EMD acts as the agency responsible for the administration of regulatory aspects, including the issuing of PLs.

PLs average approximately 35 km^2 and are issued for a six-year period either on a ‘first come, first served’ or competitive basis, subject to certain conditions. Under the regulations, a license holder is committed to progressively increasing minimum exploration work programs and expenditures for each of the three 2-year terms of the 6-year period. These minimum expenditures relating to the Silvermines PLs are set out in Table 4.3 below (as per the fixed fees for standard ground). In addition, the license holder is required to provide written work reports every two years to the Minister of the Department, one calendar month before the end of period. These work reports are held confidential for six years after submission or until expiry or surrender of the relevant licence. PLs can be renewed beyond the initial six-year period, with increased minimum work and expenditure commitments. Licenses can be relinquished at the end of any two-year period.

Table 4.3 PL Minimum Expenditure Requirements

Area No.	County	Years 1-2	Years 2-4	Years 4-6
PL 4503	Tipperary	€2,500	€2,500	€2,500
PL 3953	Tipperary	€10,000	€15,000	€20,000
PL 3954	Tipperary	€2,500	€2,500	€2,500
PL 3955	Tipperary	€2,500	€2,500	€2,500
PL 3156	Tipperary	€10,000	€15,000	€20,000
Totals		€27,500	€37,500	€47,500

***** *There are also consideration fees to be paid for each property at each bi-annual reporting date increasing from €190 to a maximum of €1,500 for each property*

In the event of a commercial discovery, award of a Mining Lease is normally granted exclusively to the PL holder, subject to the holder complying with certain terms and conditions. Land access for exploration and mining development is negotiated with landowners with payment of agreed compensation for access and land/mineral use where minerals are privately owned. The state takes no shareholding in mines, but will require a royalty to be paid. Mining Lease terms are currently on a project specific basis and generally on a phased schedule. As an example, at the Lisheen zinc-lead mine in County Tipperary, a concessionary royalty of 1.5% to 1.75% (NSR) was levied up to 2007 (from when it commenced operation in 1999) and rose to 3.5% thereafter, until it closed in 2015. At the Galmoy zinc-lead mine, along trend from Lisheen, the royalty rate varied over the life of mine between 1.25% and 2.25%. Applicants for a mining lease are required to obtain planning permission and an integrated pollution Control Licence. From discovery in 1990 to mine production in 1999, Lisheen took nine years to delineate a resource with critical mass, complete feasibility studies, acquire the necessary permits and construct the new mine.

4.4 Prospecting License Terms

The exploration rights to the five PLs comprising the Project were granted to Group Eleven Resources Corp. (GERC) indirectly through its 100% owned subsidiary, Group Eleven Mining & Exploration Limited (GEM), by the Minister for Communications, Climate Action and Environment, Ireland, on 27th September 2016. The licenses, details of which are presented in Table 4.2, allow GEM to prospect for base metals, barite, silver and gold within the limits of the licensed area, and are valid for a period of six years from the issue date of 27th September 2016. The Licenses are subject to the standard work and expenditure commitments, as set out in Section 4.3 of this report.

Under the terms of the PLs, GEM is required to comply with Local Government (Planning and Development) Acts, 1963 -1999; Local Government (Planning and Development) Regulations 1994 – 2004; Local Government (Water Pollution) Acts, 1977 and 1990; Wildlife Act, 1976 and 2000 and Ministerial Orders under these various Acts, Regulations; National Monuments Acts, 1930-2004; European Communities (Natural Habitats) Regulations, 1997; Planning and Development Act 2000 and 2002 and Planning and Development Regulations 2001 and 2004.

The Authors have reviewed the PLs through the Minerals Ireland – Exploration and Mining Division website to identify the detailed spatial locations of the PLs that are the subject of this report. The results are consistent with information provided by GEM to the Authors.

4.5 Environmental Liabilities

The Authors are not aware of any environmental liabilities related to the Silvermines Project area as defined. No obvious environmental liabilities were served during the site visit. A number of historical mining sites in the general Silvermines area have been partially rehabilitated by a work programme originally funded by the Department for Communication, Marine and Natural Resources and managed by North Tipperary County Council.

Rehabilitation works have been completed at the following historical mining sites in the area: Gortmore Tailings Management Facility, Ballygown, Gorteenadiha, Magcobar and Shallee. In addition to the rehabilitation works, conservation works have been carried out on selected mine buildings in the area. North Tipperary County Council has also received approval from An Bord Pleanála for the rehabilitation of the last remaining unrehabilitated site at Garryard.

The Authors are not aware of any significant factors and risks that may affect access, title, or the right or ability to perform work on the property. In addition, GERC has reported that it is not aware of any significant factors and risks that may affect access, title, or the right or ability to perform work on the property. There are no permits on the properties nor is any required for the recommended work program.

In January 2017, several cattle in the Silvermines area died and were subsequently found to be contaminated with elevated levels of lead. Milk from a few farms in the area was tested and deemed unfit for human consumption, affecting the livelihood of the farmers in question. This incident triggered a government interdepartmental investigation into the causes of the poisoning. Media reports suggest the cause of the contamination may be primarily related to tailings which were disturbed during a flooding event in 2015. Under Irish mineral legislation, newly issued prospecting licenses (such as Group Eleven's Cooleen PL 4503) do not hold any legacy environmental liabilities. At the Company's request, EMD has recently provided a signed letter to GERL confirming that "Group Eleven is not liable for any damage caused by former Prospecting or State Mining Facility Licence holders in the Silvermines area."

4.6 Exploration Permits and Significant Risk Factors

The Authors are not aware of, nor has Group Eleven Mining communicated to the Authors, any material risks or issues that might impact title or the access or ability to undertake work on the Project Area. There are no permits on the properties, nor is any required for the recommended work programme. Appropriate assessments to establish that exploration will not impact designated areas, will be undertaken prior to invasive exploratory works.

4.7 Protected Areas

The National Parks and Wildlife Service (NPWS) designate protected areas within Ireland and categorize them as National Heritage Areas (NHA), Special Areas of Conservation (SAC) and Special Protected Areas (SPA).

NHA is a fundamental designation for wildlife. These are areas considered important for particular species of plants and animals whose habitats need protection.

Proposed Natural Heritage Areas (pNHAs) were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated. These sites are of significance for wildlife and habitats.

SACs are the prime wildlife conservation areas in the country, considered to be important on a European, as well as, Irish level.

SPAs are protected areas for birds at their breeding, feeding, roosting and wintering areas. It identifies species which are rare, in danger of extinction or vulnerable to changes in habitat and which need protection. Particular protection is given to those species identified, which are rare, in danger of extinction (such as the Curlew) or vulnerable to changes in habitat.

The Project area contains relatively small areas categorized as SAC and SPA, located on the southern portion of the property (see Figure 4.2 and 4.3), however, NHA areas are not present. One area of pNHA (00939 Silvermines Mountain) is located on the property contiguous with the Silvermines Mountains SAC. Note, NHA and pNHA areas are not required to be considered when screening for appropriate assessment.

Table 4.4 List of Special Areas of Conservation within the Area of Interest

Site Code	Site Name	Area (Ha)	Site Synopsis
939	Silvermines Mountains SAC	24.82	http://www.npws.ie/protected-sites/sac/000939
2124	Bolingbrook Hill SAC	205.94	http://www.npws.ie/protected-sites/sac/002124
2165	Lower River Shannon SAC	812.86	http://www.npws.ie/protected-sites/sac/002165

Site Code	Site Name	Area (Ha)	Site Synopsis
2258	Silvermines Mountains West SAC	612.09	http://www.npws.ie/protected-sites/sac/002258

Table 4.5 List of Special Protection Areas within the Area of Interest

Site Code	Site Name	Area (Ha)	Site Synopsis
4165	Slievefelim to Silvermines Mountains SPA	16,359.44	http://www.npws.ie/protected-sites/spa/004165

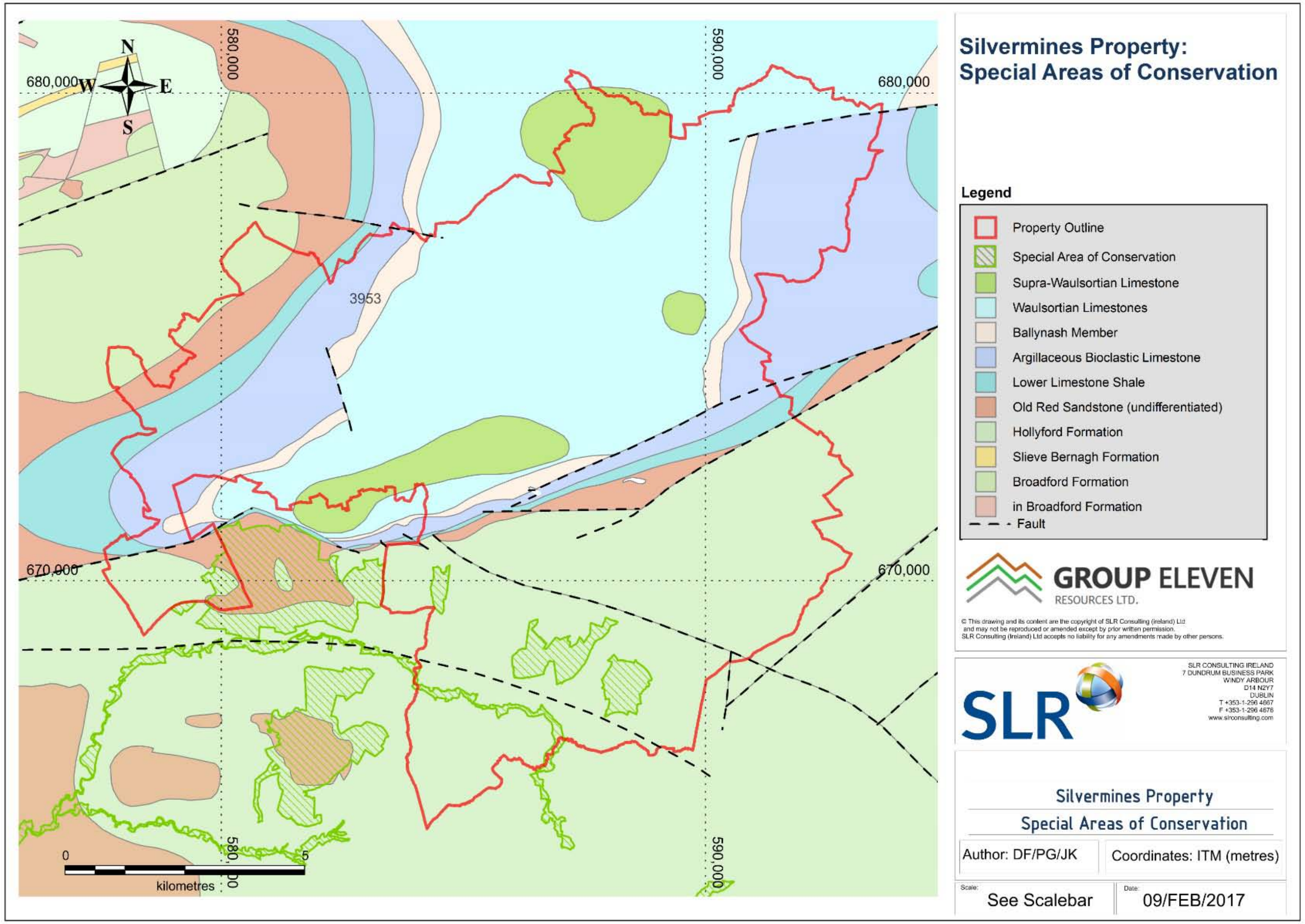

Figure 4.2 Silvermines Property. Special Areas of Conservation

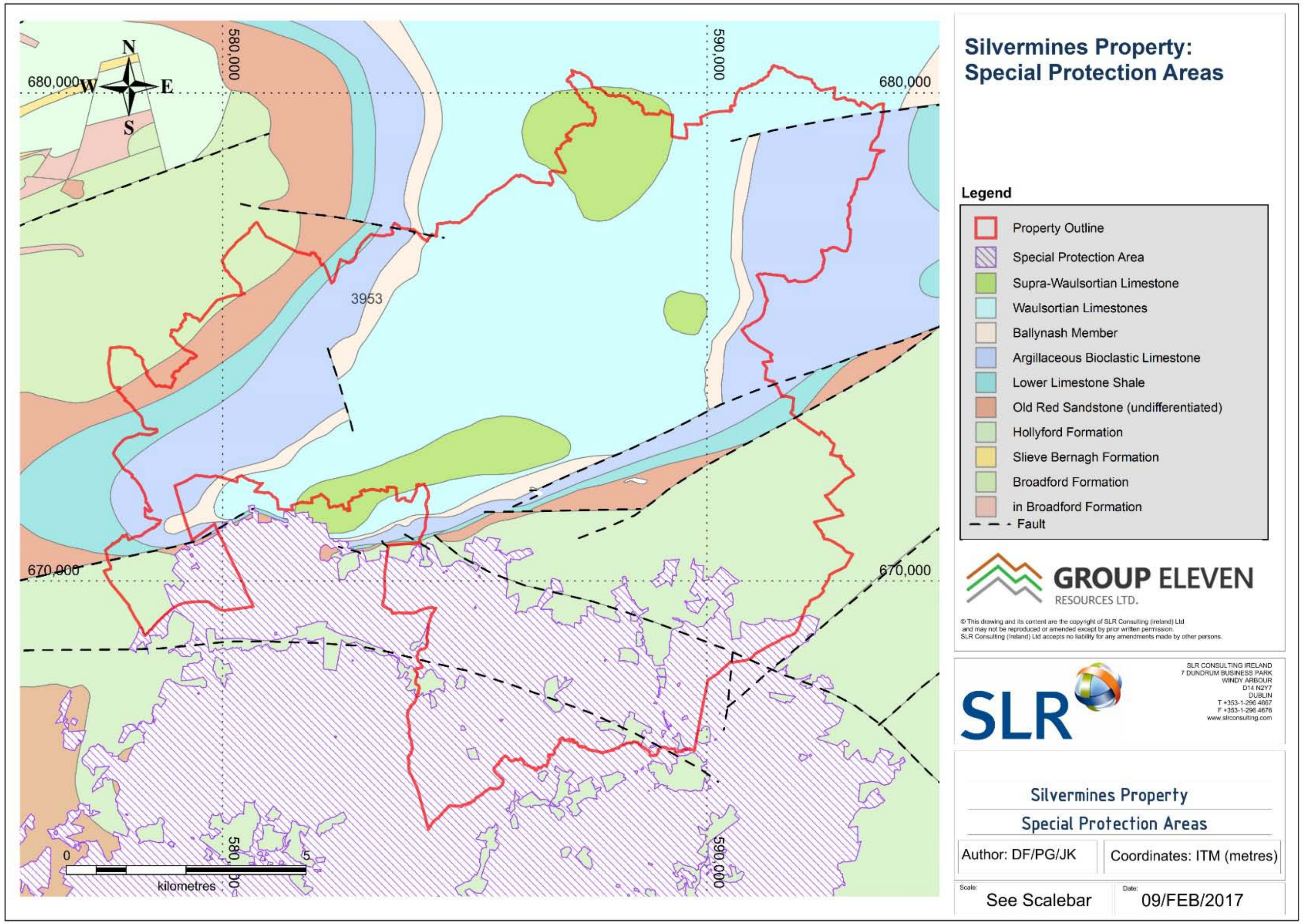

Figure 4.3 Silvermines Property. Special Protection Areas

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Silvermines district has excellent access and infrastructure, and the mild climate allows work all year round.

5.1 Property Access

Regional access to Silvermines from the capital city, Dublin is 162 km on the M7. The distance to Limerick, the Republic of Ireland’s third largest city, with a population of 192,000 people, is 40 kilometres (Figure 5.1). Shannon International Airport is 70km from Silvermines. A dense secondary and tertiary road network covers the entire project area and provides for easy vehicular access all year round. Within the project area there are five secondary roads radiating southward from the market town of Nenagh, namely R445, R498, R497, R500 and R445. A branch line off the main Dublin to Cork railway line runs through the western part of the license block, connecting Roscrea with Limerick.

5.2 Climate

The regional climate is mild and temperate with regular rainfall throughout the year, the temperature rarely falls below freezing point, permitting year-round field work. The average monthly precipitation and temperatures from 2001 to 2012 for Nenagh, Co. Tipperary (north of the Project area) are illustrated in Figure 5.1. Exploration activity can be conducted year round, although extra caution must be exercised on the roads and while crossing streams in the wet season (October to January).

The regional climate is mild and temperate even at these high latitudes, due to the modifying influence of the Gulf Stream, which gives the area cool summers and benign winters, when temperatures rarely fall below freezing. The climate graph for Nenagh is in Figure 5.1 below. Generally, the least amount of rainfall (60mm) occurs in June. The average monthly rainfall is 118mm, with December being the wettest month (120mm). It should be stressed that depending on oscillations in the jet stream and the front between humid warmer air and cold dry air, both precipitation and, to a much lesser extent, temperatures can vary greatly from month to month.

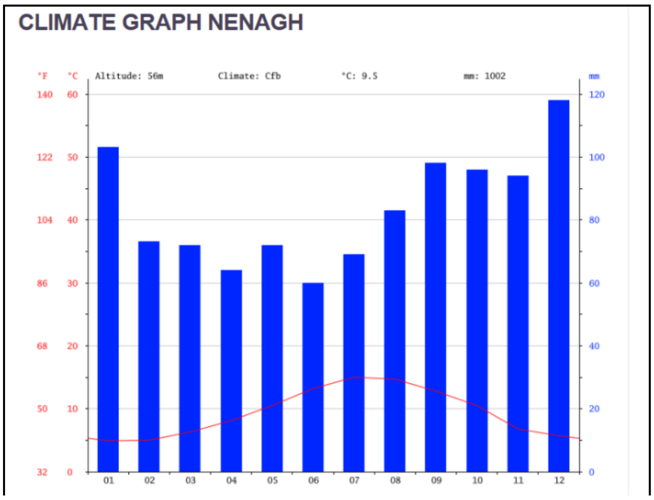

Figure 5.1 Nenagh Climate graph[1]

Field work can be conducted all year round with long hours of daylight (maximum 17 hours) in the summer and shorter days (minimum 8 hours) in winter (Figure 5.2).

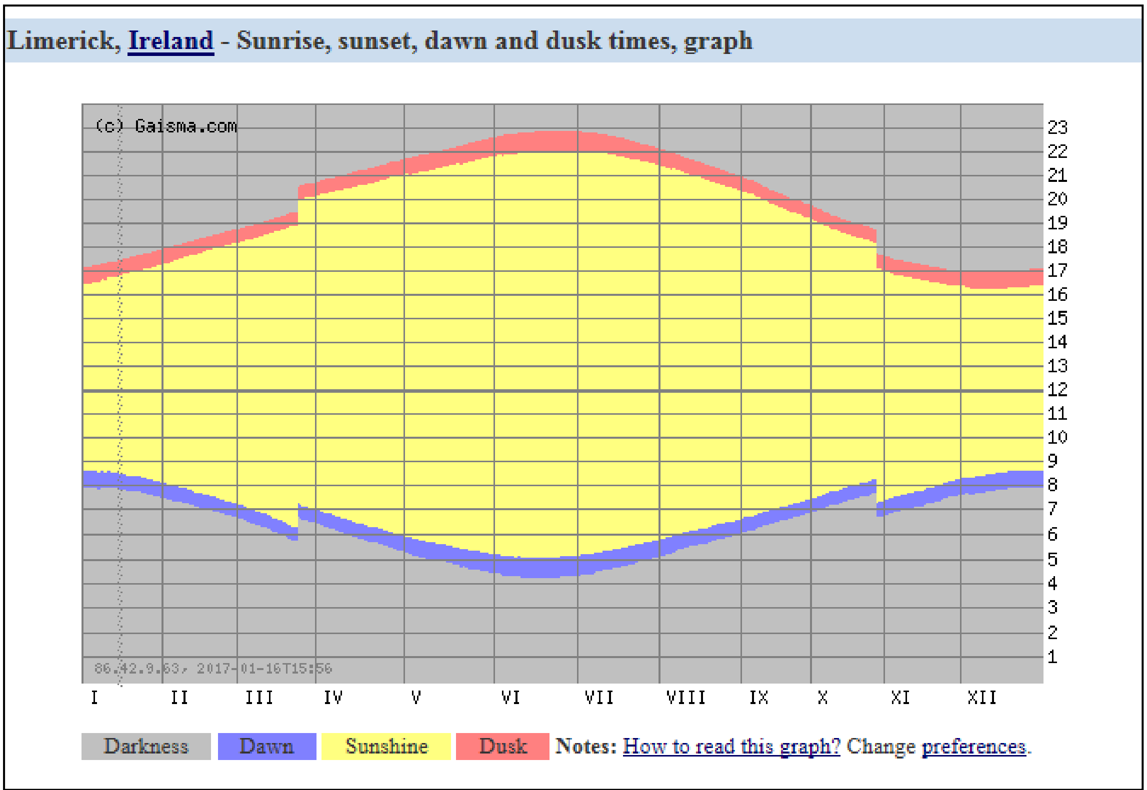

Figure 5.2 Limerick graph of sunrise, sunset[2]

[1] http://www.gaisma.com/en/location/limerick.html

5.3 Physiography and Vegetation

The Silvermines Mountains reach a maximum height of 1,609m AMSL south of Shallee, immediately outside the southeast boundary of the property. The topography changes from Lackabrack Hill (400m AMSL) on the northern flank of the Silvermines Mountains in the extreme southern part of the license block and rolls gently northward over low to moderate-level undulating ground between 80m and 100m AMSL (apart from a few isolated hills between 100m and 120m AMSL).

Most of the area is covered by rich agricultural land and pasture. All drainage across the property is captured by the Shannon River basin. The Nenagh River flows north across the property rising in the south in Silvermines Mountains. The Kilmastulla River drains west across the property.

5.4 Infrastructure

Infrastructure, which supported a major zinc-lead at Silvermines until closure in 1982, has been greatly enhanced in recent years. There is now a 400kv high voltage power line running through the Silvermines Project Area south of Nenagh (see Figure 5.3). The town of Nenagh (8,000 inhabitants) is located just off the northern boundary of the license block. Nenagh is a market town and county town for Tipperary. It was established as an agricultural market centre, which has since evolved into a business and satellite town to Limerick City, having extensive banking services, hotel accommodation, restaurants, internet and telephone access.

