Technical Report for the Northern Ireland Gold Project, Northern Ireland

Report Prepared for

Dalradian Resources Inc.

Report Prepared by

SRK Consulting (Canada) Inc.
3CD016.000
June 17, 2016

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Dalradian Resources Inc.

Queen's Quay Terminal, Suite 416, 207 Queen's Quay West
Toronto, Ontario, Canada
M5J 1A7
E-mail: info@dalradian.com
Website: www.dalradian.com
Tel: +1 416 583 5600

SRK Consulting (Canada) Inc.

Suite 1300, 151 Yonge Street
Toronto, Ontario, Canada
M5C 2W7
E-mail: toronto@srk.com
Website: www.srk.com
Tel: +1 416 601 1445
Fax: +1 416 601 9046

SRK Project Number 3CD016.000

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Signature date: June 17, 2016

Authored by:

[“Signed and Sealed”]
Jean-Francois Couture, PhD, PGeo
Corporate Consultant (Geology)
SRK Consulting (Canada) Inc.

[“Signed and Sealed”]
Oy Leuangthong, PhD, PEng
Principal Consultant (Geostatistics)
SRK Consulting (Canada) Inc.

[“Signed and Sealed”]
Stacy Freudigmann, PEng
Project Manager
JDS Energy & Mining Inc.

Peer Reviewed by:

[“Signed and Sealed”]
Glen Cole, PGeo
Principal Consultant (Resource Geology)
SRK Consulting (Canada) Inc.

Cover: Drilling on the Curraghinalt Gold Deposit, Northern Ireland (courtesy of Dalradian)

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Executive Summary

Introduction

The Northern Ireland project is a pre-development gold exploration project located in Northern Ireland, United Kingdom. It is located approximately 115 kilometres kilometres west of Belfast, the capital of Northern Ireland. Dalradian Resource Inc. (Dalradian) wholly owns 100 percent of the property.

In September 2015, Dalradian initiated a significant infill drilling program with the objective to expand the Measured and Indicated mineral resources of the project. In January 2016, SRK was retained to prepare a new Mineral Resource Statement that was disclosed publically by Dalradian in a news release on May 5, 2016. This revised mineral resource model is currently being used to support a feasibility study for the project. The mineral resource model is based on exploration drilling results available to March 2, 2016, with a total of 586 core boreholes (131,643 metres) and 497 underground channel samples.

This technical report documents the Mineral Resource Statement prepared by Dalradian and SRK for the Curraghinalt gold project. This technical report was prepared following the guidelines of the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F1.

In October 2014, Dalradian released the results of a preliminary economic assessment prepared by Micon International Ltd. The results of that study are obsolete and will be superseded by the results of an ongoing feasibility study. Hence, this technical report solely updates technical information relevant to support the new Mineral Resource Statement.

Property Description and Ownership

The Northern Ireland gold project (formerly the Tyrone project) is located in County Tyrone and County Londonderry, Northern Ireland. The Curraghinalt gold deposit, located near the centre of the property is approximately 115 kilometres west of Belfast by road. The property measures approximately 84,000 hectares comprising four contiguous areas (DG1, DG2, DG3, and DG4), to which Dalradian has title. The titles include two elements: mining lease option agreements for gold and silver, and mineral prospecting licences that exclude gold and silver.

Dalradian holds, through its wholly-owned subsidiary, a 100 percent interest in the property, subject to a 2 percent net smelter returns (NSR), payable to Minco plc, and a 4 percent royalty payable to the Crown Estate Commissioners upon production of silver and/or gold.

Access to the property is via a number of highways and local roads from Omagh to Gortin and Greencastle. Local county roads, private roads, and farm tracks provide generally good access within the property. The topography consists of rolling hills and broad valleys. Much of the property occurs within the Sperrin Mountains, a designated Area of Outstanding Natural Beauty.

Dalradian commenced the environmental and social impact assessment at the end of 2014 to examine the potential impacts of the construction of a new underground mine and ancillary processing and waste storage facilities. The study, together with a project description, will form the basis of a planning application anticipated to be submitted to the Department of the Environment during the last quarter of 2016.

History

Gold was recognized in the gravels of the Moyola River to the east of the property in 1652, and in the 1930s, an English company reported plans for alluvial gold mining in a prospectus. Documented exploration in the area dates back to the early 1970s.

The property containing the Curraghinalt gold deposit was initially acquired by Ulster Base Metals in 1981, an entity which later became a wholly-owned subsidiary of Ennex International plc (Ennex). Ennex conducted exploration on the property between 1982 and 1999. Ennex sold its interest to Nickelodeon (later changed name to Strongbow Exploration Inc.) in January 2000. In February 2003, Tournigan Gold Corp (Tournigan) entered into an option agreement with Strongbow to earn an interest of up to 100 percent in the Curraghinalt deposit. In October 2009, Dalradian completed a purchase and sale agreement with Tournigan to acquire the licences, mineral rights, and surface rights (including easements).

Historical exploration on the licenses has included many phases of surface drilling, trenching, soil and stream sampling, prospecting, panning, ground and airborne geophysics, underground development, underground drilling, and underground channel sampling.

Geological Setting and Mineralization

The bedrock geology of Northern Ireland is a complex assemblage of Mesoproterozoic to Paleogene rock units. It can be sub-divided into four quadrants:

- Northwest - composed predominantly of the Proterozoic Dalradian Supergroup and the early Ordovician Tyrone Igneous Complex
- Southeast - composed mainly of rocks of the Southern Uplands-Down-Longford terrane, an allochthonous prism composed of an Ordovician and Silurian turbidite sequence
- Southwest - underlain mainly by Upper Palaeozoic sedimentary rock deposited in continental to marine environments
- Northeast - underlain by the early Palaeogene (60 – 55 Ma), subaerial Antrim Lava Group and minor underlying Paleozoic units

The geology within the project area comprises three main rock groups:

- Dalradian metasedimentary rocks in the Grampian terrane to the north of the Omagh Thrust
- The Tyrone Igneous Complex in the Midland Valley terrane south of the Omagh Thrust
- Upper Palaeozoic sedimentary rocks

The Mullaghcarn Formation is host to the Curraghinalt gold deposit and consists predominantly of semi-pelites and psammites with subordinate pelite horizons and chloritic semi-pelites, bounded to the south by the Omagh Thrust Fault, a moderately northwest dipping thrust fault active as late as the Carboniferous.

The Curraghinalt gold deposit is a high grade orogenic gold deposit characterized by a series of west-northwest trending, moderately to steeply dipping, stacked quartz-carbonate-sulphide veins and arrays of narrow and short extension veinlets. The mineral resource model discussed herein focusses on 16 prominent gold-bearing quartz veins. Subordinate auriferous quartz veins exist between the main modelled veins, but their continuity is difficult to demonstrate at the current drilling spacing. The quartz-carbonate-sulphide vein system was investigated by core drilling and is partly exposed in underground workings. The veins range from a few centimetres to over 3 metres wide. The veins have been traced from surface to a depth of approximately 1,200 metres. They remain open along strike and at depth. On average, the quartz veins dip between 55 degrees and 75 degrees to the north.

Exploration and Drilling

Since 2010, Dalradian has drilled 314 core boreholes (100,423 metres) on the Curraghinalt gold deposit, and 32 core boreholes (9,042 metres) on other regional targets. In addition, airborne and ground geophysical surveys, prospecting, mapping, and geochemical surveys have been completed. Most of the drilling on the property was at the Curraghinalt deposit, including a number of underground core boreholes completed while the Ennex adit was being excavated.

SRK reviewed the core logging and sampling procedures used by Dalradian and, as far as known, by previous operators. In the opinion of SRK, the core logging and sampling procedures used by Dalradian are consistent with generally accepted industry best practices and are, therefore, adequate for an advanced exploration project. Drilling, core logging and sampling procedures followed by previous operators are, in part, difficult to assess; however, after analysis of exploration data, SRK considers that historical data are sufficiently reliable to inform geology and mineral resource models.

Sample Preparation, Analyses and Security

Exploration samples collected by Ennex, Tournigan, and Dalradian since 1984 were submitted to OMAC Laboratories Ltd. (OMAC Labs) in Loughrea, Ireland. Nickelodeon submitted samples to Chemex Labs Limited (Chemex) in Vancouver for sample preparation and analyses. Both facilities are independent, commercial geochemical laboratories that operated independently from the companies.

In the opinion of SRK, the sampling preparation, security, and analytical procedures used by Dalradian are consistent with generally accepted industry best practices and are, therefore, adequate for an advanced exploration project. Sample handling and preparation procedures followed by previous operators are, in part, difficult to assess. However, after analysis of exploration data, SRK considers that historical data are sufficiently reliable to inform geology and mineral resource models, especially considering that exploration data collected by Ennex, Nickelodeon, and Tournigan amount to approximately 6.5 percent of all available exploration data available for the Curraghinalt project.

Data Verification

SRK carried out extensive reviews of exploration data collected by Ennex, Tournigan, and Dalradian between 1987 and 2016. SRK identified the following issues:lack of analytical quality control data prior to 2000, high failure rate of blank samples during discrete periods, and high failure rate of certain control samples used. However, the sampling data collected by Dalradian (55,029 core samples) far outweigh historical sampling data collected by Ennex (1,551 core samples) and Tournigan (2,289 core samples), significantly reducing the risk introduced by the use of historical data that may be less reliable. Overall, SRK considers that the exploration data targeting the Curraghinalt gold deposit are globally sufficiently reliable to inform geology and mineral resource models. The data examined by SRK do not present obvious evidence of analytical bias.

Metallurgical Testing

The metallurgical test work was summarized by JDS Energy &Mining Inc. (JDS). Previous testing was undertaken on composite samples blended from various veins and from different areas of the deposits. More recent test work was carried out on flowsheet optimization composites, constructed to represent the grade, lithology, and spatial aspects of the mineral resources, evaluating both gold and silver recoveries. Test work programs were completed by independent reputable metallurgical laboratories using primarily core samples from exploration drilling. These programs included characterization and mineralogical studies, comminution studies, gravity concentration tests, flotation, leach and settling tests. Historical test work results indicate that the mineralization responded well to flotation and to direct cyanide leaching for precious metal extraction.

Mineral Resource Estimates

In the opinion of SRK, the resource evaluation reported herein is a reasonable representation of the gold mineral resources of the Curraghinalt gold deposit at the current level of sampling. The mineral resources have been estimated in conformity with generally accepted CIM *Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines* and are reported in accordance with the Canadian Securities Administrators' National Instrument 43-101.

The new mineral resource model is based on a revised geological model that considers information from 586 core boreholes (131,643 metres) and 497 underground channels (1,863 metres). The bulk of the gold mineralization is hosted in narrow, parallel auriferous quartz-carbonate-sulphide veins. The mineral resources were evaluated using a geostatistical block modelling approach by SRK constrained by 16 resource domains. The domains were modelled on the extents of logged gold mineralized shear veins, snapped to 0.5-metre fixed length composites.

The veins are cut by a network of late brittle faults. Each fault is typically narrow, the vein offset across each fault is usually small. The block model includes a grade element for each vein block, including where intersected by a fault. The fault intersection blocks were subsequently reclassified are not reported in the Mineral Resource Statement.

There is a strong bilinear relationship between sulphide content and density within the resource domains. That relationship was used to assign a density to each vein model block. Waste blocks were assigned an average specific gravity value of 2.73, based on measurements on core samples.

Capping was performed by individual domain and considered core and channel composites separately. Capping for the core composites range from 25 to 120 g/t gold whereas in the channel composites the capping ranges from 60 to 125 g/t gold.

The spatial distributions of the gold mineralization was analysed using traditional variograms of the composite data on various groupings of domains, but ultimately a global variogram was modelled based on all core composites as this approach exhibited better consistency and robustness.

A block model was generated with a block size of 5 m by 5 m by 5 m with subcells at 0.5 m resolution which was used to honour the geometry of the modelled mineralization. The block model was populated with a gold grade using ordinary kriging. Four estimation runs were used, each considering increasing search neighbourhoods and less restrictive search criteria. Only the first run allowed the use of underground channel samples.

The block model was classified using a combination of tools, including confidence in the geological interpretation, search radii, minimum number of boreholes and composites, variography, and estimation pass. A Measured category was assigned to blocks within a 10 by 10 by 10 metres search radii around the underground workings if informed by a minimum of two boreholes and a minimum of five composites from either core and/or underground face samples. An Indicated classification was assigned to blocks estimated in the first, using a minimum of two boreholes. The mean average distance of informing composites for Indicated blocks is 50 metres; on average, these blocks are informed by six boreholes. All other blocks not classified as Measured or Indicated, whose grade was estimated in a vein domain, were classified as Inferred. The modelled veins are crosscut by a network of late brittle faults. The fault displacement is small, usually on a decimetre scale. The vein blocks inside a 1-metre buffer around the modelled faults were declassified and are not reported as mineral resources.

SRK examined the classification visually by inspecting sections and plans through the block model. SRK concludes that the parameters used to define Measured blocks reasonably reflect estimates that can be considered to be at a high confidence level, material classified as Indicated reflect estimates made with a moderate level of confidence within the meaning of CIM *Definition Standards for Mineral Resources and Mineral Reserves* (May 2014), and all other material is estimated at a lower confidence level. Additionally, SRK applied a post-smoothing filter on the classified material to ensure continuity within the classification categories. In particular, the boundary between Indicated and Inferred is intentionally drawn as parallel or perpendicular to potential underground levels, to facilitate underground mine planning.

SRK considers that the gold mineralization is amenable to underground extraction. Through discussions with Dalradian, SRK considers that it is reasonable to report as underground the mineral resources those classified blocks above a cut-off grade of 5.0 g/t gold. This is based on a gold price of US$1,200 per troy ounce and a gold recovery of 95 percent. The Mineral Resource Statement for the Curraghinalt gold deposit is presented in Table i. The mineral resources may also be affected by subsequent assessments of mining, environmental, processing, permitting, taxation, socio-economic, and other factors.

Table i: Mineral Resource Statement*, Curraghinalt Gold Project, Northern Ireland, SRK Consulting (Canada) Inc., May 5, 2016

Domain	Rock Code	Avg. Thickn-ess (m)	Measured Tonnage† ('000 t)	Measured Grade Au (g/t)	Measured Au Metal (000 oz)	Indicated Tonnage† (000 t)	Indicated Grade Au (g/t)	Indicated Au Metal ('000 oz)	Inferred Tonnage† ('000 t)	Inferred Grade Au (g/t)	Inferred Au Metal ('000 oz)
No.1	1	0.82	7	17.11	4	762	12.69	311	292	16.09	151
106-16	2	0.79	2	22.00	1	960	11.97	369	601	12.07	233
V75	3	0.74	5	22.18	3	492	13.06	207	1,085	9.57	334
Bend	4	0.71				203	7.74	50	779	7.39	185
Crow	5	0.90				393	12.53	158	1,329	9.52	407
T17	6	0.76	12	37.94	15	697	13.89	311	481	8.78	136
Mullan	7	0.78				512	10.61	175	902	10.41	302
Sheep Dip	8	0.59	1	15.12	0	248	11.23	90	715	11.76	270
Road	9	0.64				125	8.63	35	449	9.42	136
Slap Shot	11	0.61	1	12.17	0	347	9.21	103	179	9.82	57
V55	12	0.63				127	7.92	32	41	11.31	15
Sperrin	13	0.48				182	8.48	50	126	8.87	36
Causeway	14	0.69				255	9.99	82	20	11.46	7
Grizzly	15	0.56				158	11.48	58	92	9.34	28
Slap Shot Splay	16	0.47				28	6.93	6	20	6.24	4
Bend Splay	17	0.55				96	10.63	33	20	9.34	6
	Total	**0.73**	**28**	**26.99**	**25**	**5,583**	**11.53**	**2,069**	**7,130**	**10.06**	**2,306**

* Mineral resources are not mineral reserves and have not demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates. Underground mineral resources are reported at a cut-off grade of 5.0 g/t gold based on a gold price of US$1,200 per ounce and a gold recovery of 95 percent.

† Tonnage was calculated using a density formula defined by SRK based on sulphur estimates.

Mineral Reserve Estimates

There are no mineral reserves for the Curraghinalt gold deposit on the Northern Ireland gold project.

Mining Methods

During 2014 Micon (Micon, 2014) completed a preliminary economic assessment for a conceptual underground mine targeting mineral resources evaluated by T. Maunula & Associates Consulting Inc. (Maunula, 2014). That mineral resource evaluation is obsolete and is replaced by the mineral resource evaluation reported herein.

In September 2015, Dalradian initiated additional exploration, hydrogeology, rock and soil geotechnical work, metallurgical and geochemical characterization of the gold mineralization and the waste rock, and mine engineering studies to design a new underground mine and mill complex targeting the mineral resources discussed herein, and evaluate at a feasibility level its economic viability. At the time this technical report is being prepared, the engineering work is ongoing.

The feasibility study examines mining methods that are different than that considered by the preliminary economic assessment. In this context, the results of the preliminary economic assessment prepared by Micon in 2014 are no longer valid and current.

Recovery Methods

The feasibility study examines recovery methods that are different than that considered by the preliminary economic assessment. In this context, the results of the preliminary economic assessment prepared by Micon in 2014 are no longer valid and current.

Project Infrastructure

The project infrastructure proposed for the feasibility study is different than that considered in the preliminary economic assessment. In this context, the results of the preliminary economic assessment prepared by Micon in 2014 are no longer valid and current.

Market Studies and Contracts

There are no market studies and contracts that are relevant to this technical report.

Environmental Studies, Permitting, and Social Impacts

The feasibility study project is significantly different than the conceptual project examined by the preliminary economic assessment. In this context, the results of the preliminary economic assessment prepared by Micon in 2014 are no longer valid and current.

As part of the feasibility study and in parallel with the geology, geotechnical, geochemistry and engineering work, Dalradian has initiated significant environmental and social baseline investigations to support the preparation of an environmental and social impact assessment. At the time this technical report is being prepared, the environmental, social and permitting studies are ongoing.

Capital and Operating Costs and Financial Analysis

Since the preliminary economic assessment prepared by Micon in 2014 is no longer current, these sections are not applicable.

Adjacent Properties and Other Relevant Data and Information

There are no adjacent properties that are considered relevant to this technical report. There is no other relevant data available about the Nortehrn Ireland gold project.

Conclusion and Recommendations

Since the 2014 resource model, 51,480 metres of additional core drilling has been completed, representing a 64 percent increase to the borehole database by metreage. This new information considerably improves the confidence in the overall quality of the exploration database and in the continuity of the gold mineralization.

SRK draws the following conclusions:

- Infill and step-out drilling, as well as underground development and structural geology investigations, have vastly improved the confidence in the geological and mineralization model and the confidence in the continuity of the gold mineralization
- There is a good potential to expand the mineral resources along strike and down-dip with further drilling where most of the veins remain open.
- The boreholes have intersected secondary auriferous veins between those modelled. Their lateral continuity is difficult to establish at the borehole spacing of 50 metres. Some of these veins may represent secondary structures or splays of the modelled veins and offer an opportunity to expand the mineral resources locally. Planning for underground excavations should consider these unmodelled vein intervals.

The mineral resource model discussed herein is currently being considered to assess the economic viability of the mineral resources and complete a feasibility study. With material exploration activities concluded, SRK is not in a position to make meaningful recommendations for further work on the project until the results of the feasibility study have been disclosed.

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1 Introduction and Terms of Reference

The Curraghinalt gold deposit is a pre-development exploration project located in Northern Ireland, United Kingdom. It is located approximately 115 kilometres kilometres west of Belfast, the capital of Northern Ireland. Dalradian Resource Inc. (Dalradian) wholly owns 100 percent of the Curraghinalt gold deposit, which is part of the Northern Ireland property (previously the Tyrone project).

In September 2015, Dalradian initiated a significant infill drilling program with the objective to expand the Measured and Indicated mineral resources of the project. In January 2016, SRK was retained to prepare a new Mineral Resource Statement that was disclosed publically by Dalradian in a news release on May 5, 2016. This revised mineral resource model is currently being used to support a feasibility study for the project.

This technical report documents the Mineral Resource Statement prepared by Dalradian and SRK for the Curraghinalt gold project. It was prepared following the guidelines of the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F1. The Mineral Resource Statement reported herein was prepared in conformity with generally accepted CIM *Estimation of Mineral Resources and Mineral Reserves Best Practice* and CIM *Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines*.

In October 2014, Dalradian released the results of a preliminary economic assessment prepared by Micon International Ltd. for the Curraghinalt project. The results of that study are obsolete and will be superseded by the results of a feasibility study being prepared for the project. Hence, this technical report solely updates technical information relevant to support the new Mineral Resource Statement that was disclosed by Dalradian on May 5, 2016.

The mineral resource model is based on exploration drilling results available to March 2, 2016, with a total of 586 core boreholes (131,643 metres) and 497 underground channel samples.

1.1 Scope of Work

The scope of work was defined in an engagement letter executed between Dalradian and SRK originally in October 2014 and later modified in April, June and December 2015 includes an audit of a mineral resource model for the gold mineralization delineated by drilling and underground sampling at the Curraghinalt gold deposit. During the course of the work program, the scope of the services was changed to include the construction of the mineral resource model and the compilation of a separate technical report pursuant to National Instrument 43-101 and Form 43-101F1 guidelines. This work typically involves an assessment of the following aspects of the project:

- Topography, landscape, access
- Regional and local geology
- Exploration history
- Audit of exploration work carried out on the project
- Geological modelling
- Mineral resource estimation, classification and validation
- Preparation of a Mineral Resource Statement

The scope of the services provided by SRK for this assignment focussed on the geological aspects of the project. Where relevant, additional information pertaining to the mining, processing, and environmental aspects was provided by Dalradian and other consultants involved with the feasibility study work.

1.2 Work Program

The Mineral Resource Statement reported herein is a collaborative effort between Dalradian and SRK personnel. The exploration database was compiled and is maintained by Dalradian. It was audited by SRK. The geological model and outlines for the gold mineralization were constructed by Dalradian, and were audited by SRK. In the opinion of SRK, the geological model is a reasonable representation of the distribution of the targeted mineralization at the current level of sampling. The geostatistical analysis, variography, grade models, and the Mineral Resource Statement were completed by SRK during the months of February and April, 2016. The Mineral Resource Statement reported herein was presented to Dalradian in a memorandum report on April 7, 2016 and was disclosed in a news release dated May 5, 2016.

The technical report was assembled in Toronto during the months of May and June 2016.

1.3 Basis of Technical Report

This report is based on information collected by SRK on various site visits performed between November 2014 and December 2015 and additional information provided by Dalradian throughout the course of SRK's investigations. SRK has no reason to doubt the reliability of the information provided by Dalradian. Other information was obtained from the public domain. This technical report is based on the following sources of information:

- Technical discussions with Dalradian personnel
- Inspection of the Northern Ireland property area, including geological investigations of underground exposures and core
- Review of exploration data collected by Dalradian
- Information extracted from previous technical reports prepared for the property
- Additional information from public domain sources

1.4 Qualifications of SRK and Technical Report Team

The SRK Group comprises of more than 1,500 professionals, offering expertise in a wide range of resource engineering disciplines. The independence of the SRK Group is ensured by the fact that it holds no equity in any project it investigates and that its ownership rests solely with its staff. These facts permit SRK to provide its clients with conflict-free and objective recommendations. SRK has a proven track record in undertaking independent assessments of mineral resources and mineral reserves, project evaluations and audits, technical reports and independent feasibility evaluations to bankable standards on behalf of exploration and mining companies, and financial institutions worldwide. Through its work with a large number of major international mining companies, the SRK Group has established a reputation for providing valuable consultancy services to the global mining industry.

Table 1 presents the qualified persons responsible for each section of this technical report. Vein wireframe modelling was primarily carried out by Dr. Robert Morrison, PGeo (APGO #1723) MAusIMM (CP# 112012) of Dalradian. Blair Hrabi, PGeo (APGO #1723) and Dominic Chartier, PGeo (OGQ #0874) of SRK reviewed and audited the wireframe interpretation. Structural fault modelling was completed by Mr. Hrabi. Data verification and analytical quality control review was completed by Dr. Lars Weiershäuser, PGeo (APGO#1504). The geostatistical analysis, variography, and mineral resource modelling and the Mineral Resource Statement were prepared by Dr. David Machuca and Dr. Oy Leuangthong, PEng (PEO # 90563867). All technical work was supervised by Glen Cole, PGeo (APGO #1416) and Dr. Jean-Francois Couture, PGeo (APGO #0197). Dr. Couture and Mr. Hrabi have visited the property. Other SRK personnel did not visit the property.

Information about mineral processing and metallurgical testing has been compiled by Stacy Freudigmann, PEng (APEGBC #33972) of JDS Energy and Mining Inc.

Table 1: Qualified Persons Accepting Professional Liability for this Technical Report

Author	Company	Report Section(s)
Oy Leuangthong, PhD, PEng	SRK	13
Jean-François Couture, PhD, PGeo	SRK	1-11 and 13-26
Stacy Freudigmann, PEng	JDS	12

By virtue of their education, membership to a recognized professional association, and relevant work experience, Dr. Couture, Dr. Leuangthong, and Mr. Freudigmann are independent qualified persons as this term is defined by National Instrument 43-101.

Drafts of this technical report were reviewed by Mr. Cole, Sophia Karadov and Alison Harrington prior to their delivery to Dalradian as per SRK's internal quality management procedures.

1.5 Site Visit

In accordance with National Instrument 43-101 guidelines, Dr. Couture, Mr. Hrabi, and Mr. Freudigmann visited the Curraghinalt gold deposit separately on multiple occasions accompanied by Dalradian personnel.

Dr. Couture visited the project from November 23 to 29, 2014. The purpose of the site visit was to brainstorm and kick-off SRK work related to the preparation of a preliminary feasibility study. During the site visit, Dr. Couture examined core and underground exposures, and interviewed project personnel.

Mr. Hrabi visited the project from November 25 to December 3, 2014 and again from November 22 to December 3, 2015 to conduct certain geological investigations of underground workings exposing the gold mineralization and to review core boreholes drilled on the Curraghinalt deposit. The site visits aimed at investigating the geological and structural controls on the distribution of the gold mineralization in order to aid the construction of the gold mineralization domains.

Mr. Freudigmann visited the project from January 26 to February 5, 2016 to conduct process plant site investigations, view underground workings and metallurgical sample locations, and to review core boreholes drilled on the Curraghinalt deposit and the metallurgical sampling thereof.

SRK and JDS were given full access to relevant data and conducted interviews with Dalradian personnel to obtain information on the past exploration work, to understand procedures used to collect, record, store, and analyze historical and current exploration data.

1.6 Acknowledgement

SRK would like to acknowledge the support and collaboration provided by Dalradian personnel for this assignment. In particular, SRK would like to acknowledge the contribution of Greg Hope, Bob Morrison, Nikki Commodore, Orla McKenna, Keith Brown, Brian Kelly, Stephen Barnes, Amanda Macdonald, and Eric Tremblay. Their collaboration was greatly appreciated and instrumental to the success of this study.

1.7 Declaration

SRK's opinion contained herein and effective **May 5, 2016** is based on information collected by SRK throughout the course of SRK's investigations. The information in turn reflects various technical and economic conditions at the time of writing this report. Given the nature of the mining business, these conditions can change significantly over relatively short periods of time. Consequently, actual results may be significantly more or less favourable.

This report may include technical information that requires subsequent calculations to derive subtotals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, SRK does not consider them to be material.

SRK is not an insider, associate or an affiliate of Dalradian, and neither SRK nor any affiliate has acted as advisor to Dalradian, its subsidiaries or its affiliates in connection with this project. The results of the technical review by SRK are not dependent on any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings.

SRK was informed by Dalradian that there is no known litigation potentially affecting the Northern Ireland property or the Curraghinalt gold deposit.

2 Reliance on Other Experts

SRK has not performed an independent verification of the land title and tenure as summarized in Section 3 of this report. SRK did not verify the legality of any underlying agreement(s) that may exist concerning the permits or other agreement(s) between third parties, but has relied upon Dalradian's reliance on the legal opinion of a specialist in corporate and commercial law. The reliance applies solely to the legal status of the rights disclosed in Section 3.1 and 3.2 below.

3 Property Description and Location

The Northern Ireland property (formerly the Tyrone project) is located in County Tyrone and County Londonderry, Northern Ireland (Figure 1). The Curraghinalt gold deposit, located near the centre of the property, in County Tyrone, is approximately 115 kilometres west of Belfast by road and 15 kilometres northeast of the town of Omagh. Access to the Curraghinalt deposit is via a number of paved highways and local roads. The centre of the property is located at approximately 7.105 degrees longitude west and 54.719 degrees latitude north.

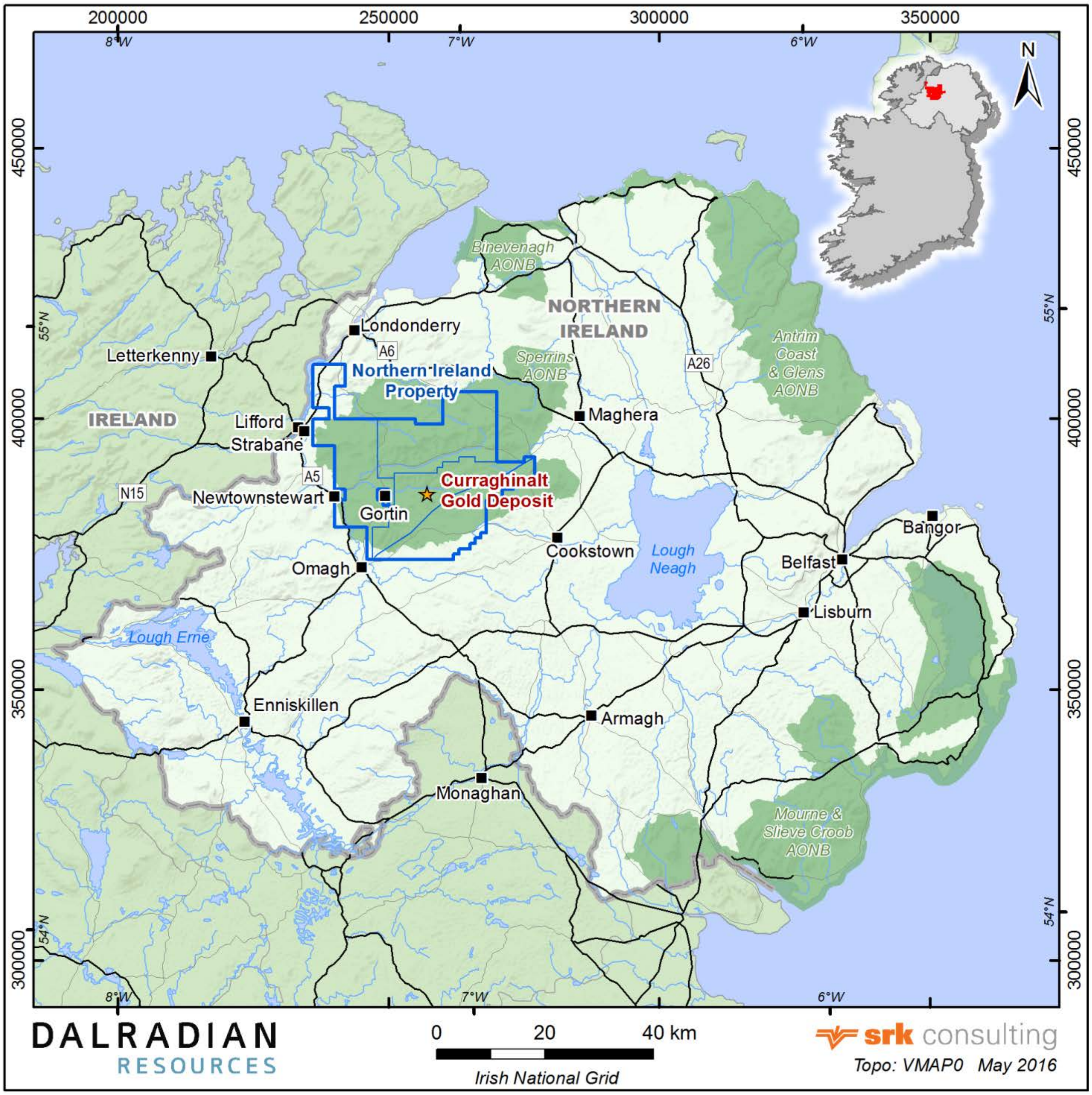


Figure 1: Location of the Northern Ireland Property

3.1 Mineral Tenure

Dalradian's property in Northern Ireland measures approximately 84,000 hectares comprising four contiguous areas (DG1, DG2, DG3, and DG4) as of the effective date of the report, to which Dalradian has title. There are two elements comprising the titles—mining lease option agreements (Option Agreements) for gold and silver and mineral prospecting licences that exclude gold and silver (Prospecting Licences). Both titles are controlled by two separate government bodies. Dalradian does not hold any other titles.

Dalradian holds, through its wholly-owned subsidiary Dalradian Gold Ltd. (Dalradian Gold), a 100 percent interest, subject to net smelter returns (NSR) and royalties described below, in Option Agreements and Prospecting Licences in counties Tyrone and Londonderry, Northern Ireland, United Kingdom. The Crown Estate Commissioners has entered into Option Agreements with Dalradian Gold for gold and silver on four contiguous areas referred to as DG1, DG2, DG3, and DG4 (Table 2). The Department for the Economy has granted to Dalradian Gold Prospecting Licences for base metals over the same four areas (Table 2).

The Crown Estate Commissioners Option Agreements have a six-year term and can be renewed indefinitely at the Crown Estate Commissioners' discretion. The Option Agreements for DG1 to DG4 have a renewal term expiring December 31, 2021.

The current Prospecting Licences for DG1 and DG2 (named DG1/14 and DG2/14) expire December 31, 2017, at which point they can be extended for another two years. The Prospecting Licences for DG3 and DG4 (named DG3/11 and DG4/11) have a renewal term expiring April 23, 2017, at which point they can be reapplied for on a new six-year agreement.

The Department for the Economy uses the Irish National Grid system of easting and northing for reference. The Northern Ireland property is located at approximately 257,700 mE and 386,000 mN.

The mineral resources discussed herein are located entirely on licence DG1.

Table 2: Mineral Tenure Information

Licensee	Area	Licence Number	Area (km^2)	CEC* Effective Date (d/m/y)	CEC* Date of Expiry (d/m/y)	DfE* Effective Date (d/m/y)	DfE* First Extension (d/m/y)	DfE* Second Extension (d/m/y)	DfE* Date of Expiry (d/m/y)
Dalradian	Rousky	DG1/14	167.5	01/01/2016	31/12/2021	01/01/2014	01/01/2016	01/01/2018**	31/12/2019
Dalradian	Creggan	DG2/14	184.5	01/01/2016	31/12/2021	01/01/2014	01/01/2016	01/01/2018**	31/12/2019
Dalradian	Strabane	DG3/11	248.0	01/01/2016	31/12/2021	24/04/2011	24/04/2013	24/04/2015	23/04/2017
Dalradian	Plumbridge	DG4/11	244.0	01/01/2016	31/12/2021	24/04/2011	24/04/2013	04/04/2015	23/04/2017

* CEC = Crown Estate Commissioners; DfE = Department for the Economy

** Subject to application and approval by Department for the Economy

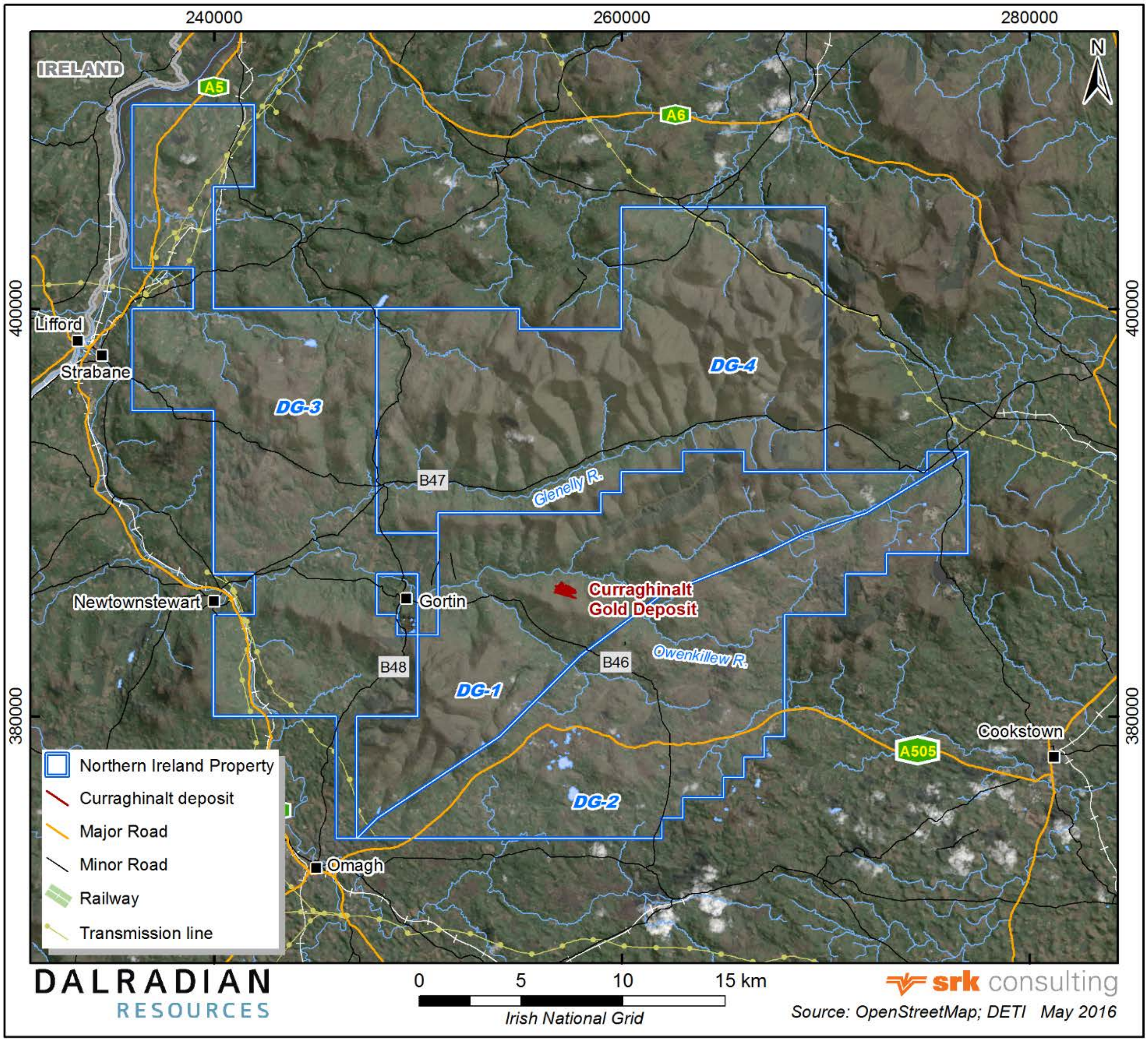


Figure 2: Land Tenure Map

Table 3 lists the required annual expenditures made on each of the four licences. Tournigan Gold Corp (Tournigan) held the licences DG1 – DG4 from 2002 to late 2009, at which time they were transferred to Dalradian. The licences outline the annual general work program to be undertaken on the four licences.

Prospecting Licences and Option Agreements in Northern Ireland are issued for six-year periods and may be renewed (or extended), subject to relevant conditions being met and satisfied. After the end of each year, a progress work report is submitted within three months of the licence anniversary date to the licensing authorities. Included in the reports is a summary of the work performed for the year and an audited summary of the spending. At the end of each six-year period, a full reissuing application process must be undertaken, whereby a full six-year work report is submitted to the licensing bodies along with a new application for another six-year period. Renewals, extensions, and reissuing are not automatic.

Table 3: Mineral Licence Expenditure Requirements

Licence Number	Reporting Stage	From (d/m/y)	To (d/mh/y)	Expenditure (GBP)
DG1/14	Reissued (further 2 years)	01/01/2016	31/12/2016	40,000
		01/01/2017	31/12/2017	40,000
DG2/14	Reissued (further 2 years)	01/01/2016	31/12/2016	40,000
		01/01/2017	31/12/2017	40,000
DG3/11	Reissued (further 2 years)	24/04/2015	23/04/2016	40,000
		24/04/2016	23/04/2017	40,000
DG4/11	Reissued (further 2 years)	24/04/2015	23/04/2016	40,000
		24/04/2016	23/04/2017	40,000

The Department for the Economy is required to consult with other departments and with public bodies concerning its intention to issue a licence, and is also required to place notices in the Belfast Gazette and at least one local newspaper. This is primarily to allow the owners of surface land within the area under application the opportunity to make their views known.

The Department for the Economy notes that a draft licence and a “letter of offer” are provided to applicants once all comments have been considered. The letter of offer may contain a number of conditions, although the Department for the Economy notes that, at the prospecting stage, it is usually sufficient for the applicant to inform all listed contacts of its plans and progress. When the conditions set out in the letter of offer are accepted and the terms of the draft licence agreed upon, the licence is executed by the Department for the Economy and the company.

The Department for the Economy states that planning permission is not required for early stage exploration under Part 16 Class A of the General Permitted Development Order (Northern Ireland) 2015 subject to specified limitations and conditions, although the local council must be informed of the planned work, including the nature and scale, time, and location of the company’s activities, and drilling locations.

3.2 Underlying Agreements

A NSR royalty of 2 percent is payable to Minco plc (Minco) on a portion of DG1 that includes the Curraghinalt gold deposit. The NSR was inherited with the property when it was acquired by Dalradian in 2009. More information on prior ownership is presented in Section 5.1.

As provided in the Option Agreements, a 4 percent royalty will be payable to the Crown Estate Commissioners upon production of silver and/or gold on the Northern Ireland property.

3.3 Permits and Authorization

For exploration work, formal notice of intention to enter land to carry out work must be given, and the agreement of landowners sought, before entering any property. Compensation is generally payable to the landowner for any damage caused during exploration.

Dalradian has obtained all necessary permits and certifications from governmental agencies to allow for exploration on the property. This includes three permits for the recent underground exploration program, including approval from Northern Ireland regulators for a number of management plans governing items such as waste, water, noise, traffic, and dust.

3.4 Environmental Considerations

Much of the property occurs within the Sperrin Mountains, which are designated an Area of Outstanding Natural Beauty as shown on Figure 1. In addition, there are a number of protected and special interest areas around the project. The nearest Areas of Special Scientific Interest to the project are the Owenkillew River, the Mullaghcarn/Mountfield Quarry, Murrins, Cashel Rock, Boorin Wood, and Black Bog. The nearest Special Areas of Conservation include Drumlea and Mullan Woods, Owenkillew River, and Black Bog.

Environmental baseline studies were initiated by SLR Consulting for Dalradian in June, 2010 and have included collecting data on meteorology, hydrology, hydrogeology, water quality, sediment quality, acid rock generation potential of the mineral and waste rock, flora, terrestrial and aquatic fauna, air quality, visual resources, cultural heritage resources, and the local socio-economy. Dalradian continues to gather environmental baseline data to be used in the preparation of an environmental and social impact assessment and, in addition, more detailed site-specific environmental studies are ongoing. Dalradian does not currently have a permit for mining the Curraghinalt gold deposit.

Dalradian commenced the environmental and social impact assessment at the end of 2014 to examine the potential impacts of a full mine build, as well as options for the elimination or mitigation of such impacts. SRK UK is lead and co-ordinating environmental consultant for preparation of the environmental and social impact assessment. The report, together with a project description, will form the basis of a planning application for the full mine build anticipated to be submitted to the Department of the Environment during the last quarter of 2016, assuming positive results for both the feasibility study and environmental and social impact assessment. During 2016, spending on permitting is expected to increase as the environmental and social impact assessment is being completed, the planning application is drafted and submitted, and additional site specific studies are completed.

Dalradian and SRK UK along with other consultants began stakeholder engagement for the environmental and social impact assessment in December 2015 with an initial meeting with the Department of Environment officials. This was followed by other government agency meetings and initial community consultations in January 2016. The purpose of these meetings is to receive government agency, community, and other stakeholder feedback to input into the project description and environmental and social impact assessment. To date, approximately 260 stakeholders have attended various consultation events and meetings to hear about the proposed mine and give their feedback. Stakeholder meetings will continue into June 2016, when plans for the project will be finalized for presentation several months in advance of submitting the planning application.

4 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

4.1 Accessibility

From Belfast, the capital city of Northern Ireland, the project and nearest town of Omagh is located approximately 115 kilometres west by paved road, more than half of which is dual carriageway (limited access highway). Access to the property is via a number of highways and local roads, including the B48 from Omagh to Gortin, and the B46 from Gortin to Greencastle. Local county roads, private roads, and farm tracks provide generally good access within the property.

Belfast is the capital city of Northern Ireland and supports a population of approximately 300,000 inhabitants. A domestic and an international airport serve Belfast, together offering frequent daily flights to the rest of the UK and Europe.

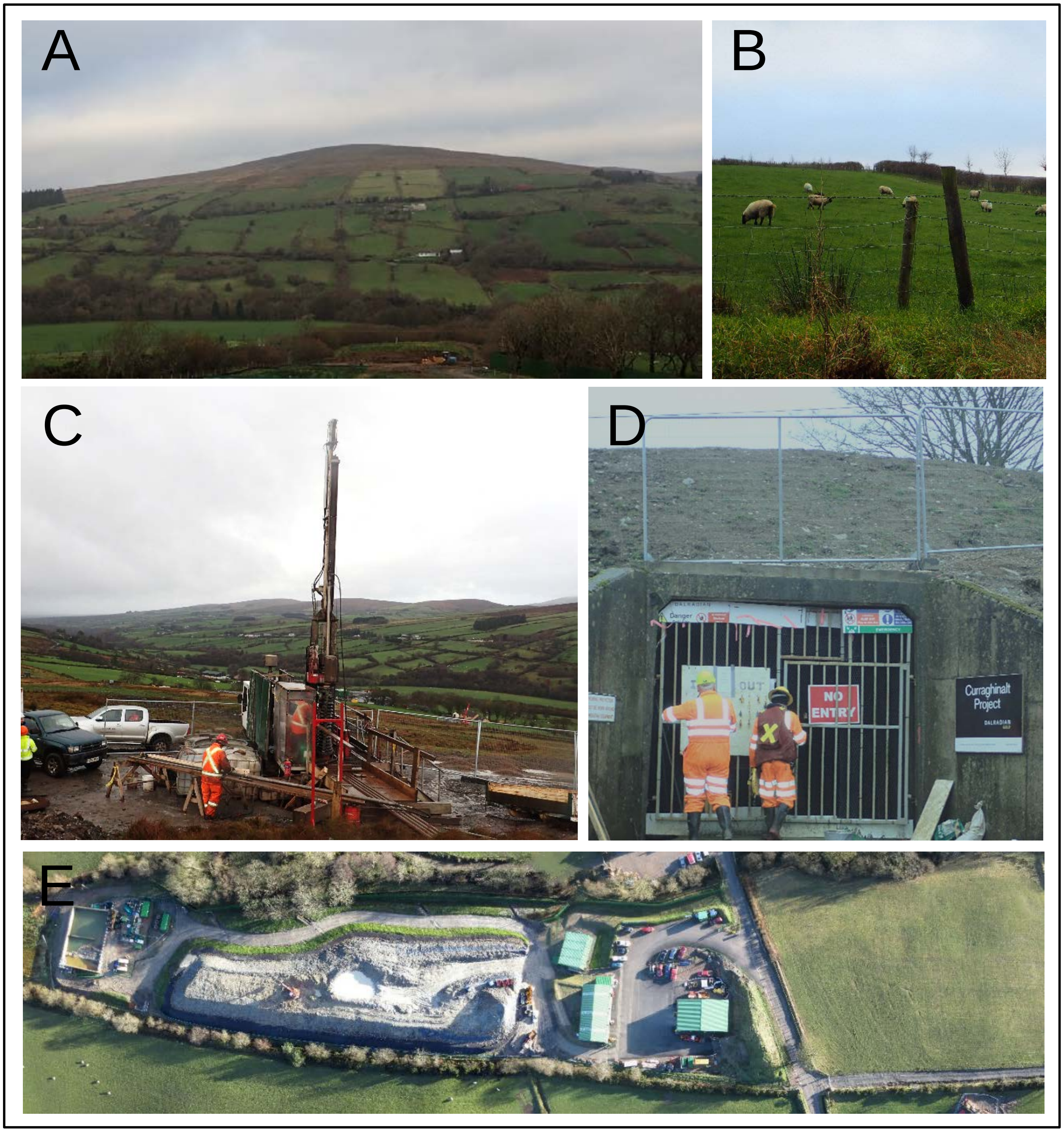
4.2 Local Resources and Infrastructure

The town of Omagh (population 25,000) provides lodging and local labour, as do smaller local villages. Few experienced mining personnel are available locally, although there is a small mining industry in Northern Ireland (salt and gold), and the Irish Republic has a number of underground base metal mines. There is a large quarrying industry in Northern Ireland. The principal economic activities in the area of the licences are sheep farming and, to a lesser extent, the raising of cattle.

The village of Gortin (pronounced “Gorchin”) is located a few kilometres from the Curraghinalt gold deposit at the western edge of licence DG1. Dalradian has a field office there, as well as storage facilities, all of which are rented. Gortin is centrally located within the licence areas and well situated to support the exploration program. Dalradian also leases an office and core storage facility in Omagh near the road leading to Gortin. Geology and administration staff are located there, as well as the principal core logging and storage facility.

An electrical power substation is located at Plumbridge, approximately 22 kilometres north of Omagh and 6.5 kilometres north of Gortin, and the main 110 kilovolt (kV) power line runs just outside Omagh. Local water resources are abundant.

During 2015, surface infrastructure at the mine portal increased significantly with the construction of a water treatment plant, offices, temporary rock storage area, and workshops (Figure 3). Underground development through May 5, 2016 was approximately 1,735 metres, including drifts, crosscuts, raises and drill bays.



DALRADIAN RESOURCES

srk consulting

Photos: SRK and Dalradian May 31, 2016

Figure 3: Infrastructure and Typical Landscape in the Project Area

A. Rolling hill country in the project area. View looking north.

B. Sheep farm. View looking south.

C. Drilling on the Curraghinalt gold deposit. Borehole 15-CT-302. View looking northwest.

D. Entrance to the underground adit.

E. Aerial view of infrastructure adjacent to mine portal.

4.3 Climate

One of the closest meteorological base station is located in Castlederg, 25 kilometres northwest of Omagh and 23 kilometres west of Gortin. Local climate conditions are temperate, with an average annual temperature of 9 degrees Celsius, and average daily temperatures varying between 4.1 degrees Celsius and 14.7 degrees Celsius throughout the year. Average annual precipitation is 852 millimetres, the majority of which falls in the winter months between September and January (average >80 millimetres per month). Snowfall is usually restricted to areas of higher elevation and occurs on 10 days or less per year. Exploration activities can generally be conducted year-round.

4.4 Physiography

The topography consists of rolling hills and broad valleys (Figure 3). Glacial deposits and peat cover much of the area, resulting in mixed forest and heathlands, as well as farmland in the valleys. Relief ranges between around 100 metres above sea level in the major river valleys to a maximum height of approximately 680 metres above sea level.

Much of the property occur within the Sperrin Mountains, a designated Area of Outstanding Natural Beauty. Stretching from the Strule Valley in the west to the perimeter of the Lough Neagh lowlands in the east this area presents vast expanses of moorland penetrated by narrow glens and deep valleys. In its south, the Burren area is noted for its lakes, sandy eskers, and other glacial features. There are eight such Areas of Outstanding Natural Beauty in Northern Ireland.

5 History

Information in this section is summarized from a previous technical report prepared by Micon International Ltd. (Micon, 2014).

5.1 Prior Ownership and Changes

The property containing the Curraghinalt deposit was initially acquired by Ulster Base Metals (which later became Ulster Minerals) in 1981, an entity which later became a wholly-owned subsidiary of Ennex International plc (Ennex). Ennex conducted exploration on the property between 1982 and 1999. Ennex sold its interest in Ulster Minerals to Nickelodeon in January 2000. In August 2000, the name of Nickelodeon was changed to Strongbow Resources Inc., and subsequently to Strongbow Exploration Inc. (Strongbow).

In February 2003, Tournigan Gold Corp (Tournigan) entered into an option agreement with Strongbow to earn an interest of up to 100 percent in the Curraghinalt deposit, located within a prospecting licence known as UM-11/96. Terms included staged exploration expenditures of C$4.0 million over a period of seven years, the delivery of a bankable feasibility study, and issuing shares to Strongbow at a price based on a 90-day trading average. At the same time, Tournigan entered into a similar option agreement with Strongbow for its Tyrone project (previous name of Northern Ireland property), located within prospecting licence UM-12/96. Tournigan established Dalradian Gold Ltd. (Dalradian Gold) as a wholly-owned subsidiary through which it would earn its interests in the Curraghinalt (UM-11/96) and Tyrone (UM-12/96) properties.

In the following year (February 2004), Tournigan entered into a letter agreement with Strongbow for the outright purchase by Tournigan of all of the issued and outstanding shares of Ulster Minerals through the issue of 5 million shares of Tournigan. The earlier option agreements were terminated and replaced by the letter of agreement. A net smelter return (NSR) of 2 percent held by Ennex was transferred to Minco plc. Full transfer of ownership in Ulster Minerals to Tournigan was completed in December 2004.

Tournigan then applied to the licensing authorities, and received licences TG-3 and TG-4 (for both minerals and precious metals) to the northwest of UM-11/96 and UM-12/96.

Ulster Minerals licences UM-11/96 and UM-12/96 were later renamed UM-1 and UM-2, and ultimately DG1 and DG2. During the renaming and re-registering process, the internal boundary between DG1 and DG2 was reoriented from east-west to a position that reflects the approximate location of the Omagh Thrust Fault.

In October 2009, Dalradian completed a purchase and sale agreement with Tournigan to acquire all of the issued and outstanding shares of Dalradian Gold, which included the licences, mineral rights, and surface rights (including easements) in the area of interest. The area of interest is defined in the agreement as Mineral Prospecting Licences DG1, DG2, TG-3, and TG-4; the latter two being renamed to DG3 and DG4 by the Department for the Economy after acquisition.

5.2 Previous Exploration Work

Gold was recognized in the gravels of the Moyola River to the east of the property in 1652, and in the 1930s, an English company reported plans for alluvial gold mining in a prospectus. Documented exploration in the area dates back to the early 1970s, when companies such as AMAX Exploration of the UK, Consolidated Goldfields, Selection Trust, and RioFinex completed grassroots exploration campaigns over the areas covered by DG1, DG2, DG3, and DG4. Following the 1975 report titled "The Geology and Metalliferous Mineral Potential of the Sperrin Mountains Area" by the Geological Survey of Northern Ireland (GSNI), the ground covered by the licences comprising the property received renewed interest by a number of companies. Licence DG1 has been the focus of most of the historical exploration on the property, as outlined in Table 4.

Table 4: Historical Exploration on DG1 Licence

Company	Year	Work Completed	Area
AMAX Exploration of UK Inc.	1971-1972	Soil sampling	
Glencar Explorations Ltd.	1977-1978	Soil sampling, panning	
Ennex	1983-1987 1983-1987 1983-1987	Detailed prospecting, geochemistry, geophysics 71 trenches (4,483 metres) 72 core boreholes (6,938 metres)	Curraghinalt
Dungannon	1983-1984	Stream and soil sampling, panning, and geological mapping	DE5 Licence, included Golan Burn
Dungannon/Celtic Gold	1985	Detailed soil sampling, mapping prospecting; Percussion overburden drilling (Pionjar)–107 sites; 50 RC boreholes	DE5 Licence, included Garvagh, Slievebeg
	1986-1987	Detailed soil sampling, mapping, prospecting, VLF surveys; 19 RC boreholes; 55 core boreholes	DE5 Licence, Garvagh
Ennex	1987-1989	Underground development program (797 metres) 26 underground boreholes (659 metres) 5 surface core boreholes (546 metres)	Curraghinalt
	1995-1996	60 core boreholes (5,096 metres)	Curraghinalt
	1996-1997	50 core boreholes (5,412 metres)	Curraghinalt
Nickelodeon	2000	Due diligence underground channel samples	Curraghinalt
Strongbow	2000-2003	226 mobile metal ions(MMI) geochemistry samples Ground IP geophysical survey Trench T10	Glenlark Glenlark Glenlark
Tournigan	2003-2007	22,910 soil samples, geophysical survey, prospecting 26 core boreholes (4,391 metres) 7 boreholes	DG1 Curraghinalt Glenlark
	2007-2009	Resource Estimate (2007) 4 deep core boreholes	Curraghinalt Curraghinalt

The four phases of exploration at Curraghinalt, conducted by Ennex between 1983 and 1997, are summarized as follows:

Phase 1 (1983 to July 1987):

- Detailed prospecting, geochemistry, and geophysics
- 71 trenches (4,483 metres)and 72 core boreholes (6,938 metres)

Phase 2 (August 1987 to March 1989):

- Underground development program, including development of an adit (412 metres), lateral drifting (325 metres), and raising (60 metres)
- 26 underground core boreholes (659 metres) and 5 surface infill boreholes (546 metres)

Phase 3 (May 1995 to March 1996):

- Infill and reconnaissance drilling
- Reconnaissance drilling of veins to the southwest (60 core boreholes, 5,096 metres)

Phase 4 (June 1996 to May 1997):

- Infill drilling on 25 metres to 30 metres centres in the main vein areas (50 core boreholes, 5,412 metres)

Between 1997, when Ennex transferred its interest to Nickelodeon, and late 2002, when the agreement was signed between Strongbow and Tournigan, little work was done at Curraghinalt.

The Tournigan exploration at Curraghinalt can be divided into three phases.

Phase 1, 2003 to January 2005:

- 22,910 soil samples
- Small geophysical survey conducted
- Mapping and prospecting on the DG1 Licence area
- 26 core boreholes (4,391 metres) at Curraghinalt
- 7 core boreholes (830 metres) at Glenlark

Phase 2, January 2005 to 2007:

- 2 core boreholes (183 metres) drilled in the area of the Crowsfoot-Bend
- 24 infill core boreholes (4,721 metres) primarily on the Southeast Extension target

Phase 3, 2007 to 2009:

- 5 deep core boreholes (3,004 metres)

After completion of the 2007 to 2008 drilling program, Tournigan ceased all exploration activity at the Curraghinalt deposit. Except for some prospecting on TG 3 and TG-4 in 2008, the property remained inactive until its acquisition by Dalradian in 2009.

Exploration programs on licence DG2 initially targeted base metals; later both gold and base metals were sought. Historical exploration on DG2 is summarized in Table 5.

The principal target of interest for Ennex on the DG2 licence was the Cashel Rock showing, where a gold-mineralized silicified rhyolite breccia outcrop is exposed at surface. At this location, 15 shallow boreholes (985 metres) were drilled in a cluster with an additional 6 boreholes drilled in the area. Results and example sections were presented in a previous technical report by Micon (2010).

Licences DG 3 and DG4 have also been the subject of regional-scale exploration programs (Table 6 and Table 7). There has not been follow-up drilling on any targets on these licences.

Table 5: Historical Exploration on DG2 Licence

Company	Year	Work Completed
Consolidated Gold Fields	1970	Soil, stream and prospecting surveys
Selection Trust Exploration	1971-1972	Stream surveys, soil surveys, IP and EM surveys, trenching
Rio Tinto Finance & Exploration (RioFinex)	1972	Soil and stream surveys
	1973	Soil and stream surveys, magnetic and IP surveys, panning, trenching
	1974	Magnetic, IP, prospecting, drilling, pits, soil reconnaissance, and follow–up surveys
Glencar Explorations Ltd.	1977-1978	Panning, soil surveys
Ulster Base Metals	1982	Prospecting, VLF survey
	1983	VLF and magnetic survey, soil and deep overburden surveys, prospecting
	1984	Prospecting
	1985	Prospecting, deep overburden surveys, magnetic, IP and VLF surveys
Ennex International	1986	Drilling, prospecting, deep overburden survey, IP and magnetic surveys, panning
	1987	Trenching, drilling, prospecting, deep overburden surveys, IP, VLF, and magnetic surveys
	1988	Deep overburden surveys, magnetic and IP surveys
	1989	IP and VLF surveys, prospecting
	1997	Deep overburden surveys
Strongbow Resources	2001	Soil (MMI) at Crosh
Tournigan Gold Corporation	2004	Prospecting

Table 6: Historical Exploration on DG3 Licence

Company	Year	Work Completed
AMAX Exploration of UK	1971-1972	Soil surveys
Glencar Exploration	1974	Stream surveys
	1975	Soil and stream surveys
	1977-1978	Soil surveys and panning
Ulster Base Metals	1982	Prospecting
	1982-1983	Panning
Dungannon Explorations	1983	Soil, stream, and deep overburden surveys, panning
	1984	Deep overburden surveys
Ulster Base Metals	1985	Deep overburden and VLF surveys, panning, prospecting
Dungannon Explorations	1985	Deep overburden surveys
Ennex International	1986	Prospecting and panning
Dungannon Explorations	1986	Soil and deep overburden surveys, prospecting, panning
Ennex International	1987	IP, VLF, and deep overburden surveys, prospecting
Dungannon Explorations	1987	Stream and soil surveys
Celtic Gold	1987	Soil and deep overburden surveys, prospecting, panning
Ennex International	1988	Deep overburden surveys, prospecting
Celtic Gold	1988	Deep overburden, stream, and soil surveys, trenching, prospecting, panning
Ennex International	1989	Magnetic surveys, prospecting
Celtic Gold	1989	Stream sampling
	1996	Deep overburden surveys, prospecting
Brancote Mining	1997	Stream surveys, panning, prospecting
Billiton UK Resources	1997	Magnetic survey
Ennex International	1997	Deep overburden survey
Brancote Mining	1998	Magnetic, IP, Stream, deep overburden and soil surveys, prospecting, panning
	1999	Magnetic surveys, prospecting, panning
Tournigan Gold Corporation	2004	Prospecting

Table 7: Historical Exploration on DG4 Licence

Company	Year	Work Completed
Glencar Explorations.	1977-1978	Soil surveys, panning
Rio Tinto Finance & Exploration (RioFinex)	1982-1983	Stream surveys, panning
Dungannon Exploration	1983	Deep overburden, soil and stream surveys, panning
	1984	Deep overburden surveys
	1985	Soil surveys, deep overburden surveys
Ulster Base Metals	1985	Deep overburden surveys, panning, prospecting
Ennex International	1986	Deep overburden surveys, soils, panning, prospecting
	1987	Prospecting
	1988	Deep overburden and VLF surveys, panning, prospecting
Celtic Gold	1988	Stream and soil surveys, panning, prospecting
Ennex International	1989	Magnetic surveys and prospecting
Celtic Gold	1989	Stream surveys
Ennex International	1995	Soil surveys
Brancote Mining	1997	Stream and soil surveys, panning, prospecting
Biliton UK Resources	1997	Magnetic surveys
Ennex International	1997	Deep overburden surveys
Brancote Mining	1998	Stream, soil, and magnetic surveys, panning, prospecting
Tournigan Gold Corporation	2004	Soil surveys, prospecting

5.3 Previous Mineral Resources Estimates

Historical mineral resource estimates presented in this section are superseded by the mineral resource estimate discussed herein. The information presented in this section is relevant to provide context but should not to be relied upon.

In May 1997, a polygonal resource estimate was prepared on behalf of Ennex by CSA Group (CSA, 1997). Tully prepared a mineral resource estimate in 2005 (Tully, 2005).

Micon International Ltd. (Micon) completed a series of mineral resource estimates on the Curraghinalt deposit starting with one for Tournigan in 2007 (Micon, 2007), followed by two estimates for Dalradian in 2010 and 2011 (Micon, 2010 and Micon, 2012a). The 2011 estimate by Micon lead to an initial preliminary economic assessment (Micon, 2012b).

T. Maunula & Associates Consulting Inc. (Maunula) prepared a Mineral Resource Statement for the Curraghinalt gold deposit in May 2014 (Maunula, 2014) for Dalradian that led to a follow-up preliminary economic assessment prepared by Micon in October 2014 (Micon, 2014). The model was created with a minimum down-hole width of 2.0 metres and was reported at a cut-off grade of 5 grams gold per tonne (g/t gold).

The 2005 and 2007 Mineral Resource Statements can be found on SEDAR (www.sedar.com), filed under European Uranium Resources Ltd. (current name of Tournigan). The 2010 to 2014 technical reports are also available on SEDAR filed under Dalradian.

6 Geological Setting and Mineralization

6.1 Regional Geology

The bedrock geology of Northern Ireland is a complex assemblage of units deposited from the Mesoproterozoic to the Paleogene (British Geological Survey, 2016). It can be divided into four quadrants (Figure 4):

- Northwest - composed predominantly of the Proterozoic Dalradian Supergroup and the early Ordovician Tyrone Igneous Complex
- Southeast - composed mainly of rocks of the Southern Uplands-Down-Longford terrane, an allochthonous prism composed of an Ordovician and Silurian turbidite sequence
- Southwest - underlain mainly by Upper Palaeozoic sedimentary rock deposited in continental to marine environments
- Northeast - underlain by the early Palaeogene (60 – 55 Ma), subaerial Antrim Lava Group and minor underlying Paleozoic units

The local geology of the project area comprises three main rock groups:

- Dalradian metasediments in the Grampian terrane to the north of the Omagh Thrust
- The Tyrone Igneous Complex in the Midland Valley terrane south of the Omagh Thrust
- Upper Palaeozoic sedimentary rocks which are widely distributed throughout these terranes

Mitchell (2004) described the tectonic evolution of Northern Ireland from which the following is summarized. The Caledonian orogenic belt of the British and Irish Caledonides resulted from the progressive closure of the Iapetus Ocean and Tornquist Sea during the early Palaeozoic. Assembly and docking of the terranes that form the basement in Northern Ireland commenced in mid-Ordovician time and continued for 80 Ma through the Silurian and finished in the Early Devonian. Final closure was accommodated by sinistral strike-slip movement on terrane bounding faults. Northern Ireland covers three of the seven suspect terranes that together constitute the Caledonian Orogen in Ireland. From north to south, these are referred to as the Central Highlands (Grampian) Terrane, Midland Valley Terrane, and the Southern Uplands-Down-Longford Terrane.

Dalradian's Northern Ireland property straddles two of these terranes: the Central Highlands to the north (DG1, DG3, and DG4) and the Midland Valley to the south (DG2). The Central Highland Terrane consists of Moinian (Mesoproterozoic) and Dalradian (Neoproterozoic-Cambrian) rocks and Caledonian igneous intrusions. The Dalradian Supergroup that hosts the Curraghinalt gold deposits comprises Neoproterozoic metasediment and mafic meta-igneous rocks which were deposited on the Laurentia passive continental margin between ca. 800 – 500 Ma (Strachan et al., 2002; Cooper and Johnston, 2004). Dalradian sedimentation was terminated by an arc-continent collision during the Ordovician Grampian event of the Caledonian Orogeny (Hollis et al., 2012), followed by polyphase deformation and regional metamorphism at ca. 475 – 465 Ma (Friedrich et al., 1999).

