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**NI 43-101 TECHNICAL REPORT  
AND  
MINERAL RESOURCE ESTIMATE  
ON THE  
EASTMAIN MINE PROPERTY  
JAMES BAY DISTRICT, QUEBEC  
UTM Zone 18U 698,574m E 5,798,674m N**

**FOR**

**BENZ MINING CORP.**

**NI-43-101 & 43-101F1  
TECHNICAL REPORT**

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**P&E Mining Consultants Inc.  
Report 358**

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## 1.0 SUMMARY

The following report was prepared to provide a National Instrument (“NI”) 43-101 Technical Report and Mineral Resource Estimate for the gold, silver and copper mineralization contained in the Eastmain Mine Property (the “Project”), James Bay District, Quebec that is optioned by Benz Mining Corp. (“Benz”) to acquire a 100% interest. The Project is currently 100% owned by Eastmain Resources Inc. (“Eastmain Resources”) and is approximately 750 km northeast of Montreal, 620 km north of Quebec City, and 316 km northeast of Chibougamau. The Eastmain Mine is located at UTM Zone 18U 698,574mE 5,798,674mN or 52° 18’ 09” North latitude and 72° 05’ 15” West longitude.

The Project comprises 152 contiguous mining claims each with an area of approximately 52.7 ha covering a total of 8,014.36 ha plus one industrial lease permit owned by Eastmain Mines Inc., a wholly owned subsidiary of Eastmain Resources.

The Eastmain Mine Property (the “Property” or “Eastmain Property”) is road accessible via the Route 167 extension, a permanent all-season road and is serviced by an existing camp, all season gravel roads, and an airstrip. The Project benefits from access to Chibougamau, (population of 7,541) that serves as the main centre of communications and supplies for the area. A number of businesses provide services to the exploration sector and a long history of mining in the region contributes to a highly skilled work force.

The Property is located in the Hudson Bay watershed. The topography of the area is typical of the Canadian Shield and consists of a peneplained surface with limited local relief consisting of low rocky ridges separated by poorly drained ground. The area around the Eastmain Mine Project is gently rolling to flat lying, with local relief of up to 200 m and an average of 490 m above sea level. The climate is temperate to sub-arctic with snow cover expected from November to May. Exploration and mining can generally be carried out year-round.

The Eastmain Property has a history of significant exploration that has been undertaken intermittently since Placer Development Limited’s initial discovery of the Eastmain Deposit in 1969/1970. At this time the gold-silver-copper bearing A Zone was intersected while drill-testing an airborne geophysical conductor. Subsequent drill testing of airborne conductors in the 1980’s defined two additional gold-rich zones known as the B and C Zones. In 1987, the Placer and MSV Resources Inc. Joint Venture completed underground development on the Eastmain Deposit including an 826.2 m decline, 226.2 m of sub-level drifting, and 95.5 m of raising. In 1994 to 1995, MSV Resources mined 118,356 tonnes grading 10.58 g/t Au and 0.3% Cu by room and pillar mining. The mineralization was processed at the Copper Rand Mine in Chibougamau and 40,000 oz of Au was recovered. Eastmain Resources acquired a 100% interest in the Eastmain Property from Campbell Resources Inc. in 2007. On August 9, 2019, Benz announced that it had entered into an option agreement with Eastmain Resources Inc. to acquire a 100% interest in the Eastmain Property.

The Eastmain Property is located in the Opatica Sub-province of the ca. 2.7 Ga Archean Superior Geological Province within the Upper Eastmain River Greenstone Belt. The belt consists of a

metavolcanic-metasedimentary terrain, dominated by massive and pillowed mafic flows interbedded with felsic to intermediate tuff and flows, ultramafic flows and meta-sediments.

In the Eastmain Gold Deposit (“Eastmain Deposit” or “Deposit”), gold mineralization occurs in mineralized quartz veins associated with massive to semi-massive sulphide lenses and silicified zones contained in a strongly deformed and altered Mine Series assemblage of felsic, mafic and ultramafic rocks. The high strain deformation zone associated with the mineralization has a northwest trend and dips northeast at 35° to 45°. The Eastmain Deposit consists of three high-grade mineralized zones that have been traced for more than one km in length and to a vertical depth of 400 m. Mineralized quartz veins and lenses show a variable thickness between 10 cm and 13 m, and sulphide contents average 15 to 20%. Sulphides consist of pyrrhotite, pyrite, and chalcopyrite, with minor sphalerite, magnetite and molybdenite. Visible gold occurs in the mineralized quartz veins as small (<1 mm) grains associated with quartz and/or sulphides.

Genetic models for the Eastmain Deposit have ranged from a synvolcanic and stratabound deposit hosted in a recrystallized chert horizon to an epigenetic, orogenic deposit that is structurally controlled in a silicified shear zone. Recent geological work has led to the preferred model being a synvolcanic or syngenetic deposit. Recent exploration includes geophysics, trenching, geological mapping and drilling completed in 2016 and 2017 have provided important geological and structural information to guide exploration of new targets along, or in zones parallel to, the Mine Trend.

Eastmain drill core samples were sent for analysis to ALS Chemex Labs in Sudbury, Ontario, Rouyn-Noranda, Quebec or Vancouver, British Columbia. All samples were analyzed for gold, silver and copper. Gold was determined using fire assay on a 50 gram aliquot with an atomic absorption finish, giving a lower limit of detection of 5 ppb and an upper limit of detection of 10,000 ppb Au. Gold samples returning over-limit results of >10,000 ppb were also analyzed by fire assay method with a gravimetric finish. Gold was also analyzed using fire assay with an ICP-AES finish for some selected higher-grade samples. Samples were also analyzed for a suite of trace elements using inductively coupled plasma (ICP) methods.

The QA/QC program employed at the Project was designed by Eastmain’s geological staff and is consistent with industry best practices. A total of 20,658 drill core samples from the Project were sent for analyses from 2010 to 2017 and, along with these samples 504 Certified Reference Materials (“CRMs”) (2.2 %) and 449 blanks (2.4 %) were inserted into the sample stream to monitor for accuracy and contamination. P&E considers that the CRM standards demonstrate acceptable accuracy.

The Eastmain Property was visited by Mr. Antoine Yassa, P.Geo., from November 6 to November 7, 2017 for the purposes of completing a site visit and due diligence sampling. During the site visit, Mr. Yassa viewed access to the Property, drill hole collars and trench locations, geology and topography.

Mr. Yassa collected 21 verification samples from five Eastmain Project drill holes that were stored at the core storage facility. The verification samples from the Project holes were collected by cutting the split core for each sample interval selected by Mr. Yassa. The samples were

bagged and taken directly by Mr. Yassa to AGAT Labs, (“AGAT”) in Mississauga, ON for analysis. Samples at AGAT were analyzed for gold by fire assay method with an AAS finish. Samples returning results of greater than 10 g/t Au were further analyzed by fire assay method with a gravimetric finish. Samples were also analyzed for silver, copper and zinc by 4-acid digest method with an ICP/ICP-MS finish. Zinc samples returning results greater than 10,000 g/t Zn were further analyzed by sodium peroxide fusion method with an ICP-OES finish. P&E considers there to be good correlation between Eastmain’s original results and P&E’s independent verification samples.

All drilling and assay data were provided in the form of Excel data files by Eastmain. The database for this Mineral Resource Estimate, compiled by P&E, consisted of 538 drill holes totalling 110,655 m, of which 242 drill holes totalling 42,436 m were employed for the Mineral Resource Estimate. P&E validated the Mineral Resource database by checking for inconsistencies in analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, survey and missing interval and coordinate fields. P&E believes that the supplied database is suitable for Mineral Resource estimation.

Three mineralization wireframes provided by Eastmain Resources were reviewed and modified by P&E. The wireframes were created from successive cross-sectional polylines on NW facing vertical cross-sections with a 25 m spacing. Nominally, a 1.0 g/t Au cut-off and 1.5 m minimum core length were utilized for the construction of the wireframes. On each cross-section, polyline interpretations were digitized from drill hole to drill hole but not typically extended more than 50 m into untested territory. The resulting Mineral Resource domains were used as constraining boundaries during the Mineral Resource estimation process for rock coding, statistical analysis and compositing limits. Surface of topography was created by Eastmain from LIDAR survey data. Underground mine infrastructure (ramp and workings) were digitized from historic plans and cross-sections by Eastmain; while an overburden surface was generated by Eastmain using drill hole logs.

A compositing length of 1.0 m was selected for Mineral Resource estimation. The presence of high-grade outliers for the composite data was evaluated by a review of composite summary statistics, histograms and probability plots. Based on this analysis, Veins A and B were both capped at 45 g/t Au and 60 g/t Ag with no capping for Cu. Vein C was not capped for Au, Ag or Cu.

An average in-situ bulk density of 2.90 t/m<sup>3</sup> was applied to the mineralized domains. The Eastmain Deposit Mineral Resource model was divided into a block model framework with blocks extending 2.5 m in the X direction, 5.0 m in the Y direction and 2.5 m in the Z direction. The Au and Ag grade blocks were interpolated with Inverse Distance Cubed (1/d<sup>3</sup>), while Cu was interpolated with Inverse Distance Squared (1/d<sup>2</sup>).

In P&E's opinion, the drilling, assaying and exploration work of the Eastmain Project supports this Mineral Resource Estimate and are sufficient to indicate a reasonable potential for economic extraction and thus qualify it as a Mineral Resource under the CIM definition standards. The

Mineral Resource was classified as Indicated and Inferred based on the geological interpretation, semi-variogram performance and drill hole spacing.

The Mineral Resource Estimate was derived from applying Au grade cut-off values to the block model and reporting the resulting tonnes and grade for potentially underground mineable areas. Based on a gold price of USD\$1,288, Au process recovery of 95%, an exchange rate of USD\$0.77=CAD\$1.00, and estimated mining processing and G&A costs of CAD\$125/tonne, a 2.5 g/t Au cut-off grade was utilized.

The resulting Mineral Resource Estimate is tabulated in Table 1.1. P&E considers the mineralization at Eastmain to be potentially amenable to underground extraction.

<b>Classification</b>	<b>Tonnes (kt)</b>	<b>Au (g/t)</b>	<b>Contained Au (koz)</b>	<b>Ag (g/t)</b>	<b>Contained Ag (koz)</b>	<b>Cu (%)</b>	<b>Contained Cu (klb)</b>
Indicated	899	8.19	236.5	8.0	232	0.13	2,577
Inferred	579	7.48	139.3	8.2	152	0.16	2,042

- (1) *Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability.*
- (2) *The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.*
- (3) *The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.*
- (4) *The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.*
- (5) *Historic mined out areas were depleted from the model.*

P&E considers that the Eastmain Property contains a significant gold and base metal Mineral Resource that is associated with a well-defined mineralized system. P&E further considers that the Property has potential for delineation of additional Mineral Resources both in the vicinity of the past-producing mine and along the mineralized trend. Further exploration is warranted to increase the size and confidence of the Mineral Resource Estimate, plus additional metallurgy and environmental studies to advance development of the Eastmain Deposit. A two-phase program for a total of CAD\$3,355,000 is recommended and is detailed in Table 18.1.

## **2.0 INTRODUCTION AND TERMS OF REFERENCE**

### **2.1 TERMS OF REFERENCE**

The following report was prepared to provide a National Instrument (“NI”) 43-101 Technical Report and Initial Mineral Resource Estimate for the gold, silver and copper mineralization contained in the Eastmain Mine Property (the “Property”), James Bay District, Quebec. On August 9, 2019, Benz Mining Corp. (“Benz”) announced that it had entered into an option agreement with Eastmain Resources Inc. to acquire a 100% interest in the Eastmain Property. The Eastmain Property is currently 100% owned by Eastmain Resources Inc. (“Eastmain Resources”).

This Technical Report was prepared by P&E Mining Consultants Inc. (“P&E”) at the request of Mr. Miloje Vicentijevic, President and CEO, Benz Mining Corp., a public company trading on the TSX Venture Exchange (“TSXV”) with the trading symbol BZ. Benz Mining Corp. has its head office at:

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This Technical Report has an effective date of August 9, 2019.

Mr. Antoine Yassa, P.Geo., of P&E, a Qualified Person under the regulations of NI 43-101, conducted a site visit to the Property on November 6 and 7, 2017. An independent verification sampling program was conducted by Mr. Yassa at that time. An updated site visit was not conducted to the Property since no evidence on SEDAR or other public media could be found that Eastmain Resources had conducted any activity since Mr. Yassa’s site visit Nov 6 and 7, 2017. In addition, Eastmain Resources management confirmed this observation to be accurate.

In addition to the site visit, P&E held discussions with technical personnel from Eastmain Resources regarding all pertinent aspects of the Project and carried out a review of available literature and documented results concerning the Property. The reader is referred to those data sources, which are outlined in the References section of this Technical Report, for further detail.

This Technical Report is prepared in accordance with the requirements of National Instrument 43-101 (“NI 43-101”) and in compliance with Form NI 43-101F1 of the Ontario Securities Commission (“OSC”) and the Canadian Securities Administrators (“CSA”). The Mineral Resource in this estimate are considered compliant with the Canadian Institute of Mining, Metallurgy and Petroleum (“CIM”), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions.

The purpose of the current Report is to provide an independent, NI 43-101 Technical Report and Initial Mineral Resource Estimate on the Eastmain Mine Property. P&E understands that this

report will be used for internal decision-making purposes and will be filed on SEDAR as required under TSX regulations. The report may also be used to support public equity financing.

## 2.2 SOURCES OF INFORMATION

This Report is based, in part, on internal company technical reports, and maps, published government reports, company letters, memoranda, public disclosure and public information as listed in the References at the conclusion of this Report. Sections from reports authored by other consultants have been directly quoted or summarized in this Report, and are so indicated where appropriate.

Select technical data, as noted in the Report, were provided by Eastmain Resources and P&E has relied on the integrity of such data.

Parts of this Report refer to the NI 43-101 Technical Report by David Frappier-Rivard on the Eastmain Mine Project dated June 15, 2015.

Sections 2 to 8 and section 23 of this Report were prepared by Richard Sutcliffe, P.Geo., under the supervision of Antoine Yassa, P.Geo., who acting as a QP as defined by NI 43-101, takes responsibility for those sections of the Report as outlined in the “Certificate of Author” attached to this Report. Sections 9 to 12 of this Report were prepared by Jarita Barry, P.Geo. under the supervision of Antoine Yassa, P.Geo., who acting as a QP as defined by NI 43-101, takes responsibility for those sections of the Report as outlined in the “Certificate of Author” attached to this Report. Section 14 of this Report was prepared by Eugene Puritch, P.Eng. and Yungang Wu, P.Geo. under the supervision of Antoine Yassa, P.Geo., who acting as a QP as defined by NI 43-101, takes responsibility for those sections of the Report as outlined in the “Certificate of Author” attached to this Report.

## 2.3 UNITS AND CURRENCY

Unless otherwise stated all units used in this Report are metric. Gold assay values (Au) are reported in grams of metal per tonne (“g/t Au”) unless ounces per ton (“oz/T Au”) are specifically stated. The CAD\$ is used throughout this report unless the USD\$ is specifically stated. At the time of this report the rate of exchange between the USD\$ and the CAD\$ is USD\$0.80 = CAD\$1.00.

The following list shows the meaning of the abbreviations for technical terms used throughout the text of this report.

<b>Abbreviation</b>	<b>Meaning</b>
“AAS”	atomic absorption spectrometry
“asl”	above sea level
“Ag”	silver
“Au”	gold
“Benz”	Benz Mining Corp.

“cm”	centimetre(s)
“CAD\$”	Canadian Dollar
“CIM”	Canadian Institute of Mining, Metallurgy, and Petroleum
“Cu”	copper
“DDH”	diamond drill hole
“ft”	foot
“Ga”	Giga annum or billions of years
“g/t”	grams per tonne
“ha”	hectare(s)
“ICP”	inductively coupled plasma
“km”	kilometre(s)
“lb”	pound
“m”	metre(s)
“mm”	millimetre
“Ma”	millions of years
“MERN”	Ministère de l’Énergie et des Ressources Naturelles du Québec
“MFFP”	Ministère des Forêts, de la Faune et des Parcs du Québec
“MS”	mass spectrometer
“P&E”	P&E Mining Consultants Inc
“PEA”	Preliminary Economic Assessment
“P.Geo.”	Professional Geoscientist
“P.Eng.”	Professional Engineer
“QA/QC”	Quality Assurance/Quality Control
“QP”	Qualified Person
“t”	metric tonne(s)
“T”	Imperial ton(s)
“UTM”	Universal Transverse Mercator grid system
“Zn”	zinc

### **3.0 RELIANCE ON OTHER EXPERTS**

While P&E has carefully reviewed all the available information presented to us, we cannot guarantee its accuracy and completeness. P&E reserves the right, but will not be obligated to revise the Technical Report and conclusions if additional information becomes known to us subsequent to the date of this Technical Report.

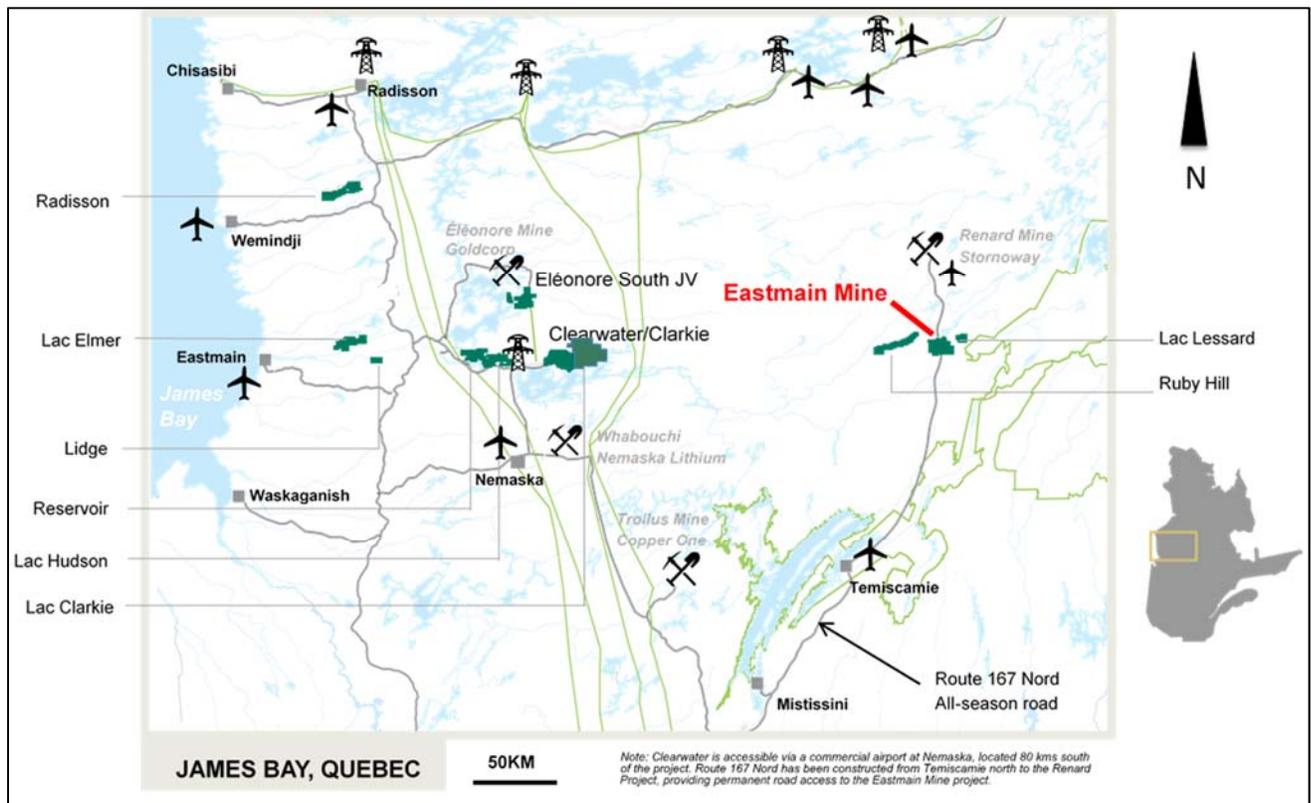
Copies of the tenure documents, operating licenses, permits, and work contracts were not reviewed and P&E completely relied on discussions with Eastmain management on Aug 28, 2019 for such information as it applies to Section 4 of this Technical Report. Information relating to tenure was reviewed on August 29, 2019 by means of the public information available through the Province of Québec's Ministère de l'Énergie et des Ressources Naturelles (MERN) on-line claim management system at <http://www.gestim.mines.gouv.qc.ca>. P&E has relied upon this public information, as well as tenure information from Eastmain Resources and has not undertaken an independent detailed legal verification of title and ownership of the Eastmain Mine Property claims. P&E has not verified the legality of any underlying agreement(s) that may exist concerning the licenses or other agreement(s) between third parties but has relied on, and believes it has a reasonable basis to rely upon Eastmain Resources to have conducted the proper legal due diligence.

## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 LOCATION

The Eastmain Mine Project is located in the James Bay District of northern Quebec. The Project is approximately 750 km northeast of Montreal, 620 km north of Quebec City, and 316 km northeast of Chibougamau. The Eastmain Mine is located at UTM Zone 18U 698,574m E 5,798,674m N Zone 18 or 52° 18' 09" North latitude and 72° 05' 15" West longitude (Figure 4.1). The Property is located within NTS map sheet 33A 08.

**Figure 4.1 Location Map of the Eastmain Mine Property**

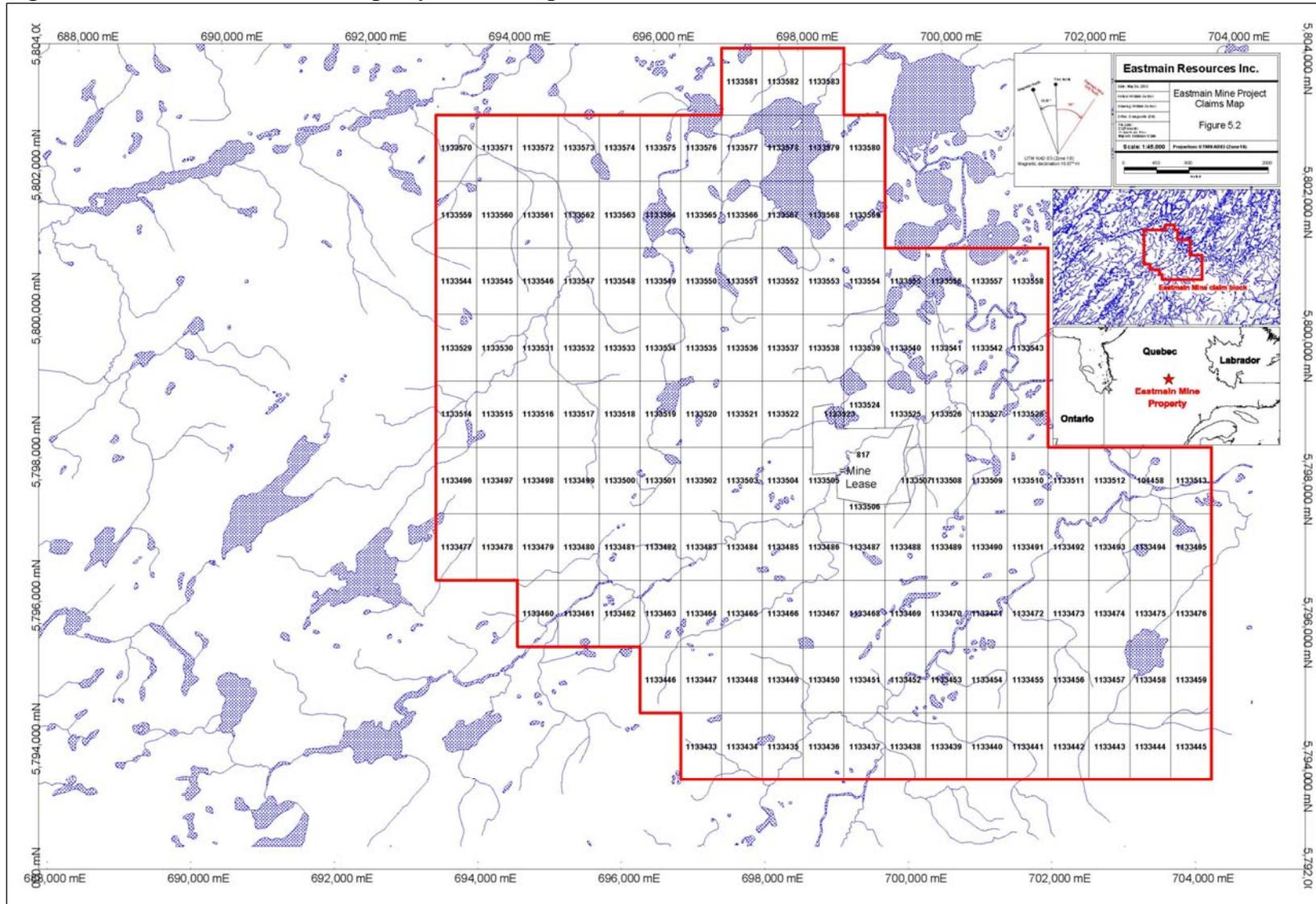


Source: Eastmain Resources (2018)

### 4.2 PROPERTY DESCRIPTION AND TENURE

The Project comprises 152 contiguous mining claims each with an area of approximately 52.7 ha covering a total of 8,014.36 ha plus one industrial lease permit that are owned by Eastmain Mines Inc., a wholly owned subsidiary of Eastmain Resources. The claims are numbered 1133433 to 1133583 consecutively plus claim 104458 (Figure 4.2). All of the claims are located within NTS sheet 33A 08. The claims have not been legally surveyed.

**Figure 4.2 Eastmain Mine Property Claim Map**



Source: Eastmain Resources (2019)

Figure 4.2 also indicates the location of the former Mine Lease BM 817 that was issued on January 10, 1995 and expired in 2015 after a 20-year term. This former Mine Lease was converted to Industrial Lease 00184710000 on Sep 1, 2015 and contains all normal surface rights. The annual lease payment of \$1500.42 was made on September 1, 2019. The former mineral rights for BM 817 are now included in the expanded Claims 1133523, 1133524, 1133525, 1133505, 1133506 and 1133507.

The claims are 100% held by Eastmain Resources subject to certain net smelter royalties (“NSR”). Eastmain Resources acquired the Eastmain Mine Property in February 2007, by issuing \$2.5 million in cash, 1,000,000 Eastmain Resources Common Shares and 500,000 share-purchase warrants at an exercise price of \$1.00 per share, valid for 12 months, to Campbell Resources Inc. (“Campbell”). On July 18, 2007 Eastmain Resources issued an additional 1,000,000 Common Shares and 500,000 share-purchase warrants at an exercise price of \$1.50 per share, valid for 12 months, to complete the transaction.

On August 9, 2019, Benz Mining Corp. announced that it has entered into an option agreement with Eastmain Resources Inc. to acquire a 100% interest in the former producing Eastmain Gold Project located in James Bay District, Quebec, for CAD \$5,000,000. Pursuant to the Option Agreement, Benz retains the right and option to earn a 75% interest in the Project by issuing the following cash and common shares payments to Eastmain Resources:

1. \$75,000 within five business days of the Effective Date, as defined in the Option Agreement;
2. \$200,000 on or before the 1st anniversary of the Effective Date, of which up to \$100,000 may be paid in Payment Shares, in the Option Agreement, at the discretion of Benz;
3. \$210,000 on or before the 2nd anniversary of the Effective Date, of which up to \$110,000 may be paid in Payment Shares at the discretion of Benz;
4. \$210,000 on or before the 3rd anniversary of the Effective Date, of which up to \$110,000 may be paid in Payment Shares at the discretion of Benz; and
5. \$1,625,000 on or before the 4th anniversary of the Effective Date, of which up to \$375,000 may be paid in Payment Shares at the discretion of Benz.

In addition to the Option Payments, Benz must issue to Eastmain Resources 3,000,000 common shares within five business days of the Effective Date, representing a value of approximately \$180,000.

The Project property expenditure schedule, as defined in the Option Agreement totals \$3,500,000 and is as follows:

1. \$500,000 of Expenditures on or before the 1st anniversary of the Effective Date;

2. An additional \$1,000,000 of Expenditures on or before the 2nd anniversary of the Effective Date;
3. An additional \$1,000,000 of Expenditures on or before the 3rd anniversary of the Effective Date; and
4. An additional \$1,000,000 of Expenditures on or before the 4th anniversary of the Effective Date;

If and when Benz has made the Option Payments of minimum \$1,625,000 cash, issued 3 million common shares and \$875,000 valued common shares; and incurred Expenditures in the aggregate amount of \$3,500,000 as defined in the Option Agreement, Benz will be deemed to have exercised the Option and a 75% right, title and interest. Benz has the right to accelerate expenditures at any time.

Following the exercise of the Option, Benz will be obligated to make the following additional payments to Eastmain Resources on the occurrence of the following events:

- \$1,000,000 within five (5) business days of the closing of Project financing to place the Property or any part thereof into commercial production in accordance with a feasibility study completed by the Optionee within 24 months of the exercise of the Option. With this payment, Benz will have acquired 100% of Eastmain Resources recorded and/or leasehold interest in the Project. If Benz fails to make this milestone payment, Eastmain Resources will have the right to buy back Benz's 75% interest in the Project for \$3,500,000, of which up to \$1,225,000 may be paid in common shares of Eastmain Resources; and
- \$1,500,000 within five (5) business days of the Commencement of Commercial Production.

Benz may, at its election, pay up to 25% of this payment in common shares as Payment Shares. The number of Payment Shares required to be issued will be determined by the Share Equivalent of such payment on the date of issuance.

Eastmain Resources would retain a 2% Net Smelter Return royalty in respect of the Project.

Benz may, at any time, purchase one half of the NSR Royalty, thereby reducing the NSR Royalty to a 1% net smelter returns royalty, for \$1,500,000.

The acquisition of the Project is subject to the approval of the TSX Venture Exchange. The Effective Date will be the date on which Benz has received approval of the TSX Venture Exchange.

The Eastmain Mine, as defined by the perimeter of a historic mining lease, is subject to another production royalty net smelter return ("NSR") of 2.3% through production of the next 250,000 oz produced and 2% thereafter. A package of claims surrounding the mine precinct is subject to a

production royalty (NSR) of 2% in favour of Goldcorp as a result of their succession to Placer Dome in an agreement dated December 30, 1988 between Placer Dome, MSV Resources Inc. and Northgate Exploration Limited.

The 152 claims that form the Eastmain Mine Property are all in good standing with an active status. The majority of claims are in good standing until June 28, 2021 except for 104458 that is in good standing until November 23, 2021. The annual work requirement to maintain each of the claims is \$2,500 plus annual fees of \$151 for a total work requirement of \$380,000 plus annual fees of \$22,952. Eastmain Resources has sufficient excess work credits to meet work assessment requirements for several years.

Details on claim renewal dates, work requirements, excess work credits and fees are shown in Table 4.1. Information relating to the unpatented claims and ownership of the unpatented claims has been independently verified by P&E on August 29, 2019 utilizing the Ministère de l'Énergie et des Ressources Naturelles du Québec (MERN) on-line claim management system at <http://www.gestim.mines.gouv.qc.ca>. These claims are on Crown Land and encompass mineral exploration rights only.

<b>Title No.</b>	<b>Date of Registration</b>	<b>Expiry Date</b>	<b>Area (ha)</b>	<b>Excess Work (\$)</b>	<b>Required Work (\$)</b>	<b>Required Fees (\$)</b>
1133433	October 28, 2005	June 28, 2021	52.77	1,139.98	2,500.00	151.00
1133434	October 28, 2005	June 28, 2021	52.77	0.00	2,500.00	151.00
1133435	October 28, 2005	June 28, 2021	52.77	3,527.01	2,500.00	151.00
1133436	October 28, 2005	June 28, 2021	52.77	19,877.75	2,500.00	151.00
1133437	October 28, 2005	June 28, 2021	52.77	26,164.22	2,500.00	151.00
1133438	October 28, 2005	June 28, 2021	52.77	0.00	2,500.00	151.00
1133439	October 28, 2005	June 28, 2021	52.77	0.00	2,500.00	151.00
1133440	October 28, 2005	June 28, 2021	52.77	0.00	2,500.00	151.00
1133441	October 28, 2005	June 28, 2021	52.77	0.00	2,500.00	151.00
1133442	October 28, 2005	June 28, 2021	52.77	0.00	2,500.00	151.00
1133443	October 28, 2005	June 28, 2021	52.77	0.00	2,500.00	151.00
1133444	October 28, 2005	June 28, 2021	52.77	0.00	2,500.00	151.00
1133445	October 28, 2005	June 28, 2021	52.77	0.00	2,500.00	151.00
1133446	October 28, 2005	June 28, 2021	52.76	15,301.76	2,500.00	151.00
1133447	October 28, 2005	June 28, 2021	52.76	11,115.25	2,500.00	151.00
1133448	October 28, 2005	June 28, 2021	52.76	0.00	2,500.00	151.00
1133449	October 28, 2005	June 28, 2021	52.76	52,439.02	2,500.00	151.00
1133450	October 28, 2005	June 28, 2021	52.76	30,812.45	2,500.00	151.00
1133451	October 28, 2005	June 28, 2021	52.76	13,462.35	2,500.00	151.00
1133452	October 28, 2005	June 28, 2021	52.76	983.44	2,500.00	151.00
1133453	October 28, 2005	June 28, 2021	52.76	0.00	2,500.00	151.00
1133454	October 28, 2005	June 28, 2021	52.76	0.00	2,500.00	151.00
1133455	October 28, 2005	June 28, 2021	52.76	1,806.92	2,500.00	151.00
1133456	October 28, 2005	June 28, 2021	52.76	3,566.71	2,500.00	151.00
1133457	October 28, 2005	June 28, 2021	52.76	10,779.91	2,500.00	151.00
1133458	October 28, 2005	June 28, 2021	52.76	4,050.18	2,500.00	151.00

**TABLE 4.1  
EASTMAIN MINE PROPERTY CLAIMS**

<b>Title No.</b>	<b>Date of Registration</b>	<b>Expiry Date</b>	<b>Area (ha)</b>	<b>Excess Work (\$)</b>	<b>Required Work (\$)</b>	<b>Required Fees (\$)</b>
1133459	October 28, 2005	June 28, 2021	52.76	1,362.70	2,500.00	151.00
1133460	October 28, 2005	June 28, 2021	52.75	23,156.71	2,500.00	151.00
1133461	October 28, 2005	June 28, 2021	52.75	36,745.57	2,500.00	151.00
1133462	October 28, 2005	June 28, 2021	52.75	11,795.31	2,500.00	151.00
1133463	October 28, 2005	June 28, 2021	52.75	9,664.59	2,500.00	151.00
1133464	October 28, 2005	June 28, 2021	52.75	5,976.96	2,500.00	151.00
1133465	October 28, 2005	June 28, 2021	52.75	0.00	2,500.00	151.00
1133466	October 28, 2005	June 28, 2021	52.75	0.00	2,500.00	151.00
1133467	October 28, 2005	June 28, 2021	52.75	7,210.55	2,500.00	151.00
1133468	October 28, 2005	June 28, 2021	52.75	2,763.74	2,500.00	151.00
1133469	October 28, 2005	June 28, 2021	52.75	0.00	2,500.00	151.00
1133470	October 28, 2005	June 28, 2021	52.75	6,472.20	2,500.00	151.00
1133471	October 28, 2005	June 28, 2021	52.75	12,133.97	2,500.00	151.00
1133472	October 28, 2005	June 28, 2021	52.75	50,188.18	2,500.00	151.00
1133473	October 28, 2005	June 28, 2021	52.75	780.49	2,500.00	151.00
1133474	October 28, 2005	June 28, 2021	52.75	6,557.99	2,500.00	151.00
1133475	October 28, 2005	June 28, 2021	52.75	0.00	2,500.00	151.00
1133476	October 28, 2005	June 28, 2021	52.75	11,578.11	2,500.00	151.00
1133477	October 28, 2005	June 28, 2021	52.74	2,606.93	2,500.00	151.00
1133478	October 28, 2005	June 28, 2021	52.74	12,582.19	2,500.00	151.00
1133479	October 28, 2005	June 28, 2021	52.74	3,229.07	2,500.00	151.00
1133480	October 28, 2005	June 28, 2021	52.74	5,914.07	2,500.00	151.00
1133481	October 28, 2005	June 28, 2021	52.74	4,498.51	2,500.00	151.00
1133482	October 28, 2005	June 28, 2021	52.74	14,464.74	2,500.00	151.00
1133483	October 28, 2005	June 28, 2021	52.74	63,230.25	2,500.00	151.00
1133484	October 28, 2005	June 28, 2021	52.74	28,350.23	2,500.00	151.00
1133485	October 28, 2005	June 28, 2021	52.74	36,180.71	2,500.00	151.00
1133486	October 28, 2005	June 28, 2021	52.74	15,985.53	2,500.00	151.00
1133487	October 28, 2005	June 28, 2021	52.74	12,489.72	2,500.00	151.00
1133488	October 28, 2005	June 28, 2021	52.74	5,201.42	2,500.00	151.00
1133489	October 28, 2005	June 28, 2021	52.74	18,962.45	2,500.00	151.00
1133490	October 28, 2005	June 28, 2021	52.74	10,427.06	2,500.00	151.00
1133491	October 28, 2005	June 28, 2021	52.74	39,047.09	2,500.00	151.00
1133492	October 28, 2005	June 28, 2021	52.74	7,146.89	2,500.00	151.00
1133493	October 28, 2005	June 28, 2021	52.74	82,588.63	2,500.00	151.00
1133494	October 28, 2005	June 28, 2021	52.74	26,842.51	2,500.00	151.00
1133495	October 28, 2005	June 28, 2021	52.74	30,880.73	2,500.00	151.00
1133496	October 28, 2005	June 28, 2021	52.73	1,138.73	2,500.00	151.00
1133497	October 28, 2005	June 28, 2021	52.73	6,714.38	2,500.00	151.00
1133498	October 28, 2005	June 28, 2021	52.73	0.00	2,500.00	151.00
1133499	October 28, 2005	June 28, 2021	52.73	0.00	2,500.00	151.00
1133500	October 28, 2005	June 28, 2021	52.73	0.00	2,500.00	151.00
1133501	October 28, 2005	June 28, 2021	52.73	14,679.67	2,500.00	151.00
1133502	October 28, 2005	June 28, 2021	52.73	14,988.22	2,500.00	151.00
1133503	October 28, 2005	June 28, 2021	52.73	9,302.28	2,500.00	151.00
1133504	October 28, 2005	June 28, 2021	52.73	15,055.48	2,500.00	151.00