[2] http://www.gaisma.com/en/location/limerick.html

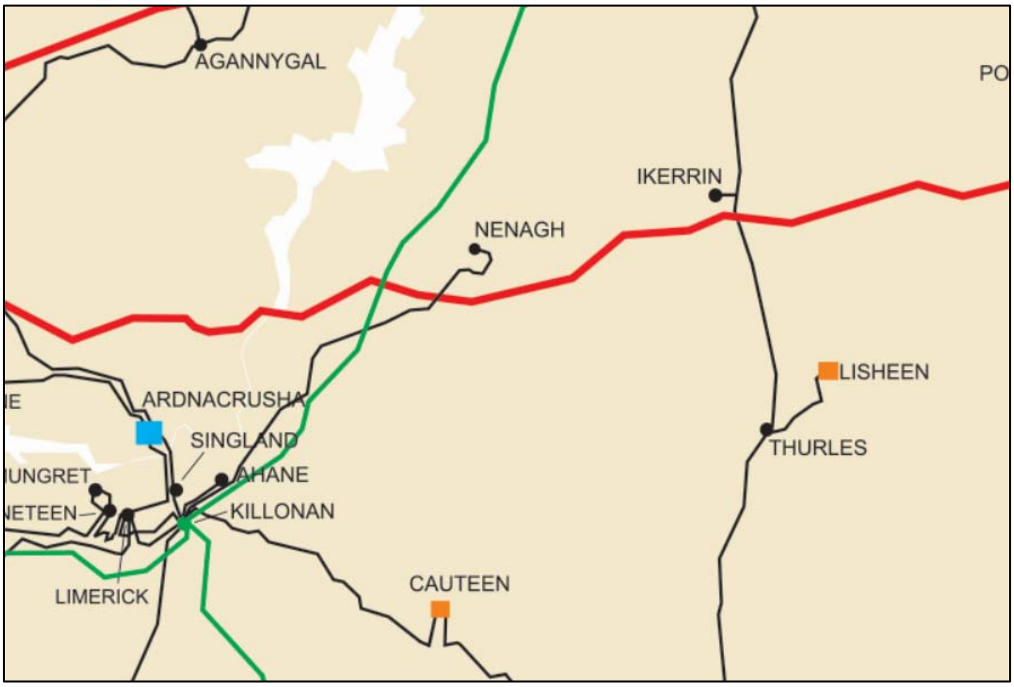

Figure 5.3 Colour coded power grids through Silvermines Project area.

Note: Red 400KV, Green 220kV and Black 110kV

The Project area is well served for grid electrical power, water and communications, with mobile phone coverage available everywhere. When Silvermines was an operating mine, concentrate was railed to the deep water port of Foynes, about 80km from Silvermines. Foynes is also the location for Rusal's Aughinish Alumina refinery. Aughinish is the largest aluminium refinery in Europe and receives shipments of bauxite from West Africa.

In the event of an economic discovery at the Silvermines project area, there is sufficient space on each of the licences to accommodate mining infrastructure such as mine buildings, offices, mills, concentrators, tailings storage and waste storage. There is adequate water and power in local areas to support extraction and processing. There is skilled local labour available in Ireland for the various aspects of a mining operation due to the recent history of mining in the country, particularly at the Lisheen and Galmoy zinc-lead mines.

6.0 HISTORY

6.1 Early History of Silvermines

The earliest recorded history of mining at Silvermines dates back to the early 9th century, when it is believed that silver-rich galena was mined from Shallee, approximately 3.5km west of Silvermines village. From the 16th to the 19th century, episodic mining along the Silvermines Fault extracted copper, silver, lead, zinc and sulphur mineralization (Cole, 1998). A. B. Wynne ("The Mining District of Silvermines," G.S.D., vol. 8, p. 245, 1860) says that the Dunalley family worked the mines at different times since 1720 (Wynne 1861). J. Rutty ("Nat. Hist. of Dublin,@ Vol 2, p 141, 1772) records "80 oz. of silver to the ton of lead from Silvermines which was the richest proportion known to him from Irish mines" (p 122, Cole, 1998).

The first record of lead production is noted by Hunt (1848) in Cole (p. 122, 1998) who states 209 tons of mineralization (yielding 125 tons of lead and 12,000 oz of silver in 1852). In later years, the output became much smaller, ending in 2 tons 12 cwt in 1874 (when lead was £13 to £19 per ton). In 1870, the mines were taken over from the 'General Mining Co. for Ireland' by 'Shallee Silver Lead Mining Co.', which subsequently went into liquidation (from 1874 to 1877) and were succeeded by Mr Charles Cummins.

On Griffith's Map (1855), the sites of the small lead mines are accurately located along the Silvermines "channel". From west to east, the mines are named: 'Shallee West and East', Gorteenadiha, Garryard West, Gortshanroe (also known as Ballynoe), Knockanroe (SW of Silvermines), Ballygown South (or Silvermines; immediately south of the village) and Garryard East (at the village of Cooleen, located to the northeast).

Zinc was considered waste material until efficient sulphide processing technologies were developed in the early 20th Century. In the 20th century mining of calamine (smithsonite) at Ballygown South and of argentiferous galena at Shallee (silver-rich lead sulphide) continued sporadically until 1958. As the name Silvermines implies, this district has been known throughout history for its mining of argentiferous lead mineralization.

6.2 Discovery of the Silvermines Deposits and Mine Production

With the discovery of the Tynagh zinc-lead mine by the Northgate Group in 1960, the rush to explore the Irish midland basin commenced in earnest.

Soil sampling in the area commenced in late November 1962. Actual work on the Silvermines properties started in late December 1962. The geophysical surveys began in February 1962 and completed in May 1963. Drilling the K Series started in June 1963 and the concentrated drilling on the G zone started in August 1963 (source: W.W. Weber January 1, 1964, Toronto, Ontario: "Summary of Exploration Program of Consolidated Mogul Mines Ltd., Tipperary, Eire").

In 1963, major base metal and associated barite deposits were discovered in the Silvermines district by diamond drilling at what was to become the "K" zone. Between 1968 and 1982, 'Mogul of Ireland' produced approximately 10,783,859 tonnes, grading 7.4% Zn and 2.7% Pb (Andrew, 1986). Magcobar Ireland Ltd. (Dresser Industries) produced about 4Mt tonnes of 85% $BaSo_4$ (> 4.2 S.G.) lump barite to the end of 1990 (Boland *et al*, 1992).

Ennex International Plc explored the areas adjacent to the mine between 1984 and 1996 to try and add to the remaining historic, unclassified resource of 6.9 million tonnes averaging

5% Zn and 2.3% Pb (Andrew, 1986). It has not been possible to ascertain the details of the methods used, nor the assumptions made, in calculating the historic estimate.

Most of the known Silvermines deposit is outside the GERC property (see Figure 6.1), but it has not been possible to either confirm the resources nor to determine what portion is within the property. Significant compilation of data, re-drilling and re-sampling and data verification would need to be carried out by a qualified person before the historic estimates can be classified as current resources. Such work is not considered to be a priority at this stage in the project.

A qualified person has not done sufficient work to classify the historic estimates as current resources. GERC is not treating the historic estimates as current resources.

Mogul produced some 10.7Mt grading 7.4% Zn and 2.7% Pb from 1968 until closure in 1982 (Boland et al, 1992).

6.2.1 Historical Soil sampling

Recce soil sampling was conducted on 600 feet x 200 feet (180m x 60m) spacing over the total 39 sq. miles (100 sq. km). This represented a density 126 samples per sq. km so total of 12,600 samples. Where anomalies were detected, more detailed samples were taken on 200 feet by 60 feet (60m by 18m). In total, 40,000 samples were collected and tested by hot extraction for bulk base metal content determining copper, lead and zinc (Weber, 1964).

6.2.2 Historical Geophysics

The entire area was covered with IP (McPhar and Diegel units) on a recce scale. Detailed work (100 ft. by 400 ft. electrode separations) was completed in the anomalous areas in addition to the normal (200 ft. and 300 ft.) separations. In total, 206 line miles (331 km) of induced polarization survey were completed.

A crew using the Magniphase unit completed 90 line miles (145 km) of electromagnetic (EM) survey, principally checking the IP anomalies. Both horizontal and vertical loop methods were employed.

6.2.3 Historical Drilling

By January 1964, some 35,000 feet (10,668 metres) had been drilled with the major portion (over 2/3rds) concentrated on the G area. From discovery to pre–production, 256 surface drill holes were completed' totalling 40,500 metres of drilling.

Not all of the deposit was fully mined and there remain concentrations of undeveloped residual mineralization in a number of zones, peripheral to the main bodies of the deposit (see Figure 6.1). There is also some mineralization in zones of karstic development where mineralization outcrops under glacial tills, resulting from dissolution of the limestone or mineralization and subsequent collapse. These karstified, mineralised bodies are believed to have formed during the Tertiary Period and bear similarities to the residual mineralisation at Tynagh.

To the east of the Project area, these shallower non-sulphide mineralised bodies are composed of smithsonite, hemimorphite and cerussite. Hemimorphite seems to dominate at the Cooleen non-sulphide zone (as distinct from the Cooleen sulphide body further to the north). Where these deposits are rooted in primary mineralization, the sulphide content increases with depth though mixed oxide-sulphide zone into a black sulphidic mud and then into primary sulphides. Exploration of these deposits has defined a ‘measured’ resource of 1,090,000 short tons @ 8.9% Zn and 1.85% Pb (Boland, 1992). These zones are believed to be potentially amenable to open cast mining, however, the Company does not anticipate putting any effort towards this scenario. The term ‘measured’ was defined by the Institute of Mining and Metallurgy, the definition is not the same as it is now and cannot be taken as being equivalent to a measured resource in the current sense. It has not been possible to ascertain the details of the methods used, nor the assumptions made, in calculating the historic estimate.

Significant compilation of data, re-drilling and re-sampling and data verification would need to be carried out by a qualified person before the historical estimates can be classified as current resources. Such work is not considered to be a priority at this stage in the project.

A qualified person has not done sufficient work to classify the historical estimates as current resources. GERC is not treating the historic estimates as current resources.

Residual bodies are partially within, and partially outside, the Project area (see Figure 6.1), however, it is not possible to determine exactly what portion lies within the property - within the scope of this report.

The term ‘measured’ in this instance appears to have been an informal usage of the term and cannot be considered to be equivalent to a measured resource as it is now defined by CIM/CRIRSCO. The historical estimates associated with the residual bodies are not treated by the Company as current resources.

Since first being issued in 1962, prospecting licences in the Silvermines area have been held by several companies, the most important of which are set out in Table 6.1 below:

Table 6.1 Silvermines area – Prospecting Licence History

Period	Company	Activity
November 1962	Consolidated Mogul Mines Ltd.	Soil sampling starts on PLs 72 & 73
June 1963	Consolidated Mogul Mines Ltd.	Drill discovery of K-Zone
1964	Incorporation of Mogul of Ireland Ltd. *(An Irish incorporation owned jointly by Consolidated Mogul Mines Ltd. (75%) and Silvermines Lead & Zinc Co. Ltd. (25%)*	Penarroya/Munster Base Metals
1968	Mogul of Ireland Ltd.	Underground mining starts
1982	Mogul of Ireland Ltd.	Mine closes
1983	Ennex (Northgate Group)	Acquires Mogul of Ireland Ltd.
1984	Ennex	Near-mine exploration drilling starts
1985	Ennex International Plc	Floatation on Irish stock exchange
1985	Ennex International Plc	Gortmore tailings environmental concerns
1996	Ennex International Plc	Exploration ceases *(Ennex acquires Shaimerden zinc project in Kazakhstan and focus shifts from Ireland)*
2003	Ennex International Plc	Name change to Petroceltic
2006	Petroceltic	State rescinds exploration licences
2014	Mogul of Ireland Ltd.	Dissolved
2015	Gov. Division (EMD) of Dept. of ECCAE	Exploration ground offered in a competition
2016	Group Eleven Mining & Exploration Ltd. (private)	Granted PLs at Silvermines

Table 6.2 Silvermines area – Prospecting Licences and History of Work Undertaken by PL Holders

PL Number & Owner	From (Year)	To (Year)	Geological Mapping	Prospecting & Float Mapping	Soil Geochemistry	Stream Sediment Geochemistry	Deep overburden Geochemistry	Lithogeochemistry	VLF Ground Geophysics	IP Ground Geophysics	Ground Magnetics	Ground Radiometrics	Gravity Survey	Airborne Magnetic Survey	Remote Sensing	Trenching/ Pitting	Drilling No. of Holes	Lithogeochemistry (drilling)	Ground Resistivity	GPS Network	Downhole Geophysics	Self Potential Survey	Hyrdocarbon Gas Geochemistry	Re-logging of Historical core	Mercury Survey	Galvanic Soundings	Magneto-telluric Survey	Micropaleontology	Metallurgical Study
PL 3156 (Formerly PL's 1234, 660, 78, 396)																													
Tyrone Minerals	1964	1965			X																								
Tyrone Minerals	1965	1966															8												
Gortdrum Mines	1968	1969			X																								
Enfer	1969	1970			X												1												
Irish Base Metals	1970	1971								X																			
Irish Base Metals	1971	1972			X				X																				
Irish Base Metals	1972	1973			X												3												
Irish Base Metals	1973	1974			X																								
Irish Base Metals	1974	1975		X	X								X																
Irish Base Metals	1975	1976															2												
Irish Base Metals	1976	1977					X		X																				
Irish Base Metals	1977	1978							X	X																			
Cominco	1988	1989							X																				
Cominco	1990	1991								X																			
Shallee	1990	1991								X							7												
Westland Exploration	1990	1991								X																			
Shallee	1991	1992												X															
Shallee	1992	1993								X				X			1												
Shallee	1993	1994	X																										
Shallee	1994	1995							X								8												
Shallee	1995	1997			X												2												
Noranda	1997	1999											X	X															
Noranda	1999	2001						X									2												
Minco	2005	2007															4												
Connemara Mining Company Ltd.	2008	2010	X							X																			
Connemara Mining Company Ltd.	2010	2012																											
PL 3953 (Formerly PL's 3445, 2336, 1825, 92)																													
Rio Tinto	1963	1964			X	X	X			X																			
Rio Tinto	1964	1965	X		X	X																							
Rio Tinto	1966	1967			X												10												
Rio Tinto	1967	1968																							X			X	
Rio Tinto	1968	1969			X																								
Rio Tinto	1970	1971								X																			
Rio Tinto	1971	1972								X							2												
Mogul Exploration	1977	1979	X							X							1												
Mogul Exploration	1979	1981	X	X																									
Mogul Exploration	1980	1981	X				X																						
Noranda	1998	2000			X		X		X				X	X															
Noranda	2000	2002					X										2												

PL Number & Owner	From (Year)	To (Year)	Geological Mapping	Prospecting & Float Mapping	Soil Geochemistry	Stream Sediment Geochemistry	Deep overburden Geochemistry	Lithogeochemistry	VLF Ground Geophysics	IP Ground Geophysics	Ground Magnetics	Ground Radiometrics	Gravity Survey	Airborne Magnetic Survey	Remote Sensing	Trenching/ Pitting	Drilling No. of Holes	Lithogeochemistry (drilling)	Ground Resistivity	GPS Network	Downhole Geophysics	Self Potential Survey	Hyrdocarbon Gas Geochemistry	Re-logging of Historical core	Mercury Survey	Galvanic Soundings	Magneto-telluric Survey	Micropaleontology	Metallurgical Study
PL 3954 (Formerly PL's 362, 3904, 75, 76, 2937R)																													
Mogul Exploration	1973	1974															40												
Mogul Exploration	1974	1975															60												
Mogul Exploration	1975	1976															X												
Mogul Exploration	1976	1977															3												
Mogul Exploration	1977	1978								X																			
Mogul Exploration	1978	1979															1												
Mogul Exploration	1979	1980					X																						
Mogul Exploration	1980	1982															1												
Mogul Exploration	1980	1981					X																						
Mogul Exploration	1981	1982															1												
Mogul Exploration	1982	1983							X																				
Mogul Exploration	1983	1984					X		X	X							9												
Mogul Exploration	1986	1987						X									3												
Mogul Exploration	1987	1988							X																				
Mogul Exploration	1988	1989					X			X							2												
Mogul Exploration	1989	1990																											X
Mogul Exploration	1991	1992								X							3				X								
Ennex	1991	1992								X			X																
Ennex	1992	1993															5												
Westland Exploration	1992	1994	X	X						X																			
Ennex	1993	1994															9												
Ennex	1995	1996															5												
Noranda	2001	2002					X							X			3												
PL 3955 (Formerly PL's 2247,3904, 3445, 2477, 77)																													
Zenmac	1968	1968								X							32												
Dresser Minerals	1977	1979	X		X		X			X																			
Mogul Exploration	1982	1986			X		X																						
Mogul Exploration	1984	1986					X																						
Rio Tinto	1988	1989			X																								
Cominco	1996	1996	X						X																				
PL 4503 (Formerly PL's 74, 75, X11, X1, 362)																													
Mogul Exploration	1975	1976	X	X																									
Mogul Exploration	1976	1977															1												
Mogul Exploration	1977	1978					X																						
Mogul Exploration	1978	1979															1												
Mogul Exploration	1980	1981					X																						
Mogul Exploration	1981	1982					X																						
Mogul Exploration	1982	1983							X																				
Mogul Exploration	1983	1984					X		X	X																			
Ennex	1991	1992								X			X																
Ennex	1992	1993															5												
Westland Exploration	1992	1994	X	X						X																			
Ennex	1993	1994															9												
Ennex	1995	1996															5												

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6.3 The Silvermines Project Area

The Silvermines Project area wraps around the retired mining leases over the closed Silvermines Mine. The block of five exploration licences are North, East and West of the closed mine which ceased zinc operations in 1982. The history of discovery (1963) and mining at Silvermines is relevant to Project area because exploration naturally evolved and migrated very slowly eastward from the initial discovery and mine areas into what is now Group Eleven's Project area.

Table 6.3 Current PL numbers and previous PL numbers for these PL areas

Current PL Number	Previous PL Numbers
PL 4503	PL 75, PL 74, PL X11, PL X1, PL 362
PL 3954	PL 76, PL 2937R, PL 3904, PL 75, PL 362
PL3955	PL 3445, PL 3904, PL 77, PL 2477 and PL2247
PL 3156	PL 396, PL 1234, PL 660, PL 78
PL 3953	PL 3669, PL 92/93, Pl 2336, PL 1825

After the Silvermines mine closed in 1982, Ennex International plc acquired 'Mogul of Ireland Ltd.' and commenced exploring very close to the mined out mineralised bodies, with small incremental step-out drilling. In 1983, a high-grade black sludge of non-sulphide residual mineralization of 41 feet (12.5m) averaging 13% Pb and 12% Zn was intersected in the eastern part of the K Zone (Boland 1992). This was similar to that previously discovered at the Tynagh Mine in Co. Galway. This was a pivotal point in post mine exploration and propelled the exploration effort onto a new trajectory targeting the potential for high-grade residual non-sulphide deposits.

Two diamond drillholes 76-84-1 and 76-84-2, were drilled by Ennex (Mogul Ireland Ltd.) in 1984 to test a strong zinc-lead geochemical anomaly defined by deep overburden sampling. No significant mineralization was encountered apart from sludge samples from a cavity between 5 and 14 metres depth in DDH 76-84-2. Boland (1994) determined that a fault was required between these drillholes trending north northwest or west-northwest.

In the late 1980's, the focus moved northwards in the Project Area to test for primary sulphide mineralization in areas just southeast of Nenagh town. In 1991, a deep penetrating gradient array survey highlighted some anomalies about one kilometre northeast of the B zone. Previously in this area, four of five drillholes intersected weak mineralization. There was also a realization after the discovery of Lisheen and Galmoy, that the necessity for close proximity to a major fault system was not considered crucial to success. (Buckley 1992, p1).

In 1992, three widely spaced holes were drilled (NX-2, NX-3 and NX-5) in what was to become the Cooleen Prospect, northeast of Silvermines village. These holes intersected significant dolomitization, brecciation and mineralization. This was certainly enough encouragement to persist with the exploration effort.

In mid-1993, Ennex formed a joint venture partnership with Rayrock Yellowknife Resources, as the zinc price slumped to US$0.40/lb. Yellowknife financed the drilling of 17 more drillholes (totalling 23,155 feet or 7,058 metres) from August 1993 (Boland, 1994). Notable results included:

- NX-11: 7.3m of 14.5% Zn and 1.6% Pb (including 1.8m of 42.9% Zn and 3.7% Pb);
- NX-14: 2.1m of 10.1% Zn and 0.5% Pb
- NX-8A: 2.0m of 9.1% Zn and 1.6% Pb and
- NX-13: 3.7m of 5.4% Zn and 0.7% Pb

Finally, five widely spaced drillholes NX-20, 21, 22, 23 and 24 were drilled in 1996, in the townlands of Cooleen, Kilboy and Cloonagh before Ennex ceased exploration and acquired the development–stage Shaimerden non-sulphide zinc project in Kazakhstan. Large step-out drilling did not build on the encouraging drill intersections in 1993 and 1994 but did demonstrate that dolomitization and weaker BMB mineralization (NX-22) did persist to the northeast of NX11 and NX-14 and there were significant open areas untested by drilling.

The mineralization intersected in these drillholes is described in Section 7 (Mineralization).

Further east of Silvermines, Noranda drilled three drill holes N-3904-1, 2 and 3 testing airborne electromagnetic (AEM) conductors on what is now PL 3955. These were in areas of Waulsortian "Reef" subcrop and therefore target depths were much shallower - from 100m to 200m. BMB was intersected in N-3904-3 above a shallow low angle fault at 124m depth and this was determined to be the cause of the EM anomaly. No mineralization of any significance was recorded in these drillholes (Reid, 2002) but it is important to remember that this license (PL3955) is 25km^2 in area so the drilling density at one drill-hole for every 8km^2 of prospective host rock stratigraphy is extremely low.

Four historical drillholes were completed within PL 3953 (Reid, 2012). In the 2001-2002 license period, two drillholes by Noranda (N-3669-1 and N-3669-) targeted reef sub-crops with the former targeted on an AEM conductor combined with a low-order Zn soil geochemical anomaly (the latter targeted a very high soil anomaly in an area of structural complexity, close to the Silvermines deposit). Both holes failed to intersect any significant base metal mineralization apart from a small amount of fracture related pyrite in the second hole (Reid, 2002).

Post 1996, issues surrounding the Gortmore tailings impoundment at Silvermines had persisted and prolonged low zinc prices made early-stage exploration financing very challenging, even in a brownfield context. Ennex (as Mogul Ireland Ltd.) ceased exploration on the properties in 1996.

The licenses over the Cooleen Prospect were rescinded in 2006 and were put under moratorium until 2015.

From the discovery of Silvermines in the early 1960's until 1996, a total of 78 drillholes were completed episodically within the Silvermines Project Area. Drillholes were invariably vertical but only approximately 50 percent reached the target depth at the base of the Waulsortian Reef.

6.4 Historical Estimates

Residual mineralisation was mined at Silvermines intermittently from the 17th century to 1953. The recent discovery was made by Mogul of Ireland Ltd. (Ennex subsidiary) in 1983 (Boland et. al., 1992). The Cooleen residual non-sulphide zinc-lead body is located some 500 metres east-northeast of the Ballygown South residual non-sulphide zone. Together, the residual mineralization at K-Zone, Ballygown South and Cooleen contain about 1Mt averaging 10.9% Zn+Pb (Boland, 1992, p. 250).