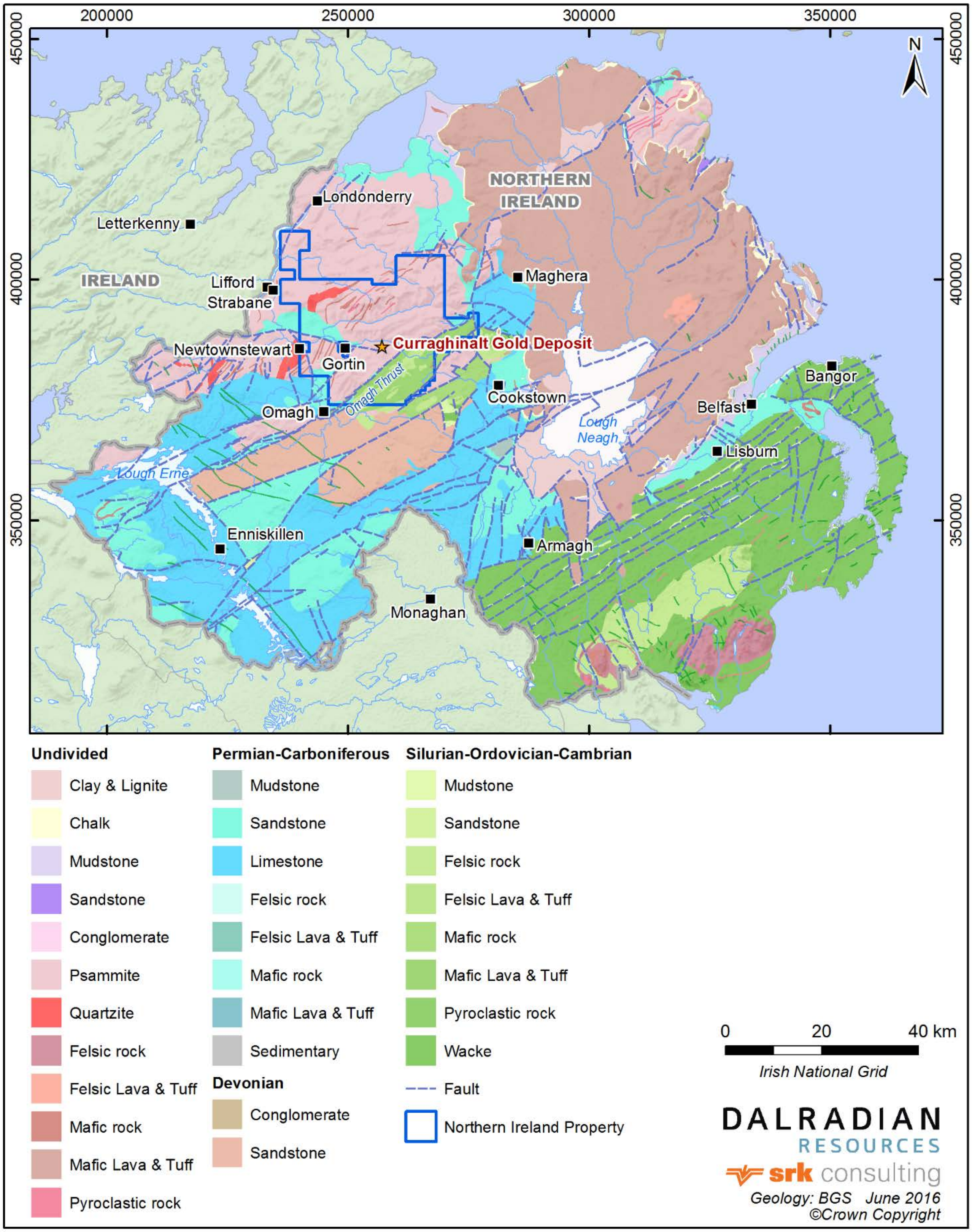


Figure 4: Regional Geology of Northern Ireland

Source: British Geological Survey DiGMapGB (1:625K).

The southern margin of the terrane is marked by the concealed Fair Head-Clew Bay Line, which is interpreted as the southwesterly extension or major splay of the Highland Boundary Fault in Scotland. This forms a major terrane-bounding structure. The associated regional magnetic lineament that extends southwestwards to Clew Bay in County Galway is located 10 kilometres north of the Variscan (Carboniferous) northwest-dipping Omagh Thrust Fault. The Omagh Thrust Fault is part of the Fair Head – Clew Bay Line, and separates Dalradian rocks to the north from the underlying Ordovician Tyrone Igneous Complex to the south (Cooper and Mitchell, 2004) (Figure 5).

The Midland Valley Terrane in Northern Ireland comprises Upper Paleozoic, Mesozoic and Paleogene rocks. However, in County Tyrone, a late Ordovician to early Silurian succession is exposed with part of an early Ordovician ophiolite and island arc volcanic complex (Tyrone Igneous Complex) at its base. The Tyrone Igneous Complex is comprised of the Tyrone Plutonic Group and the Tyrone Volcanic Group (Cooper and Mitchell, 2004). The Tyrone Plutonic Group forms the upper part of a ca. 484 – 480 Ma supra-subduction zone ophiolite. It was accreted with the ca. 475 – 469 Ma Tyrone Volcanic Group island arc onto an outboard micro-continental block prior to the ca. 470 Ma Grampian event of the Caledonian Orogeny (Cooper et al., 2008, 2011; Hollis et al., 2012, 2014).

At the core of the Tyrone Igneous Complex is the fault bounded Central Inlier. This consists of psammitic and semipelitic paragneiss known as the Corvanaghan Formation (Cooper and Johnston, 2004) of Moinian affinity. This formation originally formed part of the Central Highlands Terrane, and was metamorphosed and deformed prior to ca. 468 Ma (Chew et al., 2008). It represents part of an outboard segment of Laurentia, possibly detached as a micro-continent prior to arc continental collision (Chew et al., 2008).

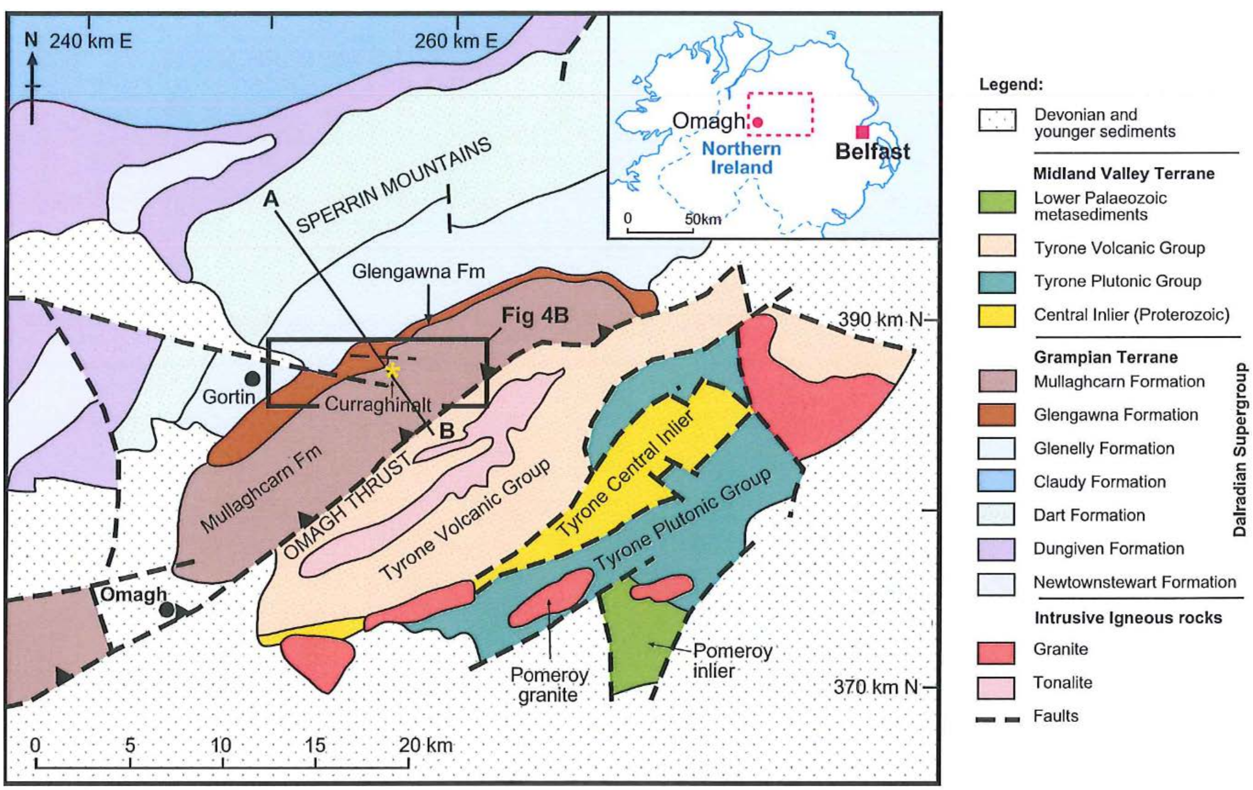


Figure 5: Regional Geology of the Southern Sperrin Mountains

Source: From Rice et al. (2016).

The Grampian orogeny resulted in crustal thickening (folding - D1), nappe structures (recumbent southeast-facing folds - D2), and peak metamorphism (development of crenulation cleavage - D3) (Cooper and Johnston, 2004). Orogenic collapse was followed by exhumation, extension and partial melting at ca. 470 – 450 Ma (Alsop and Hutton, 1993; Flowerdew et al., 2000; Clift et al., 2004). The mid-Silurian Scandian event of the Caledonian Orogeny saw the final closure of the Iapetus Ocean. This was recorded in Northern Ireland with magmatism and further deformation (Kirkland et al., 2013).

Peak metamorphism of the Grampian orogeny coincided with the southeast-directed emplacement of the Dalradian Supergroup over the Tyrone Igneous Complex along the Omagh Thrust Fault (Figure 5 and Figure 6). This event overlapped with the intrusion of arc-related plutons into the Tyrone Volcanic Group at ca. 470 – 464 Ma (Cooper et al., 2008 and 2011; Hollis et al., 2012 and 2014). Orogenic collapse was coeval with the development of regional-scale extensional shearing and accompanied by northeast-trending quartz veins (Alsop and Hutton, 1993), that coincide with the earliest phase of gold mineralization at Curraghinalt.

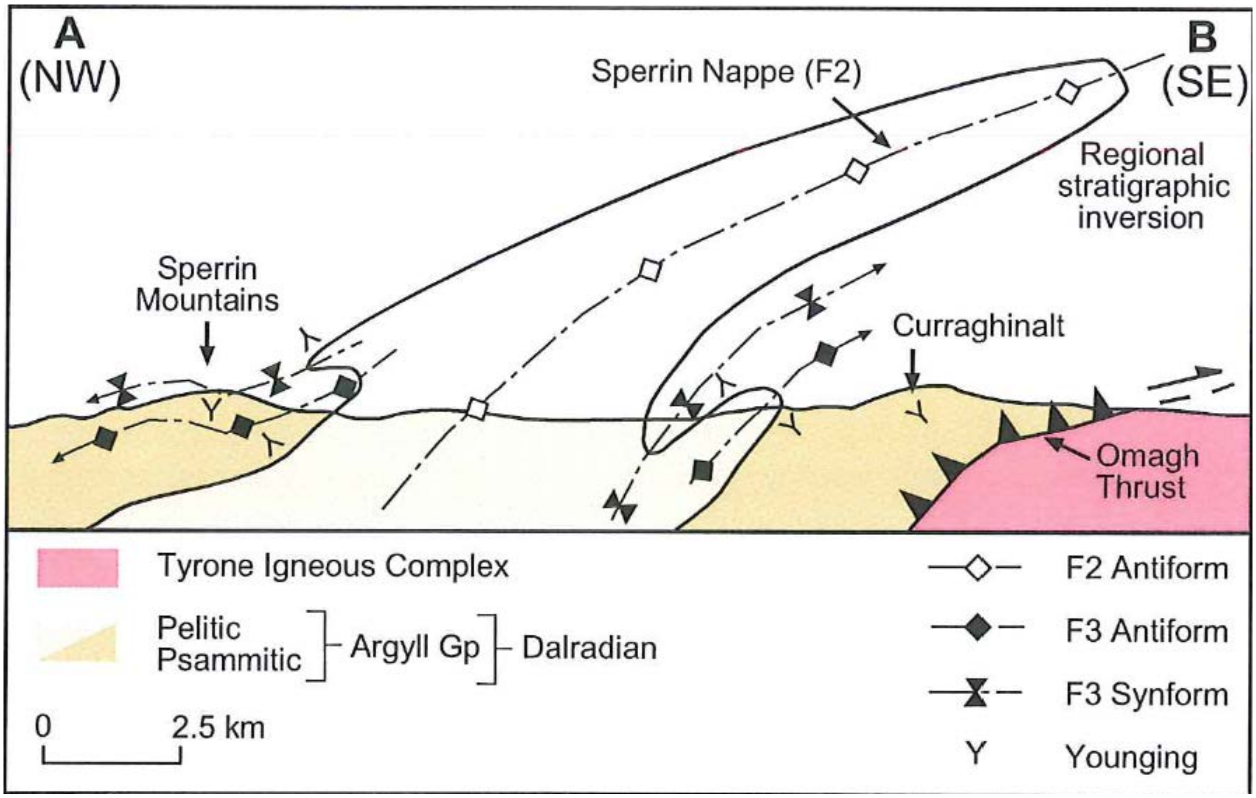


Figure 6: Section Across the Sperrin Nappe and Omagh Thrust Fault

Source: From Rice et al. (2016).

6.2 Property Geology

6.2.1 Dalradian Supergroup – Licences DG1, DG2, DG3, and DG4

Licences DG1, DG3, and DG4 are underlain by Neoproterozoic-aged rocks of the Dalradian Supergroup that form the Sperrin Mountains (Figure 7). The Dalradian Supergroup is divided into the Argyll Group and Southern Highland Group, both comprised of predominantly clastic marine sedimentary rocks deposited in a rift basin. The oldest rocks on the property belong to the Newtownstewart Formation (Argyll Group), which is exposed in the core of the recumbent Sperrin Fold and is flanked by Dungiven Limestone Formation (Table 8) in DG3 and DG4. The Southern Highland Group is interpreted to flank the Argyll Group on both limbs of the Sperrin Fold although the stratigraphy differs markedly between the north and south limbs. Mitchell (2004) notes that "an absence of distinctive marker horizons allied to lateral facies changes makes correlation difficult between formations and results in the different nomenclature north and south of the fold axis."

The Southern Highland Group comprises a thick sequence of turbiditic arenite and pelitic metasedimentary rocks with rare volcaniclastic (green bed) and calcareous schist units (Figure 7). Progressing southeastward onto DG1, the Southern Highland Group is exposed and is divided from northwest to southeast into the Dart, Glenelly, Glengawna and Mullaghcarn formations. The mineralized quartz-carbonate veins of the Curraghinalt deposit are hosted by the Mullaghcarn Formation.

Table 8: Stratigraphy of the Dalradian Supergroup

Group	Formation	Lithology
Southern Highland	Mullaghcarn	Semipelite, psammite, pelite
	Glengawna	Black graphitic pelites, psammite, semipelite
	Glenelly	Volcaniclastic semi-pelite, semipelite, psammite
	Dart	Schistose amphibolite, feldspathic and calcareous semipelite
Argyll	Dungiven	Limestone, pelite, semipelite, psammite, quartzite, basaltic pillow lavas, volcaniclastic sediments
	Newtonstewart	Quartzose psammite and thin pelite interbeds

Dart Formation

At the base of the Dart Formation, in contact with the underlying Dungiven Limestone Formation is the Glenga Amphibolite Member, which is interpreted as a resedimented volcaniclastic siltstone and sandstone. The remainder of the formation consists of conglomerate, psammite, schistose semipelite, and a volcaniclastic member.

Glenelly Formation

The Glenelly Formation comprises silvery to greenish grey schistose pelite and semipelite with minor psammite and limestone. Plagioclase porphyroblasts are ubiquitous in the rocks of this formation with more localized occurrences of small euhedral garnet and randomly distributed needles of tourmaline. Also present is a volcaniclastic member, and a limestone and calcareous semipelite member.

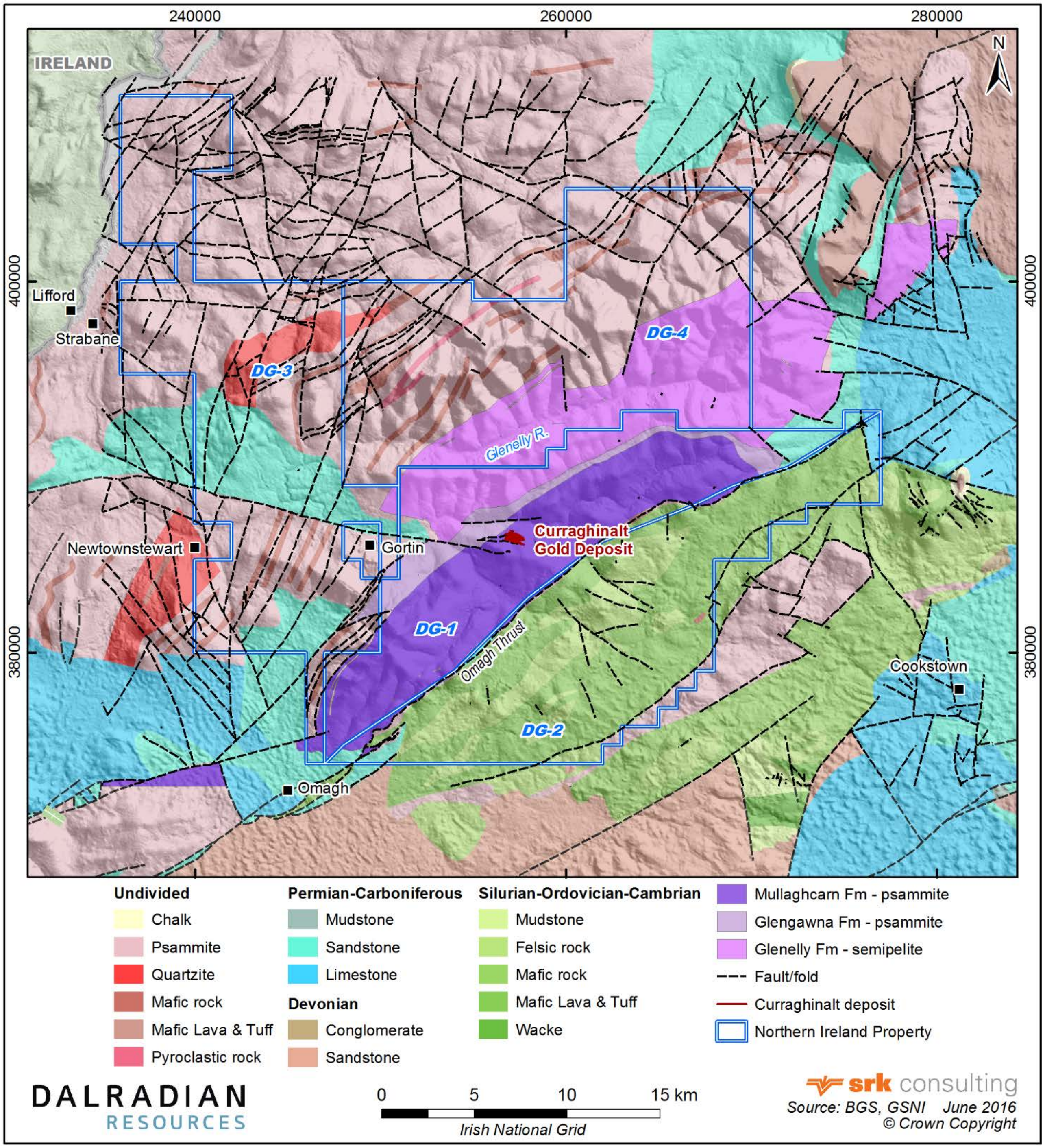


Figure 7: Property Geology

Source: Modified from British Geological Survey DiGMapGB (1:625K) and Geological Survey of Northern Ireland (1:10K)

Mullaghcarn Formation

The Mullaghcarn Formation is host to the Curraghinalt gold deposits and the Alwories prospect, and consists predominantly of semi-pelites and psammites with subordinate pelite horizons and chloritic semi-pelites. Although not subdivided on the Geological Survey of Northern Ireland maps because of lack of outcrop (Figure 7), a variation in magnetic intensity is apparent in the regional Tellus geophysical data suggesting internal variations are present.

The southern boundary of the Dalradian Supergroup is marked by the Omagh Thrust Fault (Figure 7), a moderately northwest dipping thrust fault active as late as the Carboniferous.

Deformation and Metamorphism of the Dalradian Supergroup

The following is summarized from Mitchell (2004). At least four phases of deformation are recognized in Dalradian rocks on the property:

- D1 - Weakly preserved as barely discernible folds and cleavage
- D2 - Dominant deformation of the Grampian Orogeny associated with the formation of major regional southeast-facing recumbent anticlines including the Sperrin Fold
- D3 - Southeast-directed deformation in the south Sperrin mountains resulted in minor southeasterly-verging folds and low-angle, north northwest-dipping thrust faults such as the Omagh Thrust Fault which transposed Dalradian rocks to the south southeast over the early Ordovician Tyrone Igneous Complex
- Post-D3 - Late deformation associated with localized sets of kink bands and late stage brittle fractures

The Dalradian Supergroup in Northern Ireland preserves a thermal and pressure gradient increasing from lower greenschist facies in the north to lower amphibolite facies in the south, close to the Omagh Thrust Fault.

6.2.2 Tyrone Igneous Complex – Licence DG2

The following is taken from Hollis (2012).

“Licence DG2 is largely covered by the Tyrone Igneous Complex, which is exposed over approximately 350 square kilometres, within the Midland Valley Terrane and is one of the largest areas of ophiolitic and arc-related rocks exposed along the northern margin of Iapetus within the British and Irish Caledonides. It is broadly divisible into the ophiolitic Tyrone Plutonic Group and the younger arc-related Tyrone Volcanic Group. The northwestern edge of the Tyrone Igneous Complex is bounded by the Omagh Thrust Fault, which has emplaced Neoproterozoic Dalradian Supergroup metasedimentary rocks above the Tyrone Volcanic Group. Within the central regions of the complex (to the southeast of DG2), the structurally underlying metamorphic basement (Tyrone Central Inlier) is exposed. A suite of granitic to tonalitic plutons (ca 470 to 464 Ma) intrudes the Tyrone Igneous Complex and Tyrone Central Inlier (Cooper et al., 2011).”

“The Tyrone Plutonic Group is interpreted to represent the uppermost portion of a dismembered suprasubduction zone ophiolite and is characterized by layered, isotropic and pegmatitic gabbros, sheeted diabase dikes and the occurrence of rare pillow lavas (Cooper et al., 2011 and references therein). Layered olivine gabbro has provided a uranium-lead zircon age of 479.6 ± 1.1 Ma (Cooper et al., 2011). Accretion to the Tyrone Central Inlier must have occurred prior to the intrusion of a 470.3 Ma ± 1.9 Ma tonalite, which contains inherited Proterozoic zircons and roof pendants of ophiolitic material (Cooper et al., 2011).”

“The Tyrone Volcanic Group forms the upper part of the Tyrone Igneous Complex and comprises mafic to intermediate pillowed and sheeted lavas, tuffs, rhyolite, banded chert, ferruginous jasperoid (ironstone) and argillaceous sedimentary rocks (Mitchell, 2004). The Tyrone Volcanic Group (473 Ma ± 0.8 Ma, Cooper et al., 2008) is interpreted to have formed within a peri-Laurentian island arc/back-arc, which was accreted to the Tyrone Central Inlier following emplacement of the Tyrone Plutonic Group (Draut et al., 2009; Cooper et al., 2011)."

Hollis et al., (2012) have revised the stratigraphy of the Tyrone Volcanic Group based on mapping and geophysics (Figure 8) and the following is summarized from that work. The lower part of the Tyrone Volcanic Group is restricted to south of the Beaghmore Fault (southwestern and eastern blocks) and is dominated by basaltic to andesitic lavas and volcaniclastic rocks, with subsidiary agglomerate, layered chert, ferruginous jasperoid (ironstone), finely laminated argillaceous sedimentary rocks, and rare rhyolite breccia, deformed into the northeast trending upright Copney anticline. All units in the lower Tyrone Volcanic Group have been subjected to varying degrees of hydrothermal alteration and are characterized by regional sub-greenschist- to greenschist-facies metamorphic assemblages. Abundant sills of undeformed quartz ± feldspar porphyritic dacite cut all stratigraphic levels of the Tyrone Volcanic Group.

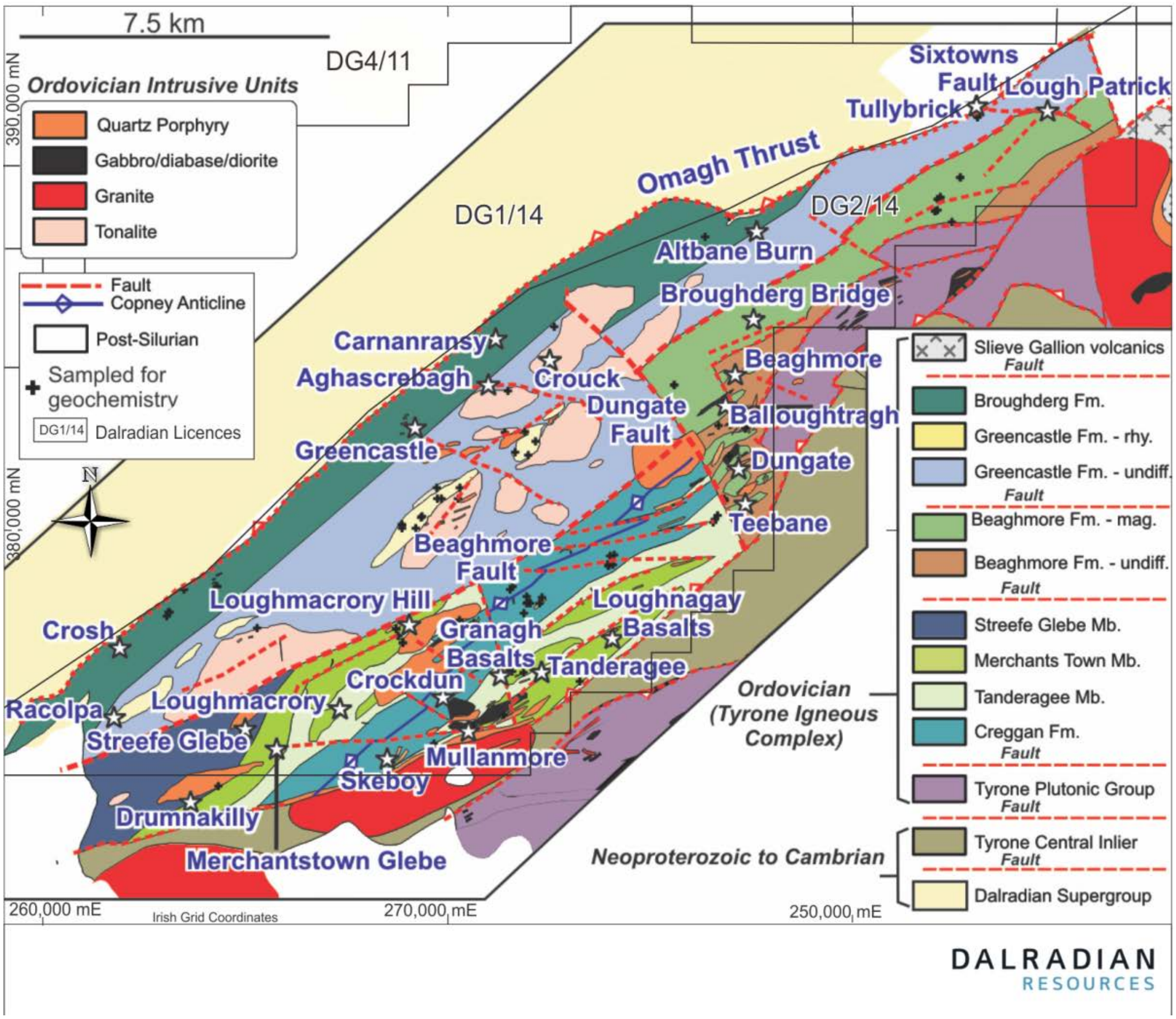


Figure 8: Tyrone Igneous Complex Geology
Source: After Hollis et al., 2012

North of the Beaghmore Fault, the Greencastle and Broughderg formations of the upper Tyrone Volcanic Group are exposed as a conformable sequence dipping between 35 and 60 degrees to the northwest. Dalradian metasedimentary rocks overlie the succession along its western edge, separated by the low-angle Omagh Thrust Fault, which dips around 30 degrees to the northwest (Alsop and Hutton, 1993). The crosscutting nature of the Omagh Thrust Fault provides a relatively complete section through the upper part of the Tyrone Volcanic Group, which has been metamorphosed to chlorite-grade greenschist facies. Further south, sub-greenschist facies metamorphic assemblages are preserved around Formil. Hydrothermal alteration and associated zinc-lead-copper (gold) mineralization are widespread within the Greencastle and Broughderg formations. Mineralization is characterized by pyrite-sphalerite–galena and chalcopyrite in locally silicified, sericitic and/or chloritic tuff/rhyolite (Clifford et al., 1992). Between Racolpa and Broughderg, bodies of tonalite and sills of quartz ± feldspar porphyry intrude both formations. The Greencastle Formation is a relatively thick succession dominated by chloritic, locally sericitized and siliceous quartzo-feldspathic crystal tuff, flow-banded and brecciated rhyolite, rhyolitic lapilli tuff, lesser diorite, rare arkosic sandstone, and localized occurrences of hornblende-phyric tuff. The overlying Broughderg Formation is a diverse succession of intermediate to felsic crystal and lesser lapilli tuff/schist, rhyolite (e.g., around Crosh), vesicular basalt, argillaceous sedimentary rocks, layered chert, and black ironstone (silica-magnetite) with bedded pyrite.

A late suite of I-type, calc-alkalic, tonalitic to granitic plutons intrude the Tyrone Igneous Complex and Tyrone Central Inlier (Draut et al., 2004). Recent uranium-lead zircon geochronology indicates these were intruded between c. 470 and 464 Ma (Cooper et al., 2011).

A gently northwest dipping cleavage intensifies northwards in the volcanics towards the Omagh Thrust Fault, and is correlated with the S3 fabric in the Dalradian Supergroup. The Laght Hill Tonalite has variable relationships with the fabric in the volcanics—early stage tonalite porphyry bodies are deformed by it, but the main body itself cuts the fabric and contains xenoliths that contain the fabric. This suggests that magmatic activity outlasted the overthrusting of the volcanics by the Dalradian (Hollis, 2012).

Hollis et al., (2014) suggest the Tyrone Igneous Complex of Northern Ireland represents a possible broad correlative of the Buchans-Robert's Arm Belt of Newfoundland, host to some of the most metal rich volcanogenic massive sulphide deposits globally. Stratigraphic horizons prospective for volcanogenic massive sulphide mineralization in the Tyrone Igneous Complex are associated with rift-related magmatism, hydrothermal alteration, synvolcanic faults, and high-level subvolcanic intrusions (gabbro, diorite, and/or tonalite). Locally intense hydrothermal alteration is characterized by sodium-depletion, elevated silica, magnesium oxide, barium/strontium, bismuth, antimony, chlorite-carbonate-pyrite alteration index (CCPI). On the property, stratigraphic horizons favorable for volcanogenic massive sulphide mineralization occur in the Greencastle Formation and in the Broughderg Formation, all of which contain occurrences of base and precious metal mineralization (Hollis et al., 2014).

6.2.3 Carboniferous

Two Carboniferous basins are present within the licence area: the Omagh Basin comprises the Omagh Sandstone Group to south and the Newtonstewart Outlier comprises the Owenkillew Sandstone Group to the north (Figure 7).

Omagh Sandstone Group

The Omagh Sandstone Group rests unconformably on Dalradian rocks. The basal unit is up to 100 metres thick and is composed of non-fossiliferous red sandstone with calcrete nodules, and quartz pebble conglomerates (Mitchell, 2004). Much of the remaining sequence is dominated by channel sandstone and siltstone that contain Courceyan to early Chadian miospores. However, thin algal limestones with evaporite replacement textures occur locally. Some of the limestones contain rare brachiopods. The exact thickness of this group is difficult to estimate based on the amount of uplift, folding, and erosion that has taken place (Mitchell, 2004).

Owenkillew Sandstone Group

The Owenkillew Sandstone Group also rests unconformably on the Dalradian rocks and comprises approximately 1,500 metres of predominantly non-marine strata present within a half graben. Rock types include greenish-grey and purplish-red sandstone and siltstone, with thin beds of algal laminated limestone (Mitchell, 2004). Mudstones containing miospores have indicated an early Chadian age. The group is thought to have formed in an inter-cratonic basin with current indicators suggesting the sediment source is to the north (Mitchell, 2004).

6.3 Mineralization

6.3.1 The Curraghinalt Gold Deposit

High-grade gold mineralization occurs as a series of west-northwest trending, moderately to steeply dipping, subparallel stacked veins and arrays of narrow extension veinlets. These veins are hosted by the Neoproterozoic Dalradian rocks in the central section of the Sperrin Mountains, and represents the largest known gold deposit in the United Kingdom.

The mineral resource model discussed herein focusses on a set of 16 prominent gold-bearing quartz veins that occur mainly within psammites, semipelites, and pelites of the Dalradian Argyll Group, within the Mullaghcarn Formation. Auriferous quartz veins exist between the main modelled veins, but their continuity is difficult to demonstrate at the current drill spacing. The quartz vein system was investigated by core drilling and is partly exposed in underground workings. Surface exposures of the vein system are limited to the Curraghinalt and Attagh Burns (creeks), as well as a variety of surface trenching excavations completed in 2003 and in the late 1980's. The veins range from a few centimetres to over 3 metres wide. The modelled veins extend 1,300 metres along strike, but the vein system is traceable along strike for at least 1,900 metres with similar strike aligned veins occurring over approximately 4 kilometres from Alworries in the east to Scotchtown in the west. The veins have been traced from surface to a depth of approximately 1,200 metres. The vein system remains open along strike and at depth. On average, the quartz veins dip between 55 degrees and 75 degrees to the north. The modelled veins are shown in Figure 9 and listed in Table 9.

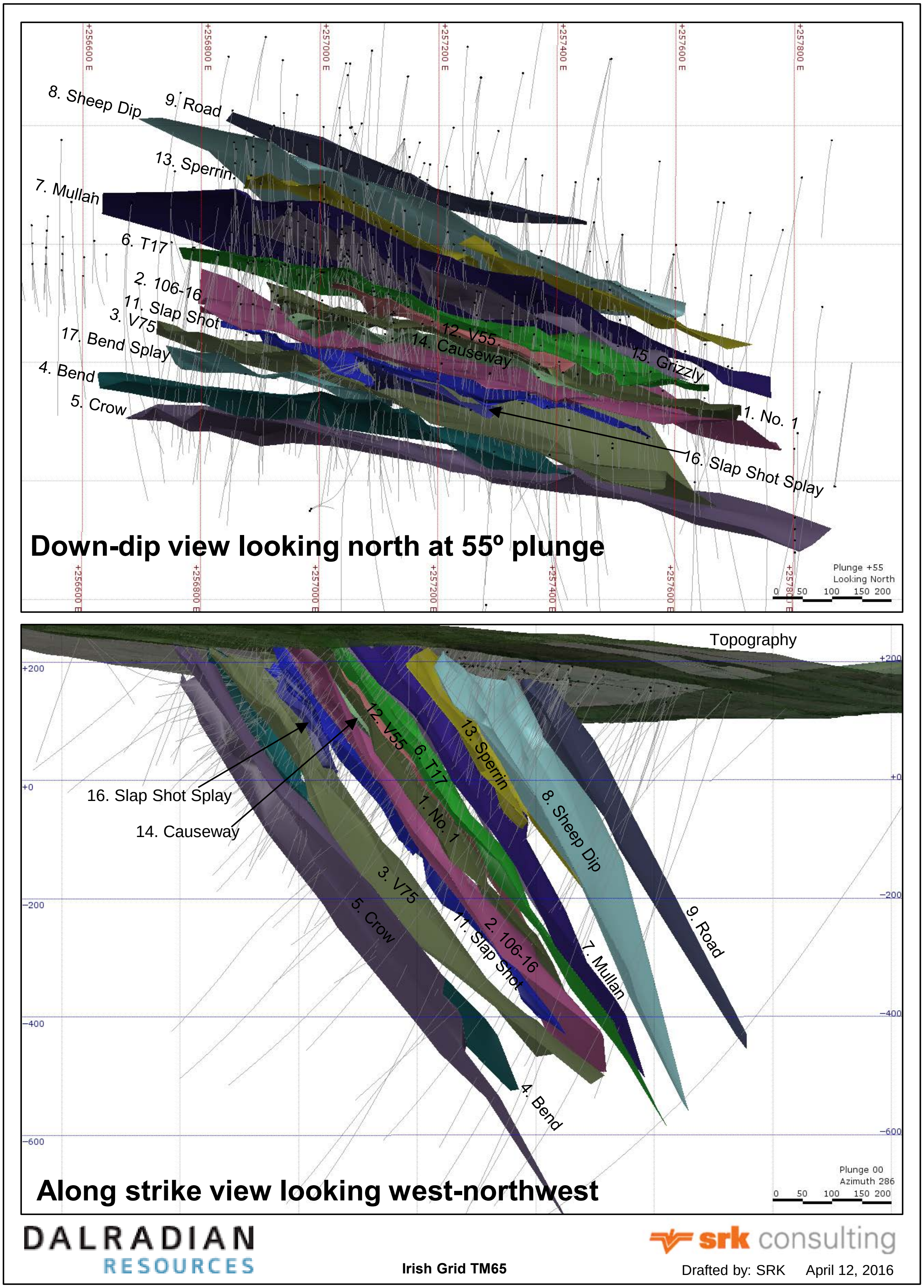


Figure 9: Modelled Quartz Veins

Table 9: List of Modelled Quartz Veins

Domain Number*	Vein Name
Domain 1	No.1
Domain 2	106-16
Domain 3	V75
Domain 4	Bend
Domain 5	Crow
Domain 6	T17
Domain 7	Mullan
Domain 8	Sheep Dip
Domain 9	Road
Domain 11	Slap Shot (East, West)
Domain 12	V55
Domain 13	Sperrin Vein (East, West)
Domain 14	Causeway
Domain 15	Grizzly (East, West and Mid)
Domain 16	Slap Shot Splay
Domain 17	Bend Splay

* Domain 10 is not used, as such there are 16 modelled veins

In 2007, Dave Coller, PGeo, EuroGeol, prepared an initial review of the geological setting of the Curraghinalt vein system. Coller (2007) recognized that the west-northwest trending vein system comprises multiple veins and vein branches (Table 10).

Table 10: Definitions for Geometry of the Vein System

Type	Characteristic	Representation	Comments
Vein complex	Series of veins which probably all link in 3D, with one main vein or several en echelon high grade veins and many branches	Envelope encompassing all the vein branches	Previously defined as single veins, several vein zones and linked branches are potentially economic
Vein zone	Large single or closely spaced branching veins regarded as a single vein	Width of zone containing veins defined as one vein with average grade as on drill sections	In detail, internal vein segments and associated veinlets have separate Au assays but would be mined as a single vein
Vein branch	Veins branch connections between veins zones within a vein complex [sic]	Separate veins in drill sections	Larger branches often high grade and may be mined by linkage to main vein zone
Other veins	Major veins that may link or occur between vein complexes	Separate significant vein zones not named	Could be defined as separate vein complexes with more drilling

In 2012, Miron Berezowski, recognized two main vein sets:

- Shear (D) veins - west-northwest trending, steeply dipping
- Extensional (C) veinlets - arrays of narrow extension veinlets

Single or multiple D veins form vein zones while vein complexes are anchored by a vein zone and are flanked by C vein arrays.

The D or shear veins are thought to be hosted in west northwest trending shear zones dipping moderately to steeply to the northeast and with good strike continuity. D veins are often laminated and include slivers of wall rock, evidence of incremental development. Additionally, D veins are commonly brecciated.

The C veinlets are southeast trending, steeply dipping extension veins which are oriented obliquely to the D veins. They show evidence of open space filling, are never brecciated, and do not have sheared margins.

The vein system is cut by two east-west, steeply north-dipping, 4 to 7 metres wide ductile shear zones: the Crowsfoot shear and the Kiln Shear. The Kiln Shear also shows evidence of brittle reactivation as indicated by the presence of gouge zones along the contact between the highly strained ductile rocks within the shear zone and the Dalradian metasedimentary wallrocks. The Kiln Shear clearly disrupts and displaces the vein zones (D veins) with observed oblique dextral-normal kinematics.

Vein zones are entrained within the Kiln Shear and previous workers (Boland, 1997) have suggested that the shears have controlled vein emplacement or at least served to produce wider mineralized segments.

The vein swarm has been traced along strike for approximately 1,950 metres, across strike for approximately 800 metres and down dip for over 1,000 metres by prospecting, trenching, and drilling. Sixteen modelled veins are included in the current resource estimate.

Of these veins, some are less continuous and form eastern and western portions. These include Slap Shot (East and West), Sperrin (East and West) and Grizzly (East, West and Mid). Vein splays have also been identified, including Slap Shot Splay and Bend Splay.

Petrographic work by Clarke (2004) has documented that the gold mineralization at Curraghinalt occurs in quartz-pyrite-carbonate veins and is associated with variable abundances of carbonate, chalcopyrite, and tennantite-tetrahedrite. Gold is commonly in the form of native gold and more rarely as electrum (>20 weight percent silver), and occurs primarily along fractures in pyrite, as inclusions in pyrite, and at pyrite grain contacts with carbonate and quartz. Most native gold grains are associated paragenetically with carbonate, chalcopyrite, tennantite-tetrahedrite, and telluride minerals infilling fractures in pyrite. The seven veins studied at the time have similar mineralogy. Native gold was observed in samples from all veins and grains range in size from 2 micrometres to 150 micrometres.

6.3.2 Tyrone Volcanic Group

The Tyrone Volcanic Group hosts a number of other gold and gold plus base metal prospects, which are described in Section 9. Hollis et al., (2014) have identified stratigraphic horizons associated with rift-related magmatism, hydrothermal alteration, synvolcanic faults, and high-level subvolcanic intrusions, which are prospective for volcanogenic massive sulphide mineralization. Hollis et al., (2014) suggest that the Tyrone Volcanic Group is broadly correlative with the Buchans-Robert’s Arm Belt of Newfoundland, which is host to numerous volcanogenic massive sulphide deposits.

7 Deposit Types

Dalradian's Northern Ireland property has potential to host two distinct deposit types. Licences DG1, DG3, and DG4, which includes the Curraghinalt gold deposits, has potential to host orogenic gold deposits. Licence DG2, underlain by the Tyrone Igneous Complex, has potential to host volcanic massive sulphide mineralization, as well as porphyry copper-gold, and iron-gold exhalites (Hollis et al. 2014, Hollis et al. 2015, British Geological Survey, 2016).

7.1 Orogenic Gold Deposits

Rice et al. (2016) noted that the timing of gold mineralization at Curraghinalt (ca. 462.7 – 452.8 Ma) closely followed peak metamorphism associated with the Grampian event of the Caledonian Orogeny. It is temporally linked with an extensional setting following orogenic uplift and collapse. Rice et al. (2016) concluded that Curraghinalt is more likely an orogenic (rather than intrusion related) gold deposit. Thus an orogenic gold deposit model best describes the Curraghinalt vein system (Figure 10).

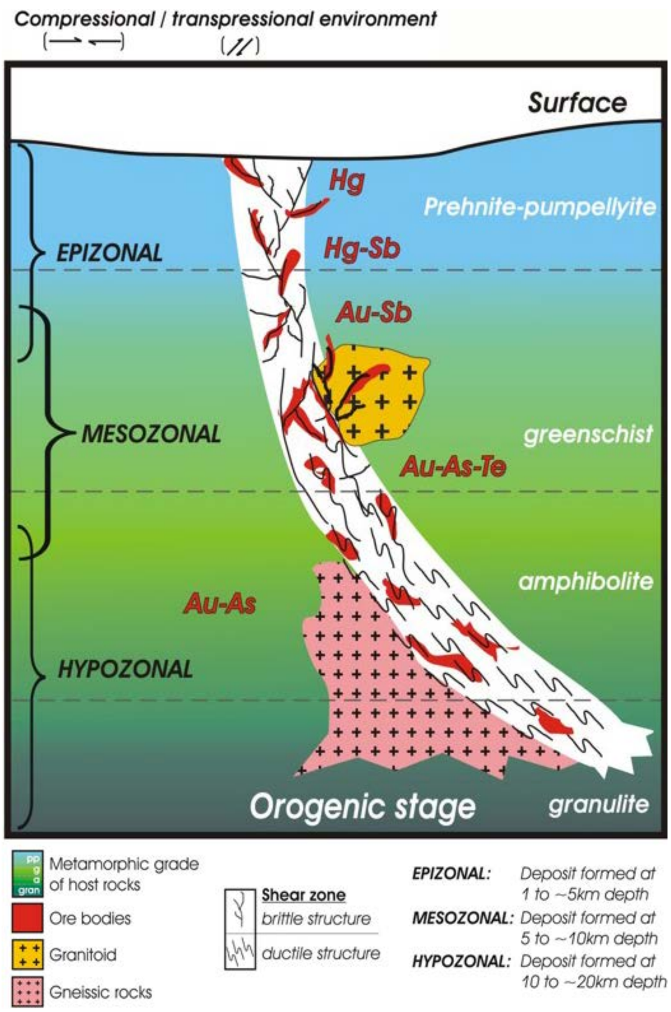


Figure 10: Orogenic Gold Deposit Model

Source: After Goldfarb, 2005

Commonly referred to as mesothermal gold deposits in the past, these orogenic ores were formed during compressional to transpressional deformation processes at convergent plate margins in accretionary and collisional orogens. In both types of orogen, hydrated marine sedimentary and volcanic rocks have been added to continental margins during tens to some 100 million years of collision. Subduction-related thermal events, episodically raising geothermal gradients within the hydrated accretionary sequences, initiate and drive long-distance hydrothermal fluid migration. The resulting gold-bearing quartz veins were emplaced over a unique depth range for hydrothermal ore deposits, with gold deposition from 15 – 20 kilometres to the near surface environment. On the basis of their depth of formation, the orogenic deposits are best subdivided into epizonal (<6 kilometres), mesozonal (6 – 12 kilometres) and hypozonal (>12 kilometres) classes (Groves at al., 1998).

The following has been summarized from Tomkins (2013b).

Orogenic gold deposits dominantly form in metamorphic rocks in the mid- to shallow crust (5 – 15 kilometres depth), at or above the brittle-ductile transition, in compressional settings that facilitate transfer of hot gold-bearing fluids from deeper levels (Goldfarb et al., 2005; Groves et al., 1998; Phillips and Powell, 2009). The term orogenic is used because these deposits likely form in accretionary and collisional orogens (Groves et al., 1998). There are two plausible sources for the gold: (1) metamorphic rocks, from which fluids are generated as temperatures increase; and (2) felsic-intermediate magmas, which release fluids as they crystallize. Gold-bearing magmatic-hydrothermal deposits are enriched in many elements, including sulphur, copper, molybdenum, antimony, bismuth, tungsten, lead, zinc, tellurium, mercury, arsenic, and silver (e.g., Goldfarb et al., 2005; Richards, 2009). Such deposits have been referred to as gold-plus deposits (e.g., Phillips, 2013), but most orogenic gold deposits fall into the alternative group of gold-only deposits. These are characterized by elevated sulphur and arsenic, and have only minor enrichments in the other elements.

The vast majority of orogenic gold occurred in three periods in geologic time: the Neoarchean (ca. 2700-2400 Ma), the Paleoproterozoic (ca. 2100-1800 Ma), and a third period from ca. 650 Ma continuing throughout the Phanerozoic (Goldfarb et al., 2001).

World-class gold deposits are generally 2 to 10 kilometres long, approximately 1 kilometres wide, and are mined down-dip to depths of 2 to 3 kilometres. Most orogenic gold deposits contain 2 percent to 5 percent sulphide minerals and have gold/silver ratios from 5 to 10. Arsenopyrite and pyrite are the dominant sulphide minerals, whereas pyrrhotite is more important in higher temperature ores and base metals are not highly anomalous.

7.2 Volcanic Massive Sulphide Deposit Model

The volcanic stratigraphy of the Tyrone underlying licence DG2 is a potential host to volcanic massive sulphide deposits. Volcanogenic massive sulphide deposits are syngenetic, stratabound, and in part stratiform accumulations of massive to semi-massive sulphide that form seafloor hydrothermal systems at or near the seafloor (Gibson et al., 2007; Galley et al., 2007). The deposits consist of two parts: a concordant massive sulphide lens (>60 percent sulphide minerals), and discordant vein-type sulphide mineralization, commonly called the stringer or stockwork zone, located within an envelope of altered footwall volcanic and or sedimentary rocks (Gibson et al., 2007).

Recently, volcanogenic massive sulphide deposits have been classified by host lithologies that define a distinctive time-stratigraphic event (Barrie and Hannington, 1999; Franklin et al., 2005). These five different groups are:

- Bimodal-mafic dominated volcanic – Cu rich
- Mafic back-arc (ophiolite associated) – Cu rich
- Pelitic mafic back-arc
- Bimodal felsic-dominated volcanic – Zn rich
- Siliciclastic – felsic

The order of the lithologic groups above reflects a change from the most primitive volcanogenic massive sulphide environments, represented by ophiolite settings, through oceanic-rifted arc, evolved rifted arcs, continental back-arc, to sedimented back-arc. Hollis et al. (2014) have identified the Lower Tyrone Volcanic Group as having formed in a bimodal-mafic arc to back-arc, and the Upper Tyrone Volcanic Group as having characteristics of the bimodal-felsic model (Figure 11).

Gold-rich volcanogenic massive sulphide deposits are viewed as a subtype where the gold content exceeds the associated combined copper, lead, and zinc grades.

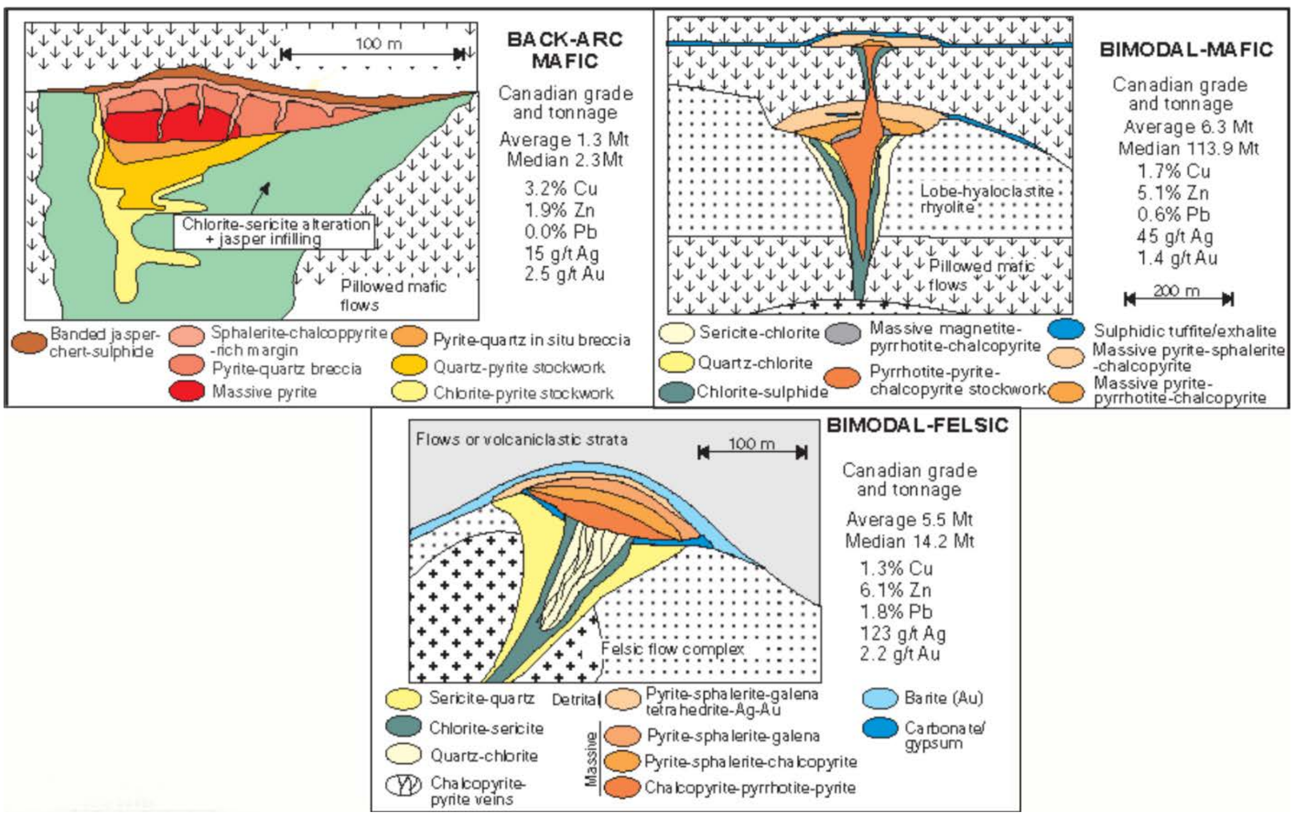


Figure 11: Volcanogenic Massive Sulphide Deposit Model

Source: Galley et al., 2007

8 Exploration

Information for the time frame 2010 to 2014 has been extracted largely from the previous technical report (Micon, 2014).

Since 2010, Dalradian has drilled 314 boreholes (100,423 metres) on the Curraghinalt gold deposit, and 32 boreholes (9,042 metres) on other regional targets. In addition, airborne and ground geophysical surveys, prospecting, mapping, and geochemical surveys have been completed. Drilling is discussed in Section 9.

8.1 Exploration 2010 – 2011

In 2011, Dalradian commissioned Patterson, Grant and Watson Limited (PGW) of Toronto, Ontario to reprocess available geophysical data acquired previously during the government funded Tellus South West survey (Figure 12).

All available historical ground induced polarization, magnetic, very low frequency electromagnetic, and resistivity data were also reprocessed over the four licence areas. Based on this work, 23 exploration targets within the four licences were identified. Dalradian evaluated these targets based on published geology and a more detailed data compilation. Following this initial work, Dalradian carried out prospecting work on all four licences in the first and second quarters of 2011.

A total of 929 samples were collected, 143 of which yielded assays results greater than 0.25 gram gold per tonne (g/t gold). A summary of the samples is provided in Table 11. The locations of the prospecting samples are shown in Figure 13.

After the initial prospecting campaign, Dalradian integrated and evaluated existing exploration data and newly acquired information, and selected 19 of the initial 23 exploration targets for detailed exploration work, including core drilling. The targets can be split into two distinct groups: those within the Tyrone Volcanic Group on licence DG2, and those within the Dalradian Supergroup in license areas DG1, DG3, and DG4.

The Tyrone Volcanic Group is an environment favourable for the formation of volcanogenic massive sulphide deposits and contains an abundance of float with volcanogenic massive sulphide-style mineralization. Gold and base metal mineralization is most prevalent within the upper part of the volcanic sequence. Historical prospecting results include siliceous tuffs yielding 16.1 percent (percent) lead and 1.5 g/t gold, as well as chloritic tuffs yielding 8.8 percent zinc, 1.2 percent lead, and 1.7 g/t gold.

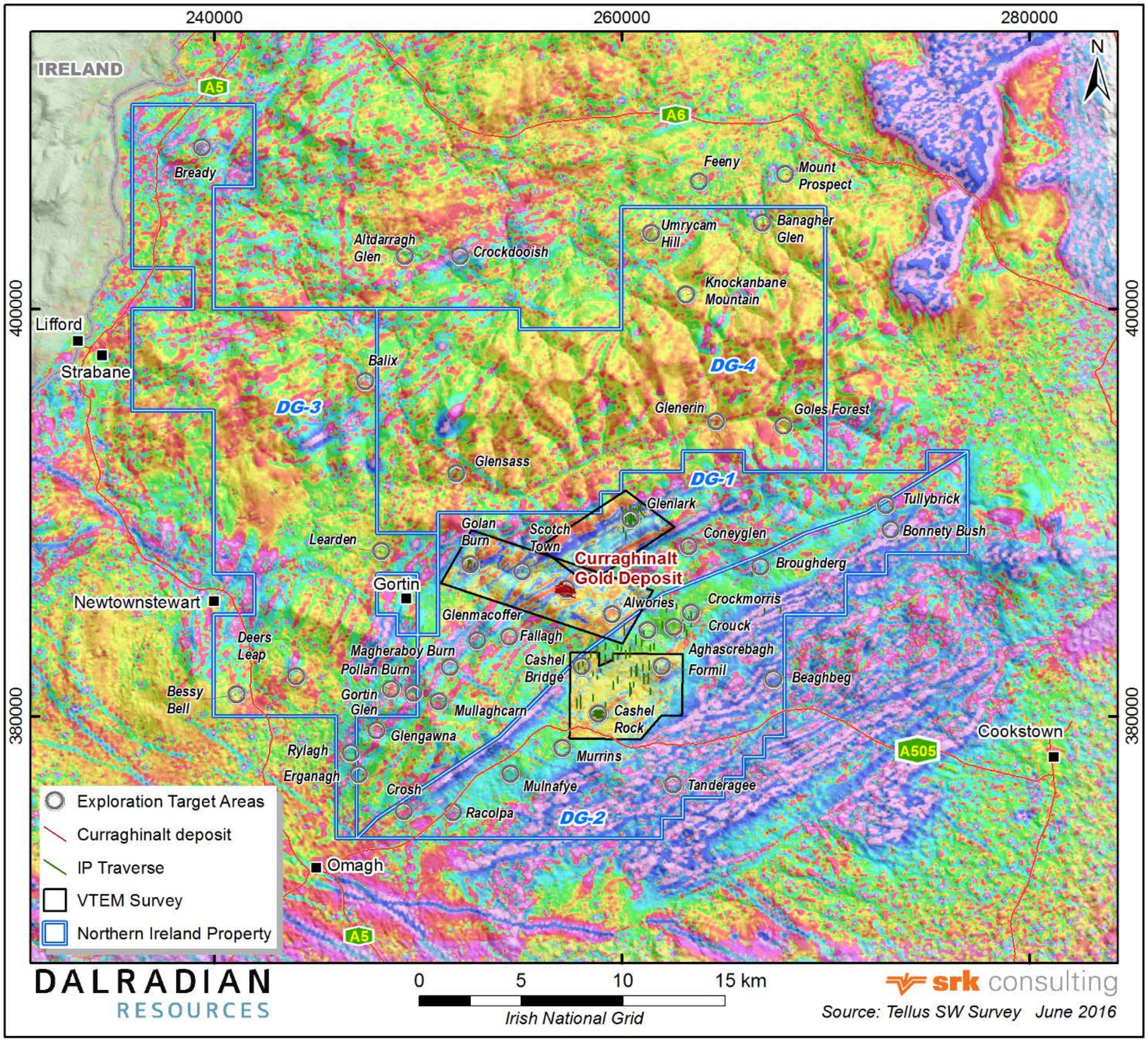


Figure 12: Geophysical Surveys and Exploration Targets on the Northern Ireland Property

Table 11: Summary of 2011 Prospecting Samples

License Area	Total No. of Samples	No. of Outcrop Samples	No. of Float Samples	Gold Value Range (g/t)	No of Samples > 0.25 g/t Au
DG1	316	139	177	0.01 – 44.96	88
DG2	270	144	126	0.01 – 5.48	31
DG3	184	86	98	0.01 – 14.08	22
DG4	159	97	62	0.01 – 2.07	2

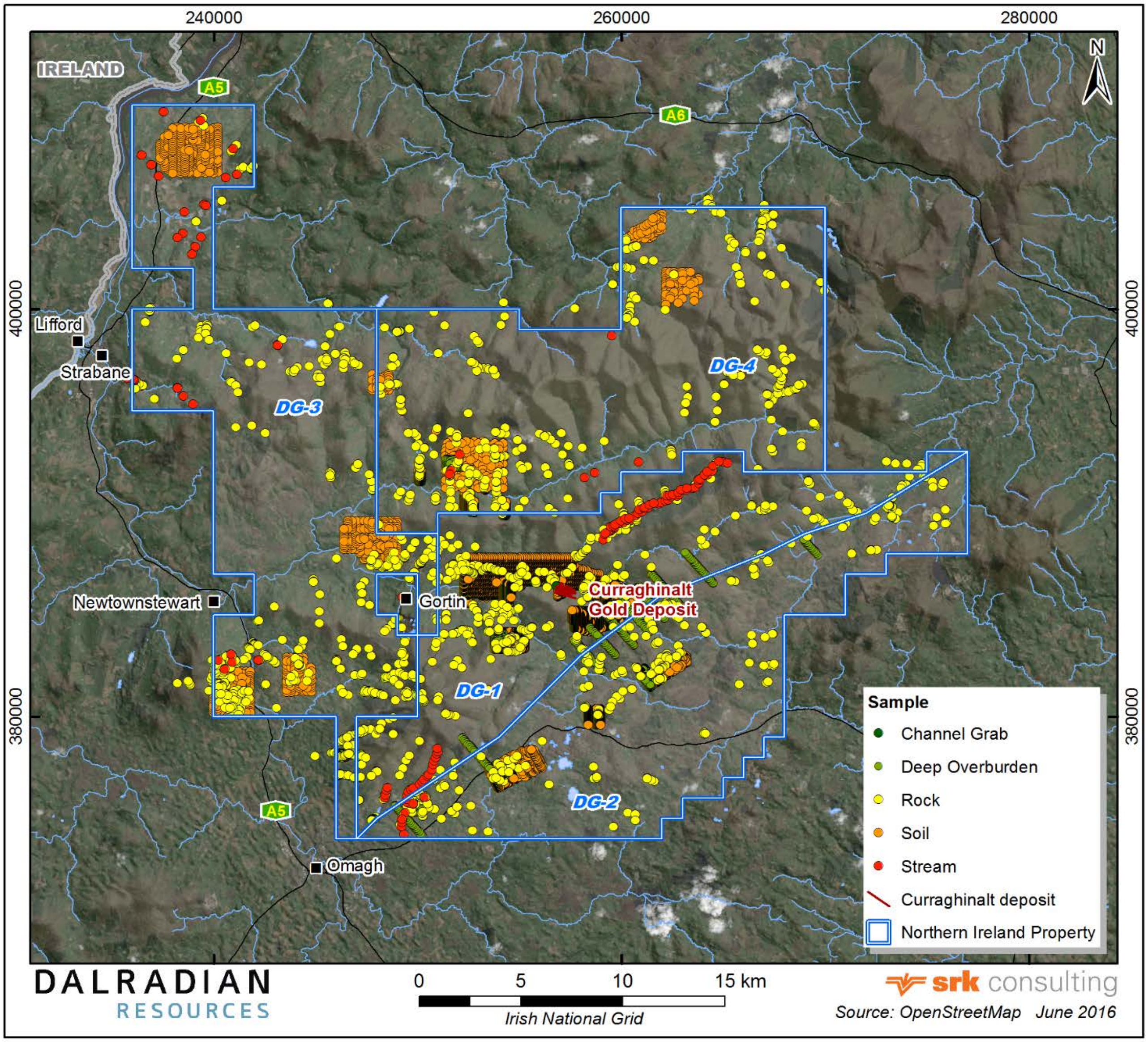


Figure 13: Exploration Sampling by Dalradian on the Northern Ireland Property

A summary of exploration targets is shown in Table 12 and Table 13 for targets in the Tyrone Volcanic Group and the Dalradian Supergroup, respectively.

Following target identification, Dalradian started a regional scout drilling program. Two boreholes were completed at target Broughderg, and one borehole was completed at target Tullybrick. However, no significant mineralization was intersected in any of these boreholes and in late 2011, Dalradian suspended the scout-drilling program in order to gather additional geological information to better define drilling targets.

Table 12: Exploration Targets within the Tyrone Volcanic Group

Target Name	Area	Target Defined By	Significant Samples	Sample Type	Geology	Historical Drilling
Broughderg	750 metres x 350 metres	Historical drilling, trenching, magnetic high, Au soil geochemistry, mineralized outcrop and float	1.5 metres at 4.36 g/t Au	Trench	Auriferous chert-magnetite horizon. Interpreted to be exhalative unit	2 shallow boreholes
Cashel Bridge	2.9 kilometres x 1.9 kilometres	EM, Au and Zn–Pb–Cu soil geochemistry, mineralized outcrop and float	1.63 g/t Au and 4.3 percent Cu+Pb+Zn from outcrop	Prospecting	Outcrop of altered tuffs in poorly exposed area	15 shallow boreholes
Mulnafye	750 metres x 500 metres	Au soil geochemistry and mineralized float	5.48 g/t Au from quartz float	Prospecting	Rhyolite–tonalite contact with abundant angular quartz float with visible gold	None
Cashel Rock	350 metres x 300 metres	Historical drilling and trenching, EM, Au soil geochemistry, and mineralized outcrop and float	Historical shallow borehole: 3.63 metres at 30.12 g/t Au	Borehole	Rhyolite breccia with gold and base metals. Airborne geophysics shows new EM anomalies	15 shallow boreholes
Bonnety Bush	4.5 kilometres x 700 metres	EM, IP, magnetic geophysics, Zn–Cu soil geochemistry, and mineralized outcrop and float	Historical Prospecting: 4.54 g/t Au in ironstone	Prospecting	Mineralized ironstone overlying altered tuffs and basalts	None
Crosh	3.5 kilometres x 2.2 kilometres	EM, Au soil geochemistry, and mineralized outcrop and float	2.19 g/t Au and 2.99 percent Cu+Pb+Zn from outcrop	Prospecting	Auriferous rhyolite breccias and tuffs with galena and sphalerite	None
Tullybrick	1.2 kilometres x 1 kilometres	EM and IP, Zn–Cu soil geochemistry, and mineralized outcrop and float	Historical Prospecting: 1.87 g/t Au in float	Prospecting	Altered volcanic tuffs with quartz veins	None

Table 13: Exploration Targets within the Dalradian Supergroup

Target Name	Area	Target Defined By	Significant Samples	Sample Type	Geology	Historical Drilling
Glenlark	7 kilometres x 600 metres	EM, IP, and mineralized outcrop and float	Trench: 9.5 metres at 5.64 percent Zn+Pb Historical prospecting: 141.2 g/t Au from float Recent prospecting: 33.94 g/t Au from float	Trench and Prospecting	Metasediment-hosted quartz vein and stratiform gold and base metal mineralization	12 shallow boreholes
Scotch Town	2 kilometres x 50 metres	Au soil geochemistry, mineralized subcrop and float	10.52 g/t Au from float.	Prospecting	Graphitic pelite-hosted breccia zone up to 50 metres wide and 2 kilometres long	None
East Curragh-inalt	1.8 kilometres x 375 metres	Mineralized float	44.96 g/t Au and 32.80 g/t Au from float	Prospecting	Quartz float, 200 metres east of drilled mineralization at Curraghinalt	None
Alwories	1.5 kilometres x 700 metres	Au soil geochemistry, mineralized outcrop and float	Channel: 0.88 metres @ 39.43 g/t Au	Channel	Quartz vein, 2 kilometres east along strike from Curraghinalt	None
Golan Burn	1 kilometres x 600 metres	Historical drilling, mineralized outcrop and float	Historical shallow borehole: 0.6 metres at 61.43 g/t Au	Borehole	Quartz vein 4.5 kilometres west along strike from Curraghinalt	44 shallow boreholes
North Curragh-inalt	7.5 kilometres x 600 metres	Au soil geochemistry and mineralized float	22.4 g/t Au from quartz float 3.36 g/t Au from silicified metasediment float	Prospecting	Wide range of float styles in river valley	None
Fallagh	2.5 kilometres x 650 metres	Au soil geochemistry and mineralized float	11.68 g/t Au from float	Prospecting	Quartz float in river valley	None
Gortin Glen	2.3 kilometres x 1.7 kilometres	Au soil geochemistry, mineralized outcrop and float	14.08 g/t Au from quartz float with pyrite. 8.18 g/t Au from silicified metasediment float	Prospecting	Float train of silicified metasediments and quartz veins	None
Bessy Bell	2 kilometres x 1.5 kilometres	Au soil geochemistry, mineralized outcrop and float	2.96 g/t Au from outcrop	Prospecting	Silicified quartzite with disseminated and fracture fill pyrite	None
Rylagh/ Glengawna	2.3 kilometres x 0.9 kilometres	Au soil geochemistry, mineralized outcrop and float	1.63 g/t Au from graphitic pelite outcrop 1.88 g/t Au from outcropping quartz vein	Prospecting	Silicified graphitic pelite and quartz veins	3 shallow boreholes
Coneyglen	4 kilometres x 1 kilometres	Au soil geochemistry, mineralized outcrop and float	2.35 g/t Au from float	Prospecting	Quartz breccias with pyrite in metasediments	None
Glenerin	2 kilometres x 1 kilometres	Au soil geochemistry, mineralized outcrop and float	2.07 g/t Au from outcrop	Prospecting	Quartz vein with pyrite.	None

8.2 Exploration 2012 – 2013

In April 2012, Dalradian commissioned Geotech Ltd. (Geotech) of Aurora, Canada to carry out a helicopter-borne versatile time domain electromagnetic and magnetic survey. The survey consisted of 1,009 survey line-kilometres in three separate survey blocks approximately 20 kilometres northeast, 17 kilometres northeast, and 14 kilometres northeast of Omagh (Figure 12). Survey lines in the northernmost survey block were flown in a northwest to southeast direction with survey lines spaced 100 metres apart. Three tie lines were flown perpendicular to the principal survey direction at a line spacing of 1000 metres. The central survey block, which covers approximately 10 kilometres along the Curraghinalt trend, was flown at a 50-metre line spacing in a north-easterly direction (30 degrees) with perpendicular tie lines flown at a 500-metre line spacing. The survey lines in the south block were flown in a north-south direction with a line spacing of 100 metres; tie lines were flown perpendicular with a spacing of 1,000 metres. Terrain clearances were 43 and 69 metres for the electromagnetic and magnetic sensors, respectively.