**TABLE 4.1  
EASTMAIN MINE PROPERTY CLAIMS**

<b>Title No.</b>	<b>Date of Registration</b>	<b>Expiry Date</b>	<b>Area (ha)</b>	<b>Excess Work (\$)</b>	<b>Required Work (\$)</b>	<b>Required Fees (\$)</b>
1133505	October 28, 2005	June 28, 2021	52.73	2,709.36	2,500.00	151.00
1133506	October 28, 2005	June 28, 2021	52.73	56,287.20	2,500.00	151.00
1133507	October 28, 2005	June 28, 2021	52.73	707,929.31	2,500.00	151.00
1133508	October 28, 2005	June 28, 2021	52.73	464,136.51	2,500.00	151.00
1133509	October 28, 2005	June 28, 2021	52.73	11,115.25	2,500.00	151.00
1133510	October 28, 2005	June 28, 2021	52.73	1,726.76	2,500.00	151.00
1133511	October 28, 2005	June 28, 2021	52.73	0.00	2,500.00	151.00
1133512	October 28, 2005	June 28, 2021	52.73	3,037.18	2,500.00	151.00
1133513	October 28, 2005	June 28, 2021	52.73	7,331.44	2,500.00	151.00
1133514	October 28, 2005	June 28, 2021	52.72	1,307.81	2,500.00	151.00
1133515	October 28, 2005	June 28, 2021	52.72	0.00	2,500.00	151.00
1133516	October 28, 2005	June 28, 2021	52.72	7,594.57	2,500.00	151.00
1133517	October 28, 2005	June 28, 2021	52.72	0.00	2,500.00	151.00
1133518	October 28, 2005	June 28, 2021	52.72	0.00	2,500.00	151.00
1133519	October 28, 2005	June 28, 2021	52.72	6,851.25	2,500.00	151.00
1133520	October 28, 2005	June 28, 2021	52.72	25,698.68	2,500.00	151.00
1133521	October 28, 2005	June 28, 2021	52.72	16,642.61	2,500.00	151.00
1133522	October 28, 2005	June 28, 2021	52.72	49,668.79	2,500.00	151.00
1133523	October 28, 2005	June 28, 2021	52.72	14,660.30	2,500.00	151.00
1133524	October 28, 2005	June 28, 2021	52.72	2,936,643.94	2,500.00	151.00
1133525	October 28, 2005	June 28, 2021	52.72	15,887.28	2,500.00	151.00
1133526	October 28, 2005	June 28, 2021	52.72	0.00	2,500.00	151.00
1133527	October 28, 2005	June 28, 2021	52.72	0.00	2,500.00	151.00
1133528	October 28, 2005	June 28, 2021	52.72	0.00	2,500.00	151.00
1133529	October 28, 2005	June 28, 2021	52.71	0.00	2,500.00	151.00
1133530	October 28, 2005	June 28, 2021	52.71	0.00	2,500.00	151.00
1133531	October 28, 2005	June 28, 2021	52.71	7,309.22	2,500.00	151.00
1133532	October 28, 2005	June 28, 2021	52.71	6,538.17	2,500.00	151.00
1133533	October 28, 2005	June 28, 2021	52.71	7,301.16	2,500.00	151.00
1133534	October 28, 2005	June 28, 2021	52.71	19,586.53	2,500.00	151.00
1133535	October 28, 2005	June 28, 2021	52.71	120,568.88	2,500.00	151.00
1133536	October 28, 2005	June 28, 2021	52.71	130,087.65	2,500.00	151.00
1133537	October 28, 2005	June 28, 2021	52.71	679,507.57	2,500.00	151.00
1133538	October 28, 2005	June 28, 2021	52.71	22,474.95	2,500.00	151.00
1133539	October 28, 2005	June 28, 2021	52.71	5,051.30	2,500.00	151.00
1133540	October 28, 2005	June 28, 2021	52.71	0.00	2,500.00	151.00
1133541	October 28, 2005	June 28, 2021	52.71	0.00	2,500.00	151.00
1133542	October 28, 2005	June 28, 2021	52.71	0.00	2,500.00	151.00
1133543	October 28, 2005	June 28, 2021	52.71	0.00	2,500.00	151.00
1133544	October 28, 2005	June 28, 2021	52.7	0.00	2,500.00	151.00
1133545	October 28, 2005	June 28, 2021	52.7	6,004.35	2,500.00	151.00
1133546	October 28, 2005	June 28, 2021	52.7	33,098.02	2,500.00	151.00
1133547	October 28, 2005	June 28, 2021	52.7	39,372.77	2,500.00	151.00
1133548	October 28, 2005	June 28, 2021	52.7	33,823.52	2,500.00	151.00
1133549	October 28, 2005	June 28, 2021	52.7	109,058.10	2,500.00	151.00
1133550	October 28, 2005	June 28, 2021	52.7	153,218.47	2,500.00	151.00

**TABLE 4.1  
EASTMAIN MINE PROPERTY CLAIMS**

<b>Title No.</b>	<b>Date of Registration</b>	<b>Expiry Date</b>	<b>Area (ha)</b>	<b>Excess Work (\$)</b>	<b>Required Work (\$)</b>	<b>Required Fees (\$)</b>
1133551	October 28, 2005	June 28, 2021	52.7	251,731.69	2,500.00	151.00
1133552	October 28, 2005	June 28, 2021	52.7	42,810.91	2,500.00	151.00
1133553	October 28, 2005	June 28, 2021	52.7	236,725.49	2,500.00	151.00
1133554	October 28, 2005	June 28, 2021	52.7	240,158.05	2,500.00	151.00
1133555	October 28, 2005	June 28, 2021	52.7	0.00	2,500.00	151.00
1133556	October 28, 2005	June 28, 2021	52.7	0.00	2,500.00	151.00
1133557	October 28, 2005	June 28, 2021	52.7	0.00	2,500.00	151.00
1133558	October 28, 2005	June 28, 2021	52.7	0.00	2,500.00	151.00
1133559	October 28, 2005	June 28, 2021	52.69	2,401.15	2,500.00	151.00
1133560	October 28, 2005	June 28, 2021	52.69	46,066.81	2,500.00	151.00
1133561	October 28, 2005	June 28, 2021	52.69	358,882.89	2,500.00	151.00
1133562	October 28, 2005	June 28, 2021	52.69	73,459.89	2,500.00	151.00
1133563	October 28, 2005	June 28, 2021	52.69	15,216.30	2,500.00	151.00
1133564	October 28, 2005	June 28, 2021	52.69	9,642.94	2,500.00	151.00
1133565	October 28, 2005	June 28, 2021	52.69	15,064.94	2,500.00	151.00
1133566	October 28, 2005	June 28, 2021	52.69	7,526.17	2,500.00	151.00
1133567	October 28, 2005	June 28, 2021	52.69	35,766.94	2,500.00	151.00
1133568	October 28, 2005	June 28, 2021	52.69	100,396.91	2,500.00	151.00
1133569	October 28, 2005	June 28, 2021	52.69	0.00	2,500.00	151.00
1133570	October 28, 2005	June 28, 2021	52.68	14,833.30	2,500.00	151.00
1133571	October 28, 2005	June 28, 2021	52.68	10,608.68	2,500.00	151.00
1133572	October 28, 2005	June 28, 2021	52.68	5,004.62	2,500.00	151.00
1133573	October 28, 2005	June 28, 2021	52.68	0.00	2,500.00	151.00
1133574	October 28, 2005	June 28, 2021	52.68	0.00	2,500.00	151.00
1133575	October 28, 2005	June 28, 2021	52.68	1,527.73	2,500.00	151.00
1133576	October 28, 2005	June 28, 2021	52.68	0.00	2,500.00	151.00
1133577	October 28, 2005	June 28, 2021	52.68	0.00	2,500.00	151.00
1133578	October 28, 2005	June 28, 2021	52.68	0.00	2,500.00	151.00
1133579	October 28, 2005	June 28, 2021	52.68	0.00	2,500.00	151.00
1133580	October 28, 2005	June 28, 2021	52.68	0.00	2,500.00	151.00
1133581	October 28, 2005	June 28, 2021	52.67	0.00	2,500.00	151.00
1133582	October 28, 2005	June 28, 2021	52.67	0.00	2,500.00	151.00
1133583	October 28, 2005	June 28, 2021	52.67	0.00	2,500.00	151.00
104458	November 24, 2005	November 23, 2021	52.73	8,830.70	2,500.00	151.00
<b>Total</b>	<b>152 claims</b>		<b>8,014.36 ha</b>	<b>\$8,042,806.52</b>	<b>\$380,000.00</b>	<b>\$22,952</b>

Details on claims renewals, work credits, claim access rights, allowable exploration, development, mining works, and site rehabilitation are summarized in the Mining Act of Quebec available at [www.publicationsduquebec.gouv.qc.ca](http://www.publicationsduquebec.gouv.qc.ca). In Quebec, available mining lands are defined as geo-referenced polygons which can be applied for by holders of Quebec prospecting licenses through an online portal and payment of a fee online. Once acquired, mineral rights are renewable bi-annually on the anniversary of acquisition. To meet the criteria to be renewed the

claim holder must provide evidence that a sufficient value of current and historic exploration work was completed on the claim or nearby claims held by the claimholder or a partner. Exploration work is submitted in reports to MERN and the value of said work is banked against the claims where the work was performed. Renewals can use banked credits to support the renewal of a claim where the work was performed or for nearby adjacent claims. The claim under renewal must be located within a radius of 4.5 km from the centre of the claim from which the banked work credits will be taken.

### **4.3 ENVIRONMENTAL AND PERMITTING**

The Eastmain Mine Property is a past-producing mine with minimal environmental disturbance from underground mining operations and camp infrastructure. Produced mineralization was processed off-site and as such there are no tailings stored on site.

In September 2015, Eastmain Resources was granted an Industrial Lease (Ref No: 1847 10 000) with a total area of 4.35 ha that covers key areas of the Property's infrastructure. The Industrial Lease must be renewed annually and is associated with certain obligations detailed in the lease regarding environmental responsibilities. If the lease is not renewed, Eastmain Resources would be required to remove all items within a reasonable amount of time. Annual rent of this lease is listed at 6% of the value of the ground or a minimum of \$283 plus fees and taxes with rent due on or before September 1st of each year. Currently annual payments are approximately \$1,500. The next renewal date is September 1, 2019.

Petch (2016) has completed a review of the Eastmain Mine site for Eastmain Resources. Petch recognized environmental uncertainties and identified priorities for further investigation including developing an up to date restoration and closure plan and mitigating effects of mine water that was observed to be flowing from the vent raise. Petch (2016) further suggested that a review and confirmation of infrastructure covered by the Industrial Lease is warranted as is an understanding of potential environmental liabilities that may exist for the property outside of the current lease. Petch notes that continued engagement with the Cree Nation of Mistissini to develop a positive relationship will be important in respect to future development efforts on the Property.

Eastmain obtained necessary permits and certifications from government agencies to allow exploration on the property, in particular for activities which created disturbance on the land such as drilling, trail construction and trench excavation. The Permis d'intervention forestière en vue d'activités minières (Forest management permit for mining activities) is issued by the Ministère des Forêts, de la Faune et des Parcs du Québec ("MFFP") to support exploration and are applied for and renewed annually as required for exploration activities and access roads. All work conducted by Eastmain Resources was preceded by the receipt of an approval of such an application for work in specific locations. Eastmain obtained these permits on an 'as needed' basis.

Other than the renewal of the Permis d'intervention forestière en vue d'activités minières, the Eastmain site is subject to a bi-annual inspection and certification of an unused fuel tank farm

dating from the Eastmain Mine's operating period in the mid-1990s. This tank farm is located on the current industrial lease. The inspection is carried out by a qualified professional and filed with the Régie du Batiment du Québec. Eastmain had an inspection completed on July 30, 2019 and it expires August 21, 2021.

The permitting application process to undertake Phase 1 of the proposed budget (See section 26) has been initiated with Dahrouge Geological Consulting Ltd. of Quebec City. This firm will acquire the necessary permits from MERN.

#### **4.4 SOCIAL OR COMMUNITY IMPACT**

The Project is located north of the 52nd parallel (52°N) and as such is subject to the provisions of the James Bay and Northern Quebec Agreement (1975), and the Paix des Braves Agreement (2002). The Project falls within the Eeyou Istchee Territory of the Mistissini Cree First Nation, and on the traditional trapping territory held by Mr. Matoush who is the tallyman for the lands on which the Eastmain Mine Claims are located. When initiating a new exploration program, Eastmain provides details to the tallyman and to the Chief of the Cree community (Mistissini) for their information and comment. Eastmain representatives met with the tallyman in 2017 to describe the plans for the project and discuss the Tallyman's interests and concerns in this part of the territory under his responsibility.

## **5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

### **5.1 ACCESS**

The Eastmain Mine Property is located approximately 316 km northeast of Chibougamau and is road accessible via the Route 167 extension, a permanent all-season road connecting Stornoway Diamond Corporations' Renard Diamond Mine to the provincial highway network via the communities of Mistissini and Chibougamau. The Route 167 extension passes through the western part of the Eastmain Mine Property. An approximately 10 km road links the Eastmain Mine camp with the Route 167 extension. Completion of this route has facilitated access to the property and significantly reduced transportation and exploration costs for Eastmain Resources. The producing Renard Mine is located 57 km north of the Eastmain Mine.

The Eastmain Mine Property has an approximately 900 m gravel airstrip located 2.6 km southeast of the Eastmain Mine camp. The airstrip provides for airplanes with short take-off and landing capability to access the camp directly from the Témiscamie air base (160 km southwest) and the Chibougamau airport. Float planes can also land at Icon Lake approximately 20 km southeast of the Property or Placer Lake located 5 km northeast of the camp. Currently only Icon Lake is road-accessible to service float plane landings.

### **5.2 CLIMATE**

The climate is typical of Northern Canada (temperate to sub-arctic climate) with average summer (June to September) temperatures varying from 10°C to 35°C during the day and 5°C to 15°C during the night. Winters can be cold, ranging from -40°C to -10°C. Precipitation varies during the year, reaching 2 m annually, with snow cover expected from November to May. Exploration and mining can generally be carried out year-round.

### **5.3 INFRASTRUCTURE**

Chibougamau has a population of 7,541 (2011 Census) and serves as the main centre of communications and supplies for the area. A number of businesses provide services to the exploration sector and a long history of mining in the region contributes to a highly skilled work force. Chibougamau is serviced by daily commercial air service to Montreal.

The Eastmain Mine Property is serviced by an existing camp, all season gravel roads, and an airstrip. Abundant water resources are present in the lakes, rivers, and creeks throughout the area. There is sufficient area on the Property to build and extend mining infrastructure.

### **5.4 PHYSIOGRAPHY**

The area around the Eastmain Mine Project is gently rolling to flat lying, with local relief of up to 200 m. The average elevation in the vicinity of the Eastmain Mine camp is about 490 m above sea level (asl).

A dominant feature of the landscape is the Otish Mountains located approximately 15 km south of the property. The Otish Mountains have steep ridge crests that locally reach over 1,000 m asl in elevation. The Otish Mountains separate the Eastmain River watershed from the Mistassini basin to the south. The Eastmain River drains west into James Bay.

Rock outcrops are relatively sparse in the vicinity of the Eastmain Mine area but more numerous to the northwest of the Eastmain mine site between Hillhouse and Julian Lake. Overburden depths are generally in the range of 1 to 20 m (Frappier-Rivard, 2015).

Numerous rivers and lakes trend in an overall northeasterly direction. The area immediately around the site consists of glacial outwash and moraine sands, gravels, and boulders with sparse outcrop. Vegetation consists of small black spruce, jack pine and larch with lesser birch and poplar. Alder, Labrador tea and blueberry bushes predominate in lower lying swampy area.

## 6.0 HISTORY

The Eastmain Mine Property has a history of significant exploration that has been undertaken intermittently since Placer Development Limited's initial discovery of the Eastmain Deposit in 1969/1970. At that time the gold-silver-copper bearing A Zone was intersected while drill-testing an airborne geophysical conductor. Subsequent drill testing of airborne conductors in the 1980's defined two additional gold-rich zones known as the B and C Zones.

In 1987, the Placer and MSV Resources Inc. Joint Venture completed underground development on the Eastmain Mine Gold Deposit including an 826.2 m decline, 226.2 m of sub-level drifting, and 95.5 m of raising. In 1994 to 1995, MSV Resources mined 118,356 tonnes grading 10.58 g/t Au and 0.3% Cu by room and pillar mining. The mineralization was milled at the Copper Rand in Chibougamau and 40,000 oz Au were recovered.

Eastmain Resources Inc. acquired a 100% interest in the Eastmain Mine Property from Campbell Resources Inc. in 2007. The registered owner of the Property is Eastmain Mines Inc. a wholly owned subsidiary of Eastmain Resources. The historical exploration described in the current section summarizes the work performed prior to the Eastmain Resources acquisition. Work by Eastmain Resources is described in sections 9 and 10.

## 6.1 EXPLORATION HISTORY

Frappier-Rivard (2015) has summarized historical exploration by previous operators in the Eastmain Mine Property area between the 1930's and 2007 (Table 6.1).

Year	Company/Person	Exploration
1930s to 1940s		Prospecting of gossan zones in felsic and ultramafic rocks south of Lac Dolent and on the east shore of Lac Jim. Extensive trenching targeted gossan zones, siliceous, and Cr-mica-rich felsic metavolcanic rocks on east shore of Lac Jim and gossan zones in ultramafic rocks on the south shore of Lac Dolent
1950s to 1960s	Riocanex and other companies	Exploration of the northeast trending part of the Eastmain Greenstone belt in the Lac Leran area, 25 km northeast of present Eastmain Mine Gold deposit
Mid- 1960s	Fort George	X-Ray diamond drilling on a gossan zone associated with a komatiite horizon located southwest of the Dejour claim block. Mineralized zones with pyrite-pyrrhotite-chalcopyrite were encountered.
1969	Canex Aerial Exploration Ltd.-Placer Development Ltd.	McPhar Geophysics completed airborne magnetic and electromagnetic survey (678 km) on the greenstone belt with ground geophysics follow up (ALEM and mag) (GM26898)

**TABLE 6.1**  
**SUMMARY OF EXPLORATION HISTORY OF THE EASTMAIN MINE PROPERTY AREA**

<b>Year</b>	<b>Company/Person</b>	<b>Exploration</b>
1970	Placer Development Ltd.	Seven holes (406 m) testing an EM and magnetic anomaly result in discovery of the Eastmain Gold deposit. A Zone Discovery hole intersects 1.5 m mineralized “chert” grading 13.71 g/t Au, 20.22 g/t Ag and 0.33% Cu.
1974	Nordore	Aerodat airborne AEM survey and ground surveys on the Eastmain greenstone belt. Drilling (3 holes) returned weakly anomalous gold values adjacent to the Eastmain Mine B Zone.
1974	Inco - Uranerz	Airborne geophysical survey on the Eastmain Greenstone belt. Trenches and X-Ray diamond drilling on priority targets near Lac Lepante and south-southeast of Lac Clement and west of the Eastmain Gold Mine.
1981 - 1982	Placer	Restaking of Eastmain A Zone. An airborne EM survey completed by Geophysical Surveys Inc. (GM39462) and max-min, VLF, and ground magnetic surveys were completed to identify the A, B, and C Zone targets (GM39455 to GM39461). The B Zone discovered at a depth of 100 m by drill testing geophysical targets. Drill hole 82CH01 intersected a 3 m wide sulphide zone grading 8.34 g/t Au, 1016 g/t Ag and 0.21% Cu. At the end of 1982, 750,000 tonnes had been outlined in the A and B Zones and more claims were added. Placer also established 7 grids several km south of the Eastmain Mine.
1983 - 1985	Placer	Aerodat Ltd. airborne magnetic and EM surveys over 2,611 km for Placer-Eldor Joint Venture over Lac Rene and Lac Clement area (GM41186). Ground magnetometer and LF-EM surveys followed by Max-Min and deep pulse EM (GM41112). A total of 91 drill holes completed for 20,418 m including 40 holes with PEM bore hole surveys. Geological mapping at both detailed and reconnaissance levels with prospecting and litho-geochemistry.
1984	South Atlantic Ventures and Eurocan Ventures	Ground magnetic, VLF, and Max-Min surveys on Lac Rene and Lac Clement claim blocks northwest of the Eastmain Mine.
1986	Placer	Diamond drilling in the A and B Zones with 25 holes for a total of 2,937 m.
1987	Placer Dome – MSV Joint Venture	Diamond drilling in the A and B Zones with 33 holes totaling 7,754.9 m. Underground exploration including a portal, 826.2 m of decline, 226.2 m of sub-level drifting, and 95.5 m of raising. Additional borehole PEM surveys in 4 holes and 102 km of VLF-EM surveys (GM47888).
1988	Placer Dome – MSV	A further 99 drill holes for 15,582 m and geological