The deposits are partially within, and partially outside the property (see Figure 7.4). It is not possible, within the scope of this report, to determine what portion lies within the Project Area. The historical estimates are not treated by the Company as current resources. The assumptions, parameters and methods of calculating the resource are not known.

Significant compilation of data, re-drilling and re-sampling and data verification would need to be carried out by a qualified person before the historical estimates can be classified as current resources. Such work is not considered to be a priority at this stage in the project.

A qualified person has not done sufficient work to classify the historical estimates as current resources. GERC is not treating the historical estimates as current resources.

By the early 1990s, subsequent to the discovery of residual mineralization, exploration for non-sulphide mineralization waned. This coupled with the exhaustion of barite ore at the Magcobar open pit, shifted exploration focus back to primary zinc mineralization, mainly to the northeast of the B Zone. This led to the discovery of the Cooleen Prospect, now a key focus for Group Eleven within the Project Area.

A portion of the mined-out Silvermines deposit extends onto the Project Area (see Figure 7.4). The quantity of mineralization remaining in this portion, if any, is not known. Neither is it treated as a current resource by GERC. Significant work, including researching historic mine records, drilling and sampling would be required to determine the quantity and grade of mineralization remaining on the property.

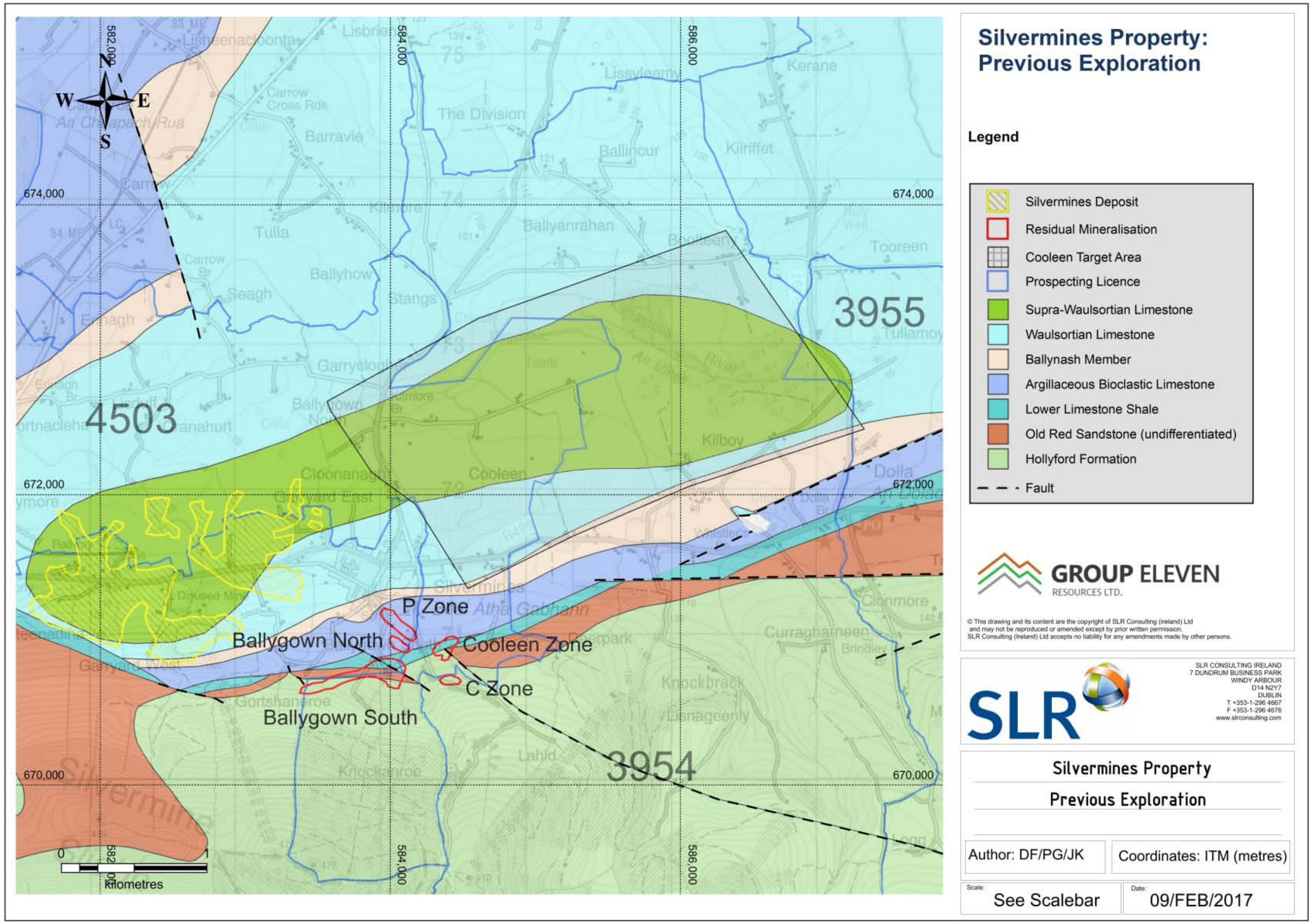

Figure 6.1 Silvermines Property. Previous Exploration

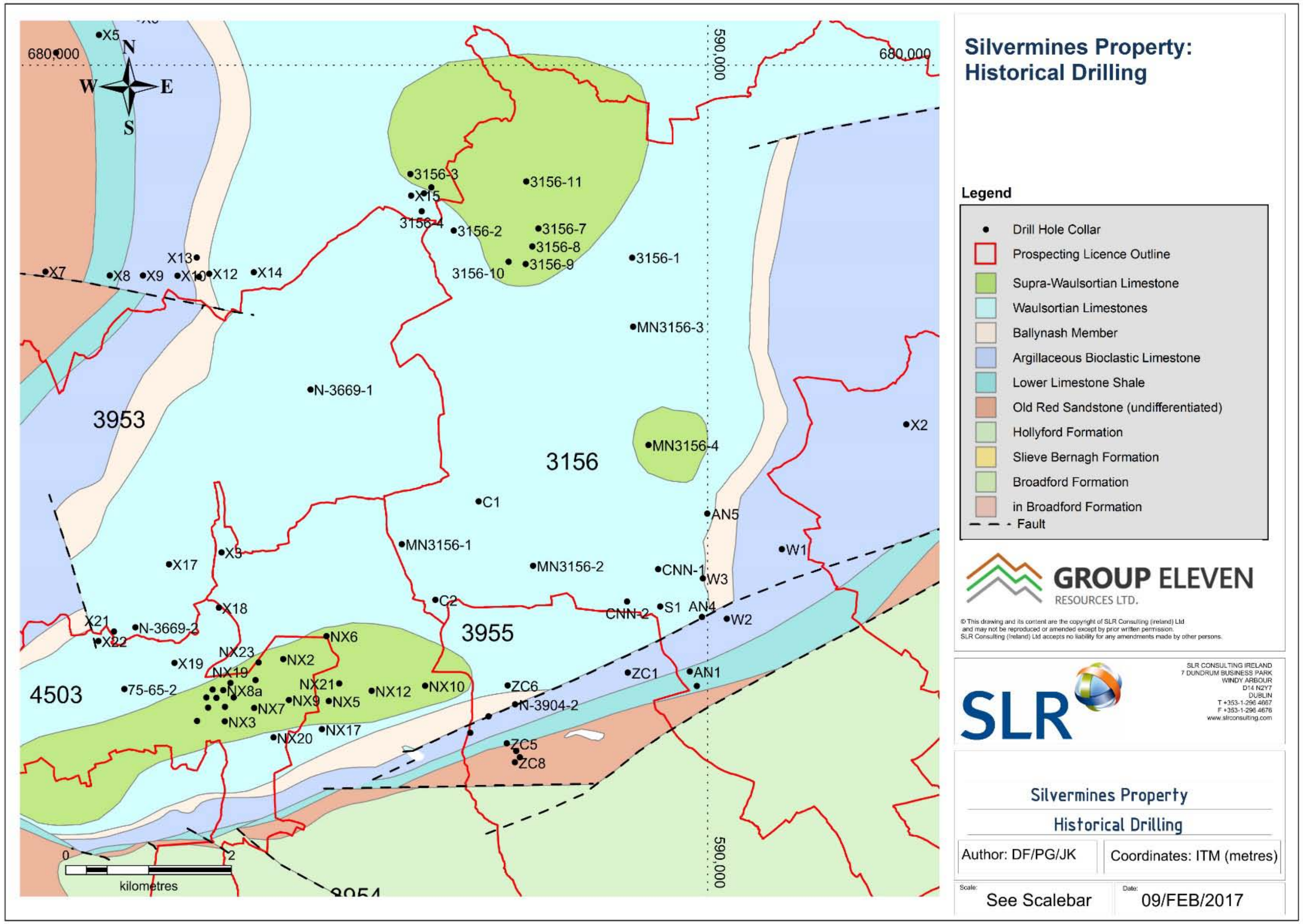

Figure 6.2 Silvermines Property - Historical Drilling

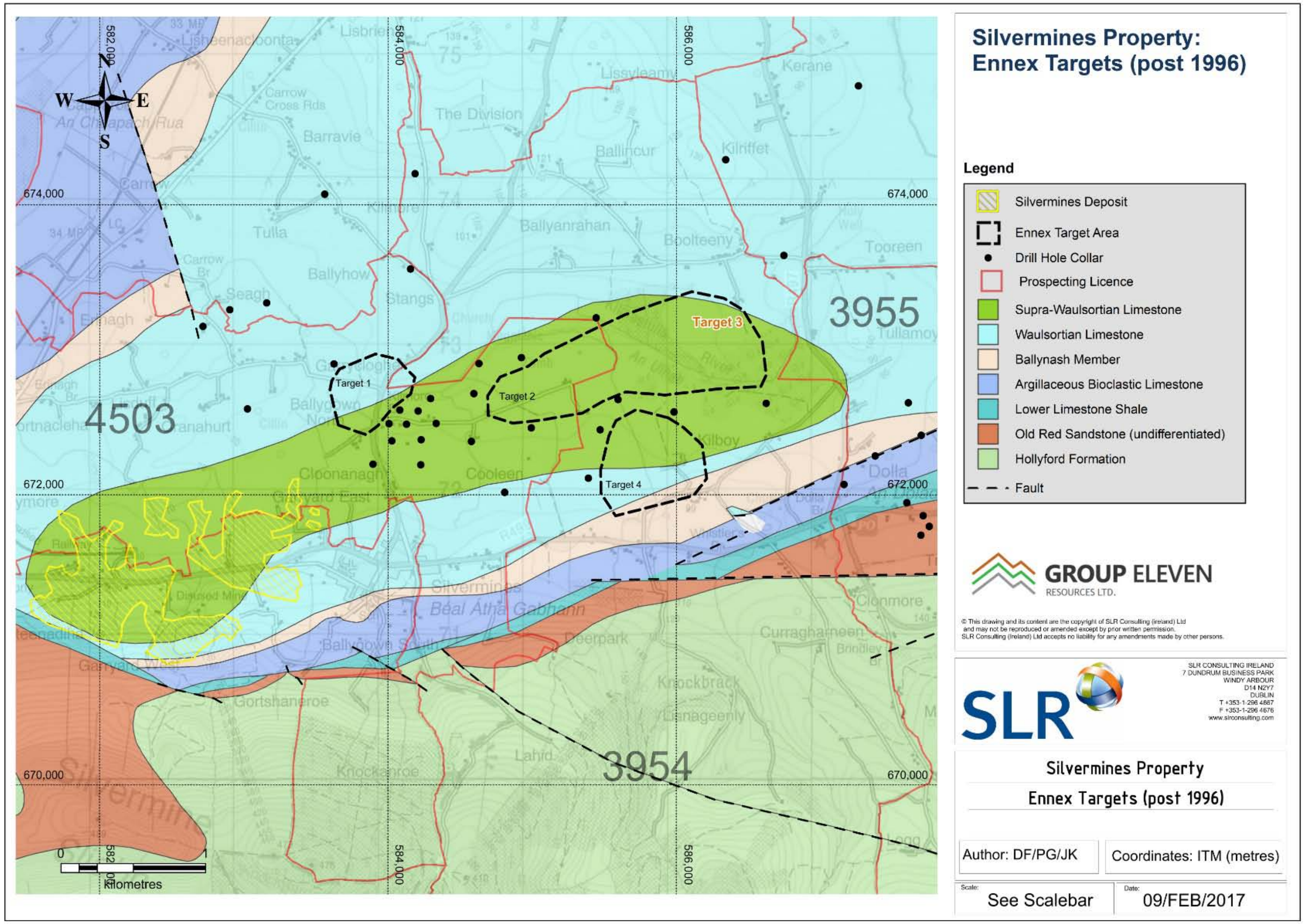

Figure 6.3 Silvermines Property - Ennex Target Areas

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

C. J. Andrew (1986) describes the tectonic and stratigraphic controls on mineralization in the Silvermines area. A large part of the description below is based on this paper. Brück (1982) and Philcox (1984) also summarize the regional geological setting of the Silvermines district.

The Project area lies in the south-central part of the “Irish Midlands Mineralization Province” which extends across central Ireland and which constitutes one of world’s major zinc and lead mineralization fields (Figure 7.1). Stratigraphically the Silvermines District is within “The Limerick Province” as described by Philcox (1984). The Province is dominated by a transgressive sequence of Lower Carboniferous (Mississippian) platform carbonate rocks, lying above a wedge of Upper Devonian red beds, which thin northwards. South of an east-west line between Dublin and Galway, the Irish Midland Province hosts major inliers of Old Red sandstones, conglomerates and mudstones, cored by Silurian mudstones, greywackes and conglomerates which tend to form mountains (resistant above the undulating Carboniferous plains). Within the Lower Carboniferous carbonate sequence, two stratigraphic intervals host the bulk of known zinc-lead deposits in Ireland: the Navan Group in the northern part of the Irish Midlands and the Waulsortian Limestone in central and southern Ireland (Figure 7.2).

The Irish Midlands is transected by numerous regional fault zones which strike predominantly east-northeast. These east-northeast faults follow a pre-existing Caledonide grain and along some segments act as plumbing systems for the mineralizing fluids. Many of the deposits also show local scale north-south or northwest trending faulting that appears to play a role in focusing hydrothermal fluids away from the main east-northeast feeders. Several distinct linear mineralization trends such as the Rathdowney Trend, the Tynagh-Ballinalack Trend and the Navan-Silvermines Trend follow the Caledonide grain.

The Silvermines mineralized district lies along a segment of the Navan-Silvermines Trend and along the southern side of broad post-Lower Carboniferous Kilmastulla Syncline which trends easterly to the west of Silvermines before swinging northeast through Nenagh and on toward Birr (Andrew, 1986). The Kilmastulla Syncline represents a southernmost physiographic expression of the Iapetus Suture or Central Midlands Syncline which runs southwest from Navan and the eponymous giant zinc-lead deposit through Tullamore to Nenagh (Phillips et al., 1976).

The Silvermines Mountains are located to the south of the Kilmastulla Syncline and the Arra Mountains are to the north of the syncline. The inlier forming the Silvermines Mountains is cored by Silurian turbidites and argillites. The inlier forming the Arra Mountains is cored by Llandovery greywackes and forms an east-west trending periclinal dome. Both of these Lower Palaeozoic inliers form part of the dissected Slieve Phelim – Slieve Aughty massif which was an active paleo high during the early Carboniferous (Andrew, 1986). To the northeast of Silvermines, the Lower Carboniferous succession gradually thickens, with Courceyan carbonates being superseded by Chadian to Holkerian shelf sediments (Brück, 1982).

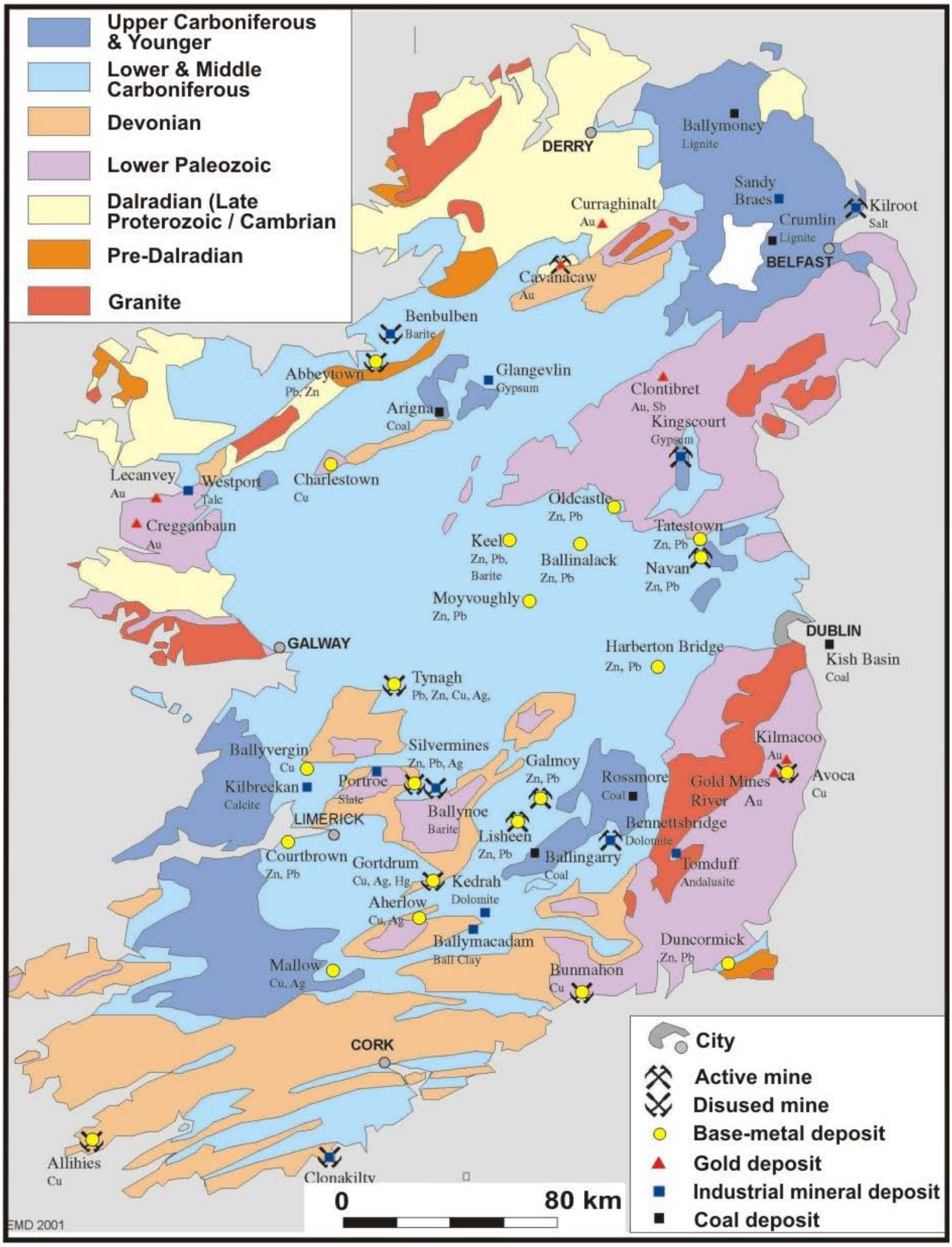

Figure 7.1 Geological Map of Ireland showing the location of Zn-Pb-Ag mines and significant prospects.

7.2 Local and Project Geology

The stratigraphy in the Silvermines area has been described in detail by Taylor and Andrew (1978) and Andrew (1986). The regional geology is covered by Philcox (1984), Brück (1985) and the Geological Survey of Ireland (1996).

Table 7.1 Summary of stratigraphic column for Silvermines area. Based on Taylor and Andrew (1978), Andrew (1986), Kelly (1994), Philcox (1984), Brück (1985) and GSI (1996)

Age	"General" Term	Silvermines Area Stratigraphy (Andrew 1986, Kelly 1994)	Silvermines Area Thickness	Philcox (1984), Brück (1985), Geological Survey of Ireland (1996)
Chadian - Arundian	Supra-"Reef"	Supra-"Reef" Clean Bioclastic Grainstones	130m+	Terryglass Limestone Formation
		Supra-"Reef" Cherty Limestone. (Units A - E)		Oldcourt Cherty Limestone Formation
Courceyan - Chadian	"Reef"	Waulsortian Mudbank Limestones	30 - 155m	Waulsortian Mudbank Formation
Courceyan	Argillaceous Bioclastic Limestone (ABL)	Muddy "Reef"	15 - 45m	Upper Ballysteen Formation
		Muddy Limestone	15 - 60m	
		Lower Dolomite	30 - 100m	Ballysteen Formation - Lisduff Oolite Member
		Bioclastic Limestone		
		Basal Fragmental Beds	20 - 40m	Lower Ballysteen Formation / Ballymartin Formation
	Lower Limestone Shale	Ballyvergin Shale	1-3m	Ballyvergin Shale
		Basal Shales	12m	Ringmoylan Shale Formation
		Transition Beds	6m	Mellon House Beds
Devonian - Courceyan	ORS	OLD RED SANDSTONE		

Mogul of Ireland exploited two mineralized bodies at Silvermines within brecciated dolomitized Waulsortian Reef (upper horizon) and the Lower Dolomite (lower horizon). Ennex from the mid 1980's focused on residual non-sulphide mineralization hosted in the Lower Dolomite. Detailed drilling of these residual deposits only intersected the Lower Dolomite, the overlying Muddy Limestone and the underlying Basal Fragmental Beds. Detailed drilling to delineate resources only reached the Muddy Limestones beneath the Reef or penetrated the Lower Dolomite and the underlying Basal Fragmental Beds (Boland, 1997).

At Silvermines, the Ballyvergin Shale is overlain by 36 metres of varied, thin-bedded, commonly nodular limestone with subordinate shale which forms the Lower Ballysteen Limestone also referred to as the Argillaceous Bioclastic Limestone. Syringopora is common in the lower half. The top contact, 3.6 metres below the Fine Calcarenite Marker, is sharp at an upward change into more uniformly argillaceous limestone (Philcox, 1984).

7.2.1 Basal Fragmental Beds

This Member of the Argillaceous Bioclastic Limestone (ABL) Formation is a medium-grey calcarenite with wispy argillaceous partings and thin, (<2cm) shale bands. It contains a nodular fabric as a result of wispy argillaceous partings draped around calcarenite nodules. Bioclastic detritus generally of brachiopods and crinoids is minor. Bioturbation increases in the upper half of the unit which has more silt and clay. Relict ooids occur in the lower half of this unit which indicates shallow water rich in carbonate to deeper water environment for the upper part of the unit. In the Cooleen Zone within the Group Eleven ground, only the upper part of the Basal Fragmental Beds is weakly dolomitized and this decreases to the east.