The airborne survey was unable to detect conductive horizons caused by the sulphide bearing veins that host the gold mineralization at Curraghinalt. However, the conductivity, apparent resistivity, and magnetic signatures were able to resolve stratigraphic subdivisions and contacts.

In addition to the airborne geophysical survey, Dalradian initiated a detailed soil geochemistry survey on licence DG1 to extend the existing geochemistry grid (Figure 14). A gold-in-soil anomaly was interpreted in the Alwories area (Anomaly A on Figure 14), and was followed up with drilling in the summer of 2012.

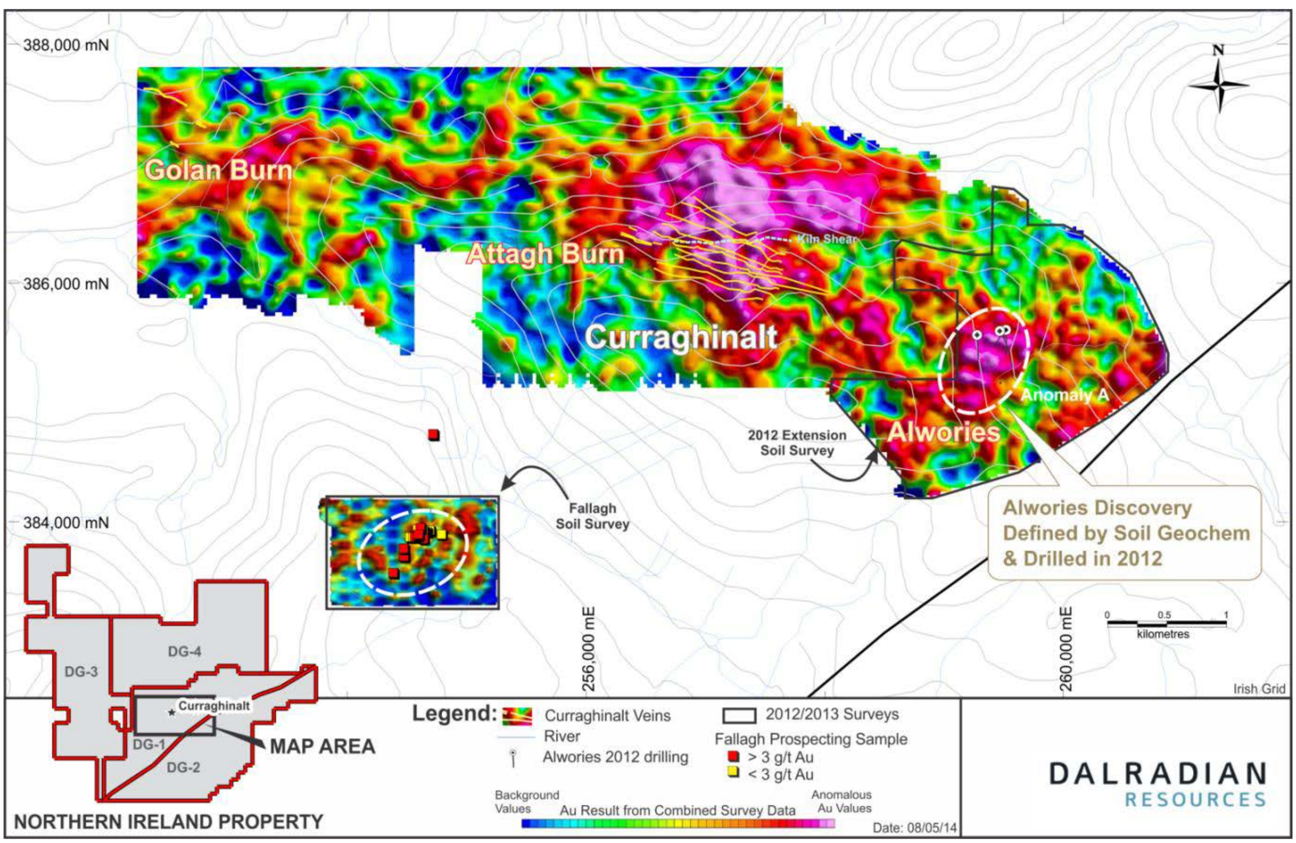


Figure 14: 2012 Curraghinalt East Soil Survey Area

A second soil survey was initiated in the Fallagh area in late 2012 (Figure 14). Based on encouraging gold-in-soil results, Dalradian completed trench 13-FA-T01. Although bedrock mineralization was not intersected, a sample of quartz-carbonate vein in the till within the trench yielded 14.65 g/t gold; a float sample discovered near the trench returned 91.5 g/t gold.

Prospecting was carried out concurrently with the soil survey on license DG1, and as a separate campaign on the other three licences. On DG1, 185 samples were collected, with 63 of them yielding results above 1 g/t gold. On license DG3, a total of 313 bedrock and float samples were collected, and a total of 30 samples returned results in excess of 0.5 g/t gold. The most anomalous results were returned from the known prospects of Bessy Bell, Pollan Burn/Gortin Glen, and Rylagh/Erganagh. On DG4, a total of 168 bedrock and float samples were collected, but only three samples returned results in excess of 0.5 g/t gold.

In the Glenlark area, 52 panned concentrate samples were collected, following-up on three boreholes completed in the area.

8.3 Exploration 2014 – 2016

Between 2014 and 2016, Dalradian continued to explore across the entire tenement, but focused most work on the Curraghinalt deposit area. Table 14 summarizes the exploration work completed in this time frame. The location of prospecting, soil, and stream samples are shown in Figure 12.

Several outcropping veins exposed over 3 to 4 metres on license DG3 were sampled during prospecting at Rylagh. One sub-horizontal vein returned a result of 139.5 g/t gold and follow-up duplicate samples returned assays of 168.0 g/t gold and 42.4 g/t gold from selective grab samples. A programme of deep overburden sampling was completed in early 2016, yielding a multi-element anomaly adjacent to outcropping veins in a stream section.

Table 14: Summary of Exploration Work by Dalradian between 2014 and 2016

Licence Area	Work Completed	Area
DG1	40 prospecting samples 73 soil samples 225 deep overburden samples Underground face samples Core drilling Underground development programme	Various Omagh Thrust Fault Transect Fallagh Curraghinalt Curraghinalt & Alwories Curraghinalt
DG2	11 prospecting samples 673 soil samples 345 deep overburden samples	Various Formil & Mulnafye Crosh & Formil
DG3	15 prospecting samples 808 soil samples 32 stream sediment samples	Various Bready, Bessy Bell, Dears Leap, Learden, Rylagh Bready
DG4	20 prospecting samples 355 soil samples 139 deep overburden samples	Various Knockbane Mtn, Umrycam Hill, Balix, Glensass Glensass

8.3.1 Underground Development Program

As of May 5, 2016, Dalradian completed approximately 935 metres of underground development, increasing the total development on the project to 1,735 metres with the Ennex tunneling work completed in the 1980s, including drifts, crosscuts, raises, drilling chambers, and safety bays. The development work was conducted largely via single-boom vein-runner jumbo drill, and via jack-leg stoper for the raising. An existing 1.8-metre wide and 59-metre long inclined borehole was converted to an exhaust raise and fitted with an Alimak conveyance that served as a secondary egress and means of conveying materials. At the top of the borehole a 30kW fan was installed, as were several small buildings for the storage of blasting materials.

In addition to new development, Dalradian completed the mapping of all remaining historical underground workings at either 1:250-scale or 1:500-scale, with emphasis on structural geology, vein characterization and morphology, alteration, and lithology. New development was mapped at 1:250-scale or 1:100-scale on advance during production. Subsequent detailed back-mapping along vein drives was undertaken after their completion and return of assays.

Development along veins was sampled via chip panel sampling, as described in Section 9.7, and totalled 745 samples. Sludge samples of percussion boreholes were also taken in several localities underground, totalling 70 samples and 134 samples of blasted rock (muck samples) were also taken as of June 1, 2016.

9 Drilling

Historical drilling on the Northern Ireland property dates back to the 1970s and was carried out in a number of campaigns until 2008. Most of the historical drilling was at the Curraghinalt deposit, including a number of underground boreholes completed while the Ennex adit was being excavated (Figure 15). Celtic Gold completed some drilling at the Golan Burn prospect. The remainder of the historical drilling targeted other prospects on areas of current licenses DG1 and DG2.

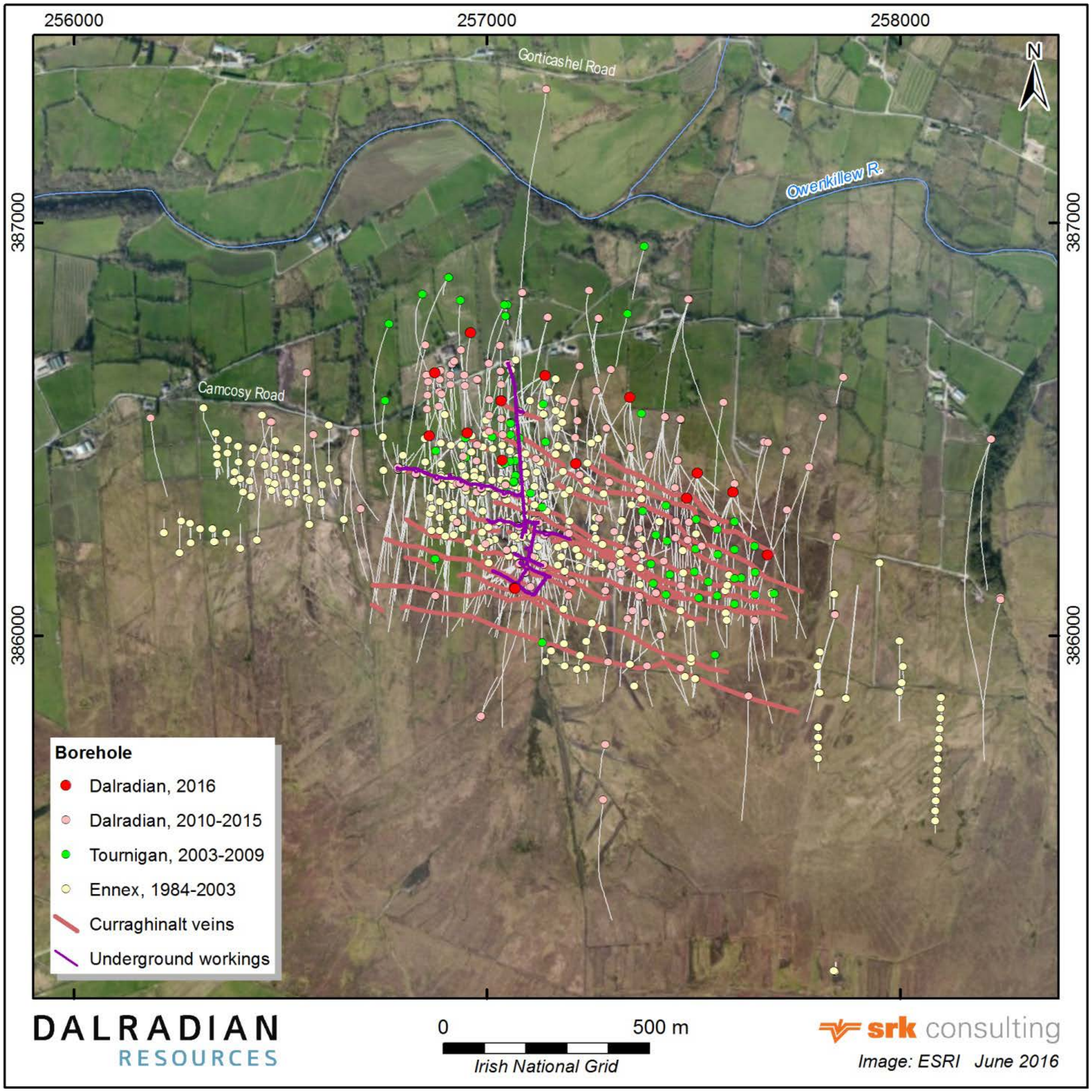


Figure 15: Distribution of Core Boreholes at the Curraghinalt Deposit

Core size for surface boreholes at Curraghinalt was generally HQ (63.5 millimetres) and BQ (36.4 millimetres). Occasionally HQ-sized boreholes were reduced to NQ (47.6 millimetres) at depth. Most of the core from former operators is stored at Dalradian's core facility in Omagh, Northern Ireland, including the Celtic Gold core from Golan Burn. Dalradian completed significant additional core drilling from 2010 to 2016.

9.1 Drilling by Riofinex (1970's)

From 1973 to 1974, Riofinex Ltd. completed seven boreholes (920 metres) on a base metal target in the Cashel Rock area in current license area DG2. None of the boreholes intersected significant mineralization.

No information exists regarding the drilling procedures or the sampling methods and approaches employed by Riofinex.

9.2 Drilling by Celtic Gold (1987)

Celtic Gold completed 55 core boreholes (3,717 metres) on the Golan Burn prospect that straddles the license boundary between current licenses DG1 and DG3. An additional 69 short, reverse circulation boreholes are mentioned by Micon (2014) but could not be verified by SRK. Salient results from the core drilling include: 6.84 grams gold per tonne (g/t gold) in borehole DG-14, 9.3 g/t gold over 0.4 metres in borehole DG-18, and 61.4 g/t gold over 0.6 metres in borehole DG-41. These boreholes were drilled outside the Curraghinalt gold deposit area.

No information exists regarding the drilling procedures or the sampling methods and approaches employed by Celtic Gold.

9.3 Drilling by Ennex (1984 – 1999)

Ennex in a joint venture with Ulster Base Metals completed two drilling programs at Curraghinalt. The first phase, between 1985 and 1989, included surface and underground core boreholes. The second phase, between 1995 and 1997, consisted of surface core boreholes. In total, Ennex completed 187 core boreholes (17,991 metres) from surface and 26 core boreholes (659 metres) from underground.

Ennex completed eight core boreholes (441 metres) in the Glenlark area in license DG1 north of the Curraghinalt deposit area. Notable intersections from borehole DDH 90-200 include 2.09 g/t gold and 3.7 g/t silver over 1.93 metres, as well as 8.19 g/t gold, 14.8 g/t silver. And 1.11 percent lead plus zinc over 0.75 metres (CSA, 1987)

In addition, Ennex completed 21 core boreholes (1,348 metres) in the Cashel Rock area on the DG2 license. A small number of thick very low anomalous gold zones were intersected (up to 145 metres grading 0.4 g/t gold), with some shorter, higher grade core length intervals, including 4.3 g/t gold over 5.45 metres, 1.3 g/t gold over 6.9 metres, and 30.6 g/t gold over 3.63 metres. In addition, Ennex completed 14 reconnaissance core boreholes in the Tyrone Volcanic Group rocks, including four at each Formil (324 metres) and Cashel Bridge (249 metres), six at Aghascrebagh-Crouk (442 metres), and six other (258 metres).

Drilling procedures used by Ennex remain undocumented. After completion of boreholes, collars were cemented. During the 1980s, collar surveys were conducted by measuring the distance from a known baseline. Collars of boreholes completed in the 1990s were surveyed using a total station and/or GPS receivers. Surveys were conducted by John Barnett and Associates Ltd. and Land Survey Services in the 1980s and 1990s, respectively.

9.3.1 Underground Sampling by Ennex (1987 - 1989)

During the original development of the Curraghinalt adit from 1987 to 1989, Ennex completed an underground sampling program, including back, face, wall, and muck samples along the length of the Sheep Dip, T17, and No.1 drifts. The current database contains 310 historical Ennex underground channels (485 metres) for a total of 910 samples. Individual sample lengths varies between 4 centimetres and 1.52 metres, with an average length of 0.52 metre.

Face samples were taken daily, or very regularly, and have accompanying face maps that show rough sketches of vein and mineralization position, along with indications of structure and lithology. The maps are not to scale, and they lack structure measurements and channel location on the face.

Back channel samples were taken along the back of the Sheep Dip, T17, and No.1 drifts. Back sampling was done after face and muck sampling, in between existing channels to achieve a maximum distance of 1 metre between channels.

Wall samples were taken in place of back samples, where the ground was less competent, or where the main vein was present only along the wall. A series of muck samples were also taken during drift development, with one muck sample taken per eight trams of rock mucked from each heading.

Information about channel sampling can be found plotted on historical maps, as well as documented in monthly reports and on individual face map sheets for the No.1, T17, and Sheep Dip drifts. Channel sample information was digitally compiled in 1999 in Techbase software, along with all other historical assay information. Techbase exports were used initially to populate the main database at the time.

Historical underground sampling was reviewed and verified in 2014 by Dalradian staff.

9.4 Drilling by Nickelodeon (1999)

Nickelodeon did not complete any drilling on the project area, but carried out additional sampling on existing core.

No information exists regarding the sampling methods and approaches employed by Nickelodeon for sampling of historical core.

9.5 Drilling by Tournigan (2003 – 2008)

Tournigan completed 59 core boreholes (12,565 metres) between 2003 and 2008. Tournigan contracted Irish Drilling Limited (Irish Drilling) based in Loughrea, County Galway to perform all drilling on the project. Drilling equipment consisted of Boyles Brothers 37, mounted on a Go-Tract 1000. The majority of the drilling was carried out using HQ-size equipment. NQ-sized equipment was used in difficult drilling situations where HQ-sized casing was required. Each drill site was located with a GPS receiver, staked, and then photographed prior to moving the drill rig onto the site. Down-hole surveys were completed on all boreholes using an Encore Reflexit smart multi-shot tool instrument at the bottom of the borehole and every 6 metres to the casing. Tully (2005) reports that a Tropari survey instrument was used for the first four boreholes in the Tournigan program. On completion of a borehole, Celtic Surveys Ltd. surveyed the collar using the Irish National Grid to the nearest centimetre. All sites were cleared on completion and re-photographed.

Core was delivered daily from the drill site to the core shed by Irish Drilling and placed sequentially on trestles. A geologist checked all the core markers, measuring between them to identify any lost core and potential tag s. Core was orientated and logged on 1:100 purpose-designed logging sheets. Logging information included lithologies, structure, alteration, rock quality data (RQD), mineralization, and any other observations deemed important. Core recovery varied from 90 percent to 97 percent except in pelitic units and fault zones. Based on recommendation made by Micon in the summer of 2007, Tournigan started to photograph vein intersections as part of the routine logging procedures.

Once core was logged, vein material was sampled. According to Tully (2005), all quartz vein material within known vein systems was sampled. Vein material with high sulphide or breccia content was usually sampled separately. Sample lengths varied from 0.25 to 0.5 metres in primary veins, and 5 to 15 centimetres in undefined smaller adjacent veins. In addition to vein material, Tournigan took additional samples from wall rock adjacent to sampled vein material.

9.6 Drilling by Dalradian (2010 – 2016)

Since acquiring the project in 2010, Dalradian has completed 314 core boreholes (100,423 metres) from surface and underground stations in the Curraghinalt deposit area (Figure 15). In addition, Dalradian completed 32 core boreholes (9,042 metres) on regional targets elsewhere on the property (Table 15).

Drilling was carried out by Irish Drilling until 2012, when Dalradian commissioned Major Drilling Group International Inc. (Major) to perform drilling tasks. In October 2015, Dalradian signed an additional contract for drilling operations with Mason & St John Ltd. (Mason). In December 2015, two more drills were mobilised to site by Priority Drilling. Underground drilling was completed in January 2016, and the surface drilling was completed in February 2016. A short underground drilling program was completed between March and April 2016 for stope definition.

Similar to procedures used by Tournigan, surface drilling primarily used HQ-sized equipment. NQ-sized equipment was used where ground conditions required a reduction in core size. Since April 2015, Dalradian has used an ACT 2 tool for oriented core. Starting in October 2015, all surface drilling was completed using triple tube equipment. The vast majority of boreholes are drilled towards the south or the south-southwest in order to intercept the generally north-northeasterly dipping gold mineralized veins.

Table 15: Summary of Drilling at Regional Targets Completed by Dalradian

Target	Number of Boreholes	Metres Drilled	Year
Alwories	19	6272.7	2012 and 2015
Broughderg	2	525.0	2011
Cashel Rock	2	402.5	2011 and 2012
Glenlark	3	651.0	2012
Glenmacoffer	3	594.1	2013
Scotchtown	2	351.6	2011 and 2012
Tullybrick	1	244.8	2011
Total	**32**	**9,041.7**	

Collar locations were identified using GPS receivers prior to drilling; drills were oriented using a compass. Prior to 2015, all collars were independently surveyed once drilling was completed. Starting in 2015 all collars are surveyed by Dalradian surveyors using a total station. Down-hole surveys were carried out by drill operators during active drilling using a single shot Reflex EZ-Trac instrument. The boreholes were subsequently resurveyed upon completion using a Reflex multi-shot tool with readings taken every 6 metres.

Underground drilling utilized NQ-size equipment until October 2015, when Dalradian switched to triple tube NQ3 equipment. Front-sight and back-sights were installed by the underground surveyors for reference by drill crews on set-up via string line. Borehole specifications were +/- 3 degrees on azimuth and +/- 2 degrees on dip. In cases where a borehole was not within the design parameters, the borehole in question would be re-collared. Completed underground boreholes were labeled by the drillers with a wooden wedge and aluminum tag. Upon completion of drilling at a station, Dalradian underground surveyors surveyed the borehole collar locations and calculated the collar azimuth and dip of the borehole by surveying two prisms mounted in a steel pipe partly inserted into the borehole.

Until 2011, core was brought from drill sites to the core logging facility located in Gortin at the end of each day, where core was logged by the Geologists and stored in Gortin. In 2011Dalradian's core logging and storage facilities moved to Omagh, approximately 15 kilometres from Gortin. Since then, core is securely stored overnight in Gortin before being transported to Omagh where logging and sampling as well as final storage occurs. Underground core is transported directly to the Omagh facilities.

Core logging procedures have been updated from time to time to improve certain aspects of the procedures. Logging was carried out by geologists assigned to the project by Aurum until July 2011, and subsequently by Dalradian staff.

Tournigan initiated photography of all vein material in August 2007. Presently, Dalradian photographs all core, and the photographic record, along with a digital copy of the striplog and backup of recorded data are stored in a separate file for each borehole. A historical re-photographing program was initiated in conjunction with the historical core evaluation project (HCEP) and remains ongoing, to date three quarters of the historical core has been photographed.

Until 2012, Dalradian's sampling approach was as follows. All sulphide-bearing quartz vein material intersected by drilling was sampled. A geologist selected core sample intervals with a length between 0.1 and 0.3 metre. The 0.3-metre sample length was selected so that an entire sample could be pulverized at the laboratory, eliminating the need to split the crushed sample. Samples in unmineralized wall rock had lengths of up to 1 metre. Sample intervals honored geological contacts, including mineralization styles.

Sample intervals were marked on the core as well as on core boxes. Core was sawn lengthwise for sampling. Preprinted sample tags were used; one part of the tag was stapled to the core box, while another was placed with the half-core sample in a numbered sample bag. Brief mineralogical descriptions of individual samples were added to the sample tags. The second half of the sawn core remained in the core box for reference. Sample numbers were verified at the end of a shift and individual sample bags were placed in large, pre-addressed plastic bags for shipment. The large bags were sealed with cable ties.

All core was brought from the drills at the end of shift, and was stored in a rented lockable storage facility on the main street of Gortin, across the road from the field office. Until November 2011, core was sawn at a nearby farm, and core boxes with unmineralized core were stored in a concrete-floored barn at that location. Core boxes with mineralized core were returned to the industrial building where they were kept under lock and key. In November 2011, Dalradian leased a new office and core facility in nearby Omagh, where all logging, sampling, and storage took place. The Omagh facility is located in a secure fenced area. The core storage and logging facility is kept locked when unoccupied. Unshipped samples are also stored at this location.

In September 2012, Dalradian revised their logging and sampling procedures. Prior to core logging, core was aligned such that the foliation trended from the upper left of the core boxes to the lower right. The core was washed and inspected for out-of-sequence core pieces. At this point, metre blocks added by the drill crew were verified. Every metre was marked on the core to aid in recovery assessment, RQD measurements, and logging. Sampling intervals (From and To) was marked on the core boxes. Sample tags for analytical quality control samples were added to the core boxes to preserve a continuous series of sample numbers.

In February 2015, Dalradian revisited the sampling procedures again and made the following changes to account for oriented core. Core was placed in an angle iron and each piece locked together in order to achieve an accurate orientation of the core. An orientation line was drawn along the core with blue crayon to mark the bottom of the borehole, metre marks were drawn on the core, and the core was returned to the core box. The protocols for the selection of sampling intervals also changed:

- D veins are sampled with a minimum sample length of 0.25 metre and a maximum length of 0.50 metre. The sample length was adjusted to correlate with the 0.50-metre composite length used for geology and mineral resource modelling.
- C veining and sericitic-chloritic altered shear intervals were sampled at intervals from 0.25 to 1.0 metre.
- Where a vein intersection is expected based on the geological model, but the core shows no veining, structures or alteration will be sampled at 0.5-metre intervals.
- A minimum of two samples are taken before and after the selected sample interval, these samples are up to 1.0 metre in length.

9.6.1 Underground Core Sampling by Dalradian (2013 – 2016)

Underground core was sealed with a lid at the drill rig and boxes were transported out of the adit and placed directly on the core delivery truck each day. Underground muck and chip samples were also placed on the core delivery truck by the geologist. The core truck was parked overnight at the secure local site, and all samples were transported the following morning to the Omagh logging facilities. Logging of core from underground drilling follows the same procedures applied to core from surface drilling. Underground chip and muck samples were labelled, packaged, and shipped similar to core samples.

9.6.2 Sampling of Historical Core

In 2013, Dalradian re-logged and re-sampled archived core of surface boreholes drilled in the central area of the deposit, 12,061 metres were relogged and 12,790 samples were collected. As part of the resampling program, Dalradian also photographed the core.

In 2015, Dalradian acquired the core from the boreholes drilled by Celtic Gold. These were transported to Omagh and relogged, verified, and selectively sampled, 292 additional samples were taken.

9.7 Underground Sampling by Dalradian (2013 – 2016)

In 2013, Dalradian completed an initial underground channel sampling program. Sampling involved cutting a 4-centimetre-wide channel along the wall of the main tunnel. The majority of the channels were cut on the western wall, except through the cross-cuts of the T17 and No.1 drifts where the channels were cut on the eastern wall. Cutting and sampling was not possible in certain limited zones due to support structures in place. In total, 450 individual samples were collected.

Dalradian continued underground sampling in 2015 and 2016. Sampling was carried out in the underground development along veins during advance, across the full width of the face for each round (typically 3 metres in horizontal drifting and 1.8 metres in raising). After washing the active development face, the geology of the round was described in detail and mapped (at chest height) at 1:250-scale. This mapping served as the basis for the sampling. Distinct geological and alteration zones were sampled separately via panel chip sampling. The locations of samples were measured using a laser rangefinder referencing a surveyed control point.

Samples were collected by taking small chips on a regular grid with a rock hammer. Since samples were delineated by geological domains, no strict minimum horizontal thickness applied to the zone of interest. Maximum horizontal sampling width generally did not exceed one metre.

The production geologist collected 4 to 5 kilograms of material per sample from the face, comprising chips of about 3 to 5 centimetres in diameter. Panel style sampling resulted in a composite of material confined to the sample zone, from approximately two thirds of the height of the face and, in the case of samples from the mineralized zone, in volumetric proportion based on relative abundance of mineralization versus gangue. Due to blasting, it was found that sulphide and quartz-carbonate gangue were equally fractured on the face, ensuring that neither material was over-sampled due to the ease or difficulty of collection. Sample collection along raising in the V75 stope block was made in the same way as described above, except that the east and west ribs were both sampled.

Samples were placed in labelled bags along with sample tags, and secured with cable ties. The horizontal interval of the sample was recorded in a sample book and added to the database at the end of the day. Other information also recorded included the date and shift, heading and vein name, dimensions of the face and distance from a control point, vein thickness, and dip, estimate of face grade, drift azimuth, and sample descriptions. A digital, georeferenced photo was taken of the cleaned, sampled, painted face as evidence of what was sampled.

9.8 SRK Comments

SRK reviewed the core logging and sampling procedures used by Dalradian and, as far as known, by previous operators. In the opinion of SRK, the core logging and sampling procedures used by Dalradian are consistent with generally accepted industry best practices and are, therefore, adequate for an advanced exploration project. Drilling, core logging and sampling procedures followed by previous operators are, in part, difficult to assess; however, after analysis of exploration data, SRK considers that historical data are sufficiently reliable to inform geology and mineral resource models.

10 Sample Preparation, Analyses, and Security

Exploration samples collected by Ennex, Tournigan, and Dalradian since 1984 were submitted to OMAC Laboratories Ltd. (OMAC Labs) in Loughrea, Ireland. Nickelodeon submitted samples to Chemex Labs Limited (Chemex) in Vancouver for sample preparation and analyses. Both facilities are independent, commercial geochemical laboratories that operated independently from the companies. No information exists regarding laboratories used by Riofinex and Celtic Gold.

Tournigan used an unspecified laboratory operated by ALS Chemex in Canada for umpire testing of samples from core collected by Ennex.

Dalradian used Geolabs Ltd. (Geolabs) in Birmingham, England for geotechnical testing of select samples. Geolabs is accredited to ISO 17025:2005 by the United Kingdom Accreditation Service, issue number 013 for tests used by Dalradian.

OMAC Labs was acquired in July 2011 by the ALS group of laboratories, and is currently operating as ALS Loughrea, although OMAC Labs remains the official business name that appears on all assay certificates. ISO 9000 series standards were first published in 1987, and the ISO 17025 standard was first published in 1999 and as such could not have been applied during the early part of the exploration history of this project. Since 2006, OMAC Labs and subsequently ALS Loughrea have been accredited to ISO 17025 for geochemical analyses, including those used by Dalradian. The laboratory is accredited by the Irish National Accreditation Board (INAB), with Registration Number 173T.

10.1 Riofinex (1970s)

No information exists about sample preparation procedures, analytical techniques, and sample security employed by Riofinex in the 1970s.

10.2 Celtic Gold (1987)

No information exists about sample preparation procedures, analytical techniques, and sample security employed by Celtic Gold in 1987.

10.3 Ennex (1984 – 1999)

Sample preparation, analyses and security procedures for core samples taken by Ennex are poorly documented and are therefore difficult to review. SRK understands that samples were assayed for gold using a mix of wet assay methods and fire assay methods. For a large number of samples the assay method is undocumented. Sample sizes comprised 30- and 50-gram charges. The preparation techniques are undocumented; assaying techniques are only partly documented. Assay records are preserved on paper logs, and have been digitized by Dalradian.

10.4 Underground Sampling by Ennex (1987 – 1989)

Sample preparation, analyses, and security procedures for underground chip samples taken by Ennex are undocumented. However, SRK considers that underground samples were treated the same way surface core samples were processed.

10.5 Nickelodeon (1999)

No information exists regarding sample preparation and analysis, or sample security for samples taken by Nickelodeon.

10.6 Tournigan (2003 – 2008)

Sample preparation and analytical procedures are described in Micon (2007). Samples were dried and crushed to less than 2 millimetres using a jaw crusher. The crushed samples was split using a riffle splitter, and a 1 kilogram subsample was pulverized to 100 micrometres.

Gold was analyzed using a 50-gram sample by fire assay with an atomic absorption spectroscopy finish (Package AU4). Approximately 10 percent of all samples were subjected to repeat analysis using packages AU5 and AU1 comprising a 30-gram subsamples digested in a concentrated aqua regia solution, extracted with methyl isobutyl ketone (MIBK) and analyzed by atomic adsorption spectroscopy. A further 10 percent of this sample suite was re-analyzed using the same methodology.

10.7 Dalradian (2010 – 2016)

Sample preparation and analytical procedures used by Dalradian largely mirror those by Tournigan, with the exception of using almost exclusively 50-gram charges for fire assay analyses (OMAC Labs code Au-AA26). Samples grading over 100 g/t gold were re-analyzed with a gravimetric finish (OMAC Labs code Au-GRA22). Gold analyses by fire assay with gravimetric finish were conducted on 50-gram charges to increase accuracy compared to analyses conducted on 30-gram charges.

10.8 Specific Gravity Data

Specific gravity of various rock types and vein mineralization was measured by Tournigan and Dalradian using a water immersion method. A total of 2,518 specific gravity measurements were provided to SRK on core intervals, including 668 located within the modelled shear veins. The average specific gravity within the shear veins is 2.8.

A bilinear relationship between sulphide content and density exists within the veins. The relationship of sulphur and specific gravity measurements was used to model the specific gravity of the quartz vein domains considered for mineral resource evaluation (see Section 13.4 below).

The average waste rock density of pelite, semi-pelite, and psammite combined, containing no shear veins is 2.73.

10.9 Quality Assurance and Quality Control Programs

Quality control measures are typically set in place to ensure the reliability and trustworthiness of the exploration data. These measures include written field procedures and independent verifications of aspects such as drilling, surveying, sampling and assaying, data management, and database integrity. Appropriate documentation of quality control measures and regular analysis of quality control data are important as a safeguard for project data and form the basis for the quality assurance program implemented during exploration.

Analytical control measures typically involve internal and external laboratory control measures implemented to monitor the precision and accuracy of the sampling, preparation, and assaying process. They are also important to prevent sample mix-up and to monitor the voluntary or inadvertent contamination of samples.

Assaying protocols typically involve regularly duplicating and replicating assays and inserting quality control samples to monitor the reliability of assaying results throughout the sampling and assaying process. Check assaying is normally performed as an additional test of the reliability of assaying results. It generally involves re-assaying a set number of sample rejects and pulps at a secondary umpire laboratory.

10.9.1 Ennex (1984 – 1999)

There is no evidence that Ennex used an analytical quality assurance and quality control program.

10.9.2 Nickelodeon (1999)

Nickelodeon did not institute an analytical quality assurance and quality control program for its resampling program of historical Ennex core.

10.9.3 Tournigan (2003 – 2008)

Tournigan instituted an analytical quality assurance and quality control program for core samples involving the use of blanks and certified reference material samples. Tournigan further relied on pulp duplicate testing carried out as part of the internal laboratory quality control program routinely maintained by OMAC labs to monitor analytical results on an on-going basis. Tournigan's analytical quality control program is described by Micon (2007).

Commercial certified reference material (over a range of gold grades) were sourced from CDN Resource Laboratories Ltd. of Langley, BC (CDN-GS-XX) and Rocklabs Limited (Rocklabs) of Auckland, New Zealand. Use of reference material from Rocklabs was limited to two occurrences in the database reviewed by SRK. The specifications of the control samples used by Tournigan are summarized in Table 16. According to Micon (2007), blank material was sourced from limestone from the Irish Midlands, near Lisheen. The insertion rate of standard reference material and blank samples was approximately one in 10 samples.

According to Micon (2007), results from analytical quality control samples were monitored on an on-going basis to ensure reliability of analytical results delivered by the primary laboratories used. SRK was unable to determine performance gates implemented by Tournigan that determined when certain assay batches were sent for re-assay based on the performance of analytical quality control samples submitted with the regular assay stream.

Table 16: Summary of Samples Used by Tournigan (2003-2009)

Control Sample	Au ppm	SD* ppm	Control Sample	Au ppm	SD* ppm
CDN-GS-11	3.40	0.14	CDN-GS-12	9.98	0.37
CDN-GS-3B	3.47	0.13	CDN-GS-15A	14.83	0.31
CDN-GS-5C	4.74	0.24	CDN-GS-15	15.31	0.29
CDN-GS-5a	5.10	0.14	CDN-GS-20	20.60	0.34
CDN-GS-6P5	6.74	0.23	SH35	1.32	0.04
CDN-GS-14	7.47	0.31	SN38	8.57	0.16
CDN-GS-10A	9.78	0.27			

* SD = standard deviation

In addition to analytical quality control procedures implemented on samples collected by Tournigan, Tournigan submitted 43 samples from historical core drilled by Ennex for umpire assaying to OMAC labs as well as to a laboratory operated by ALS Chemex at an unspecified location in Canada.

10.9.4 Dalradian (2010 – 2016)

Dalradian continued to apply the same analytical quality control procedures first introduced by Tournigan. During the first phase of underground channel sampling in 2013, Dalradian did not use analytical quality control samples. Chip sampling procedures in 2015 were adjusted to mirror the insertion rate of analytical quality control samples to that of core samples. During the first years of operation by Dalradian, the number of reference materials was high. More recently, Dalradian has reduced the number of reference material types to streamline the data analysis. Table 17 summarizes the standard reference material used by Dalradian between 2010 and 2016.

Blank material continued to be sourced from limestone from the Lisheen area in the Midlands of Ireland. The insertion rate of blank and standard reference material was approximately 1 in 10 and one in 15, respectively.

Table 17: Summary Control Samples used by Dalradian on the Curraghinalt Gold Deposit (2010-2016)

Low grade Gold (0-1ppm)				Medium Grade Gold (1-5ppm)				High Grade Gold (>5 ppm)			
Standard ID	Expected Value	SD*	Inserts	Standard ID	Expected Value	SD*	Inserts	Standard ID	Expected Value	SD*	Inserts
SF67	0.835	0.021	483	SG66	1.086	0.032	233	SL46	5.867	0.170	25
SF57	0.848	0.030	42	SH35	1.323	0.044	24	SL51	5.909	0.136	80
				SH41	1.344	0.041	77	SL61	5.931	0.177	701
				SH65	1.348	0.028	48	SN38	8.573	0.158	24
				SH55	1.375	0.045	72	SN60	8.595	0.223	825
				SJ63	2.632	0.055	552	SN50	8.685	0.180	76
				SJ53	2.637	0.048	146	CDN-GS-10A	9.780	0.165	1
				SJ39	2.641	0.083	27	HiSilP1	12.050	0.368	332
				CDN-GS-5C	4.74	0.140	1	SP59	18.120	0.360	518
								SP37	18.140	0.380	98
								SP49	18.340	0.340	44
								SQ36	30.040	0.600	99
								SQ48	30.250	0.510	99
Total			**525**	**Total**			**1,180**	**Total**			**2,922**

* Standard Deviation

10.10 SRK Comments

SRK reviewed the sample handling and preparation procedures and those used by the independent certified laboratories contracted by Dalradian. In the opinion of SRK, the sampling preparation, security, and analytical procedures used by Dalradian are consistent with generally accepted industry best practices and are, therefore, adequate for an advanced exploration project. Sample handling and preparation procedures followed by previous operators are, in part, difficult to assess. However, after analysis of exploration data, SRK considers that historical data are sufficiently reliable to inform geology and mineral resource models, especially considering that exploration data collected by Ennex, Nickelodeon, and Tournigan amount to approximately 6.5 percent of all available exploration data available for the Curraghinalt project.

11 Data Verification

11.1 Verifications by Ennex

It is unclear to SRK if Ennex conducted any verification of exploration data. If such verifications were conducted they are not documented.

11.2 Verifications by Nickelodeon

It is unclear to SRK if Nickelodeon conducted any verification of exploration data. If such verifications were conducted they are not documented.

11.3 Verifications by Tournigan

Collar elevations were compared to a digital elevation model generated by BKS Surveys from aerial photography. In cases where the collar elevations measured at the borehole collar differed from the elevation of the model survey, the elevation of the borehole was adjusted to match that of the topographic survey.

Tournigan implemented a program to track the performance of assay data by inserting standard reference material, blank samples, and field duplicate samples into the general sample stream. However, it is unclear how Tournigan utilized the information from the analytical quality control samples and whether Tournigan had established performance gates to trigger re-assays of certain sample batches that performed outside of those performance gates.

11.4 Verifications by Dalradian

For the verification of drilling data, Dalradian relies partly on verification processes built into DataShed and LogChief software used for logging core and storage of data. Possible data errors such as logging interval overlaps, end-of-hole values higher than the length of the borehole, missing information etc., are detected automatically and cause error messages within the program. A manual override of information automatically added to the logging information by the software is possible.

As part of the analytical data verification, Dalradian submitted 264 samples to Activation Laboratories Ltd. (Actlabs) in Ancaster, Canada for umpire testing. The samples cover a range of gold values and were assayed by fire assay with a gravimetric finish (Actlabs method code 1A3-50 Au) on 50-gram aliquots. The analysis of this testing is shown below.

In late 2015, Dalradian commissioned OMAC Labs to investigate the performance of fire assays with atomic absorption finish using 30-gram aliquots versus 50-gram aliquots and the influence of coarse gold on the methods' performance using a screen fire assay methodology as verification. The study was conducted on 63 samples with a range of gold values from various locations within the deposit area. The results indicate that analyses conducted on 30-gram aliquots show, on average, lower gold values than those analyses conducted on 50-gram aliquots. Results from the latter sample size correlate well with assay results obtained from screen fire assays, suggesting that the occurrence of coarse gold has a direct impact on assay accuracy.

During the construction of the quartz vein wireframes, any questionable or missing borehole intervals coinciding with interpreted vein intersections were examined using Dalradian's extensive core photograph library. Some of these missing borehole intervals were due to poor recovery or fault zones. Where possible, any un-assayed intervals were identified, re-logged, cut and assayed.

11.5 Verifications by SRK

11.5.1 Site Visits

In accordance with National Instrument 43-101 guidelines, several members of the SRK team visited the Curraghinalt deposit to inspect the property, conduct field investigations, and hold discussions with Dalradian site personnel.

Dr. Couture visited the project from November 23 to 29, 2014 as part of this initial brainstorm and kick-off meeting focused on SRK work related to the preparation of a preliminary feasibility study. During the site visit, Dr. Couture examined core and underground exposures, and interviewed project personnel.

Mr. Hrabi visited the project from November 25 to December 3, 2014 to conduct underground mapping in the accessible parts of the adit, and T17 and No.1 drifts, and examined representative core intervals. The purpose of this work was to study the controls on gold mineralization, the geometry and distribution of the gold mineralized veins, and the characteristics of all fault sets cutting the deposit. Mr. Hrabi conducted a second site visit from November 22 to December 3, 2015. The purpose of this visit was to document and evaluate the quality assurance and quality control processes employed by Dalradian, including visiting the ALS Loughrea laboratory used for most the assay analyses; to conduct additional mapping in the newly developed and rehabilitated underground adit and drifts; and to examine additional oriented core from the 2015-2016 drilling program as the basis for developing a revised three-dimensional fault model for the project.

11.5.2 Database Verifications

SRK conducted a series of routine verification to ensure the reliability of the electronic data provided by Dalradian. These verifications included checking the digital data against original assay certificates, where possible. SRK audited approximately 6 percent, 8 percent, and 5 percent, of data generated by Ennex, Tournigan, and Dalradian, respectively. SRK identified only four entries errors; no issues were identified for data generated by Tournigan or Dalradian. Because a large amount of historical data informs the geology and mineral resource model, SRK performed additional verifications and validations of the historical data in order to assess the overall data quality of the exploration database and to assess possible risks associated with potentially poorly documented data. For each distinct time period, SRK assessed:

- Number of core boreholes completed
- Total number of metred drilled
- Drilling contractor(s)
- Size of the boreholes
- Whether the core is still available and if so where
- Survey method for collar and downhole surveys
- Surveying company
- Availability of other borehole data
- Sampling procedure
- Sample intervals and number of samples taken

- Analytical laboratories and analytical methods used
- Analytical quality control procedures and documentation

Historical data, especially those collected by Ennex, are poorly documented and supported by analytical quality control data. Data documentation and support improve with decreasing age of the data, culminating in well-documented and supported data collected by Dalradian during the most recent drill program. However, after concluding the data verification of all data and comparing assay data from recent resampling programs with corresponding historical data, SRK concludes that no analytical bias exists between historical and recent assay data.

A summary of the findings is shown in Appendix A.

11.5.3 Verifications of Analytical Quality Control Data

Dalradian provided SRK with external analytical control data produced between 1984 and March, 2016. The data were produced by Ennex, Nickelodeon, Tournigan, and Dalradian. All data were provided in Microsoft Excel spreadsheets; SRK understands that the information was extracted by Dalradian from the master Maxwell Geoservices Datashed database.

SRK aggregated the assay results of the external analytical control samples for further analysis. Where available, standards and blank data were summarized on time series plots to highlight the performance of the control samples. Where available, paired data (preparation, pulp, umpire, and lab internal pulp duplicate assays) were analyzed using bias charts, quantile-quantile, and relative precision plots. The data are presented in graphical format in Appendix B. The type of analytical quality control data collected by each past and present operator, and their performances are discussed below.

Ennex (1984 – 1999)

Ennex did not submit analytical quality control samples into the general sample stream. Subsequent resampling of core by Nickelodeon included analytical quality control samples. Samples were chosen randomly by laboratory staff for repeat analysis from additional pulp material.

Nickelodeon (1999)

Nickelodeon did not carry out drilling or trenching on the Curraghinalt deposit, but carried out re-sampling of existing core produced by Ennex. The analytical quality control data collected by Nickelodeon comprises 62 samples sent for analysis. SRK was unable to determine whether Nickelodeon submitted core samples, pulp, or coarse reject material to the laboratory.

Tournigan (2003 – 2008)

Tournigan implemented analytical quality control procedures comprising the insertion of standard reference material as well as preparation duplicate samples and pulp duplicate samples into the sample stream. Tournigan did not submit blank samples and did not submit samples to a secondary laboratory for umpire assaying. Approximately 10 percent of samples analyzed by the laboratory were chosen randomly by laboratory staff for repeat analysis from additional pulp material. A summary of analytical quality control data produced by Tournigan is shown in Table 18.

The performance of the control samples is largely mediocre with failure rates, defined as samples more than two standard deviations below or above the expected value, between 10 percent and 40 percent for 9 out of 13 standards used. Pulp duplicate data show good reproducibility with a correlation coefficient of 0.95.

Table 18: Summary of Analytical Quality Control Data Produced by Tournigan (2003-2008)

	Total	(%)	Comment	Gold (g/t)
Sample Count	2,442			
Blanks	444	18.18		
Standards	248	10.16		
GS-10A	19	0.78	CDN Resource Laboratories	9.78
GS-11	19	0.78	CDN Resource Laboratories	3.40
GS-12	20	0.82	CDN Resource Laboratories	9.98
GS-14	38	1.56	CDN Resource Laboratories	7.47
GS-15	39	1.60	CDN Resource Laboratories	15.31
GS-15a	10	0.41	CDN Resource Laboratories	14.83
GS-20	40	1.64	CDN Resource Laboratories	20.60
GS-3B	15	0.61	CDN Resource Laboratories	3.47
GS-5A	20	0.82	CDN Resource Laboratories	5.10
GS-5C	19	0.78	CDN Resource Laboratories	4.74
GS-6P5	9	0.37	CDN Resource Laboratories	6.74
Pulp Duplicates	350	14.33		
Preparation Duplicates	17	0.70		
Total QC Samples	**1,307**	**53.52**		

Analytical Quality Control Data by Dalradian (2010 – 2016)

Dalradian largely continued analytical quality control procedures implemented by Tournigan until late 2015 when Dalradian implemented certain changes and conducted an umpire assaying program. Approximately 10 percent of samples analyzed by the laboratory were chosen randomly by laboratory staff for repeat analysis from additional pulp material. A summary of analytical quality control data produced by Dalradian is shown in Table 19.

While Dalradian initially used a large number of standard reference materials, more recently seven different types with a range of gold values have been used consistently. Overall, the performance of these materials is acceptable with failure rates below 5 percent for those samples used most recently. The use of standard reference materials with higher failure rates (for example Rocklabs SQ48 with a failure rate of approximately 30 percent) has been discontinued by Dalradian.

Reproducibility of core assays from pulp is satisfactory with a correlation coefficient of 0.87. Similar to the performance of standard reference material, the performance of blank samples has improved significantly since 2013.

Reproducibility of assays of underground face samples from pulp is very good with a correlation coefficient of 0.99. The available dataset for this type of analytical quality control sample is small with 47 sample pairs available for analysis. However, more recent pulp duplicate data for core samples acquired in 2015 and 2016 have similarly good reproducibility with a correlation coefficient of 0.99. Hence, recent exploration data from underground face samples are comparable with those from recent core samples.

Table 19: Summary of Analytical Quality Control Data Produced by Dalradian on the Curraghinalt Gold Deposit (2010-2016)

	Total	(%)	Comment	Gold (g/t)
Sample Count	58,869			
Standards	4,627	7.9		
SF57	42	0.1	Rocklabs	0.85
SF67	483	0.8	Rocklabs	0.85
SG66	233	0.4	Rocklabs	1.09
SH35	24	0.0	Rocklabs	1.32
SH41	77	0.1	Rocklabs	1.34
SH65	48	0.1	Rocklabs	1.35
SH55	72	0.1	Rocklabs	1.38
SJ63	552	0.9	Rocklabs	2.63
SJ39	27	0.0	Rocklabs	2.64
SJ53	146	0.2	Rocklabs	2.64
CDN-GS-5C	1	0.0	CDN	4.74
SL46	25	0.0	Rocklabs	5.87
SL51	80	0.1	Rocklabs	5.91
SL61	701	1.2	Rocklabs	5.93
SN38	24	0.0	Rocklabs	8.57
SN60	825	1.4	Rocklabs	8.6
SN50	76	0.1	Rocklabs	8.69
CDN-GS-10A	1	0.0	CDN	9.78
HiSilP1	332	0.6	Rocklabs	12.05
SP59	518	0.9	Rocklabs	18.12
SP37	98	0.2	Rocklabs	18.14
SP49	44	0.1	Rocklabs	18.34
SQ36	99	0.2	Rocklabs	30.04
SQ48	99	0.2	Rocklabs	30.25
Blanks	1,455	2.5	Limestone	
Pulp Duplicates	254	0.4		
Preparation Duplicates	17	0.0		
Total QC Samples	**6,353**	**10.8**		

11.5.4 Verification of Geological Modelling

The wireframe interpretation of the boundaries of the quartz veins considered for mineral resource evaluation were constructed by Dalradian using Datamine Studio 3. This interpretation was subsequently audited by SRK. Hanging wall and footwall surfaces were constructed by creating a triangulated irregular network (TIN) with vertices defined by a set of hanging wall and footwall points for each vein. Before modelling all sample intervals were composited to 0.5 metre intervals from the top of bedrock surface down each hole, ignoring geological boundaries. Each vertices were snapped to a composite interval. The perimeter extents of the surfaces were clipped to a manually created polyline, clipped to the overburden surface as necessary, and joined to form a closed solid wireframe.

The choice of points was based on the extents of logged gold mineralized shear veins (D veins). Other vein types such as extensional veins (C veins) can also be auriferous but were only included when immediately adjacent to, or within a modelled D vein interval.

The first version of the vein wireframes examined by SRK on February 22, 2016, contained 18 wireframes. The review showed selection biases, inconsistent or contradictory interval selections irregular wireframe outer limits, or minor interval selection errors. SRK also suggested adding one splay to the Bend vein. The inconsistencies were fixed by Dalradian.

The use of compositing prior to modelling irrespective of geology boundaries introduces a false true width for the modelled veins. In some instances, small veins straddling composite contacts are extended to 1-metre width. As a result there are minor discrepancies between the location of some vein intervals in the borehole samples and the composites. Where this occurs, there is a minor selection bias that SRK considers not material.

The final geology model received on April 1, 2016 includes 20 vein wireframes combined into 16 domains.

11.6 SRK Comment

SRK carried out a detailed quality control review including the review of analytical quality control programs and their performance carried out by Ennex, Tournigan, and Dalradian between 1987 and 2016. The aim of this review was twofold: a) to verify the reliability of exploration data, and b) to identify whether historical data would impact the reliability of the exploration data as a whole.

Paired assay data examined by SRK show that assay results can be reproduced by OMAC and ALS from replicate or duplicate pulps. Rank half absolute difference (HARD) plots show for the available data sets that between approximately 60 percent and 85 percent of the samples the HARD value is below 10 percent. Dalradian also submitted sample pulps originally assayed by ALS to ActLabs for umpire laboratory testing. Approximately 82 percent of the umpire check assay pairs tested have a HARD value below 10 percent.

In the opinion of SRK, the paired data results are consistent with results expected from gold mineralization.

In the review of potential risk introduced by historical data, SRK identified the following issues:

- Lack of analytical quality control data prior to 2000
- High failure rate of blank samples during discrete periods
- High failure rate of certain control samples used

The sampling data collected by Dalradian (55,029 core samples) far outweigh historical sampling data collected by Ennex (1,551 core samples) and Tournigan (2,289 core samples) (Figure 16), significantly reducing the risk introduced by the use of historical data that may be less reliable because the associated sampling data are less well documented.

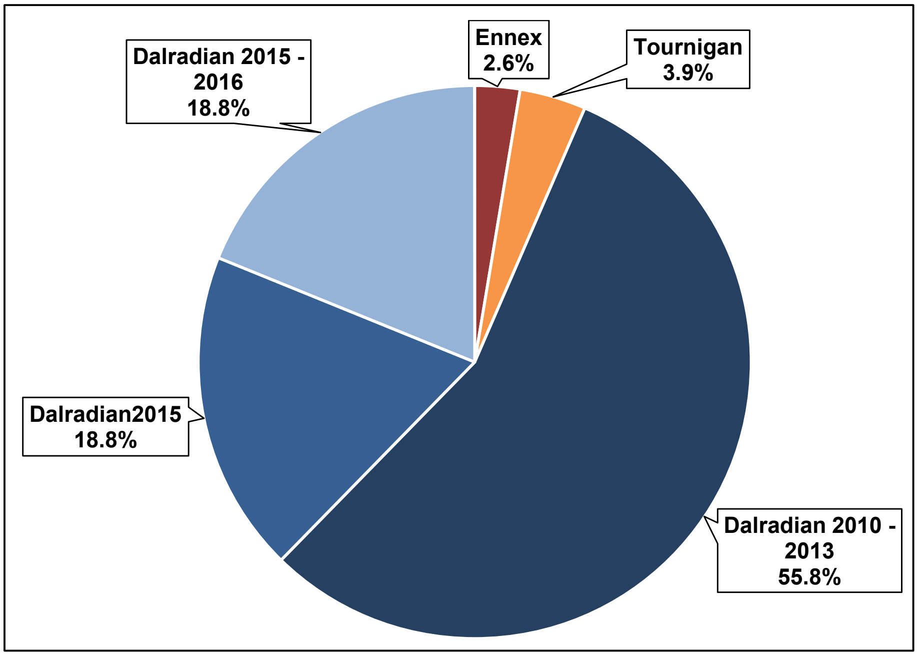


Figure 16: Distribution of Samples by Operator

SRK investigated the spatial distribution of the historical boreholes relative to the resource domains and the influence of recent resampling programs on the spatial distribution of overall recent sampling (Figure 17 and Figure 18). Much of the historical Ennex and Tournigan samples are located in areas where significant infill drilling was completed by Dalradian or along the periphery of the deposit. As a result, although the incompletely documented historical data pose a certain risk to the reliability of the geology and mineral resource model informed by these data, SRK believe that this risk is adequately mitigated by resampling and the infill drilling conducted by Dalradian.

Overall, SRK considers analytical results from core sampling conducted at Curraghinalt are globally sufficiently reliable for the purpose of resource estimation. The data examined by SRK do not present obvious evidence of analytical bias.

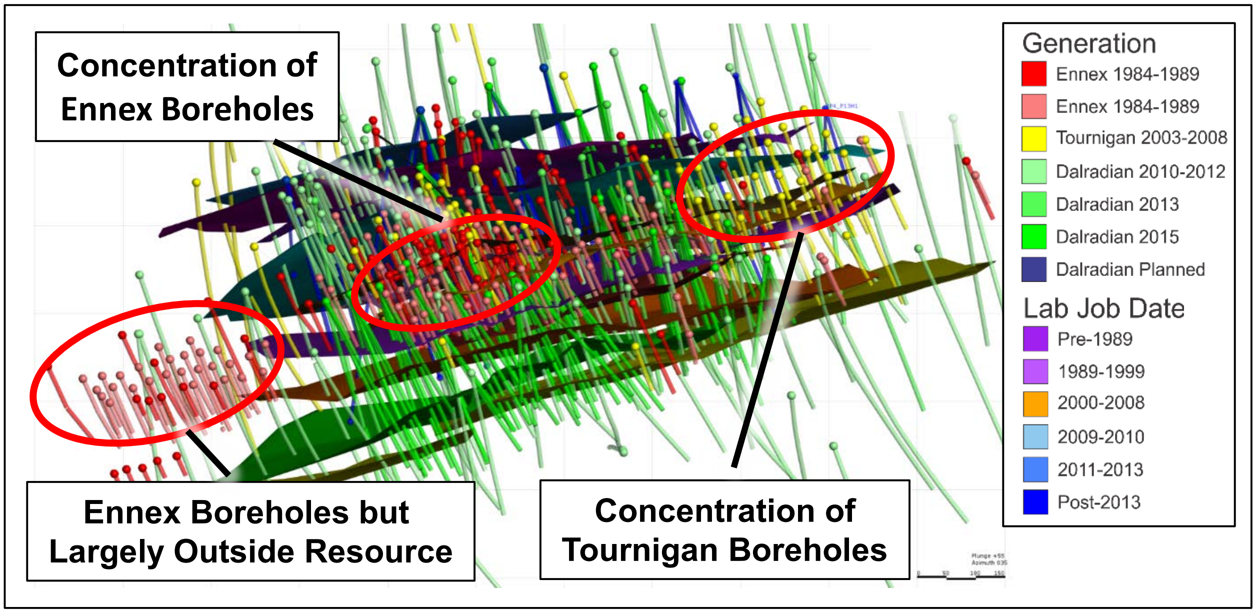


Figure 17: Oblique Section Looking Northeast Showing the Distribution of Boreholes by Generation

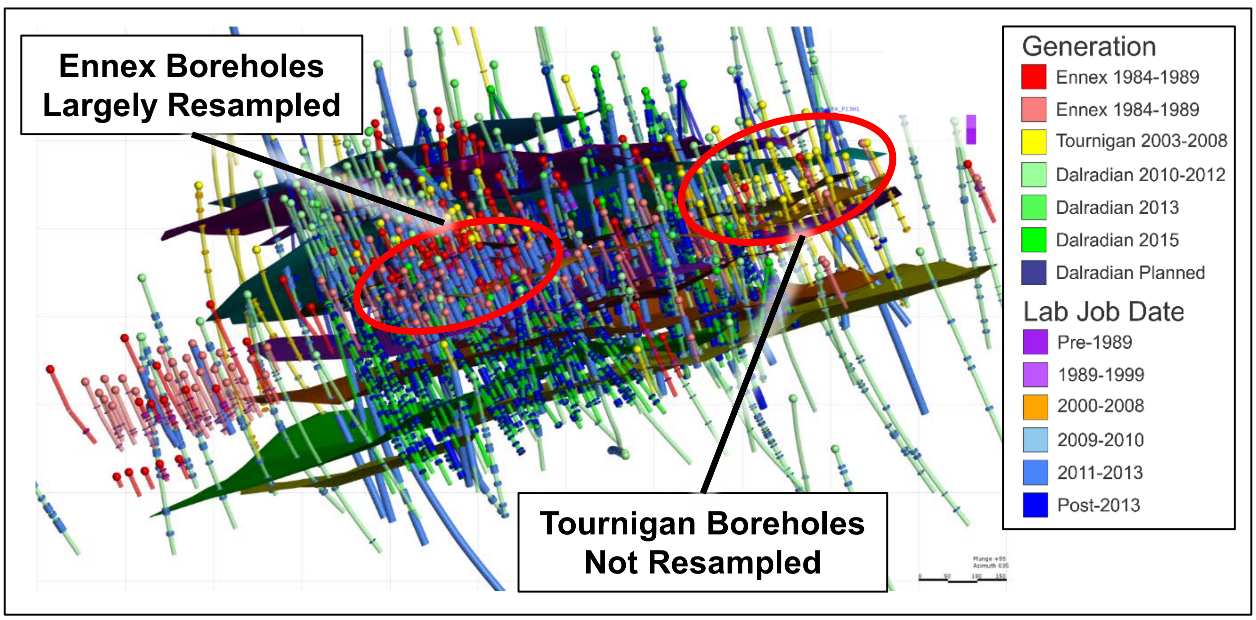


Figure 18: Oblique Section Looking Northeast Showing the Distribution of Samples by Generation

12 Mineral Processing and Metallurgical Testing

12.1 Introduction

This section describes the metallurgical test work carried out to support the proposed development of the Curraghinalt project. The metallurgical test work creating the basis of this section was summarized by JDS.

As permitted by Item 3 of Form 43-101F1 – Technical Report, published by the Canadian Securities Administrators (Form 43-101F1), the Qualified Person responsible for the preparation of this section has relied upon certain reports, opinions, and statements of certain experts who are not qualified persons. These reports, opinions, and statements, the makers of each such report, opinion, or statement, and the extent of reliance are described below.

12.2 Testing History

Previous testing was undertaken on composite samples blended from various veins and from different areas of the deposits. More recent test work was carried out on flowsheet optimization composites, constructed to represent the grade, lithology, and spatial aspects of the mineral resources, evaluating both gold and silver recoveries.

A number of test work programs have been undertaken on the Curraghinalt project since 1985, as illustrated in Table 20.

Table 20: Summary of Test Work Completed

Year	Lab	Report No.	Mineralogy	Comminution	Gravity	Flotation	Cyanidation	Solid/-Liquid Separation	Detox	Other
1985	LR	2936 Report 1	X		X					Diagnostic Leach
1986	LR	2936 Report 2		X	X	X	X			
1986	LR	2936 Report 3				X	X			
1989	LR	3588 Report 4	X		X	X	X			
1999	IME	Report No.1	X		X	X				
2012	SGS	13471-001 Final Report	X			X	X			Heavy Liquid Separation
2012	ALS	KM3258	X	X	X	X	X			
2013	ALS	KM3258 Phase II				X	X			
2013	ALS	KM3841				X	X			Minor Element
2015	ALS	KM3986	X		X	X	X			Locked Cycle Test
2015	BVM	1501204							X	
2015	P&C	DRC-32-0147	X					X		Rheology, Paste Backfill
2015	BaseMet	BL0012	X	X		X	X	X		Humidity Cell

Source: JDS, 2016

* Lakefield Research (LR), International Metallurgical and Environmental (IME), SGS Canada, Lakefield, (SGS), ALS Metallurgy, Kamloops (ALS), BV Minerals – Metallurgical Division (BVM), Paterson & Cooke (P&C), Base Met Labs (BaseMet)

Test work programs were completed by independent reputable metallurgical laboratories using primarily core samples from exploration drilling. These programs included characterization and mineralogical studies, comminution studies, gravity concentration tests, flotation, leach and settling tests. Historical test work results indicate that the mineralization responded well to flotation and to direct cyanide leaching for precious metal extraction.

12.3 Mineralogical Evaluations

12.3.1 Mineralogy

Historically, mineralogical analysis were conducted by Lakefield Research on head samples, gravity concentrate samples, T17 and Sheep Dip vein composites; by IME on high and low sulphide composites determining sulphur speciation; by SGS on both waste and vein samples; by ALS on composite and concentrate samples including, photomicrographs, BMAL and QEMSCAN work; and recently by BaseMet undertaking mineral composition of the vein composites.

Mineralogical work undertaken on Curraghinalt mineralization indicated that gold occurs in quartz-pyrite veins and is associated with variable abundances of carbonate, chalcopyrite, and minor amounts of tennantite-tetrahedrite. In general, carbonate, chalcopyrite, and tennantite-tetrahedrite are paragenetically later than quartz and pyrite, and fill fractures in the latter. Gold occurs mainly as the native metal or more rarely as electrum (>20 wt% silver) and is found primarily along fractures in pyrite, as inclusions in pyrite, and at pyrite grain contacts with carbonate and quartz. Most native gold grains are associated with carbonate, chalcopyrite, and minor amounts of tennantite-tetrahedrite, and telluride minerals. Samples from numerous veins have been assessed and it has been observed that the mineralogy is generally similar in all the veins found at the Curraghinalt project.

Table 21: Summary of Mineral Content of Vein Composites

Minerals	Composite					Minerals	Composite				
	106-16	Crow	No. 1	Sheep Dip	T17		106-16	Crow	No. 1	Sheep Dip	T17
Chalcopyrite	0.2	0.2	0.3	0.3	0.2	Quartz	59	58	60	48	49
Tetrahedrite	0.1	<0.1	<0.1	0.1	0.1	Muscovite	19	19	19	27	26
Other Sulphides	<0.1	<0.1	<0.1	<0.1	<0.1	Feldspars	5	7	5	6	6
Pyrite	6.4	4.1	5.9	3.5	5.8	Ankerite	6	7	5	4	4
						Others	4	4	5	11	8

Source: BaseMet, 2015

A sample of Master Composite 12-1A was ground to approximately 80 percent passing 106 micrometres and was submitted for BMAL and QEMSCAN analysis at ALS. The main points of interest are summarized below.

- Pyrite was the dominant sulphide mineral observed measuring approximately 5.5 percent of the feed. Minor chalcopyrite was also observed, measuring about 1 percent.
- The dominant minerals were quartz and muscovite, being approximately 51 percent and 25 percent by weight of the feed, respectively.
- The copper sulphides and pyrite were well liberated, being approximately 83 percent on average. About 16 percent of the copper sulphides were locked in binary with pyrite. The liberation data indicates that a primary grind coarser than 106 µm could be used in the rougher circuit of a flotation flowsheet.
- Chalcopyrite accounted for the majority of the copper sulphide minerals in the feed.
- Results from BaseMet mineralogy in 2015 on the vein composites indicated that the dominant copper-bearing mineral occurring in the vein composites was also chalcopyrite.

Pyrrhotite was not identified in the samples analyzed by BaseMet, by ALS, nor was it identified in the SGS test work. Pyrrhotite was only identified in a single sample in the 1986 Lakefield Research test work. The level of organic carbon in the samples studied by ALS and Basemet was also found to be negligible. The dominant minerals observed by BaseMet were quartz and muscovite at 55 percent and 22 percent on average respectively and the pyrite averaged 5.1 percent, which aligns well with the previous ALS work.