**TABLE 6.1**  
**SUMMARY OF EXPLORATION HISTORY OF THE EASTMAIN MINE PROPERTY AREA**

<b>Year</b>	<b>Company/Person</b>	<b>Exploration</b>
	Joint Venture	mapping.
1988	Watts Mining Ltd.	500 claims staked south and southeast of Eastmain Mine, east of Lac Clement and Lac Corona. Airborne reconnaissance surveys and additional claim staking were carried out.
1988	Eastmain Syndicate (Dejour Mines, Battle Mountain Canada, Mingold Resources)	Claim staking, line cutting, reconnaissance geology, sampling, VLF-EM surveys.
1989	MSV Resources Inc.	Completes 56 holes for 9,551.4 m.
1989	Eastmain Syndicate	Aerodat airborne magnetic and VLF-EM survey, basal till sampling, mapping, trenching, sampling, discovery of Exko showing NW of the Eastmain Mine
1990	MSV Resources Inc.	Structural study of F and G grid areas, Landsat study, airborne magnetic compilation, 3,017 soil samples on F grid and extensions
1991	MSV Resources Inc.	Excavation of 34 trenches (568 m) and 16.1 km of IP survey (GM51403).
1994 - 1995	MSV Resources Inc. - SOQUEM	Ground EM survey (Melis) covering 74.95 km on the F and I grids (GM52788), drilled 11 holes for 1,325 m on the F and G grids, 16.5 km of IP and Mag surveys (GM52800), mapping and prospecting. Drilling 7 holes for 867 m at Michel Lake showing. Partnership terminated in 1995.
1994	MSV Resources Inc.	Geophysique GPR completed Seismic Refraction survey above A and B Zones (report V-95340) to identify bedrock topography over mineralized zones.
1994 - 1995	MSV Resources Inc.	Mined 118,356 tonnes grading 10.58 g/t Au and 0.3% Cu by room and pillar mining. Milled at Copper Rand in Chibougamau and 40,000 oz Au recovered. Mining ceased November 1995.
1997	MSV Resources Inc.	Geological mapping, prospecting, trenching, Beep Mat survey, re-cutting of F grid in the northwest of A,B,C Zones (GM56083).
2004	Campbell Resources Inc.	Campbell Resources reports a Measured and Indicated Mineral Resource Estimate for the Eastmain Mine Deposit
2007	MSV 2007	MSV Resources transfers property ownership to MSV 2007
2007	Eastmain Resources Inc.	Eastmain Resources acquires a 100% interest in the Property from Campbell Resources Inc. through Eastmain Mines Inc. Campbell Resources retains an NSR.
2007	MSV Resources Inc.	Re-evaluation of 2005 VTEM survey

## 6.2 HISTORICAL MINERAL RESOURCE ESTIMATES

In 2004, Campbell Resources Inc. ("Campbell") reported a Measured and Indicated Mineral Resource Estimate totalling 878,100 tonnes at 10 g/t Au for the Eastmain Mine Gold Deposit. The Eastmain gold deposit was reported to contain 255,750 oz of gold and 4.1 million pounds of copper, including a Measured Mineral Resource of 91,500 tons grading 0.268 oz/T gold and an Indicated Mineral Resources of 786,600 tons at 0.294 oz/T gold (Campbell, 2004 Annual Report, available on SEDAR). Campbell (Annual Report 2004) states that Mineral Resources were calculated by Qualified Personnel of Campbell Resources Inc. for all properties, using the practices prescribed by NI43-101 and the Canadian Institute of Mines, Metallurgy and Petroleum. Campbell's (2004) disclosure states that for the Eastmain Property, a block method with orthogonal projections on a longitudinal section was used for the estimation. Several historical reports including a Feasibility Study prepared by MSV in 1990 and a report titled Reserves/Resources Audit of Mining Property by Met-Chem Canada in 2001 support Campbell's (2004) disclosed the estimate.

A Qualified Person has not done sufficient work to classify this historic Mineral Resource Estimate as current Mineral Resources as defined by NI 43-101 and has not been reviewed by a qualified person under the guidelines of such National Instrument. The above mineral quantities, grades and Mineral Resources are historical estimates and should not be relied upon. The Mineral Resource is considered historic and to be relevant only as an indication of potential mineralization on the property. Benz Mining Corp. is not treating the historical resource estimate as current mineral resources or mineral reserves. The historical Mineral Resource Estimate is superseded by the current Mineral Resource Estimate in this Technical Report.

## 6.3 PAST PRODUCTION

The following is summarized from the report for Eastmain Resources by Petch (2016). In 1987, an exploration ramp was driven along the strike of the gold zone and advancement rates were reported to be 4.8 m per day. During the ramp development, 16,300 short tons of low grade mineralization were extracted for later processing. In 1990, a Feasibility Study for MSV Resources outlined a mine development plan utilizing panel stoping to mine areas where the dip of the zone was less than 45° and shrinkage stoping in areas with dips greater than 45°.

Pre-production commenced in August 1994 and commercial mining started in January 1995. From 1994 to 1995, MSV Resources mined 118,356 tonnes grading 10.58 g/t Au and 0.3% Cu by room and pillar mining. The mineralization was milled at the Copper Rand Mine in Chibougamau and 40,000 oz Au were recovered. Mining ceased in November 1995.

Due to winter road conditions, the mine was shut down in March 1995 for 2.5 months. The mine reopened in June and produced until November 8, 1995 when mining officially ceased. The water pumps were shut down in early December 1995 and the ramp was allowed to flood. In total, MSV Resources mined 118,356 tonnes grading 10.58 g/t Au and 0.3% Cu.

## **7.0 GEOLOGICAL SETTING AND MINERALIZATION**

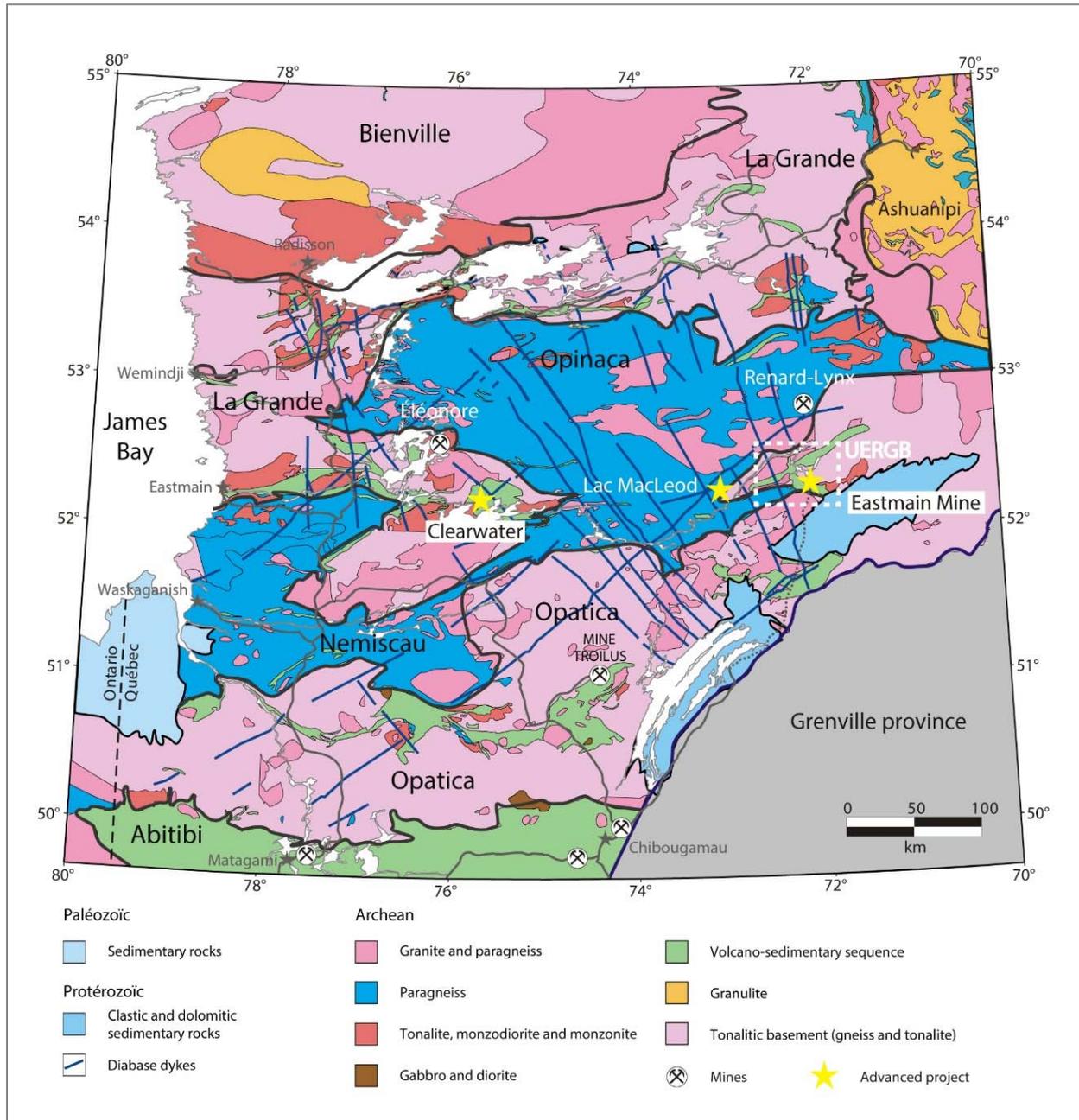
### **7.1 REGIONAL GEOLOGY**

The Eastmain Mine Property is located in the Opatoca Sub-province of the ca. 2.7 Ga Archean Superior Geological Province within the Upper Eastmain River Greenstone Belt (Figure 7.1). The belt consists of a metavolcanic-metasedimentary terrain, dominated by massive and pillowed mafic flows interbedded with felsic to intermediate tuff and flows, ultramafic flows and meta-sediments. The metamorphic grade of the belt varies from the upper greenschist to amphibolite facies.

The main part of the Upper Eastmain River Greenstone Belt extends for approximately 100 km in a broadly east-northeast direction. The Eastmain Mine Property is located on a southern branch of the Greenstone Belt that is broadly northwest striking.

The greenstone belt consists of several mafic to felsic metavolcanic and metasedimentary rock cycles surrounded and or intruded by granite and granite gneiss. A key geological marker comprised of ultramafic volcanic rocks (komatiite flows) can be traced across the belt. Widespread rock geochemical anomalies in nickel-copper, nickel-chromium, copper-zinc and gold suggest that these rocks are highly prospective for both gold and nickel-copper-platinum deposits similar to those found elsewhere in Canada, and Western Australia.

**Figure 7.1 Regional Geology**

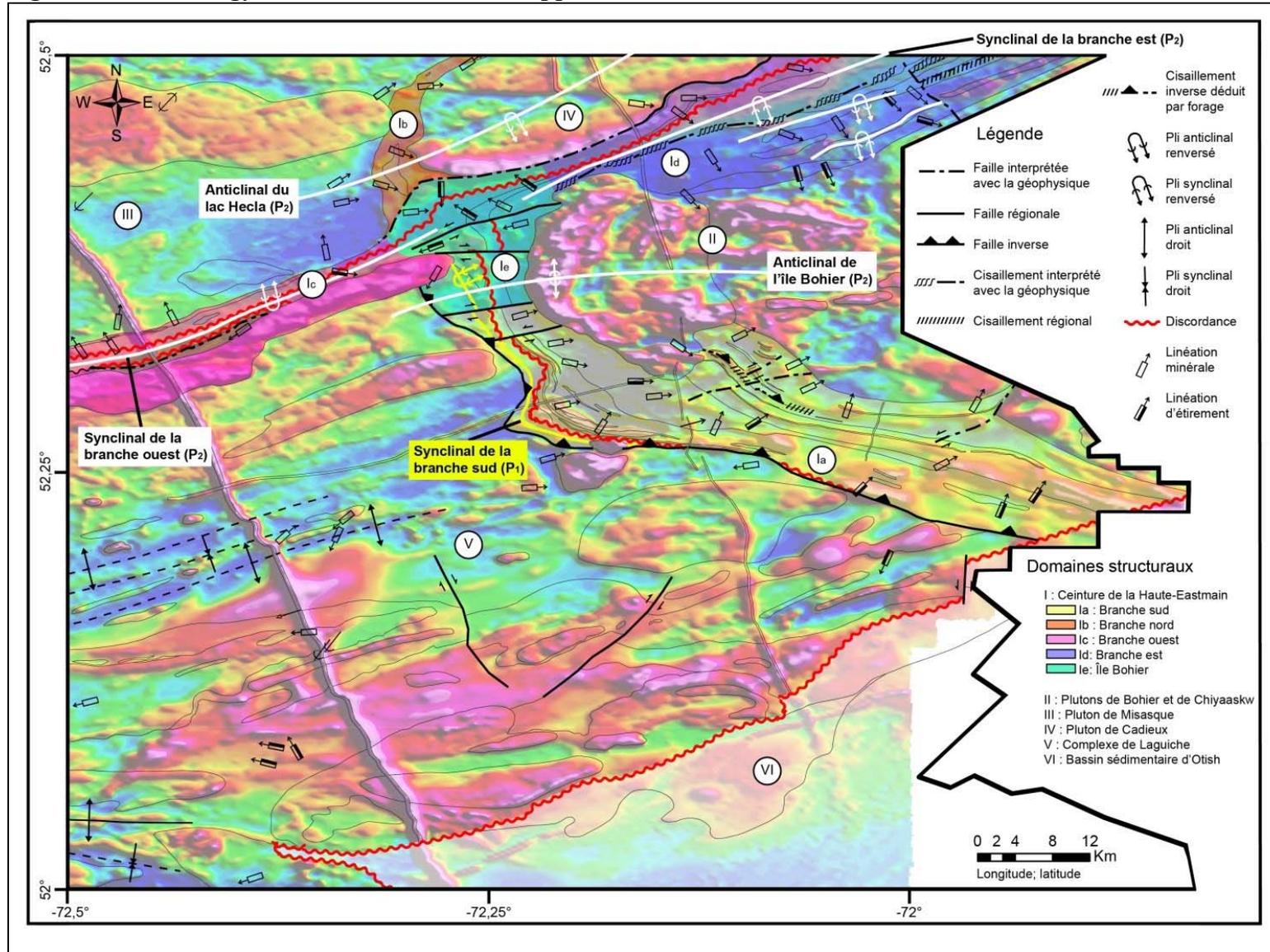


Source: Eastmain Resources (2018)

## 7.2 LOCAL GEOLOGY

During the summer 2017, the Ministère de l'Énergie et des Ressources Naturelles du Québec (MERN) carried out an extensive mapping campaign at a 1/50,000 scale, leading to a reinterpretation of the Upper Eastmain River Greenstone Belt (UERGB) including the Eastmain Mine Property which is located in the South branch of the UERGB that extends east-west for 100 km and varies from 2.5 km in width on the west side to 20 km in width on the east (Figure 7.2).

**Figure 7.2 Geology of the South Branch of Upper Eastmain River Greenstone Belt**



Source: Beauchamp and Massei MERN (2017)

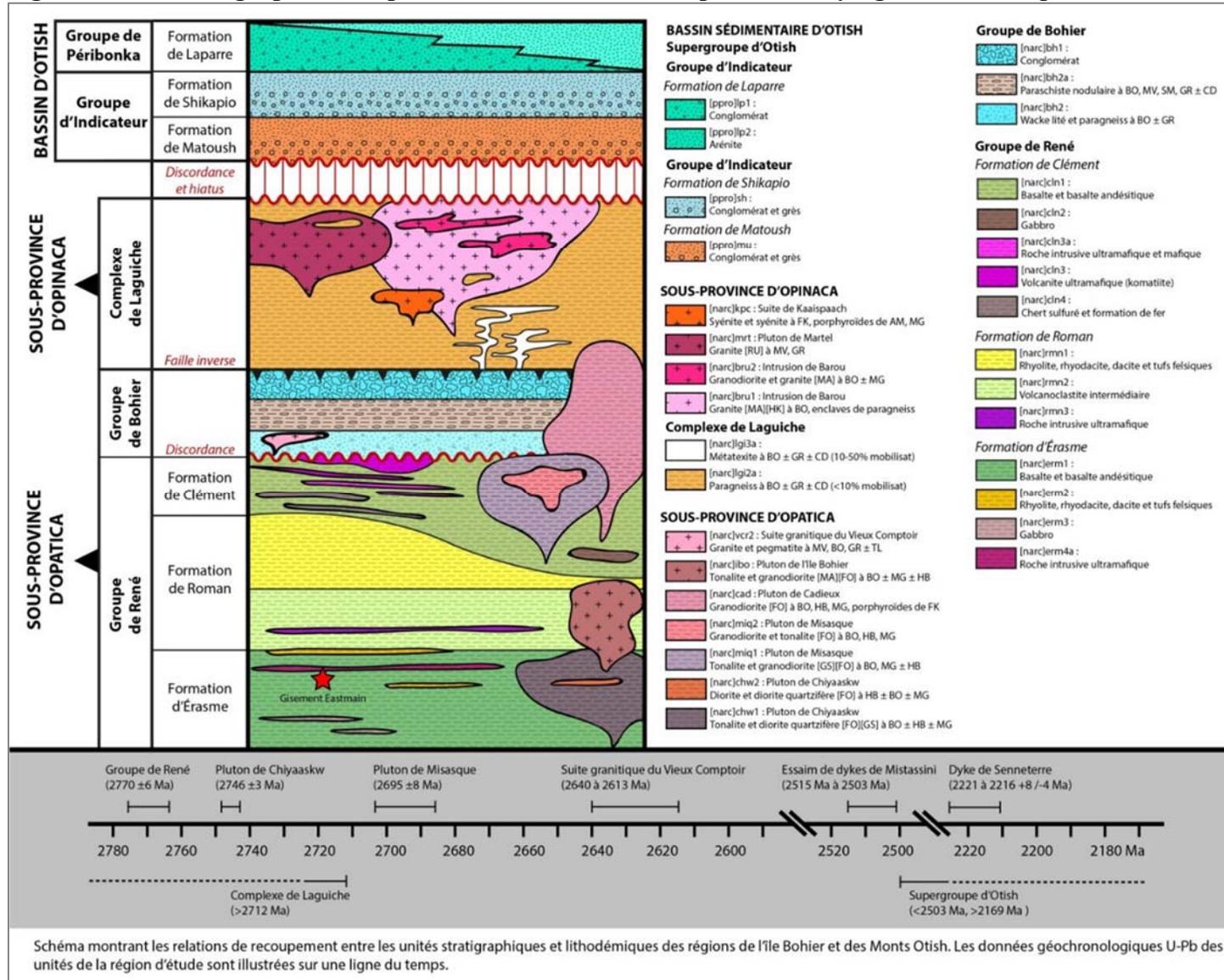
According to the reinterpretation of the MERN, the UERGB is now divided into four branches: West, North, East and South and the peculiar four-branched shape of the belt is explained by the combination of polyphase deformation and the effect of syn- to post-tectonic intrusions that occupy the heart of anticlinal domes (Beauchamp, 2017). The UERGB consists of a volcano-sedimentary sequence that lies upon a basement of older gneisses and granitic gneisses. The volcanic sequence is dominated by massive to pillowed mafic flows, interbedded with felsic tuff and flows, ultramafic flows and meta-sediments that are injected by numerous granitoid plutons.