7.2.2 Lower Dolomite - Bioclastic Limestone

The Lower Dolomite – Bioclastic Limestone overlie the Basal Fragmental Beds and extend from the Shallee lead mine to the Ballygown Zone. This member of the ABL thickens locally up to 90 metres of mid- to dark grey, medium-grained, massive, low-iron dolomite with occasional thin wispy partings increasing upwards. The Lower Dolomite was originally an oolitic biosparite which thins to the north and northeast and passes laterally into a massive bioclastic limestone. The Bioclastic Limestone is a medium grained, grey calcarenite with numerous thin wispy partings with abundant bioclastic detritus of brachiopods, crinoids, echinoids and locally bryozoa.

7.2.3 Muddy Limestone

The Muddy Limestone is part of the upper Argillaceous Bioclastic Limestone. It has a maximum thickness of 60 metres. The lithology consists of dark grey skeletal calcareous shales interbedded with thin biomicrites and bioclastic calcisiltites. Shale represents about 70% of the section and contains crinoids fragments with small brachiopods and bryozoa. Individual beds can be up to 50cm thick and bedding is generally planar.

7.2.4 Muddy “Reef”

The Muddy Reef is 15 – 45m in thickness and is composed of medium to dark grey nodular biomicarenites with wispy shale partings and the odd thin lens of crinoid-rich biosparrudites. The upper part of the unit (5-20m) is silicified. The dominant cement in the Muddy Reef is ferroan calcite. In areas of well-developed mineralization close to feeder structures beneath the upper G, B and Magcobar Barite Zone, the Muddy Reef shows significant lateral facies variations. The top of the Muddy Reef marks the upper contact of the regionally Argillaceous Bioclastic Limestone or Ballysteen Limestone.

Isopach plots of all units below, and including, the Muddy Reef show a general thickening to the northeast with the exception of the Lower Dolomite which thickens to the southwest and thins opposed to thickening of the Bioclastic Limestone to the east and northeast. There is evidence that WNW trending tectonism controlled local thickness variations in these units with thickening on the more rapidly subsiding north side of faults.

7.2.5 Waulsortian Mudbank Limestones "Reef"

This is a distinctive pale grey reef limestone mainly of stromatactis biomicrite which forms a discontinuous unit several hundred metres thick across the Upper Ballysteen and Argillaceous Bioclastic Limestones in the Limerick Province (Philcox, 1984). The base of reef is visibly diachronous on a local scale and inferred to be diachronous on a larger scale based on various thicknesses of sub-reef beds containing probably off-reef tongues.

The Waulsortian Reef and specifically the base of reef is the host to the major mineralized zones at Silvermines. Stromatactid biomicrites and black matrix breccias form the hangingwall sediments to the upper zones. The Waulsortian "equivalent" sequence thickens from 100 m near the inlier to the north east attaining 400m on the downthrown sides of WNW trending faults which were active during sedimentation.

The stratigraphic sequence (Table 7.3) reflects the gradual transition from continental to marine conditions during the Lower Carboniferous. The Old Red Sandstone core of the Tullacondra inlier is overlain by carbonates of the Kilmaclenin Limestone (known elsewhere in the Irish Midlands as 'Argillaceous Bioclastic Limestone' or 'Ballysteen Limestone'), the Waulsortian Mudbank Complex, and younger units.

7.2.6 Supra-Waulsortian Sequence

The Ennex Cooleen drilling was the first drilling to intersect significant thicknesses of Supra-Waulsortian limestones in the Silvermines area. Kelly (1994) looked at this sequence in detail and sub-divided it into two main units, a lower sequence of dark grey, locally argillaceous cherty limestones, overlain by a sequence of pale grey, clean bioclastic grainstones and packstones. The cherty limestones are similar to the Oldcourt Cherty Limestone of Brück (1985) and the overlying clean grainstone/packstone sequence similar to the Terryglass Limestone Formation of Brück (op. cit.).

<u>Cherty Limestones</u>

At Cooleen, these were divided into five sub-units, termed Facies A-E.

Facies A

This is a composed of fine-grained, dark, cherty packstones and grainstones interbedded with nodular argillaceous limestones with scattered bioclasts in the shale bands. Patch carbonate mudbanks, a few feet thick, are common.

Facies B

Facies B is markedly more nodular, argillaceous and bioclastic than Facies A, with a distinctive "wispy" nodular appearance to the limestone bands. Patch carbonate mudbanks, a few feet thick, are common.

Facies C

It proved difficult to define a contact between Facies B and Facies D, so Facies C was used where a transitional package between Facies B and Facies D

Facies D

Facies D is composed of fine-grained cherty grainstones which fine up, each bed becoming progressively more argillaceous at the top and grading into a thin shale band. The upper part of the bed is commonly burrowed.

Facies E

This is a uniform, dark, cherty, bioclastic, argillaceous, wackestone. Bedding is not well developed.

Clean Limestones

The Cherty limestone sequence at Cooleen is overlain by massive, clean, well sorted, uniform coarse bioclastic and oolitic grainstones. These grade up into bioclastic packstones with a micrite matrix. Samples taken from this unit for micro-palaeontological dating returned Chadian ages. The base of this unit is generally sharp and these limestones may represent a regional development of shallow water facies over the Silvermines area, indicating a cessation of subsidence and suggesting that syn-depositional movement on the Silvermines Fault Complex ceased (or at least paused) at this time.

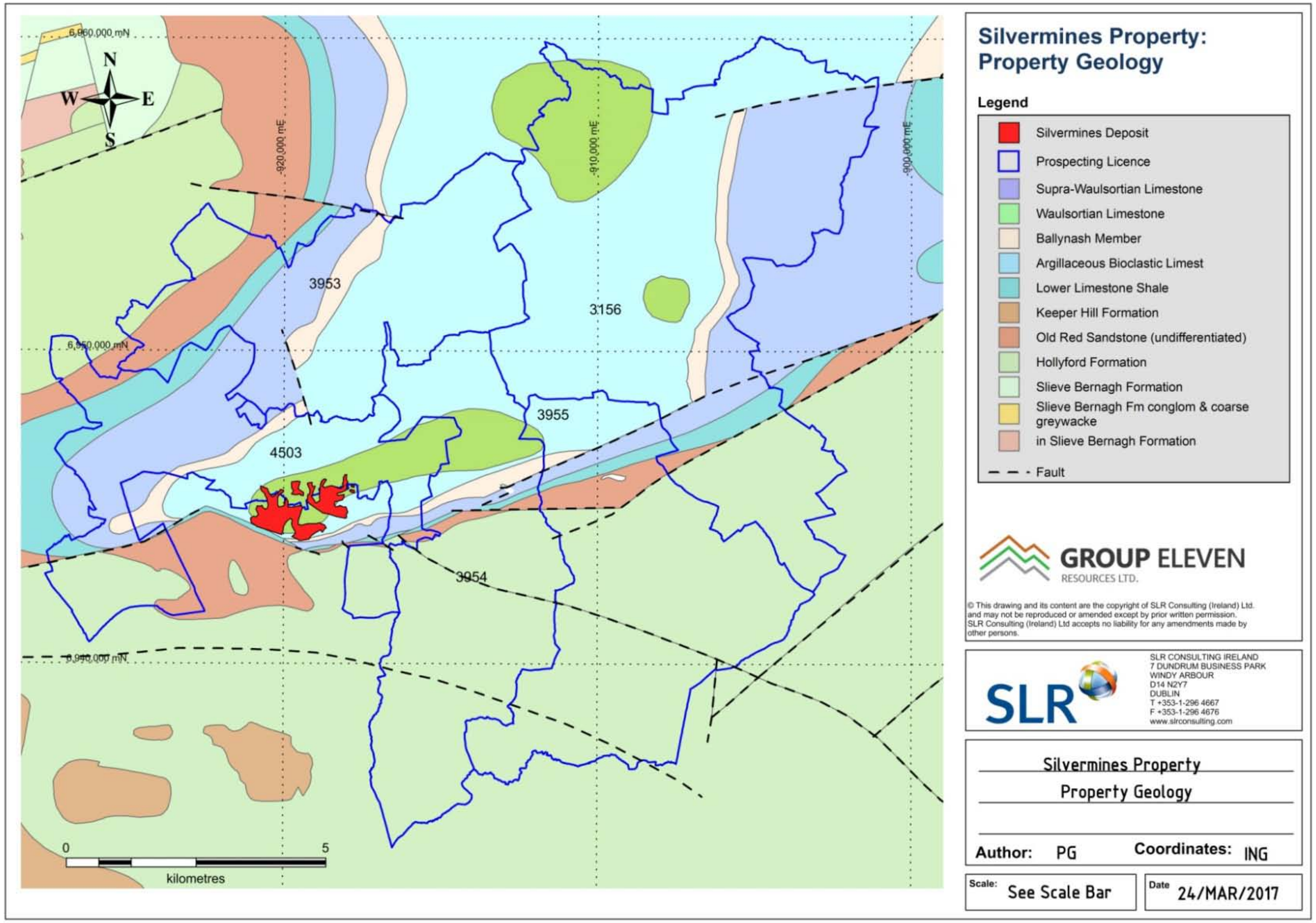

Figure 7.2 Silvermines Property Geology

7.3 Structure

The Silvermines area lies on the fault bounded southern limb the broad asymmetric Kilmastulla Syncline. Dips are generally between 10° and 15° but increase to 60° by drag in the hangingwall of the Silvermines Fault Zone. The steepness of the bedding in the immediate hangingwall of the fault is interpreted to be due to drag.

Ramp relay zones are only mineralized on a local scale (fault separation 300m) where ramps are fully breached. Metal zonation originates from points (feeders) along planes not necessarily at the point of maximum displacement. Feeders occur along fault planes in places where; a) favourable units are brought into contact with host lithology, b) where relay ramps are fully breached such as at Shallee and K Zone.

Recent research by the Fault analysis group at ICRAG on Silvermines and other major Irish zinc deposits under the leadership of Professor John Walsh has created new insights into the structural controls on mineralization.

The dominant fault trend which appears to be the primary control on mineralization is WNW and northerly dipping. These WNW faults form abrupt breaks in sediment thickness and display slumping, dip steepening in drag attenuation zones and monoclonal flexures. The Silvermines Fault is actually segmented into the Shallee, G Zone, K Zone and C Zone. The Silvermines Fault complex has a normal downthrow to the north which varies between 100 to 350m and has a curved listric profile. The combination of the main fault and the WNW branch faults display a horsetail terminal structural architecture which dominates the Silvermines area.

In detail, the faults are tight, shaley, gouge-filled structures rarely exceeding one metre in width. There is evidence of early extensional dip-slip followed by dextral shear (Andrew, 1986). Post-mineralization faulting is identified in the Upper G and B zones and trends NW, oblique to the major mineralization controlling WNW slump faults.

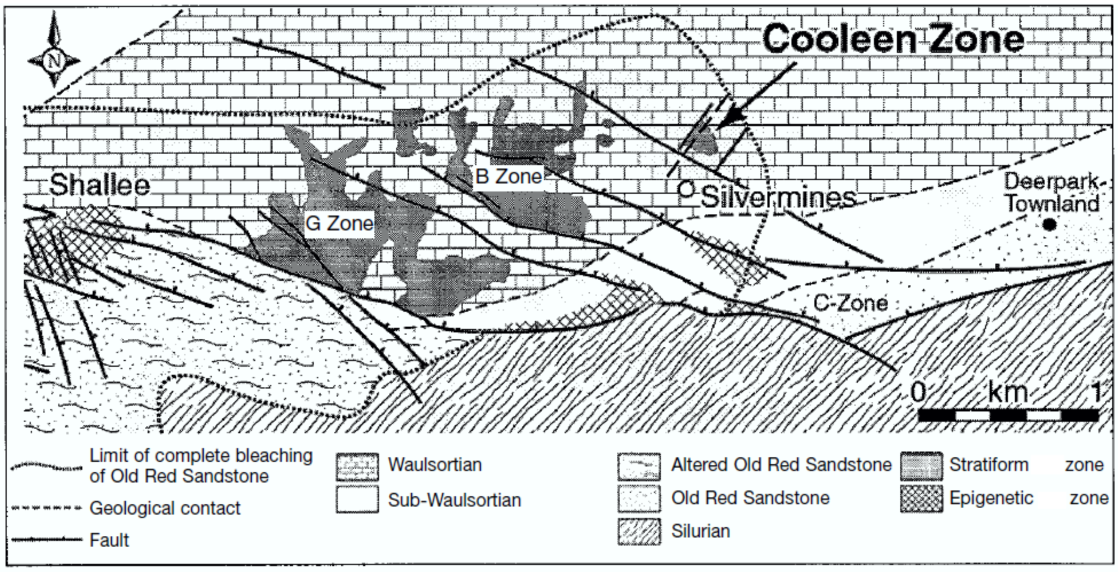

FIG. 1. Location map showing the G and B zones of the Silvermines deposit and the Cooleen zone satellite (modified after Andrew, 1986b and Mallon, 1997).

Figure 7.3 Silvermines Mogul Deposit showing structural control on mineralization distribution

7.4 Mineralization

Within Group Eleven's Silvermines Project Area around the Cooleen Prospect, the best intersection was in NX-11 which cut 5.8 metres of massive sulphides averaging 17.9% Zn and 1.9% Pb. Black Matrix Breccias (BMB) is very strongly developed at the mineralized zone, however, is more weakly mineralised in the hanging wall to the massive sulphide mineralization. Typical grades are 1% to 2.5% Zn and 0.2% to 0.5% Pb over 3 to 12 metres. The pyrite content in the BMB is variable within ranging from trace to massive. Within the BMB, the base metal concentrations vary from trace to 1 to 3% in the mineralized holes.

The massive sulphide mineralization consists of massive pyrite, a mixture of pyrite-sphalerite-galena or massive sphalerite. Grades from massive polymetallic sphalerite lenses are NX-8A – 2.3 metres averaging 8.1% Zn and 1.4% Pb and in NX-14 an interval of 1.8 metres averaging 10.1% Zn and 0.5% Pb (Boland, 1994), the latter targeted by Group Eleven's inclined diamond drill-hole 4503-1. The variability in the intensity of the mineralization from hole to hole and the very high zinc to lead ratios in the massive sulphide suggest that Cooleen is either on the distal fringe of the Silvermines system or vectoring toward another mineralizing system further east.

A portion of the mined-out Silvermines Deposit extends onto the property (see Figure 7.4). The quantity of mineralization remaining in this portion, if any, is not known. Neither is it treated as a current resource by GERC. Significant work, including researching historic mine records, drilling and sampling would be required to determine the quantity and grade of mineralization remaining on the property.

Boland *et al* (1992), describe 'residual mineralization' at Silvermines, some of which is on the property described by this report. This mineralization is related to weathering of the original sulphides, leading to oxidation and associated enrichment. The residual material is unconsolidated and was therefore recovered using reverse-circulation drilling and air flush core drilling. Three zones of residual mineralization were defined on this property (see Figure 7.4):

- The Cooleen Zone is wholly on the property (see Figure 7.4) and contains unconsolidated, oxidised gossan material, and a lead and silver residuum (Boland *et al*, 1992). Zinc enrichment is described as having occurred at the base and along the northern margin of the weathered zone. Zinc occurs primarily in hemimorphite and grades vary from 10% to 37% Zn (Boland *et al*, 1992).
- Ballygown South Zone is almost wholly on the property (see Figure 7.4). The zone and consists primarily of sulphide-rich residuum, grading 14.5% Zn, 8.6% Pb & 45g/t Ag (Boland *et al*, 1992). The zone also contains some hemimorphite and smithsonite, with an average grade of 14.5% Zn.
- The C Zone is not individually described by Boland *et al* (1992).

The historic grades quoted for the residual deposits were included in an historical estimate of 1.0 million short tons @ 10.79% Pb+Zn.

The assumptions, methods of calculation and parameters used are not known.

Significant compilation of data, re-drilling and re-sampling and data verification would need to be carried out by a qualified person before the historical estimates can be classified as current resources. Such work is not considered to be a priority at this stage in the project.

A qualified person has not done sufficient work to classify the historical estimates as current resources. GERC is not treating the historical estimates as current resources.

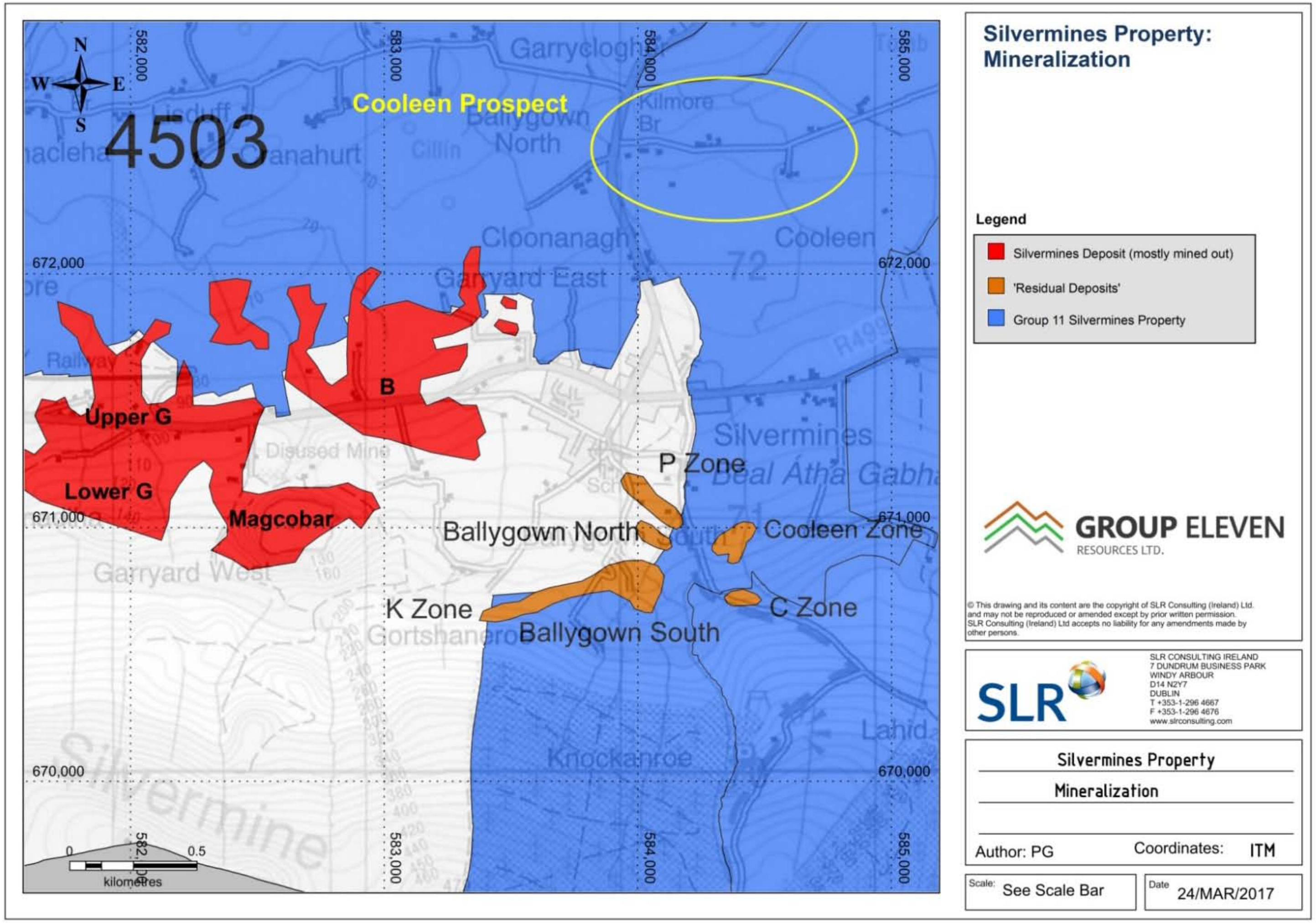

Figure 7.4 Mineralized bodies in the Silvermines and Adjacent Properties.

Note that K Zone and Ballygown South are the western and eastern portions, respectively, of the same mineralized body.

8.0 DEPOSIT TYPES

8.1 Description

The Lower Carboniferous carbonate rocks of Ireland host many accumulations of base metals from small pods of zinc-lead mineralization to the giant Navan deposit 55 km northwest of Dublin. Fifty six years of mineral exploration has resulted in the discovery of five economic zinc –lead deposits – Tynagh, Silvermines, Navan, Galmoy and Lisheen and one copper deposit at Gortdrum (G11). And more than 20 other sub-economic deposits and prospects such as Ballinalack and Keel (Fig. 1). Anomalous base metal concentrations are widespread throughout the Irish Orefield (> 35,000 km^2) with an area a little larger than Vancouver Island. Zinc-lead mineralization is primarily in the host-rocks of the Waulsortian Reef limestone Formation and the Navan Group.

The "Irish-type" zinc-lead deposits, which are the principal exploration target of Group Eleven Resources belong to a distinct class of carbonate-hosted zinc-lead mineralization, which has a number of characteristic features. The following summary from Hitzman and Beaty (1996) provides a brief description of the main features of this deposit type:

- The deposits occur preferentially in the stratigraphically lowest, non-argillaceous carbonate unit, (i.e., the first reactive unit encountered by the ascending fluids);

- They occur along, or immediately adjacent to, steeply-dipping normal fault systems which localised conduits for ascending hydrothermal fluids, i.e., typically, in the downthrown blocks of the faults;

- The deposits are stratabound and many display generally stratiform morphologies;

- Most deposits display pre-mineralization diagenetic or hydrothermal dolomite alteration of the carbonate host rocks (i.e. mineralization post-dates the dolomite which post-dates lithification);

- Sphalerite and galena are the principal sulfides. Iron sulfides occur in variable amounts; some deposits are dominated by iron sulfides, while others contain very minor amounts. Barite is present in all the deposits, ranging from a dominant phase to a minor constituent. Many deposits contain minor tennantite, chalcopyrite, and/or Pb-Cu-Ag-As sulfosalt minerals;

- They display complex sulphide textures ranging from replacement of host rock by fine-grained, anhedral and colloform sulfides to infill of solution cavities by fine-grained, colloform and medium- to coarse-grained crystalline sulfides. Layered sulphide textures, other than colloform banding, are restricted to geopetal cavity fillings. Sulfides replace sedimentary, diagenetic, and hydrothermal wall rock, as well as previously deposited sulfides adjacent to feeder faults;

- The deposits display a general textural zonation with massive sulphide adjacent to "feeder faults" grading outward to veinlet-controlled and/or disseminated sulfides on the periphery of wedge-shaped sulphide lenses. Metals are also laterally and horizontally zoned, typically Pb-rich closest to structures and the base of the mineralization, then Zn rich, with high Fe to Zn+Pb ratios in the distal parts of the orebodies.

- The deposits share the following generalized paragenesis: early carbonates → early diagenetic dolomitization → “iron formation” (silica + iron oxides ± siderite) → barite → hydrothermal dolomitization → Fe sulfides → sphalerite (becoming increasingly coarse-grained) → mixed sulfides (sphalerite, galena, Fe sulfides, Cu sulfides, As sulfides etc.) ± barite → late carbonates.