At ALS, a rougher concentrate sample was submitted for mineral examination, illustrated in the photomicrograph below, and was generated from a rougher flotation on the Master Composite 12-1A ground to approximately 80 percent passing 141 micrometres. It can be observed in these images that, as previously observed in the mineralogical analysis, the gold particles in the rougher concentrate occur primarily along fractures in pyrite or as inclusions in pyrite.

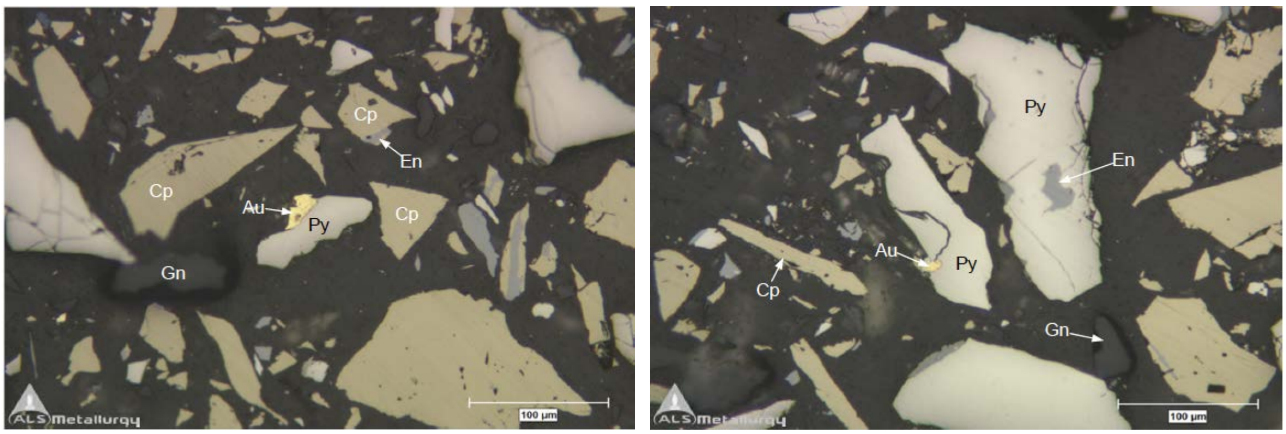


Figure 19: Photomicrograph of Rougher Concentrate (T4, KM3258)
Source: ALS, 2012

12.4 Test Work

12.4.1 Historical Metallurgical Testing

Pre-2012 Metallurgical Test work

The historical test work from 1985 to 1989 examined the amenability of the samples to gravity concentration. The gravity recovery of gold using a Wilfley table followed by cleaning on a Mozley concentrator varied from 26 percent to 52 percent. Test work undertaken in 1999 with a Knelson concentrator decreased the observed variability in the samples tested and ranged from 50 percent to 52 percent gold.

A Bond Ball Mill Work Index (BBWi) test completed by Lakefield Research in 1986 on a composite sample returned a value of 15.4 kilowatt hours per tonne (kWh/t).

Historical cyanidation test work returned metal extractions typically averaging 95 percent for gold and approximately 80 percent for silver. A grind of approximately 85 percent passing 200 mesh (75 micrometres) and a leach time of 48 hours at 1 gram per litre (g/L) sodium cyanide dose was found generally effective on whole-ore-leach (WOL). Sodium cyanide consumptions in direct cyanidation tests were variable but generally elevated between 1.0 – 2.4 kilograms per tonne (kg/t). Where solution assays were available, they showed increased copper and thiocyanate (CNS) concentrations, and it was concluded that copper sulphides were the most likely cause for the raised cyanide consumptions.

SGS undertook test work in 2011 to investigate heavy liquid separation (HLS) as a means of reducing the amount of feed material reporting to process by rejecting the waste portion that would come from the mine as dilution. The tests indicated that, using this pre-treatment of the plant feed, it was possible to reject up to 50 percent of the feed material into the waste stream; however, gold loss into the reject material was approximately 4 percent. As part of that test work program, SGS completed cyanide leach tests on samples of the rougher concentrate and rougher tailings from the sinks and float portions of the HMS test. Extractions for gold were approximately 90 percent on average, and indicated that there is likely a strong dependency on particle size, independent of grade). The sinks concentrate from the HMS test was also submitted for flotation testing. Gold and silver rougher recoveries were 99 percent and 95 percent, respectively (relative to the flotation feed), into 42 percent of the mass. This test work suggested that a relatively coarser grind is likely possible prior to flotation. The flotation results suggest that the gold occurrence is strongly associated with sulphides, which is consistent with the mineralogical observations.

2012-2015 Metallurgical Test work

A program of test work was carried out by ALS Metallurgy of Kamloops, BC on a representative composite sample. Laboratory testing was conducted using a gravity-flotation circuit, on samples ground to approximately 80 percent passing 140 micrometres prior to flotation, and produced a bulk rougher concentrate grading 82.8 g/t gold and 59 g/t silver.

ALS completed a single BBWi test on composite sample 12-1B that returned a value of 15.2 kWh/t, which agreed with the historical test completed by Lakefield Research. ALS also completed a single Abrasion Index (Ai) on that composite that returned a value of 0.1278 g.

Gravity concentration test work achieved 81 percent and 76 percent gold recovery into a concentrate of 6 percent and 5 percent mass pull for composites 12-1A and 12-1B, respectively. Additional testing achieved gold recoveries into the gravity concentrates of 61.5 percent and 67.9 percent with mass pulls of 3.1 percent and 3.4 percent, and 29.4 percent and 24.2 percent with mass pulls of 0.2 percent. These results suggest a good correlation between mass pull and gold recovery into the gravity concentrate as illustrated in Figure 20.

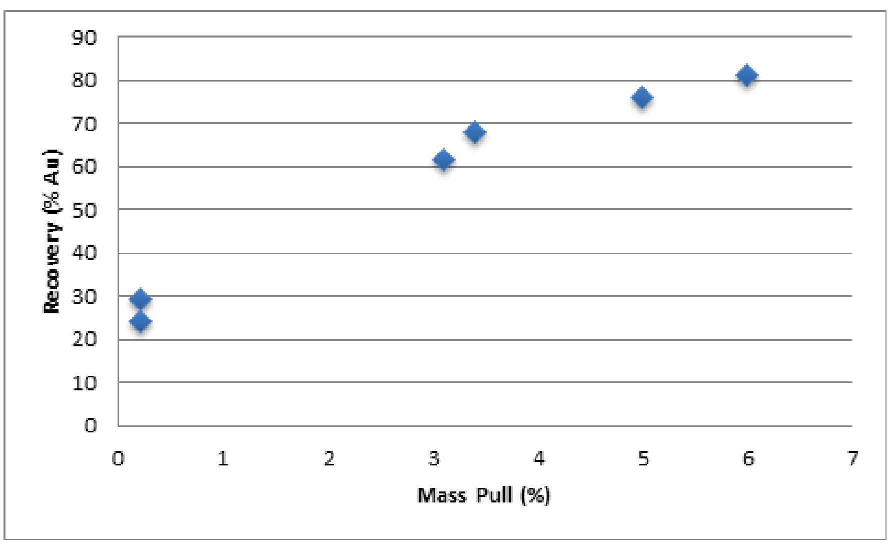


Figure 20: Gold Recovery to Gravity Concentrate with Varying Mass Percent
Source: JDS, 2016

The flotation testing by ALS focused on producing a rougher concentrate, both with and without a gravity circuit prior to flotation. Gold recoveries into the flotation concentrate without a gravity circuit were 98.8 percent to 99.4 percent (Composite 12-1A), and 94.7 percent to 95.3 percent (Composite 12-1B), and 70.0 percent to 74.6 percent (Composite 12-1A) when a gravity circuit was used ahead of the flotation circuit.

Overall gold recoveries from this test program were 99.4 percent, with 29.4 percent of the gold reporting to the gravity circuit, and 70.0 percent reporting to a bulk rougher concentrate, demonstrated a potential alternative processing method compared to the whole-ore cyanidation process used as the base-case scenario previously. Analysis of the flotation concentrate suggested a clean, saleable concentrate could be produced, with little to no significant penalty elements present.

A number of other series of WOL and flotation tests were also undertaken with the main results summarized as follows:

- Pre-aeration on the leaching process was demonstrated to not be required.
- Lead Nitrate as an additive to the leaching process was also demonstrated to not be required, which would be expected with the almost non-existent presence of pyrrhotite as observed in the mineralogy.
- The tests to determine the amount and effect of graphitic carbon in the mineralization demonstrated that there is only a minor trace amount present and that it is not deleterious to the flotation or leaching processes.
- An initial grind size evaluation determined that for the composites tested a grind of approximately 80 percent passing 141-148 μm for WOL and approximately 80 percent passing 44 micrometre for the cyanide leaching of the flotation concentrate were optimal.
- Increasing the cyanide concentration on the leach tests indicated an improvement in recovery could be achieved.

The test work program undertaken at BaseMet in Kamloops, BC in 2015, assessed the metallurgical response of two main flow sheets: WOL, and bulk flotation followed by cyanidation of the flotation concentrate, on five vein composites (106-16, No.1, T17, Crow, and Sheep Dip) and a single master composite. Vein composite grades ranged from 5.4 – 11.2g/t gold and 4.2 – 9.6g/t silver with the master composite at 8.2 g/t gold and 4.6g/t silver, whilst copper was present in all the samples, at relatively low levels of around 0.1 percent. Carbon was measured at less than 0.5 percent and again, no preg-robbing effects were observed during cyanidation.

The BBWi testing was conducted using a closing screen sizing of 212 micrometres, resulting in a product sizing averaging approximately 80 percent passing 169 micrometres. At this closing screen sizing, the five composites recorded work indices averaging 12.5 kWh/t.

Table 22: Comminution Test Result Summary

Sample ID	Bond BWi kWh/t	Abrasion Index	A x b	DWi kWh/m^3
106-16 Comp	12.8	0.108	63.4	4.27
Crow Comp	13.4	0.161	67.9	4.01
No. 1 Comp	12.7	0.122	69.9	3.96
Sheep Dip Comp	11.5	0.087	79.0	3.47
T-17 Comp	12.0	0.071	91.8	2.97

Source: BaseMet, 2015

The mineralization was measured to be moderately abrasive, with abrasion indices between 0.07 – 0.16 g and an average of 0.11 g. SMC tests resulted in an average drop weight index (DWi) of 3.7 kWh/t. These values would indicate that the Curraghinalt mineralization is moderately soft.

Rougher flotation of the master composite measured greater than 95 percent gold recovery for all of the tests, employing a primary grind size of approximately 80 percent passing 145 micrometres, and using potassium amyl xanthate (PAX) as the collector. The majority of this recovery was to the rougher concentrate with typically less than 2 percent of the gold being recovered to the scavenger concentrate. When gravity concentration was included prior to flotation, about 24 percent of the gold was recovered to the concentrate. This concentrate graded 747 g/t gold. This in turn led to the flotation concentrates obviously grading lower, however, the overall recovery of gold did not appear to be influenced by either the inclusion or exclusion of the gravity concentration stage.

Overall gold extractions were lower from the WOL tests than for the combined gravity/flotation/leach tests. For WOL, gold extraction after 48 hours measured up to 90 percent. For tests on the gravity/flotation/leach flowsheet, gold recovery measured between 90 percent and 94 percent.

For the flotation concentrates from the master composite tests, in general, gold recovery improved as the cyanide concentration increased and as the regrind size decreased. On average, across all concentrate leach tests, gold extraction was 95 percent, with the range being between 94 percent and 96 percent for the groups of sodium cyanide concentrations of 1,500 and 10,000 parts per million (ppm). Gold extraction kinetics was greatly enhanced at the higher cyanide concentration of 10,000 ppm. The high sodium cyanide concentration did also result in increased consumption during the leach stage.

Sodium cyanide consumption measured, on average, 0.8 kg/t of master composite for the lower sodium cyanide concentration leaches (1,500 and 2,000 ppm sodium cyanide) and 1.5 kg/t for the 10,000 ppm tests. Lime consumption measured on average 0.2 kg/t.

Carbon-in-leach (CIL) testing on the master composite did not appear to improve gold extraction, however, silver recorded a higher recoveries in these tests (8 percent on average). Silver recovery also increased when a higher pulp density of 50 percent solids was employed. In the remaining tests, silver recovery measured between 63 percent and 69 percent.

On the vein composites, the Sheep Dip vein had the lowest flotation gold recovery, measuring approximately 91 percent, while the Crow and 106-16 composites exhibited the highest gold recoveries of around 98 percent. The weighted average recovery from the vein composites matched that of Master Composite 15-A at 96 percent gold. Copper and silver recoveries measured, on average, 92 percent and 86 percent.

The first set of cyanidation tests on rougher concentrates from the vein composites were conducted at 1,500 ppm sodium cyanide concentration with the second set at 2,000 ppm sodium cyanide concentration. An additional test was conducted on No.1 Composite at 10,000 ppm.

In the first set of tests, the Sheep Dip composite had a lower leach recovery than the other composites, recovering only 82 percent of the gold from the flotation concentrate. Gold recovery was still increasing at the end of the test (48 hours). This composite performed much better in the second test with higher sodium cyanide concentration, during which 95 percent of the gold was recovered.

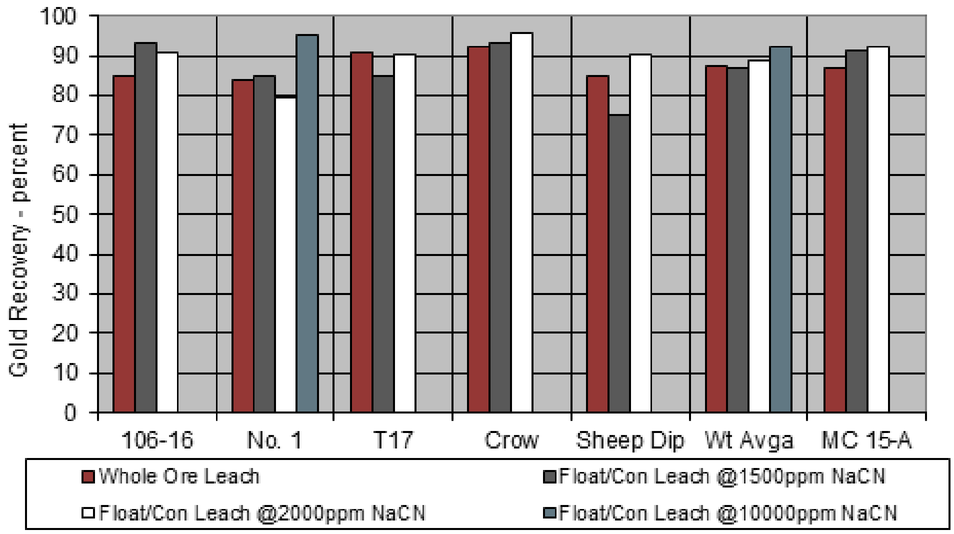


Figure 21: Gold Leach Recovery with Varying NaCN Concentrations

Source: BaseMet, 2015

Gold extractions were higher using the flowsheet involving flotation, with approximately 92 percent gold overall recovery. Sodium cyanide and lime consumptions using this flowsheet measured about 1.0 and 0.2 kg/t of flotation feed, respectively. Whole ore cyanidation resulted in, on average, about 6 percent lower gold extraction compared to the flowsheet involving flotation/cyanidation.

Higher sodium cyanide concentrations in the leaching stage were evaluated and tended to result in higher gold extractions. On the master composite, increasing the concentration from 1,500 to 2,000 ppm sodium cyanide resulted in about 1.5 percent higher gold extraction. Increasing it again from 2,000 to 10,000 ppm resulted in an additional 1.6 percent higher gold extraction and gold kinetics were greatly improved.

Copper was present in all the samples tested and given the relatively good liberation characteristics of the samples, it may be possible to produce a copper concentrate. This would lower the mass throughput feeding the cyanidation circuit, and potentially lower sodium cyanide consumption.

12.4.2 Solid-Liquid Separation Test Work

Two solid-liquid separation programs have been conducted on the Curraghinalt mineralization. The first flocculent screening and static settling tests were undertaken in July 2015 and were conducted at BaseMet on flotation tailings, concentrate, and leach residue produced from the master composite. As part of that sample testing program, both flotation tailings and detoxed leach residue samples were sent to Paterson & Cooke for solid-liquid separation testing and paste backfill assessment, whom reported on the results in September 2015.

BaseMet undertook a preliminary flocculent screening test utilizing anionic, cationic and non-anionic flocculants, resulting in the anionic (Magnafloc 156) producing the fastest settling rate and clearest supernatant in that test series. This flocculent was then tested as follows indicating that a dosage of approximately 5 – 10 g/t would produce the best overall performance.

Table 23: Static Settling Test Result Summary

Product	Dosage (g/t)	Free Settling Rate (mm/min)	Final Density (% solids)
T22 Scavenger Tailings	0	6	57.0
T22 Scavenger Tailings	2	264	54.8
T22 Scavenger Tailings	5	233	53.9
T22 Scavenger Tailings	10	353	49.9
T22 Scavenger Tailings	20	380	46.6
T22 Ro and Scav Con - Unleached	10	180	57.0
T33/34 Leach Residue	10	133	52.4

Paterson & Cooke tested the flotation tailings and detox leach residue and were able to achieve favorable settling conditions under the following conditions:

- Float Tails: 10 – 15 percent solids feed, 30 – 35 g/t anionic flocculant (Magnafloc 919) producing 64 percent solids underflow
- Detox Leach Residue: 5 – 10 percent solids feed, 20 – 25 g/t slightly anionic flocculant (Magnafloc 10) producing 64 percent solids underflow

In their flocculant screening, Paterson & Cooke did not reassess Magnafloc 156 or flocc dosages less than 15 g/t as tested by BaseMet as the objective of the Paterson & Cooke work was to produce a high underflow density for paste backfill. Paterson & Cooke was able to produce a 58.5 percent underflow density on the detox leach residue using a 10 percent solids feed density and a flocculant dose of 15 g/t.

Filtration

Filtration test work was carried out by Paterson & Cooke on flotation tailings and the methodology was designed to replicate vacuum disk filtration in terms of filter leaf submersion, form, and both dry and total cycle times. High filtration rates were measured, with increased loading observed with increased feed density and faster cycle times. The resulting cakes measured between 20 – 22 percent moisture.

12.4.3 Cyanide Detoxification Test Work

As part of the BaseMet test programs, samples were sent to the BV Minerals division of Bureau Veritas Commodities Canada Ltd., Vancouver in 2015 for detoxification test work. The SO_2/O_2 cyanide destruction process was successful in reducing the levels of Weak Acid Dissociable Cyanide (CN WAD) to the target of less than 5.0 milligrams per litre (mg/L), achieving 0.07 mg/L of CN Total and less than 0.05mg/L CN WAD.

A detox feed slurry containing 974.2 mg/L CN WAD was effectively treated and resulted in a stable final CN WAD of less than 0.05 mg/L under reaction conditions of 5.3 grams SO2 / grams CN Total, pH 8.7 and six hours of retention time, however 1.5 mg/L CN WAD was achieved after a residence time of 60 minutes under the same conditions. Copper catalyst addition was required at 0.7 grams/grams CN Total in this test work to achieve the final result.

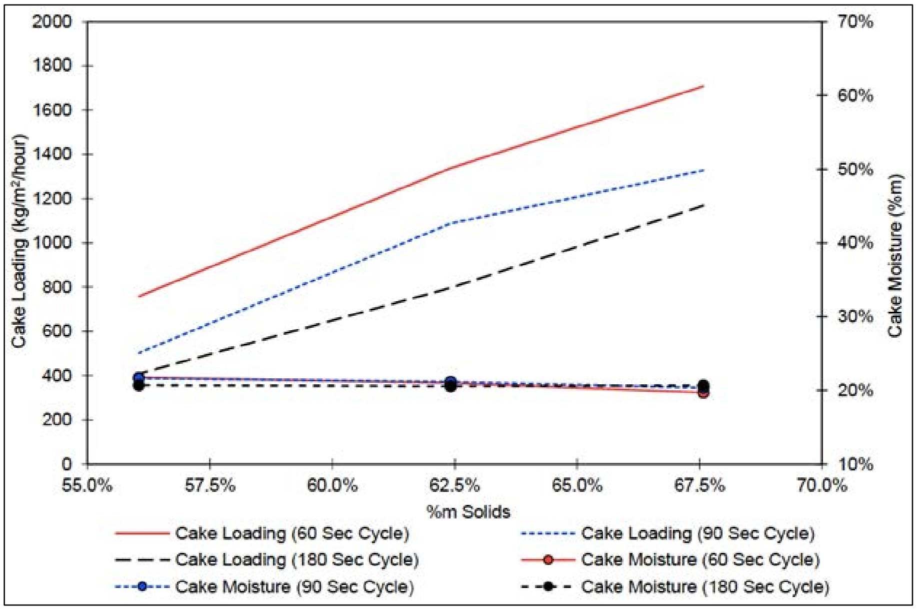


Figure 22: Vacuum Filtration Results

Source: Paterson & Cooke, 2015

12.5 Other Design Considerations

12.5.1 Mercury

Only traces of mercury have been observed in the composites sampled. Typically, if the mercury level is below 50 ppm in the process plant feed, in gold districts where mercury is present, it is not expected to be an issue downstream, either as a competitor for gold in the extraction process or for health reasons. A level of 50 ppm in the process plant feed is an experience-based guideline as it is dependent on the extraction potential of the mercury and its geological form. Above 50 ppm, mercury mitigation actions may be required.

12.6 Future Metallurgical Work

Substantial testing has been undertaken on the Curraghinalt mineralization. Additional testing that may be beneficial to the project includes:

Cyanide Addition: The test programs to date have focused on developing the preliminary process variables for leaching while attempting to improve gold recovery. There are results indicating a sodium cyanide concentration above 2000 ppm might be beneficial in improving metallurgical recoveries and this should be further optimized.

Gravity Concentration: The test work undertaken by BaseMet indicates that gravity may not be required to achieve the same overall recovery. Further test work should be undertaken to assess this.

Flotation. The preliminary flotation-leach test work has indicated that it is possible to increase the overall gold recovery by approximately 6 percent over WOL, and it is recommended that further test work be considered to more fully quantify and understand the flotation response of the mineralization.

Optimization and Variability Test Work. It is recommended that variability test work be undertaken for the flotation-leach process after process variable optimization on the selected flowsheet has been completed.

Optimum Grind. The results indicated that a coarser grind of approximately 80 percent passing 106 – 145 micrometres may provide some opportunity to add value to the project if the flotation flowsheet is selected. Additional test work would be required to gain confidence in the initial results and also in the regrind size of approximately 80 percent passing 45-50 micrometres.

Solid Liquid Separation. Although there are a number of solid-liquid separation tests, it is highly recommended that in the next phase of engineering, additional solid-liquid testing on the variability composites be undertaken to confirm the thickening and rheology design parameters.

Detoxification. Additional oxidation test work should be undertaken to optimize the cyanide detoxification process conditions.

13 Mineral Resource Estimate

13.1 Introduction

This section describes the methodology and summarizes the key assumptions considered to prepare the geology and mineral resource model. In the opinion of SRK, the resource evaluation reported herein is a reasonable representation of the global gold mineral resources of the Curraghinalt gold deposit at the current level of sampling. The mineral resources have been estimated in conformity with the widely accepted CIM *Estimation of Mineral Resource and Mineral Reserves Best Practices Guidelines* and are reported in accordance with the Canadian Securities Administrators' National Instrument 43-101. Mineral resources are not mineral reserves and have not demonstrated economic viability. There is no certainty that all or any part of the mineral resource will be converted into mineral reserve.

The construction of the geology and mineral resource model was a collaborative effort between Dalradian and SRK personnel. Vein wireframe modelling was carried out by Dr. Robert Morrison, PGeo (APGO #1723) MAusIMM (CP# 112012) of Dalradian, with review and auditing of the wireframes by Blair Hrabi, PGeo (APGO #1723) and Dominic Chartier, PGeo (OGQ #0874). Structural fault modelling was completed by Mr. Hrabi. Geostatistical analysis, variography, and mineral resource modelling were undertaken by Dr. David Machuca, with the assistance of Dr. Oy Leuangthong, PEng (PEO # 90563867). All technical work was supervised by Glen Cole, PGeo (APGO #1416) and Dr. Jean-Francois Couture, PGeo (APGO #0197).

SRK began reviewing aspects of the mineral resource modelling workflow and inputs in September 2015, with the aim to facilitate the audit process and to provide input to the fall 2015/winter 2016 drill program for which Dalradian was preparing. The initial database used for the fall 2015 mineral resource review work consisted of 470 core boreholes (98,561 metres) and 310 underground channels sampled between 1984 and up to May 2013. This review work consisted of reviewing Dalradian's capping practices, variography, estimation methodology, and classification criteria. The outcome of this early review laid the foundation for how the mineral resource estimation would be constructed following the winter 2016 drilling program. The final database for this mineral resource model has an effective date of March 2, 2016, with a total of 586 core boreholes (131,643 metres), last included borehole is 16-CT-369, and 497 underground channels sampled (1,863 metres).

Studio 3 Datamine software (version 6.5) was used by Dalradian to construct the geological solids and the mineral resource block model. SRK used a combination of Datamine, Leapfrog, Gocad, and GSLib software to audit the assay data for geostatistical analysis, construct the block model, estimate gold grades, and tabulate mineral resources.

The Mineral Resource Statement was prepared by Dr. Leuangthong and Dr. Couture, who are independent qualified persons pursuant to National Instrument 43-101. The effective date of the Audited Mineral Resource Statement for the Curraghinalt deposit is May 5, 2016. It represents the eighth mineral resource evaluation prepared for the Curraghinalt gold project.

13.2 Resource Database

The database used to evaluate the mineral resources of the Curraghinalt gold deposit includes 586 core boreholes (131,643 metres) and 497 underground channels (1,863 metres).

The drilling and chip data were acquired by Ennex (1987 – 1999), Tournigan (2003 – 2008), and Dalradian (2010 – 2016). Ennex used BQ-sized equipment for underground drilling and HQ as well as NQ-sized equipment for surface boreholes. Tournigan and Dalradian used HQ and NQ-sized equipment for all boreholes. All three companies used the smaller diameter equipment for drilling in difficult ground conditions.

The survey of borehole collars and down-hole surveys for underground boreholes completed by Ennex is undocumented. Collars of surface boreholes completed by Ennex were surveyed initially by chaining from a baseline and later using a total station and GPS receivers of unknown type. Information about down-hole survey methods are unavailable. Collar locations of boreholes completed by Tournigan were surveyed using GPS equipment. The elevations were later adjusted to coincide with a surface generated from a lidar survey. Down-hole surveys on the first four boreholes completed by Tournigan were carried out with a Tropari instrument; all later boreholes were surveyed with a Reflex multi shot tool every 6 metres. Collars of boreholes completed by Dalradian were surveyed by an independent survey company. Elevations were adjusted to coincide with a lidar-generated surface. Down-hole surveys were completed with EZ-Trac and Reflex multi-shot tools every 6 metres.

13.3 Geological Interpretation and Modelling

The bulk of the gold mineralization is hosted in narrow, parallel auriferous quartz-carbonate-sulphide veins. Twenty vein wireframes were constructed in Datamine Studio 3 by Dalradian. Related vein wireframes were combined to form 16 resource domains. A summary of the verification conducted by SRK on the vein domains is presented in Section 11.5.4.

To restrict the impact of very small sample intervals, borehole sample intervals were composited down-hole at 0.5-metre intervals from borehole collars prior to modelling the veins. The domains were modelled on the extents of logged gold mineralized shear veins (D veins), snapped to 0.5-metre fixed length composites. Other vein types such as extensional veins (C veins) can also be auriferous but were only included when immediately adjacent to, or within a modelled D vein interval. The veins were modelled as a solid by combining TIN surfaces for the hanging wall and footwall surfaces, clipped to a specific outline.

The veins generally strike west northwest and dip moderately to steeply to the north northeast at 50 to 65 degrees (Figure 9 in Section 6.3.1). The thickness of the veins is predicated by the choice of 0.5-metre composites. The true thickness of the modelled vein wireframes averages 0.73 metres but can be as much as 4 metres thick. The domains are listed in Table 24 with statistics on domain thickness for each domain.

The veins are cut by a network of late brittle faults. Each fault is typically narrow, the vein offset across each fault is usually small. A separate fault model was created but the vein wireframes were not broken across all faults to avoid creating a large number of small domains and considerably complicating resource modelling work. The block model includes a grade element for each vein block, including where intersected by a fault. The fault intersection blocks were subsequently reclassified to avoid reporting those blocks as part of the Mineral Resource Statement.

Table 24: Statistics on Vein Thickness

Domain Number	Vein Name	Vein Thickness (m) Average	Vein Thickness (m) Maximum	Thickness Percentiles (m) 25th	Thickness Percentiles (m) 50th	Thickness Percentiles (m) 75th
1	No.1	0.82	4.12	0.59	0.78	1.00
2	106-16	0.79	3.45	0.55	0.72	0.94
3	V75	0.74	2.25	0.54	0.72	0.89
4	Bend	0.71	2.44	0.49	0.65	0.84
5	Crow	0.90	3.17	0.56	0.73	1.09
6	T17	0.76	3.62	0.50	0.67	0.92
7	Mullan	0.78	3.91	0.48	0.68	0.94
8	Sheep Dip	0.59	2.17	0.46	0.57	0.69
9	Road	0.64	1.69	0.49	0.64	0.78
11	Slap Shot (East, West)	0.61	2.13	0.50	0.55	0.72
12	V55	0.63	2.40	0.46	0.55	0.74
13	Sperrin (East, West)	0.48	2.50	0.37	0.45	0.54
14	Causeway	0.69	3.12	0.50	0.64	0.80
15	Grizzly (East, Mid, and West)	0.56	1.64	0.43	0.51	0.69
16	Slap Shot Splay	0.47	1.27	0.38	0.44	0.54
17	Bend Splay	0.55	2.11	0.41	0.48	0.61
Combined		**0.73**	**4.12**	**0.49**	**0.65**	**0.86**

13.3.1 Structural Fault Modelling

A three-dimensional fault model was created based on the integration of borehole data, underground mapping, and topographic data with direct observations made during two site visits in 2014 and 2015. The data available for the modelling includes underground mapping, oriented core and televiewer data from 2015-16 boreholes, and core photographs.

Overall, the fault model is a complex network consisting of 32 faults divided into three main generations (Figure 23). These include:

- Fourteen west northwest-trending, moderately north northeast-dipping brittle-ductile fault zones and related splays that host and are coincident with the mineralized shear (fault-fill) veins at Curraghinalt
- Two major west-trending, moderately to steeply north dipping brittle-ductile shear zones that entrain and partly dismember the mineralized veins
- Sixteen brittle faults of several orientations that post-date both the mineralized veins/faults and the brittle-ductile shear zones, including:
  - Three flat to very shallowly dipping fault
  - Eleven northeast to north northeast trending faults
  - One west northwest trending brittle fault close in orientation to the vein filled faults
  - One north northeast trending, steeply dipping graphitic fault

Observations from underground mapping and core include numerous other faults that have not been modelled, either due to their narrow widths, an inability to correlate between adjacent boreholes, or small observed offsets along these faults.

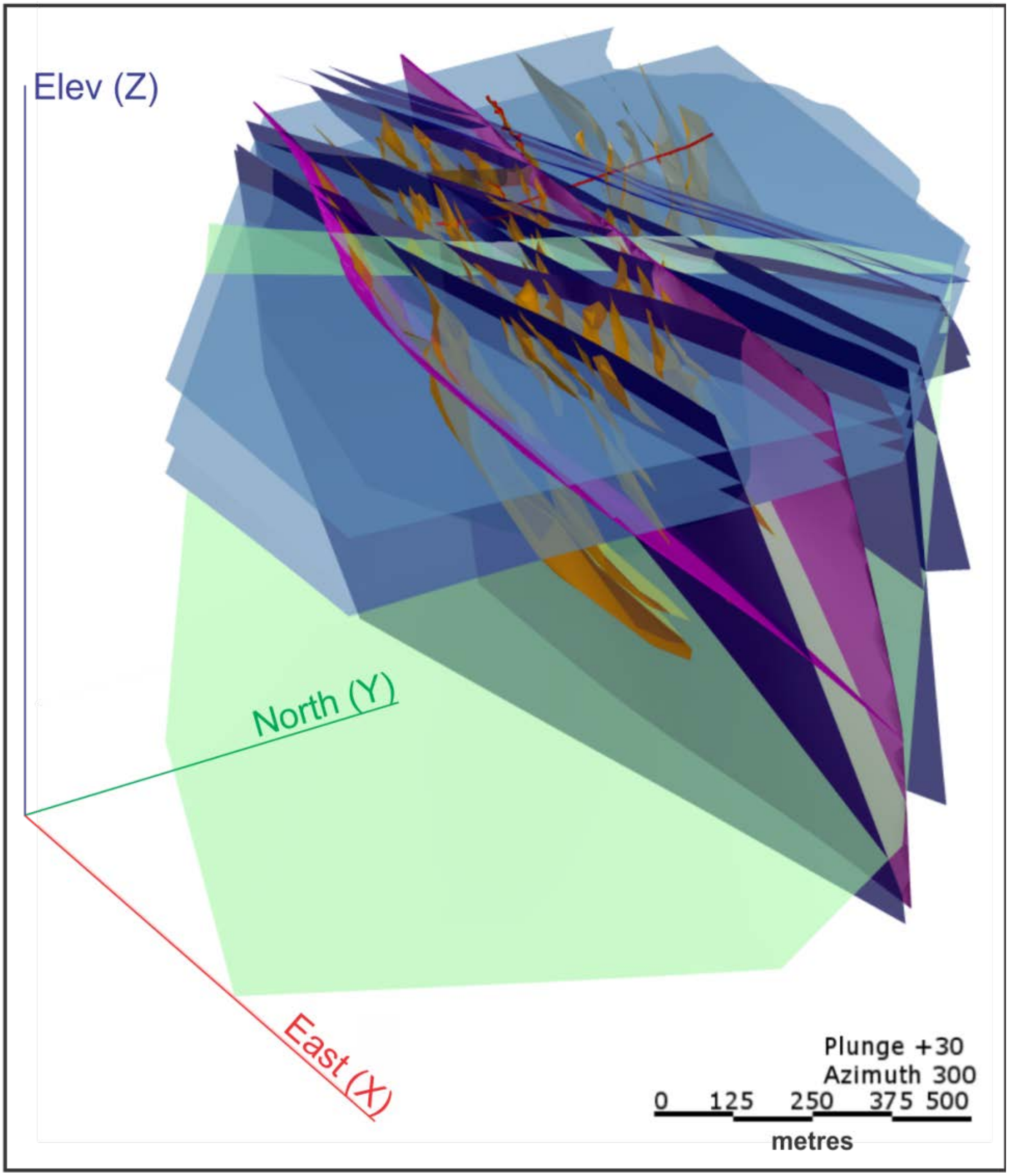


Figure 23: Distribution of Modelled Faults at Curraghinalt

Three-dimensional Leapfrog model of all modelled faults relative to mine infrastructure. Brittle-ductile vein-hosting faults (gold); Kiln and Crowsfoot shear zones (magenta); Northeast, north northeast, and northwest-trending brittle faults (dark blue); Flat brittle faults (light blue); Graphitic fault (green).

The brittle ductile faults related to the quartz veins generally strike west northwest (275 – 295 degrees) and dip moderately to steeply (55 – 75 degrees) to the north northeast. Individual strands range between 10 – 75 centimetres wide but can be part of a series of fault splays up to 10 metres wide. The faults related to the veins commonly anastomose and splay along their lengths. Northwest-striking splays off the main trend have been observed to terminate in a series of extensional C veins, and north northwest trending segments hosting gold mineralized D veins can be linked by west striking segments that may or may not contain mineralized veins. The structures hosting the gold mineralized veins are variably developed and the Bend, V75, and Causeway veins have limited deformation associated with them.

Direct observations of movement sense along the gold mineralized faults is limited, but most of the observed kinematic indicators together with the orientation of the extensional C veins (northwest-striking, steeply northeast-dipping) suggest a sinistral extensional movement sense along these faults. Rare reverse kinematic indicators along the faults indicated a reverse movement sense, suggesting reactivation of the faults has occurred throughout their history.

The gold mineralized veins are hosted in a series of related brittle-ductile faults that post-date development of a strong penetrative foliation and associated lineation that is pervasive across the property.

The Kiln and Crowsfoot shear zones are potentially long-lived structures with latest movements possibly postdating the gold mineralized veins and related faults. It is clear from observation in the adit and from drill core that the shear zones entrain and dismember the gold mineralized veins and do not simply offset them. The shear zones are not themselves mineralized outside the influence of the veins. The Crow vein and the Crowsfoot shear zone in particular are sub-parallel for a significant portion of their length. Previous resource models cut all veins across the Kiln shear zone into hanging wall and footwall segments. The current vein model has been substantially changed from previous versions and the displacement observed in the previous model is not consistently observed in the current wireframe model. As such the vein wireframes were not cut by the Kiln and Crowsfoot shear zones but the rotation and coincidence of some veins along the shear zones is thought to represent the effects of the deformation of the veins along these shear zones.

In a similar way, repeated observations in the adit and drifts make it clear that the dominantly northeast-trending brittle faults post-date the gold mineralized veins and offset them, typically on the decimetre scale, with a maximum of 10 metres of horizontal separation. The confidence in the amount of displacement and the exact geometry of the northeast-trending fault surfaces away from the adit, combined with a relatively small amount offset suggests that cutting all vein wireframes at each brittle fault is not appropriate and implies a level of certainty in their geometry that is not justified.

13.3.2 Pelite Model

SRK constructed a lithology model to delineate pelite to assist with geotechnical evaluations of the rock mass quality. The distribution of pelite was modelled using an indicator kriging approach. Composites of 1.0-metre lengths were coded as 1 for pelite if the lithology was coded as Spe (pelite) or Spg (graphitic pelite); all other composites were coded as zeros. Indicator variograms were modelled (see Figure 24), with continuity orientations that independently confirmed structural geology interpretations. A 5 by 5 by 5 metres model was kriged to calculate the probability of pelite. Solid wireframes were generated at a 96 percent probability threshold (i.e., 96 percent probability to be pelite); this probability threshold was chosen based on declustering the proportion of pelite found within the 1.0-metre composite data used for this exercise. Some moderate cleaning of the wireframes was carried out to remove edge effects from the estimation method and in areas where the drilling is sparse.

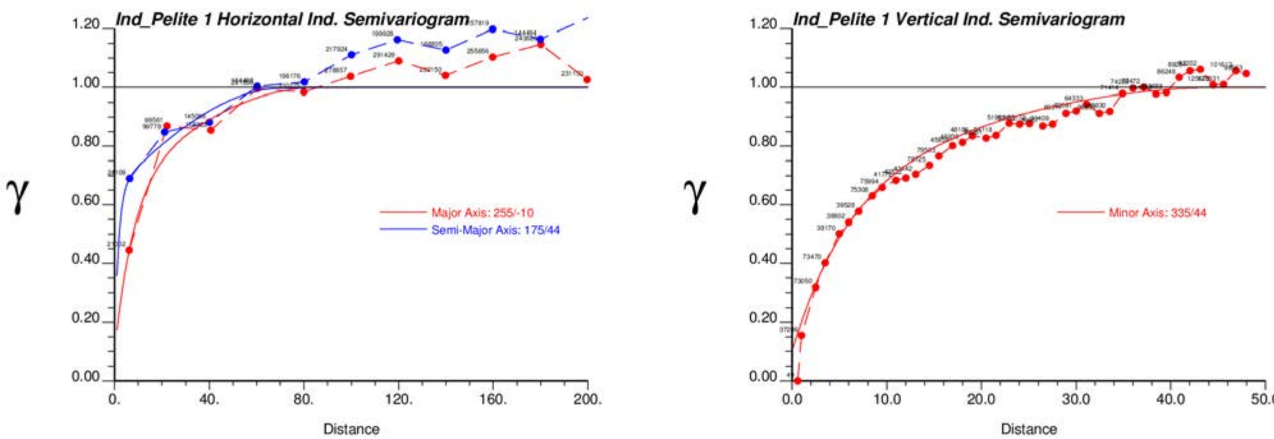


Figure 24: Indicator Variogram for Pelite Identifier

13.4 Specific Gravity

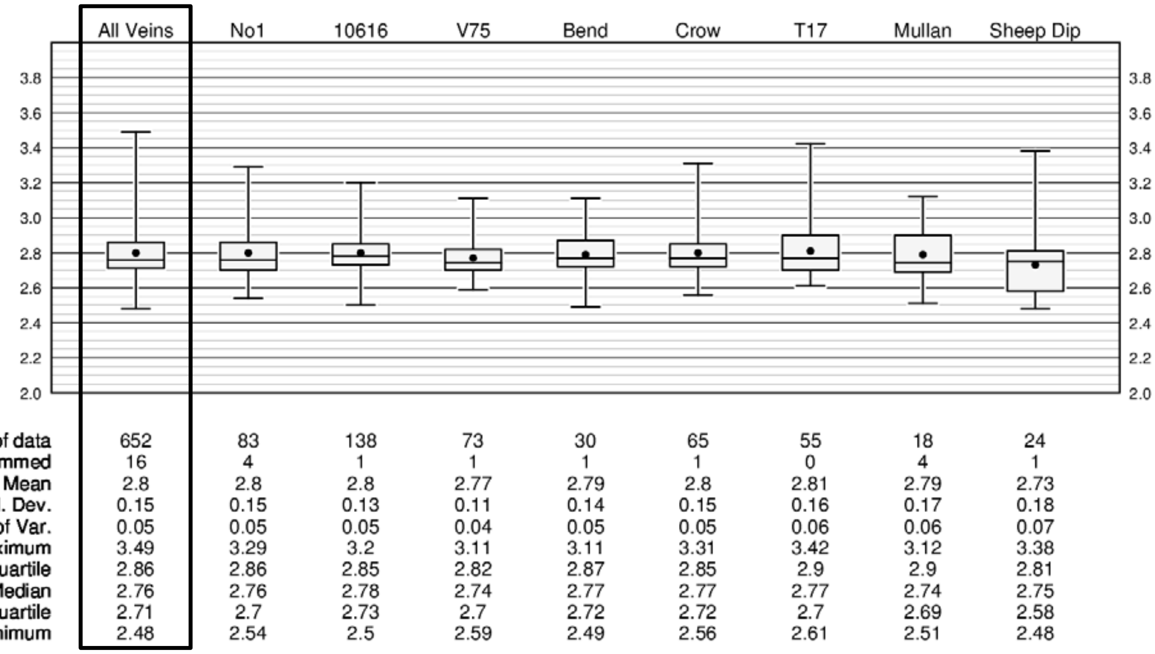
Tournigan and Dalradian measured specific gravity on small representative core pieces of selected sample intervals using a water displacement technique. A total of 668 specific gravity measurements are located within the resource domains. The specific gravity data for the domains combined and individually are summarized in Figure 25 using a top cut of 3.50 and a bottom cut of 2.46 to remove outliers. For domains with sufficient sample population, the specific gravity value range and mean is consistent between domains, showing that specific gravity can be determined globally.

There is insufficient specific gravity data to interpolate in the block model. There is a strong bilinear relationship between sulphide content and density within the domains. Figure 26 shows the relationship of sulphur and specific gravity measurements on semi-log cross plot and quantile-quantile plot. Formulas were derived to estimate block density is based on sulphur content:

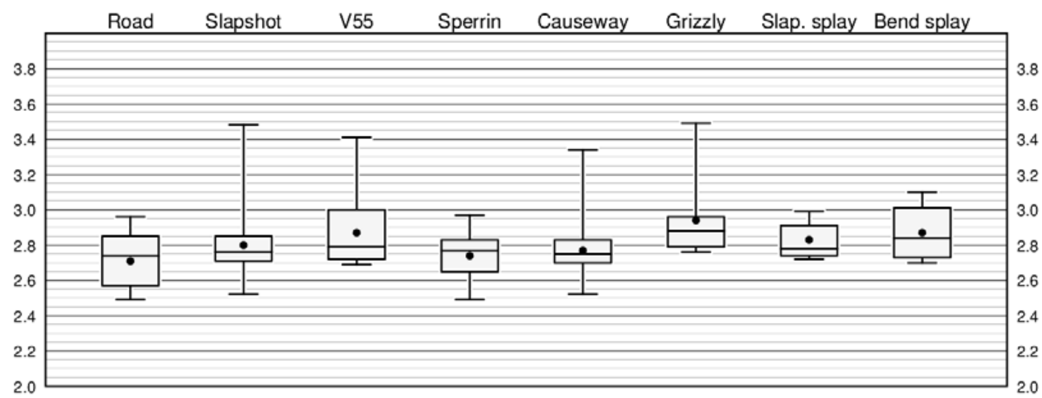
- If sulphur is less than 4.0 percent: $SG=0.033\cdot\ln(S) + 2.73$
- If sulphur is greater or equal to 4.0 percent: $SG=0.195\cdot\ln(S) + 2.51$

A total of 1,477 density measurements were taken in waste rock, outside the vein domains. The average specific gravity of waste rock is 2.73.

SG Data in Veins – Outliers Trimmed (2.46 – 3.50)



	All Veins	No1	10616	V75	Bend	Crow	T17	Mullan	Sheep Dip
Number of data	652	83	138	73	30	65	55	18	24
Number trimmed	16	4	1	1	1	1	0	4	1
Mean	2.8	2.8	2.8	2.77	2.79	2.8	2.81	2.79	2.73
Std. Dev.	0.15	0.15	0.13	0.11	0.14	0.15	0.16	0.17	0.18
Coef. of Var.	0.05	0.05	0.05	0.04	0.05	0.05	0.06	0.06	0.07
Maximum	3.49	3.29	3.2	3.11	3.11	3.31	3.42	3.12	3.38
Upper quartile	2.86	2.86	2.85	2.82	2.87	2.85	2.9	2.9	2.81
Median	2.76	2.76	2.78	2.74	2.77	2.77	2.77	2.74	2.75
Lower quartile	2.71	2.7	2.73	2.7	2.72	2.72	2.7	2.69	2.58
Minimum	2.48	2.54	2.5	2.59	2.49	2.56	2.61	2.51	2.48



	Road	Slapshot	V55	Sperrin	Causeway	Grizzly	Slap. splay	Bend splay
Number of data	10	60	18	8	51	8	7	4
Number trimmed	1	1	0	0	0	1	0	0
Mean	2.71	2.8	2.87	2.74	2.77	2.94	2.83	2.87
Std. Dev.	0.16	0.17	0.2	0.14	0.14	0.22	0.1	0.15
Coef. of Var.	0.06	0.06	0.07	0.05	0.05	0.08	0.03	0.05
Maximum	2.96	3.48	3.41	2.97	3.34	3.49	2.99	3.1
Upper quartile	2.85	2.85	3.0	2.83	2.83	2.96	2.91	3.01
Median	2.74	2.76	2.79	2.77	2.75	2.88	2.78	2.84
Lower quartile	2.57	2.71	2.72	2.65	2.7	2.79	2.74	2.73
Minimum	2.49	2.52	2.69	2.49	2.52	2.76	2.72	2.7

Figure 25: Specific Gravity Statistics by Domain

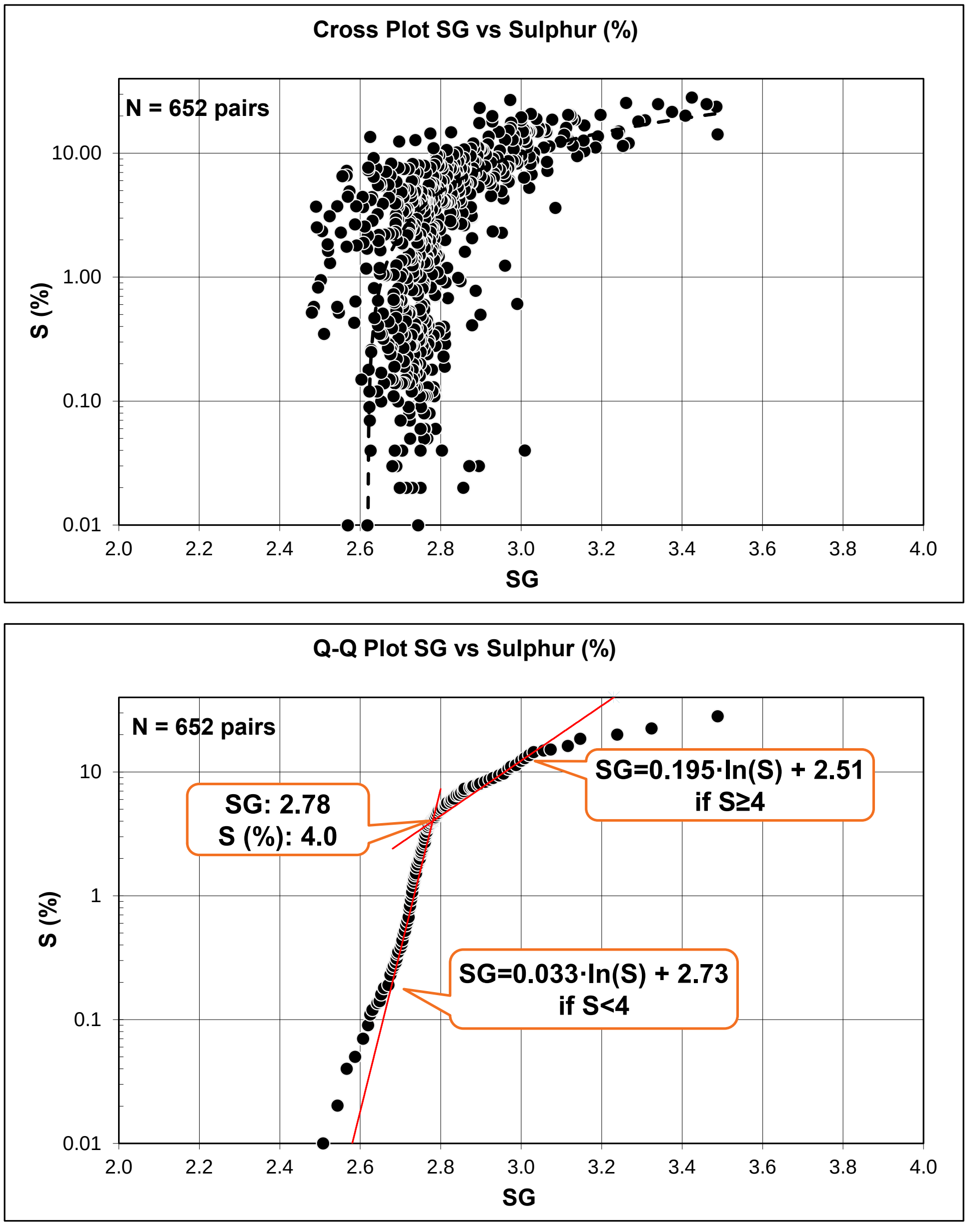


Figure 26: Relationship between Sulphur and Specific Gravity

Top: Semi-log Cross Plot, Bottom: Quantile-Quantile Plot

13.5 Resource Estimation Methodology

SRK reviewed geology and mineral resource evaluation work carried out by Dalradian in September 2015, with the aim to assist Dalradian in the preparation for a new mineral resource model. This review was based on the data considered by Micon in 2014 and an additional 85 core boreholes drilled up to August 2015. Of these 85 core boreholes, assay results for only 46 boreholes were available. The resource domains for that review were constructed during the summer of 2015, using 0.5-metre composites calculated down-hole from the borehole collar; this significantly differs from the 2.0-metre composites used in wireframe construction for the resource model used in the preliminary economic assessment. From that review, SRK and Dalradian determined that geostatistical analyses, variography and estimation parameters should be adjusted for each domain separately. Classification criteria were also reviewed as part of the study.

Following that interim review, Dalradian completed a substantial infill drilling campaign that included a total of 181 core boreholes (51,479 metres) and 185 underground face samples compared to the 2014 resource database. This represents a substantial increase to the database (64 percent increase in boreholes based on total metre drilled).

The following subsections describes the assumptions, process, and decisions made by Dalradian and SRK to construct a new mineral resource model to support the ongoing feasibility study.

13.5.1 Composite Statistics, and Capping

Dalradian composited original sample intervals at 0.50 metres from the collar down the hole ignoring geological boundaries. Prior to compositing, there were 92,589 sample intervals averaging 1.4 metres in length. This includes 47,915 sample intervals grading 0.01 (g/t gold) and higher at an average length of 0.55 metres with a mode of 1.0 metre. After compositing, there are 261,436 composites using a mode 1 composite approach in Datamine. This large increase in number composites is largely attributed to the breaking of long, unmineralized intervals into regular 0.5-metre composites. Unsampled or missing intervals were assigned a gold grade of zero. Absent values in veins include missing core, inadequate recovery or fault-disrupted intervals.

Dalradian removed 31 core boreholes (Table 25), four of which were drilled by Dalradian, including down dip holes and underground holes, prior to compositing in an effort to minimize bias and difficulties in vein interpretation caused by strings of samples in parallel or subparallel directions to a vein plane. These removed boreholes are listed below, and are excluded from the composites database. SRK reviewed the five surface boreholes, and verified that survey issues and borehole orientation presented challenges to their inclusion. SRK understands that the collar information for the 5000 series underground boreholes were not corrected at the time adit position was refined. In general, SRK does not believe the exclusion of these 31 boreholes from the modelling process is material.

Table 25: Excluded Boreholes

1.	90-47	**9.**	5170-4	**17.**	5170-12	**25.**	5170-20
2.	13-CT-192	**10.**	5170-5	**18.**	5170-13	**26.**	5170-21
3.	13-CT-191	**11.**	5170-6	**19.**	5170-14	**27.**	5170-22
4.	12-CT-176	**12.**	5170-7	**20.**	5170-15	**28.**	5170-23
5.	13-CT-180	**13.**	5170-8	**21.**	5170-16	**29.**	5170-24
6.	5170-1	**14.**	5170-9	**22.**	5170-17	**30.**	5170-25
7.	5170-2	**15.**	5170-10	**23.**	5170-18	**31.**	5170-26
8.	5170-3	**16.**	5170-11	**24.**	5170-19		

Borehole 2-5 were drilled by Dalradian; the others were drilled by prior operators.

The 0.5-metre composites used to generate the geology wireframes were extracted within each of the 16 resource domains. Table 26 summarizes the uncapped and capped statistics of these composites. SRK analyzed the statistics on the basis of domains and data source, and found that the core and face composites data vary significantly in summary statistics. As such, capping was performed on a by-domain basis and considered core and face composites separately.

Table 26: Uncapped and Capped Composite Statistics

Domain	Domain Name	Uncapped Composites*						Capped Composites*			
		Count	Mean	Std	Min	Max	CoV	Mean	Std	Max	CoV
All Composites											
1	No.1 Vein	573	15.15	18.22	0.00	137.10	1.20	14.09	14.28	70.00	1.01
2	106-16 Vein	518	12.43	15.43	0.00	162.81	1.24	11.98	13.00	60.00	1.09
3	V75 Vein	351	17.37	23.65	0.02	234.00	1.36	15.84	16.82	90.00	1.06
4	Bend Vein	136	7.91	14.69	0.00	142.60	1.86	6.60	7.20	30.00	1.09
5	Crow Vein (E, W)	190	10.30	15.66	0.00	123.44	1.52	9.43	11.66	50.00	1.24
6	T17 Vein	847	24.36	43.33	0.00	413.60	1.78	21.81	30.90	125.00	1.42
7	Mullan Vein	257	11.52	18.85	0.00	198.43	1.64	10.28	11.96	50.00	1.16
8	Sheep Dip Vein	184	13.18	20.20	0.00	169.38	1.53	11.09	11.65	40.00	1.05
9	Road Vein	58	9.66	12.05	0.00	55.22	1.25	8.34	8.81	25.00	1.06
11	Slap Shot (E, W)	264	9.14	12.41	0.00	126.89	1.36	8.51	8.93	35.00	1.05
12	V55 Vein	119	8.63	16.87	0.00	144.48	1.96	7.50	10.38	50.00	1.38
13	Sperrin Vein (E, W)	129	7.04	10.16	0.00	69.05	1.44	6.74	8.75	40.00	1.30
14	Causeway	180	10.45	23.85	0.00	294.54	2.28	8.76	9.59	45.00	1.09
15	Grizzly Vein (E, M, and W)	120	10.44	14.79	0.00	103.21	1.42	9.32	10.30	40.00	1.11
16	Slap Shot Splay Vein	50	8.16	8.65	0.00	48.44	1.06	7.81	7.26	32.00	0.93
17	Bend Splay Vein	68	11.17	14.81	0.00	73.75	1.33	10.18	11.79	40.00	1.16
	Total	**4044**	**14.70**	**25.87**	**0.00**	**413.60**	**1.76**	**13.34**	**18.58**	**125.00**	**1.39**
All Core Composites											
1	No.1 Vein	438	13.97	18.16	0.00	137.10	1.30	12.69	13.14	50.00	1.04
2	106-16 Vein	483	11.83	15.07	0.00	162.81	1.27	11.40	12.58	60.00	1.10
3	V75 Vein	259	13.95	16.91	0.02	123.86	1.21	12.92	12.89	50.00	1.00
4	Bend Vein	136	7.91	14.69	0.00	142.60	1.86	6.60	7.20	30.00	1.09
5	Crow Vein (E, W)	190	10.30	15.66	0.00	123.44	1.52	9.43	11.66	50.00	1.24
6	T17 Vein	425	18.51	35.34	0.00	372.70	1.91	16.85	24.88	120.00	1.48
7	Mullan Vein	257	11.52	18.85	0.00	198.43	1.64	10.28	11.96	50.00	1.16
8	Sheep Dip Vein	155	12.77	21.22	0.00	169.38	1.66	11.09	11.65	40.00	1.05
9	Road Vein	58	9.66	12.05	0.00	55.22	1.25	8.34	8.81	25.00	1.06
11	Slap Shot (E, W)	228	8.73	12.89	0.00	126.89	1.48	8.51	8.93	35.00	1.05
12	V55 Vein	119	8.63	16.87	0.00	144.48	1.96	7.50	10.38	50.00	1.38
13	Sperrin Vein (E, W)	129	7.04	10.16	0.00	69.05	1.44	6.74	8.75	40.00	1.30
14	Causeway	180	10.45	23.85	0.00	294.54	2.28	8.76	9.59	45.00	1.09
15	Grizzly Vein (E, M, and W)	120	10.44	14.79	0.00	103.21	1.42	9.32	10.30	40.00	1.11
16	Slap Shot Splay Vein	50	8.16	8.65	0.00	48.44	1.06	7.81	7.26	32.00	0.93
17	Bend Splay Vein	68	11.17	14.81	0.00	73.75	1.33	10.18	11.79	40.00	1.16
	Total	**3295**	**12.16**	**20.38**	**0.00**	**372.70**	**1.68**	**11.03**	**14.18**	**120.00**	**1.29**
All UG Face Composites											
1	No.1 Vein	135	18.99	17.88	0.05	103.70	0.94	18.68	16.69	70.00	0.89
2	106-16 Vein	35	20.72	17.73	2.83	76.20	0.86	20.02	15.78	60.00	0.79
3	V75 Vein	92	26.91	34.61	0.04	234.00	1.29	23.97	22.77	90.00	0.95
4	Bend Vein										
5	Crow Vein (E, W)										
6	T17 Vein	422	30.30	49.44	0.00	413.60	1.63	26.83	35.28	125.00	1.31
7	Mullan Vein										
8	Sheep Dip Vein	29	15.45	13.02	0.55	47.37	0.84	15.45	13.02	47.37	0.84
9	Road Vein										
11	Slap Shot (E, W)	36	11.75	8.31	3.41	36.94	0.71	11.75	8.31	36.94	0.71
12	V55 Vein										
13	Sperrin Vein (E, W)										
14	Causeway										
15	Grizzly Vein (E, M, and W)										
16	Slap Shot Splay Vein										
17	Bend Splay Vein										
	Total	**749**	**25.94**	**40.51**	**0.00**	**413.60**	**1.56**	**23.53**	**29.26**	**125.00**	**1.24**

* Std = standard deviation; Min = minimum; Max = maximum; Cov = coefficient of variation

Probability plots and sensitivity curves were assessed in determining an appropriate capping value. Figure 27 shows an example of these plots illustrated for Domain 6 (T17) considering only the core composites. Appendix C contains the complete set of probability plots and sensitivity curves for all domains by data type.

In addition to gold modelling, SRK was also tasked with estimating sulphur, silver, copper, molybdenum, and arsenic. These secondary metals do not contribute to the economic value of the gold mineralization, but may impact on process recovery or environmental waste management.

The density of the gold mineralization varies considerably between samples. Density variation is largely caused by the amount of sulphide present within a domain, SRK used a relationship between sulphur and measured specific gravity to model the distribution of density in the block model. The other metals were not capped, except sulphur that was capped at 20 percent. Appendix D contains the summary of statistics for these other metals.

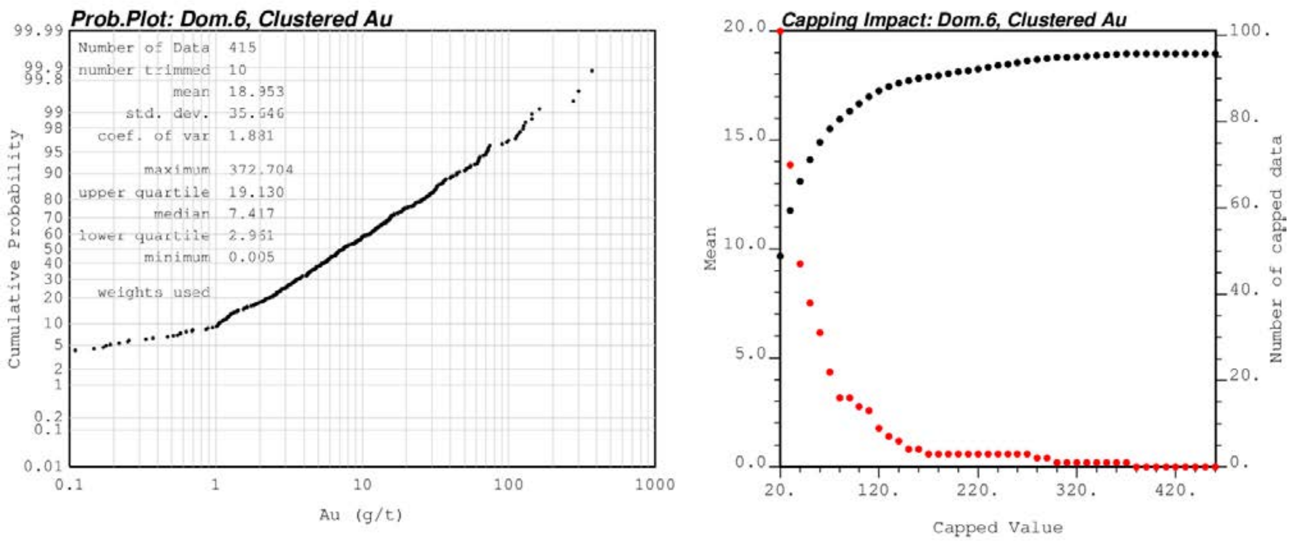


Figure 27: Probability Plot and Capping Sensitivity Curve for Domain 6 (T17), Core Samples

13.5.2 Variography

SRK and Dalradian calculated and modelled variograms for gold in each domain in both September 2015 and in March 2016. Various orientations were considered, including those aligned with the intersection of the C-vein and the domain. While greatest continuity was found aligned with these geological structures, the variograms per domain are highly sensitive to calculation parameters. SRK considers that the confidence in the individual domain variograms is low, particularly for less-informed domains.

SRK also performed variography on various groupings of domains, but ultimately chose to model a global variogram based on all core composites to ensure consistency and robustness of the grade estimation. The global model was adjusted by domain to align with the geological structure (see Table 27). This approach was taken for gold, sulphur, copper, silver, arsenic, and molybdenum. The modelled variograms are summarized in Table 28. Figure 28 shows the global gold variogram modelled. Appendix E has the set of variogram models for all other metals.

Table 27: Variogram and Search Angle Specification for Each Domain

Domain Names	Domain	Datamine Angles		
		OZ SAXIS1 = 3	OX SAXIS2 = 1	OY SAXIS3 = 2
No.1 Vein	1	323	40	-44
106-16 Vein	2	322	37	-41
V75 Vein	3	320	30	-41
Bend Vein	4	323	43	-39
Crow Vein (E,W)	5	323	42	-37
T17 Vein	6	323	40	-43
Mullan Vein	7	326	49	-46
Sheep Dip Vein	8	324	46	-53
Road Vein	9	323	41	-49
Slap Shot (E,W) - between V75 and 106-16	11	322	38	-41
V55 Vein (Between No 1 and T17)	12	323	42	-48
Sperrin Vein (E,W) - between Mullan and Sheep Dip	13	325	46	-53
Causeway – between 106-16 and No.1	14	324	45	-42
Grizzly (E,W,M) – between T17 and Mullan	15	326	50	-51
Slap Shot Splay – south of Slap Shot East	16	325	48	-46
Bend Splay – North of Bend	17	326	51	-41

Table 28: Summary of Global Variogram Parameters in Datamine Convention

Ele-ment	Nugg-et	cc	Type	SDIST 1*	SDIST 2*	SDIST 3*	cc	Type	SDIST 1	SDIST 2	SDIST 3	cc	Type	SDIST 1	SDIST 2	SDIST3
Au	0.25	0.40	Exp	10.0	15	1	0.10	Sph	95.0	15	2	0.25	Sph	95.0	95	8
S	0.25	0.45	Exp	10	15	2	0.15	Sph	70	20	5	0.15	Sph	70	95	8
Cu	0.25	0.45	Exp	15	8	2	0.15	Sph	60	18	5	0.15	Sph	60	40	8
Ag	0.25	0.45	Exp	10	5	2	0.20	Sph	80	20	2	0.10	Sph	80	80	5
As	0.25	0.45	Exp	20	10	2	0.15	Sph	75	30	5	0.15	Sph	75	60	7.5
Mo	0.25	0.45	Exp	4	10	2	0.15	Sph	30	30	5	0.15	Sph	120	120	7

* Note that all ranges for an exponential model must be divided by 3 for Datamine parameter file. Ranges summarized above have not been divided by 3.

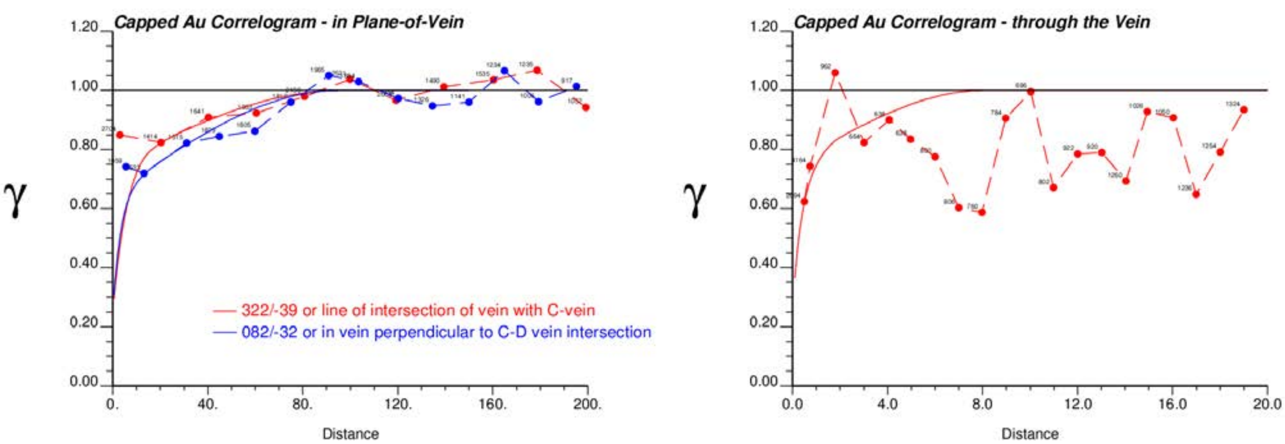


Figure 28: Global (inverted) Correlogram for Gold

13.5.3 Block Model Parameters

A block model was constructed to cover the entire extent of the gold deposits. Block size was set at 5 by 5 by 5 metres for parent cells, and subcells at 0.5-metre resolution to honour the geometry of the modelled mineralization. Subcells were assigned the same grade as the parent cell. No rotation was applied. The block model coordinates are based on an Irish Grid TM65. The block model definition is summarized in Table 29.