The volcano-sedimentary sequence of the UERGB is divided into 2 groups, the basal Rene Group and the overlying Bohier Group (Figure 7.3). The **Rene Group** consists of three volcanic units composed from base to top: ultramafic, mafic and felsic volcanic rocks aged of  $2770 \pm 6$  Ma (Beauchamp, 2017), which contain the Eastmain Mine Gold Deposit. Two volcanic cycles were identified and divided into 3 formations:

- **Erasme Formation (1st cycle):** Mainly mafic volcanic pile intercalated with narrow felsic flow and tuff injected by ultramafic and gabbro sills. The basalts are pillowed, porphyritic, massive,
- **Roman Formation (1st cycle):** Felsic to intermediate volcanics intercalated with ultramafic.
- **Clement Formation (2nd cycle):** Mafic to ultramafic volcanics, gabbros, ultramafic intrusions, chert and Banded Iron Formation.

**The Bohier Group** consists of two aluminous sedimentary units (polymictic conglomerates and pelites) that overlies the Rene Group. The Bohier sequence does not appear on the Eastmain Mine property. The new stratigraphic interpretation has established that the Bohier Group lies unconformably above the Rene volcanic package and that the sequence is inverted.

Figure 7.3 Stratigraphic Interpretation of the Rene Group and Overlying Bohier Group



Source: MERN (Beauchamp, 2017)

### 7.3 PROPERTY GEOLOGY

According to the MERN stratigraphic interpretation, the southern branch of the UERGB corresponds to an inverted monoclinical volcanic sequence characterized by the presence of two volcanic cycles (MERN, 2017). On the Eastmain Mine Property, the Erasme Formation is the host to the deposit and is mainly composed of mafic metavolcanics with narrow felsic metavolcanics and ultramafic dykes. The stratigraphic top directions identified in the field, generally in pillowed lava, are systematically overturned, with the north-westerly oriented volcanic sequence dipping to the NE at approximately 50°. The top of the volcanic sequence is not as well mapped as the base of the sequence containing the deposit. Southeast of the property, a second volcanic cycle (Clement Formation) is characterized by basaltic to andesitic metavolcanics intercalated with iron formation and chert.

Two ductile deformation events have affected the lithologies in the area of interest and played an important role in the geometry of the mineralized zones. The NW trending “Eastmain Deformation Zone” described by Tourigny is related to the main penetrative foliation and is oriented sub-parallel to the stratigraphy, as observed in core and at the outcrop scale. At the regional scale, the composite S0-S1 foliation undulates and the orientation ranges from NW-SE on the property to N-S at the north end of the South Branch of the UERGB. The D2 deformation is expressed by an S2 penetrative foliation that has crenulated S1 and represents the axial plane of the main fold, oriented ENE-WSW.

The Property is predominantly underlain by a succession of mafic volcanic flows, made of massive flows, pillowed flows (sometimes hydro-fractured) and minor gabbroic sills.

**Figure 7.4 Pillowed Basalt of the Erasme Formation**



*Source: Eastmain Resources (2018)*

A porphyritic basalt unit has been traced by surface mapping and drill hole observation along the Mine Trend for over 4.5 km, from Hillhouse Hill to the C Zone. This is considered to be a distinct lithological marker unit, occurring within the thick mafic flow pile of the within the hanging wall to the Mine Series. It contains an average of 10% tabular plagioclase crystals on average, and its thickness varies from a few cm to a few metres. On cross-sections, it shows a consistent dip of 35° toward NW and cross-cuts both mafic flows and felsic tuff/flows (dipping 45° toward NW), suggesting a dyke nature. On rare outcrops in the C Zone and in several boulders found over the A and B Zones, the porphyritic basalt occurs as enclaves in felsic dykes suggesting late synvolcanic emplacement.

Mafic flows are interbedded with thinner felsic units (and some limited intermediate composition units) of lapilli tuff and crystal tuff which are both often banded, as well as rhyolitic tuff and flows.

**Figure 7.5 Felsic Lapilli Tuff**



*Source: Eastmain Resources (2018)*

Ultramafic rocks (pyroxenite or komatiite) lie structurally below the mafic flow pile and mark the base of the younger volcanic cycles. They are inter-layered with altered and deformed intervals of mafic flows, felsic tuff/flows and some mineralized quartz veins. In the structural sequence, the higher layers (more altered and deformed) are included in the Mine Series package, whereas lower layers are interbedded with the mafic and felsic volcanics and are part of the footwall and may be related to mineral occurrences located further to the NW such as the Hillhouse and Julien Targets.

The Mine Series is a sub-planar package of deformed and altered mafic, ultramafic and felsic rocks that strikes northwest and dips 35° toward the NE. The auriferous horizon of the Mine

Series is represented by mineralized chert layers, associated with massive to semi-massive sulphide lenses (pyrrhotite, pyrite, chalcopyrite), and silicified zones contained within mafic, felsic and ultramafic sequences.

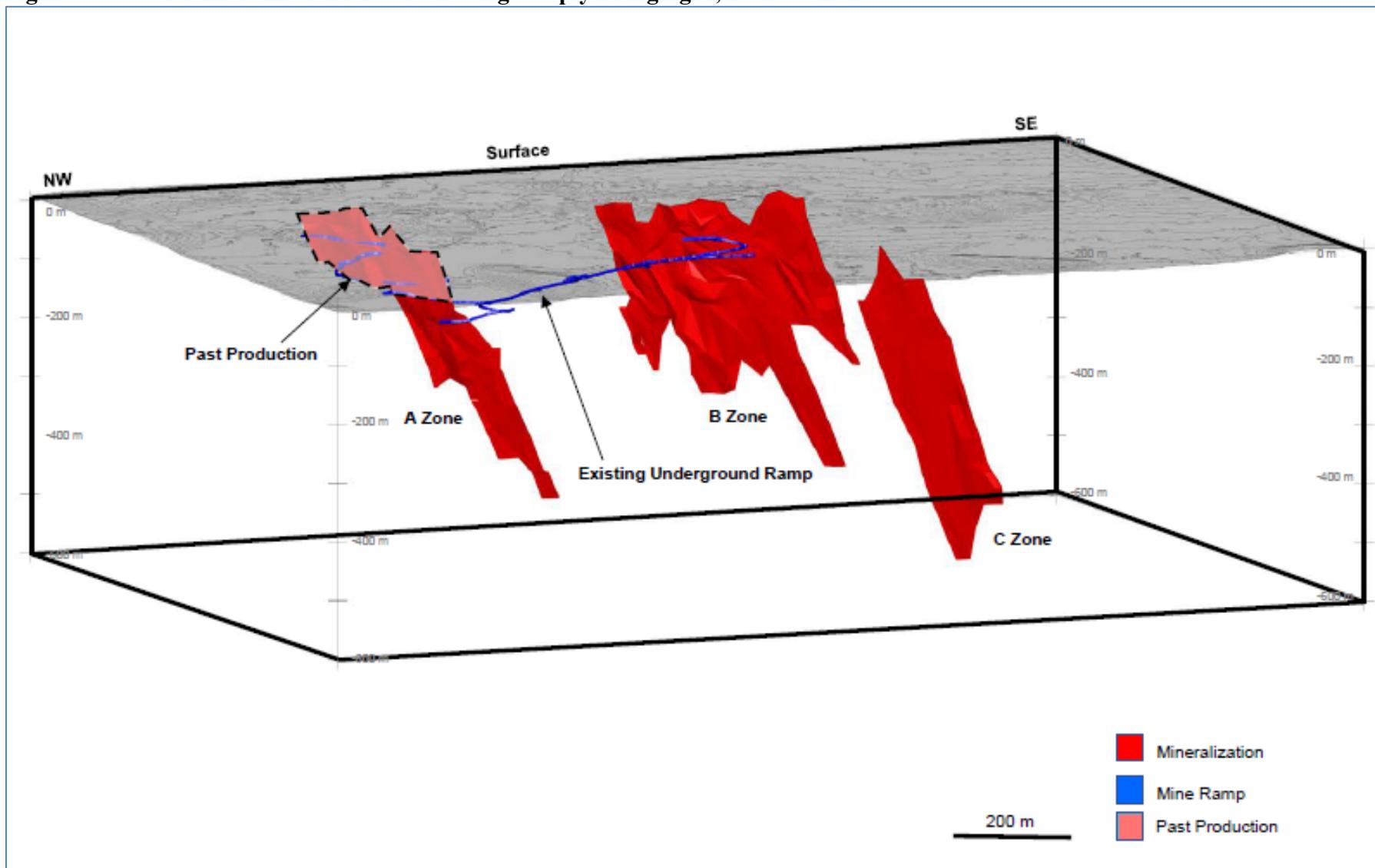
The volcanic stratigraphy is commonly injected by quartz-feldspar porphyry (“QFP”) sills and dykes of mostly granodioritic composition. The felsic intrusives could be spatially associated to larger plutons located at the periphery of the Property, such as the Placer Lake granite located in the northern part of the claim block. Minor mafic intrusions, including diabase, intrude the mafic volcanic rocks as sills and dykes.

#### **7.4 DEPOSIT GEOLOGY**

In the Eastmain Gold Deposit, gold mineralization occurs in mineralized quartz veins associated with massive to semi-massive sulphide lenses and silicified zones (Frappier-Rivard 2015). The mineralized zones are 3 to 10 m wide and contained in a strongly deformed and altered Mine Series assemblage of felsic, mafic and ultramafic rocks. The high strain deformation zone associated with the mineralization has a northwest trend and dips northeast at 35° to 45°.

The Eastmain Mine Gold Deposit consists of three high grade mineralized zones, named the A, B and C Zones, from west to east (Figure 7.6). The A and B Zones have been traced for more than one km in length and to a vertical depth of 400 metres. The spatial distribution of gold grades in the A and B zones suggests the presence of several shoots, showing steep rakes on the Mine Series deformation plane. The A Zone shoot has a slight curved shape, raking on the Mine Series plane at 60° toward east in the upper part, and 70° toward west in the lower part. The wider B Zone consists of three shoots steeply plunging north within the Mine Series.

**Figure 7.6 3D Mineralization Model Showing Steeply Plunging A, B and C Zones**



*Note: Isometric view looking “up” to the North.*

*Source: Eastmain Resources (2018)*

Below an average depth of 200 metres, the steep plunge of the shoots trend toward the west and are very similar in the A and B Zones, suggesting a common structural control. The mineralized horizon is usually parallel to the Mine Series, but locally crosscuts it. It commonly appears as a single horizon that is often boudinaged, but generally planar with a variable thickness, with a pinch-and-swell shape typical of shears related to deformation and compression of fold limbs.

The transition between A and B Zones is marked by a steeply dipping, kilometre-scale NE-trending fault with apparent normal-sinistral displacement, which offsets the entire volcanic sequence and the mineralized zone.

## **7.5 STRUCTURE**

The metavolcanic assemblage hosting the Eastmain Gold Deposit has a northwest trend and dips northeast at approximately 45°. Primary volcanic textures are preserved in mafic flow units and pillow tops toward the southwest (Frappier-Rivard 2015) indicating that the sequence is overturned.

Frappier-Rivard (2015) considers that the main D1 deformation event in the area of the Deposit is a well-developed, penetrative S1 foliation with a well-developed steeply plunging L1 mineral lineation. The D1 deformation event affects the altered assemblage of felsic, mafic and ultramafic rocks, locally named as the Mine Series that contains the gold mineralized zones and the majority of gold mineralized veins and sulphide lenses are parallel to the S1 foliation. This shear zone has previously been named the “Eastmain Deformation Zone” (Tourigny 1989).

Frappier-Rivard (2015) identifies a hanging wall and a footwall fault in the Mine Series assemblage that are in the structural footwall and hanging wall of the mineralized zone. Both faults are sub-parallel to the S1 foliation and range in width from a few cm to 10 cm wide showing local C/S fabrics, fault gouge, and slickenside lineations parallel to L1 stretching lineations. The late faults have variable kinematic indicators, however, underground observations most commonly support a reverse sense of fault displacement and Frappier-Rivard (2015) interprets the faults as having formed during a later brittle deformation regime of the D1 event.

Frappier-Rivard (2015) reports a D2 deformational event associated with small-scale F2 folds. F2 folds have limited intensity, and no S2 axial planar fabric is developed. F2 folds are interpreted to have developed in less competent ultramafic and banded rhyolite tuff layers in the Mine Series.

Steeply dipping brittle faults associated with a sinistral displacement are attributed to a D3 event that post-dates gold mineralization (Frappier-Rivard 2015). A northeast striking D3 sinistral fault offsets the metavolcanic sequence and the mineralized zone at Line 1,300 m E and marks the boundary between the A and B Zones.

## **7.6 MINERALIZATION**

The following description of mineralization is summarized from Frappier-Rivard’s (2015) report for Eastmain Resources. Mineralized quartz veins and lenses show a variable thickness between

10 cm and 13 m, and sulphide contents average 15 to 20% in the mineralized quartz veins and sulphide lenses. In order of decreasing abundance, sulphides consist of pyrrhotite, pyrite, and chalcopyrite, with minor sphalerite, magnetite and molybdenite. Visible gold occurs in the mineralized quartz veins as small (<1 mm) grains associated with quartz and/or sulphides in the A, B and C Zones.

Mineralized quartz veins range from massive, to banded or brecciated with a sulphide-rich matrix. The veins are parallel to the main foliation, are commonly folded and are boudinaged. Frappier-Rivard (2015) suggest that this indicates they are deformed by an early D1 structural event.

Within the Mine Series and more rarely in the hanging wall, gold mineralization dominantly occurs in association recrystallized chert layer containing massive to semi-massive sulphide lenses, and strongly silicified zones. The alteration is associated with deformation in the Mine Series. The moderate to strong alteration is characterized by:

- Sericite and local fuchsite in felsic units.
- Biotite that has replaced the matrix or in pillow selvages, locally garnets, and more rarely fuchsite and carbonates in mafic units.
- Talc, chlorite and biotite in ultramafic units.

Strongly pervasive silicification, and epidote+hematite alteration occurs in association with faulted intervals. In sheared and silicified rocks, Eastmain geologists we have noted concordant hairline fractures with sericite, and rare interstitial chlorite that are evidence of a late deformation process that may have remobilized, and enriched, mineralization.

## 8.0 DEPOSIT TYPES

Genetic models for the Eastmain Gold Deposit have ranged from a synvolcanic and stratabound deposit hosted in a recrystallized chert horizon (Boldy et. al. 1984) to an epigenetic, orogenic deposit that is structurally controlled in a silicified shear zone (e.g. Tourigny, 1989). Recent geological work has led to the preferred model being a synvolcanic or syngenetic deposit.

The Eastmain Gold Deposit is a copper-gold-silver, sulphide-rich deposit consisting of three high-grade, gold-rich zones known as the “A,” “B” and “C” Zones. Eastmain Resource’s exploration focus at Eastmain Mine was on the expansion of known Mineral Resources in the three zones and around the historic mine infrastructure and discovery of additional deposits along a regional 10 km long Mine Trend. Previous exploration of the Property confirmed surface copper-gold-silver mineralization in rocks and soils within the key mine horizon extending four km northwest from the Eastmain Mine Gold Deposit to the Julien, Hillhouse, Suzanna and Michel Targets. These well-defined targets present Eastmain Mine Gold Copper metal signature rock outcrops within the extension of the Mine Trend and along secondary parallel units within the Mine Series.

Eastmain Resources used the Noranda camp volcanogenic massive sulphide model for the Eastmain Deposit. Other analogous deposits include the Snow Lake VMS deposits in Manitoba. The model allows for fracture or fissure controlled seafloor deposition, often in two directions, along a sea floor which is underlain by bimodal mafic / felsic extrusive volcanic rocks. Hot geothermal water precipitates metals and sulphides as it reaches the sea floor. These semi-massive and massive sulphides form within the fissure and above on the sea floor as a cap. The amount of mineralization preserved can depend on whether the mineralization is capped by new volcanics or eroded from the sea floor. The deposits may also break through and repeat the same type of deposition on higher levels in the increasing volcanic pile. This concept was proposed by Eastmain Resources for the relationship between the Main Eastmain Deposit and the Julien Target.

## **9.0 EXPLORATION**

### **9.1 2005 EXPLORATION WORK**

In 2005 Eastmain completed 3,200 line-kilometres of VTEM and magnetic airborne geophysical surveys at 100-metre line spacing over the Ruby Hill East, Ruby Hill West claim blocks and the Eastmain Mine property. The VTEM surveys clearly outlined the A, B and C Gold Zones on the Eastmain Mine property. Magnetic survey data also defined the key ultramafic marker unit on the Property.

### **9.2 2009 EXPLORATION WORK**

In 2009, Eastmain completed soil geochemical surveys, prospecting and geological mapping on the Eastmain Mine Property. Anomalous gold ranging from 4.38 g/t gold to 43.6 g/t gold was detected in rock sampling over a six-kilometre strike-length, coinciding with the Mine Trend, northwest of the Eastmain Mine Gold Deposit. These samples were not systematically selected and are not necessarily representative of the underlying mineralization. Sampling bias may have occurred.

### **9.3 2013 – 2014 EXPLORATION WORK**

In 2013 and 2014, a 5,483 line-km high-resolution helicopter-borne, magnetic survey was conducted over the Eastmain Mine and the adjoining Ruby Hill East Properties. Mapping and prospecting programs were also completed. A total of 463 rock samples and 1,539 soil (B-Horizon) samples were collected. 97 samples returned values greater than 100 ppb Au, from which 35 assayed more than 1 g/t Au. The best value, returning 108.5 g/t Au, 196.0 g/t Ag and 4.22% Cu was from a boulder and probably originated from what is now the EM18-H2 trench. The best results, from an outcrop located in the Hillhouse Hill area, assayed 39.5 g/t Au, 3.3 g/t Ag and 0.46% Cu.

2014 field exploration work confirmed four high-grade target zones northwest of the Eastmain Mine Gold deposit. 249 rock samples were collected as part of the 2014 geological targeting program in search of additional Mineral Resources along the Mine Trend. Two of the areas ("Hillhouse" and "Julien") coincided directly with the projected Eastmain Mine Trend and two targets ("Michel" and "Suzanna") are located along secondary parallel structures, which may be a stratigraphic repetition of mineralization or a folded repetition of the mine sequence. The four showings are briefly described below. These samples were not systematically selected and are not necessarily representative of the underlying mineralization. Sampling bias may have occurred.

#### **9.3.1 Hillhouse Target**

The Hillhouse target, occurs 850 m northwest of the A and B Zones, and consists of a 400 m long by 150 m wide area, containing anomalous rock samples with gold ranging from 0.5 to 39.5 g/t Au; silver ranging from 0.5 to 25.8 g/t Ag; and copper ranging from 0.1 to 2.4% Cu.

### **9.3.2 Julien Target**

The Julien Target is situated 1.7 km northwest of the A and B Zones. This target coincides with a magnetic high in bi-modal Mine Series-type rocks extending for a length of 500 m. The Julien Target has been defined by anomalous rock samples containing from trace to 27.2 g/t Au; trace to 28.8 g/t Ag; and from trace to 2.3% Cu.

### **9.3.3 Suzanna Target**

The Suzanna Target is situated 600 m west of and parallel to the Julien anomaly. This target extends for a length of 375 m with anomalous rock assays ranging from 0.5 to 38.7 g/t Au, 0.5 to 26.6 g/t Ag and 0.1 to 3.06% Cu.

### **9.3.4 Michel Target**

The Michel Target is located 400 m north of the Suzanna anomaly and is defined by two clusters of anomalous rock samples ranging from 0.5 to 125.1 g/t Au; 0.5 to 12.5 g/t Ag; and 0.1 to 1.08% Cu.

## **9.4 2015 EXPLORATION WORK**

No exploration work was conducted in 2015.

## **9.5 2016 EXPLORATION WORK**

In June 2016, Eastmain announced a \$1.3 million exploration program at the Eastmain Mine Project. The announced program consisted of mapping, prospecting, and mechanical trenching, followed by 5,000 m of diamond drilling. The project was extended to the end of 2016 to include a total of 8,550 m of drilling. Trench and grab samples may not have been systematically selected and are not necessarily representative of the underlying mineralization. Sampling bias may have occurred.