In the Irish Midlands, the most favourable horizons are the base of Waulsortian Reef and the Navan Beds which typically form the first “clean” carbonate horizon above the base of the Carboniferous sequence. The Silvermines and Lisheen/Galmoy zinc-lead deposits lie along the Navan-Silvermines Trend and the Rathdowney Trend, respectively, and are considered to be typical of the Waulsortian hosted ‘Irish-type’ zinc-lead deposits (see Figure 8.1 below).

Group Eleven is almost exclusively focused on the Waulsortian-hosted sub-set of the “Irish Type”. Previously worked mines (Tynagh, Silvermines, Lisheen, Galmoy) worked fault controlled clusters of mineral “pods” occurring along structural trends. Deposits are relevantly “compact” and as an example a 22Mt deposit with several zones can fit within a $6km^2$ area such as Silvermines, Lisheen and Galmoy.

In the Silvermines area, zinc-lead and barite mineralization occurs at every stratigraphic level up to and including the Waulsortian Reef Limestone. The mineralization of primary economic interest at Silvermines consists of tabular stratiform zones. Of lesser importance are mineralised veins in joints and minor fractures with minor disseminations within the Basal Clastics and the Silurian rocks below. Examples are at Shallee White, Shallee and in other minor smaller occurrences throughout the Silvermines mountains. There are also complex breccias zones within dilation zones within the Basal Clastics and Silurian rocks as at Knockanroe, Gorteenadiha, Shallee, Cranna and in the K Devonian and C Zones. Finally, there are cavity and fracture-fill zones in secondary Lower dolomite as in the Lower G, K and P zones.

Group Eleven’s exploration ground is adjacent to the north, east and west of major mineralization zones which were exploited at Silvermines between 1968 and 1982. (Fig 7.5.1)

Andrew (1986) assigned Silvermines into the class of sedimentary-hosted exhalative mineralization deposits (SEDEX) with hydrothermal fluids debouching from feeder faults onto the seafloor to accumulate in paleotopographic depressions. Deeper in the feeder system epigenetic mineralization occurred within fracture and voids created by dolomitization close to the feeder faults.

More recent interpretations of the base of Waulsortian and Lower Dolomite mineralization is that it is analogous to the Rathdowney Trend deposits, with replacement and dissolution open space fill mineralization, associated with dissolution collapse breccias cemented by hydrothermal dolomite and sulfides (“Black Matric Breccias – BMB”).

Some geologists consider the Irish-type deposits to be Mississippi Valley Type (Leach et al, 2010) but most now agree that the Irish-type deposits are higher temperature, with higher silver concentrations and form by replacement of carbonates and dissolution open space fill after early diagenesis, rather than cavity fill dominated mineralization which occurs after a significant period post lithification.

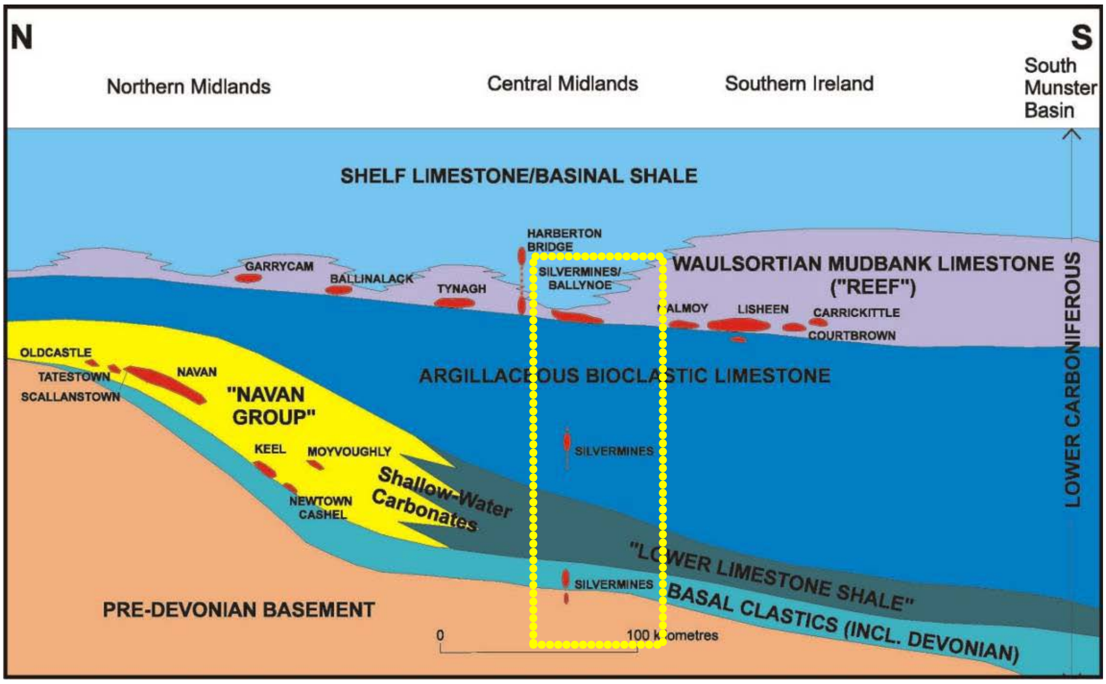

Figure 8.1 Stratigraphic location of Carboniferous-hosted mineralization in Ireland. Silvermines deposits highlighted

The Irish Centre for Research in Applied Geosciences (iCRAG) conducted a study on zinc/lead metal distributions as part of a paper entitled: *Characteristics of Metal distributions within the Lisheen and Silvermines Zn-Pb Deposits, Ireland (*Torremans et al, 2016). iCRAG also completed a study entitled: *The role of fault segmentation and relay ramp geometries on the formation of Irish-Type deposits* (Kyne, R., et al, 2017).

Key conclusions for Silvermines are:

- Zn:Pb ratios evolve from 2:1 (or less) close to the feeder zone to above 4:1 away from the fault zone. The evolution is certainly visible for G-zone but is less pronounced for B-Zone.

- A cross-section through the deposit shows a low Zn/Pb ratio along the fault plane ('discordant mineralization'). The Zn/Pb ratio at the base of the Waulsortian ("concordant mineralization"), however, is much higher and increases consistently north-northeastwards away from the normal fault. Elevated Ag values occur close to normal faults and along the fault plane. Moderate mineralization levels occur at the intersection of breached relay faults and the major faults (K-Zone).

- The Silvermines deposit is spatially associated with left-stepping segmented fault array and associated relay ramps (see Figure 8.2). Analysis of the base of the Muddy Reef Unit (uppermost Ballysteen Formation; (see Figure 8.3) shows a northwest dipping rhombic breached relay ramp with throw on the fault of 600 metres separating the G-Zone and the B-Zone segments, with K-Zone at the intersection. Analysis of the fault displacement (see Figure 8.4) and the "Allen Map" of the deposit show that Silvermines is characterized by a fault zone containing sheared fault-bounded lenses (not yet been fully captured in the model) which have been subjected to significant inversion (Kyne, 2016).

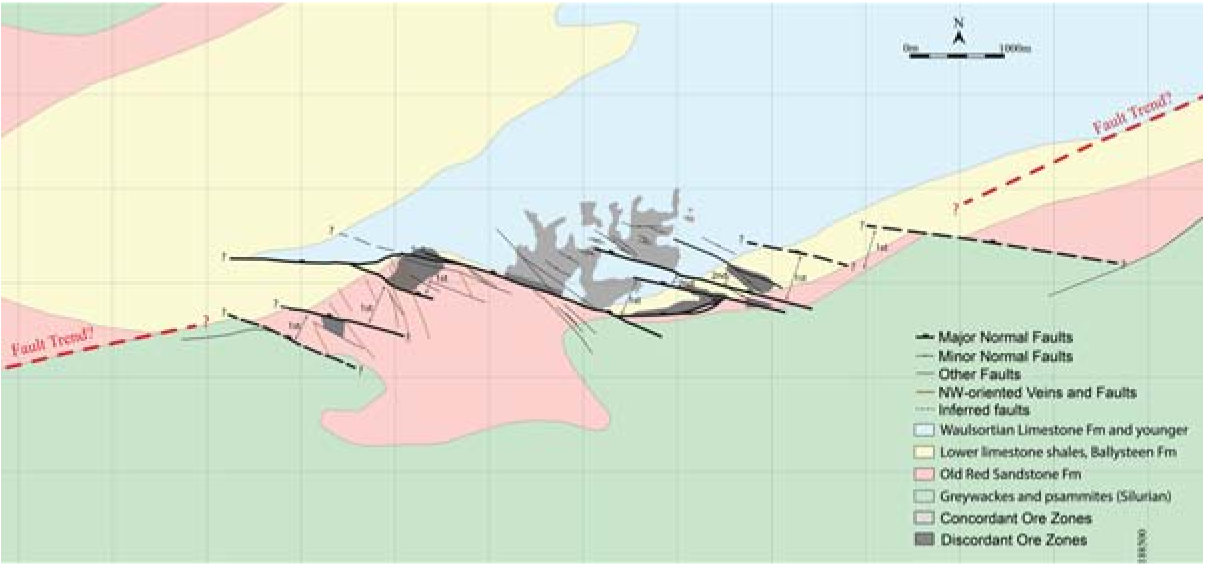

Figure 8.2 Plan map of the Silvermines deposit, showing geology and location of faulting and ore zones (source: iCRAG)

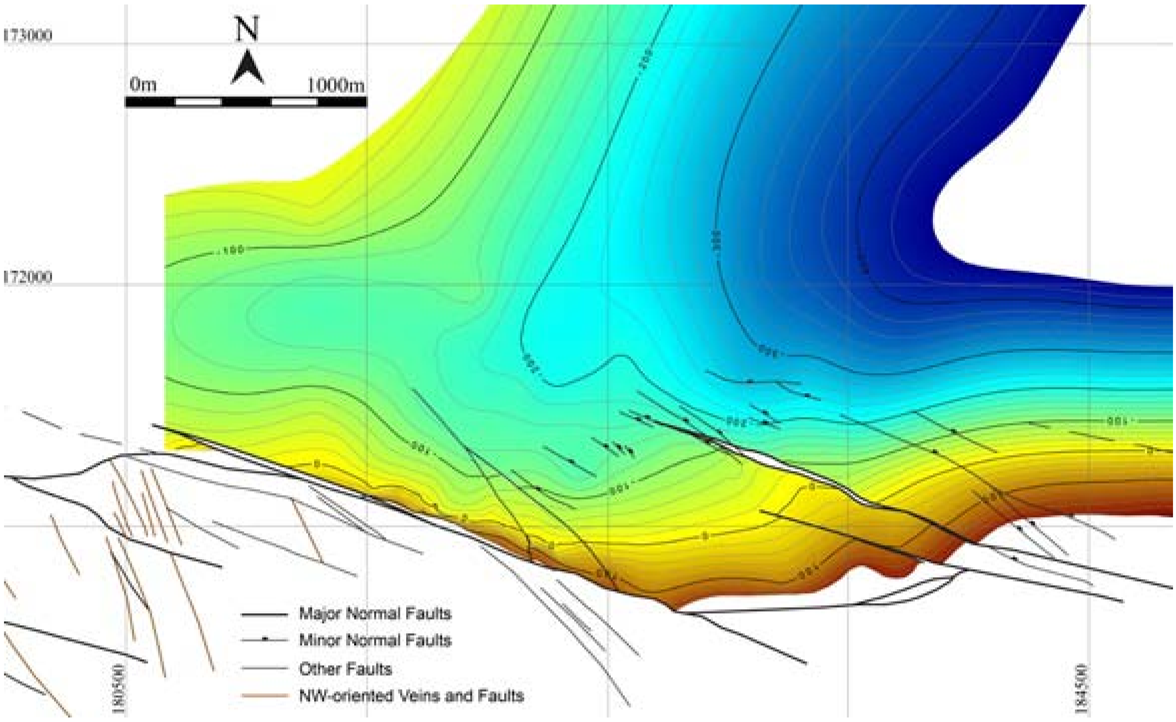

Figure 8.3 Plan map of the Silvermines deposit, showing contours (relative to sea level) of the base of Muddy Reef unit (uppermost Ballysteen Fm) (source: iCRAG)

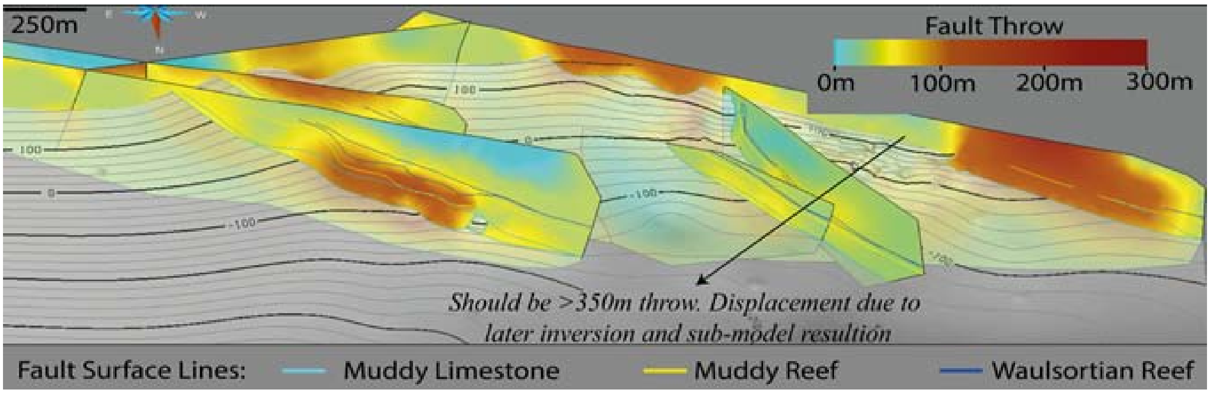

Figure 8.4 3D oblique view of the Silvermines deposit, showing displacements along fault surfaces and Muddy Reef unit contours (source: iCRAG)

8.2 Variability within the Sub-group

There are a number of features that are common to all Irish-Type Deposits, while each individual deposit may exhibit unique or differing characteristics compared to other superficially very similar deposits.

8.2.1 Common Features

All Irish-Type Deposits show the following characteristics:

- Hosted on the hangingwall of normal fault belts, frequently overlying trans-tensional basement shear zones.
- Faults were syn-depositionally active during late Courceyan to Chadian - Arundian rifting.
- Faults control margins of intra-platform basins, marked by significant carbonate facies and thickness variations.
- Host rocks are typically the first major clean carbonate unit in the sequence.
- Host rocks are more permeable or reactive than other lithologies in the sequence.

8.2.2 Host Rock Variation

- Silvermines and Tynagh host rock is a limestone
- Lisheen and Galmoy have dolomite as a host rock, indicating lithification and diagenetic alteration to dolomite prior to the mineralizing event

8.2.3 Alteration Variation

- Silvermines has extensive preserved ironstone, barite and siderite alteration in close proximity to the sulphide bodies
- Silvermines has extensive hydrothermal dissolution breccias (termed reef or dolomite breccias, but texturally very similar to the Rathdowney Trend BMBs) overlying, and distal to, the sulphide mineralization.
- Lisheen has remnant ironstone fragments at the edges of the orebodies/alteration halo, suggesting that an initial ironstone body was present, but was overprinted and reduced during the sulphide phase.

- The Rathdowney Trend deposits (Lisheen and Galmoy) have extensive hydrothermal dissolution breccias (BMBs) and white dolomite cemented crackle breccias (White Matrix Breccias) overlying, and distal to, the sulphide mineralization.
- Tynagh has an extensive ironstone extending for some considerable distance beyond the sulphide bodies, but has no recorded hydrothermal breccia halo.
- Tynagh has extensive evidence of breccia formation within the orebodies.
- In all cases above, alteration systems associated with the sulphide orebodies are present and significantly increase the exploration footprint, assisting in finding hydrothermal sulphide-bearing systems.

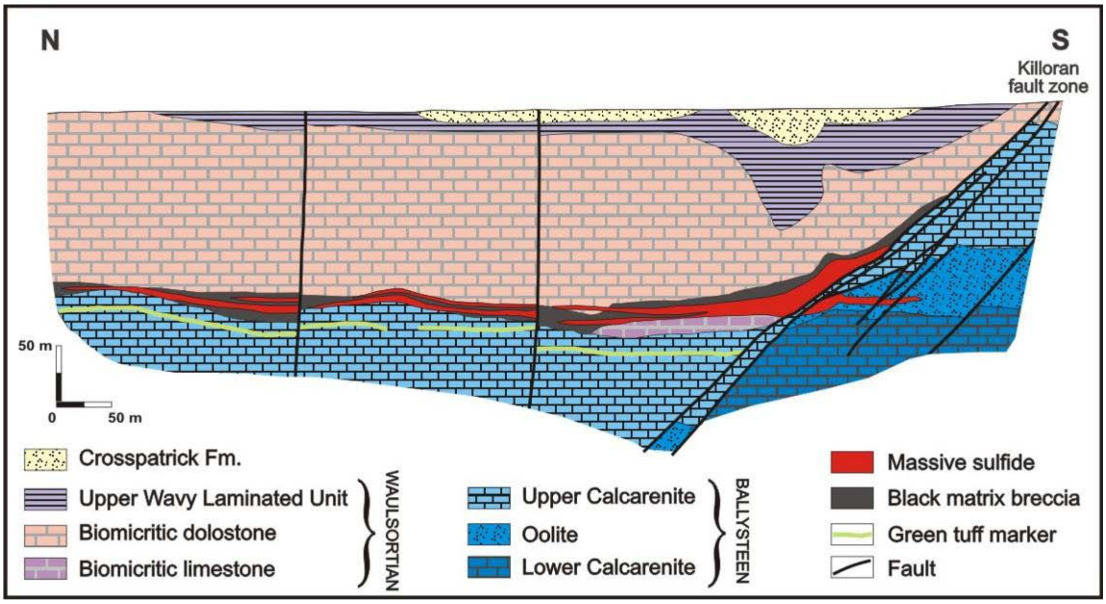

Figure 8.5 Cross-section through the Lisheen deposit showing association with significant normal faulting, orebodies on the hangingwall of the normal structure and extensive alteration overlying and distal to the orebodies

8.2.4 Basal Carboniferous Cu+Ag±(Hg) Deposits

In the southern part of Ireland, the Old Red Sandstone unit thickens beneath the South Munster Basin which subsided during the Lower to Middle Carboniferous and was filled with a substantial shale sequence. On the northern margin of this basin, a number of small to medium scale copper-dominant deposits occur, principally the Gortdrum, Aherlow and Mallow (Tullacondra) deposits, with the Gortdrum deposit being mined in the late 1960's and 1970's.

All of these deposits occur as disseminations and veins within the basal Carboniferous sequence, principally the Lower Limestone Shale unit, stratigraphically beneath the Waulsortian Reef, and are generally focused along thrust/shear faults or thrust/shear fault-controlled monoclines.

Table 8.1 Carbonate-hosted copper-silver deposits in southern Ireland, (Andrew et al, 1986)

Deposit	Year discovered	Mt (unclassified)	Cu (%)	Ag (g/t)
Ballyvergin	1961	0.2	0.97	15
Gortdrum	1963	3.8	1.19	25
Aherlow	1965	6.0	0.89	34
Mallow (Tullacondra)	1973	3.6	0.70	28

The deposits listed in Table 8.1 are not on the property and it has not been possible for the QPs to verify the quantity or grade of mined material. The reported quantity of mined material is not necessarily indicative of the mineralization on the property. The quantities and grades are unclassified and have not been verified by a QP.

9.0 EXPLORATION

9.1 Summary

Under the Irish prospecting license system, exploration data more than six years old is made available to subsequent license holders by the GSI and EMD. Prior to, and since, the award of the licenses, Group Eleven Mining & Exploration Limited (GEM) has undertaken an extensive program of data compilation for all five Silvermines licenses, including the compilation of a detailed geological map of the project area, registering of all relevant maps into the MapInfo program, digitizing data from past soil geochemical surveys, and undertaking a thorough analysis of earlier geophysical surveys and past drilling results. This involved acquiring the full digitized drill-hole database and digital three-dimensional model for the Silvermines deposit complex from iCRAG http://icrag-centre.org/. Group Eleven is a research partner of iCRAG. The Company drilled a confirmation hole at the Cooleen zone.

9.2 Geophysics

Compilation of geophysical surveys undertaken by previous explorers has been completed. The patchwork of previously surveyed areas has been captured, with data extracted for IP surveys covering the Cooleen prospect and extraction of VLF/VLF-R survey data over both Cooleen and northeast of Cooleen.

Various historical geophysical surveys have been catalogued and the boundaries of the survey areas digitized. Two surveys have been captured digitally:

- 1991 Ennex IP survey over Cooleen
- 1984 VLF survey over most of the Waulsortian Reef limestone between Cooleen and north to the market town of Nenagh.

Resistivity has been contoured for both datasets and plotting up the results clearly define the contact between Supra-Waulsortian and Waulsortian lithologies.

Geophysical surveys considered to be the most useful for target generation have been recently reprocessed and reinterpreted with inversion by Paterson Grant & Watson Ltd (PGW) in Toronto, Canada and integrated with structural analysis.

A NW–SE trending array of structures is apparent from Group Eleven's compilation of historic datasets. These datasets include VLF and drilling. These features appear to control localization of mineralization and need to be more clearly defined for drill targeting. Group Eleven has commissioned a detailed ground magnetic survey to more accurately locate these structures.

A detailed ground magnetic survey will utilize a continuous "walking mag" system on lines at 100m spacing bearing approximately NE-SW across the area of interest shown in Figure 9-1 below. The area has been calculated at 22km^2 covered by 224.7 line kilometres along 57 lines.

In addition, GEM have commissioned PGW to reprocess, invert and interpret a fixed wing EM-Magnetics survey over Silvermines undertaken by Noranda in 1998. This survey comprised a total of 3,000 line km at a 300m line separation and a survey height of 80m. This reprocessing will take advantage of the considerable advances in both processing power and improved software. It is anticipated that significantly better results will be obtained over the processing in 1998 and will assist in determining geological structure and target generation associated with structure identified.

9.3 Geological compilation

All drillholes within the five license project-area have been captured digitally to produce a database for *MapInfo/Discover*©. Geological base maps have been updated based on historical drilling. Particular attention has been given to mapping thicknesses and intensity of dolomitisation, brecciation and mineralization for target vectoring. Finally, geological maps have been generated to integrate and compare all these features. Structures have been digitized into *MapInfo/Discover*©. A composite map has been created for all structural measurements and an electronic spreadsheet recording the source reference for each structure.

9.4 Compilation of Soil Geochemistry Data

Group Eleven has completed compilation of historical geochemical data from shallow and deep overburden surveys. Only a small number of geochemical surveys were available in the Geological Survey of Ireland archive. Noranda (1997) had already compiled all previous shallow soils into a single map however the conclusion was that “the resulting contours maps were patchy and inconclusive and no coherent anomalies were identified”. There is always a challenge in working with different vintages of soil geochemical analysis of variable quality and uncertain provenance. Group Eleven’s management has extensive experience of undertaking multi-element soil geochemistry in Ireland 10 years ago (some 20,000 samples collected and analysed). It is a costly exercise and due to mobility of zinc and creation of spurious anomalies and quite variable overburden thicknesses this tool is not considered effective for detection of mineralized bodies below 200 metres.