Table 29: Curraghinalt Block Model Specification

Axis	Block Size (metres)		Origin*	Number of Cells
	Parent	Sub cell		
X	5.0	0.50	256,400	320
Y	5.0	0.50	385,750	250
Z	5.0	0.50	-800	220

* Irish Grid TM65

13.5.4 Estimation

The block model was populated with a gold value using ordinary kriging, informed by composite data and three estimation runs with progressively relaxed search ellipsoids and data requirements. Table 30 summarizes the search parameters used for each estimation pass. Each domain was estimated using a hard boundary approach that is using only the composites from that domain. A pass "zero" was included to allow the use of the underground face samples, within a limited 10-metre radii. Indicator variograms of the face samples were calculated to establish that their continuity is limited to 10 metres. All subsequent passes used only the capped core borehole composites.

Table 30: Summary of Estimation Search Parameters

Parameter	Pass 0	Pass 1	Pass 2	Pass 3
Interpolation method	Ordinary kriging	Ordinary kriging	Ordinary kriging	Ordinary kriging
Data set	Core + Face	Core	Core	Core
Search range X	10m	1 x Var range	2 x Var range	6 x Var range
Search range Y	10m	1 x Var range	2 x Var range	6 x Var range
Search range Z	10m	15m	30m	90m
Minimum number of composites	5	5	4	1
Maximum number of composites	12	12	15	15
Octant search	No	No	No	No
Maximum number of composites per borehole	3	3	3	3

13.5.5 Estimation Sensitivity Assessment

The final estimation parameters summarized in Table 30 were selected after reviewing the results of a series of estimation changes in various parameters (see Table 31). This sensitivity analysis was performed on Domain 6 (T17), which was selected because of its volume, data quantity, and types of data available. All cases are compared on the basis of tonnage estimated, average grade, and contained metal at various cut-off grades, with particular interest at zero cut-off and the reporting cut-off grade of 5 g/t gold.

Table 31: SRK Sensitivity Analysis on Estimation Parameters Using Capped Composites From Domain 6 (T17)

		Cap Value (g/t gold)		Pass 1		Pass 2		Pass 3			Search Ellipse
Case	Data	Core	Face	Min.*	Max.*	Min.*	Max.*	Min.*	Max.*	Max / Hole*	Pass 1**
1	Core + Face	175	175	8	12	6	10	4	8	3	60/80/8
2	Core + Face	175	175	5	12	3	15	1	20	3	60/80/8
3	Core + Face	175	175	11	24	2	24	2	24	3	60/80/8
4	Core + Face	175	175	5	12	4	15	1	15	3	60/80/8
5	Core + Face	80	75	8	12	6	10	4	8	3	40/90/10
6	Core + Face	80	75	5	12	3	15	1	20	3	40/90/10
7	Core + Face	80	75	11	24	2	24	2	24	3	40/90/10
8	Core + Face	80	75	5	12	4	15	1	15	3	40/90/10
9	Core	80	NA	5	12	4	15	2	15	3	80/60/8
10	Core + Face†(5)	80	75	5	12	4	15	2	15	3	80/60/8
11	Core + Face†(10)	80	75	5	12	4	15	2	15	3	80/60/8
Final	**Core + Face†(10)**	**120**	**125**	**5**	**12**	**4**	**15**	**1**	**15**	**0**	**95/95/15**

†(x) Limiting influence to constrained by *x* metres

* Min refers to minimum; max refers to maximum; max/hole refers to maximum number of composites per borehole

** Search radii for Passes 2 and 3 are 2 times and 6 times the first pass search

Cases 1 to 4 considered the combined core and face sample composites, using a capping value of 175 g/t gold, a consistent search ellipsoid, and varied only the data parameters. Cases 5 to 8 considered separate capping for core and face samples at 80 g/t gold and 75 g/t gold, respectively, and a search radii consistent with the variogram modelled from the capped data set. Data specification was varied in the same sequence as Cases 1 to 4. The result of these initial eight cases was to assess the sensitivity of the block estimates to optimistic versus conservative thresholds, data requirements and search radii. The percentage difference between Cases 2 to 4, relative to Case 1, is less than 3 percent in tonnage, grade and contained metal at zero cut-off. Similar results are found for Cases 6 to 8, relative to Case 5. This suggests that the impact of data selection is immaterial. On the basis of change of support validation, Case 8 data parameters were chosen as the final set, thereby requiring at least two boreholes to inform the first two passes.

A comparison of the set of Cases 1 to 4 to Cases 5 to 8 show that for the same estimation parameters (e.g., Case 1 versus Case 5), using a lower capping value (with search radii that reflects the capped data set) has less than a 1 percent and 2 percent impact on the average grade and contained metal, respectively at zero cut-off. At a cut-off grade of 5 g/t gold, the lower capping threshold reduces contained metal by 1 percent. It should be noted that capping analysis identified a possible intermediate capping values of 120 g/t gold for core composites and 125 g/t gold for face composites. Based on the minimal impact of capping threshold found in this sensitivity study, SRK chose to proceed with the intermediate capping thresholds for grade estimation.

Cases 9 to 11 investigated the impact of data sources, and limiting the influence of face samples to within 5 and 10 metres of a block. The percentage difference in tonnes, grade and contained metal, of Cases 9 to 11, relative to Case 8, is less than 0.1 percent at zero cut-off, and less than 0.3 percent at a 5 g/t gold cut-off grade. The impact of face samples, unconstrained or constrained within a limited radii, is immaterial. SRK chose to use face samples within a 10-metre limited radii in the final estimation strategy.

In all 11 cases analyzed, the variogram and search ellipsoid correspond to the capped data used for that estimation scenario. All these considered only the composites within Domain 6. As noted in Section 13.5.2, the global variogram is deemed to be the most reliable and the final estimation strategy for all domains uses this singular model. This is reflected in the final search radii in Table 31.

13.5.6 Block Model Validation

Following the estimation sensitivity analyses on Domain 6, SRK considered statistical comparisons between ordinary kriging estimates and alternate estimators at a zero cut-off grade for Domain 6. Table 32 shows there is less than 3 percent difference in the contained metal between ordinary kriging, and inverse distance weighting to a power of two and three estimates at a zero cut-off grade.

Table 32: Comparison of Estimators for Domain 6

Cut-off Grade (g/t)	Estimation Method	Quantity (x1000 t)	Grade (g/t)	Metal (oz)	Difference in Metal* (%)
0	OK	1,390	10.77	492	
	ID2	1,390	10.69	478	-2.89%
	ID3	1,390	10.48	468	-1.96%

* At 0 g/t gold cut-off, and relative to the ordinary kriging estimates

SRK also compared the ordinary kriging block model distribution with the declustered, change-of-support corrected distribution of the informing composites for Domain 6. Declustering mitigates the influence of preferential sampling of borehole data. This often results in a distribution of composites whose mean statistic is often comparable to that of the estimated model. Further, a change-of-support correction using the Discrete Gaussian model is applied to account for the volume difference between the composite scale and the final block volume scale. Figure 29 shows the quantile-quantile comparison of the gold distribution from the block model and the expected grade distribution following declustering and change-of-support corrections for Domain 6.

Overall, the mean grades from the block model is higher than those predicted from declustering. The quantile-quantile plot shows that the block model is appropriately smooth, as predicted by change-of-support.

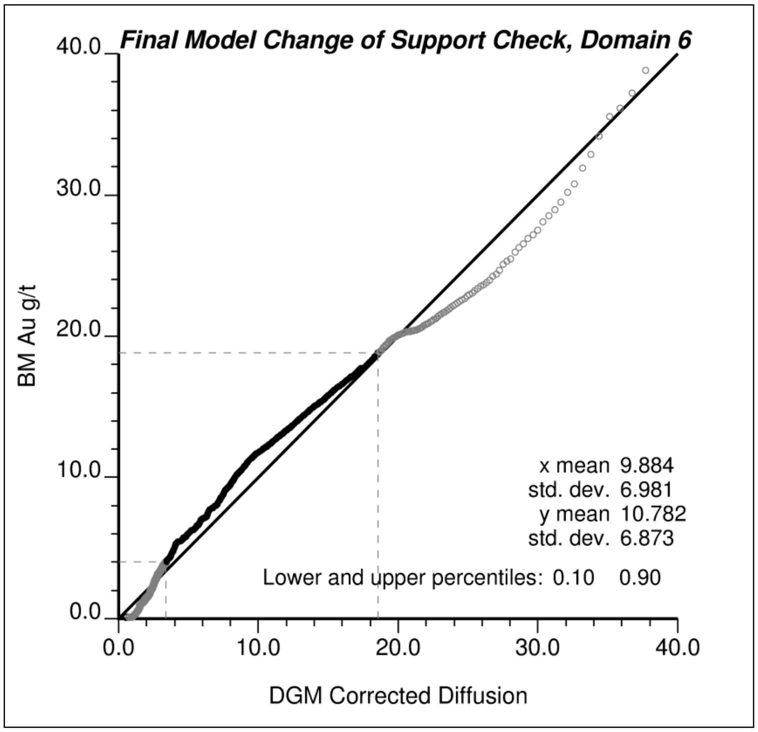


Figure 29: Quantile-Quantile Comparison of Block Estimates to Declustered Composites for Domain 6

For all domains, SRK validated the block model using a visual comparison of block estimates and informing composites for each domain. Figure 30 shows an example of a long section for Domain 6 which compares the composite data to the estimated block grades, and also the estimation pass to the indicated/inferred boundary. Long sections for all other domains are provided in Appendix F.

A swath plot considering all domains was also generated, along easting, northing and elevation using 20-metre intervals (see Figure 31). For each swath, SRK compared two composite distributions against the block model: (a) all composites (Figure 31, left column), and (b) only the composites from boreholes (Figure 31, right column). The swath comparisons clearly show that while the face samples were used for estimation in locally constrained manner, the block model grades are most influenced by the composites from boreholes. As expected, the profile of the block model grade is smoother than that from the composites, but follow along the same general trends.

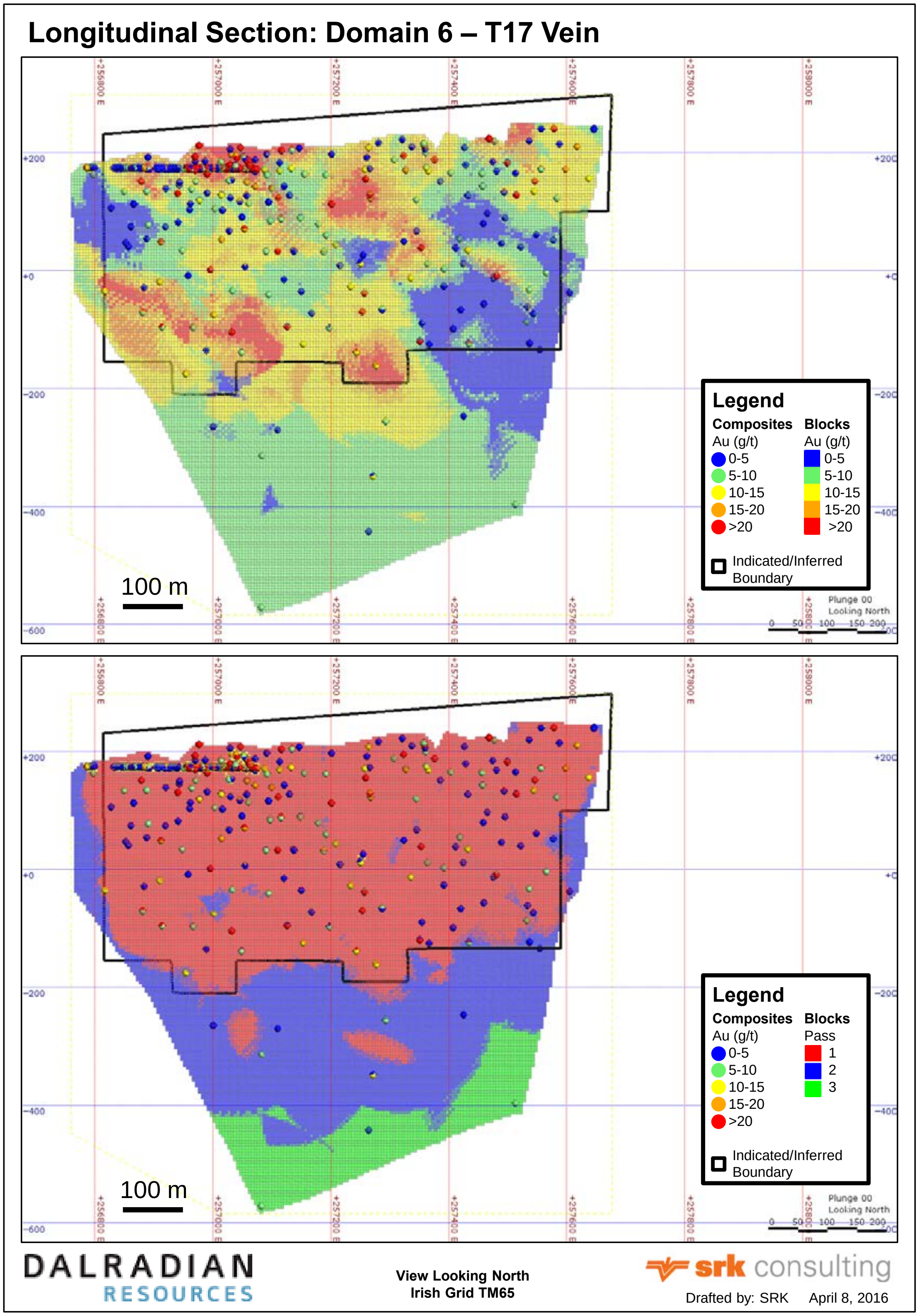


Figure 30: Longitudinal Section for Domain 6: Comparison of Block Estimates and Informing Composites (top), and Estimation Pass Number to Boundary for Indicated/Inferred Categories (bottom)

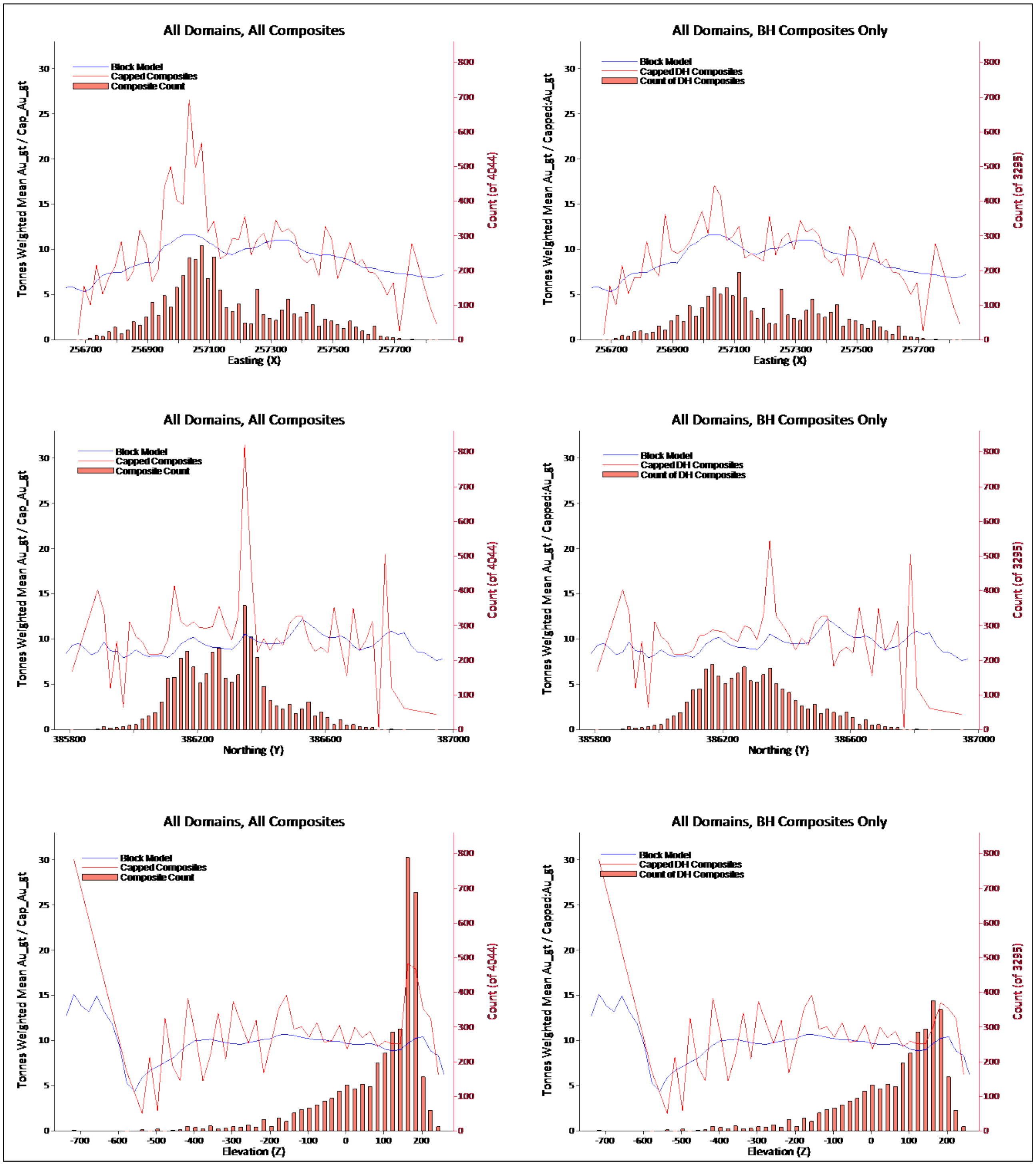


Figure 31: Swath Plot Comparison of Block Estimates with All Composites (left column) and Only Borehole Composites (right column) Along Easting (top row), Northing (middle row) and Elevation (bottom row)

13.6 Classification

Criteria used for block classification are:

- Measured: Blocks estimated in Pass 0, within a 10 by 10 by 10 metres search radii, requiring a minimum of two boreholes and a minimum of five composites from either core and/or underground face samples. The mean average distance of informing composites for this category is approximately 25 metres; on average, seven boreholes inform the blocks in this category.
- Indicated: Blocks estimated in the first pass above or within a 95 by 95 by 15 metres search radii, where the thinnest axis corresponds to the direction of vein thickness, using a minimum of two boreholes. The mean average distance of informing composites for this category is 50 metres; on average, these blocks are informed by six boreholes.
- Inferred: All blocks not classified as Measured or Indicated in the passes above, and all other blocks whose grade was estimated.

SRK examined the classification visually by inspecting sections and plans through the block model. SRK concludes that the parameters used to define Measured blocks reasonably reflect estimates that can be considered to be at a high confidence level, material classified as Indicated reflect estimates made with a moderate level of confidence within the meaning of CIM *Definition Standards for Mineral Resources and Mineral Reserves* (May 2014), and all other material is estimated at a lower confidence level. Additionally, SRK applied a post-smoothing filter on the classified material to ensure continuity within the classification categories. In particular, the boundary between Indicated and Inferred is intentionally drawn as parallel or perpendicular to potential underground levels, to facilitate underground mine planning.

The modelled veins are crosscut by a network of late brittle faults. The amount of offset is typically small. To avoid complicating resource modelling work, vein wireframes were not broken across each fault. Some vein wireframes bend around a fault and thus create volumes which do not exist. Further the quality of the rock mass near such faults may pose geotechnical challenges. For these reasons, SRK reclassified the vein blocks in proximity to a fault to avoid reporting those blocks into the Mineral Resource Statement, SRK expanded each of the fault surfaces by 0.5 metres in both directions perpendicular to the fault plane to create a fault thickness of 1.0 metres. With the exception of the Kiln and Crowsfoot shear zone faults, sub-blocks within all other faults were coded as 99 and remain unclassified. These blocks retain information on all metal and density attributes.

13.7 Mineral Resource Statement

CIM *Definition Standards for Mineral Resources and Mineral Reserves* (May 2014) define a Mineral Resource as:

"[A] concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling."

The "reasonable prospects for eventual economic extraction" requirement generally implies that quantity and grade estimates meet certain economic thresholds and that mineral resources are reported at an appropriate cut-off grade that takes into account extraction scenarios and processing recovery. SRK considers that the Curraghinalt deposit is amenable to underground extraction. Through discussions with Dalradian, SRK considers that it is reasonable to report as underground the mineral resources those classified blocks above a cut-off grade of 5.0 g/t gold. This is based on a gold price of US$1,200 per troy ounce and a gold recovery of 95 percent.

SRK delivered to Dalradian a sub-block model with a single classification per block and undiluted gold grade. The Mineral Resource Statement reported herein is based on an undiluted block model, and excludes fault blocks.

SRK is satisfied that the mineral resources were estimated in conformity with the widely accepted CIM *Estimation of Mineral Resource and Mineral Reserve Best Practices Guidelines*. The mineral resources may be affected by further infill and exploration drilling that may result in increases or decreases in subsequent mineral resource estimates. The mineral resources may also be affected by subsequent assessments of mining, environmental, processing, permitting, taxation, socio-economic, and other factors. The Mineral Resource Statement for the presented in Table 33 was prepared by Dr. Oy Leuangthong, PEng (PEO#90563867) and Dr. Jean-Francois Couture, PGeo (APGO#0196). Drs. Leuangthong and Couture are independent qualified persons as this term is defined in National Instrument 43-101. The effective date of the Mineral Resource Statement is May 5, 2016.

Table 33: Mineral Resource Statement*, Curraghinalt Gold Project, Northern Ireland, SRK Consulting (Canada) Inc., May 5, 2016

Domain	Rock Code	Avg. Thickn-ess (m)	Measured Tonnage† ('000 t)	Measured Grade Au (g/t)	Measured Au Metal (000 oz)	Indicated Tonnage† (000 t)	Indicated Grade Au (g/t)	Indicated Au Metal ('000 oz)	Inferred Tonnage† ('000 t)	Inferred Grade Au (g/t)	Inferred Au Metal ('000 oz)
No.1	1	0.82	7	17.11	4	762	12.69	311	292	16.09	151
106-16	2	0.79	2	22.00	1	960	11.97	369	601	12.07	233
V75	3	0.74	5	22.18	3	492	13.06	207	1,085	9.57	334
Bend	4	0.71				203	7.74	50	779	7.39	185
Crow	5	0.90				393	12.53	158	1,329	9.52	407
T17	6	0.76	12	37.94	15	697	13.89	311	481	8.78	136
Mullan	7	0.78				512	10.61	175	902	10.41	302
Sheep Dip	8	0.59	1	15.12	0	248	11.23	90	715	11.76	270
Road	9	0.64				125	8.63	35	449	9.42	136
Slap Shot	11	0.61	1	12.17	0	347	9.21	103	179	9.82	57
V55	12	0.63				127	7.92	32	41	11.31	15
Sperrin	13	0.48				182	8.48	50	126	8.87	36
Causeway	14	0.69				255	9.99	82	20	11.46	7
Grizzly	15	0.56				158	11.48	58	92	9.34	28
Slap Shot Splay	16	0.47				28	6.93	6	20	6.24	4
Bend Splay	17	0.55				96	10.63	33	20	9.34	6
	Total	**0.73**	**28**	**26.99**	**25**	**5,583**	**11.53**	**2,069**	**7,130**	**10.06**	**2,306**

* Mineral resources are not mineral reserves and have not demonstrated economic viability. All figures have been rounded to reflect the relative accuracy of the estimates. Underground mineral resources are reported at a cut-off grade of 5.0 g/t gold based on a gold price of US$1,200 per ounce and a gold recovery of 95 percent.

† Tonnage was calculated using a density formula defined by SRK based on sulphur estimates.

13.8 Grade Sensitivity Analysis

The mineral resources of Curraghinalt are sensitive to the selection of the reporting cut-off grade. To illustrate this sensitivity, block model quantities and grade estimates at various cut-off grades are presented in Table 34 and grade tonnage curves are presented in Figure 32.

Table 34: Global Block Model Quantities and Grade Estimates* at Various Cut-Off Grades

Cut-offAu (g/t)	Measured			Indicated			Inferred		
	Quantity ('000 t)	Grade Au(g/t)	AuMetal ('000 oz)	Quantity ('000 t)	Grade Au(g/t)	AuMetal ('000 oz)	Quantity ('000 t)	Grade Au(g/t)	AuMetal ('000 oz)
0.01	32	24.20	25	6,455	10.45	2,168	8,254	9.18	2,435
1.00	31	24.89	25	6,430	10.49	2,168	8,233	9.20	2,434
2.00	30	25.65	25	6,369	10.57	2,165	8,081	9.35	2,428
3.00	30	26.05	25	6,226	10.76	2,153	7,975	9.44	2,420
4.00	29	26.52	25	5,936	11.11	2,120	7,676	9.67	2,386
5.00	**28**	**26.99**	**25**	**5,583**	**11.53**	**2,069**	**7,130**	**10.06**	**2,306**
6.00	28	27.41	25	5,102	12.09	1,984	6,437	10.55	2,183
7.00	27	28.11	24	4,582	12.73	1,875	5,582	11.17	2,004
8.00	26	28.53	24	4,017	13.46	1,739	4,514	12.03	1,746
9.00	26	28.99	24	3,463	14.26	1,587	3,604	12.92	1,498
10.00	25	29.64	24	2,947	15.09	1,430	2,925	13.73	1,291

* The reader is cautioned that the figures in this table should not be misconstrued with a Mineral Resource Statement. The figures are only presented to show the sensitivity of the block model estimates to the selection of a cut-off grade.

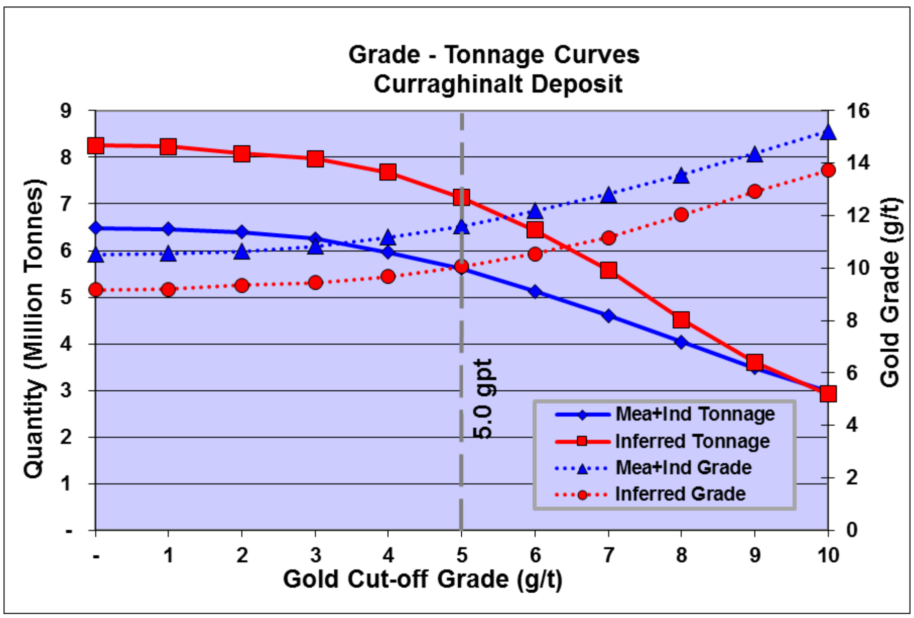


Figure 32: Grade Tonnage Curves

13.9 Sensitivity Analysis on Dilution

At the request of Dalradian, SRK considered the impact of dilution on the gold grade within each modelled domain. Specifically, this involved the evaluation of mineral resources at a minimum of 1.0, 1.2, and 1.8 metres true widths. For each case, SRK also considered the impact of assigning a grade or not to the waste dilution.

To estimate a gold grade into the waste blocks, SRK capped all waste composites at 3.0 g/t gold and used an inverse distance weighting (power of three) algorithm. Search orientations and ranges were consistent with the second pass estimation within the mineralized veins (Table 30), with the exception of the minor axis search which was specified as 20 metres.

For a minimum of 1.0 metre true width of the mineralized veins, Table 35 and Table 36 summarize the impact of dilution when waste blocks are assigned a zero grade and an estimated grade, respectively.

Table 35: Impact of Dilution for Minimum 1.0 Metre Thickness, Assuming Zero Grade in Waste

Domain	Rock Code	Measured Tonnage† ('000 t)	Measured Grade Au (g/t)	Measured Au Metal ('000 oz)	Indicated Tonnage† ('000 t)	Indicated Grade Au (g/t)	Indicated Au Metal ('000 oz)	Inferred Tonnage† ('000 t)	Inferred Grade Au (g/t)	Inferred Au Metal ('000 oz)
No.1	1	8	14.42	4	852	10.77	295	327	13.91	146
106-16	2	2	18.36	1	972	10.96	342	663	9.89	211
V75	3	6	19.23	3	546	11.16	196	1,019	8.41	276
Bend	4				124	7.77	31	639	6.81	140
Crow	5				366	11.42	135	1,214	9.30	363
T17	6	13	36.05	15	763	12.01	295	372	8.59	103
Mullan	7				456	9.81	144	829	9.53	254
Sheep Dip	8	1	12.16	0	271	8.74	76	923	8.15	242
Road	9				104	7.16	24	483	7.57	118
Slap Shot	11	1	10.30	0	325	7.71	81	198	7.16	46
V55	12				79	7.54	19	48	8.70	14
Sperrin	13				113	8.03	29	97	6.68	21
Causeway	14				223	9.17	66	21	10.07	7
Grizzly	15				154	9.47	47	87	8.04	22
Slap Shot Splay	16				12	6.52	2	5	6.23	1
Bend Splay	17				62	8.74	17	8	8.37	2
	Total	**31**	**24.18**	**24**	**5,421**	**10.32**	**1,799**	**6,932**	**8.81**	**1,964**
% Dif. To Undiluted		**10%**	**-10%**	**-1%**	**-3%**	**-10%**	**-13%**	**-3%**	**-12%**	**-15%**

† For mineralized blocks, tonnage was calculated using a density formula defined by SRK based on sulphur estimates. For waste blocks, a specific gravity of 2.73 was assigned.

Table 36: Impact of Dilution for Minimum 1.0 Metre Thickness, with Estimated Grade in Waste

Domain	Rock Code	Measured Tonnage† ('000 t)	Measured Grade Au (g/t)	Measured Au Metal ('000 oz)	Indicated Tonnage† ('000 t)	Indicated Grade Au (g/t)	Indicated Au Metal ('000 oz)	Inferred Tonnage† ('000 t)	Inferred Grade Au (g/t)	Inferred Au Metal ('000 oz)
No.1	1	8	14.38	4	856	10.78	297	328	13.89	147
106-16	2	2	18.48	1	977	10.95	344	665	9.90	212
V75	3	6	19.29	3	548	11.16	197	1,029	8.41	278
Bend	4				125	7.76	31	645	6.81	141
Crow	5				370	11.40	136	1,217	9.29	364
T17	6	13	35.85	15	765	12.01	296	375	8.58	103
Mullan	7				459	9.80	145	833	9.52	255
Sheep Dip	8	1	11.94	0	272	8.76	77	928	8.16	243
Road	9				106	7.14	24	485	7.58	118
Slap Shot	11	1	10.12	0	328	7.72	81	200	7.17	46
V55	12				81	7.52	20	49	8.71	14
Sperrin	13				114	8.03	29	97	6.69	21
Causeway	14				224	9.17	66	21	10.09	7
Grizzly	15				155	9.45	47	87	8.04	23
Slap Shot Splay	16				12	6.51	2	5	6.20	1
Bend Splay	17				63	8.71	18	8	8.37	2
	Total	**32**	**24.02**	**25**	**5,454**	**10.31**	**1,808**	**6,970**	**8.81**	**1,974**
% Dif. To Undiluted		**12%**	**-11%**	**-1%**	**-2%**	**-11%**	**-13%**	**-2%**	**-12%**	**-14%**

† For mineralized blocks, tonnage was calculated using a density formula defined by SRK based on sulphur estimates. For waste blocks, a specific gravity of 2.73 was assigned.

For a minimum of 1.2 metre true width of the mineralized veins, Table 37 and Table 38 summarize the impact of dilution when waste blocks are assigned a zero grade and an estimated grade, respectively.

Table 37: Impact of Dilution for Minimum 1.2 Metre Thickness, Assuming Zero Grade in Waste

		Measured			Indicated			Inferred		
Domain	Rock Code	Tonnage† ('000 t)	Grade Au (g/t)	Au Metal ('000 oz)	Tonnage† ('000 t)	Grade Au (g/t)	Au Metal ('000 oz)	Tonnage† ('000 t)	Grade Au (g/t)	Au Metal ('000 oz)
No.1	1	8	13.41	4	862	10.07	279	331	13.21	141
106-16	2	2	17.07	1	969	10.46	326	669	9.07	195
V75	3	7	15.34	3	574	10.20	188	929	8.01	239
Bend	4				102	7.72	25	519	6.65	111
Crow	5				345	11.19	124	1,174	9.05	342
T17	6	14	32.34	15	787	11.22	284	318	8.52	87
Mullan	7				431	9.54	132	759	9.36	228
Sheep Dip	8	1	10.25	0	259	8.14	68	901	7.39	214
Road	9				84	6.91	19	444	6.94	99
Slap Shot	11	1	9.36	0	291	7.23	68	163	6.74	35
V55	12				70	7.21	16	49	7.81	12
Sperrin	13				98	7.75	24	71	6.41	15
Causeway	14				201	8.90	58	22	9.13	7
Grizzly	15				147	8.82	42	83	7.32	20
Slap Shot Splay	16				9	6.20	2	3	5.96	1
Bend Splay	17				57	8.76	16	7	8.50	2
	Total	**34**	**21.63**	**24**	**5,285**	**9.83**	**1,670**	**6,443**	**8.43**	**1,747**
% Dif. To Undiluted		**20%**	**-20%**	**-4%**	**-5%**	**-15%**	**-19%**	**-10%**	**-16%**	**-24%**

† For mineralized blocks, tonnage was calculated using a density formula defined by SRK based on sulphur estimates. For waste blocks, a specific gravity of 2.73 was assigned.

Table 38: Impact of Dilution for Minimum 1.2 Metre Thickness, with Estimated Grade in Waste

		Measured			Indicated			Inferred		
Domain	Rock Code	Tonnage† ('000 t)	Grade Au (g/t)	Au Metal ('000 oz)	Tonnage† ('000 t)	Grade Au (g/t)	Au Metal ('000 oz)	Tonnage† ('000 t)	Grade Au (g/t)	Au Metal ('000 oz)
No.1	1	9	13.11	4	872	10.06	282	334	13.18	141
106-16	2	2	17.26	1	977	10.45	328	676	9.07	197
V75	3	7	15.41	3	578	10.20	190	942	8.00	242
Bend	4				103	7.71	26	526	6.65	112
Crow	5				350	11.15	125	1,178	9.05	343
T17	6	14	32.32	15	792	11.21	285	322	8.51	88
Mullan	7				435	9.52	133	765	9.33	230
Sheep Dip	8	1	10.57	0	262	8.15	69	910	7.39	216
Road	9				85	6.90	19	447	6.95	100
Slap Shot	11	1	9.48	0	297	7.22	69	166	6.75	36
V55	12				71	7.21	16	50	7.83	13
Sperrin	13				99	7.75	25	72	6.41	15
Causeway	14				204	8.88	58	22	9.15	7
Grizzly	15				149	8.81	42	83	7.34	20
Slap Shot Splay	16				9	6.18	2	3	5.95	1
Bend Splay	17				58	8.71	16	7	8.50	2
	Total	**35**	**21.48**	**24**	**5,340**	**9.81**	**1,685**	**6,503**	**8.43**	**1,762**
% Dif. To Undiluted		**22%**	**-20%**	**-3%**	**-4%**	**-15%**	**-19%**	**-9%**	**-16%**	**-24%**

† For mineralized blocks, tonnage was calculated using a density formula defined by SRK based on sulphur estimates. For waste blocks, a specific gravity of 2.73 was assigned.

For a minimum of 1.8 metres true width of the mineralized veins, Table 39 and Table 40 summarize the impact of dilution when waste blocks are assigned a zero grade and an estimated grade, respectively. To determine a 1.8 metres width, SRK considered the revised wireframes from the 1.2 metres case, and expanded the wireframe on the footwall side by 0.2 metres, and on the hanging wall side by 0.4 metres. This case was appended to the original sensitivity study, and no density revision was required.

Table 39: Impact of Dilution for Minimum 1.8 Metre Thickness, Assuming Zero Grade in Waste

Domain	Rock Code	Measured Tonnage† ('000 t)	Measured Grade Au (g/t)	Measured Au Metal ('000 oz)	Indicated Tonnage† ('000 t)	Indicated Grade Au (g/t)	Indicated Au Metal ('000 oz)	Inferred Tonnage† ('000 t)	Inferred Grade Au (g/t)	Inferred Au Metal ('000 oz)
No.1	1	10	10.77	3	797	8.52	218	358	10.78	124
106-16	2	3	12.85	1	977	8.65	272	574	7.68	142
V75	3	8	12.53	3	603	8.07	156	678	6.88	150
Bend	4				60	7.24	14	224	5.84	42
Crow	5				297	10.24	98	1,066	7.77	266
T17	6	17	26.70	15	838	9.05	244	244	7.48	59
Mullan	7				371	8.38	100	632	8.24	167
Sheep Dip	8	1	8.22	0	191	6.99	43	565	6.32	115
Road	9				41	6.13	8	195	6.38	40
Slap Shot	11	1	7.55	0	163	6.31	33	67	6.11	13
V55	12				41	6.23	8	38	6.43	8
Sperrin	13				69	6.67	15	22	5.90	4
Causeway	14				155	7.93	39	22	7.23	5
Grizzly	15				114	7.79	28	52	6.22	10
Slap Shot Splay	16				2	5.73	0	0	5.15	0
Bend Splay	17				52	6.94	12	4	5.73	1
	Total	**41**	**17.74**	**23**	**4,771**	**8.40**	**1,289**	**4,743**	**7.52**	**1,147**
% Dif. To Undiluted		**42%**	**-34%**	**-6%**	**-15%**	**-27%**	**-38%**	**-33%**	**-25%**	**-50%**

† For mineralized blocks, tonnage was calculated using a density formula defined by SRK based on sulphur estimates. For waste blocks, a specific gravity of 2.73 was assigned.

Table 40: Impact of Dilution for Minimum 1.8 Metre Thickness, with Estimated Grade in Waste

Domain	Rock Code	Measured Tonnage† ('000 t)	Measured Grade Au (g/t)	Measured Au Metal ('000 oz)	Indicated Tonnage† ('000 t)	Indicated Grade Au (g/t)	Indicated Au Metal ('000 oz)	Inferred Tonnage† ('000 t)	Inferred Grade Au (g/t)	Inferred Au Metal ('000 oz)
No.1	1	10	10.78	4	822	8.50	225	362	10.79	126
106-16	2	3	12.99	1	995	8.66	277	590	7.66	145
V75	3	8	12.64	3	616	8.08	160	696	6.89	154
Bend	4				61	7.23	14	237	5.83	44
Crow	5				308	10.15	101	1,078	7.79	270
T17	6	17	26.32	15	849	9.05	247	251	7.48	60
Mullan	7				377	8.38	102	639	8.22	169
Sheep Dip	8	2	8.24	0	198	6.98	44	579	6.31	118
Road	9				41	6.15	8	200	6.38	41
Slap Shot	11	1	7.48	0	168	6.31	34	71	6.10	14
V55	12				43	6.27	9	39	6.46	8
Sperrin	13				70	6.69	15	23	5.91	4
Causeway	14				158	7.93	40	22	7.32	5
Grizzly	15				115	7.81	29	54	6.23	11
Slap Shot Splay	16				2	5.71	0	0	5.16	0
BendSplay	17				53	6.97	12	4	5.76	1
	Total	**42**	**17.53**	**24**	**4,877**	**8.40**	**1,317**	**4,845**	**7.51**	**1,170**
% Dif. To Undiluted		**48%**	**-35%**	**-4%**	**-13%**	**-27%**	**-36%**	**-32%**	**-25%**	**-49%**

† For mineralized blocks, tonnage was calculated using a density formula defined by SRK based on sulphur estimates. For waste blocks, a specific gravity of 2.73 was assigned.

13.10 Comparison with Previous Mineral Resource Statement

Table 41 compares the January 2014 with the May 2016 Mineral Resource Statements. Overall, there has been a significant increase in the Measured and Indicated contained metal with a slight reduction in Inferred contained metal. While Measured quantities remain negligible in 2016, the Indicated mineral resource contained metal has more than doubled. Most of this change may be attributed to the significant change in the borehole database, with 51,480 metres of drilling executed since May 2013 (cut-off date of drilling for 2014 model). This represents a 64 percent increase to the borehole database. This new information improves the confidence in the continuity of the gold mineralization and the classification.

Furthermore in 2016, the mineralized domains were interpreted and modelled based on 0.5-metre composites instead of the 2.0-metre composites in 2014. This significantly impacts interpreted vein thickness. From an accounting perspective, the three Attagh domains from 2014 are excluded, yet the overall number of veins considered in 2016 increased to 16 veins from 12 veins in 2014.

SRK notes that while the total classified quantity of material above cut-off has increased by only 16 percent, the narrower definition of veins has allowed for less dilution and contributes to increasing the average grade by 9 percent for all classes of material. This combination of increased tonnage and increased grades yields an overall increase in contained gold by 26 percent.

The infill drilling conducted in 2015 successfully upgraded the classification of material that was previously classified as Inferred into an Indicated category, while improving the overall confidence in the geological continuity of the modelled mineralization.

Table 41: Comparison Between January 2014 and May 2016 Mineral Resource Statements

	January 2014			May 2016			Percentage Difference Jan. 2014 to May 2016		
Class	**Quantity (Kt)**	**Gold Grade (g/t)**	**Contained Gold (Koz)**	**Quantity (Kt)**	**Gold Grade (g/t)**	**Contained Gold (Koz)**	**Quantity (Kt)**	**Gold Grade (g/t)**	**Contained Gold (oz)**
Measured	23	20.15	15	28	26.99	25	22%	34%	64%
Indicated	2,976	10.34	989	5,583	11.53	2,069	88%	11%	109%
Meas + Ind	3,000	10.42	1,004	5,611	11.61	2,094	87%	11%	109%
Inferred	8,006	9.67	2,488	7,130	10.06	2,306	-11%	4%	-7%

14 Mineral Reserve Estimates

There are no mineral reserves for the Curraghinalt gold deposit on the Northern Ireland gold project.

15 Mining Methods

During 2014 Micon (Micon, 2014) completed a preliminary economic assessment for a conceptual underground mine targeting mineral resources evaluated by T. Maunula & Associates Consulting Inc. (Maunula, 2014). That mineral resource evaluation is obsolete and is replaced by the mineral resource evaluation reported herein.

In September 2015, Dalradian initiated additional exploration, hydrogeology, rock and soil geotechnical work, metallurgical and geochemical characterization of the gold mineralization and the waste rock, and mine engineering studies to design a new underground mine and mill complex targeting the mineral resources discussed herein, and evaluate at a feasibility level its economic viability. At the time this technical report is being prepared, the engineering work is ongoing.

The feasibility study examines mining methods that are different than that considered by the preliminary economic assessment. In this context, the results of the preliminary economic assessment prepared by Micon in 2014 are no longer valid and current.

16 Recovery Methods

During 2014 Micon (Micon, 2014) completed a preliminary economic assessment for a conceptual underground mine targeting mineral resources evaluated by T. Maunula & Associates Consulting Inc. (Maunula, 2014). That mineral resource evaluation is obsolete and is replaced by the mineral resource evaluation reported herein.

In September 2015, Dalradian initiated additional exploration, hydrogeology, rock and soil geotechnical work, metallurgical and geochemical characterization of the gold mineralization and the waste rock, and mine engineering studies to design a new underground mine and mill complex targeting the mineral resources discussed herein, and evaluate at a feasibility level its economic viability. At the time this technical report is being prepared, the engineering work is ongoing.

The feasibility study examines recovery methods that are different than that considered by the preliminary economic assessment. In this context, the results of the preliminary economic assessment prepared by Micon in 2014 are no longer valid and current.

17 Project Infrastructure

During 2014 Micon (Micon, 2014) completed a preliminary economic assessment for a conceptual underground mine targeting mineral resources evaluated by T. Maunula & Associates Consulting Inc. (Maunula, 2014). That mineral resource evaluation is obsolete and is replaced by the mineral resource evaluation reported herein.

In September 2015, Dalradian initiated additional exploration, hydrogeology, rock and soil geotechnical work, metallurgical and geochemical characterization of the gold mineralization and the waste rock, and mine engineering studies to design a new underground mine and mill complex targeting the mineral resources discussed herein, and evaluate at a feasibility level its economic viability. At the time this technical report is being prepared, the engineering work is ongoing.

The project infrastructure proposed for the feasibility study is different than that considered in the preliminary economic assessment. In this context, the results of the preliminary economic assessment prepared by Micon in 2014 are no longer valid and current.

18 Market Studies and Contracts

There are no market studies and contracts that are relevant to this technical report.

19 Environmental Studies, Permitting, and Social or Community Impact

During 2014 Micon (Micon, 2014) completed a preliminary economic assessment for a conceptual underground mine targeting mineral resources evaluated by T. Maunula & Associates Consulting Inc. (Maunula, 2014). That mineral resource evaluation is obsolete and is replaced by the mineral resource evaluation reported herein.

In September 2015, Dalradian initiated additional exploration, hydrogeology, rock and soil geotechnical work, metallurgical and geochemical characterization of the gold mineralization and the waste rock, and mine engineering studies to design a new underground mine and mill complex targeting the mineral resources discussed herein, and evaluate at a feasibility level its economic viability. At the time this technical report is being prepared, the engineering work is ongoing.

The feasibility study project is significantly different than the conceptual project examined by the preliminary economic assessment. In this context, the results of the preliminary economic assessment prepared by Micon in 2014 are no longer valid and current.

As part of the feasibility study and in parallel with the geology, geotechnical, geochemistry and engineering work, Dalradian has initiated significant environmental and social baseline investigations to support the preparation of an environmental and social impact assessment. At the time this technical report is being prepared, the environmental, social and permitting studies are ongoing.

20 Capital and Operating Costs

Since the preliminary economic assessment prepared by Micon in 2014 is no longer current, this section is not applicable.

21 Economic Analysis

Since the preliminary economic assessment prepared by Micon in 2014 is no longer current, this section is not applicable.

22 Adjacent Properties

There are no adjacent properties that are relevant to this technical report.

23 Other Relevant Data and Information

There are no other relevant data or information that are considered relevant to this technical report.

24 Interpretation and Conclusions

Exploration core drilling on the Northern Ireland gold project has focussed the Curraghinalt gold deposit with the majority of boreholes drilled from the surface. The database used to evaluate the mineral resources of the Curraghinalt gold deposit includes 586 core boreholes (131,643 metres) and 497 underground channels (1,863 metres). Since the 2014 resource model, 51,480 metres of additional core drilling has been completed, representing a 64 percent increase to the borehole database by meterage. This new information considerably improves the confidence in the overall quality of the exploration database and in the continuity of the gold mineralization.

SRK witnessed the extent of the exploration work and can confirm that Dalradian's exploration work is conducted using field procedures that meet generally accepted industry best practices. SRK is of the opinion that the exploration data are sufficiently reliable to interpret with confidence the boundaries of the gold mineralization and support the evaluation and classification of mineral resources in accordance with generally accepted CIM *Estimation of Mineral Resource and Mineral Reserve Best Practices* and CIM *Definition Standards for Mineral Resources and Mineral Reserves*.

The bulk of the gold mineralization is hosted in a stacked network of narrow quartz-carbonate-sulphide veins. Sixteen vein resource domains were modelled using 0.5 metre composites. Extensive geostatistical studies were carried out on the composited data to select capping levels, and derive estimation parameters. Gold, sulphur, arsenic, silver were estimated into a block model using ordinary kriging informed from capped composited data. A density was assigned to each block using a relationship established between sulphur and specific gravity measurements on core pieces.

The block model was classified using a combination of tools, including confidence in the geological interpretation, search radii, minimum number of boreholes and composites, variography, and estimation pass. A Measured category was assigned to blocks within a 10 by 10 by 10 metres search radii around the underground workings if informed by a minimum of two boreholes and a minimum of five composites from either core and/or underground face samples. An Indicated classification was assigned to blocks estimated in the first, using a minimum of two boreholes. The mean average distance of informing composites for Indicated blocks is 50 metres; while on average, these blocks are informed by six boreholes. All other blocks not classified as Measured or Indicated, whose grade was estimated in a vein domain, were classified as Inferred. The modelled veins are crosscut by a network of late brittle faults. The fault displacement is small, usually on a decimetre scale. The vein blocks inside a 1-metre buffer around the modelled faults were declassified and are not reported as mineral resources.

SRK draws the following conclusions:

- Infill and step-out drilling, as well as underground development and structural geology investigations, have vastly improved the confidence in the geological and mineralization model and the confidence in the continuity of the gold mineralization
- There is good potential to expand the mineral resources along strike and down-dip with further drilling where most of the veins remain open.
- The boreholes have intersected secondary auriferous veins between those modelled. Their lateral continuity is difficult to establish at the borehole spacing of 50 metres. Some of these veins may represent secondary structures or splays of the modelled veins and offer an opportunity to expand the mineral resources locally. Planning for underground excavations should consider these unmodelled vein intervals.

25 Recommendations

The mineral resource model discussed herein is currently being considered to assess the economic viability of the mineral resources and complete a feasibility study. With material exploration activities concluded, SRK is not in a position to make meaningful recommendations for further work on the project until the results of the feasibility study have been disclosed.

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APPENDIX A

Summary of Quality Control Review

Year (based on start date)	1984 - 1986	1987 - 1989	1988/1989	1985 - 1997	1999	1999	2003	2003 - 2008	2010 - 2013	2013	2013	2015	2015 (Phase 1)	2015 (Phase 1)	2015-2016 (Phase 2)	2015-2016 (Phase 2)
Operator	**Ennex**	**Ennex**	**Ennex**	**Ennex**	**Ennex**	**Nickelodeon**	**Tournigan**	**Tournigan**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**
Drilling characteristics																
Number of Borehole	71	310	26	188	Sampling of old core only	Sampling of old core only	1	59	133	2	sampling of historical core	67	37	48	56	40
Borehole type	Trench/Chip	Underground	Core	Core			Trench	Core	Core	Channel		Channel	Core	Core	Core	Core
Collar position	Surface	Channel	Underground	Surface			Surface	Surface	Surface	Underground		Underground	Surface	Underground	Surface	Underground
Borehole ID Number	t01 to t71	UG1000 to UG1100; UG1102 to UG1105; UG1107 to UG1109; UG1112 to UG1161; UG1163 to UG1168; UG1170 to UG1197; UG1199 to 1206; UG1213 to UG1223; UG1226 to UG1233; UG2001 to UG2075; UG3001 to UG3016	5170-1 to 5170-26	90-01 to 90-56; 106-1 to 106-109	90-25, 90-41, 90-43, 90-51, 106-53, 106-55, 106-82, 106-95, 106-99, 106-102		03-CT-T01	03-CT-01 to 08-CT-57	10--CT-58 to 13-CT192	13-CT-CH1E; 13-CT-CH1W	Ennex90-xx and 106-xx series of boreholes	UG4000 to UG4019; UG4021 to UG4036; UG5000 to UG5009; UG5011 to UG5014; UG6000 to UG6007; UG6100 to UG6105; UG6200; UG6201; UG6300	15-CT-193 to 15-CT-217; 15-CT-234 to 15-CT-241; 15-CT-252 to 255	15-CT-218 to 15-CT-233; 15-CT-242 to 15-CT-251; 15-CT-256 to 15-CT-273; 15-CT-278 to 15-CT-279; 15-CT-261a; 15-CT-265a	15-CT-295 to 15-CT-315; 15-CT-329 to 15-CT-339; 16-CT-340 to 16-CT-345; 16-CT-352 to 16-CT-369	15-CT-274 to 15-CT-277; 15-CT-280 to 15-CT-294; 15-CT-316 to 15-CT-328; 15-CT-346 to 15-CT-349; 16-CT-350 to 16-CT-351; 15-CT-280a; 15-CT-294a
Length (m)	4,483	484.8	658.6	18,094.9	NA		278	12,564.6	48,954.2	832.8		228.8	11,397.00	13,331.13	19,144.77	7,606.26
Drilling contractor		Priority Drilling Ltd	Not recorded	Priority Drilling Ltd	NA			Irish Drilling Limited	Irish Drilling Limited, Major Drilling Ltd.	Dolta AMS			Major (37)	Major (48)	Major (30) Mason & St John (13) Priority (13)	Major (40)
Size	Chip	Chip	BQ	typically HQ, NQ in difficult situations, BQ accroding to recent TR	NA			typically HQ, NQ in difficult situations, BQ accroding to recent TR	HQ, NQ when reduction was necessary				HQ (33) HQ3 (4)	NQ (48)	HQ3 (53) HQ3/NQ3 (2) NQ3 (1)	NQ (15) NQ3 (25)
Archive		Dalradian's core facility, Omagh, Northern Ireland	Dalradian's core facility, Omagh, Northern Ireland	Dalradian's core facility, Omagh, Northern Ireland	Dalradian's core facility, Omagh, Northern Ireland			Dalradian's core facility, Omagh, Northern Ireland	Dalradian's core facility, Omagh, Northern Ireland	Dalradian's core facility, Omagh, Northern Ireland		Dalradian's core facility, Omagh, Northern Ireland	Dalradian's core facility, Omagh, Northern Ireland	Dalradian's core facility, Omagh, Northern Ireland	Dalradian's core facility, Omagh, Northern Ireland	Dalradian's core facility, Omagh, Northern Ireland
Borehole surveying																
Collar survey	unknown; Z pressed onto Lidar surface	Measured	unknown	Unknown in 80s, JGPS Baseline, Total Station and GPS in 90s	NA		GPS; Z pressed onto Lidar surface	GPS prior to drilling, GPS by Celtic Surveys Ltd thereafter; Z pressed onto Lidar surface	GPS prior to drilling, independent survey after completion of hole; Z pressed onto DEM surface except 13-CT-191 and 13-CT-192	Measured	NA	Measured	GPS prior to drilling, survey after completion of hole	Collar, front and backsites surveyed prior to drilling, survey after completion of hole	GPS prior to drilling, survey after completion of hole	Collar, front and backsites surveyed prior to drilling, survey after completion of hole

Year (based on start date)	1984 - 1986	1987 - 1989	1988/1989	1985 - 1997	1999	1999	2003	2003 - 2008	2010 - 2013	2013	2013	2015	2015 (Phase 1)	2015 (Phase 1)	2015-2016 (Phase 2)	2015-2016 (Phase 2)
Operator	**Ennex**	**Ennex**	**Ennex**	**Ennex**	**Ennex**	**Nickelodeon**	**Tournigan**	**Tournigan**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**
Collar Azimuth/plunge	unknown	NA	unknown	Unknown in 80s, John Barnett & Associates Ltd.: Land Survey Services in 90s	NA		NA	unknown	unknown	NA	unknown	NA	Various	Various	Various	Various
Surveyor	unknown	unknown	unknown	Unknown in 80s, John Barnett & Associates Ltd.: Land Survey Services in 90s	NA								Dean Welch (DGL)	Dean Welch (DGL)	Dean Welch (DGL)	Dean Welch (DGL)
Downole Surveying	NA	unknown	unknown	unknown	NA		NA	Tropari on first four holes ("Reflexit" multi shot every 6 metres; based on TR)	EZ-Tracand Flexit Multi-Shot every 5 metres	EZ-Trac every 5 metres	NA		Drill Company	Drill Company	Drill Company	Drill Company
Casing	NA	NA	unknown	Cemented	NA		NA	Cemented	Cemented	Cemented						
Core orientation	NA	unknown	unknown	unknown	NA		NA									
Other borehole data								lithology, structure, alteration, RQD, mineralization	lithology, structure, RQD, mineralization, mag sus, NIR at 3m intervals	lithology, structure, RQD, mineralization, mag sus, NIR at 3m intervals		Lithology, alteration, mineralization	Lithology, structure, alteration, veins, RQD, SG	Lithology, structure, alteration, veins, RQD, SG	Lithology, structure, alteration, veins, RQD, SG	Lithology, structure, alteration, veins, RQD, SG
Sampling procedure																
Sampling procedure	unknown	chip	unknown	½ core	½ core		Chip	½ core, sawed	½ core, sawed; 4 samples ¼ core	Chips	pulp (14 samples) whole core (85 samples) ½ core (5518 samples)	Chips	mostly ½ core, sawed; 5 samples ¼ core	mostly ½ core, sawed; 3 samples ¼ core	mostly ½ core, sawed; 1 samples ¼ core	All ½ core, sawed
Sample intervals	0.02(!) to 2.5	0.04 to 1.52		0.03 to 1.53	0.2 to 1.83		0.05 to 2.9	0.03 to 3.0	0.01 to 6.47	0.15 to 1.0	0.05 to 1.55	0.1 to 2.6	0.1 to 2.7	0.15 to 1.59	0.2 to 1.21	0.2 to 1.26
Mean Sample length	0.95	0.52		0.39	0.58		1.9		0.64	0.81	0.77	0.86	0.67	0.66	0.62	0.63
Number of sample intervals	1,673	910		1,500	21	57	153	2,442 by Tournigan; 2,859 by Dalradian	27,233	404	5,617	251	4,873	6,211	8,413	2,682
Quality control samples																
Standard reference material	None	None	None	none by Ennex; 16 in 2013 sampling	None	None	unknown	254	2,613	yes			620 (6 different types)		639 (6 different types)	
rate	NA	NA	NA	NA	NA	NA	NA	variable, typically 1 in 5	variable, approximately 1 in 7	1 in 20; approximately 10 percent elsewhere in documentation			approx. 1 in 18		approx. 1 in 17	
Field Duplicate	5	None	None	none	None	None	unknown	28	35	2		None	None	None	None	None
rate	NA	NA	NA		NA	NA	NA	variable	negligible	1 in 200		NA	NA	NA	NA	NA

Year (based on start date)	1984 - 1986	1987 - 1989	1988/1989	1985 - 1997	1999	1999	2003	2003 - 2008	2010 - 2013	2013	2013	2015	2015 (Phase 1)	2015 (Phase 1)	2015-2016 (Phase 2)	2015-2016 (Phase 2)
Operator	**Ennex**	**Ennex**	**Ennex**	**Ennex**	**Ennex**	**Nickelodeon**	**Tournigan**	**Tournigan**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**	**Dalradian**
Blank	None	None	None	None	None	None	unknown	444	2570	1198 devided between Surface Core and UG Channel		24	303	368	530	168
rate	NA	NA	NA	NA	NA	NA	NA	variable, typically approximately 1 in 5	variable, approximately 1 in 7	approx. 1 in 7 (2013 sampling only)		Approx. 1 in 10	approx. 1 in 17		approx. 1 in 16	
Primary Laboratory	OMAC Laboratories Ltd.	OMAC Laboratories Ltd.	OMAC Laboratories Ltd.	OMAC Laboratories Ltd.	OMAC Laboratories Ltd.	Chemex (Vancouver)	OMAC Laboratories Ltd.	OMAC Laboratories Ltd.	OMAC Laboratories Ltd.; ALS Ltd. (Loughrea, Ireland)	OMAC Laboratories Ltd.; ALS Ltd. (Loughrea, Ireland)	OMAC Laboratories Ltd.; ALS Ltd. (Loughrea, Ireland)	OMAC Laboratories Ltd.; ALS Ltd. (Loughrea, Ireland)	OMAC Laboratories Ltd.; ALS Ltd. (Loughrea, Ireland)	OMAC Laboratories Ltd.; ALS Ltd. (Loughrea, Ireland)	OMAC Laboratories Ltd.; ALS Ltd. (Loughrea, Ireland)	OMAC Laboratories Ltd.; ALS Ltd. (Loughrea, Ireland)
Number of samples	1,673	9,010	0	1,500	21	57	153	2,442 by Tournigan; 2,859 by Dalradian	27,233	404	5,617	251	4,873	6,211	8,413	2,682
Assay method	Some Wet Assay, some unknown	some unknown; Fire Assay, AA finish, Wet Assay for Gold ICP-ES, MA/ES for Silver	unknown	some unknown; Wet Assay; Fire Assay	Fire Assay, AA finish		FA_AAS (Au3, Au5)	Fire Assay, AA finish for Gold; ICP-AES for multi element	Fire Assay, AA finish for Gold (various packages); 5 samples FA_Grav ICP-AES for multi element	Fire Assay, AA finish for Gold; ICP-AES for multi element	Fire Assay, AA finish	Fire Assay, AA finish for Gold ; 3 samples FA_Grav ICP-AES for multi element	Fire assay, AA finish; Fire assay Grav finish	Fire assay, AA finish; Fire assay Grav finish	Fire assay, AA finish; Fire assay Grav finish	Fire assay, AA finish; Fire assay Grav finish
Sub-sample size	unknown	unknown	unknown	some unknown; 30g; 50g	unknown		combination of 30 and 50g	50 g	51 g	50 g	50 g (almost exclusively)	50 g	50 g	50 g	50 g	50 g
Primary Au assay	1,673	910	0	1500	21		153	2442 by Tournigan; 2,859 by Dalradian	27,233	404	5,617	251	4,873	6,211	8,413	2,682
Other assaying		silver			Ag, multi element			Ag, multi element	Ag, multi element		Ag, multi element	Ag, multi element	Ag, multi element	Ag, multi element	Ag, multi element	Ag, multi element
Original Assay Certificate	approx. 10 percent available	approx. 10 percent available	approx. 10 percent available	approx. 10 percent available	approx. 10 percent available	None	most available	most available	available	available	available	available	available	available	available	available

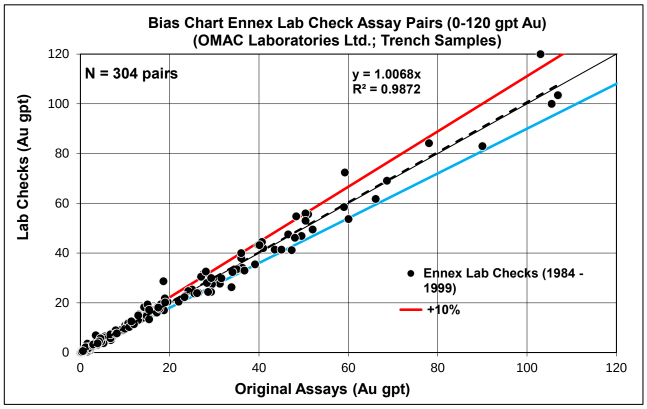
APPENDIX B

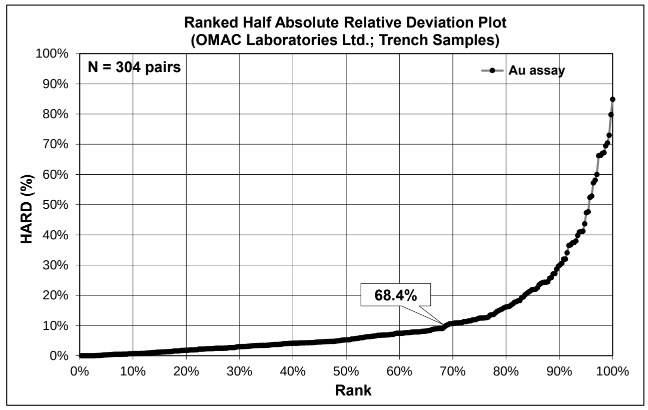
Analytical Quality Control Data and Relative Precision Charts

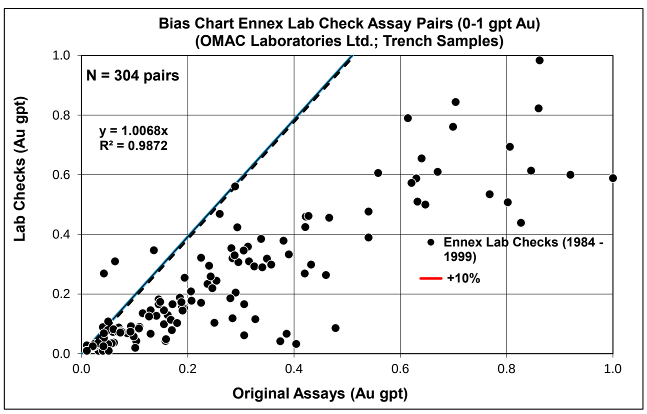
Bias Charts and Precision Plots for Pulp Duplicates, Trench Samples, assayed by OMAC Laboratories Ltd. between 1984 and 1999

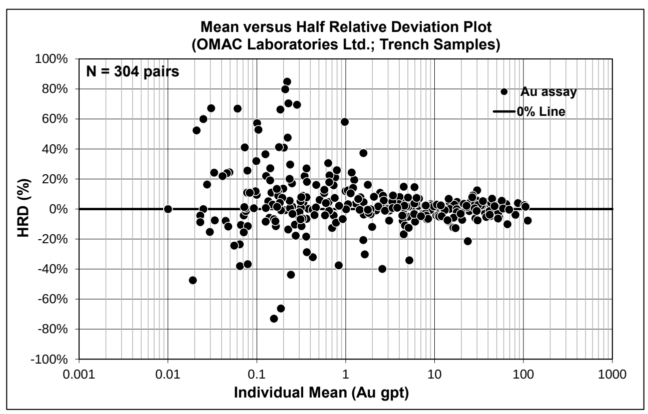
Project	Curraghinalt
Data Series	Ennex Lab Checks (1984 - 1999)
Data Type	Trench Samples
Commodity	Au in gpt
Analytical Method	Various
Detection Limit	0.01 ppm
Original Dataset	Original Assays
Paired Dataset	Lab Checks

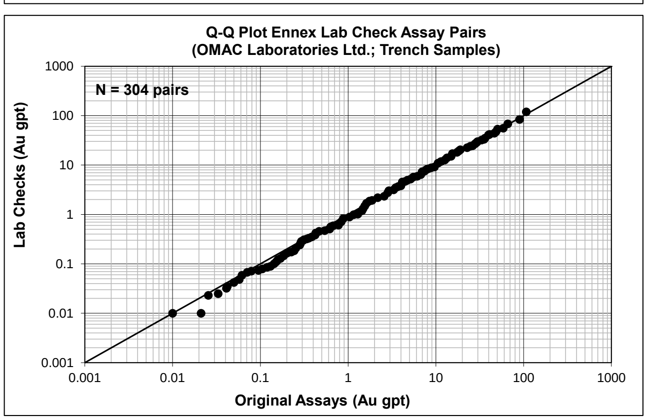
Statistics	**Original**	**Labcheck**
Sample Count	304	304
Minimum Value	0.010	0.010
Maximum Value	106.90	120.00
Mean	10.364	10.433
Median	1.616	1.691
Standard Error	1.047	1.061
Standard Deviation	18.247	18.492
Correlation Coefficient	0.9936	
Pairs ≤ 10% HARD	68.4%	