Prospecting targets were identified by Diagnos Inc., who conducted a regional Computer Aided Resource Detection System (“CARDS”) analysis. The system uses pattern recognition algorithms to analyse compiled digital exploration data, and to identify areas with similar geological signatures to known areas of mineralization. The CARDS generated targets were prospected by Diagnos personnel in coordination with, and supported by Eastmain staff.

Mechanical trenching was performed at previously defined high-grade gold surface showings and airborne VTEM electromagnetic conductors. Specifically, trenching targeted the outcropping Julien, Suzanna, Michel and Hillhouse Targets. As previously described, these zones may represent strike extensions of, or parallel horizons to, the Mine Trend, exhibiting similar Au-Ag-Cu mineralization to the Eastmain Mine A, B and C Zones.

A total of 3,180 m<sup>2</sup> of planned trenching was successful in exposing bedrock at the Julien, Suzanna and Hillhouse Targets during the 2016 program at Eastmain Mine. Each target reported

mineralization and geology which supports continued exploration. The most prospective assay results were obtained from the Julien Target. This target was exposed in several trenches extending north-easterly across approximately 400 m of stratigraphy beginning at the interpreted SE trending Mine Trend and cutting parallel stratigraphy. Significant trench results are summarized below.

Trench EM16-J1 tested a limited strike length electromagnetic anomaly. The source of the conductor corresponds to a mineralized contact between felsic and mafic volcanic rocks and returned 0.65 g/t Au over 1.0 m.

Trench EM16-J3 is located just east of Julien Lake, and adjacent to a mineralized outcrop with grab values of 30.9 g/t Au, 24.9 g/t Ag and 1.12% Cu. The trench exposed the surface expression of the mineralized zone. The best values are from channel J3-6, returning 45.1 g/t Au, 26.5 g/t Ag and 0.61% Cu over 2.0 m including 85.5 g/t Au, 48.0 g/t Ag and 1.09% Cu over 1.0 m. The gold mineralization is closely associated with a mineralized quartz vein located within in a silicified, sulphide mineralized felsic volcanic rock. This mineralization was subsequently intersected in hole EM16-76 which returned 219 g/t Au, 153 g/t Ag and 2.54% Cu over 2.0 m (including 752 g/t Au, 464 g/t Ag and 4.47% Cu over 0.5 m).

Trench EM16-J4 exposed high-grade mineralization 190 m west-southwest of trench EM16-J3, and 65 m west of Julien Lake. Trenching exposed the Julien Showing (surface samples values ranging to 27.3 g/t Au, 18.1 g/t Ag and 0.70% Cu) discovered by Placer Dome in 1982. The gold mineralization is hosted in a mineralized quartz vein, varying in thickness up to 1.2 m. The quartz vein is mineralized with pyrite, pyrrhotite and chalcopyrite and is injected into a sheared and strongly biotitized basalt unit. The host sheared basalt is also gold-bearing, returning up to 1.09 g/t Au over 0.5 m. The best assay from trench EM16-J4 is from channel J4-3 returning 5.04 g/t Au, 8.34 g/t Ag and 0.59% Cu over 2.5 m including 10.7 g/t Au, 13.9 g/t Ag and 1.26% Cu over 0.5 m.

At the Suzanna Target, Trench EM16-S2 targeted a moderate electromagnetic conductor. The exposed rock presents intensely altered basalt composed of quartz, biotite and fuchsite. When the alteration is associated with disseminated sulphide mineralization (pyrrhotite, chalcopyrite), gold mineralization is also present. The best gold value is from channel S2-20 returning 3.96 g/t Au over 1.0 m including 7.13 g/t Au over 0.5 m.

Hillhouse Target trenches EM16-H2 and EM16-H3 returned gold values that are spatially aligned along a minor shear and associated with a massive sulphide layer hosted in mineralized chert. Pyrrhotite and chalcopyrite are the main sulphides present. The assemblage is very similar to the Eastmain Mine "Mine Trend" mineralization located in the historic mine. The sulphide-chert horizon in EM16-H2 and EM16-H3 is located at the contact between pillowed basalt and a volcanic breccia.

**TABLE 9.1**  
**SELECTED 2016 CHANNEL SAMPLES FROM EASTMAIN MINE TRENCHING PROGRAM**

Trench ID	Channel ID	Channel Samples				Including				Target
		Assay			Length (m)	Assay			Length (m)	
		Au (g/t)	Ag (g/t)	Cu (%)		Au (g/t)	Ag (g/t)	Cu (%)		
EM16-J1	J1-1	0.65	-	-	1.0	-	-	-	-	Julien
EM16-J3	J3-4	3.13	5.45	0.31	6.5	18.1	29.1	1.70	1.0	Julien
	J3-5	4.81	10.3	0.44	6.5	13.5	28.0	1.17	2.0	
	J3-6	45.1	26.5	0.61	2.0	85.5	48.0	1.09	1.0	
	J3-7	1.22	1.95	0.11	1.5	2.01	2.15	0.1	0.5	
	J3-8	1.05	0.78	0.06	0.5	-	-	-	-	
	J3-9	0.45	2.36	0.18	3.5	0.77	0.97	0.07	0.5	
	J3-10	4.55	3.40	0.18	2.5	10.1	5.51	0.26	1.0	
	J3-11	4.05	1.91	0.09	2.0	14.4	4.40	0.14	0.5	
	J3-12	0.75	1.78	0.11	2.5	1.83	2.72	0.17	0.5	
EM16-J4	J4-2	1.80	3.57	0.25	2.5	3.63	8.18	0.90	0.5	Julien
	J4-3	5.04	8.34	0.59	2.5	10.7	13.9	1.26	0.5	
	J4-4	3.40	15.0	0.74	2.5	6.21	26.8	1.48	1.0	
	J4-7	1.25	3.10	0.06	3.0	5.87	7.52	0.10	0.5	
	J4-8	3.48	10.7	0.07	2.0	9.84	27.5	0.08	0.5	
	J4-9	8.29	29.9	1.29	1.0	9.51	22.7	1.13	0.5	
	J4-10	0.64	3.84	0.22	3.0	2.39	13.7	0.84	0.5	
	J4-11	0.59	4.59	0.05	1.5	1.09	8.64	0.34	0.5	
	J4-12	0.28	5.28	0.33	2.0	-	-	-	-	
	J4-13	1.06	2.91	0.24	2.0	1.72	5.71	0.49	0.5	
	J4-14	0.63	1.99	0.17	0.5	-	-	-	-	
	J4-15	0.40	1.44	0.20	1.0	0.55	0.92	0.11	0.5	
	J4-16	0.69	0.77	0.03	0.5	-	-	-	-	
	J4-17	0.30	1.01	0.12	0.5	-	-	-	-	
J4-18	0.25	1.33	0.08	0.5	-	-	-	-		
EM16-S1	S1-1	2.35	-	-	3.0	8.96	-	-	0.5	Suzanna
	S1-2	5.33	-	-	1.5	13.3	-	-	0.5	
	S1-5	1.19	-	-	1.0	1.96	-	-	0.5	
EM16-S2	S2-2	0.72	0.16	0.06	0.5	-	-	-	-	Suzanna
	S2-20	3.96	0.23	0.05	1.0	7.13	0.17	0.04	0.5	
EM16-H2	H2-5	4.63	-	-	1.0	5.78	-	-	0.5	Hillhouse
	H2-6	26.0	-	-	2.2	55.7	-	-	0.7	
	H2-7	2.14	-	-	1.5	3.11	-	-	0.5	
EM16-H3	H3-2	6.79	-	-	1.0	9.49	-	-	0.5	
	H3-3	6.55	-	-	1.0	9.78	-	1.14	0.8	
	H3-7	3.29	-	-	1.0	7.63	-	1.32	0.5	

Grab samples collected from the massive sulphide lens located in the Hillhouse EM13-H2 trench returned the values shown in Table 9.2.

Sample No.	Gold Assay (g/t Au)	Silver Assay (g/t Ag)	Copper Assay (%Cu)
S894387	12.9	2.86	0.15
S894388	15.3	6.87	0.09
S894389	43.3	13.1	0.27
S894390	77.5	16.9	0.59
S894391	8.49	3.15	0.05
S894392	46.1	41.4	7.39

## 9.6 2017 EXPLORATION WORK

In 2017, Eastmain conducted aggressive exploration of the Eastmain Mine Project including Induced Polarization geophysics, follow-up trenching and channel sampling of geophysical anomalies and core drilling along the Mine Trend and in parallel strata to the north and south of the Mine Trend in the vicinity of the Julien and Hillhouse Targets. Drilling also targeted the Eastmain Mine Gold Deposit as part of a verification program to support the 2018 Mineral Resource Estimate. Exploration activities during 2017 are summarized in Table 9.3. Trench and grab samples may not have been systematically selected and are not necessarily representative of the underlying mineralization. Sampling bias may have occurred.

Target Zone	Drilling			Trenching and Mapping		
	No. of DDH	Total (m)	Total Core Samples	No. of Trenches	Total (m)	Total Channel Samples
Hill House	3	465	181			
Julien	12	4,204	2,292	5	196	115
Meg	4	798	412	2	125	39
Suzanna	2	594	394	2	126	46
Michel	1	333	166	1		21
David				1	106	33
Zone A	2	525	341			
Zone B	5	989	329			
Zone C	1	609	124			
NW Zone A	3	867	306			
<b>Total</b>	<b>33</b>	<b>9,384</b>	<b>4,545</b>	<b>11</b>	<b>553</b>	<b>254</b>

In winter 2017, A 42.5 line-km OreVision IP Survey was conducted over the Julien, Suzanna and Michel Targets covering a 2-km x 2-km area with 100-m line spacings, with depth penetration of +/- 200 m. The survey identified 7 parallel chargeability trends striking southeast parallel to the Mine Trend, extending to the depth of the survey. The highest priority geophysical trend parallels the Julien Target geology, running the entire 2-km length of the grid. The projection of the trend to the SE indicates potential continuation towards the Hillhouse Target located 300 m SE of the IP coverage. A second priority trend extends over the Suzanna Target, also running the length of the existing grid. Several of the strong conductive trends are open at depth and along strike. In addition, the IP results indicate a potential extension of the Mine Trend to the NW, as well as several other parallel mineralized horizons.

A total of 11 trenches were excavated, mapped and sampled as follow-up to the IP survey. Trenches exposed strata bound and structurally controlled mineralization, which explained conductive trends identified by geophysics, however, returned limited results in channel sampling. 33 drill holes were completed in 2017, 26 testing geophysical anomalies, trench exposed targets and following up 2016 drill results. A compilation of exploration work carried out at the Julien Target area is detailed in Figure 9.1.

During the 2017 exploration program core logging and field mapping tried to identify the 3 regional ductile deformation phases recognized in the area:

- D1 penetrative schistosity NW-SE to N-S associated to P1 (tectono-metamorphic);
- D2 penetrative foliation axial planar to P2 E-W to ENE-WSW oriented;
- D3 spaced crenulation cleavage corresponding to the P3 axial plane NW-SE.

The dominant planar fabric in the south branch of the UERGB is represented by a penetrative foliation (N320/50) associated with P1 sub-parallel to stratigraphy grading into the main deformation zone called the ‘‘Zone de Déformation Eastmain’’ (ZDE) identified by Tourigny that has been traced by drilling and mapping on 4 km along the Mine Series package. The shearing increases toward the Mine Series where all primary textures were obliterated by the deformation event. The rheological contrast between the ultramafic and the felsic as well as synvolcanic alteration could have increased the deformation in this corridor. The kinematic indicators recognized during historical underground mapping indicate a plunge with an oblique inverse movement.

The regional foliation S2 oriented E-W to ENE-WSW (N276°/49°) crosscuts the S1 fabric and is locally expressed by crenulation and ENE-WSW brittle-ductile sheared and faulted zones identified in trenching and mapping. The stretching and mineral lineation plunges moderately to the NE (48°/066°).

The D3 deformation was not recognized on the Eastmain Mine property but is NW-SE oriented and is expressed by a spaced cleavage identified in the Bohier domain.

At the deposit scale, a preliminary structural analysis was undertaken based on the orientated core data collected by Eastmain Resources drilling. Out of 1,945 orientated core data extracted

from Eastmain's Geotic database, 1,110 measurements representing the main foliation and 835 measurements documenting the stretching lineation were recorded. The analysis clearly shows co-linearity of the lineation with the main NW oriented schistosity and the ENE shearing (N250/75) measured in the trenches in the Julien Target. The scarcity of ENE data is due to the parallel orientation of drilling to the S2 foliation plane that does not allow regular intersecting of this feature in drill core.

According to field observations and the oriented core data, the main foliation S0-S1 is generally NW oriented (average N311/47), subparallel to stratigraphy, and may represent a compressional event in which the main strain was probably NE-SW oriented. The weak to moderate penetrative planar fabric is expressed by a well-developed schistosity particularly in the Eastmain Deformation Zone (EDZ).

The stretching lineation measurements present a homogenous distribution with an average orientation of 45/033, moderately plunging toward the NE. At the deposit scale, the ore shoots controlling high-grade zones are plunging NE and are likely controlled by stretching direction of the high strain zone during D1 or by foliation intersection between S0-S1 and S2.

In newly excavated trenches in the Julien Target area, an ENE subparallel family of shear zones was regularly observed. In these narrow-sheared zones, the schistosity is strongly penetrative to locally mylonitic and is parallel to the axial planar schistosity developed during D2 event. These shear zones show an average orientation of 250/75 (ENE-WSW to NE-SW) comparable with a NW-SE folding event during D2. The main family of stretch lineations is compatible with a sinistral inverse movement associated with the shearing. The lineation intersection between these shear planes (S2) and the main schistosity S1 is co-linear with the main family of stretch lineations as well. In the historical mine area, the lenses are steeply plunging to the NE coincident with the long axis of the stretching lineation.

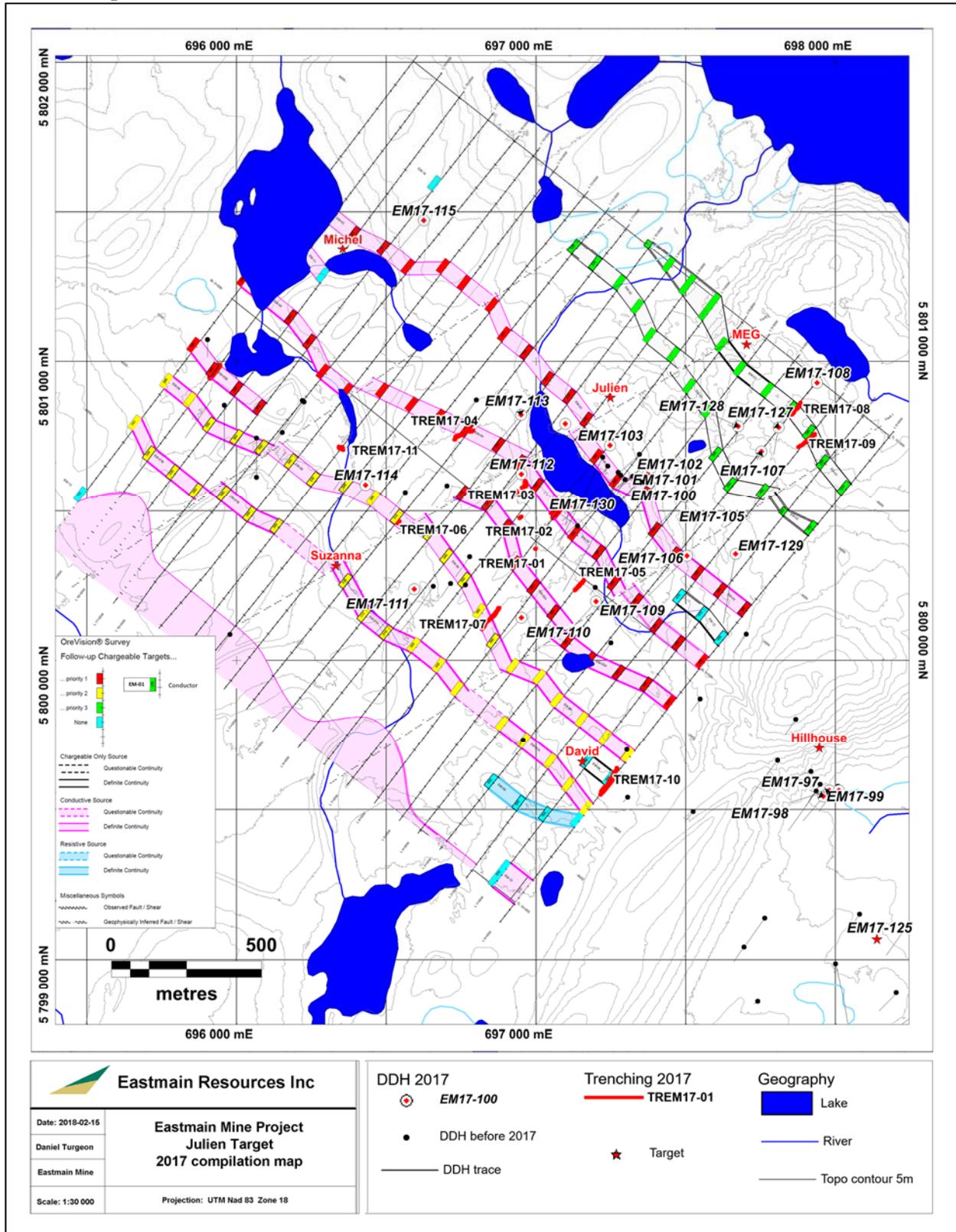
The set of observations is compatible with two distinct events of ductile deformation corresponding to a NE-SW shortening (D1) evolving to a NW-SE shortening (D2). Late fragile faults have also been observed. These structures are in the form of fractured zones with presence of fault gouge. Two main families of fragile faults were observed, a first NW-SE and a second NE-SW, both being moderately dipping, to NE and NW, respectively.

The high magnetic signature delineating the Mine Series package shows jogs and dotted patterns associated with the position of crosscutting NE trending lineaments that could represent corridors for hydrothermal circulation (magnetite destruction) with possible associated gold deposition. The intersection between the NW trend Mine Series and the NE lineaments and magnetic disruptions in the Mine Series are very prospective for new discoveries along the Mine Trend and point to a periodic distribution of the gold mineralization.

The uneven distribution of gold observed in the Eastmain Mine Gold Deposit could be explained by the primary depositional control overprinted by subsequent tectonic remobilization into high-grade ore shoots. The lenses are intensely dislocated and transposed by the D1 high-strain zone NW trending and remobilized by stretching lineation coincident with the intersections of S0-S1 and S2 plunging NE.

The best example of the gold mineralized NE structures is exemplified by trench EM16-J4 located 200 m SW of EM16-76. The trench exposes an 80 m length of NE-SW oriented quartz-calcite-actinolite vein of 0.1 to 1.5 m wide containing significant amounts of sulphides. Assay results up to 8.29 g/t Au, 29.9 g/t Ag, 1.29 % Cu over 1 m was obtained. The shear is hosted into a massive to foliated basalt affected by steeply dipping fault zone crosscutting S0-S1. The lineations are NE oriented and are on strike with EM16-76 that returned high-grade silica-sulphide-gold mineralized shoots. The NE shearing could represent synvolcanic feeder zones that has been reactivated or transposed during the D2 event.

**Figure 9.1 Eastmain Mine Project – Julien Target Area 2017 Exploration Compilation Map**



## 10.0 DRILLING

### 10.1 2010 DRILLING

In 2010 Eastmain completed 46 diamond drill holes totalling 14,584 m to expand the known limits of the A, B and C Zones laterally and vertically within the Deposit, and to test the favourable mine trend that has been delineated for more than 10 kilometres across the Property.

Assays results from 2010 drilling ranged from 1.20 g/t Au, 10.0 g/t Ag and 1.54% Cu over 3.5 m to 101 g/t Au, 19 g/t Ag and 0.14% Cu over 0.5 m and included the following significant results.