9.5 Periodicity or clustering of zinc deposits along trend

The natural focus of exploration after Silvermines went into production in 1968 was to identify near mine resources which could be exploited using the existing infrastructure. Ennex acquired Mogul Ireland Ltd. in 1983 and with it, exploration ground at Silvermines, including areas recently acquired by Group Eleven. Ennex had limited funds to explore and focused eventually on shallow non-sulphide mineralization and very encouraging deeper intersections of sulphide mineralization – the latter was quite patchy. Mogul Ireland (Ennex subsidiary) ceased exploration in 1996 because of a dispute over legacy environmental issues, so the licences were rescinded and unavailable between 2006 and 2015. In contrast, the Rathdowney Trend, a sub basin parallel to the south east, has been extensively explored and drilled. Lisheen is six kilometers from Galmoy (see Figure 9.4). These mines were sustained on a cluster of deposits of variable size which were mined together. The trend along from Silvermines has not been systematically explored.

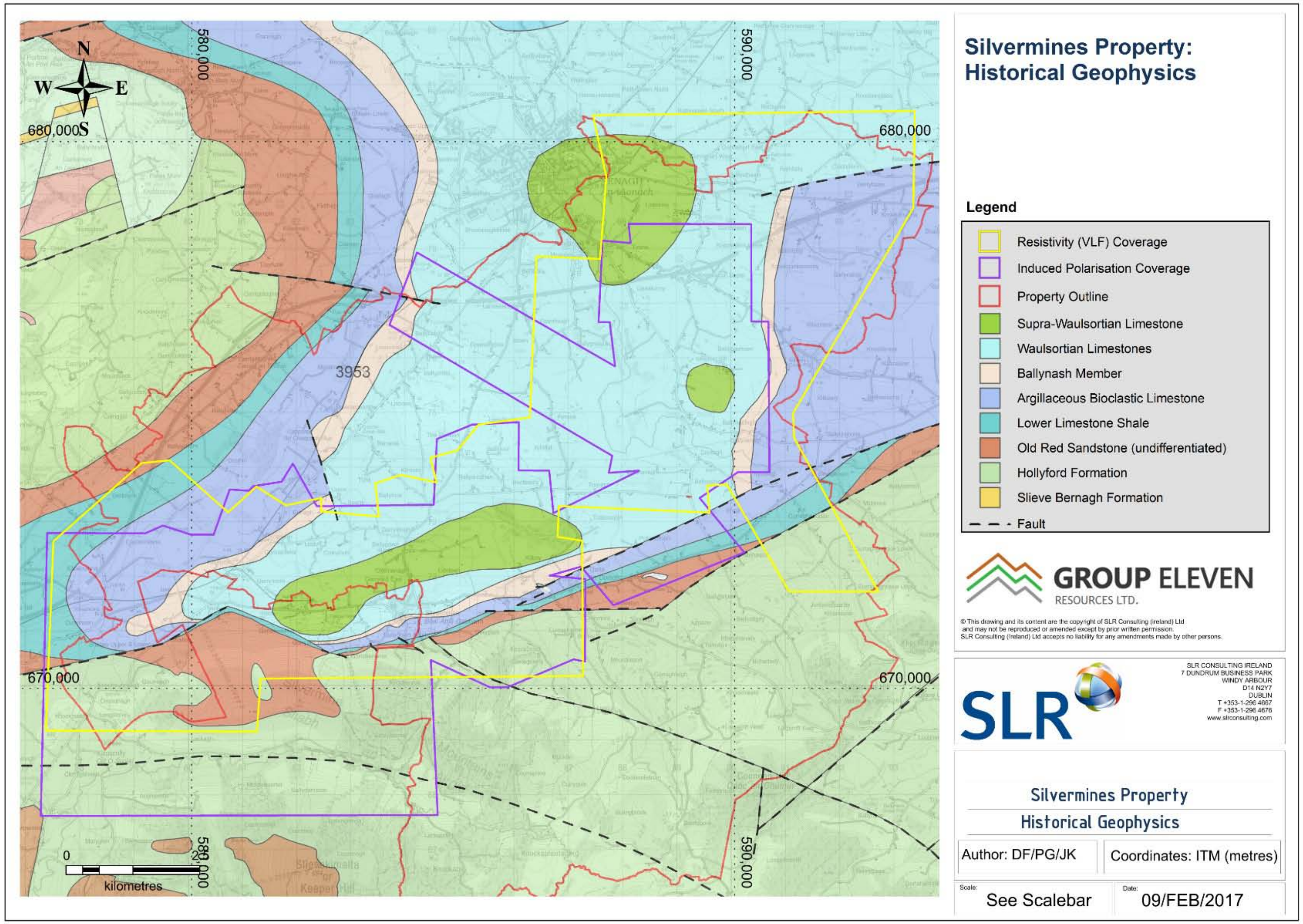

Figure 9.1 Historical Geophysical Surveying Coverage at the Silvermines Project

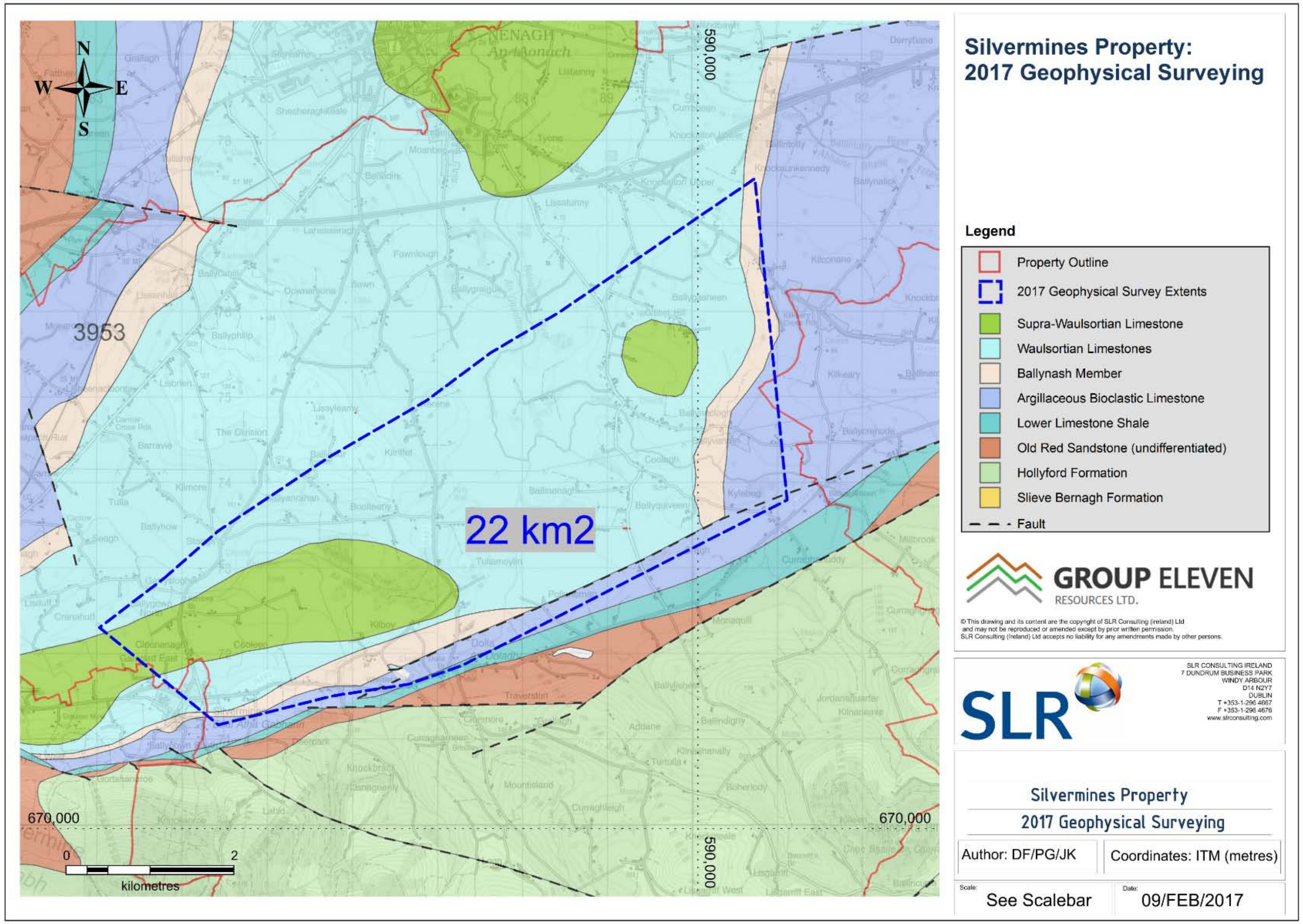

Figure 9.2 Group Eleven Geophysical Surveying Undertaken at the Silvermines Project

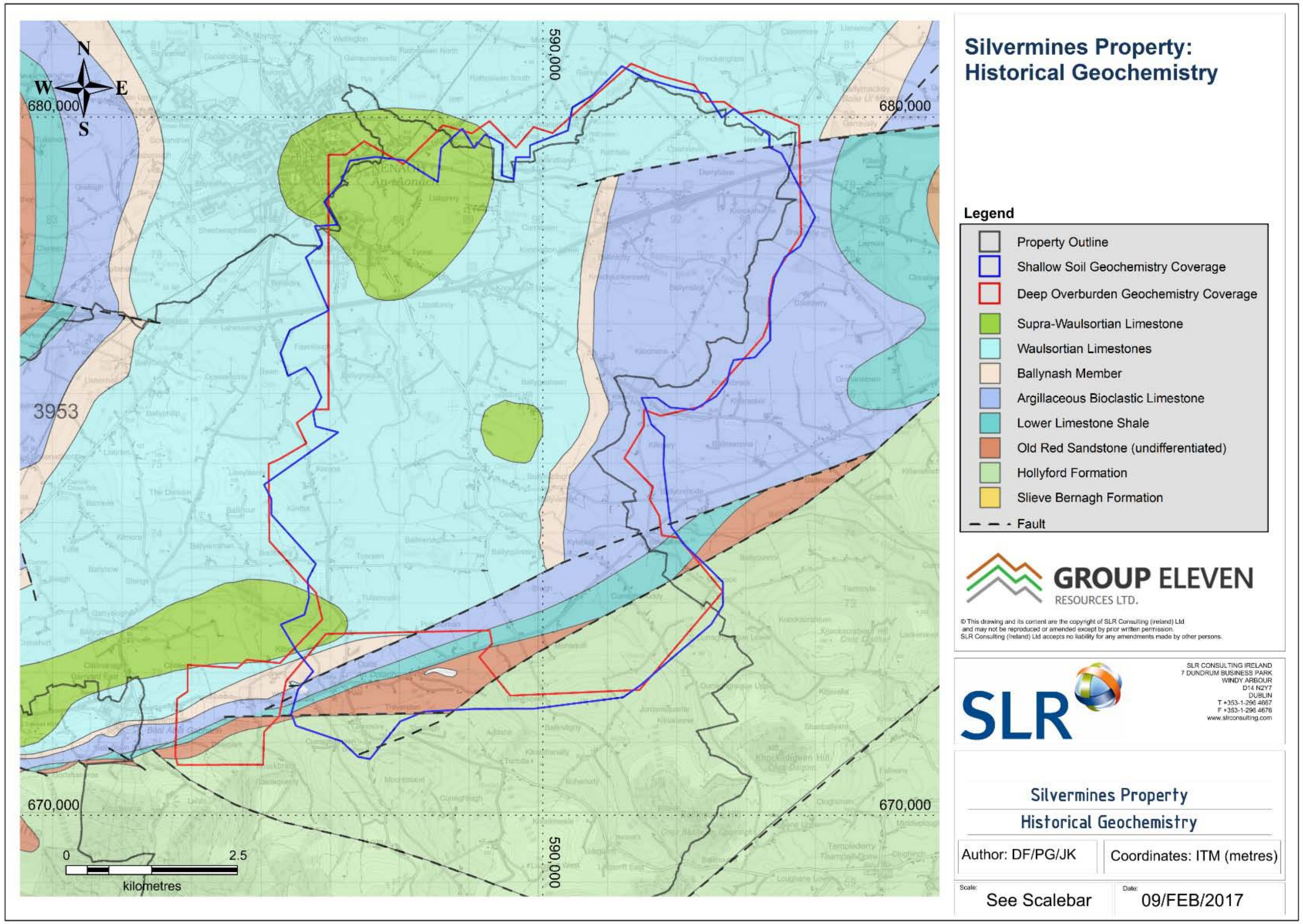

Figure 9.3 Historical Geochemistry Coverage within the Silvermines Project Area

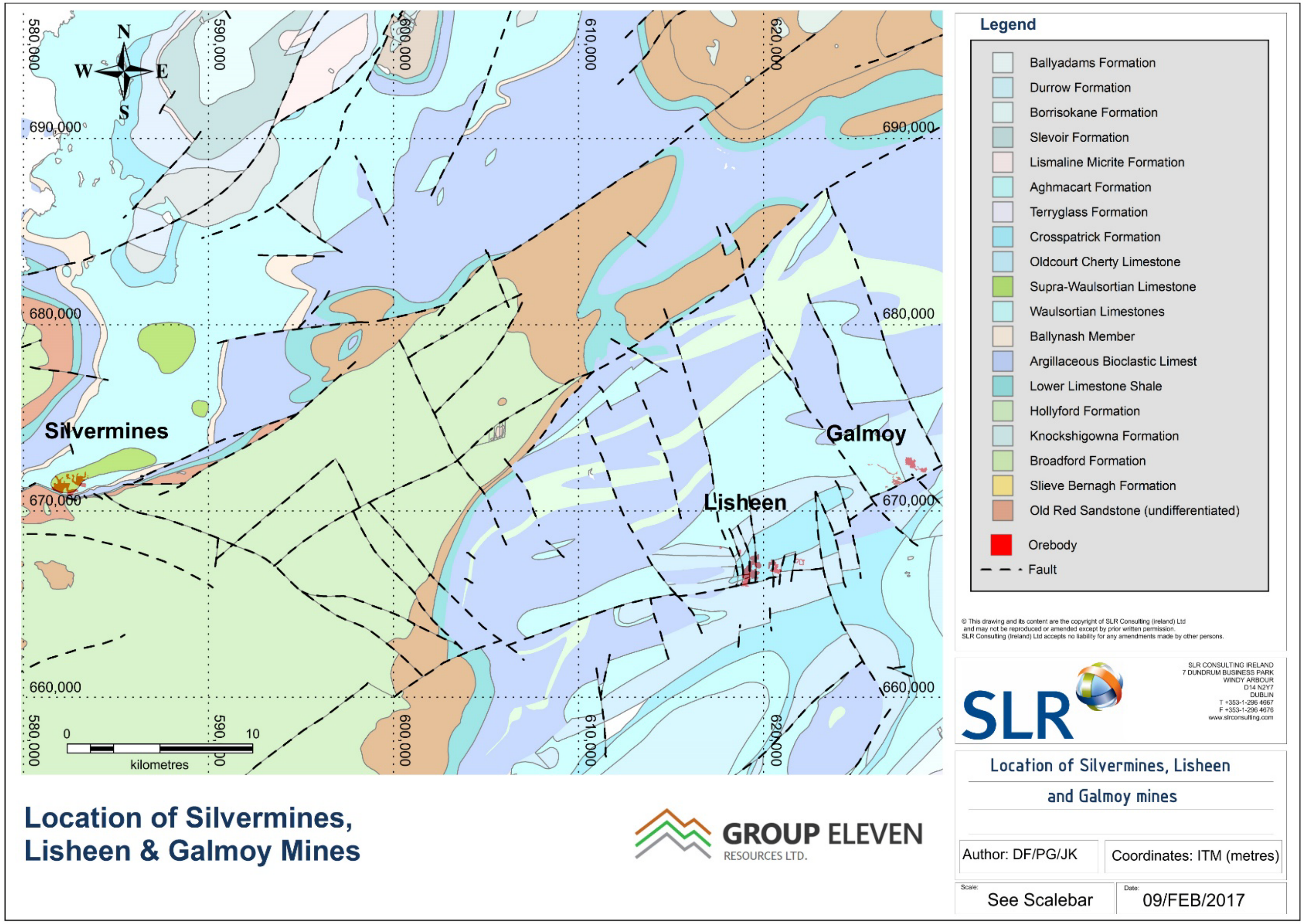

Figure 9.4 Location of Silvermines, Lisheen and Galmoy Deposits *Note Lisheen and Galmoy are part of a major structural trend. Little exploration northeast of Silvermines has been conducted.*

10.0 DRILLING

10.1 Summary

Group Eleven has compiled a comprehensive database of all 78 drillholes completed on the property episodically from early 1960's up until 1996**.** Drillholes were invariably vertical but only approximately 50 percent reached the target depth at the base of the Waulsortian Reef. Compiled historical drillhole locations are shown on Figure 6.2 "Silvermines Property. Historical Drilling" in Section 6 above.

10.2 Drilling by Group Eleven

10.2.1 Drilling Procedures and Conditions

GEM has completed one drill hole at the Cooleen Deposit (see Figure 10.1). Drilling conditions were favourable, with easy access from the local road network. The terrain consists of mainly arable farmland and is slightly hilly, though not excessively so. It is not necessary to construct drill pads, but a temporary platform is built around the drill rig. Drill core is removed daily and stored at a nearby facility, on the site of the former Silvermines underground operation. Drilling was carried out by Drilling 2000 Limited, of Ennis, Co. Claire, Ireland, using an NQ diameter drill bit.

Prior to drilling, a Stage One Screening for Appropriate Assessment was carried out and submitted to EMD, along with a Screening Report for Discharge to Groundwater.

The drillhole collar location was determined using a handheld Global Positioning System (GPS), in conjunction with geo-referenced high-resolution satellite imagery. The coordinate system used was Irish National Grid and the hole was drilled at an azimuth of 327° and a dip of -80°. Six dip/azimuth downhole surveys were taken, showing a maximum deviation of 1.3° from the collar dip of -80°, and 5.8° deviation from the collar azimuth of 327°. Its collar coordinates in ING are 184425 E, 172392N.

10.2.2 Drill Hole 4503-01

The drill hole is located c. 1km northeast of the main Silvermines Deposit. The drill hole collared in the hanging wall of the Cooleen Fault (see Figures 10.1 and 10.2), and was drilled for two reasons:

I. to confirm geological interpretations based on the available data (as all attempts to locate historic drill core were unsuccessful) and;
II. to provide 'fresh' drill core for study and analysis, in the context of advances in geological understanding, and with modern analytical methods.

The drill hole collared in the supra-Waulsortian succession, in a clean grainstone, previously observed in other drill holes in the area (Kelly, 1994). The drill hole intersected c. 250m of the supra-Waulsortian succession (see Figure 10.3). The drill hole then passed through Waulsortian Limestone, and into the Ballynash Member, also known as the Nodular Micrite Unit. The drill hole terminated in the upper part of the Argillaceous Bioclastic Limestone.

The upper 280m of the drill hole was almost completely dolomitised, with a coarse-grained, grey to brown, vuggy dolomite. The rock is heavily weathered and fractured throughout the dolomitic zone. The style of dolomitisation was typical of that seen in the vicinity of fault zones. It is believed that the dolomite is related to a fault interpreted to lie southeast of the drill hole. The drill hole was drilled on an azimuth which took it further from the interpreted fault at depth, and intensity of dolomitisation and weathering decreases with depth, supporting the view that the alteration is related to the fault.

The supra-Waulsortian succession in the area is described by Kelly (1994), and despite the intense dolomitisation and the associated weathering, it was possible to recognise the units described by Kelly.

In addition to dolomitisation attributed to the fault, the drill hole also intersected hydrothermal dolomite in the lower part of the Waulsortian Limestone. The dolomite is commonly known in the Irish mineral exploration industry as Black Matrix Breccia (BMB), from its first description at Lisheen Mine. The dolomite is believed to be an integral part of the mineralising system and often forms an envelope around sulphide mineralization. BMB is thought to represent an intensive system of dissolution of host rock, thereby creating space for the deposition of sulphides. There are two types of BMB described at Cooleen (Kelly, 1994);

I. BMB with clasts of undolomitised Waulsortian are most commonly seen in the peripheral part of the system, and;
II. BMB with clasts of dolomitised Waulsortian are seen in the core of the hydrothermal system and is often intimately associated with sulphide mineralization.

The first type of BMB was intersected in the drill hole at 337.4m, and the intensity of the breccia increased gradually from poor to moderately developed clast-supported style, to a more well-developed style, with a higher ratio of matrix to clasts, by volume. The drill hole passed into the more well-developed BMBs at 387.3m and that style was common throughout the drill hole to a depth of 399.3m. Intervals of less well-developed BMB were intersected from 401.2m to the base of Waulsortian at 415.7m. The BMB contains limestone clasts from 337.4m to 387.3m, dolomite clasts from 387.3m to 399.3m and then limestone clasts again from 401.2m to 415.7m

Hydrothermal dissolution of the original Waulsortian lithology is also represented by cavities filled with slumped sediments. This cavity-fill, which has also been observed at the Kilbricken Zn-Pb-Cu-Ag Deposit to the west, is believed to represent periods of significant hydrothermal fluid-flow post-diagenesis. The slumping observed in the sediments may be as a result of tectonic activity during deposition, thereby supporting the belief that the alteration-mineralization system was related to basin growth.

Table 10.1 Summary Sequence Intersected in Drill Hole 4503-01

From (m)	*To (m)*	*Interval (m)*	*Geological Unit*
0.0	12.0	12.0	Overburden (Soils and Glacial Tills)
12.0	123.7	111.7	Terryglass Limestone Formation (Clean Shelf Grainstone)
123.7	142.2	18.5	Oldcourt Cherty Limestone Facies E
142.2	155.9	13.7	Oldcourt Cherty Limestone Facies D
155.9	216.5	60.6	Oldcourt Cherty Limestone Facies C
216.5	223.2	6.7	Oldcourt Cherty Limestone Facies B
223.2	251.1	27.9	Oldcourt Cherty Limestone Facies A
251.1	282.0	30.9	Waulsortian Limestone

282.0	292.1	10.1	Waulsortian Wavy Laminated Facies
292.1	392.8	100.7	Waulsortian Limestone. BMB from 337.4m.
392.8	395.4	2.6	Laminated Cavity Fill
395.4	399.3	3.9	Waulsortian Limestone
399.3	400.4	1.1	Massive Sulphide (pyrite)
400.4	404.3	3.9	Waulsortian Limestone “Lower Reef”
404.3	404.6	0.3	Laminated Cavity Fill
404.6	405.2	0.6	Waulsortian Limestone “Lower Reef”
405.2	405.4	0.2	Laminated Cavity Fill
405.4	412.2	6.8	Waulsortian Limestone “Lower Reef”
412.2	412.8	0.6	Wavy Laminated Facies
412.8	415.7	2.9	Waulsortian Limestone “Lower Reef”
415.7	430.5	14.8	Nodular Micrite Unit (Ballynash Member)
430.5	437.5	7.0	Argillaceous Bioclastic Limestone

The drill hole intersected significant sulphide mineralization from 369.4m to 413.9m, with the best intersections summarised in Table 10.2 below, see also Figure 10.1 and Appendix 1.