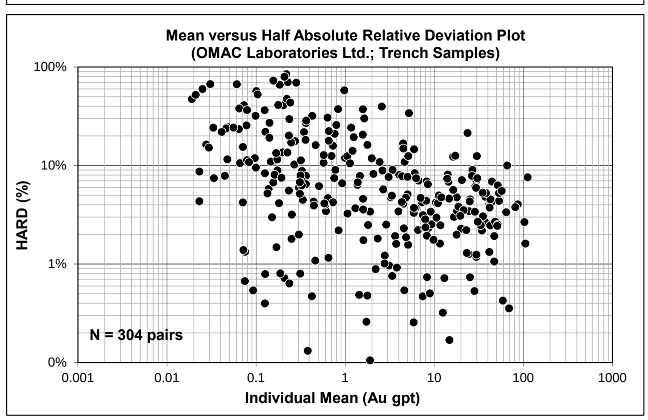












Time series plots for Certified Reference Material Samples, assayed by OMAC Laboratories Ltd. between 2003 and 2009

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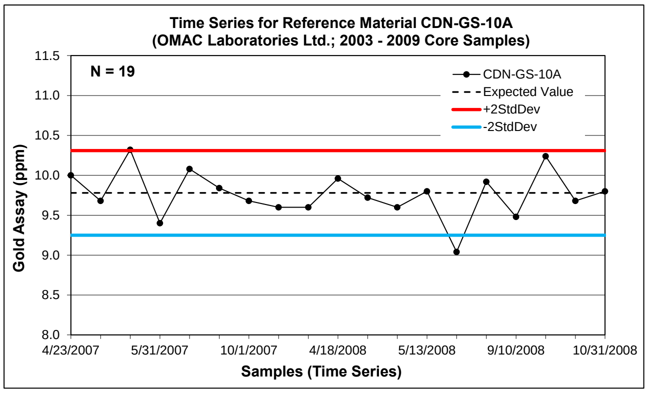
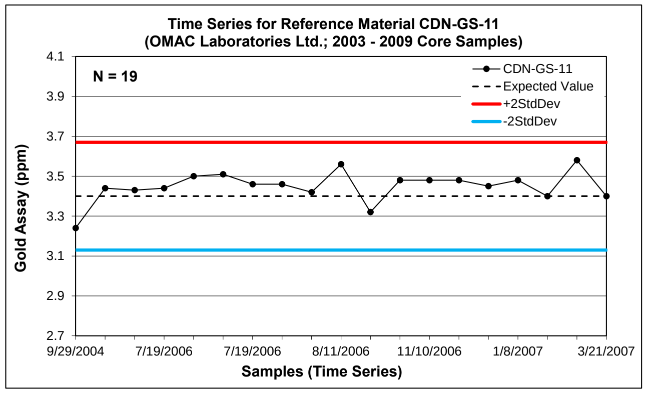
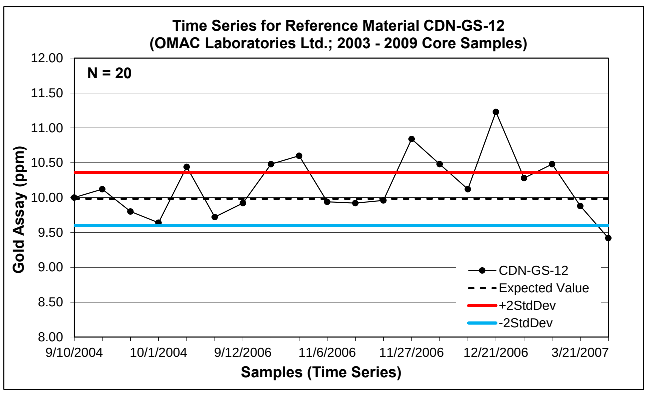
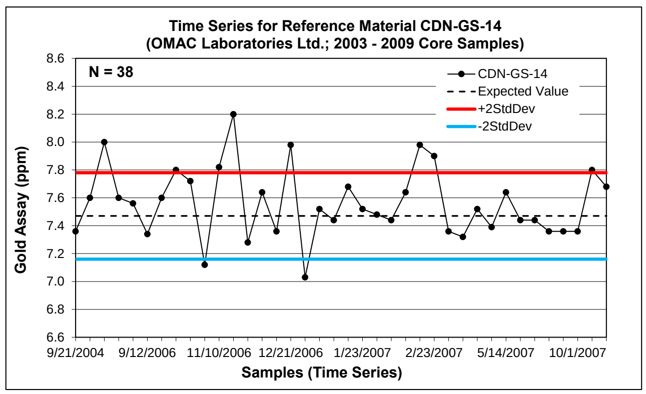
Project	Curraghinalt
Data Series	Tournigan Standards (2003-2009)
Data Type	Core Samples
Commodity	Au in gpt
Laboratory	OMAC Laboratories Ltd.
Analytical Method	Fire assay
Detection Limit	0.01 ppm

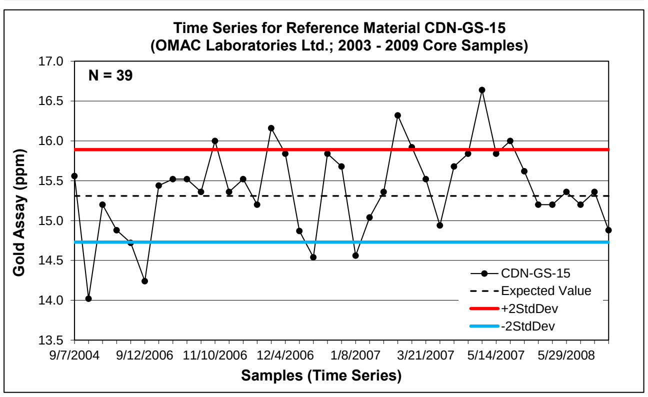
Statistics	**GS-10A**	**GS-11**	**GS-12**	**GS-14**	**GS-15**	**GS-15a**
Sample Count	19	19	20	38	39	10
Expected Value	9.78	3.40	9.98	7.47	15.31	14.83
Standard Deviation	0.27	0.14	0.19	0.16	0.29	0.31
Data Mean	9.76	3.45	10.16	7.56	15.38	15.10
Outside 2StdDev	11%	0%	40%	26%	28%	30%
Below 2StdDev	1	0	1	2	5	1
Above 2StdDev	1	0	7	8	6	2

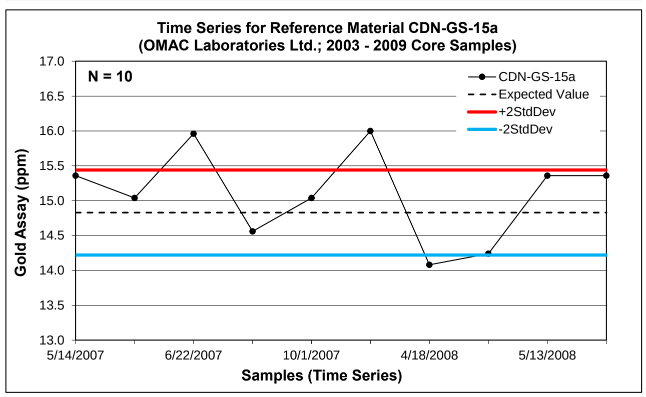












Time series plots for Certified Reference Material Samples, assayed by OMAC Laboratories Ltd. between 2003 and 2009

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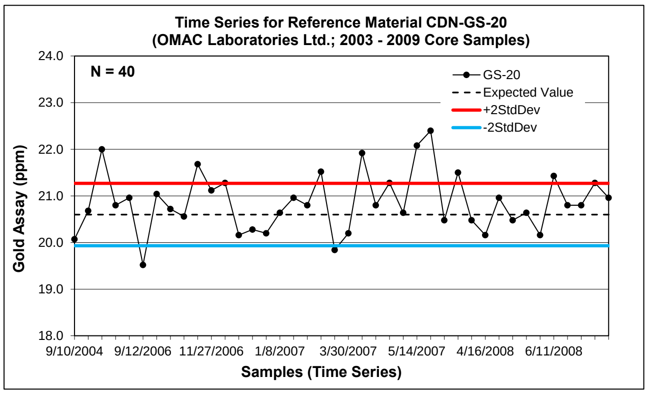
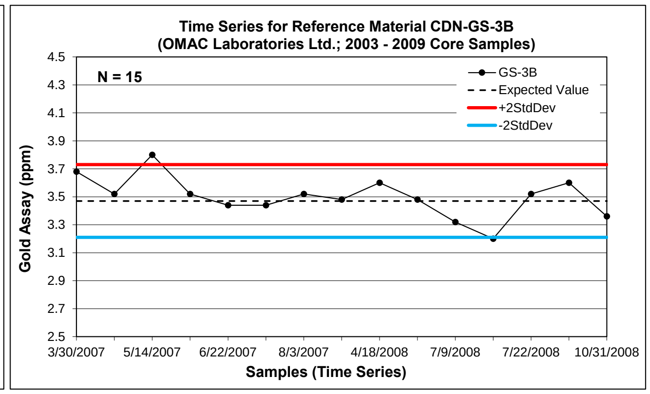
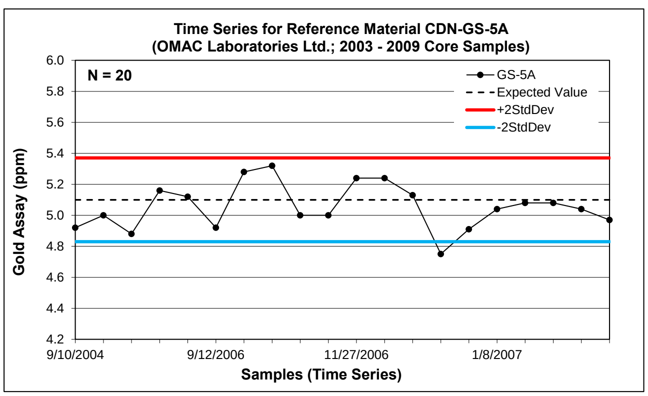
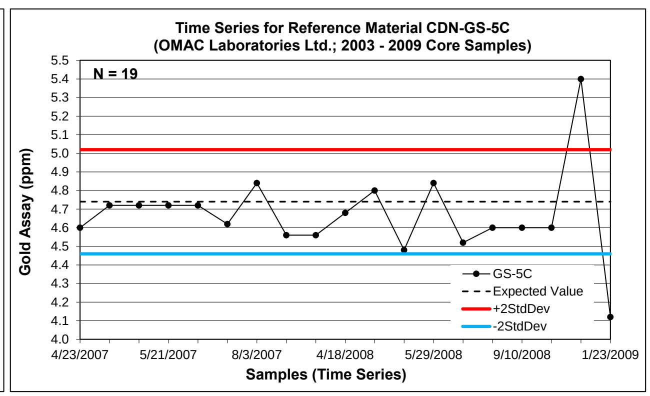
Project	Curraghinalt
Data Series	Tournigan Standards (2003-2009)
Data Type	Core Samples
Commodity	Au in gpt
Laboratory	OMAC Laboratories Ltd.
Analytical Method	Fire assay - gravimetric finish
Detection Limit	0.01 ppm

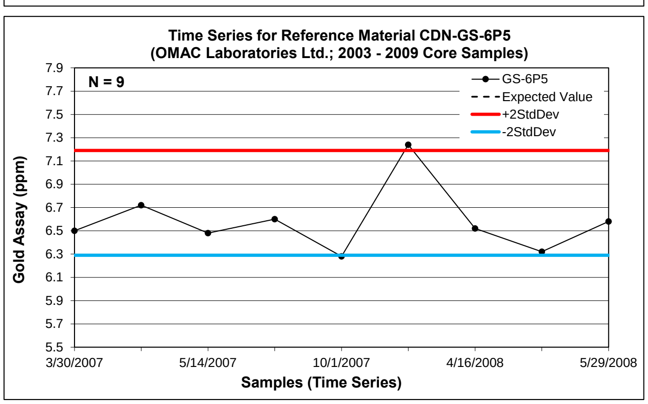
Statistics	**GS-20**	**GS-3B**	**GS-5A**	**GS-5C**	**GS-6P5**
Sample Count	40	15	20	19	9
Expected Value	20.60	3.47	5.10	4.74	6.74
Standard Deviation	0.34	0.13	0.14	0.14	0.23
Data Mean	20.86	3.50	5.05	4.67	6.58
Outside 2StdDev	33%	13%	5%	11%	22%
Below 2StdDev	2	1	1	1	1
Above 2StdDev	11	1	0	1	1











Time series plot for Field Blank Samples, assayed by OMAC Laboratories Ltd. between 2003 and 2009

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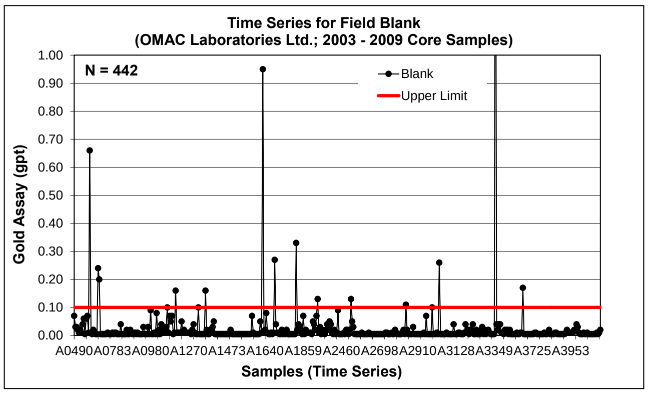
Project	Curraghinalt
Data Series	Tournigan Blanks (2003-2009)
Data Type	Core Samples
Commodity	Au in gpt
Laboratory	OMAC Laboratories Ltd.
Analytical Method	Fire assay - AAS finish
Detection Limit	0.01 ppm

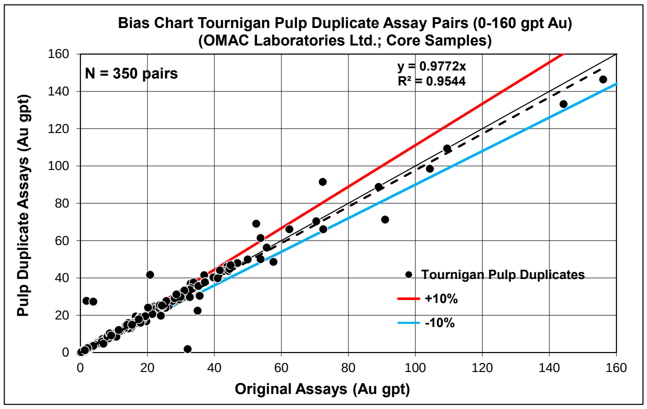
Statistics	Blank
Sample Count	442
Expected Value	0.010
Standard Deviation	-
Data Mean	0.026
Upper Limit (10xDL)	3%

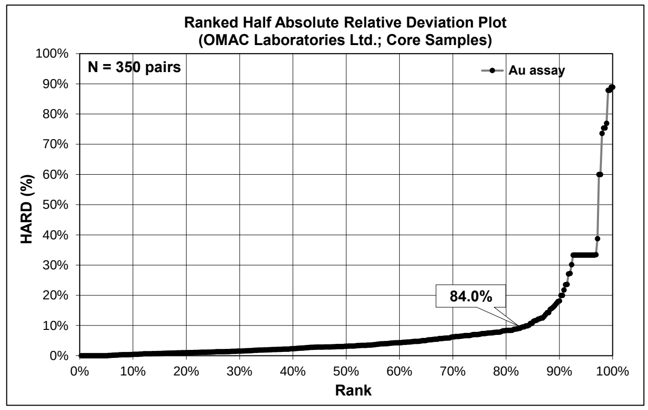


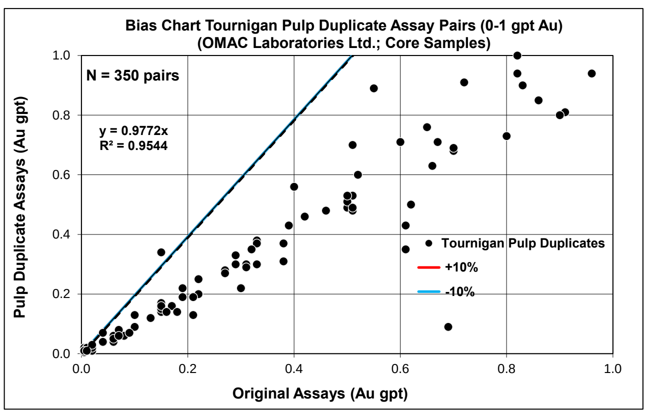
Bias Charts and Precision Plots for Pulp Duplicates, Core Samples, assayed by OMAC Laboratories Ltd. between 2003 and 2009

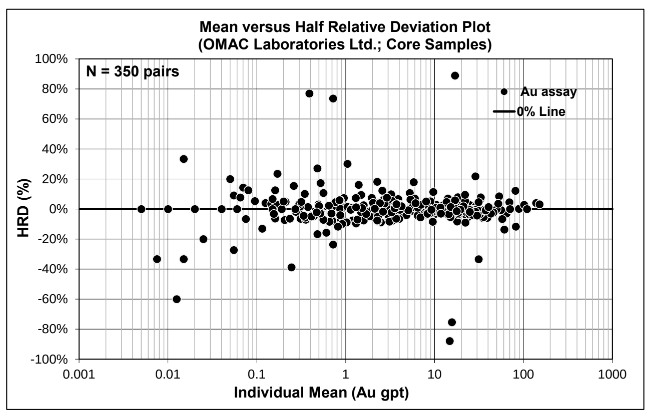
Project	Curraghinalt
Data Series	Tournigan Pulp Duplicates
Data Type	Core Samples
Commodity	Au in gpt
Analytical Method	Fire Assay
Detection Limit	0.01 ppm
Original Dataset	Original Assays
Paired Dataset	Pulp Duplicate Assays

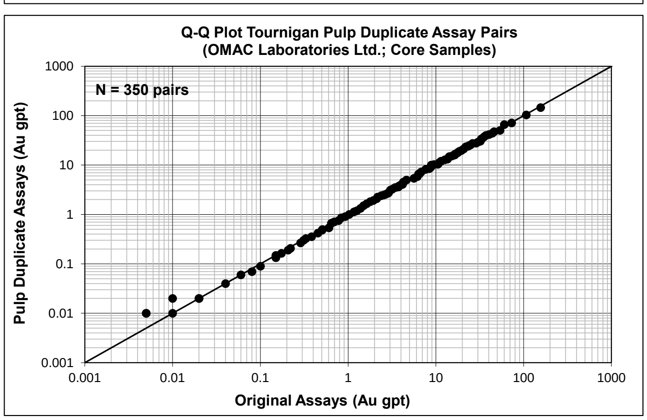
Statistics	**Original**	**Pulp Duplicate**
Sample Count	350	350
Minimum Value	0.005	0.005
Maximum Value	156.03	146.42
Mean	12.712	12.850
Median	4.000	3.980
Standard Error	1.099	1.084
Standard Deviation	20.557	20.285
Correlation Coefficient	0.9773	
Pairs ≤ 10% HARD	84.0%	

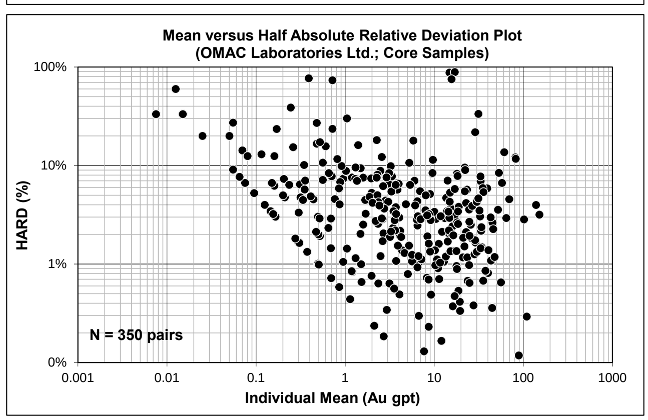








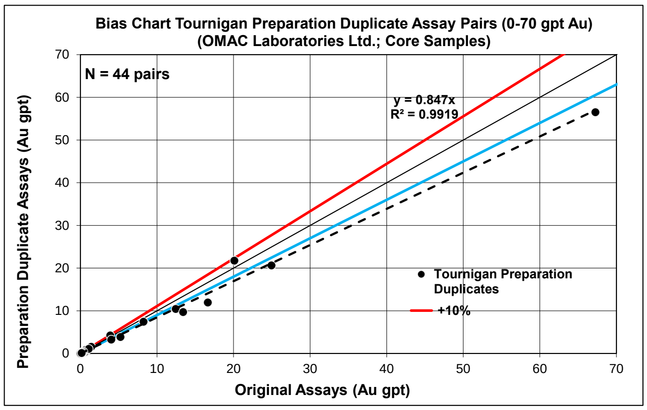


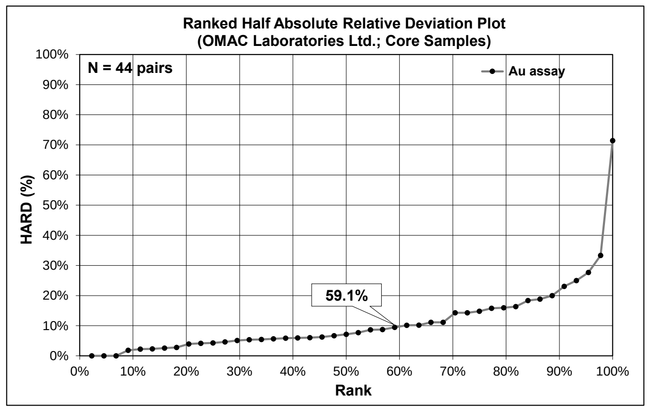


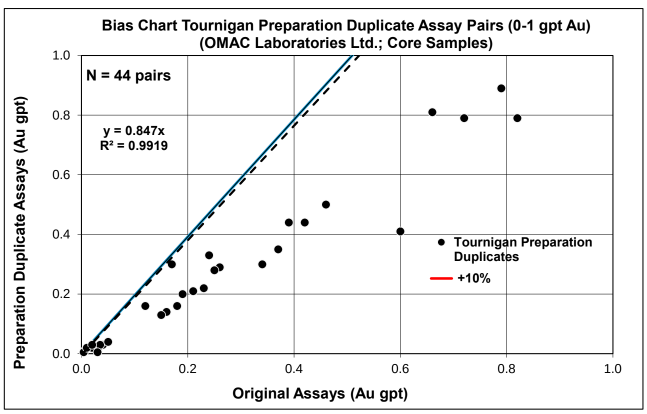
Bias Charts and Precision Plots for Preparation Duplicates, Core Samples, assayed by OMAC Laboratories Ltd. between 2003 and 2009

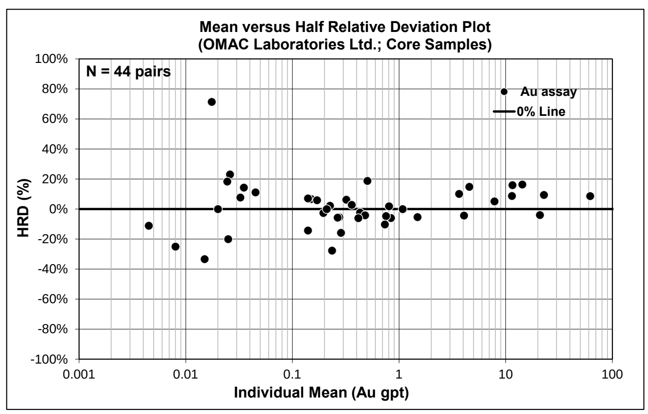
Project	Curraghinalt
Data Series	Tournigan Preparation Duplicates
Data Type	Core Samples
Commodity	Au in gpt
Analytical Method	Fire Assay
Detection Limit	0.01 ppm
Original Dataset	Original Assays
Paired Dataset	Preparation Duplicate Assays

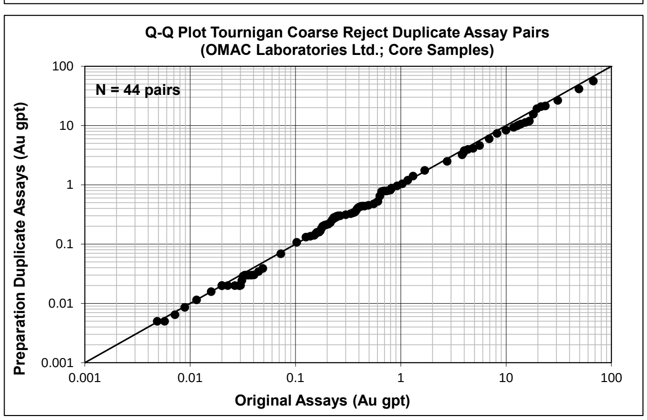
Statistics	**Original**	**Coarse Reject**
Sample Count	44	44
Minimum Value	0.004	0.005
Maximum Value	67.25	56.52
Mean	4.242	3.657
Median	0.300	0.315
Standard Error	1.705	1.447
Standard Deviation	11.311	9.595
Correlation Coefficient	0.9960	
Pairs ≤ 10% HARD	59.1%	

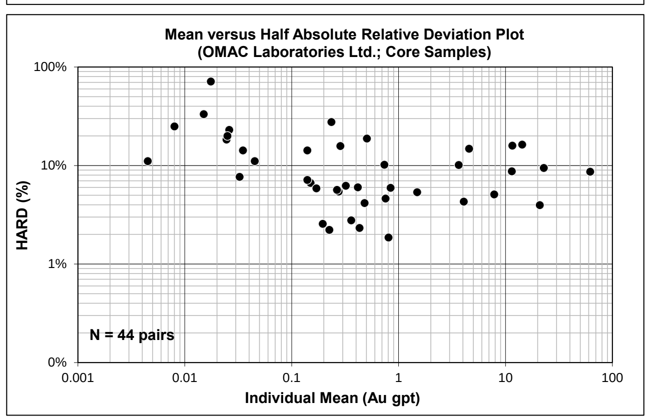












Bias Charts and Precision Plots for Lab-internal Pulp Duplicates (Lab Checks), Core Samples, assayed by OMAC Laboratories Ltd. between 2003 and 2009

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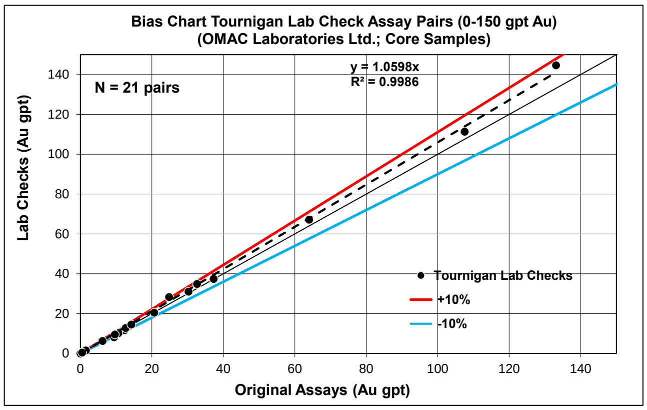
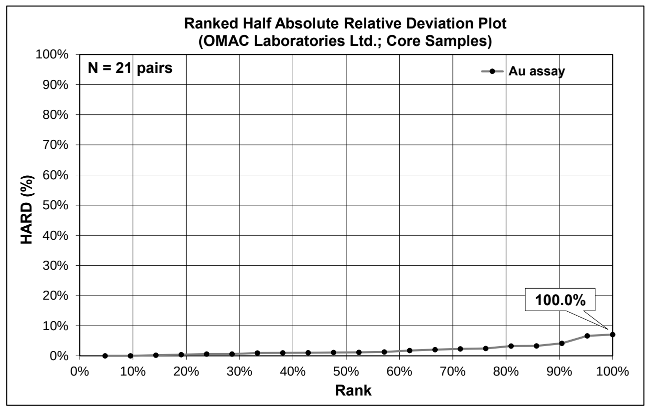
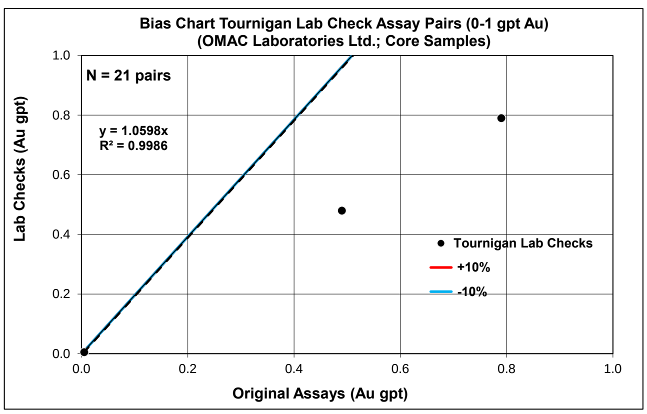
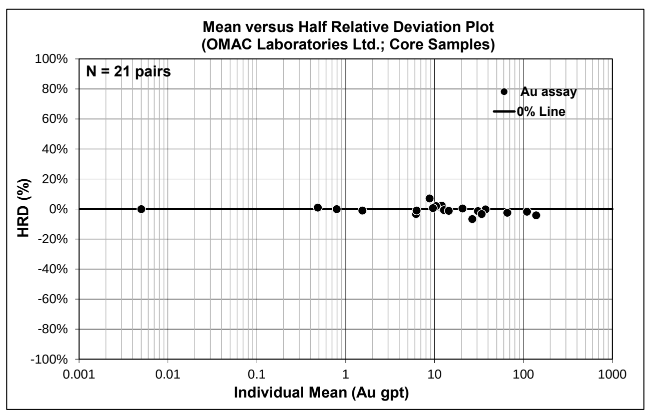
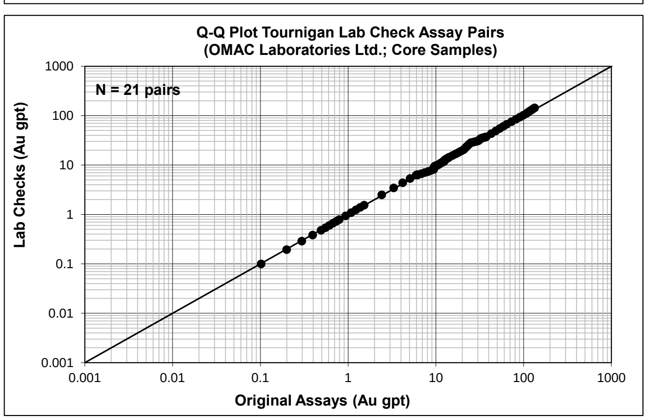
		Statistics	Original	Labcheck
		Sample Count	21	21
Project	Curraghinalt	Minimum Value	0.005	0.005
Data Series	Tournigan Lab Checks	Maximum Value	133.12	144.64
Data Type	Core Samples	Mean	26.000	27.119
Commodity	Au in gpt	Median	12.320	11.760
Analytical Method	Various	Standard Error	7.656	8.193
Detection Limit	0.01 ppm	Standard Deviation	35.086	37.544
Original Dataset	Original Assays	Correlation Coefficient	0.9994	
Paired Dataset	Lab Checks	Pairs ≤ 10% HARD	100.0%	

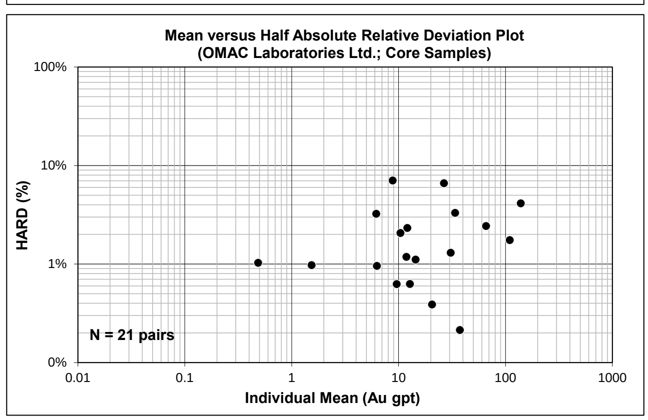












Time series plots for Certified Reference Material Samples, assayed by ALS Minerals between 2010 and 2016

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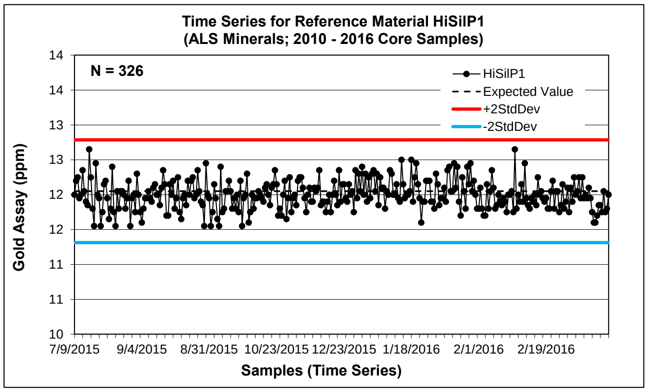
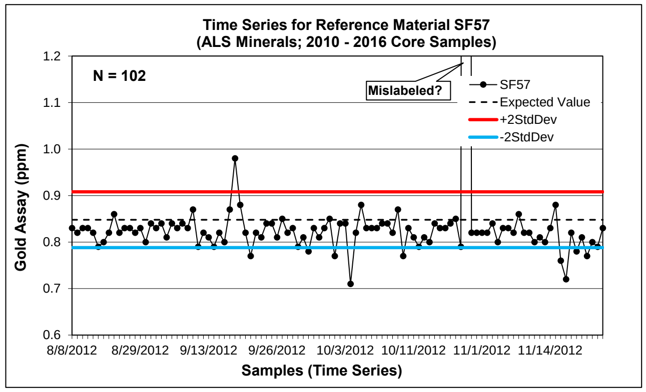
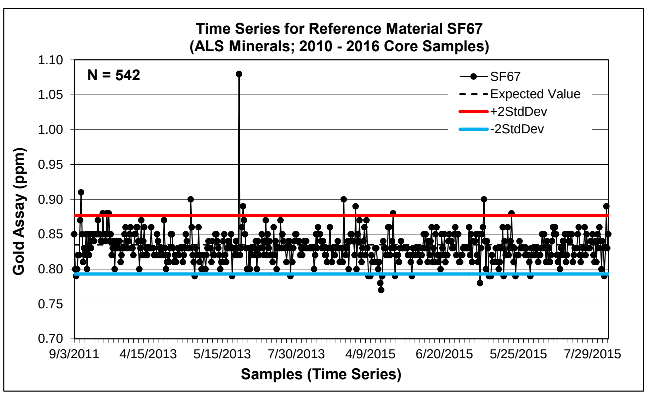
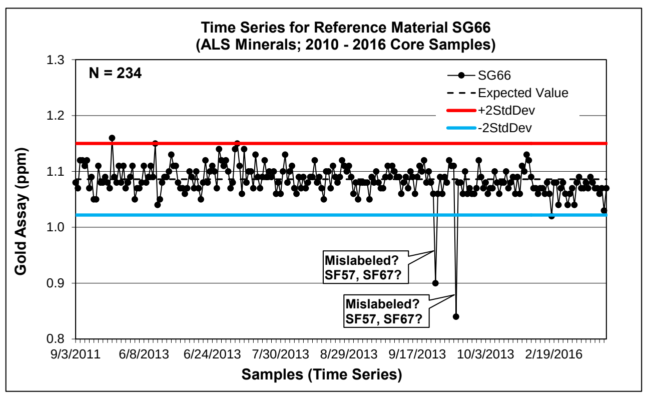
Project	Curraghinalt
Data Series	Dalradian Standards (2010-2016)
Data Type	Core Samples
Commodity	Au in gpt
Laboratory	ALS Minerals
Analytical Method	Fire assay
Detection Limit	0.01 ppm

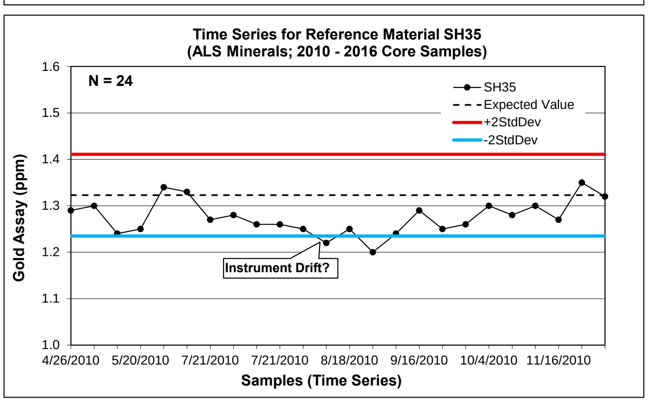
Statistics	**HiSilP1**	**SF57**	**SF67**	**SG66**	**SH35**	**SH41**
Sample Count	326	102	542	234	24	80
Expected Value	12.05	0.85	0.84	1.09	1.32	1.34
Standard Deviation	0.37	0.03	0.02	0.03	0.04	0.04
Data Mean	12.00	0.89	0.83	1.08	1.28	1.30
Outside 2StdDev	0%	11%	6%	2%	8%	21%
Below 2StdDev	0	9	20	3	2	17
Above 2StdDev	0	2	13	1	0	0

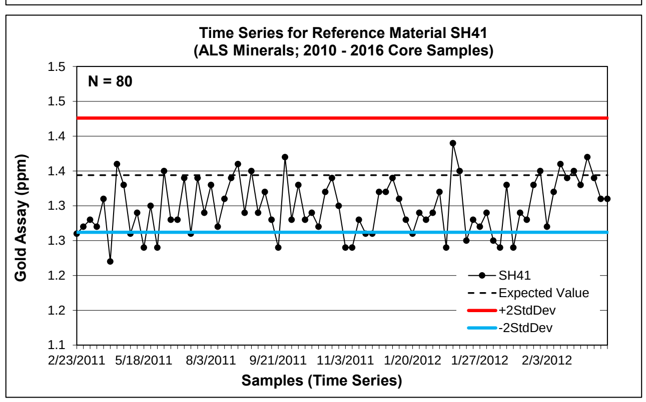












Time series plots for Certified Reference Material Samples, assayed by ALS Minerals between 2010 and 2016

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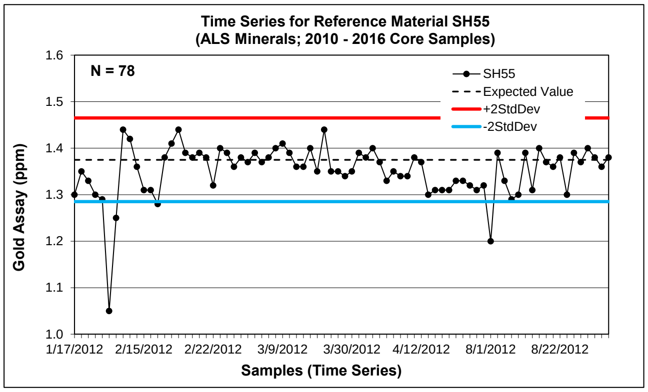
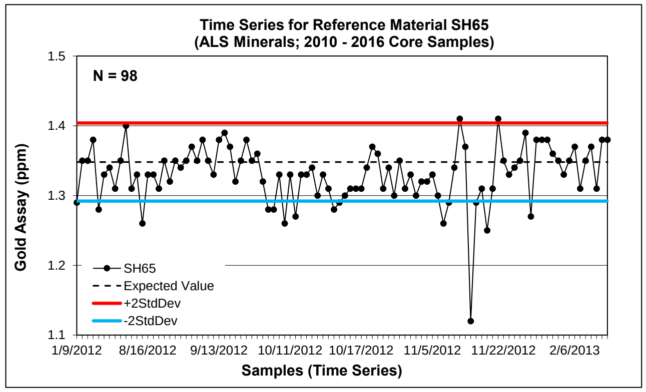
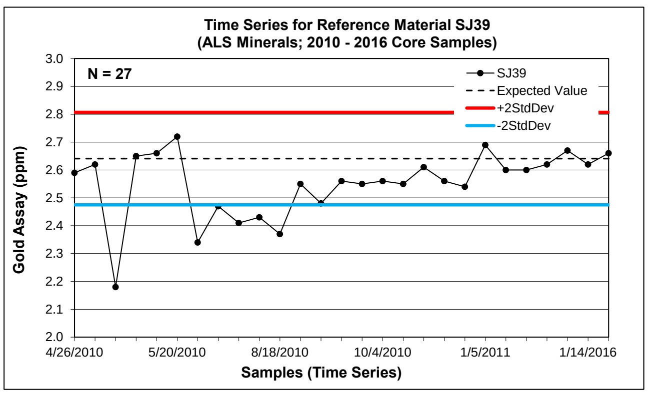
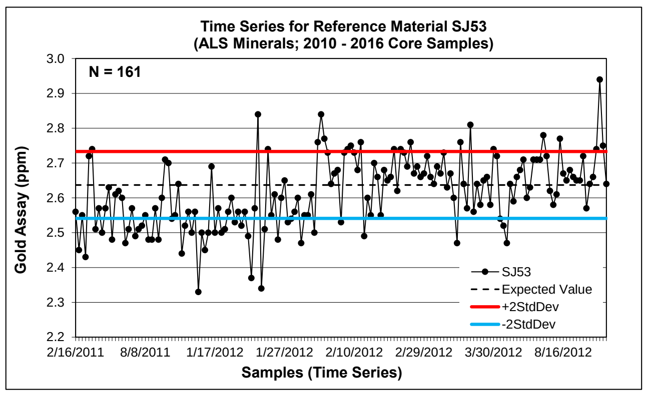
Project	Curraghinalt
Data Series	Dalradian Standards (2010-2016)
Data Type	Core Samples
Commodity	Au in gpt
Laboratory	ALS Minerals
Analytical Method	Fire assay
Detection Limit	0.01 ppm

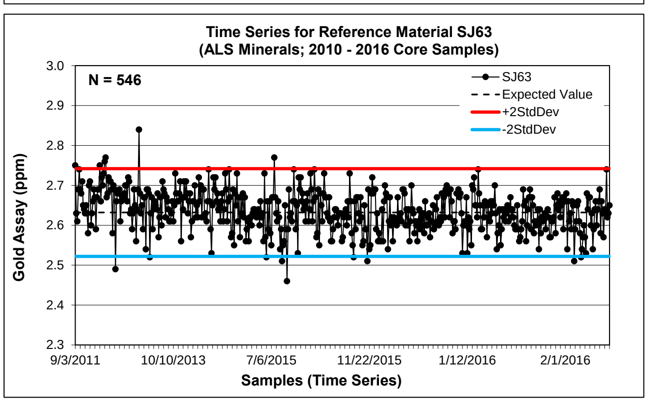
Statistics	**SH55**	**SH65**	**SJ39**	**SJ53**	**SJ63**	**SL46**
Sample Count	78	98	27	161	546	25
Expected Value	1.38	1.35	2.64	2.64	2.63	5.87
Standard Deviation	0.05	0.03	0.08	0.05	0.06	0.17
Data Mean	1.35	1.33	2.55	2.61	2.64	5.85
Outside 2StdDev	5%	17%	22%	38%	3%	16%
Below 2StdDev	4	15	6	41	9	2
Above 2StdDev	0	2	0	20	6	2

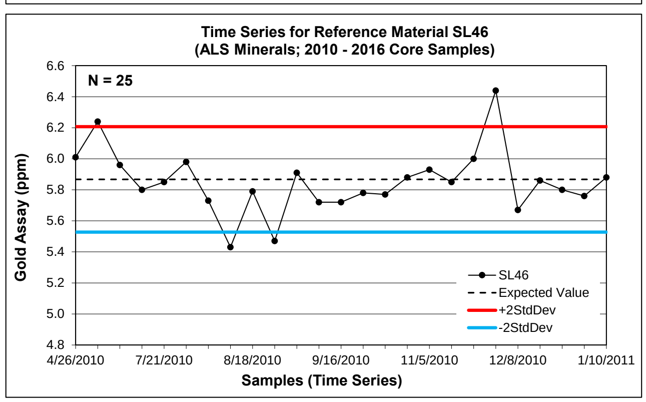












Time series plots for Certified Reference Material Samples, assayed by ALS Minerals between 2010 and 2016

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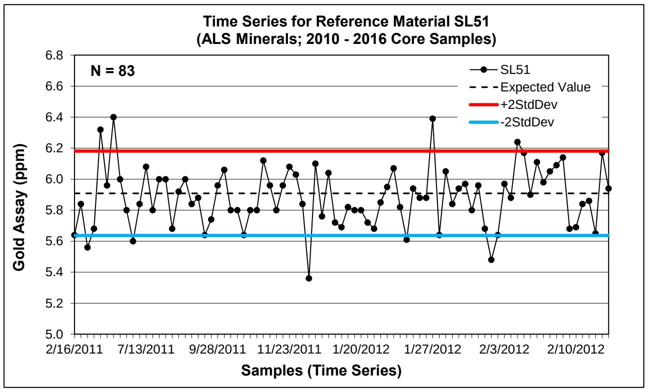
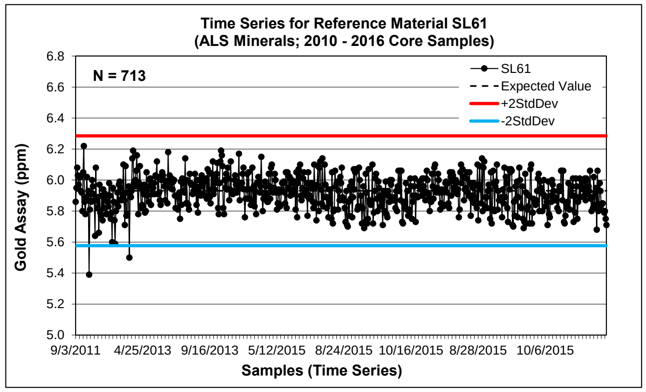
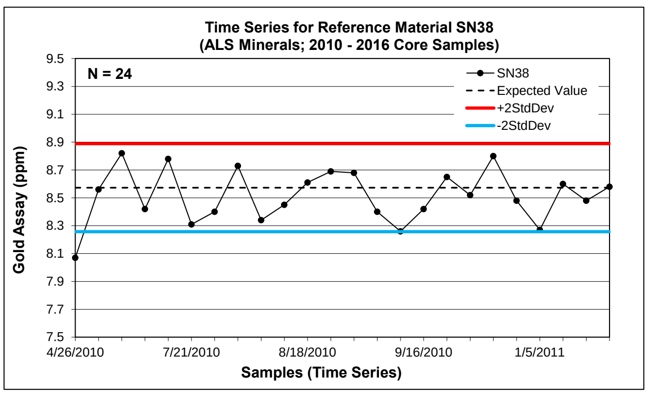
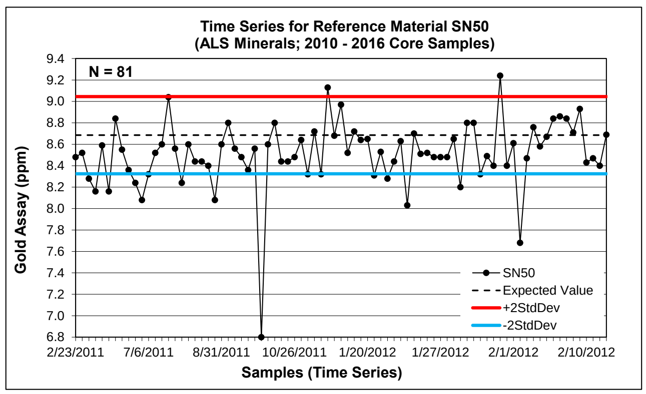
Project	Curraghinalt
Data Series	Dalradian Standards (2010-2016)
Data Type	Core Samples
Commodity	Au in gpt
Laboratory	ALS Minerals
Analytical Method	Fire assay
Detection Limit	0.01 ppm

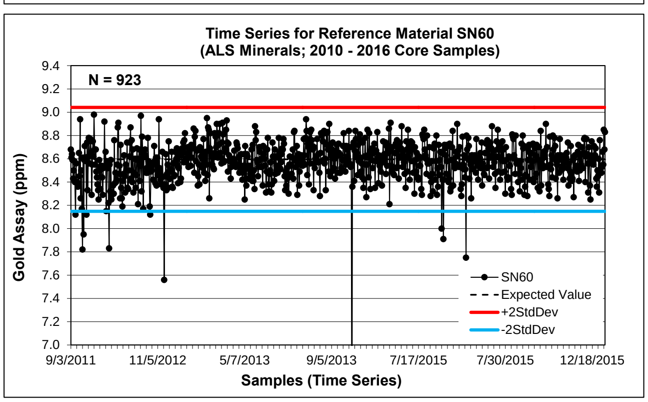
Statistics	**SL51**	**SL61**	**SN38**	**SN50**	**SN60**	**SP37**
Sample Count	83	713	24	81	923	99
Expected Value	5.91	5.93	8.57	8.69	8.60	18.14
Standard Deviation	0.14	0.18	0.16	0.18	0.22	0.38
Data Mean	5.88	5.92	8.51	8.51	8.57	17.97
Outside 2StdDev	11%	0%	4%	23%	1%	23%
Below 2StdDev	5	2	1	17	11	14
Above 2StdDev	4	0	0	2	0	9

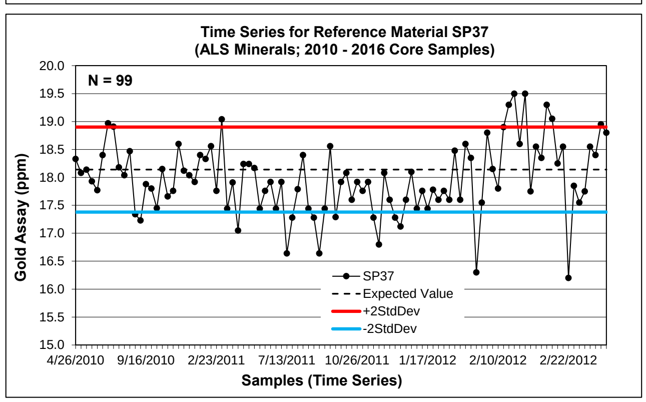












Time series plots for Certified Reference Material Samples, assayed by ALS Minerals between 2010 and 2015

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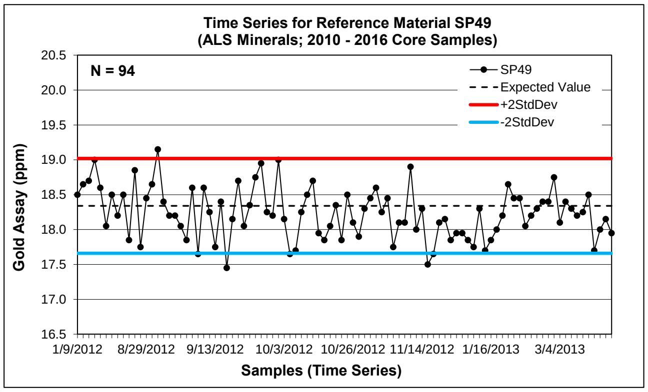
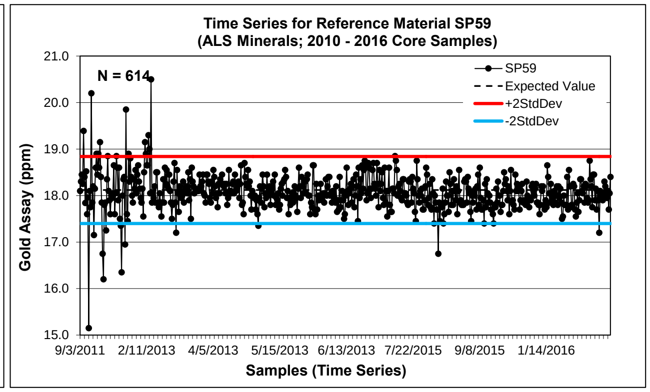
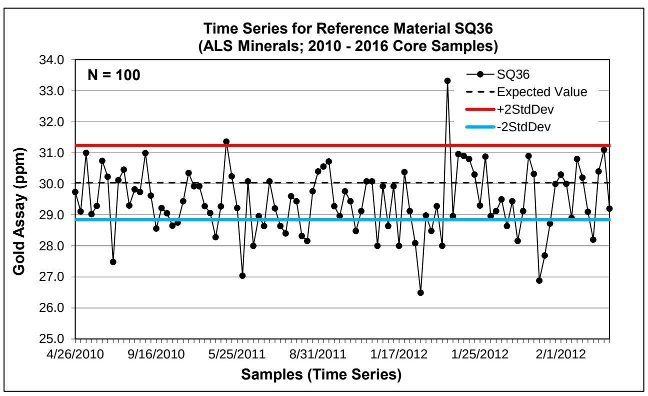
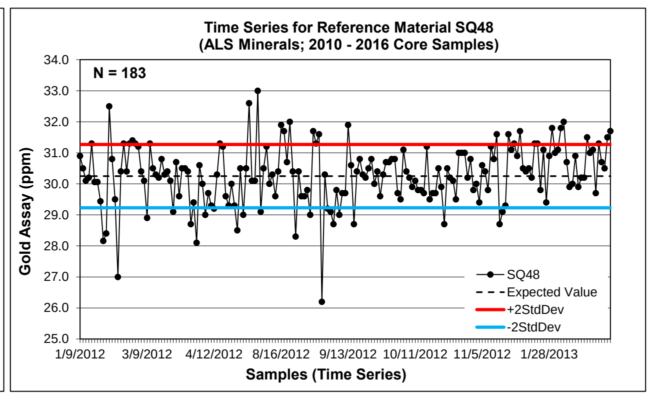
Project	Curraghinalt
Data Series	Dalradian Standards (2010-2016)
Data Type	Core Samples
Commodity	Au in gpt
Laboratory	ALS Minerals
Analytical Method	Fire assay
Detection Limit	0.01 ppm

Statistics	**SP49**	**SP59**	**SQ36**	**SQ48**
Sample Count	94	614	100	183
Expected Value	18.34	18.12	30.04	30.25
Standard Deviation	0.34	0.36	0.60	0.51
Data Mean	18.23	18.07	29.43	30.29
Outside 2StdDev	6%	4%	28%	29%
Below 2StdDev	5	12	26	23
Above 2StdDev	1	15	2	30









Bias Charts and Precision Plots for Pulp Duplicates, Core Samples, assayed by ALS Minerals between 2010 and 2015

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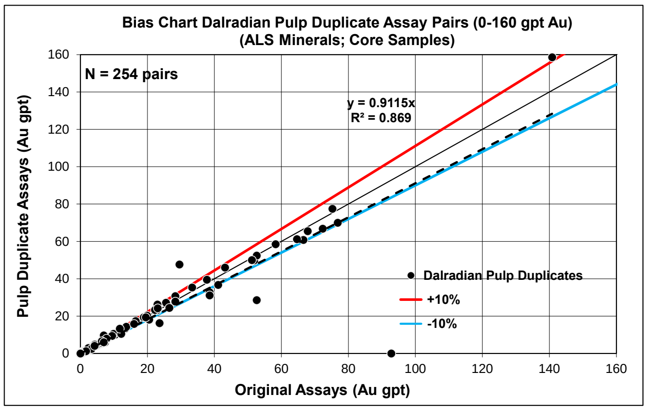
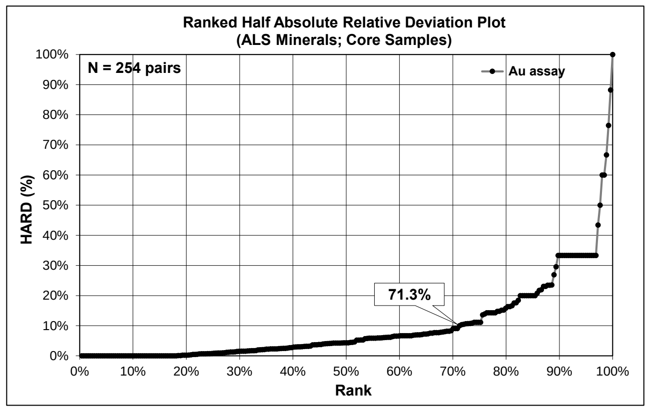
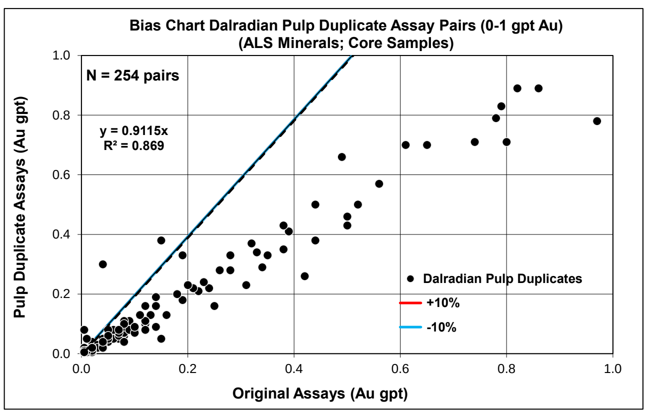
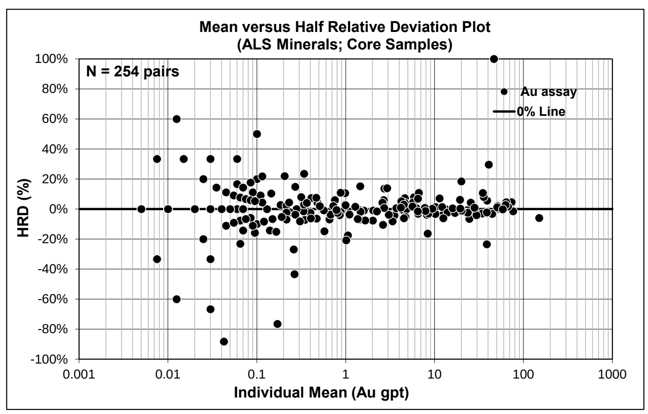
Project	Curraghinalt
Data Series	Dalradian Pulp Duplicates
Data Type	Core Samples
Commodity	Au in gpt
Analytical Method	Fire Assay
Detection Limit	0.01 ppm
Original Dataset	Original Assays
Paired Dataset	Pulp Duplicate Assays

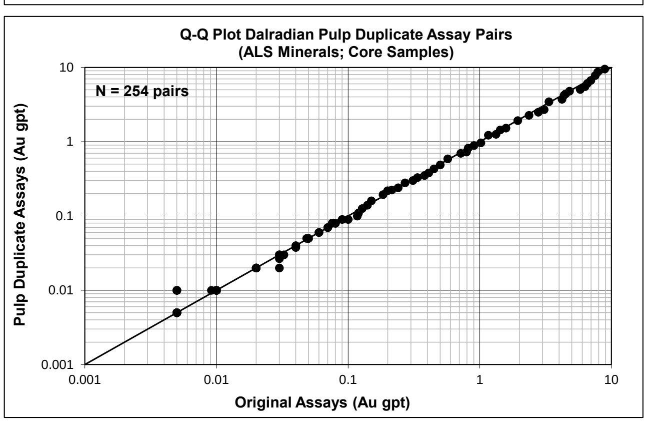
Statistics	**Original**	**Pulp Duplicate**
Sample Count	254	254
Minimum Value	0.005	0.005
Maximum Value	140.80	158.59
Mean	7.527	7.171
Median	0.270	0.280
Standard Error	1.113	1.080
Standard Deviation	17.746	17.206
Correlation Coefficient	0.9324	
Pairs ≤ 10% HARD	71.3%	

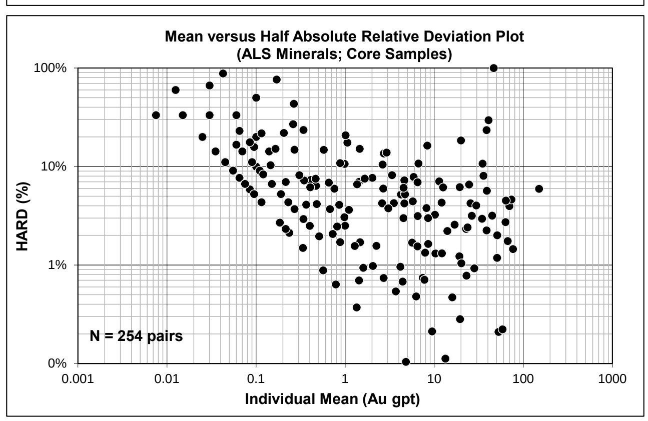








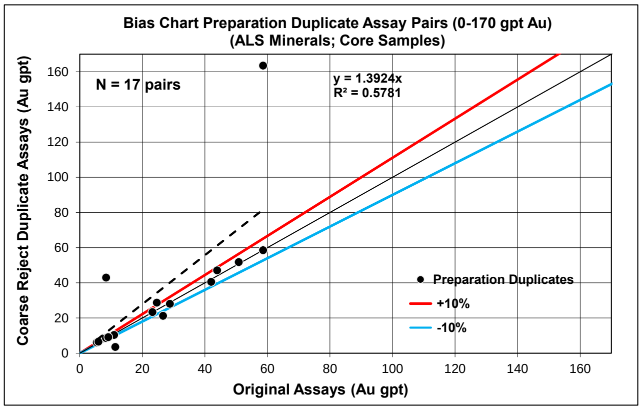


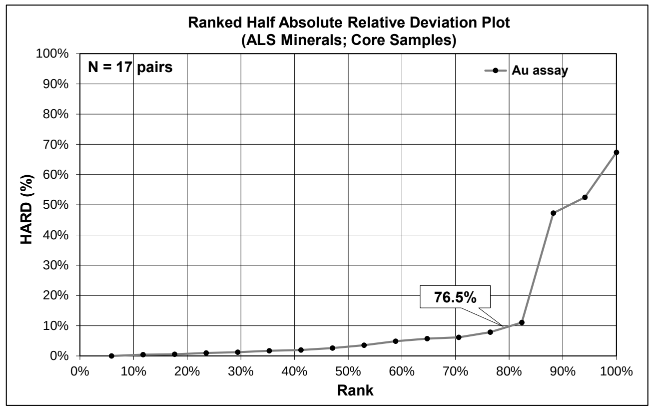


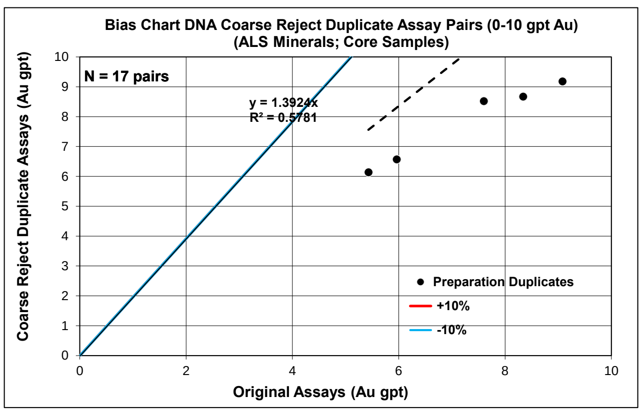
Bias Charts and Precision Plots for Preparation Duplicates, Core Samples, assayed by ALS Minerals between 2010 and 2015

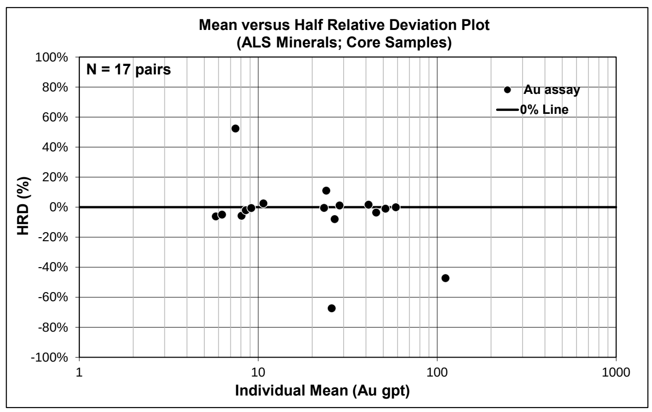
Project	Curraghinalt
Data Series	Dalradian Preparation Duplicates
Data Type	Core Samples
Commodity	Au in gpt
Analytical Method	Fire Assay
Detection Limit	0.01 ppm
Original Dataset	Original Assays
Paired Dataset	Coarse Reject Duplicate Assays

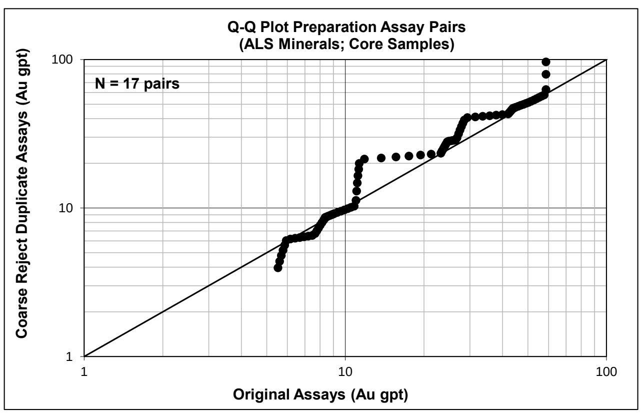
Statistics	**Original**	**Coarse Reject**
Sample Count	17	17
Minimum Value	5.430	3.540
Maximum Value	58.60	163.50
Mean	24.953	32.895
Median	23.200	23.400
Standard Error	4.629	9.240
Standard Deviation	19.087	38.098
Correlation Coefficient	0.7650	
Pairs ≤ 10% HARD	76.5%	

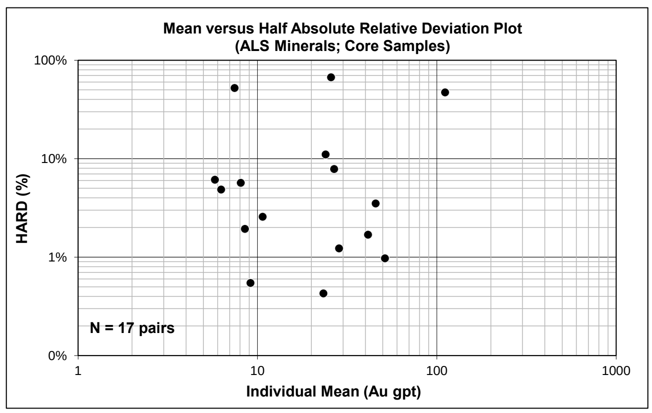












Bias Charts and Precision Plots for Lab-internal Pulp Duplicates (Lab Checks), Core Samples, assayed by ALS Minerals between 2010 and 2016