**TABLE 10.1**  
**EASTMAIN MINE: SUMMARY OF 2010 DRILLING RESULTS**

Hole ID	Au (g/t)	Ag (g/t)	Cu%	width (m)	Domain
EM10-03	4.30	4.46	0.14	6.44	A Zone
incl.	7.54	8.28	0.76	3.47	
EM10-04	7.51	3.64	0.23	7.83	A Zone
incl.	14.29	1.64	1.03	3.93	
EM10-19	3.33	5.41	0.18	7.60	A Zone
EM10-28	13.24	15.68	0.19	9.50	B Zone
incl.	21.58	27.83	0.24	3.50	
ER10-29	18.75	12.23	0.95	2.00	B Zone
	37.05	24.10	1.89	1.00	
EM10-36	39.40	7.93	0.08	0.50	B Zone
	16.27	2.03	0.04	1.50	
EM10-38	16.60	13.13	0.37	5.50	B Zone
incl.	25.16	19.64	0.58	3.50	
incl.	101.0	19.0	0.14	0.50	
EM10-46	16.80	1.13	0.04	0.50	C Zone

### 10.2 2011 DRILLING

In 2011 Eastmain completed 13,062 m of drilling in 28 holes to test the depth extension of the A, B and C Zones. Visible gold was observed in holes EM11-51, 61, 65, 69 and 70. Significant

results from the A Zone ranged from 0.23 g/t Au, 29.3 g/t Ag and 1.40% Cu over 1.50 m to 9.53 g/t Au, 0.41 g/t Ag and 0.01 % Cu over 0.50 metre. Drill hole EM11-52 intersected 6.50 m of 5.78 g/t Au, 4.24 g/t Ag and 0.27% Cu at a depth of 442.50 metres. Significant B Zone values ranged from 2.58 g/t Au, 4.23 g/t Ag and 0.12 % Cu over 5.50 m in hole EM11-66 to 9.10 g/t Au, 3.93 g/t Ag and 0.22% Cu over 3.0 m in EM11-65. Significant drill results from the C Zone ranged from a half-metre at 5.77 g/t Au, 1.33 g/t Ag and nil Cu (EM11-69) to 5.71 g/t Au, 1.47 g/t Ag and 0.08% Cu over 1.5 m in EM11-74.

### **10.3 2016 DRILLING**

The 2016 Eastmain Mine Project drilling program was designed to identify additional mineralized zones along the Mine Trend, both NW and SE from the historic high-grade Eastmain Mine Gold Deposit. Exploration work prior to 2014 identified satellite targets, which was followed by additional mapping, overburden stripping and channel sampling conducted in mid-2016.

6 exploration targets were tested during the 2016 drill campaign including; Hillhouse, Julien and Suzanna, NW Mine trend, SE Mine trend and the Eastmain Mine. Hillhouse, Julien and Suzanna are located 1.5 km, 2.75 km, and 3 km northwest, respectively, of the Eastmain Mine. The NW and SE Mine Trend targets are the interpreted strike extensions of the mineralized horizon that hosts the Eastmain Mine. Hole EM16-91 tested the NW Mine Trend approximately 850 m northwest of the Eastmain Mine and Holes EM16-83 to -86 tested for Mine Trend stratigraphy 1.5 to 3.5 km to the southeast of mine area.

#### **10.3.1 Julien Target**

Hole EM16-76 intersected a significant assay of 42.4 g/t Au, 30.2 g/t Ag and 0.53% Cu over 10.5 m within an altered rhyolite unit hosting a mineralized quartz vein with visible gold, at 9.6 m vertical depth. The unit is 400 m east across dip of the Mine Trend, in a potential new parallel zone. EM16-76 also intercepted the possible extension of the Mine Trend mineralization at 285 m vertical depth.

The drill hole is collared 25 m northeast and drilled below a quartz-vein outcrop with values of 30.9 g/t Au, 24.9 g/t Ag and 1.12% Cu.

Holes EM16-92 to EM16-95 are also located in the Julien Target area. The four holes tested the continuity at depth of the mineralization intercepted in hole EM16-76.

EM16-92 and EM16-93 are collared at the same location, 27 m northeast of, and undercutting, EM16-76. Both holes intercepted the mineralized rhyolite hosting a quartz vein with visible gold at a vertical depth of 25 m and 35 m respectively. EM16-92 returned 21.1 g/t Au, 25.7 g/t Ag and 1.05% Cu over 9.3 m, including 43.1 g/t Au, 50.6 g/t Ag and 2.04% Cu over 4.3 m, while EM16-93 returned 10.6 g/t Au, 20.1 g/t Ag and 1.24% Cu over 15.9 m, including 20.4 g/t Au, 36.8 g/t Ag and 2.29% Cu over 7.6 m.

EM16-94 and EM16-95 are also collared from a single location, 67 m northeast of and undercutting holes EM16-76, -92, and -93. Both holes intercepted a mineralized quartz vein with visible gold. Two mineralized intervals were identified in EM16-94. The first one, located at a vertical depth of 50 m, returned 7.8 g/t Au, 13.6 g/t Ag and 0.53% Cu over 10.0 m, including 32.7 g/t Au, 14.5 g/t Ag and 1.04% Cu over 1.0 m. The second one, located at a vertical depth of 63 m, returned 5.67 g/t Au and 1.33 g/t Ag over 8.5 m, including 41.8 g/t Au and 3.8 g/t Ag over 0.6 m. Both intervals are hosted in a mineralized quartz vein injected at the contact between mafic and felsic volcanics, possibly on both side of the felsic unit. EM16-95 intersected a gold-bearing quartz vein, hosted in altered basalt that returned 1.7 g/t Au, 2.6 g/t Ag and 0.13% Cu over 13.0 m, including 18.0 g/t Au, 24.1 g/t Ag and 1.05% Cu over 1.0 m, at a vertical depth of 67 m.

### **10.3.2 Hillhouse Target**

Holes EM16-77 and EM16-78 both intercepted shallow mineralization. Visible gold was observed in EM16-78 and the interval returned 6.85 g/t Au over 2.5 m, including 10.6 g/t Au over 1.5 m at a vertical depth of 11.8 m. Hole EM16-78 tested continuity from the mineralized lens discovered in Trench EM16-H2, with values ranging from below detection limits to 26.0 g/t Au over 2.2 m including 55.7 g/t Au over 0.7 m. The mineralization is associated with a massive sulphide layer hosted in mineralized chert and is similar to the Eastmain Mine Deposit.

Holes EM16-79 and EM16-80 are located in the Hillhouse Hill Target area. EM16-79 is collared 40 m east of trench EM16-H2, testing the mineralized lens that returned 26.0 g/t Au over 2.2 m. The massive sulphide lens and associated mineralized sequences were intersected between 28 m and 31 m down hole, returning 0.41 g/t Au, 1.81 g/t Ag and 0.10% Cu over 1 m. The best gold value is from a 40 cm thick mineralized shear zone that returned 2.81 g/t Au over 0.5 m.

EM16-80 is collared 27 m behind EM16-78, which returned 8.47 g/t over 2.0 m. As with EM16-78, visible gold was observed in a mineralized quartz vein injected in a chert horizon associated with a 10 cm massive sulphide layer. Unlike the intersection in EM16-78, the mineralized lens was crosscut by a late mafic porphyritic dyke, reducing its width in the intercept. The best assay in the hole returned 1.51 g/t Au over 0.5 m.

### **10.3.3 Suzanna Target**

Holes EM16-81 is located 105 m north of trench Suzanna trench EM16-S1, which returned 5.33 g/t Au over 1.5 m, including 13.3 g/t Au over 0.5 m. The drill hole intersected intensely altered felsic and mafic volcanic sequences returning anomalous gold mineralization which ranged to 338 ppb Au over 11.45 m, including 3.70 g/t Au over 0.5 m.

### **10.3.4 Eastmain Mine**

Holes EM16-87 to EM16-90 were drilled in the vicinity of the Eastmain Mine Deposit. EM16-87 did not reach its target depth, intercepting an underground mine working. EM16-88 tested a potential repetition of the mine sequence which is interpreted from a previous magnetic survey to be a parallel ultramafic sequence, located 1 km southwest of the Mine Trend. No ultramafic

sequences were intercepted, but two mineralized intervals returning 0.56 g/t Au, 5.2 g/t Ag and 0.43% Cu over 0.85 m and 0.52 g/t Au, 8.26 g/t Ag and 1.20% Cu over 0.5 m were intercepted at vertical depths of 303 m and 383 m respectively.

EM16-89 and EM16-90 tested the continuity of the historical deposit (B-Zone) at depth. EM16-89 returned 1.2 g/t Au, 1.9 g/t Ag and 0.11% Cu over 4.85 m, including 3.6 g/t Au, 4.0 g/t Ag and 0.34% Cu over 1.0 m at a vertical depth of 508 m, while EM16-90 returned 3.1 g/t Au, 6.5 g/t Ag and 0.26% Cu over 1.0 m at a vertical depth of 396 m. Both mineralized intervals were from a typical “Mine Series” assemblage composed of altered felsic and mafic volcanics injected with quartz/silica mineralization located in contact with an ultramafic sequence.

### 10.3.5 NW Zone

EM16-91 is located 550 m south of the Hillhouse Hill Target, half-way between Hillhouse Hill and the Eastmain Mine Deposit. The hole targeted a moderate geophysical electro-magnetic anomaly. The best values returned were 116 ppb Au and 0.15% Cu over 1.0 m.

### 10.3.6 SE Mine Trend

Holes EM16-82 to EM16-86 tested the interpreted Southeast extension of the “Mine Trend”. Of these, Hole EM16-83 returned the best gold intercept, hosted in a “Mine Trend”-type sequence, composed of altered felsic to mafic volcanics in contact with ultramafic rocks. EM16-83 returned 4.5 g/t Au, 1.0 g/t Ag over 0.5 m at a vertical depth of 118 m adjacent to wider anomalous gold zone that returned 0.26 g/t Au over 18.3 m. Highlights from the 2016 drilling campaign at the 6 Eastmain Mine Project exploration targets are summarized in Table 10.1 and a plan map of the 2016 drill holes is shown in Figure 10.1.

**TABLE 10.2**  
**EASTMAIN MINE: SUMMARY OF 2016 DRILLING RESULTS**

Target	Drill Hole No.	From (m)	To (m)	Interval (m) <sup>(1)</sup>	Vertical Depth (m) <sup>(3)</sup>	Gold Assay Au (g/t) <sup>(2)</sup>	Silver Assay Ag (g/t) <sup>(2)</sup>	Copper Assay Cu (%) <sup>(2)</sup>
Hillhouse Hill	EM16-79	84.3	84.8	0.5	64.7	2.81	3.27	0.02
		93.0	94.5	1.5	71.8	0.51	1.84	0.22
Hillhouse Hill	EM16-80	29.9	30.4	0.5	21.2	1.51	1.49	0.21
Suzanna	EM16-81	63.5	68.0	4.5	50.4	0.60	1.39	0.02
		incl. 63.5	64.0	0.5		3.70	5.42	0.03
Suzanna	EM16-82					NSV		
SE Mine Trend	EM16-83	167.75	168.35	0.5	118.1	4.53	0.99	0.01
SE Mine	EM16-84	150.0	151.0	1.0	130.3	0.61	-	-

**TABLE 10.2**  
**EASTMAIN MINE: SUMMARY OF 2016 DRILLING RESULTS**

<b>Target</b>	<b>Drill Hole No.</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval (m)<sup>(1)</sup></b>	<b>Vertical Depth (m)<sup>(3)</sup></b>	<b>Gold Assay Au (g/t)<sup>(2)</sup></b>	<b>Silver Assay Ag (g/t)<sup>(2)</sup></b>	<b>Copper Assay Cu (%)<sup>(2)</sup></b>
Trend								
SE Mine Trend	EM16-84					NSV		
SE Mine Trend	EM16-84					NSV		
Eastmain Mine	EM16-87	135.35	136.0	0.65	117.5	2.74	1.58	0.03
Eastmain Mine	EM16-88	361.1	361.95	0.85	303.2	0.56	5.2	0.43
		462.1	462.6	0.5	383.3	0.52	8.26	1.20
Eastmain Mine	EM16-89	516.95	521.8	4.85	508.0	1.19	1.93	0.11
Eastmain Mine	EM16-90	406.0	407.0	1.0	396.0	3.05	6.52	0.26
NE Mine Trend	EM16-91					NSV		
Julien	EM16-92	24.8	34.1	9.3	22.6	21.1	25.7	1.05
		Incl. 29.8	34.1	4.3		43.1	50.6	2.04
		Incl. 33.5	34.1	0.6		195	84.0	2.35
		399.0	399.5	0.5	305.8	1.33	-	-
		475.9	477.4	1.5	365.1	0.73	0.63	0.04
Julien	EM16-93	24.6	40.5	15.9	30.6	10.6	20.1	1.24
		incl. 31.9	39.5	7.6		20.4	36.8	2.29
		incl. 34.05	34.6	0.55		62.1	156	1
		53.6	62.3	8.7	54.5	0.72	1.36	0.09
		incl. 54.1	55.1	1.0		2.26	0.79	0.04
		504.5	513.0	8.5	478.1	0.28	0.89	0.02
		incl. 512.5	513.0	0.5		1.13	0.28	-
Julien	EM16-94	41.3	46.1	4.8	33.5	0.42	1.13	0.13
		incl. 43.8	44.3	0.5		1.50	1.17	0.11
		60.0	70.0	10.0	49.8	7.96	13.6	0.53
		incl. 62.2	68.9	6.7		11.6	20.0	0.77
		incl. 62.2	63.2	1.0		32.7	14.5	1.04
		incl. 65.8	67.3	1.5		14.4	33.0	1.33
		80.0	88.5	8.5	64.3	5.67	1.33	0.09
		incl. 80.5	81.0	0.5		38.3	0.96	0.13

**TABLE 10.2**  
**EASTMAIN MINE: SUMMARY OF 2016 DRILLING RESULTS**

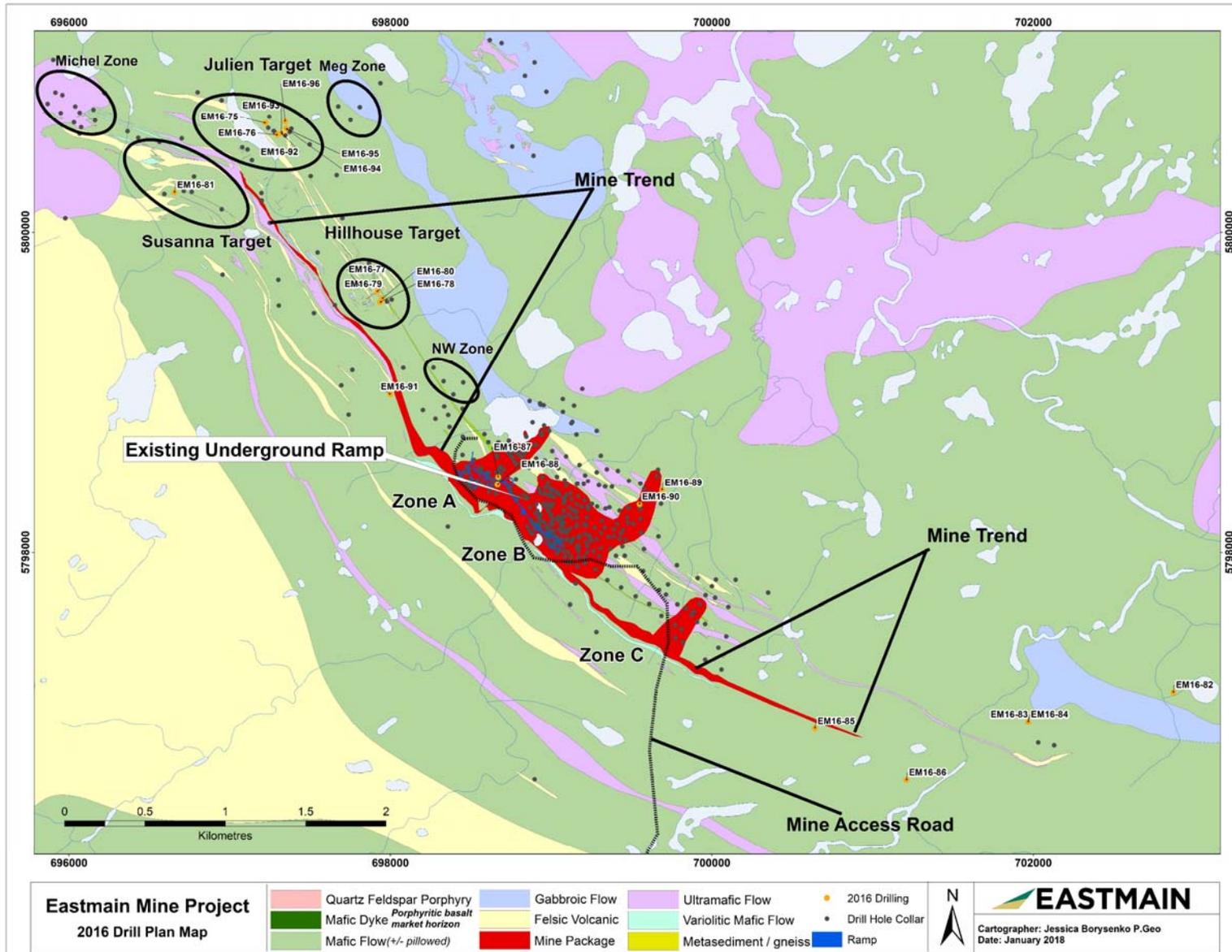
<b>Target</b>	<b>Drill Hole No.</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval (m)<sup>(1)</sup></b>	<b>Vertical Depth (m)<sup>(3)</sup></b>	<b>Gold Assay Au (g/t)<sup>(2)</sup></b>	<b>Silver Assay Ag (g/t)<sup>(2)</sup></b>	<b>Copper Assay Cu (%)<sup>(2)</sup></b>
		incl. 82.9	83.5	0.6		41.8	3.87	0.03
		101.5	102.0	0.5	77.9	1.58	0.28	0.04
Julien	EM16-95	60.5	73.5	13.0	63.0	1.69	2.62	0.13
		incl. 71.3	72.3	1.0		18.0	24.1	1.05
		94.7	95.2	0.5	89.2	2.34	1.48	0.12

(1) Intervals are presented in core length; true width will vary depending on the intersection angle of the hole with the targeted zone. Holes are generally planned to intersect vein structures as close perpendicular as possible and true widths are estimated to be approx. 80% of down hole widths.

(2) For known mineralized zones, intervals are based on geological observations. Assays presented are not capped.

(3) Vertical depth is measured from the surface to the mid-point of the reported interval.

Figure 10.1 Eastmain Mine Project - 2016 Drill Plan Map



## 10.4 2017 DRILLING

Eastmain completed a 9,383.5 m diamond drilling program over 33 holes in 2017. The drilling program focused on two main objectives:

- Follow-up on the IP survey along the Mine Trend and recent drilling results at the Julien and Suzanna Targets.
- Complete the necessary drilling to support resource categorization for a NI 43-101 Mineral Resource Estimate.

### 10.4.1 NW Zone

The NW Zone was tested with three holes in 2017. These holes tested an area previously identified as a possible extension of the Eastmain Mine north west of the Deposit along the Mine Trend. Hole EM17-126 intersected a 2 m interval returning 9.33 g/t Au, 23.8 g/t Ag and 0.44% Cu at a vertical depth of 220 m. this intercept is located 600 m to the NW of the A Zone Mineral Resource envelope. This intersection is located approximately 100 m NW of historic hole 83CH029 (500 m NW of Eastmain Mine Zone A) intersecting a 1.5 m interval of 19.2 g/t Au, 7.85 g/t Ag (no Cu analysed) at a depth of 240 m. This area represents a potential new on-strike zone at the Eastmain Mine and will be a priority target for further drill evaluation. The new zone identified by EM17-126 is approximately midway between the A Zone and the Hillhouse Target and further work will help identify the stratigraphic correlation between these zones.