Table 10.2 Summary of Mineralised Intercepts in Drill Hole 4503-01

	From	*To*	*Length*	*Zn %*	*Pb %*	*Ag g/t*	*Pb+Zn%*
	384.9	393.3	8.4	2.06	0.39	5.75	2.46
incl	384.9	388.4	3.5	3.37	0.59	8.47	3.96
incl	384.9	386.9	2.0	4.16	0.75	10.15	4.91

The drill hole confirms the existence of an ‘Irish-style’ alteration and mineralization system, similar in nature to both the Lisheen and Galmoy Zn-Pb deposits, as well as the Kilbricken Zn-Pb-Cu-Ag Deposit. The hanging-wall of the Cooleen Fault has not been sufficiently tested and it is believed that the potential still exists for a significant deposit in that area.

‘Irish-Style’ mineralization is typically flat-lying and close to horizontal, therefore to calculate what is believed to be the true width of the intercepts in drill hole 4503-01, it is necessary to multiply the downhole width by 0.985.

10.3 Near-by Historic Drilling at Cooleen

Best drill hole intersections from the Cooleen zone are shown in Figure 8.5, Figure 10.2 and Figure 10.3, are summarized in Table 10.3, below. These holes define a mineralized zone approximately 300m long and 100m wide (see Figure 10.1, below). A key element of exploration at Cooleen will be to expand this zone (currently open) and trace it back to its feeder structure.

Table 10.3 Key historic intercepts from the Cooleen Prospect

Hole	From (m)	To (m)	Interval (m)	Zn (%)	Pb (%)	Zn+Pb (%)	Dip (º)	Azimuth
NX-11	391.15	398.47	7.32	14.5	1.55	16.0	-90	0
incl	394.66	396.49	1.83	42.9	3.7	46.6	90	0
NX-14	383.53	392.68	9.15	1.4	0.4	1.9	90	0
and	409.14	411.28	2.14	10.1	0.5	10.7	90	0
NX-8A	363.41	375.91	12.50	0.8	0.2	0.9	90	0
and	389.48	392.23	2.74	6.8	1.2	8.0	90	0
incl	390.24	392.23	1.98	9.1	1.6	10.7	90	0
incl	390.85	391.46	0.61	13.0	2.2	15.2	90	0
NX-13	400.91	404.57	3.66	5.4	0.7	6.1	90	0

The mineralisation is interpreted to be largely flat-lying, so the widths given above are considered to be a fair reflection of the true thickness of mineralization.

Figure 10.1 Massive to semi-massive sulphides in drillhole 4503-01

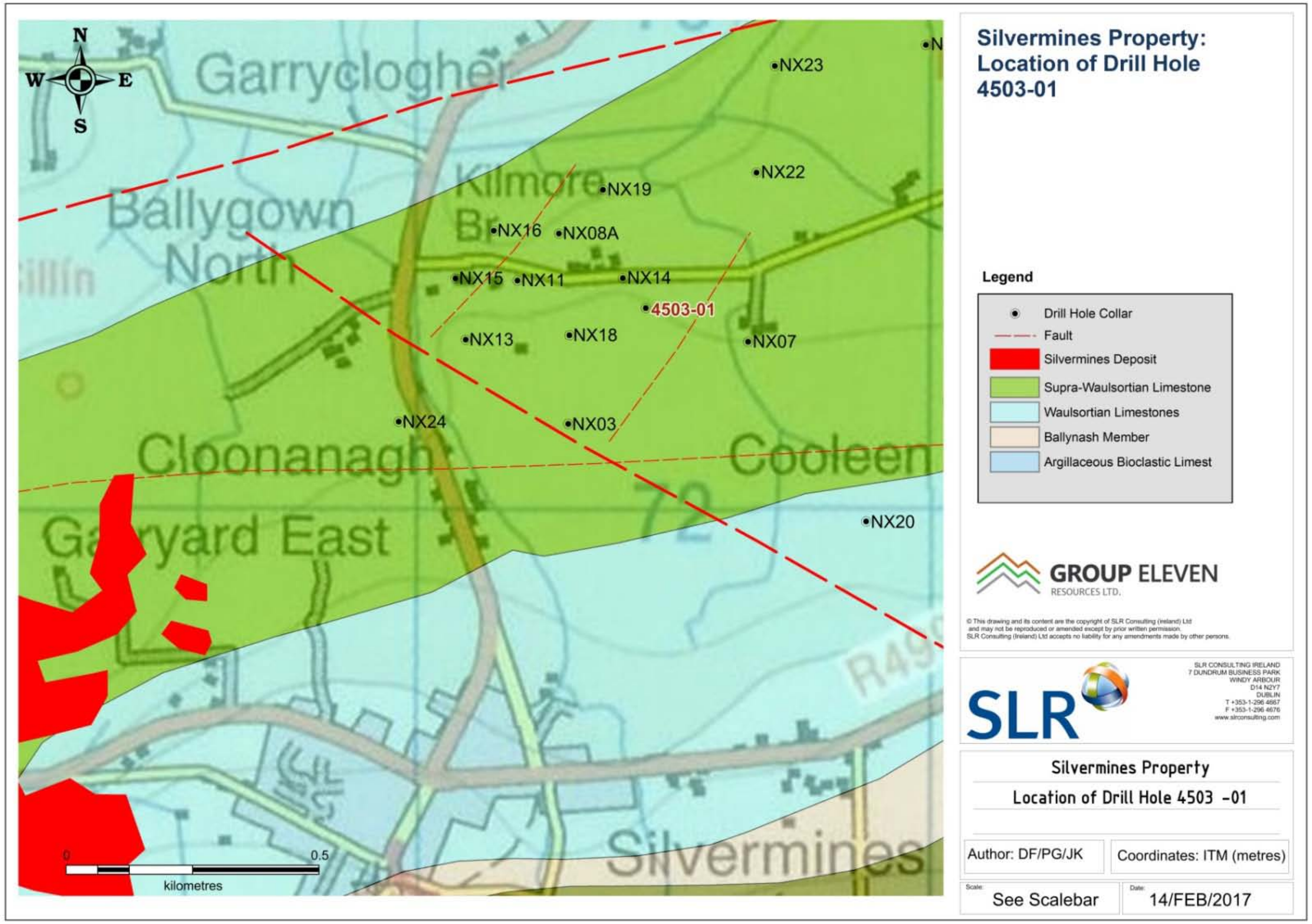

Figure 10.2 Location of Drillhole 4503-01 and eastern edge of the Silvermines Historic Deposit B Zone

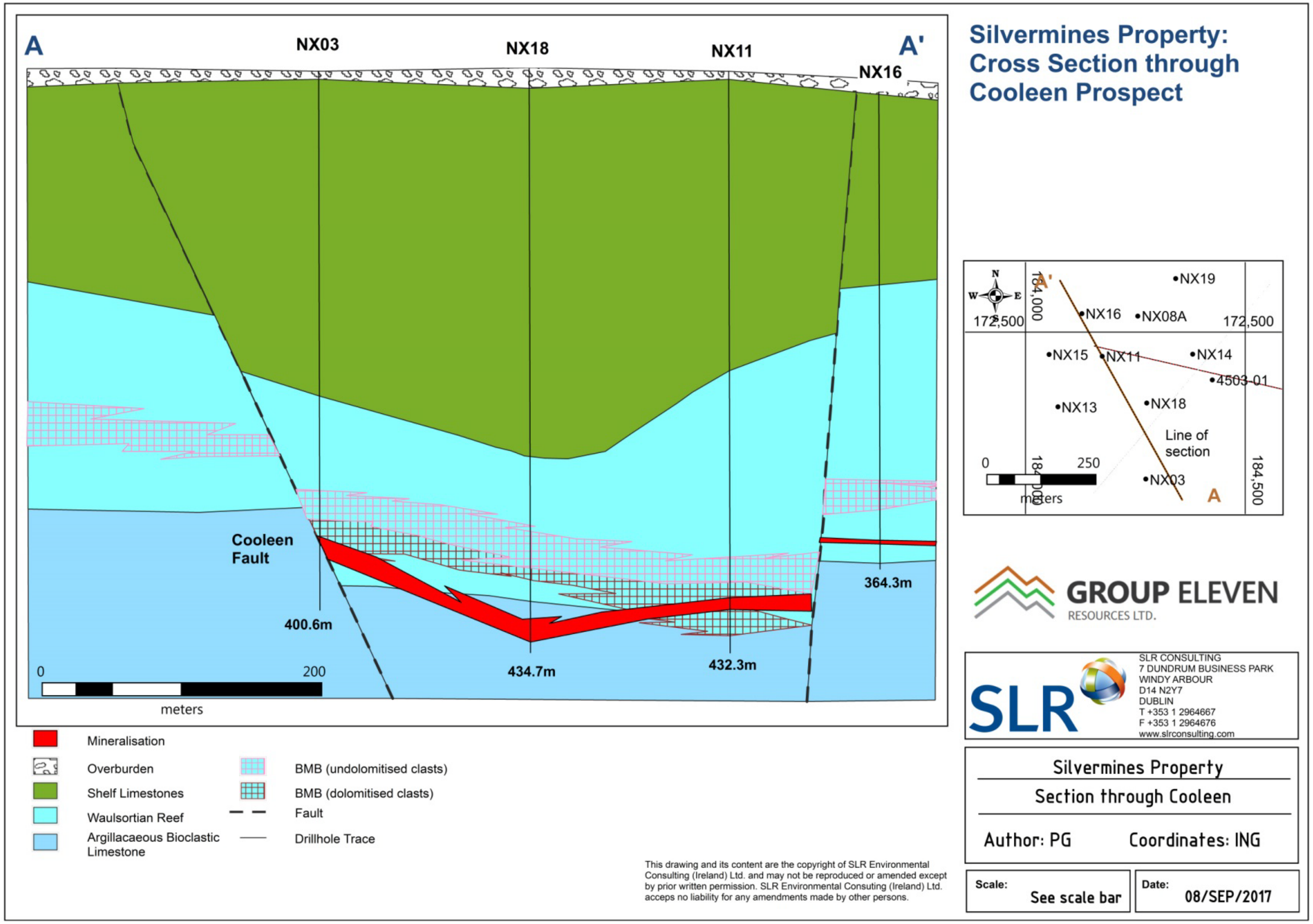

Figure 10.3 Cross-Section through the eastern edge of the Silvermines Deposit B Zone, Cooleen Fault and drillhole 4503-01

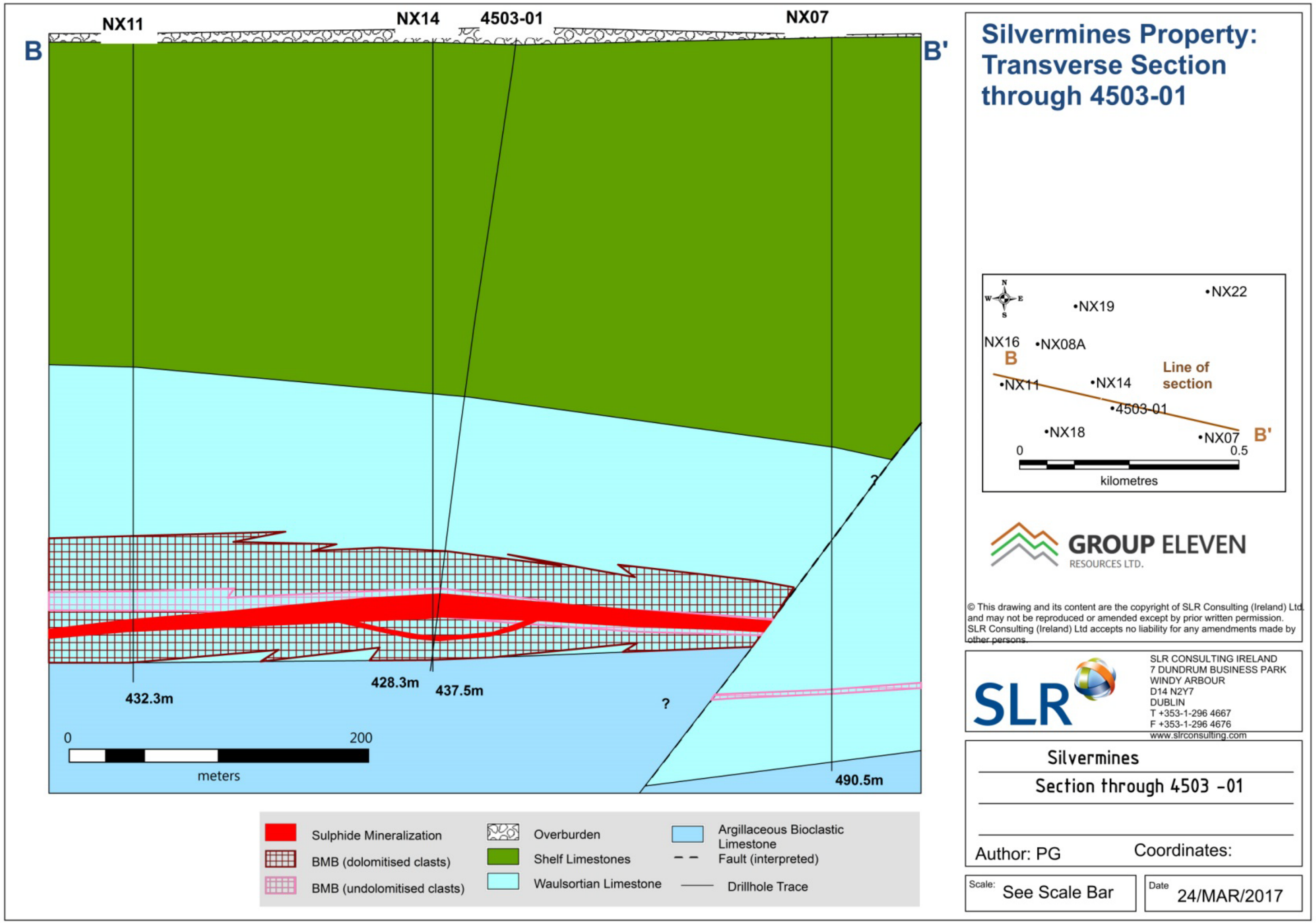

Figure 10.4 Transverse-Section through the Cooleen Zone Mineralization, Silvermines

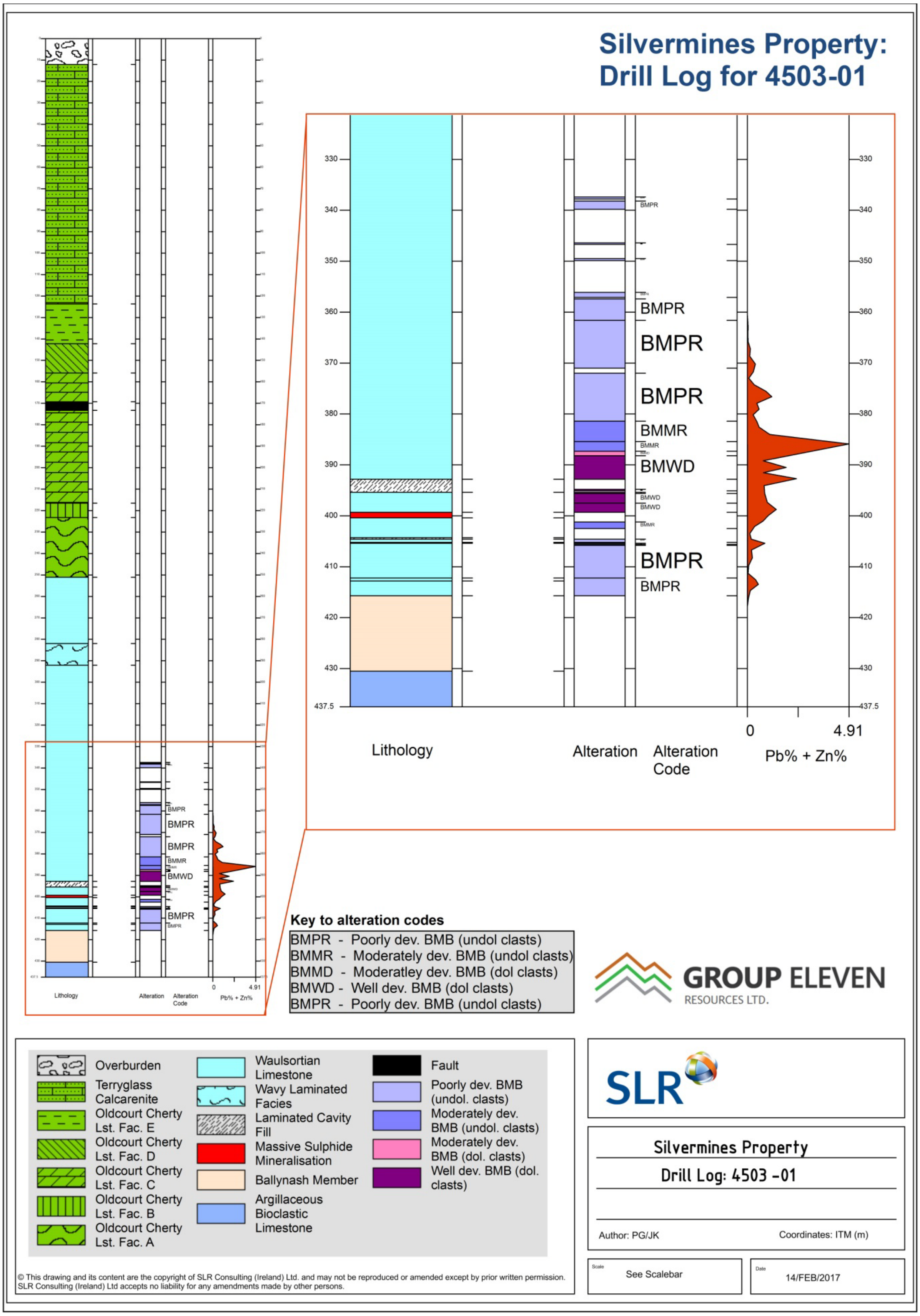

Figure 10.5 Drillhole 4503-01 Graphic Log

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Samples for geochemical analysis were marked up by an SLR Professional Geologist on the drill core with a felt-tipped pen. The start and finish of each sample was clearly marked, and heavy-duty paper tickets were inserted into the core box at the beginning of each sample. Each ticket contained the sample number and the start and finish depths of the sample. Sample numbers and depths were also entered on an Excel spreadsheet.

The core boxes were then transported direct from the logging area by a GEM contractor in a covered vehicle to a dedicated core-cutting facility in Dromkeen, Co. Limerick, belonging to and operated by BRG Ltd., a geological, and geophysical consultancy/contracting company. The core boxes were inspected after transport and found to be in a satisfactory condition, with no core displacement evident.

The drill core was cut using a standard circular saw, by an experienced independent contractor, directly employed by GEM. The core saw was washed down after each sample. The cut samples were replaced in the core box, ensuring that the correct orientation was maintained.

Sampling of the drill core was carried out by Shane Lavery B.Sc (Hons), PGeo, an SLR employee and project geologist with considerable experience in sampling protocol, and by Rebecca Furlong B.Sc. (Hons), an employee of GEM. Samples were placed in strong, clear plastic bags, ensuring that the same side of each split was taken for the entire length of each sample. The sample number was written on the bag, and a ticket containing just the sample number was placed inside the bag. The sample numbers were double-checked between the sample ticket in the core box, the ticket in the bag and the number written on the bag.

The sample bags were then loaded into a covered vehicle and transported to the ALS Minerals (ALS) laboratory in Loughrea, Co. Galway, by Mr. Lavery. The samples were checked by ALS personnel and a dispatch sheet confirming safe receipt of the samples was signed by an authorised ALS employee. The laboratory is entirely independent of GERC.

ALS are accredited by the Irish National Accreditation Board (INAB) to undertake testing as detailed in the Schedule bearing the Registration Number 173T (see Appendix 2), in compliance with the International Standard ISO/IEC 17025:2005 2nd Edition “General Requirements for the Competence of Testing and Calibration Laboratories”

ALS crushed, split and pulverised the samples. The samples were analysed using ALS’s ME-MS61 analysis package, which uses a four acid digestion and analysis by mass spectrometer. Samples which produced results exceeding the maximum detection limits for zinc or lead (10,000 ppm) were analysed using ALS’s ME-OG62 package, which is suitable for high-grade material and also uses the four acid digestion.

Results were transmitted via electronic-mail, with data provided as a signed analysis cert in portable document format (PDF) and as a comma separated values (CSV) spreadsheet.

11.1 Quality Assurance/Quality Control

GEM has collected drill data and geophysics data. The drilling was supervised directly by GEM, and the authors carried out the subsequent data collection, i.e. logging, sampling and receipt of assay results from ALS Laboratories. The geophysics data were collected by a third party, BRG Ltd., and described in a report by Graham Reid of BRG, a PGeo and recognised QP. The authors are satisfied as to the adequacy of both the drill data and geophysical data.

11.2 Drilling

The GEM Quality Assurance/Quality Control (QA/QC) protocol includes the insertion of certified reference materials (CRMs or 'Standards') and blanks into the sample stream, at a rate of approximately one in ten. The exact number of samples between each QA/QC sample is deliberately varied, to avoid an obviously detectable pattern.

CRMs were sourced from two different accredited and industry-recognised sources; OREAS Laboratories and Geostats Pty., both Australian.

Sample blanks were sourced from visually blank, pale grey limestone, from higher in the drill hole.

GEM's protocol requires each CRM to return a value not more or less than the certified mean value plus three times the certified standard deviation. Both QAQC samples returned values within one standard deviation of the certified mean, for all three elements of interest (see Table 12.1, below).

Table 12.1 Summary of analysis values for CRMs

	OREAS 133a					
Element	**ALS Value**	**Certified Mean**	**SD**	**Mean +3SD**	**Mean - 3SD**	**Result**
Ag ppm	99.6	99.9	2.42	107.16	92.64	PASS
Pb %	4.9	4.9	0.162	5.386	4.414	PASS
Zn %	10.75	10.87	0.354	11.932	9.808	PASS
	Geostats GBM910-11					
	ALS Value	**Certified Mean**	**SD**	**Mean +3SD**	**Mean - 3SD**	
Ag ppm	19.5	19.2	1.2	22.8	15.6	PASS
Pb %	1.315	1.3372	0.0622	1.5238	1.1506	PASS
Zn %	3.79	3.9325	0.1654	4.4287	3.4363	PASS

The results of the QAQC analysis indicate that ALS Laboratories has returned values with an acceptable variation from a certified mean.

The Authors are satisfied as to the adequacy of the sample preparation, security and analytical procedures.