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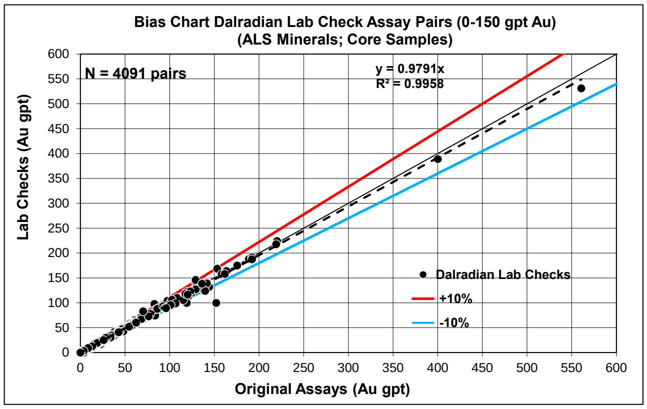
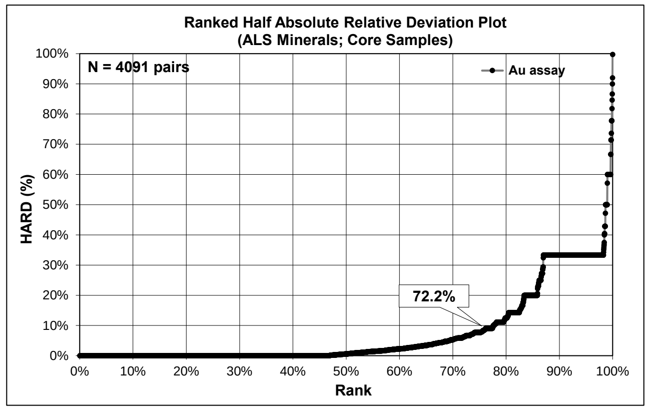
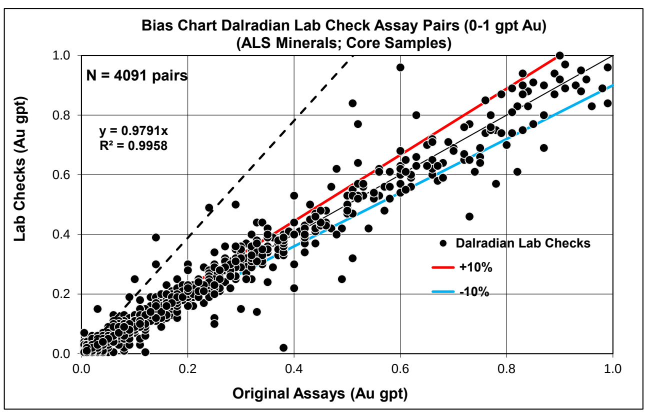
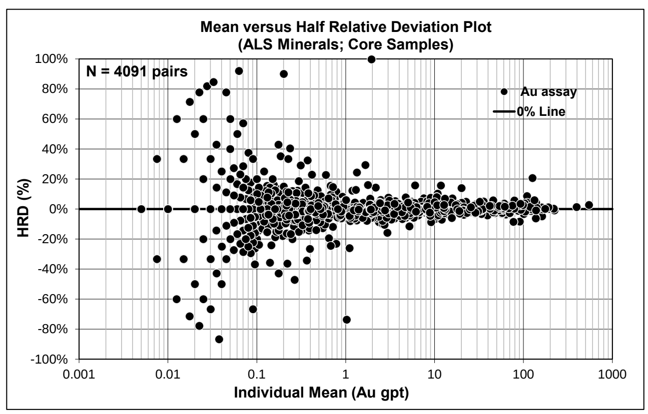
Project	Curraghinalt
Data Series	Dalradian Lab Checks
Data Type	Core Samples
Commodity	Au in gpt
Analytical Method	Various
Detection Limit	0.01 ppm
Original Dataset	Original Assays
Paired Dataset	Lab Checks

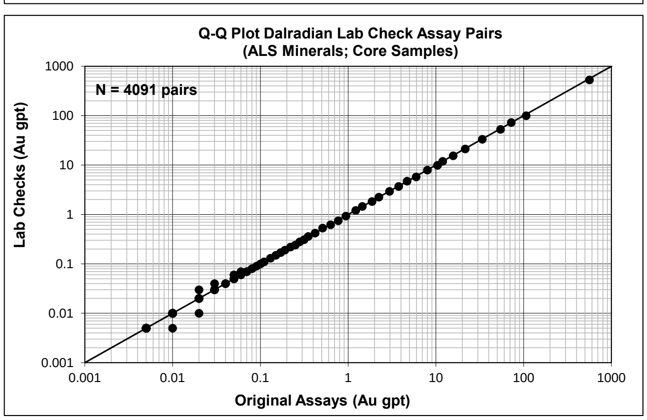
Statistics	**Original**	**Labcheck**
Sample Count	4,091	4,091
Minimum Value	0.005	0.005
Maximum Value	560.64	531.20
Mean	4.712	4.653
Median	0.020	0.020
Standard Error	0.334	0.327
Standard Deviation	21.347	20.937
Correlation Coefficient	0.9979	
Pairs ≤ 10% HARD	72.2%	

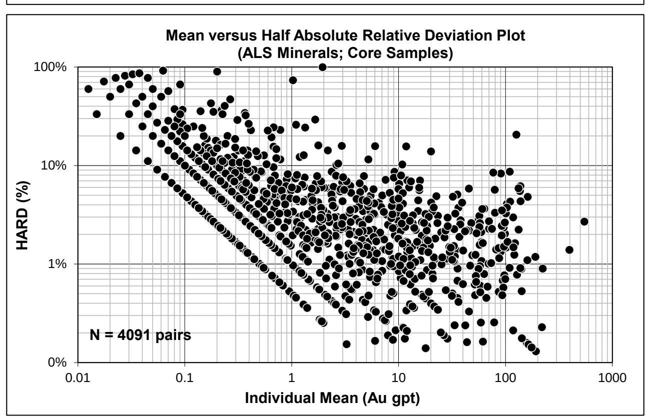












Time series plot for Field Blank Samples, assayed by ALS Minerals between 2010 and 2016

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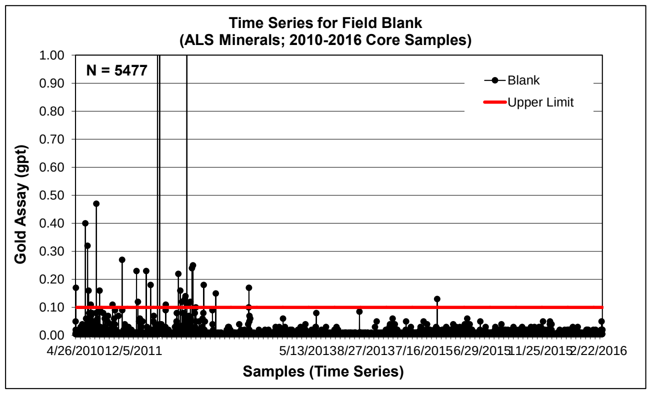
Project	Curraghinalt	**Statistics**	**Blank**
Data Series	Dalradian Blanks (2010-2016)	**Sample Count**	5,477
Data Type	Core Samples	**Expected Value**	0.010
Commodity	Au in gpt	**Standard Deviation**	-
Laboratory	ALS Minerals	**Data Mean**	0.011
Analytical Method	Fire assay - AAS finish	**Upper Limit (10xDL)**	1%
Detection Limit	0.01 ppm		



Bias Charts and Precision Plots for Umpire Duplicates, Core Samples, assayed by ALS Minerals and Activation Lab oratories Ltd. between 2015 and 2016

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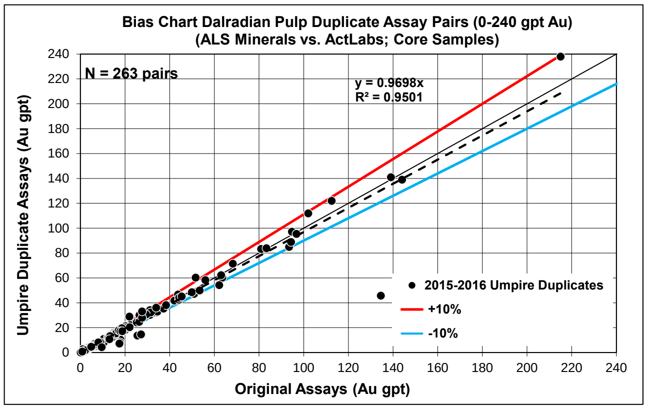
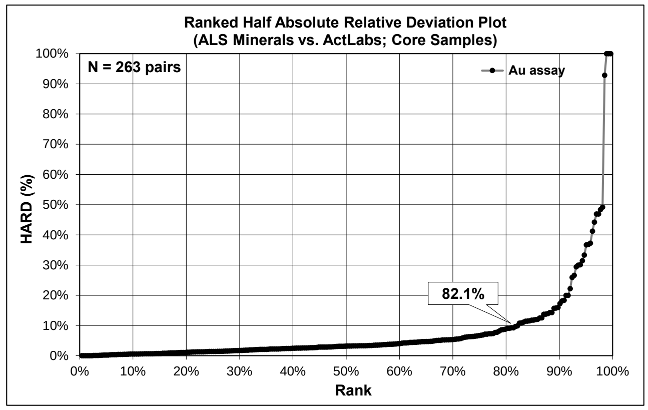
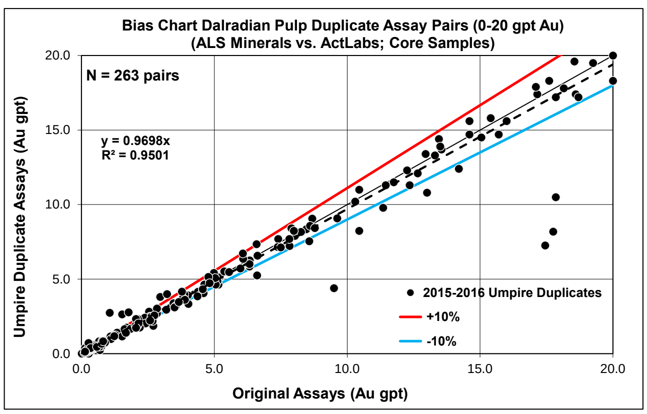
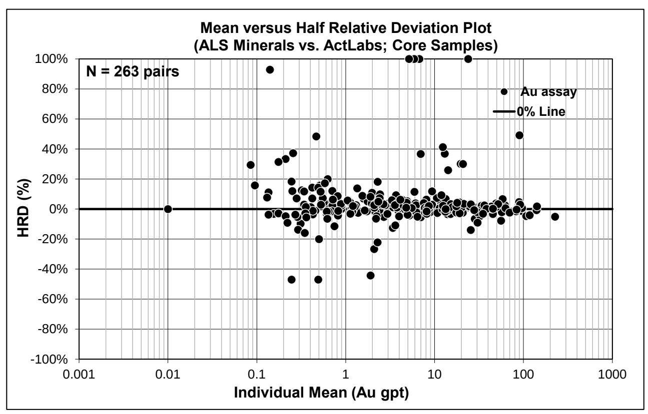
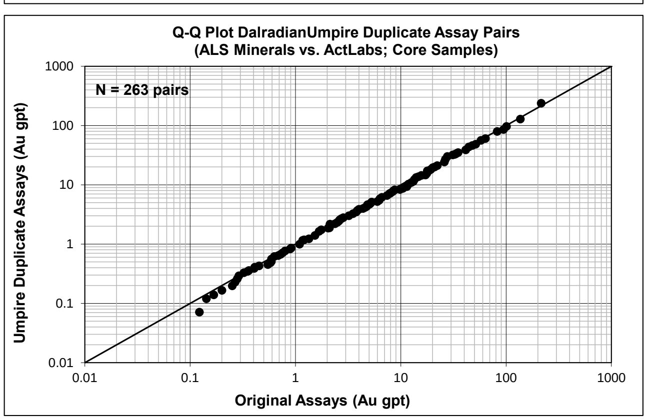
		Statistics	Original	Umpire Duplicate
		Sample Count	263	259
Project	Curraghinalt	**Minimum Value**	0.010	0.010
Data Series	Dalradian Umpire Duplicates (2015-2016)	**Maximum Value**	215.00	238.00
Data Type	Core Samples	**Mean**	15.048	14.490
Commodity	Au in gpt	**Median**	4.740	4.330
Analytical Method	Fire Assay	**Standard Error**	1.671	1.684
Detection Limit	0.01 ppm	**Standard Deviation**	27.102	27.106
Original Dataset	Original Assays	**Correlation Coefficient**	0.9747	
Paired Dataset	Umpire Duplicate Assays	**Pairs ≤ 10% HARD**	82.1%	

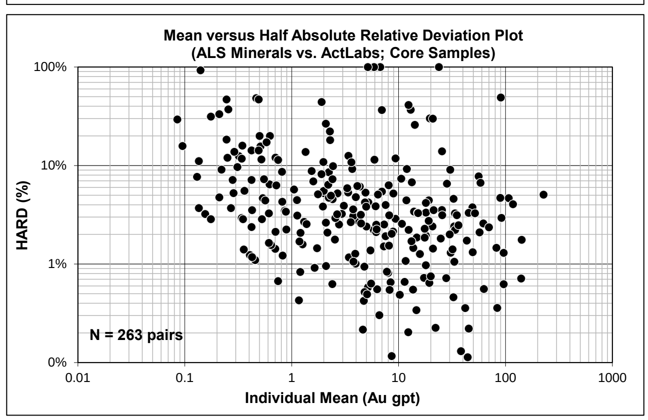












Bias Charts and Precision Plots for Pulp Duplicates, Underground Face Samples, assayed by ALS Minerals between 2015 and 2016

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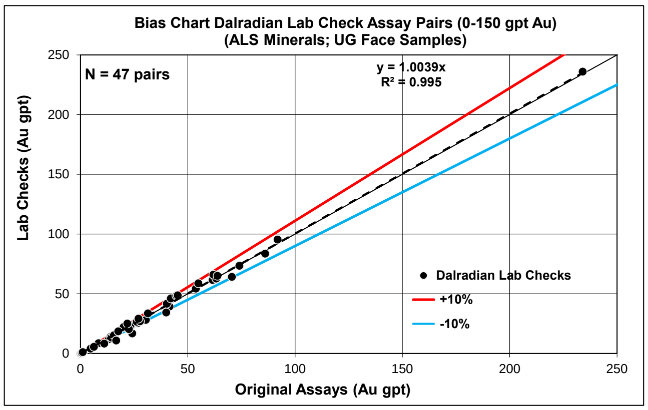
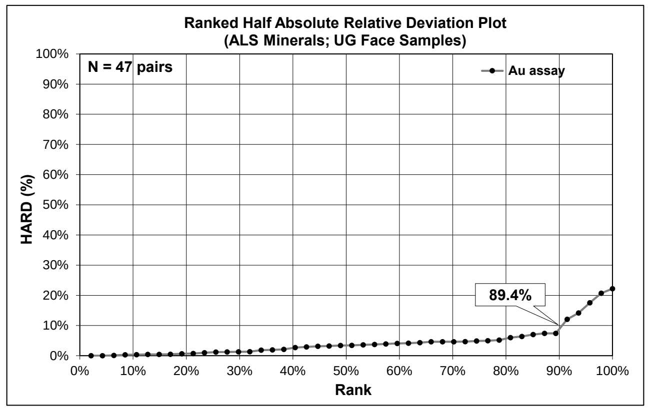
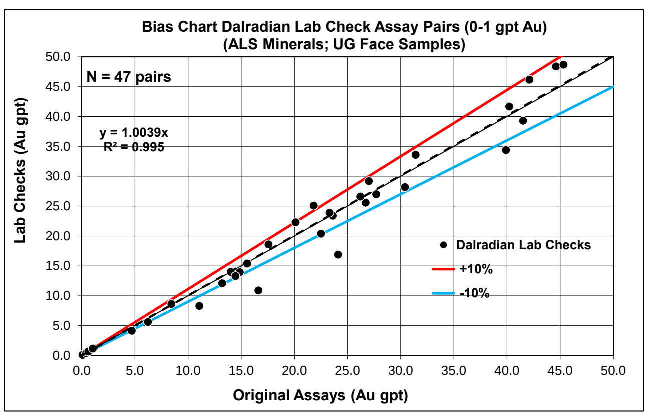
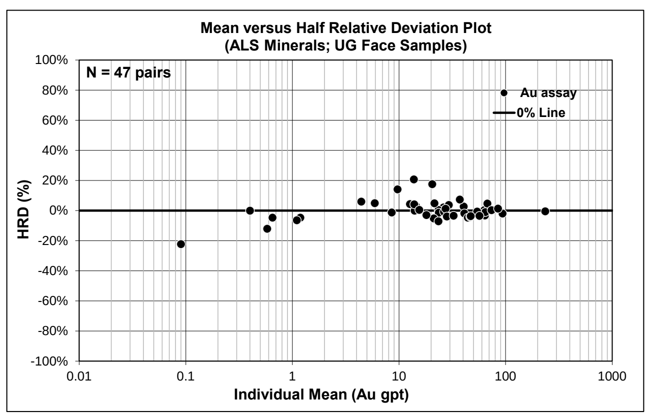
Project	Curraghinalt
Data Series	Dalradian Lab Checks
Data Type	UG Face Samples
Commodity	Au in gpt
Analytical Method	Various
Detection Limit	0.01 ppm
Original Dataset	Original Assays
Paired Dataset	Lab Checks

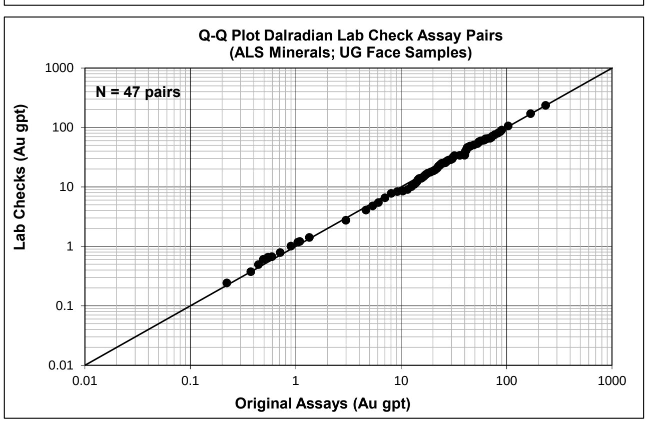
Statistics	**Original**	**Labcheck**
Sample Count	47	47
Minimum Value	0.070	0.110
Maximum Value	234.00	236.00
Mean	35.190	35.022
Median	26.200	25.600
Standard Error	5.546	5.623
Standard Deviation	38.019	38.549
Correlation Coefficient	0.9976	
Pairs ≤ 10% HARD	89.4%	

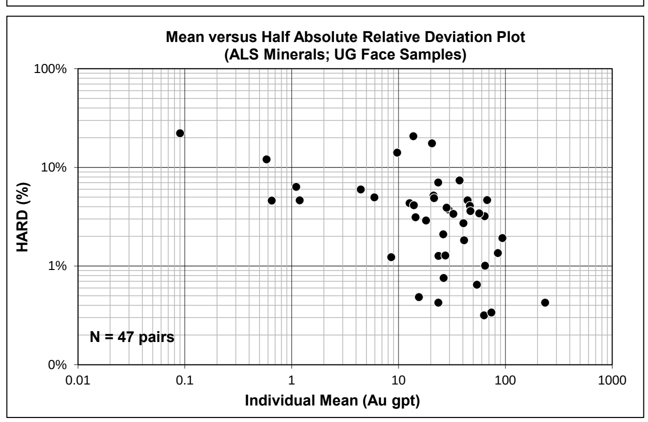










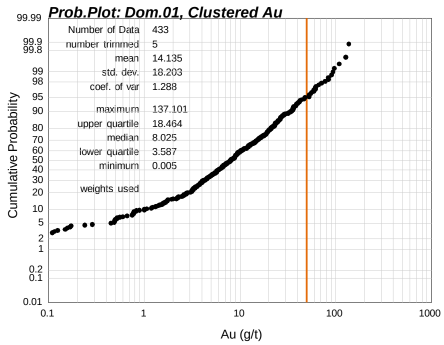


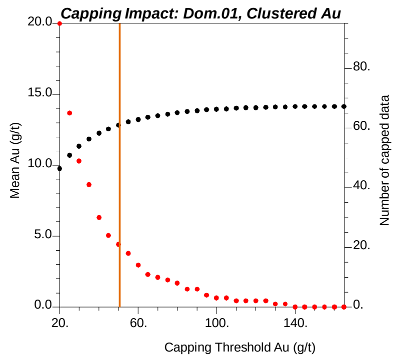
APPENDIX C

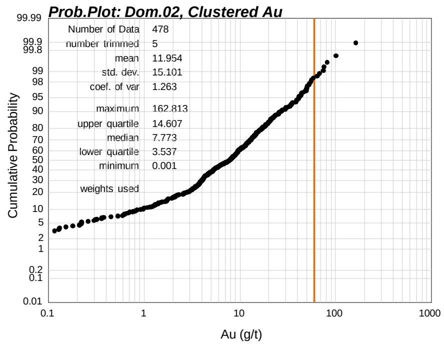
Capping Analysis

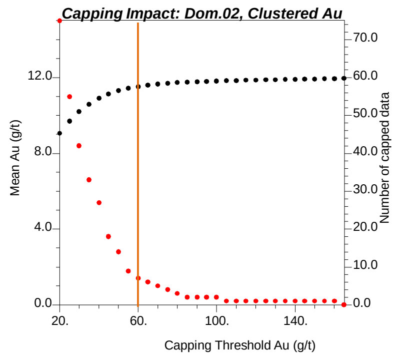
Capping of Borehole Composites

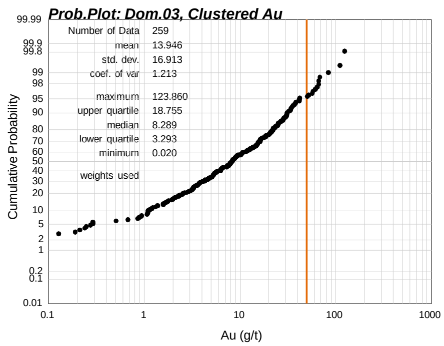
Capping Analysis, Domains 1 to 4

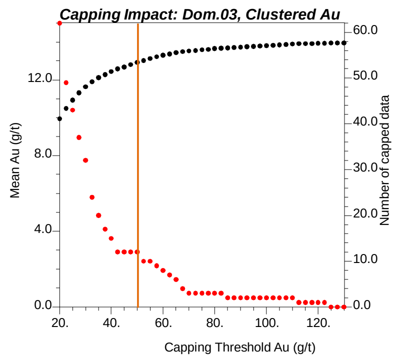


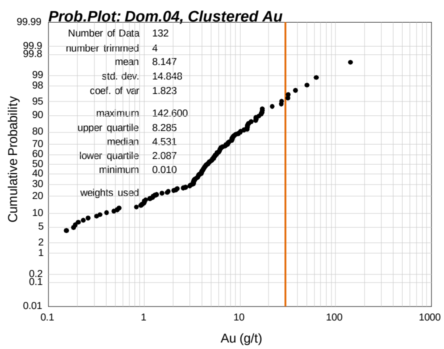


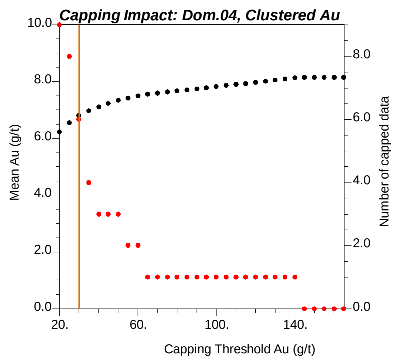






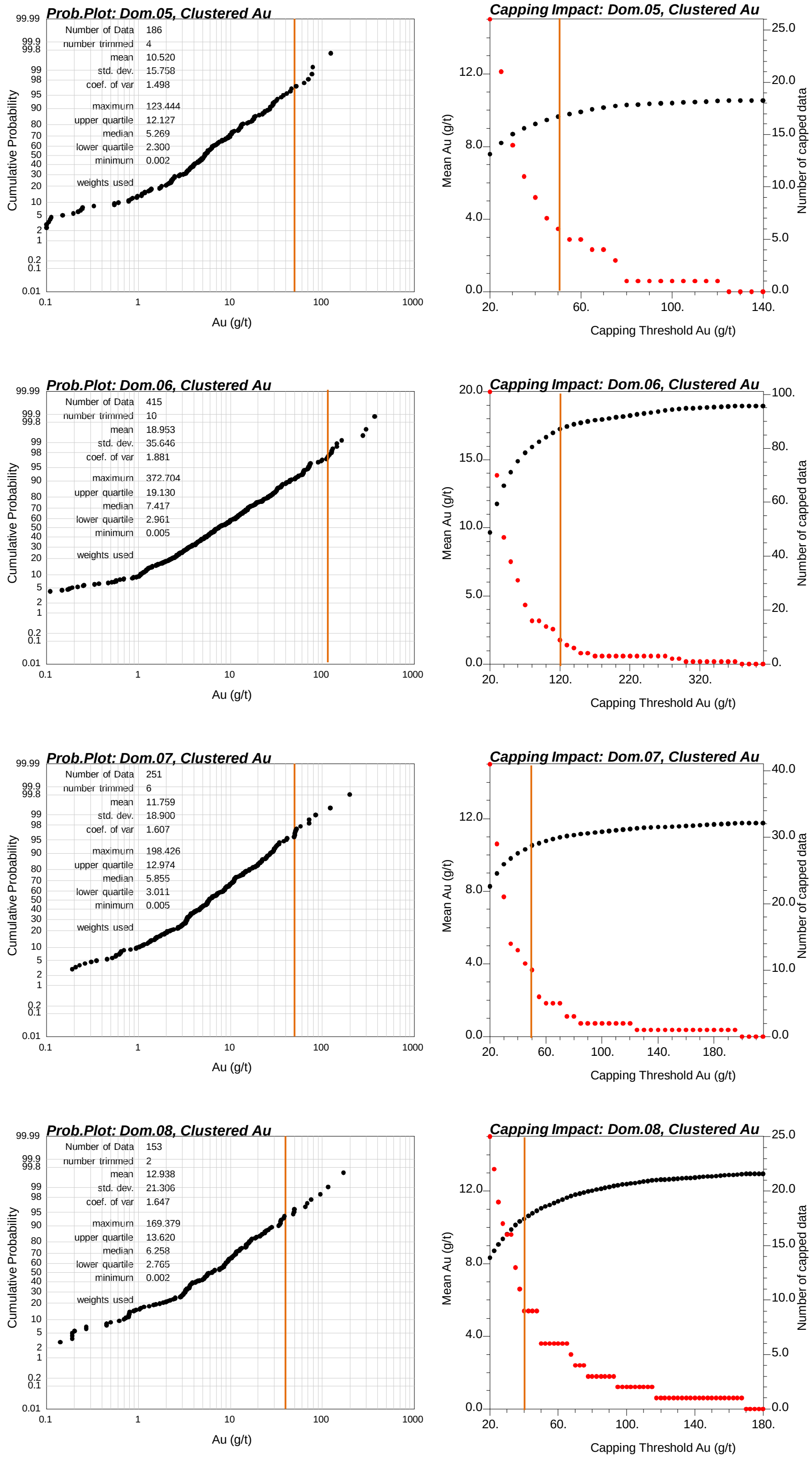






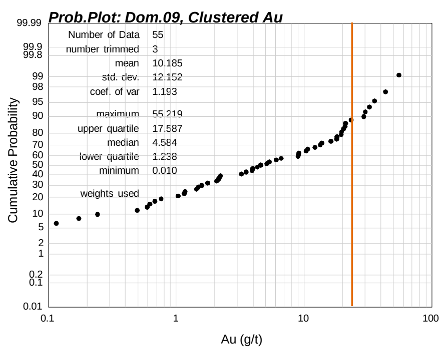
Capping of Borehole Composites

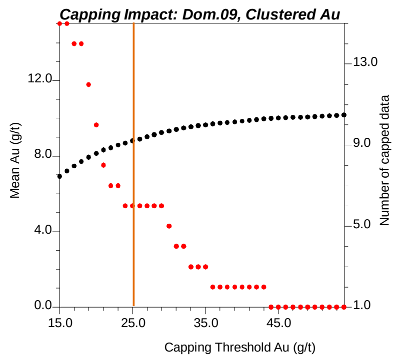
Capping Analysis, Domains 5 to 8

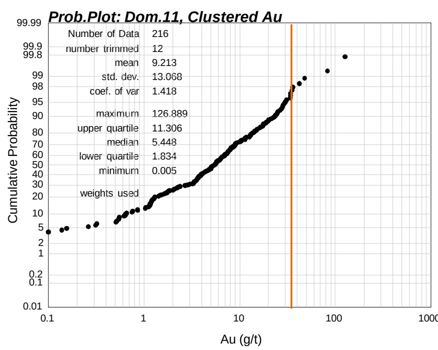


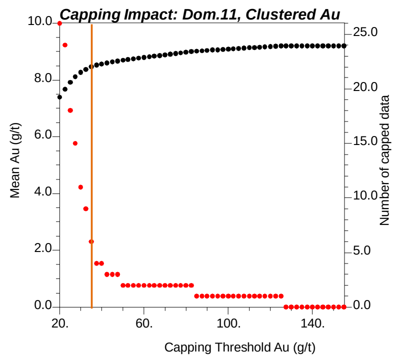
Capping of Borehole Composites

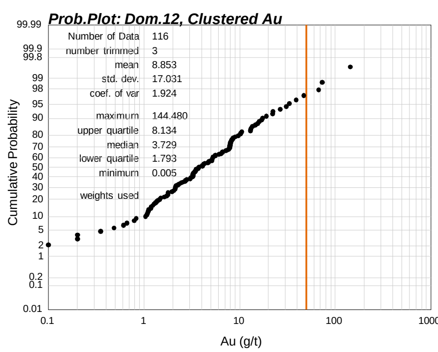
Capping Analysis, Domains 9 to 13

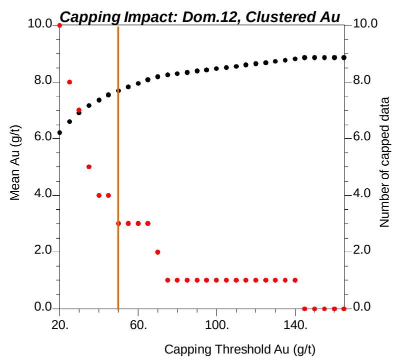


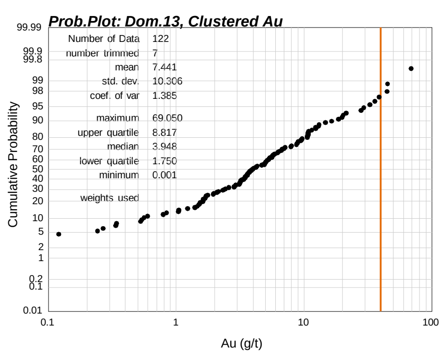


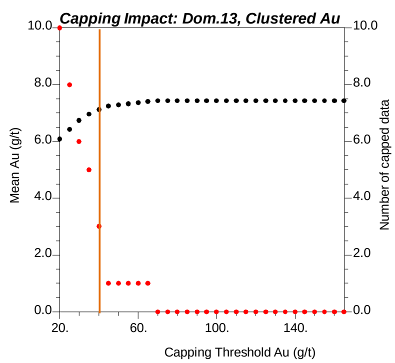






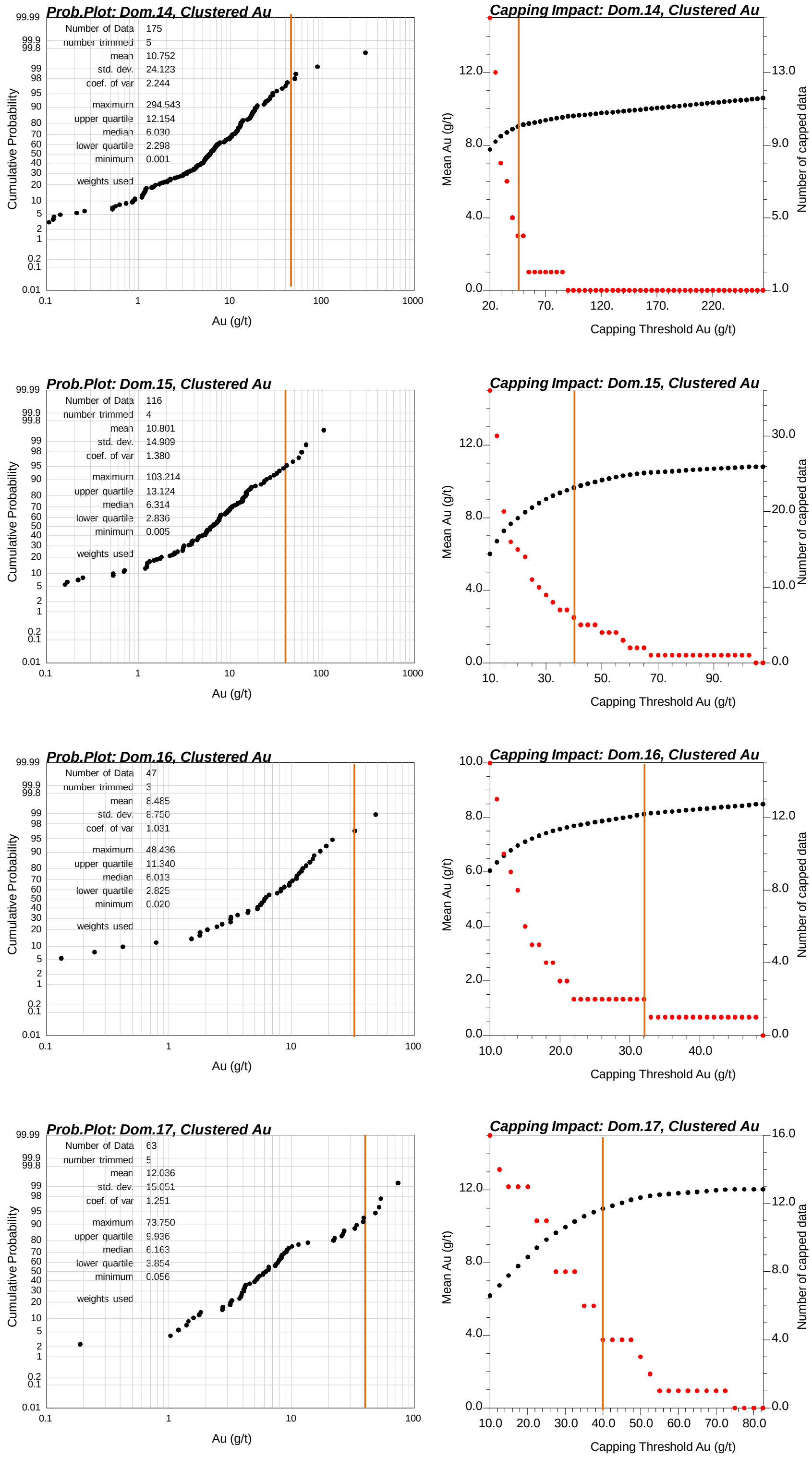






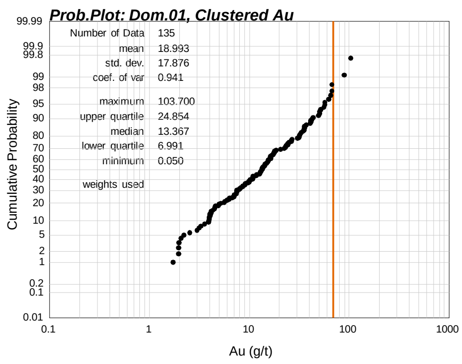
Capping of Borehole Composites

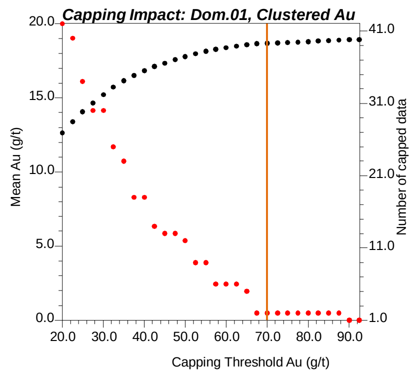
Capping Analysis, Domains 14 to 17

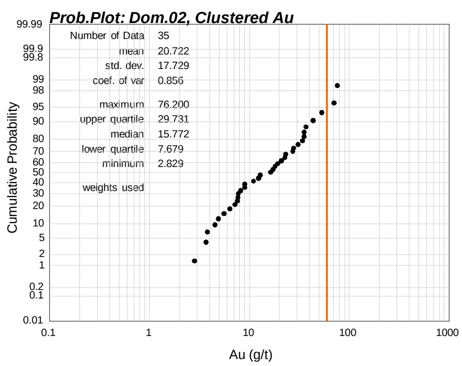


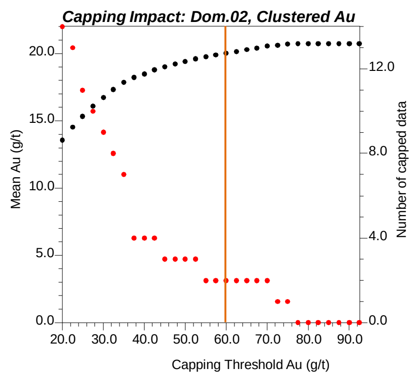
Capping of Face Composites

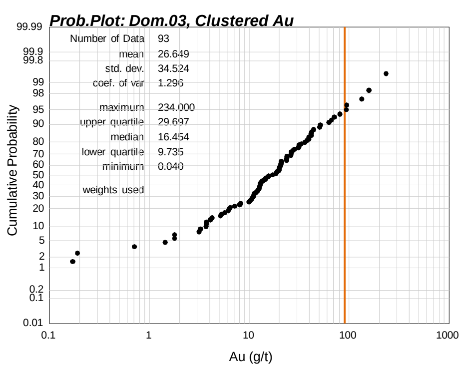
Capping Analysis for Face Samples, Domains 1, 2, 3 and 4

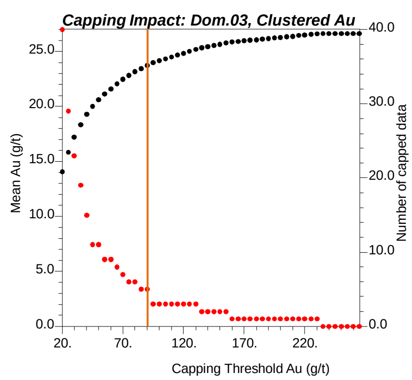


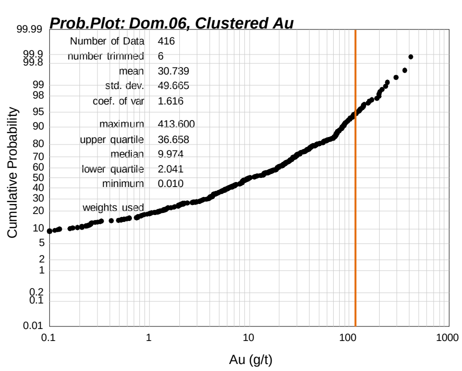


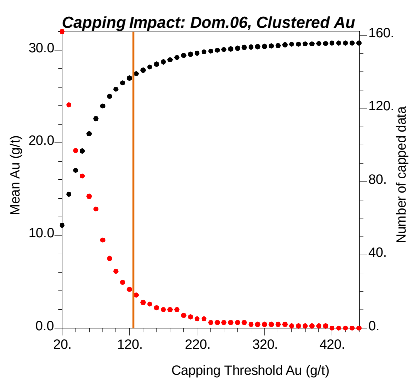






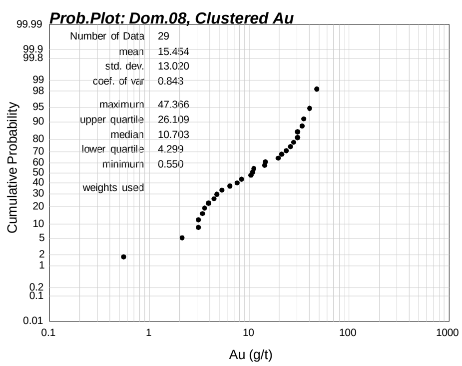


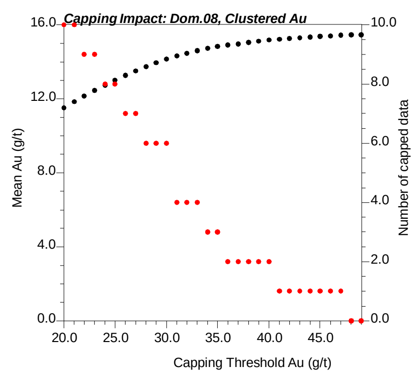


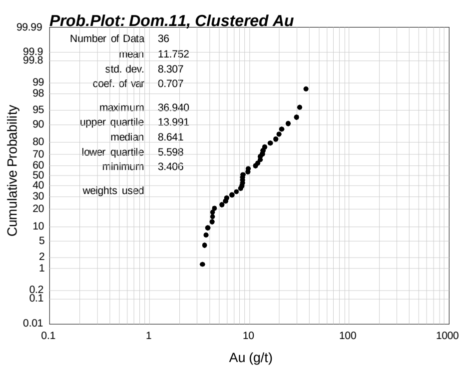


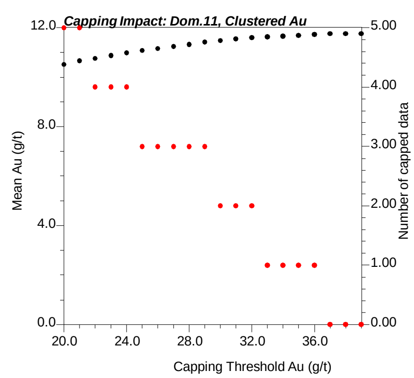
Capping of Face Composites

Capping Analysis for Face Samples, Domains 8 and 11









APPENDIX D

Summary Statistics for Secondary Attributes

Statistics (capping done by Dalradian)

Sulphur

Domain	Domain Name	Uncapped Composites							Capped Composites*			
		Count	Missing	Mean	Std	Min	Max	CoV	Mean	Std	Max	CoV
All Composites												
1	No.1 Vein	432	141	3.867	4.03	0	27.903	1.04	3.82	3.77	20.00	1.01
2	106-16 Vein	443	75	3.195	3.046	0.01	18.94	0.95	3.20	3.05	18.94	1.09
3	V75 Vein	339	12	3.569	3.478	0.01	20.993	0.97	3.57	3.46	20.00	1.06
4	Bend Vein	127	9	2.167	2.51	0.033	12.37	1.16	2.17	2.51	12.37	1.09
5	Crow Vein (East, West)	174	16	2.919	3.425	0.01	23.529	1.17	2.90	3.31	20.00	1.24
6	T17 Vein	364	483	3.91	5.399	0	34.893	1.38	3.74	4.69	20.00	1.42
7	Mullan Vein	233	24	3.409	3.921	0	26.473	1.15	3.36	3.65	20.00	1.16
8	Sheep Dip Vein	132	52	3.455	5.046	0	34.675	1.46	3.31	4.33	20.00	1.05
9	Road Vein	52	6	2.796	2.824	0	12.516	1.01	2.80	2.82	12.52	1.06
11	Slap Shot (East, West)	226	38	2.942	2.903	0.02	16.302	0.99	2.94	2.90	16.30	1.05
12	V55 Vein	93	26	2.557	3.394	0.01	21.346	1.33	2.54	3.32	20.00	1.38
13	Sperrin Vein (East, West)	116	13	2.486	2.822	0.01	18.078	1.14	2.49	2.82	18.08	1.30
14	Causeway	155	25	2.613	3.198	0	20.616	1.22	2.61	3.18	20.00	1.09
15	Grizzly Vein (East, Mid, and West)	107	13	3.057	3.379	0.01	17.489	1.11	3.06	3.38	17.49	1.11
16	Slap Shot Splay Vein	47	3	2.445	2.73	0.08	15.248	1.12	2.45	2.73	15.25	0.93
17	Bend Splay Vein	62	6	2.006	1.543	0.14	6.576	0.77	2.01	1.54	6.58	1.16
	Total	**3,102**	**942**	**3.243**	**3.771**	**0**	**34.893**	**1.16**	**3.203**	**3.542**	**20**	**0.93**
All Core Composites												
1	No.1 Vein	358	80	3.73	4.15	0.00	27.90	1.11	3.66	3.85	20.00	1.04
2	106-16 Vein	408	75	3.12	3.08	0.01	18.94	0.99	3.12	3.08	18.94	1.10
3	V75 Vein	247	12	3.37	3.48	0.01	20.99	1.03	3.37	3.46	20.00	1.00
4	Bend Vein	127	9	2.17	2.51	0.03	12.37	1.16	2.17	2.51	12.37	1.09
5	Crow Vein (East, West)	174	16	2.92	3.43	0.01	23.53	1.17	2.90	3.31	20.00	1.24
6	T17 Vein	320	105	4.36	5.59	0.00	34.89	1.28	4.17	4.83	20.00	1.48
7	Mullan Vein	233	24	3.41	3.92	0.00	26.47	1.15	3.36	3.65	20.00	1.16
8	Sheep Dip Vein	132	23	3.46	5.05	0.00	34.68	1.46	3.31	4.33	20.00	1.05
9	Road Vein	52	6	2.80	2.82	0.00	12.52	1.01	2.80	2.82	12.52	1.06
11	Slap Shot (East, West)	190	38	2.71	2.97	0.02	16.30	1.09	2.71	2.97	16.30	1.05
12	V55 Vein	93	26	2.56	3.39	0.01	21.35	1.33	2.54	3.32	20.00	1.38
13	Sperrin Vein (East, West)	116	13	2.49	2.82	0.01	18.08	1.14	2.49	2.82	18.08	1.30
14	Causeway	155	25	2.61	3.20	0.00	20.62	1.22	2.61	3.18	20.00	1.09
15	Grizzly Vein (East, Mid, and West)	107	13	3.06	3.38	0.01	17.49	1.11	3.06	3.38	17.49	1.11
16	Slap Shot Splay Vein	47	3	2.45	2.73	0.08	15.25	1.12	2.45	2.73	15.25	0.93
17	Bend Splay Vein	62	6	2.01	1.54	0.14	6.58	0.77	2.01	1.54	6.58	1.16
	Total	**2,821**	**474**	**3.199**	**3.822**	**0**	**34.893**	**1.19**	**3.155**	**3.573**	**20**	**0.93**
All UG Face Composites												
1	No.1 Vein	74	61	4.56	3.29	0.66	15.95	0.72	4.56	3.29	15.95	0.72
2	106-16 Vein	35		4.13	2.50	0.67	9.27	0.61	4.13	2.50	9.27	0.61
3	V75 Vein	92		4.10	3.43	0.06	19.46	0.84	4.10	3.43	19.46	0.84
4	Bend Vein											
5	Crow Vein (East, West)											
6	T17 Vein	44	378	0.61	1.06	0.00	4.59	1.75	0.61	1.06	4.59	1.75
7	Mullan Vein											
8	Sheep Dip Vein		29									
9	Road Vein											
11	Slap Shot (East, West)	36		4.17	2.16	1.07	8.26	0.52	4.17	2.16	8.26	0.52
12	V55 Vein											
13	Sperrin Vein (East, West)											
14	Causeway											
15	Grizzly Vein (East, Mid, and West)											
16	Slap Shot Splay Vein											
17	Bend Splay Vein											
	Total	**281**	**468**	**3.687**	**3.172**	**0**	**19.46**	**0.86**	**3.687**	**3.172**	**19.46**	**0.93**

All Other Variables – Uncapped

Silver

Domain	Domain Name	Uncapped Composites						
		Count	Missing	Mean	Std	Min	Max	CoV
All Composites								
1	No.1 Vein	573		4.818	6.592	0	59.86	1.37
2	106-16 Vein	518		4.368	5.306	0	47.95	1.21
3	V75 Vein	351		4.172	4.997	0	36	1.20
4	Bend Vein	136		3.486	6.397	0	54.8	1.84
5	Crow Vein (East, West)	190		4.458	6.619	0	42.604	1.48
6	T17 Vein	847		3.921	12.085	0	141.15	3.08
7	Mullan Vein	257		6.934	12.387	0	141.44	1.79
8	Sheep Dip Vein	184		6.798	11.4	0	108.457	1.68
9	Road Vein	58		6.166	8.395	0	40.196	1.36
11	Slap Shot (East, West)	264		4.159	5.353	0	41.47	1.29
12	V55 Vein	119		2.895	5.244	0	45.7	1.81
13	Sperrin Vein (East, West)	129		3.757	6.039	0	42.2	1.61
14	Causeway	180		3.175	4.558	0	40.67	1.44
15	Grizzly Vein (East, Mid, and West)	120		4.786	6.059	0	46.961	1.27
16	Slap Shot Splay Vein	50		1.893	1.58	0	7.929	0.83
17	Bend Splay Vein	68		3.897	5.534	0	33.556	1.42
	Total	**4,044**		**4.439**	**8.367**	**0**	**141.44**	**1.88**
All Core Composites								
1	No.1 Vein	438		4.78	6.17	0.00	59.86	1.29
2	106-16 Vein	483		4.18	5.25	0.00	47.95	1.26
3	V75 Vein	259		3.76	4.88	0.08	33.48	1.30
4	Bend Vein	136		3.49	6.40	0.00	54.80	1.84
5	Crow Vein (East, West)	190		4.46	6.62	0.00	42.60	1.48
6	T17 Vein	425		7.41	16.20	0.00	141.15	2.19
7	Mullan Vein	257		6.93	12.39	0.00	141.44	1.79
8	Sheep Dip Vein	155		7.06	12.17	0.00	108.46	1.73
9	Road Vein	58		6.17	8.40	0.00	40.20	1.36
11	Slap Shot (East, West)	228		3.42	4.74	0.00	41.47	1.39
12	V55 Vein	119		2.90	5.24	0.00	45.70	1.81
13	Sperrin Vein (East, West)	129		3.76	6.04	0.00	42.20	1.61
14	Causeway	180		3.18	4.56	0.00	40.67	1.44
15	Grizzly Vein (East, Mid, and West)	120		4.79	6.06	0.00	46.96	1.27
16	Slap Shot Splay Vein	50		1.89	1.58	0.00	7.93	0.83
17	Bend Splay Vein	68		3.90	5.53	0.00	33.56	1.42
	Total	**3,295**		**4.826**	**8.867**	**0**	**141.44**	**1.84**
All UG Face Composites								
1	No.1 Vein	135		4.95	7.82	0.00	39.30	1.58
2	106-16 Vein	35		6.97	5.34	0.80	18.00	0.77
3	V75 Vein	92		5.32	5.15	0.00	36.00	0.97
4	Bend Vein							
5	Crow Vein (East, West)							
6	T17 Vein	422		0.39	1.83	0.00	22.39	4.70
7	Mullan Vein							
8	Sheep Dip Vein	29		5.37	5.18	0.00	23.97	0.96
9	Road Vein							
11	Slap Shot (East, West)	36		8.91	6.51	1.52	25.65	0.73
12	V55 Vein							
13	Sperrin Vein (East, West)							
14	Causeway							
15	Grizzly Vein (East, Mid, and West)							
16	Slap Shot Splay Vein							
17	Bend Splay Vein							
	Total	**749**		**2.728**	**5.321**	**0**	**39.3**	**1.95**

Copper

Domain	Domain Name	Uncapped Composites						
		Count	Missing	Mean	Std	Min	Max	CoV
All Composites								
1	No.1 Vein	447	126	0.184	0.29	0.001	2.32	1.55
2	106-16 Vein	455	63	0.15	0.27	0	1.91	1.78
3	V75 Vein	339	12	0.166	0.24	0.002	1.864	1.43
4	Bend Vein	127	9	0.079	0.21	0.001	1.581	2.65
5	Crow Vein (East, West)	175	15	0.11	0.21	0.001	1.311	1.88
6	T17 Vein	384	463	0.221	0.65	0	6.882	2.92
7	Mullan Vein	239	18	0.127	0.32	0	3.182	2.51
8	Sheep Dip Vein	140	44	0.157	0.3	0	2.212	1.92
9	Road Vein	53	5	0.133	0.27	0.001	1.465	2.02
11	Slap Shot (East, West)	227	37	0.126	0.23	0.001	2.227	1.79
12	V55 Vein	96	23	0.138	0.32	0.001	2.122	2.34
13	Sperrin Vein (East, West)	116	13	0.082	0.17	0	0.901	2.04
14	Causeway	156	24	0.11	0.24	0	1.538	2.20
15	Grizzly Vein (East, Mid, and West)	109	11	0.085	0.13	0	0.782	1.52
16	Slap Shot Splay Vein	47	3	0.04	0.07	0.002	0.362	1.73
17	Bend Splay Vein	62	6	0.068	0.09	0.001	0.476	1.38
	Total	**3,172**	**872**	**0.146**	**0.33**	**0**	**6.882**	**2.25**
All Core Composites								
1	No.1 Vein	373	65	0.16	0.28	0.00	2.32	1.73
2	106-16 Vein	420	63	0.14	0.26	0.00	1.91	1.91
3	V75 Vein	247	12	0.15	0.23	0.00	1.86	1.58
4	Bend Vein	127	9	0.08	0.21	0.00	1.58	2.65
5	Crow Vein (East, West)	175	15	0.11	0.21	0.00	1.31	1.88
6	T17 Vein	340	85	0.24	0.68	0.00	6.88	2.81
7	Mullan Vein	239	18	0.13	0.32	0.00	3.18	2.51
8	Sheep Dip Vein	140	15	0.16	0.30	0.00	2.21	1.92
9	Road Vein	53	5	0.13	0.27	0.00	1.47	2.02
11	Slap Shot (East, West)	191	37	0.11	0.22	0.00	2.23	2.03
12	V55 Vein	96	23	0.14	0.32	0.00	2.12	2.34
13	Sperrin Vein (East, West)	116	13	0.08	0.17	0.00	0.90	2.04
14	Causeway	156	24	0.11	0.24	0.00	1.54	2.20
15	Grizzly Vein (East, Mid, and West)	109	11	0.09	0.13	0.00	0.78	1.52
16	Slap Shot Splay Vein	47	3	0.04	0.07	0.00	0.36	1.73
17	Bend Splay Vein	62	6	0.07	0.09	0.00	0.48	1.38
	Total	**2,891**	**404**	**0.139**	**0.34**	**0**	**6.882**	**2.41**
All UG Face Composites								
1	No.1 Vein	74	61	0.29	0.28	0.01	1.06	0.97
2	106-16 Vein	35		0.29	0.27	0.00	0.99	0.93
3	V75 Vein	92		0.22	0.25	0.00	1.65	1.11
4	Bend Vein							
5	Crow Vein (East, West)							
6	T17 Vein	44	378	0.05	0.06	0.01	0.32	1.08
7	Mullan Vein							
8	Sheep Dip Vein		29					
9	Road Vein							
11	Slap Shot (East, West)	36		0.22	0.22	0.00	0.78	1.01
12	V55 Vein							
13	Sperrin Vein (East, West)							
14	Causeway							
15	Grizzly Vein (East, Mid, and West)							
16	Slap Shot Splay Vein							
17	Bend Splay Vein							
	Total	**281**	**468**	**0.221**	**0.25**	**0.004**	**1.648**	**1.14**

Molybdenum

Domain	Domain Name	Uncapped Composites						
		Count	Missing	Mean	Std	Min	Max	CoV
All Composites								
1	No.1 Vein	435	138	23.351	37.515	0.00	394.84	1.61
2	106-16 Vein	445	73	27.898	45.027	0.00	473.72	1.61
3	V75 Vein	339	12	26.382	37.937	0.00	280.6	1.44
4	Bend Vein	127	9	19.292	30.342	0.00	131.04	1.57
5	Crow Vein (East, West)	174	16	35.141	46.488	0.00	289.6	1.32
6	T17 Vein	368	479	29.037	53.255	0.00	479.88	1.83
7	Mullan Vein	233	24	19.029	30.628	0.00	219.214	1.61
8	Sheep Dip Vein	132	52	11.306	19.204	0.00	161.094	1.70
9	Road Vein	52	6	16.716	44.297	0.00	289	2.65
11	Slap Shot (East, West)	226	38	23.219	39.659	0.00	281	1.71
12	V55 Vein	94	25	10.365	20.681	0.00	129.72	2.00
13	Sperrin Vein (East, West)	116	13	13.999	22.598	0.00	128.774	1.61
14	Causeway	155	25	14.398	24.5	0.00	135	1.70
15	Grizzly Vein (East, Mid, and West)	107	13	12.913	22.073	0.00	126.24	1.71
16	Slap Shot Splay Vein	47	3	14.466	26.079	0.00	141.44	1.80
17	Bend Splay Vein	62	6	24.08	39.332	0.00	276	1.63
	Total	**3,112**	**932**	**22.876**	**39.126**	**0.00**	**479.88**	**1.71**
All Core Composites								
1	No.1 Vein	361	77	20.96	36.97	0.00	394.84	1.76
2	106-16 Vein	410	73	28.63	46.46	0.00	473.72	1.62
3	V75 Vein	247	12	26.84	41.61	0.00	280.60	1.55
4	Bend Vein	127	9	19.29	30.34	0.00	131.04	1.57
5	Crow Vein (East, West)	174	16	35.14	46.49	0.00	289.60	1.32
6	T17 Vein	324	101	31.48	56.19	0.00	479.88	1.78
7	Mullan Vein	233	24	19.03	30.63	0.00	219.21	1.61
8	Sheep Dip Vein	132	23	11.31	19.20	0.00	161.09	1.70
9	Road Vein	52	6	16.72	44.30	0.00	289.00	2.65
11	Slap Shot (East, West)	190	38	16.97	27.30	0.00	177.00	1.61
12	V55 Vein	94	25	10.37	20.68	0.00	129.72	2.00
13	Sperrin Vein (East, West)	116	13	14.00	22.60	0.00	128.77	1.61
14	Causeway	155	25	14.40	24.50	0.00	135.00	1.70
15	Grizzly Vein (East, Mid, and West)	107	13	12.91	22.07	0.00	126.24	1.71
16	Slap Shot Splay Vein	47	3	14.47	26.08	0.00	141.44	1.80
17	Bend Splay Vein	62	6	24.08	39.33	0.00	276.00	1.63
	Total	**2,831**	**464**	**22.286**	**39.208**	**0.00**	**479.88**	**1.76**
All UG Face Composites								
1	No.1 Vein	74	61	35.01	37.97	2.79	227.00	1.08
2	106-16 Vein	35		19.33	20.18	0.00	100.00	1.04
3	V75 Vein	92		25.18	25.71	0.00	164.79	1.02
4	Bend Vein							
5	Crow Vein (East, West)							
6	T17 Vein	44	378	11.00	9.83	0.00	37.64	0.89
7	Mullan Vein							
8	Sheep Dip Vein		29					
9	Road Vein							
11	Slap Shot (East, West)	36		56.73	68.41	4.74	281.00	1.21
12	V55 Vein							
13	Sperrin Vein (East, West)							
14	Causeway							
15	Grizzly Vein (East, Mid, and West)							
16	Slap Shot Splay Vein							
17	Bend Splay Vein							
	Total	**281**	**468**	**28.811**	**37.778**	**0.00**	**281**	**1.31**

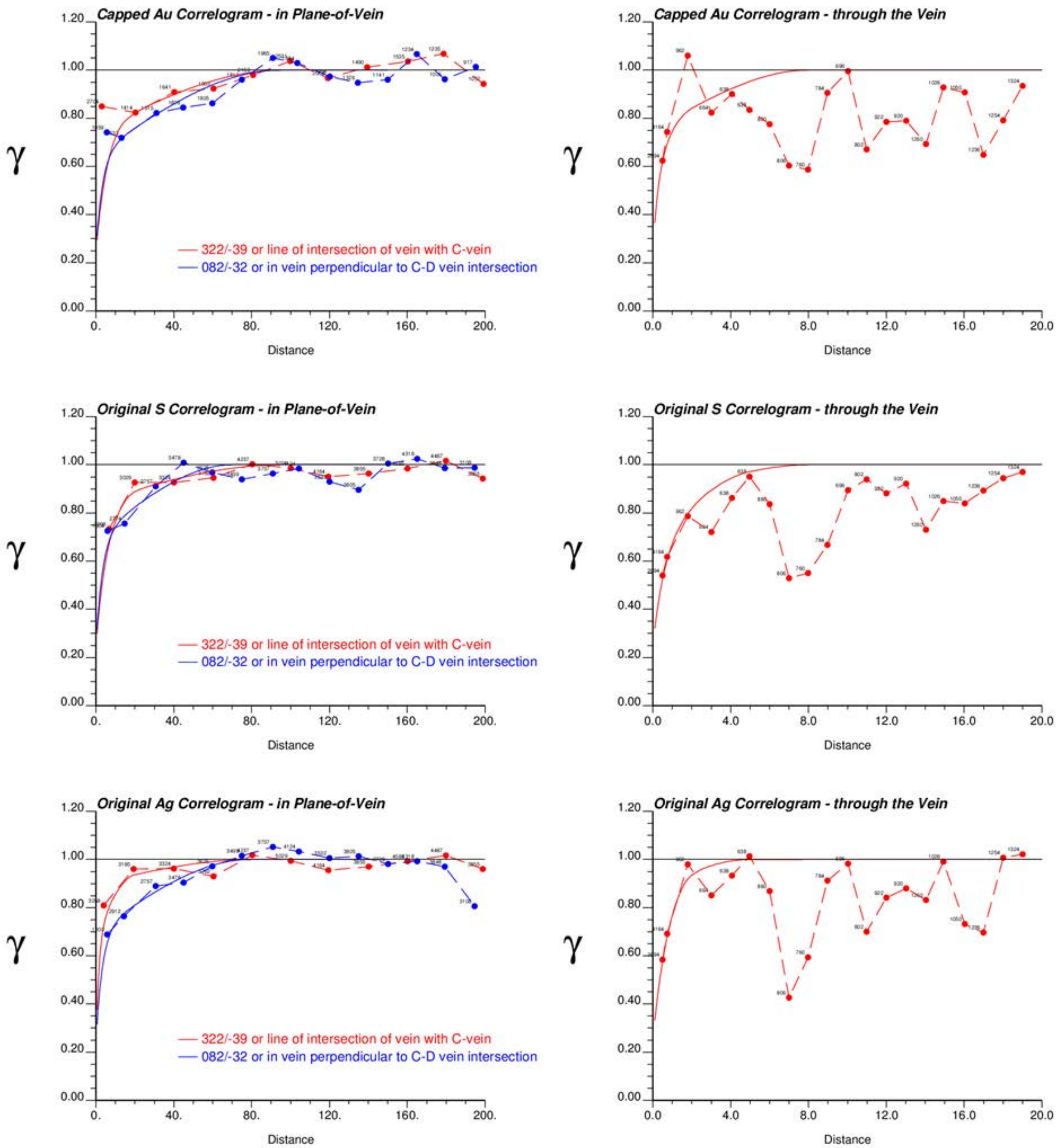
Arsenic

Domain	Domain Name	Uncapped Composites						
		Count	**Missing**	**Mean**	**Std**	**Min**	**Max**	**CoV**
All Composites								
1	No.1 Vein	439	134	217.006	477.321	0.00	5099.26	2.20
2	106-16 Vein	447	71	112.256	315.072	0.00	4444.5	2.81
3	V75 Vein	339	12	44.463	226.421	0.00	2451.76	5.09
4	Bend Vein	127	9	44.438	120.793	0.00	988.8	2.72
5	Crow Vein (East, West)	175	15	167.81	835.23	0.00	9947.584	4.98
6	T17 Vein	383	464	535.23	1993.454	0.00	24422.88	3.72
7	Mullan Vein	243	14	375.912	1181.574	0.00	13350	3.14
8	Sheep Dip Vein	137	47	903.332	5940.914	0.00	67309.56	6.58
9	Road Vein	52	6	652.571	3264.634	0.00	23592	5.00
11	Slap Shot (East, West)	227	37	224.864	802.2	0.00	8134.84	3.57
12	V55 Vein	94	25	178.355	469.907	0.00	3194.372	2.63
13	Sperrin Vein (East, West)	116	13	296.588	829.612	0.00	5781.88	2.80
14	Causeway	156	24	93.031	232.914	0.00	1444.92	2.50
15	Grizzly Vein (East, Mid, and West)	109	11	251.029	834.063	0.00	7810.16	3.32
16	Slap Shot Splay Vein	47	3	31.719	100.205	0.00	679	3.16
17	Bend Splay Vein	62	6	15.266	32.379	0.00	242.5	2.12
	Total	**3,153**	**891**	**252.332**	**1,593.61**	**0.00**	**67,309.56**	**6.32**
All Core Composites								
1	No.1 Vein	365	73	171.69	442.43	0.00	5099.26	2.58
2	106-16 Vein	412	71	114.53	327.24	0.00	4444.50	2.86
3	V75 Vein	247	12	57.58	264.30	0.00	2451.76	4.59
4	Bend Vein	127	9	44.44	120.79	0.00	988.80	2.72
5	Crow Vein (East, West)	175	15	167.81	835.23	0.00	9947.58	4.98
6	T17 Vein	339	86	600.22	2109.98	0.00	24422.88	3.52
7	Mullan Vein	243	14	375.91	1181.57	0.00	13350.00	3.14
8	Sheep Dip Vein	137	18	903.33	5940.91	0.00	67309.56	6.58
9	Road Vein	52	6	652.57	3264.63	0.00	23592.00	5.00
11	Slap Shot (East, West)	191	37	172.78	803.69	0.00	8134.84	4.65
12	V55 Vein	94	25	178.36	469.91	0.00	3194.37	2.63
13	Sperrin Vein (East, West)	116	13	296.59	829.61	0.00	5781.88	2.80
14	Causeway	156	24	93.03	232.91	0.00	1444.92	2.50
15	Grizzly Vein (East, Mid, and West)	109	11	251.03	834.06	0.00	7810.16	3.32
16	Slap Shot Splay Vein	47	3	31.72	100.21	0.00	679.00	3.16
17	Bend Splay Vein	62	6	15.27	32.38	0.00	242.50	2.12
	Total	**2,872**	**423**	**257.573**	**1,663.869**	**0.00**	**67,309.56**	**6.46**
All UG Face Composites								
1	No.1 Vein	74	61	439.98	570.92	10.70	3,270.00	1.30
2	106-16 Vein	35		85.37	78.53	4.52	300.00	0.92
3	V75 Vein	92		9.56	12.01	0.00	72.00	1.26
4	Bend Vein							
5	Crow Vein (East, West)							
6	T17 Vein	44	378	33.86	32.70	0.00	188.28	0.97
7	Mullan Vein							
8	Sheep Dip Vein		29					
9	Road Vein							
11	Slap Shot (East, West)	36		505.65	732.92	22.80	4,410.56	1.45
12	V55 Vein							
13	Sperrin Vein (East, West)							
14	Causeway							
15	Grizzly Vein (East, Mid, and West)							
16	Slap Shot Splay Vein							
17	Bend Splay Vein							
	Total	**281**	**468**	**198.818**	**446.688**	**0.00**	**4,410.558**	**2.25**

APPENDIX E

Variogram Models

Variogram Models for Gold, Sulphur and Silver



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Variogram Models used for Grade Estimation

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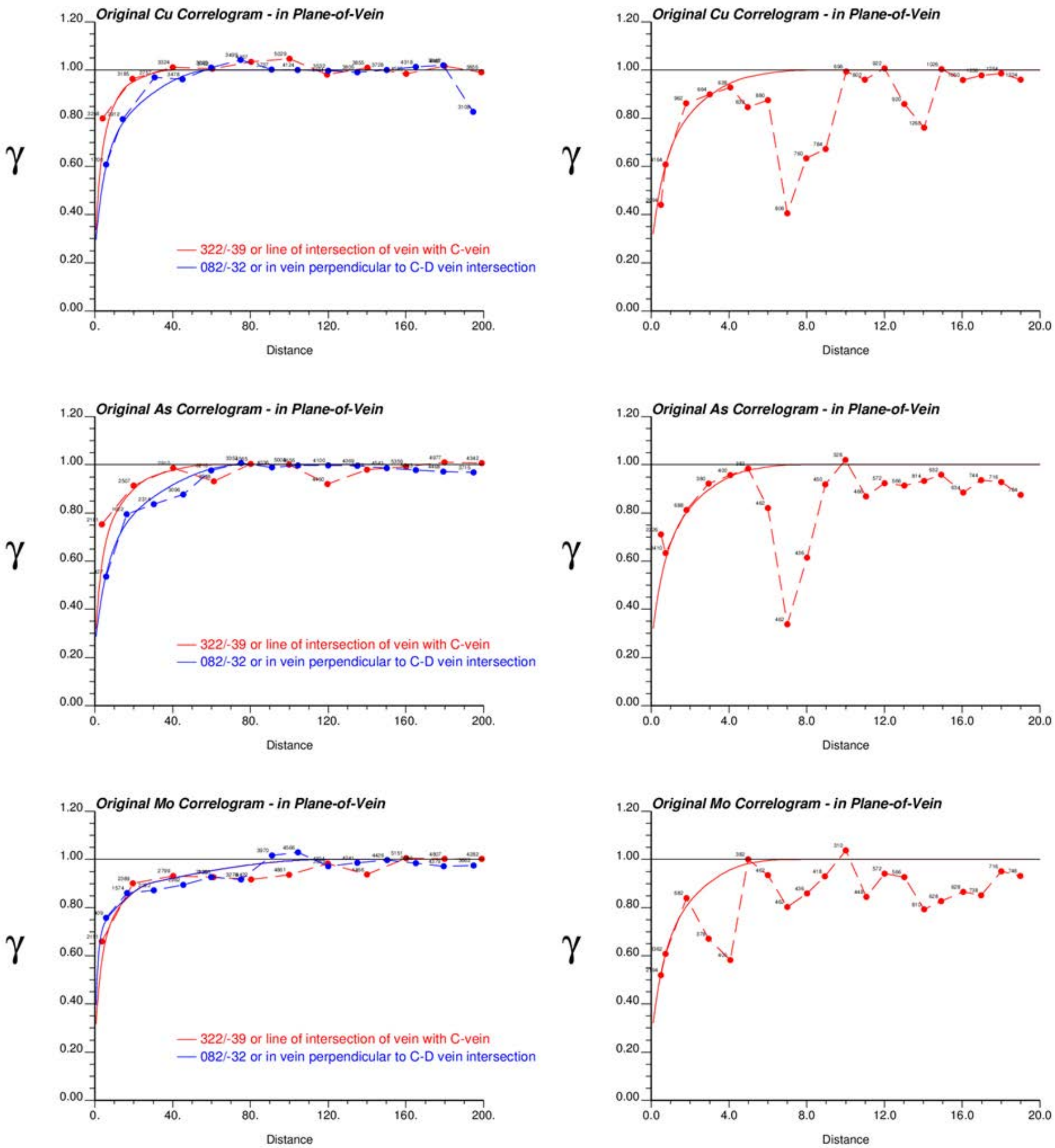
Variogram Models for Gold, Sulphur and Silver



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Variogram Models used for Grade Estimation

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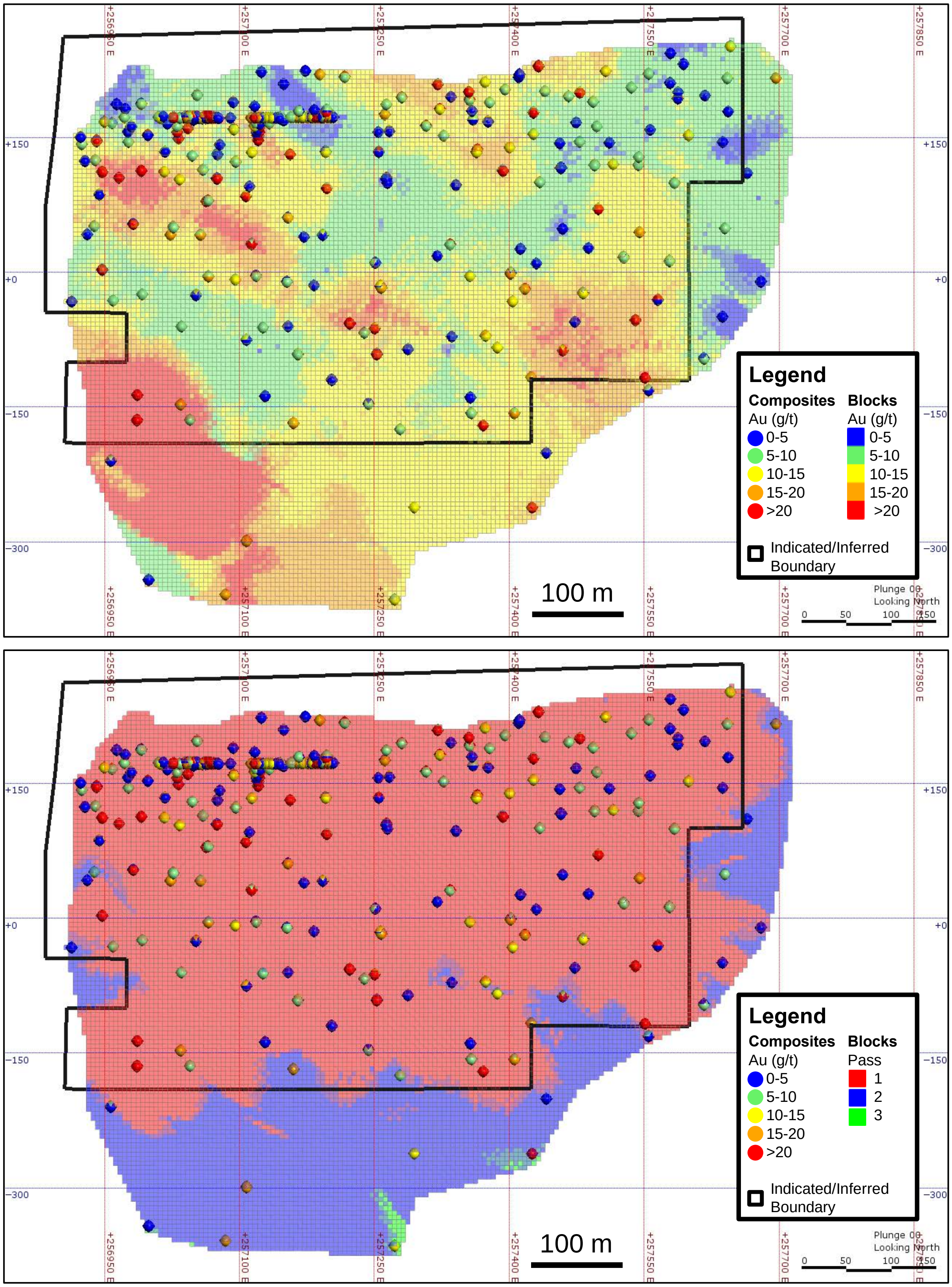
APPENDIX F

Block Model Long Sections

Longitudinal Section: Domain 1 – No. 1 Vein



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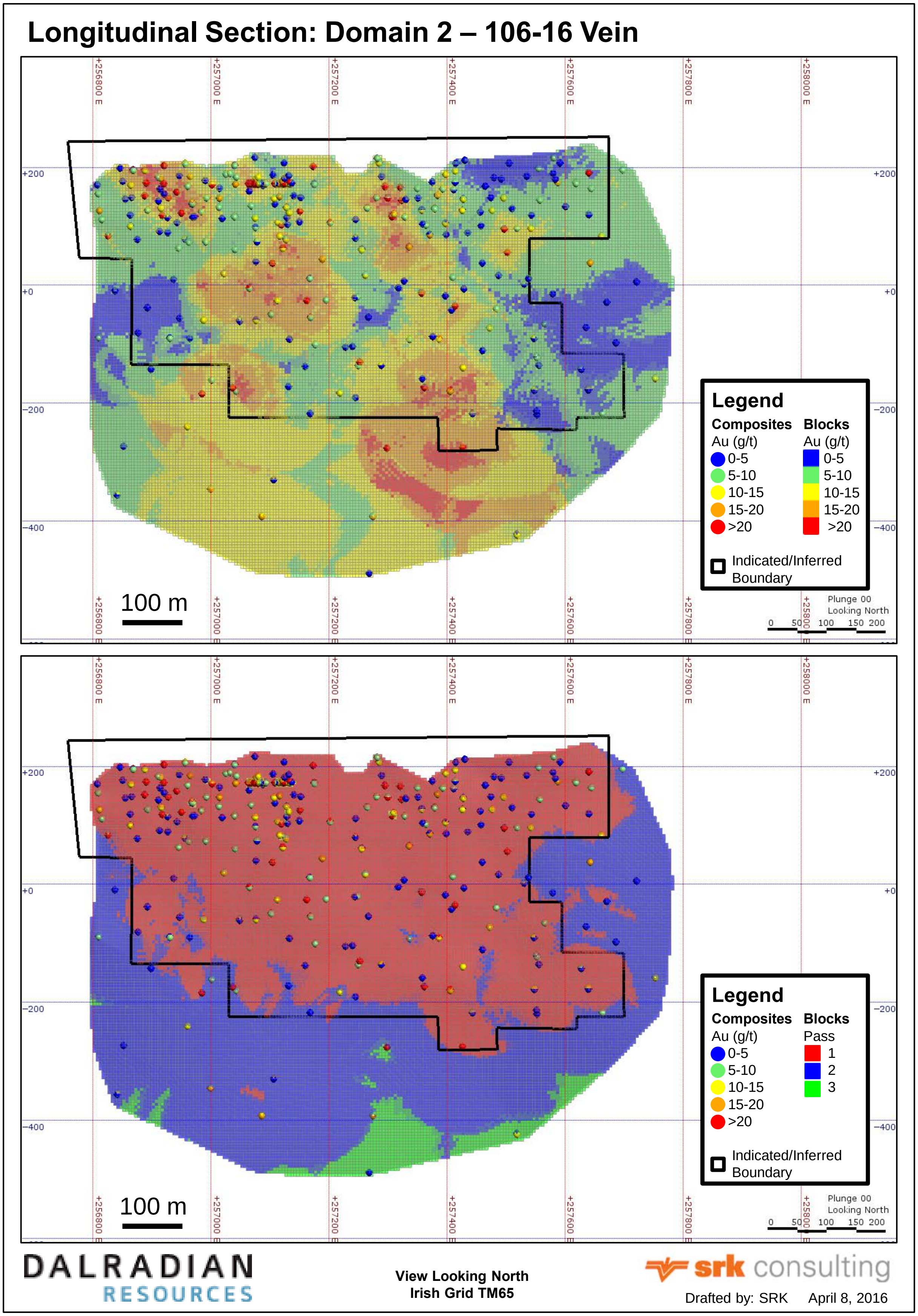
Longitudinal Section: Domain 2 – 106-16 Vein
Legend
Composites Au (g/t)
0-5
5-10
10-15
15-20
>20
Blocks Au (g/t)
0-5
5-10
10-15
15-20
>20
Indicated/Inferred Boundary
100 m
Plunge 00
Looking North
Legend
Composites Au (g/t)
0-5
5-10
10-15
15-20
>20
Blocks Pass
1
2
3
Indicated/Inferred Boundary
100 m
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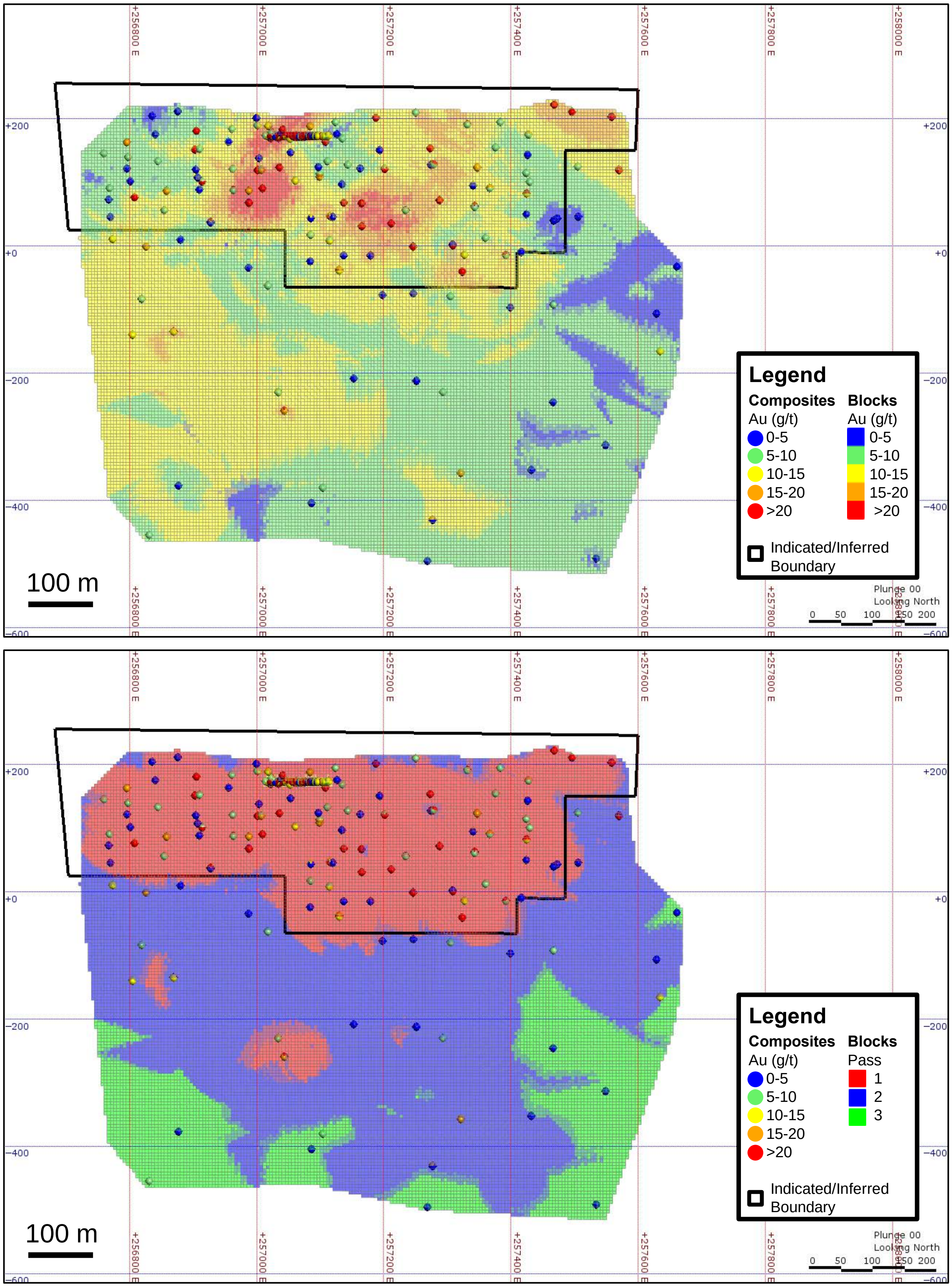
Longitudinal Section: Domain 3 – V75 Vein



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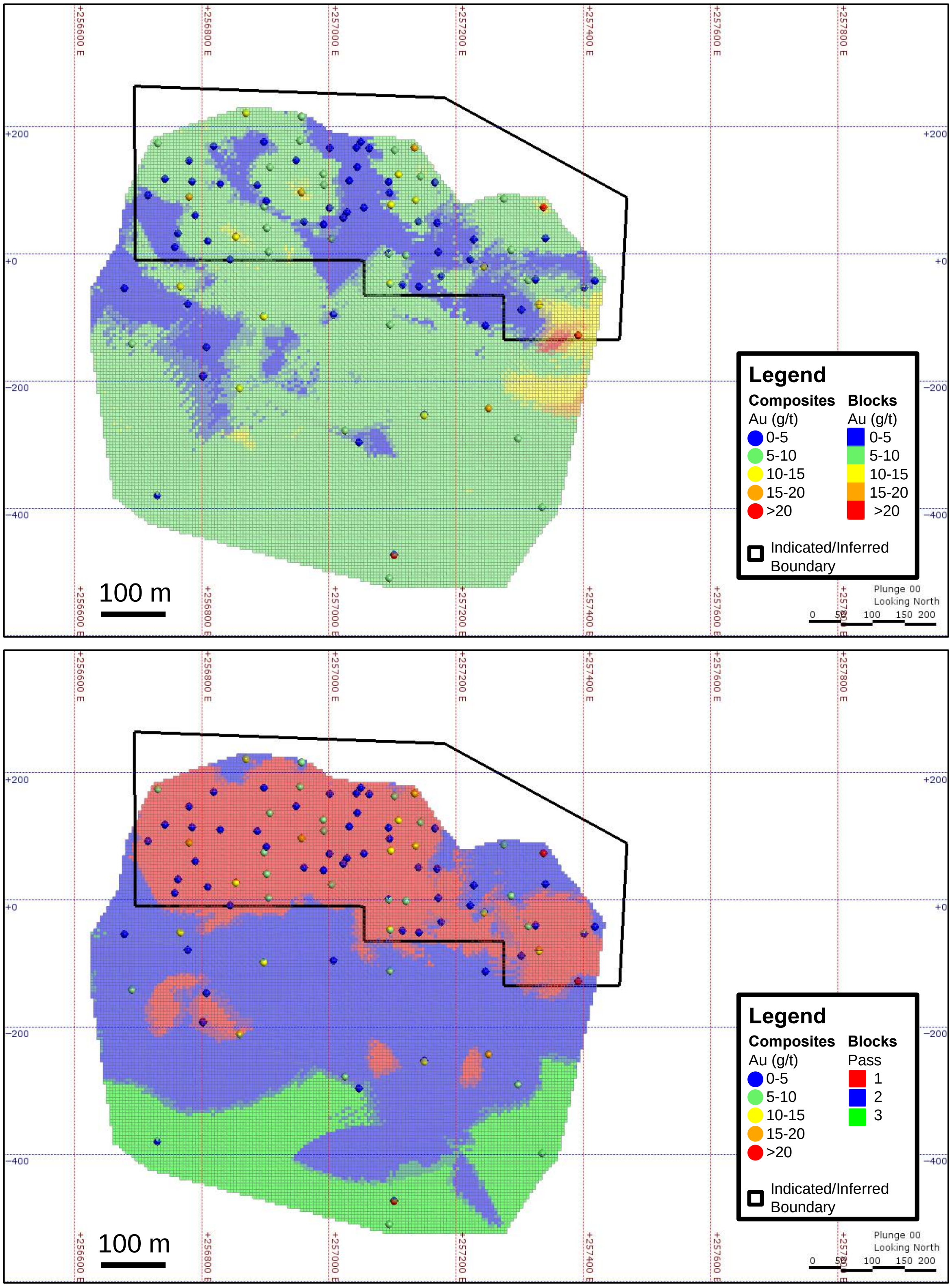
Longitudinal Section: Domain 4 – Bend Vein



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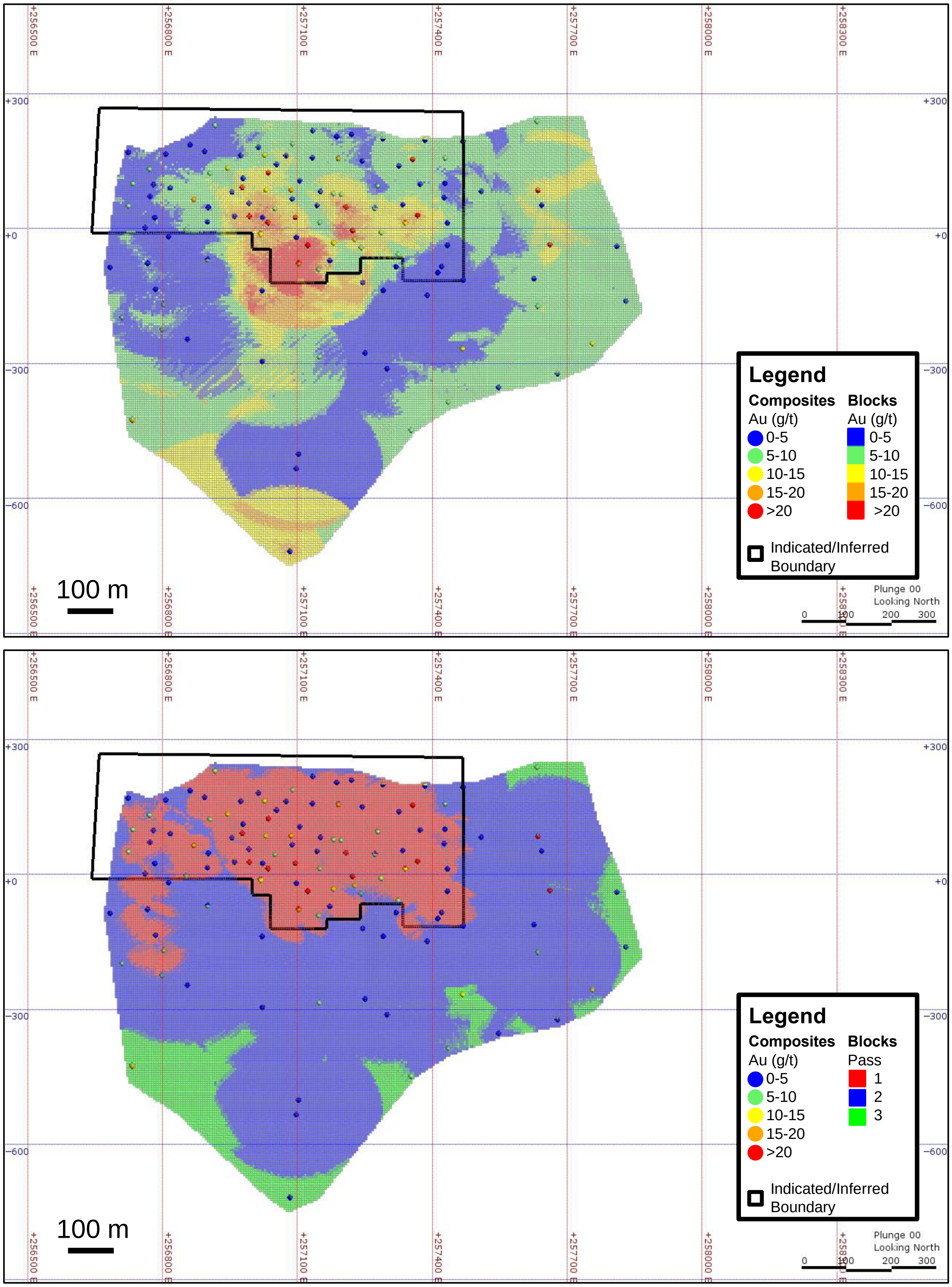
Longitudinal Section: Domain 5 – Crow Vein



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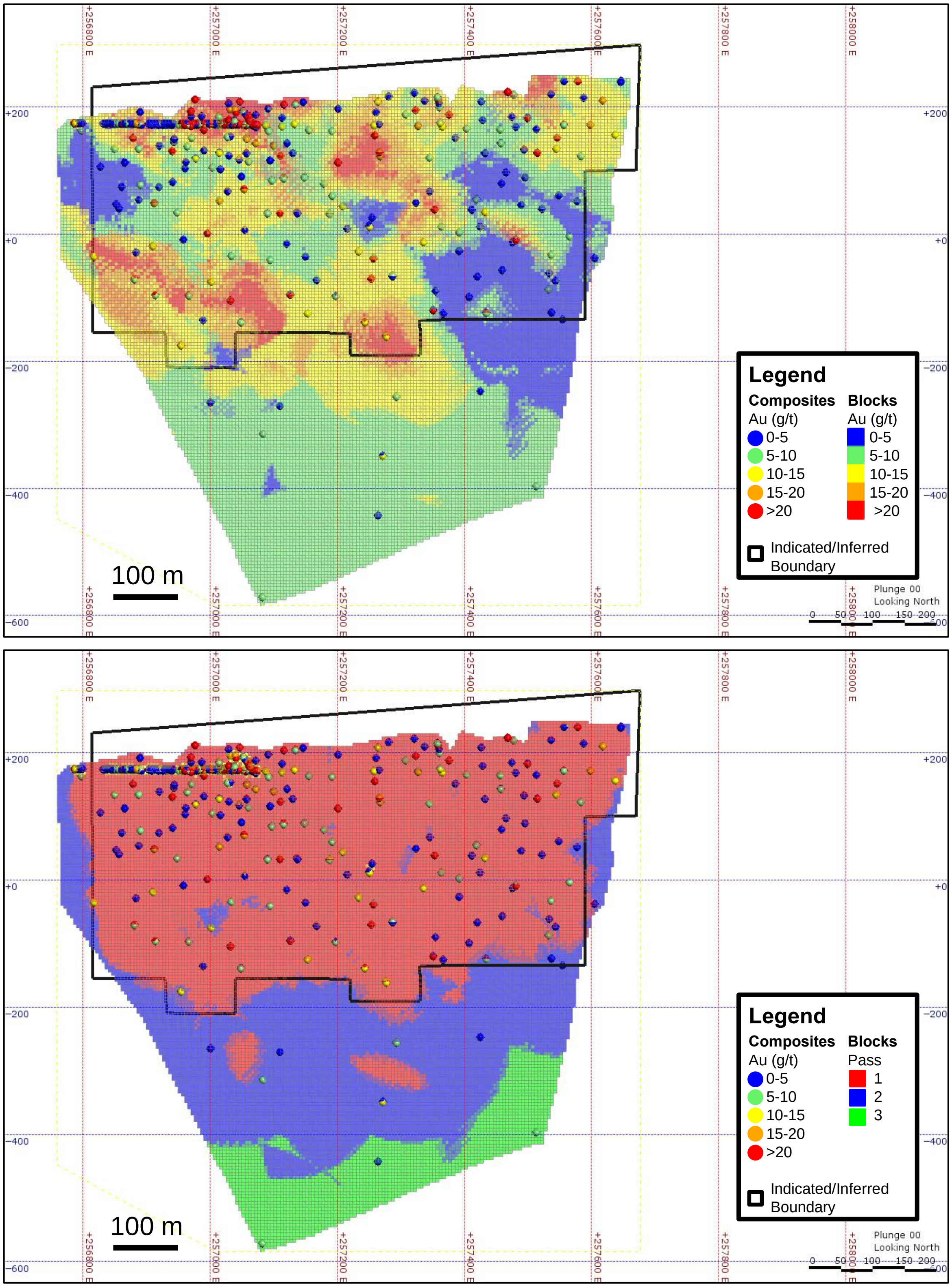
Longitudinal Section: Domain 6 – T17 Vein



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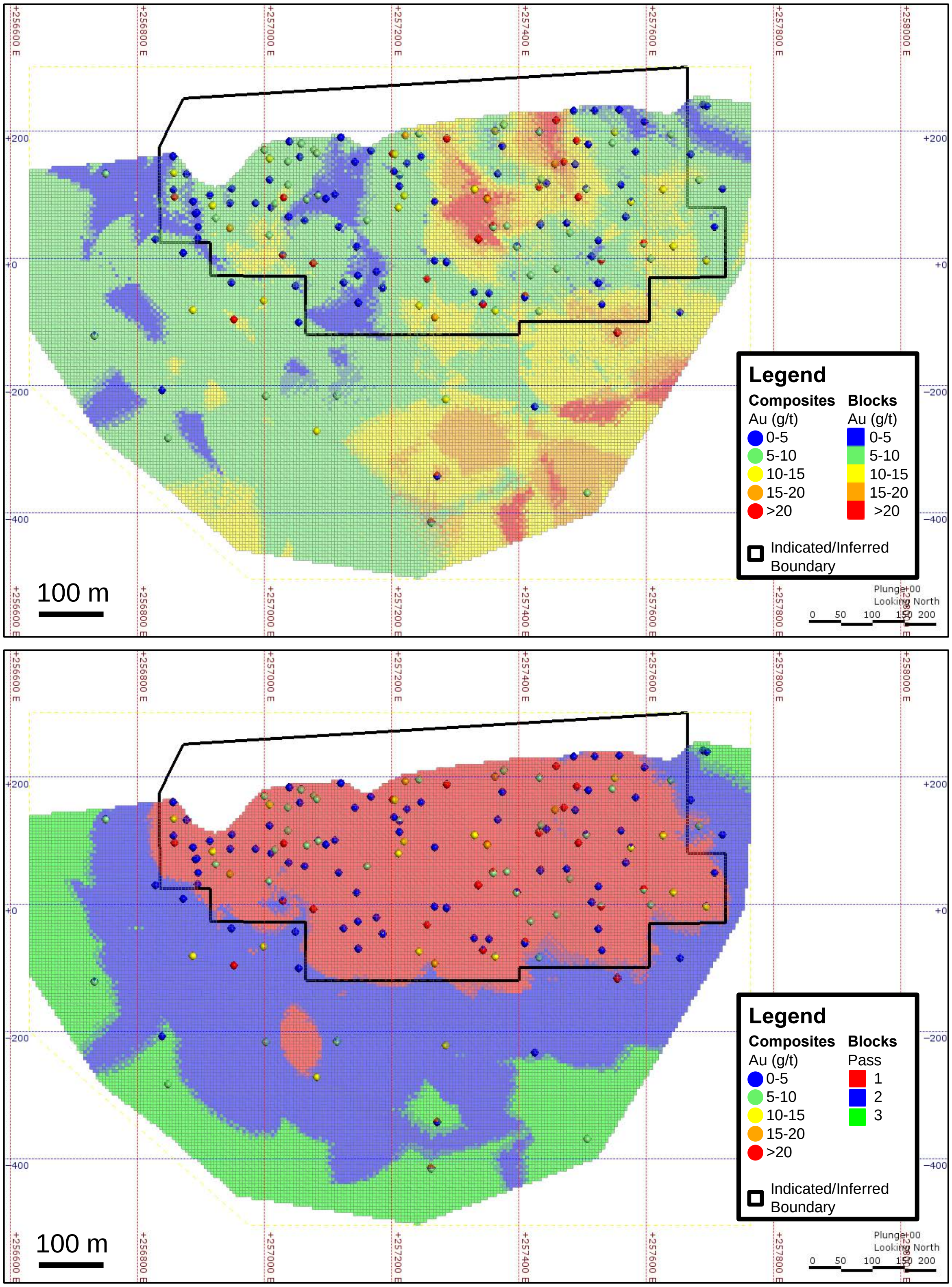
Longitudinal Section: Domain 7 – Mullan Vein



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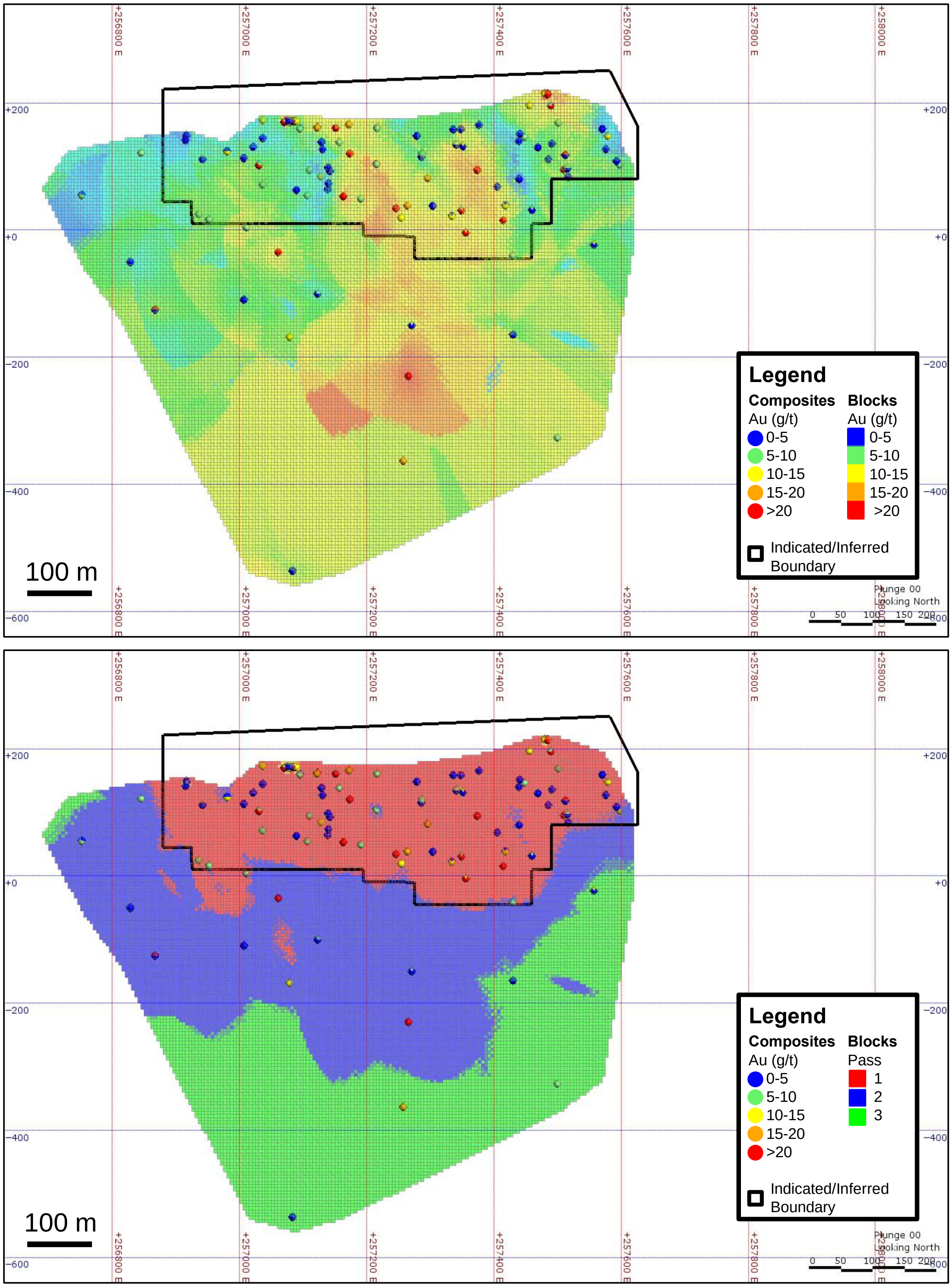
Longitudinal Section: Domain 8 – Sheep Dip Vein



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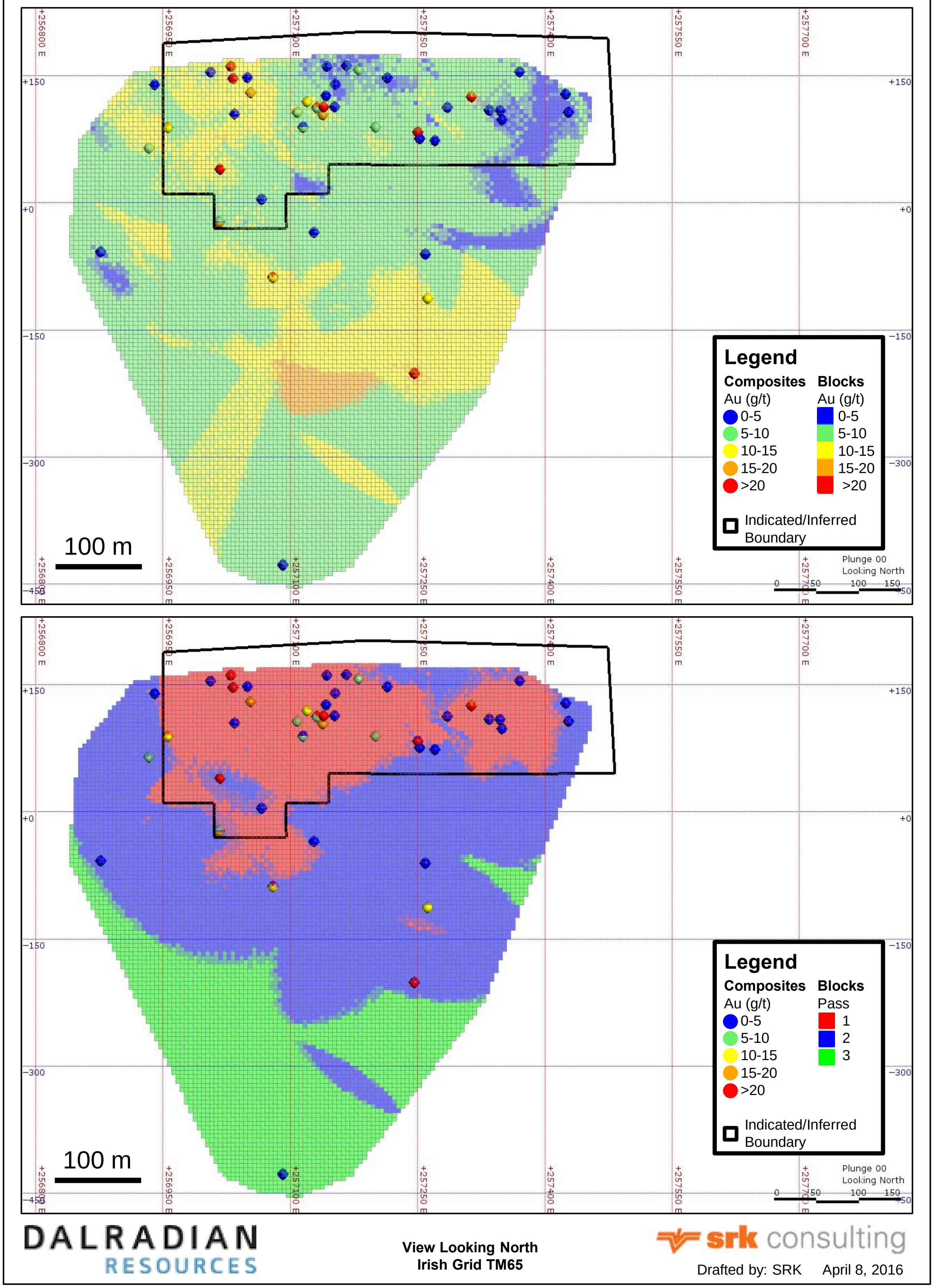
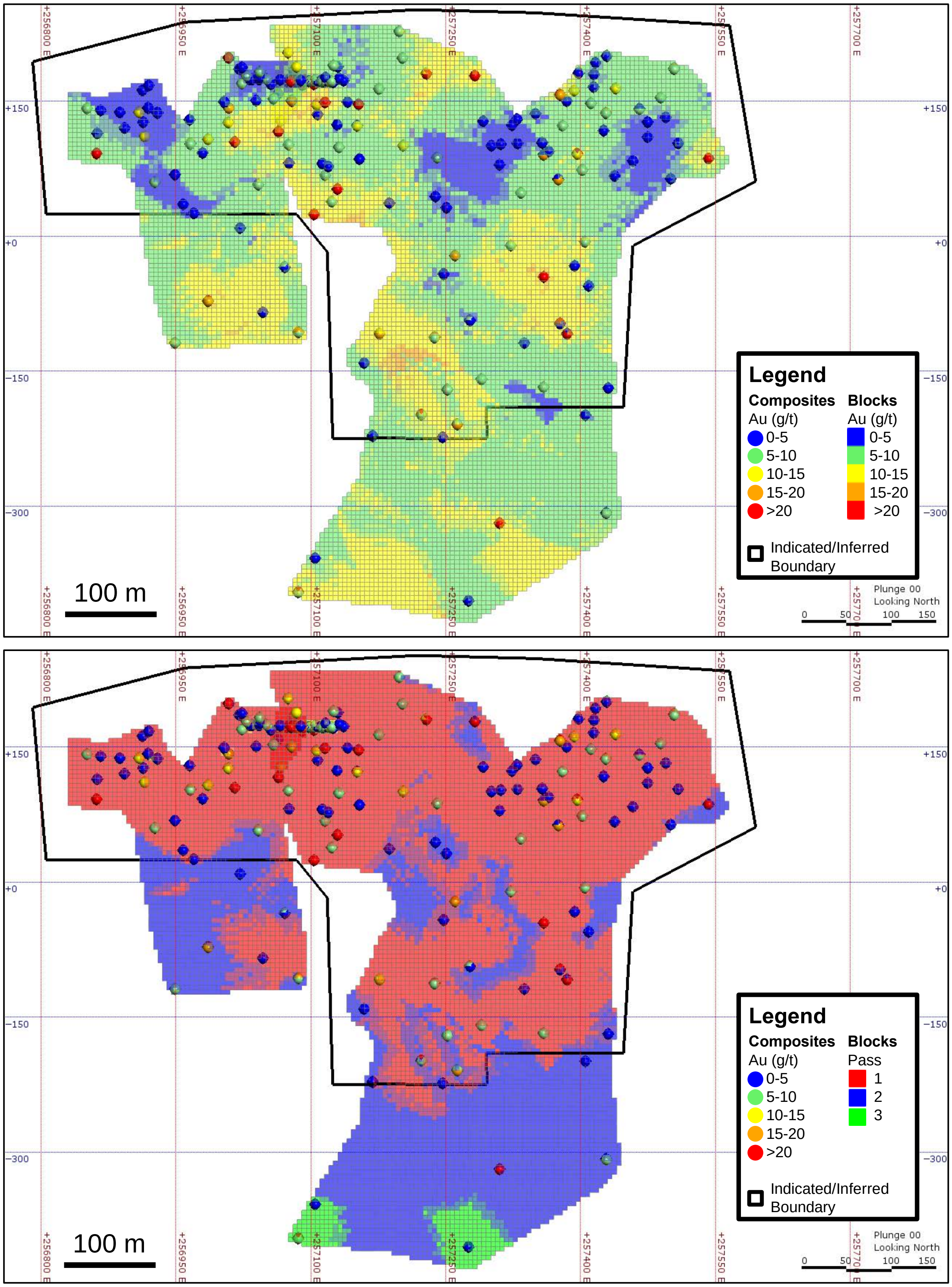
Longitudinal Section: Domain 9 – Road Vein



Longitudinal Section: Domain 11 – Slap Shot (East, West) Veins



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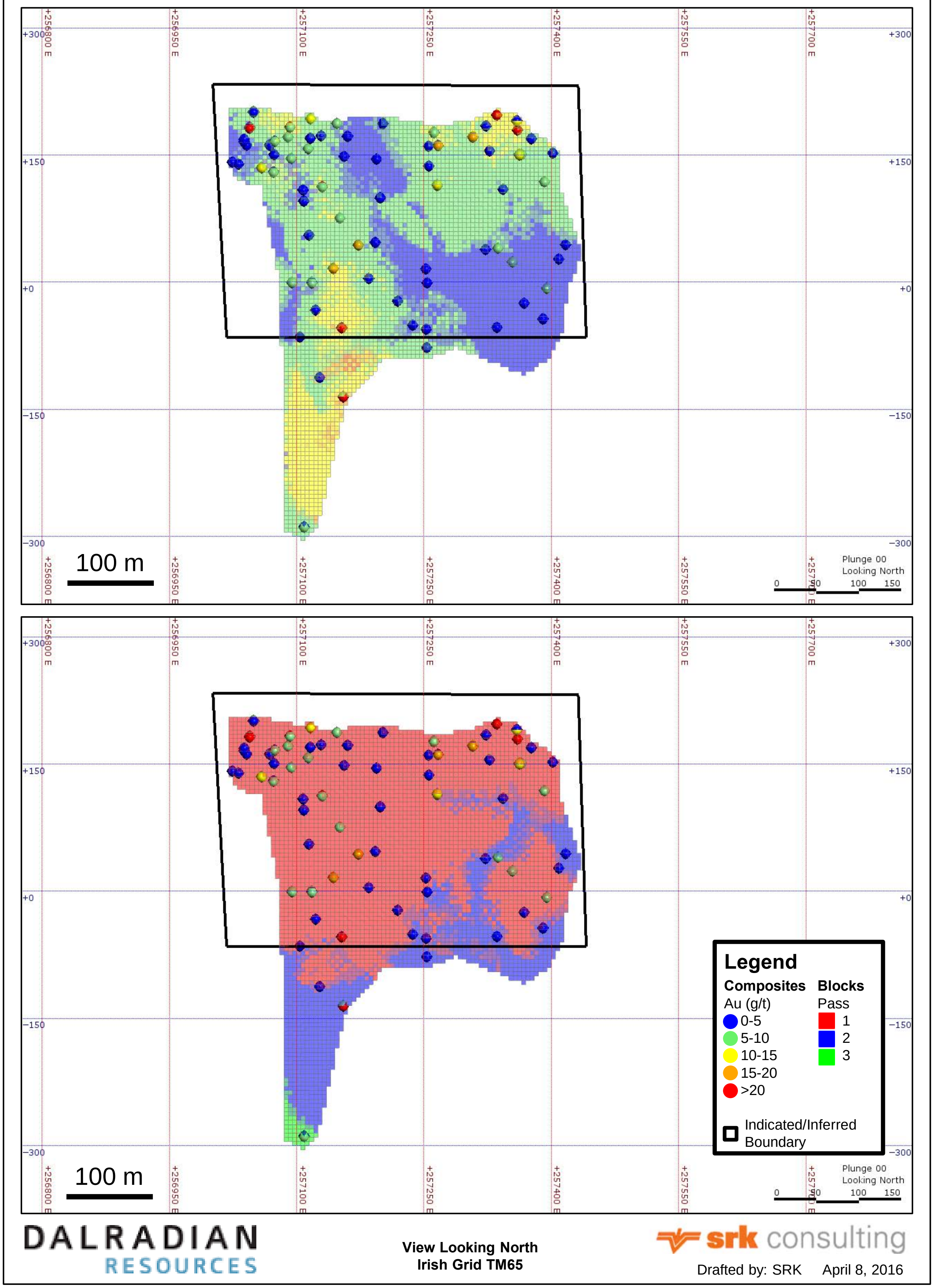
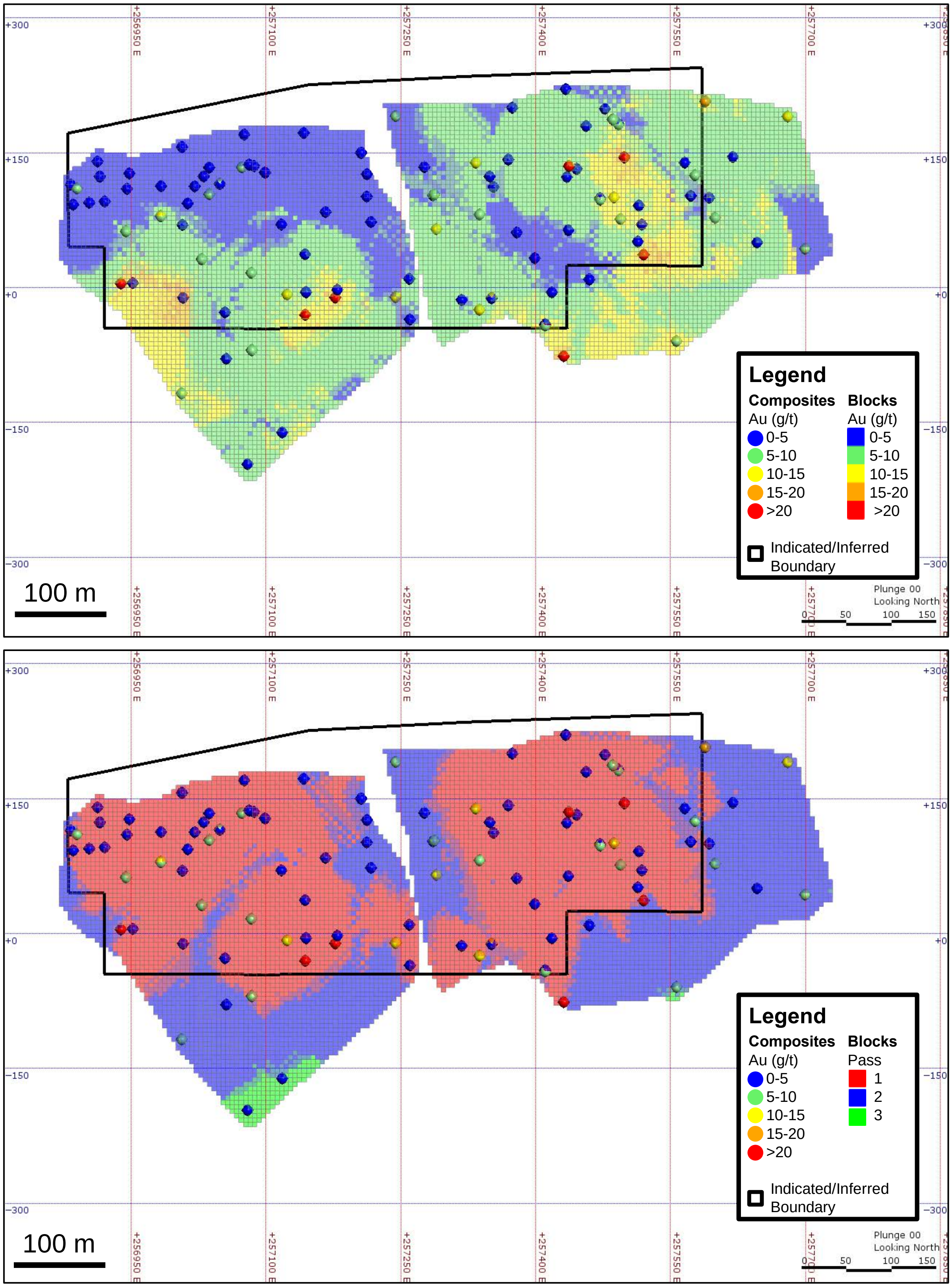
Longitudinal Section: Domain 12 – V55 Vein



Longitudinal Section: Domain 13 – Sperrin (East, West) Veins



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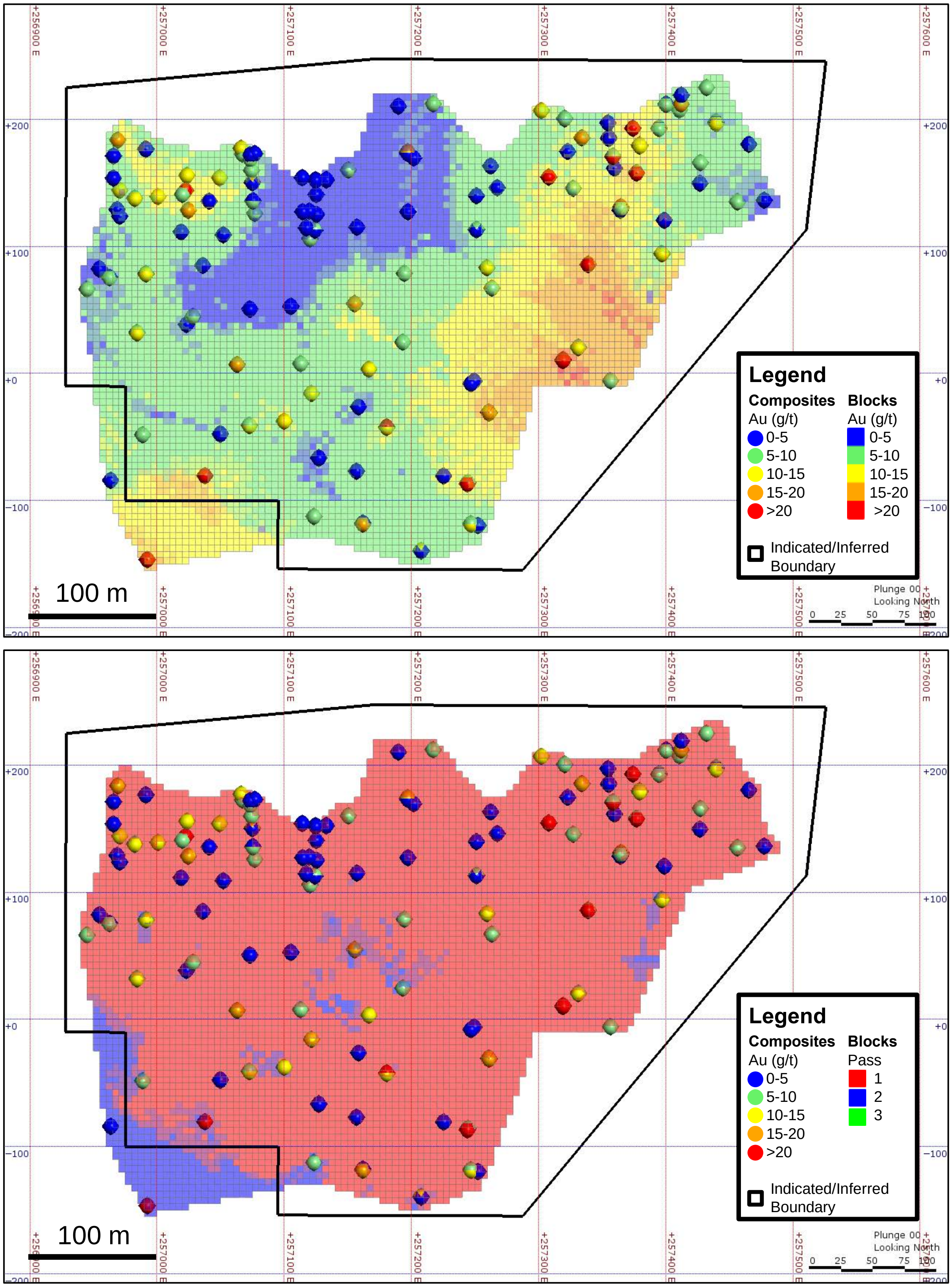
Longitudinal Section: Domain 14 – Causeway Vein



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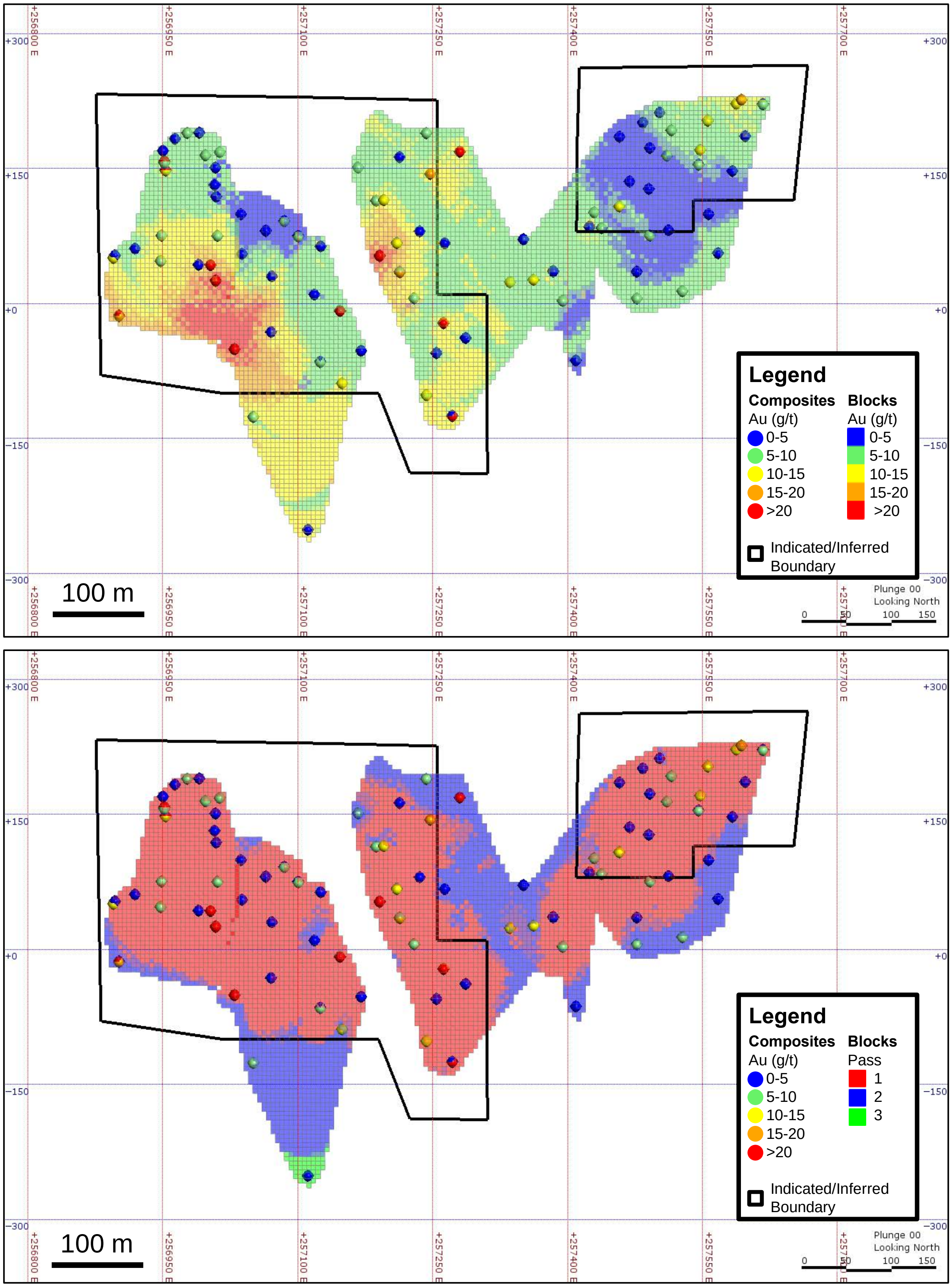
Longitudinal Section: Domain 15 – Grizzly (East, Mid, West) Veins



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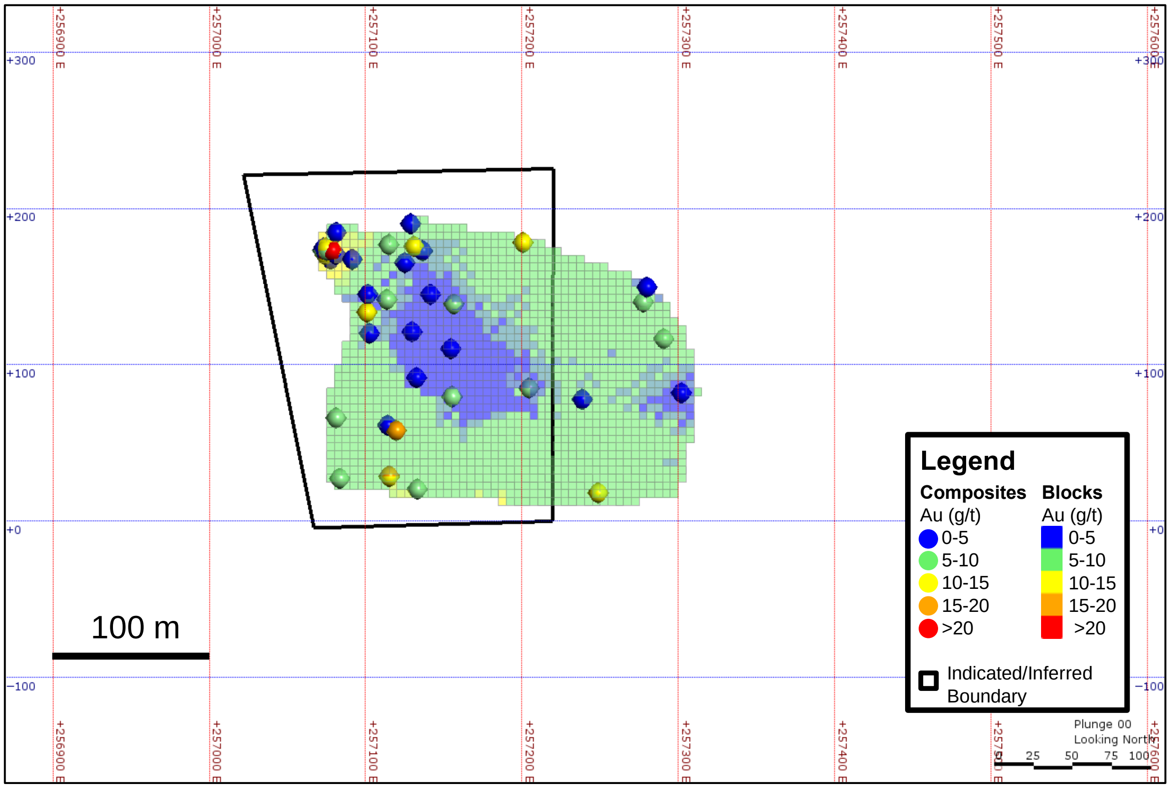
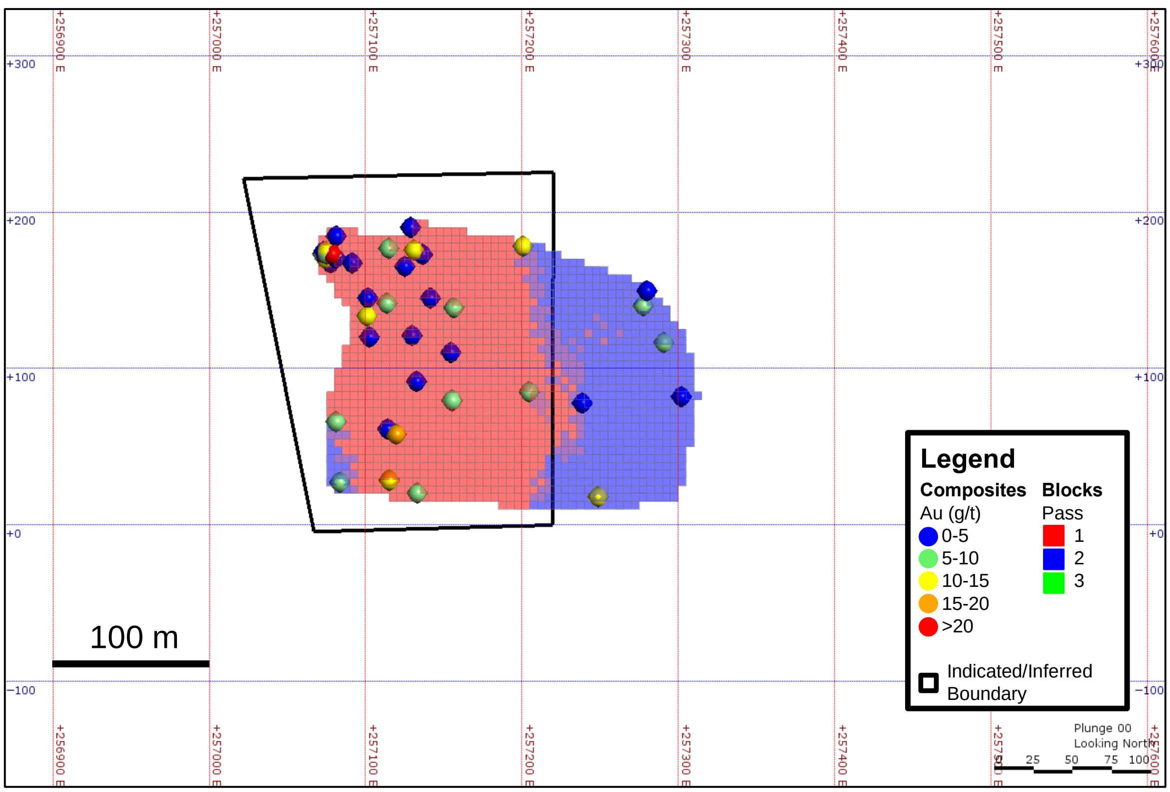
Longitudinal Section: Domain 16 – Slap Shot Splay Vein





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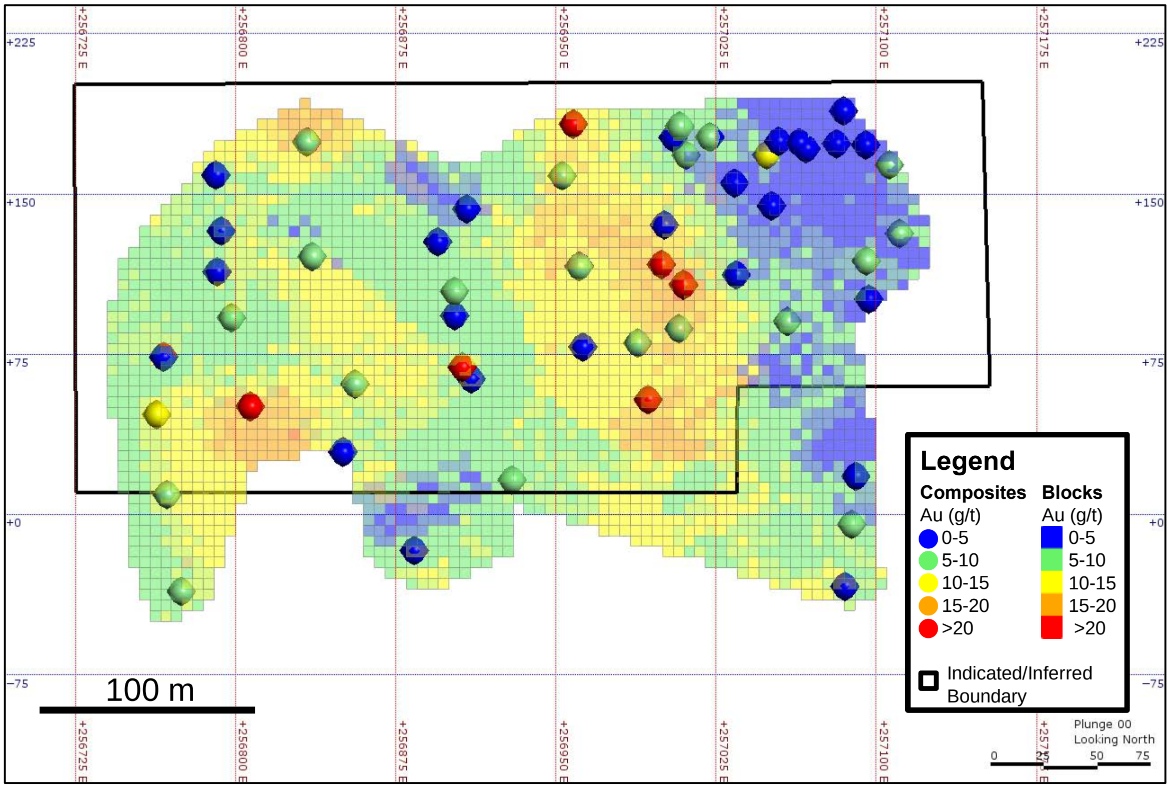
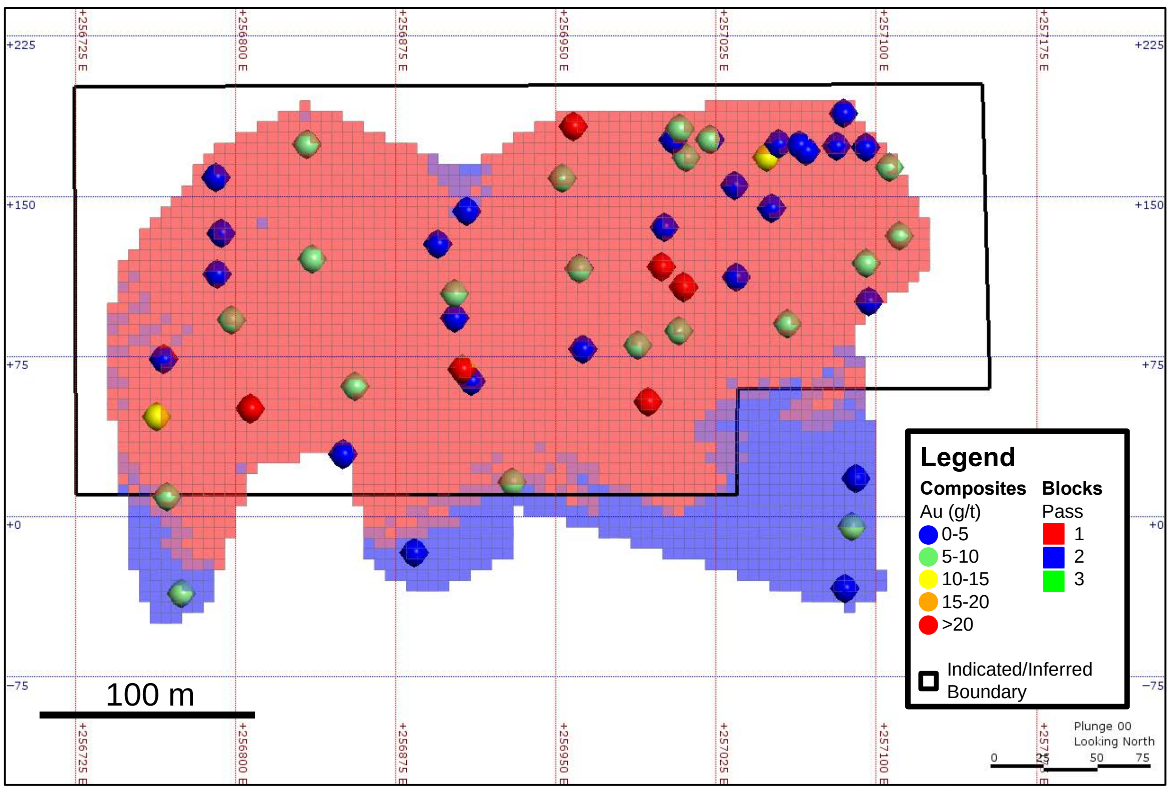
Longitudinal Section: Domain 17 – Bend Splay Vein





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