12.0 DATA VERIFICATION

The data pertaining to drillhole 4503-01 has been fully captured by the Authors and their SLR colleague. The Authors have checked the sample numbers and results against the drill core and the assay certificates, and are satisfied that the data are correct.

Regarding the historic drill data, they have been compiled from renewal reports submitted to EMD by Ennex, the previous operator of the ground. The Authors have independently checked the data against those reports and are satisfied as to the accuracy of the database being used by GERC, and that it is fit for the purpose of reporting on the project, and as a basis for future work. Additionally, Dr. Kelly, while employed by CSA (subsequently acquired by SLR Consulting) previously carried out a geological review of the Cooleen prospect on behalf of Ennex, and the relevant data have been checked against the data used by Dr. Kelly.

The Authors note that the database is incomplete, with data missing for two of the Cooleen prospect drillholes. It is possible that these data may never be found and that the database will remain incomplete. That notwithstanding, the Authors are satisfied that the database is as ‘clean’ and robust as is practicably possible.

BRG used GEM Overhauser ‘walk-mag’ units with inbuilt GPS capabilities. The units measure total magnetic field at one second intervals and data are exported on a daily basis. The measurements were corrected for diurnal drift and BRG took care to avoid solar storms which could have significantly affected the readings. The Authors are satisfied that BRG handled the data adequately and according to industry norms.

The Authors are satisfied as to the adequacy of both the drill data and geophysical data.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

This is an early-stage exploration stage project resumed after a hiatus of over 20 years and to date no metallurgical testing has been undertaken as there is not enough bulk of fresh mineralised sample available.

14.0 RESOURCE ESTIMATES

Not applicable for this early-stage exploration stage project.

23.0 ADJACENT PROPERTIES

23.1 Historic Unclassified Resources

The property is immediately adjacent to the historic Silvermines Mine (Zn-Pb) and Ballynoe Open Pit ($BaSO_4$). The ground is not held, nor is it available to be held. Please see Figure 7.4 for details; the entire area not shaded in blue is not held and is not open for licence applications to EMD.

The operator of Silvermines, Mogul of Ireland Ltd., is reported to have produced some 10.7Mt grading 2.7% Pb and 7.4% Zn from 1968 until closure in 1982 (Boland *et al*, 1992). The production figures have not been verified by the Authors, nor is it possible to do so. The historic production data are not necessarily indicative of mineralization on the GEM property that is the subject of this report.

Magcobar Ireland Ltd. (Dresser Industries) produced about 4Mt tonnes of 85% $BaSo_4$ (> 4.2 S.G.) lump barite to the end of 1990 (Boland *et al*, 1992). Ennex International Plc explored the areas adjacent to the mine between 1984 and 1996 to try and add to the remaining historical estimate of 6.9 million tonnes averaging 5% Zn and 2.3% Pb (Andrew, 1986).

23.2 Description of Mineralization

23.2.1 Upper Stratiform Zones at Base of Waulsortian

The Upper orebodies include the Upper G, B, Magcobar and Cooleen Zones (see Figure 7.4). They are very similar in terms of setting and mineralization and setting, forming individual mineral "pods" within the overall Silvermines hydrothermal system. The mineralization which forms these orebodies formed at the base of the Waulsortian Reef immediately overlying the Muddy Reef and throughout the area immediately above the Green Shale Marker (Andrew, 1986). The upper mineralization system extends discontinuously in pods for 1.5km along strike and down dip for 2.5km. Typically the mineralization is five to 10m thick reaching a maximum of 35m in the Upper G zone very close to the Silvermines Fault and along the B Zone Fault which forms the southern limit of the deposit complex. Other margins to mineralization are in pinch-outs against irregular development of the Footwall Pale Reef Limestone knolls (Fig 12, p 393, Andrew, 1986). The receptive mineralised horizons also contain massive pyrite, barite and siderite concentrations which host base metal sulphides.

The Green Shale Marker (GSM) caps the Muddy Reef mineralization and Footwall Pale Reef Limestone knolls. In the mineralization zones, the GSM lies just below massive barite, siderite and pyrite within troughs between the knolls. The troughs coincide with gentle NNW-trending synclinal fold belts developed at right angles to points of maximum throw on the Silvermines Fault complex and the B Zone fault.

In Magcobar, the barite occurs in a roughly triangular basin about 650m along strike and 250m down dip, opening away from the Silvermines Fault and associated slump zones. The barite is bounded down dip to the north by a shallow Footwall Pale Reef Limestone knoll. The barite averaging 85% $BaSo_4$ attains its maximum thickness of 25m in the centre of this basin which clearly demonstrates the direct relationship between paleotopography and barite concentration.

Massive pyrite facies forms the host to most of the mineralization in the Upper G Zone and in much of the B Zone. Well-developed metal zonation crosscuts facies boundaries. Zn:Pb ratios are lowest adjacent to the WNW faults. Zinc concentrations are richer following pyrite and siderite development within paleotopographic troughs.

23.2.2 The Lower Dolomite zones

The Lower Dolomite around Silvermines appears to be pervasively mineralised at trace concentrations but only reached economic concentrations in three zones, the lower G, K and P Zones (Graham, 1970; Catlin, 1983; Andrew, 1986, p 387).

The Lower G Zone is confined to the Lower Dolomite closely underlying the Upper G Zone where drag along the fault thins lithological units close to the main Silvermines Fault. From 1966 until 1982, 2.0Mt averaging 6.6% Zn and 4% Pb was mined (Ennex International PLC Company Report ref in Andrew 1986 p389).

The Lower G Zone is not on the property and it has not been possible for the QPs to verify the quantity or grade of mined material. The reported quantity of mined material is not necessarily indicative of the mineralization on the property. The estimate of mined material is believed to be reliable, as the Author of the relevant paper (Andrew, 1986) is personally known to the Authors of this report and is considered to be a reliable source.

The mineralization has a strike of 500 metres and extends down-dip reaching a maximum thickness of 30 metres. The mineralization is concentrated at a place of maximum throw along the Fault. East and west of the mineralization, the dip of the Fault flattens from 65° to 50° and drag accommodates much of the displacement.

Rocks are intensely brecciated and silicified and replaced by fine grained pyrite and coarse sphalerite and galena in the upper parts of the Lower G zone for up to 30 metres below the contact with the Upper G zone. Below this is a zone of intense veining and brecciation with fractures filled with dolomite, quartz and sphalerite and galena and pyrite. At increasing depths, the mineralization consists of the more typical infill of open-spaced filling of dolomite voids, fractures and brecciation zones and as disseminations. Superimposed textures show several phases of mineralization clearly some of which are the same time as fracturing. Sulphides constitute on average 20% of the mineralization zone with galena and sulphide dominant. Pyrite or marcasite is generally present in minor amounts although these iron sulphides become a major component in the uppermost parts where replacement is dominant. Chalcopyrite and arsenopyrite are important accessory minerals with tennantite, lollingite, boulangerite and numerous lead, copper and silver sulphosalts occurring in minor amounts. Dolomite, calcite and quartz and barite are common gangue minerals and occur in variable amounts.

There is zoning within the Lower G Zone. There is an upper central zone of relatively zinc-rich mineralization which passes down and out into a lead-rich apron and eventually into a zone where low-grade chalcopyrite mineralization with galena is present. Cadmium (averaging 0.03%) and arsenic (0.10%) are irregularly distributed. There seems to be an inverse relationship between zinc and silver and indeed zinc and lead. Significant quantities of barite and silica occur to the east and west of the mineralization. At Garryard drilled sections of Lower Dolomite assay 15% $BaSO_4$ over 15m. This deeper barite mineralization is likely to be related to the overlying Magcobar Barite Zone at Ballynoe, mined from an open-pit by the former Dresser Industries of Dallas, Texas.

Petrological studies (Graham, 1970; Catlin, 1983) reveal a simple paragenesis: (i) the original limestones are hydrothermally altered and totally replaced by iron-free dolomite which reduces volume and creates voids. This chemical change is also associated with concentrations of fine-grained pyrite; (ii) fracturing and ingress of ferroan dolomite and more pyrite to fill fractures and open spaces created by the earlier dolomitisation phase; and (iii) silicification of host rocks with precipitation of chalcedonic silica (bulk analyses of the Lower G Zone indicates and average of 17% SiO_2 with values ranging up to 40% have been recorded in the upper parts of the mineralization).

The K-Zone was the discovery zone first drilled in June 1963. It is about a kilometre east along the Silvermines Fault at the east side of the Magcobar barite deposit. The mineralization is thickest close up to the Silvermines Fault where dips steepen by fault drag. Moving north away from the fault dips are shallower and the mineralization concentrates into two lenses with trace sulphides throughout the Lower Dolomite. The upper lens is about 3m thick ranging up to 10m and extends laterally 75m north of the fault. The lower lens averages 4 to 7m thick and is more laterally extensive reaching up to 275m from the fault. The lower lens thickens towards the main fault to a thickness of 20m and also close to the WNW trending “5100 Fault” across the eastern part of the mineralization (Andrew, 1986). The K-Zone was still being explored and evaluated in the late 1980’s when the resource stood at 1.4Mt averaging 4.4% Zn and 1.4% Pb and 15g/t Ag (Ennex International PLC Company Report, 1984). The P Zone another couple of hundred metres east along the “big fault” lies in an area of WNW trending faults all downthrown to the north. Mineralization at a cut-off of 4% (Zn+Pb) ranges in thickness from 3m to 5m again thicker and thicker closer to the fault. In 1984, Ennex reported mineralization totalling at least 500,000 tonnes averaging 4% Zn, 1.2% Pb and 17 g/t Ag.

The K Zone is not on the property and it has not been possible for the QPs to verify the quantity or grade of mined material. The reported quantity of mined material is not necessarily indicative of the mineralization on the property. The estimate of mined material is believed to be reliable, as the Author of the relevant paper (Andrew, 1986) is personally known to the Authors of this report and is considered to be a reliable source.

25.0 INTERPRETATION AND CONCLUSIONS

The Silvermines Project Area extending northward and eastward from the Silvermines zinc-lead deposits has the key checklist of criteria necessary to the development of Irish-type deposits. The hiatus in exploration at Silvermines over the last 20 years (since 1996) presents a very compelling exploration opportunity.

Group Eleven has taken a regional exploration approach to exploration of the prospective stratigraphy north of Silvermines, similar to that applied to the mirror Rathdowney Trend on the other side of the basin (see Figure 9.4) in the 1990s by Chevron and its consultants.

Key attributes are:

- Permissive stratigraphic host (Waulsortian limestone)
- Alteration – development of hydrothermal black matrix breccias and dolomitization
- Similar structural setting
- Basin margin setting
- Project area contains the Cooleen primary sulphide prospect
- Room to make major discoveries in the underexplored eastern part of the Project Area and the Silvermines North Project.
- Extensive geophysical and geochemical anomalism
- Mineralization in new drill-core

Over 50% of the drillholes completed within the Silvermines Project Area did not reach the target depth at the base of Waulsortian. The vast bulk of the drillholes were concentrated in areas just east of Silvermines Village and the Ballygown North and Ballygowan South prospects in the adjacent property.

Exploration of this property will benefit greatly from new insights and understanding of Irish-zinc deposits based on recent iCRAG research, new application of seismics and recent work (exploration, mining and 3D modelling) at the Rathdowney trend. The recognition that Irish style mineralization can occur as periodically repeating deposits along a trend, has greatly enhanced the prospectivity of the areas to the east and north east of the known mineralization at Silvermines.

The description of sampling techniques used by previous explorers is either not described or poorly outlined, therefore the historical assay results must be considered with some caution. However, the recent drill-hole 4503-1 drilled by Group Eleven confirms the historical description of geology, mineralization and grade around historical drill-hole NX-14 at Cooleen.

The Property is at an early stage of exploration. It could reasonably be considered brownfield exploration in the context of Silvermines. There is significant exploration risk for these Properties similar to all other early-stage exploration projects in that there may be no mineral resource at economic tonnages and grade. As of the effective date, the Authors are not aware of any other significant risks that could hamper access, challenge mineral title and ability to obtain necessary permits and the ability to undertake exploration or the studies to establish the economic viability of any discovery.

Group Eleven has been granted 16 PLs covering 582 sq. km in the Silvermines North area which covers sub basins and the Birr Inlier north of the Silvermines Project. This large area has been very sporadically drilled and is believed to be highly prospective for zinc-lead mineralization.

Group Eleven will commission a tectono-stratigraphic basin study combined for the first time with a Play Fairway Analysis study developed in the Oil and Gas exploration sector. This study will principally be used for target zone reduction to focus the on-the-ground exploration.

26.0 RECOMMENDATIONS

The Silvermines Project is of sufficient technical merit to warrant the recommendation of a robust, two-phase exploration programme.

Phase 1 should focus on drilling at Cooleen and regional tectono-stratigraphic analysis (in part based on seismic work), while Phase 2 will follow on from Phase 1 and focus on drilling Cooleen and other key targets. The Authors have been informed that Phase 1 and 2 are expected to each be completed within a consecutive 12-month period (i.e. 24 months in total). Phase 2 will be conditional on satisfactory outcomes from Phase 1, although it is thought that sufficient work has already been done to establish the prospective nature of the property.

26.1 Phase 1 – Target Reduction and Refinement

Phase 1 will consist of accelerated compilation of all historical geological, geophysical and geochemical data from the publicly available databases operated by the Exploration and Mining Division (EMD) and the Geological Survey of Ireland (GSI), respectively. An internal (Group Eleven) database, which is already populated with first-order information, will be completed to include all pertinent details from historic reports and drill logs. Maps and sections will be captured, georeferenced and incorporated into MapInfo© workspaces. As part of this work, locations of all drill holes, samples and survey (geochemical, geophysical, topographical, etc.) grids will be compiled.

In parallel with the above, Group Eleven has commissioned Paterson, Grant & Watson Limited (“PGW”) to reprocess, invert and interpret historical geophysical surveys in the project area.

Upcoming fieldwork will include a seismic survey covering 12 line kilometres, aimed at refining structures in the resulting area of focus. In combination with the above, a tectono-stratigraphic study will be conducted on the project area, in an effort to vector towards the key basement controlling structures (which most likely control mineralization). In parallel, diamond drilling is planned, consisting of six (6) holes focussed in the Cooleen area. This will include two (2) in-fill holes in the Cooleen mineralized zone (testing variability and continuity of known mineralization), as well as, one (1) exploration hole in each of Targets 1 through 4, respectively.

26.2 Phase 2 – Diamond Drilling

Phase 2 exploration is expected to consist predominantly of diamond drilling. Six (6) holes are planned including one (1) hole in Cooleen Target 2 and 3, as well as, four (4) holes regionally along the trend towards the northeast. Exact locations will be determined as the programme progresses. The main aim of the above drilling will be expansion of currently known mineralization and regional exploration.

26.3 Budget (Phase 1 and 2)

Phases 1 and 2 of exploration at the Silvermines project are expected to cost C$1,040,100 and C$619,800, respectively, or C$1,659,900, ex VAT, in total (see Table 26.1, below).

Table 26.1 Silvermines Project – Proposed Expenditure Budget

SILVERMINES	Phase 1			Phase 2			Total		
Drilling	**Holes**	**Metres**	**C$**	**Holes**	**Metres**	**C$**	**Holes**	**Metres**	**C$**
Cooleen - core	2	1,000	140,000	-	-	-	2	1,000	140,000
Cooleen - Target 1 area	1	500	70,000	-	-	-	1	500	70,000
Cooleen - Target 2 area	1	600	84,000	1	600	84,000	2	1,200	168,000
Cooleen - Target 3 area	1	600	84,000	1	600	84,000	2	1,200	168,000
Cooleen - Target 4 area	1	400	56,000	-	-	-	1	400	56,000
Regional	-	-	-	4	2,000	280,000	4	2,000	280,000
Contingency	-	-	-	-	-	-	-	-	-
Sum	**6**	**3,100**	**434,000**	**6**	**3,200**	**448,000**	**12**	**6,300**	**882,000**
Drilling related	**Unit**	**Rate**	**C$**	**Unit**	**Rate**	**C$**	**Unit**	**Rate**	**C$**
Assays	470	49	23,000	480	49	23,500	950	49	46,500
Logging	-	-	2,000	-	-	2,000	-	-	4,000
Landowner compensation	-	-	5,600	-	-	5,700	-	-	11,300
Hydrology or other studies	-	-	1,500	-	-	1,500	-	-	3,000
CR / permissions	-	-	2,100	-	-	2,100	-	-	4,200
Splitter, storage, equipment	-	-	2,000	-	-	2,000	-	-	4,000
Sum	-	-	**36,200**	-	-	**36,800**	-	-	**73,000**
Geophysics	**Unit**	**Rate**	**C$**	**Unit**	**Rate**	**C$**	**Unit**	**Rate**	**C$**
Re-processing historic	-	-	10,000	-	-	-	-	-	10,000
Interpretation	-	-	47,040	-	-	-	-	-	47,040
Ground Mag	-	1,400	-	-	-	-	-	-	-
Ground Gravity	-	4,200	-	-	-	-	-	-	-
Seismic (€10k/line km)	12 line km	19,600	235,200	-	19,600	-	12 line km	19,600	235,200
ADR	-	C$5k ea	-	-	C$5k ea	-	-	C$5k ea	-
Contingency	-	-	-	-	-	-	-	-	-
Sum	-	-	**292,240**	-	-	-	-	-	**292,240**
Other			**C$**			**C$**			**C$**
Tectono-stratigraphic analysis	-	-	14,000	-	-	-	-	-	14,000
Data compilation & management	-	-	185,139	-	-	93,445	-	-	278,584
Fixed costs	-	-	78,521	-	-	41,555	-	-	120,076
Misc	-	-	-	-	-	-	-	-	-
Sum	-	-	**277,660**	-	-	**135,000**	-	-	**412,660**
Total			**1,040,100**			**619,800**			**1,659,900**

Phase 1 and 2 is expected to make up 63% and 37% of the total budget, respectively. Of the total two-phase budget, drilling will consist of 58% of the costs, with geophysics and other categories representing 18% and 25%, respectively (see Table 26.2, below).

Table 26.2 Silvermines Project – Expenditure by Exploration Method

Summary	Phase 1	Phase 2	Total	%
Drilling	470,200	484,800	955,000	58%
Geophysics	292,240	0	292,240	18%
Fixed & other	277,660	135,000	412,660	25%
Total	**1,040,100**	**619,800**	**1,659,900**	100%
%	63%	37%	100%	

27.0 REFERENCES AND BIBLIOGRAPHY

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APPENDIX 1

Qualified Person Certification

Certificate of Qualified Person

I, ***Dr John George Kelly of SLR Consulting Ltd., 7 Dundrum Business Park, Windy Arbour, Dublin***, as the author of the technical report entitled: "*NI43-101 Independent report on a base metal exploration project at Silvermines, Co. Tipperary, Ireland*" prepared for Group Eleven Resources Corp. and dated effective **20th November**, 2017 (the "**Technical Report**") do hereby certify that:

1. I am a ***Principal Geologist*** working at **SLR Consulting Ltd., 7 Dundrum Business Park, Windy Arbour, Dublin.**
2. I have received the following degrees:

   a. **BSc (Hons) 2.1 Geology, Queens University of Belfast, United Kingdom, 1986**
   b. **Ph.D. Geology, National University of Ireland, Dublin, 1989.**

3. I am a registered Professional Geologist (PGeo) with the Institute of Geologists of Ireland and a registered European Geologist (EurGeol) with the European Federation of Geologists. I have been practicing my profession continuously since 1991.

4. As a result of my experience and qualifications, I am a "Qualified Person" as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101). The majority of my career has focussed on base metal exploration in Ireland and abroad, with a particular focus on carbonate-hosted mineralization. I have worked on, *inter alia,* the Lisheen, Silvermines, Ballinalack, Abbeytown and Crinkill deposits/prospects. In addition to near-mine exploration, I have worked on and project-managed exploration across the entire Irish lower Carboniferous for a wide variety of companies, from junior, to mid-tier, to major.

5. I have been directly involved with the project that is the subject of the Technical Report since 18th January 2017. The nature of my involvement has been to spend one day inspecting and interpreting the drill core from the property, and half a day to inspect the data derived from the drill core. I have written Sections 2-9, and 23, and co-written Sections 1, 25 and 26.

6. I performed a personal inspection of the project site on 18th January, 2017.

7. I am independent of Group Eleven Resources Corp. as described in Section 1.5 of NI 43-101.

8. I have read NI 43-101 and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

9. At the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated at Dublin, Ireland this 20rth November 2017

EurGeol Dr John G Kelly PGeo, MIMMM

Certificate of Qualified Person

I, ***Paul Gordon, 7 Glendine Woods, Kilkenny*** as the author of the technical report entitled: "*NI 43-101 Independent Report on a Base Metal Exploration Project at Silvermines, County Tipperary, Ireland*" prepared for Group Eleven Resources Corp. and dated effective 20th November, 2017 (the "**Technical Report**") do hereby certify that:

10. I am a **Principal *Geologist*** working at ***SLR Consulting Ltd, 7 Dundrum Business Park, Windy Arbour D14 N2Y7, Dublin, Ireland***.

11. I have received the following degrees:

    c. ***Bachelor of Science, National University of Ireland, Galway***

    d. Master of Science, Lancaster University, UK

12. I am a Professional Geologist registered in Ireland with the Institute of Geologists of Ireland (PGeo) and in Europe with the European Federation of Geologists (EurGeol). I have been practicing my profession continuously from ***October 1995*** **to April 2002** and since **July 2006**.

13. As a result of my experience and qualifications, I am a "Qualified Person" as defined in National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101). I have worked for a significant portion of my career in the Irish base metals exploration sector. My experience has included work on the Navan (Tara Mines), Galmoy, Kilbricken, Keel & Harberton Bridge deposits/prospects in various roles, ranging from technician to country manager, as well as numerous other earlier stage projects across the country.

14. I have been directly involved with the project that is the subject of the Technical Report since ***18th January 2017***. The nature of my involvement has been to spend three days logging the drill core from the property, interpreting the results and incorporating them into a working conceptual model which will be used to guide future exploration. I have generated all of the figures for the report, with the exceptions of Figures 5.1, 5.2, 7.1, 8.1 and 8.2. I have written Sections 10-14 and co-written Sections 1, 3, 25 and 26. I have also edited and amended the entire document twice.

15. I performed a personal inspection of the project site on ***18th January 2017 and 23rd-24th January 2017***.

16. I am independent of Group Eleven Resources Corp. as described in Section 1.5 of NI 43-101.

17. I have read NI 43-101 and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

18. At the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated at Dublin, Ireland this 20th November 2017.

____

EurGeol Paul Gordon MSc PGeo

APPENDIX 2

Additional Photographs from Hole 4503-01


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APPENDIX 2

ALS Accreditation / Certification

ACCREDITATION COMMENTS

The methods immediately below this line are ISO 17025:2005 Accredited. INAB Registration No: 173T

ME-MS61 ME-OG62

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO.173T

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