**TABLE 10.3**  
**EASTMAIN MINE: SUMMARY OF 2017 DRILLING RESULTS**

<b>Drill Hole ID</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval<sup>(1)</sup> (m)</b>	<b>Au<sup>(2)</sup> (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu (%)</b>	<b>Zn (%)</b>	<b>Vertical Depth<sup>(3)</sup> (m)</b>	<b>Target</b>
EM17-97				NSV					Hillhouse follow-up - Hole EM16-78
EM17-98				NSV					Hillhouse follow-up - Hole EM16-78
EM17-99	99.6	102.1	2.5	7.47	3.28			73	Hillhouse follow-up - Hole EM16-78
	incl. 101.05	102.1	1.0	16.6	3.99				
EM17-100	6.3	7.3	1.0	0.93	1.93	0.67		5	Julien Target follow-up TREM-03
EM17-101	77.9	78.4	0.5	2.99	0.64			62	Julien Target follow-up EM -03
	89.5	90.0	0.5	46.8	0.12			71	
EM17-102	12.0	12.6	0.6	14.1	14.3	0.29		9	Julien Target follow-up EM -03
	71.5	72.2	0.7	2.91	0.04			56	
EM17-103	104.1	105.6	1.5	1.09	0.63	0.10		85	Julien Target follow-up EM -03
EM17-104	307.2	308.5	1.3	1.57	0.07			217	Julien Target follow-up EM-04, -05A
EM17-105				NSV					Julien Target follow-up EM -03
EM17-106	7.0	8.5	1.5	0.85	1.43			5	Julien Target follow-up EM -04
	115.0	116.0	1.0	1.44	0.11			88	
	120.1	121.0	0.9	0.74	0.13			92	
	207.5	208.5	1.0	2.36	1.90			159	
	232.0	233.0	1.0	2.89	0.96			178	
EM17-107	18.5	20.5	2.0	1.33	0.06			14	Meg Target follow-up EM-02
	33.7	34.8	1.1	80.6	6.08			27	
	incl. 34.3	34.8	0.5	158	11.3				
	61.0	62.0	1.0	0.79	0.18			47	
	234.8	235.5	0.7	0.61	7.64	0.66		180	
	238.7	239.2	0.5	1.18	2.39	0.18		183	
EM17-108	180.6	181.6	1.0	1.22	0.05			139	Meg Target follow-up EM-01
	186.2	187.2	1.0	5.55	11.8	0.32		143	

**TABLE 10.3**  
**EASTMAIN MINE: SUMMARY OF 2017 DRILLING RESULTS**

<b>Drill Hole ID</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval<sup>(1)</sup> (m)</b>	<b>Au<sup>(2)</sup> (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu (%)</b>	<b>Zn (%)</b>	<b>Vertical Depth<sup>(3)</sup> (m)</b>	<b>Target</b>
EM17-109	137.0	137.5	0.5	8.74	1.13			126	Suzanna Target Area EM-05A
	197.0	197.5	0.5	1.48	0.46			181	
	235.0	235.5	0.5	1.12	1.28	0.22		216	
	276.0	277.5	1.5	1.43	3.89	0.29		254	
EM17-110	115.6	116.1	0.5	1.13	2.60	0.31		89	Suzanna Target EM-06
	160.1	161.2	1.1	0.64	1.30			123	
EM17-111	32.2	33.1	0.9	2.82	0.67	0.12		25	Suzanna Target EM-07A
	43.7	45.2	1.5	0.65	0.12			33	
	63.0	64.0	1.0	1.73	2.49			48	
EM17-112				NSV					Julien Target follow-up EM-05A
EM17-113				NSV					Julien Target follow-up EM-04
EM17-114				NSV					Suzanna Target follow-up EM-06
EM17-115				NSV					Michel Target follow-up EM-03
EM17-116	220.5	224.9	4.4	23.07	12.6	0.22		204	Eastmain Mine Zone A (87CH26)
	incl. 221.5	222.0	0.5	183	49.4	0.36			
EM17-117	253.0	256.2	3.2	8.19	8.59	0.27		246	Eastmain Mine Zone A (332003)
	incl. 253.0	254.0	1.0	16.2	8.45	0.24			
EM17-118	58.0	68.0	10.0	9.33	5.97	0.14	0.15	61	Eastmain Mine Zone B (332040)
	incl. 61.0	62.0	1.0	58.8	9.95	0.17			
	incl. 63.0	64.0	1.0	12.7	7.26	0.27	0.37		
EM17-119	105.0	107.0	2.0	2.19	0.40			104	Eastmain Mine Zone B (332032)
	118.0	123.0	5.0	10.4	4.74	0.10	0.10	118	
	incl. 120.0	121.0	1.0	36.4	8.75	0.13			
EM17-120	154.5	156.5	2.0	14.7	30.5	0.38		142	Eastmain Mine Zone B (89CH03)
EM17-121	162.0	175.0	13.0	5.80	6.85	0.12		161	Eastmain Mine Zone B (332045)
	incl. 165.0	166.0	1.0	26.1	3.30				
	incl. 169.0	170	1.0	28.3	12.2				

**TABLE 10.3**  
**EASTMAIN MINE: SUMMARY OF 2017 DRILLING RESULTS**

<b>Drill Hole ID</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Interval<sup>(1)</sup> (m)</b>	<b>Au<sup>(2)</sup> (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu (%)</b>	<b>Zn (%)</b>	<b>Vertical Depth<sup>(3)</sup> (m)</b>	<b>Target</b>
EM17-122	198.2	198.7	0.5	0.84	0.64			191	Eastmain Mine Zone B (332064)
	212.0	219.0	7.0	10.0	8.94	0.12	0.15	205	
EM17-123	559.0	560.0	1.0	0.70	0.92			524	B Zone near DDH 87CH15
EM17-124	183.6	184.6	1.0	0.58	1.16	0.37		179	NW Zone near DDH 83CH029
	227.0	228.5	1.5	2.16	10.9			221	
EM17-125	198.8	201.9	3.1	1.10	4.45		0.23	141	NW Zone near DDH 83CH029
EM17-126	227.8	229.8	2.0	9.33	23.8	0.44		222	NW Zone near DDH 83CH029
	230.8	231.5	0.7	0.67	1.24		0.29	225	
EM17-127	20.2	21.5	1.3	0.55	0.13			15	Meg Target EM17-107
EM17-128				NSV					Meg Target EM17-107
EM17-129	5.9	6.9	1.0	2.1		0.40		4	Julien Target/ Mine Trend EM-04
	302.1	304.3	2.2	1.05	2.1			214	
EM17-130	75.3	80.3	5.0	2.09	20.7	0.37	0.15	68	Julien Target Trench EM16-J4

Notes: Table 10.3

- (1) Intervals are presented in core length; true width will vary depending on the intersection angle of the hole with the targeted zone. Holes are generally planned to intersect vein structures as close perpendicular as possible and true widths are estimated to be approx. 80% of down hole widths.
- (2) For known mineralized zones, intervals are based on geological observations. Assays presented are not capped.
- (3) Vertical depth is measured from the surface to the mid-point of the reported interval.

Hole EM17-124 and -125 flanked hole EM17-126 at approximately 50 m to the SE and 100 m to the NW respectively. All three holes targeted the position of Electromagnetic EM anomalies and the area of historic hole 83CH029. Both holes returned low gold values in a chert horizon interpreted as the Mine Series. further drilling of this area will help to define any potential plunge and zonation around holes EM17-126 its neighbours.

The identification of the NW Zone footprint has led to a re-evaluation of historic results and recent field work along the Mine Trend to establish whether mineralized zones are developed at common spatial intervals which can optimize drill targeting in predicted areas.

#### **10.4.2 Julien Target**

Recent exploration at the Julien target suggests the presence of NW-SE trending exhalite horizons similar to Mine Trend as well as NE trending, sheared and mineralized, structural zones which may represent deformed and metamorphosed feeder systems or remobilized mineralization transposed into the regional S2 deformation foliation.

Narrow, conformable chert horizons and quartz-carbonate-actinolite veining have been mapped in trenches and logged in core as conformable to stratigraphy. The mineralization consists of 2-15 % disseminated grains, clusters, stringers and semi-massive veins of pyrrhotite associated with 1-2 % chalcopyrite, 1-2% pyrite and, more rarely, traces of sphalerite and visible gold. The presence of quartz porphyroblasts associated with garnet, biotite and local sillimanite is diagnostic of a VMS exhalative layer metamorphosed to the amphibolite facies.

Quartz-carbonate sulfide-rich veins aligned in ENE oriented shearing, parallel to the F2 fold axial plane exhibit similar sulphide mineralogy. Visible gold is associated with patchy carbonates overprinting quartz veining.

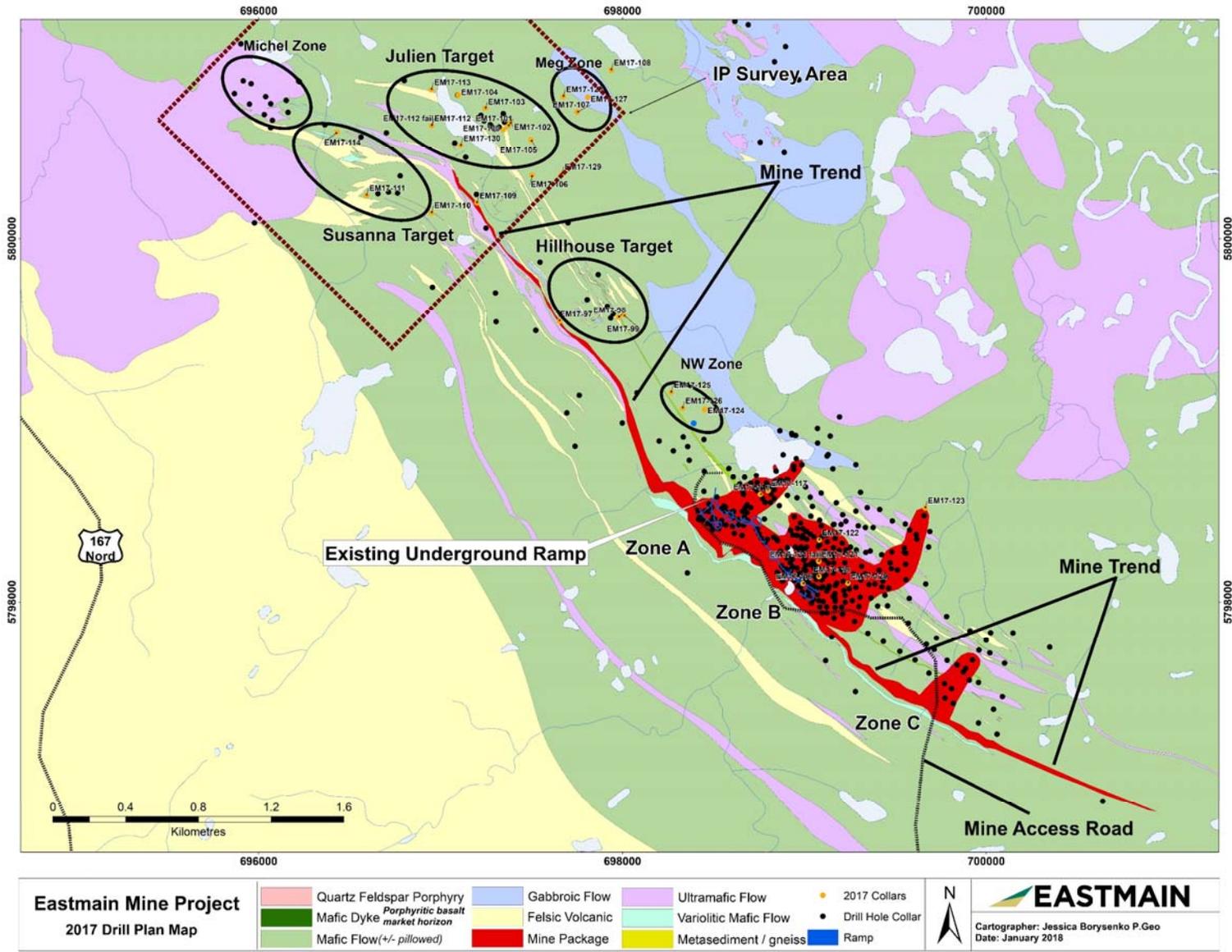
#### **10.4.3 MEG Target**

The MEG Target was identified from IP survey results and tested with trenching prior to 4 drill holes being completed. Trenching exposed biotitized and foliated basalt and felsic volcanic units cut by several NE trending shear zones controlling gossanous silicified bands that cut stratigraphy. Quartz-calcite veins (up to 10 cm wide) with traces of chalcopyrite and several percent Py in stringers and quartz-rich Po mineralized silicified sections are present in the stripped areas. Holes EM17-107 and -108 returned notable values over narrow intervals including 80.6 g/t Au, 6.08 g/t Ag over 1 m and 5.5 g/t Au, 11.8 g/t Ag, 0.32% Cu over 1 m in sulphide bearing horizons.

#### **10.4.4 Exploration**

Highlights from the 2017 drilling campaign at the Eastmain Mine Project are summarized in Table 10.3 and a plan map of the 2017 drill holes is given in Figure 10.2.

Figure 10.2 Eastmain Mine Project - 2017 Drill Plan Map



#### **10.4.5 Drill Hole Verification Program**

As part of the Mineral Resource Estimation, seven drill hole locations were selected to verify results of historic drilling. Two holes were selected as twin holes, while five were selected as triangulation points between several near neighbour holes representing a range of several years of historic drilling from 1987 to 1989. The verification holes tested between three neighbour holes at distances ranging from 10 m to 25 m to each. Figure 10.3 represents the distribution of the seven verification holes and the neighbouring historic holes.

The verification work was successful in corroborating the position of the mineralized horizon developed from the historic database and the continuity of mineralization with neighbouring holes. Table 10.3 summarizes analytical results from the verification holes and from the targeted neighbour holes.



**TABLE 10.4**  
**SUMMARY OF GOLD RESULTS FROM 2017 DRILL HOLE VERIFICATION PROGRAM (ALL**  
**INTERVALS IN CORE LENGTH)**

<b>Zone</b>	<b>Hole ID</b>	<b>Mineralization</b>	<b>Historic Drill Hole Validation</b>
A	EM17-116 (Triangulation)	4.4 m @ 23.1 g/t Au	332001: 2.97 m @ 6.15 g/t Au 332003: 4.65 m @ 16.0 g/t Au 332005: 4.45 m @ 4.53 g/t Au
A	EM17-117 (Triangulation)	3.2 m @ 8.18 g/t Au	87CH28: 3.62 M @ 8.48 g/t Au 87CH24: 3.20 m @ 7.13 g/t Au 87CH25: 4.46 m @ 8.35 g/t Au
B	EM17-118 (Twin)	7.0 m @ 12.9 g/t Au	87CH08: 5.36 m @ 8.16 g/t Au
B	EM17-119 (Twin)	3.0 m @ 17.0 g/t Au	332032: 4.88 m @ 40.7 g/t Au
B	EM17-120 (Triangulation)	2.0 m @ 14.7 g/t Au	89CH03: 4.12 m @ 32.6 g/t Au 89CH12: 2.5 m @ 14.1 g/t Au 89CH49: 1.95 m @ 8.85 g/t Au
B	EM17-121 (Triangulation)	10.0 m @ 7.27 g/t Au	332033: 5.3 m @ 1.85 g/t Au 332044: 4.98 m @ 2.56 g/t Au 332045: 8.78 m @ 79.2 g/t Au
B	EM17-122 (Triangulation)	7.0 m @ 10.1 g/t Au	89CH26: 14.45 m @ 2.60 g/t Au EM10-28: 9.5 m @ 12.2 g/t Au 332064: 6.94 m @ 15.0 g/t Au

All drilling discussed in this Technical Report section was done with wireline NQ diamond core. Core recovery factors were in excess of 95% and true widths are approximately 80% of downhole intercept lengths. The mineralization dips NE at 35° to 45°. The author considers the drilling procedures undertaken by Eastmain to be satisfactory and in line with industry standards.

## **11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY**

### **11.1 SAMPLE PREPARATION AND SECURITY**

#### **11.1.1 Historical Sample Preparation and Security**

The author is not aware of the sampling protocol and quality assurance/quality control (“QA/QC”) procedures undertaken on the historical drill core prior to Eastmain Resource’s acquisition of the Project.

#### **11.1.2 2007 to 2017 Sample Preparation and Security**

Eastmain Resources acquired the Eastmain Mine project in February of 2007 and have incorporated industry-standard sampling procedures throughout all exploration programs since that time, including drilling campaigns undertaken at the Property in 2010, 2011, 2016 and 2017.

Closed core boxes are transported in closed and secured core boxes from the drill to the onsite core-logging facility at the Eastmain Mine camp, where they are received by a geologist and geological technician.

The core boxes are arranged in sequential order, opened, measured and tagged with aluminum labels. All lithologies and mineralized sections are described, measured and marked for sampling with assay tags placed at the end of each sample. Samples are systematically hand oriented in the core box with respect to downhole core orientation and oriented core markings (if taken) before being marked for cutting. A technician saws the required selected interval in half lengthwise along the core axis or the core orientation line. All core is then returned to the box and reoriented and a portion of the sample assay tag is placed at the downhole end of the sample interval. Next, one half (the “top half”) of the sawn sample interval is placed in a plastic sample bag, with another portion of the assay tag, which is then sealed with a plastic tie. The remaining half-core intervals are left in the core box as a permanent record.

Approximately six samples are placed in woven ‘rice’ bags clearly marked with a shipping label, sealed with fibre tape and stored in batches for weekly or periodic shipment. Each sample batch contains a master manifest listing the samples in the shipment. All parties handling the samples were required to confirm that the number of physical samples matched those on the manifest and sign-off at every staging point from camp to the final destination at the laboratory ALS Chemex.

Eastmain has implemented a QA/QC Program at the Project that includes the systematic addition of blank samples and certified reference materials (“CRMs” or “standards”) to each batch of samples sent for analysis at commercial laboratories. Blank samples are used to check for possible contamination, while standards determine the analytical accuracy of the laboratory procedure.

## 11.2 SAMPLE ANALYSIS

Drill core samples are sent for analysis to ALS Chemex Labs in Sudbury, Ontario, Rouyn-Noranda, Quebec or Vancouver, British Columbia. All samples were analyzed for gold, silver and copper. Gold is determined using fire assay on a 50 gram aliquot using an atomic absorption finish, a method having a lower limit of detection of 5 ppb and an upper limit of detection of 10,000 ppb Au. Gold samples returning over-limit results of >10,000 ppb are also analyzed using a second aliquot by fire assay method with a gravimetric finish. Gold has also been analyzed using fire assay with an ICP-AES finish for some selected higher-grade samples.

Samples are also analyzed for a suite of trace elements using inductively coupled plasma (“ICP”) methods. The element suite includes silver, bismuth, copper, cadmium, cobalt, lead, nickel, zinc, arsenic, antimony, manganese, molybdenum, tellurium, vanadium, barium among several others.

Once the samples were received at the ALS laboratory, they are recorded in the lab’s tracking system, weighed, dried, crushed, split and pulverized. The lab protocol crushes samples to > 70% passing a -2mm screen, with an assay pulp split of up to 250 grams pulverized to > 85% passing a 75-micron screen. In recent years, at Eastmain’s request, a pulp split of 1,000 grams is prepared.

ALS Minerals has developed and implemented at each of its locations a Quality Management System (“QMS”) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards.

The QMS operates under global and regional Quality Control (“QC”) teams responsible for the execution and monitoring of the Quality Assurance (“QA”) and Quality Control programs in each department, on a regular basis. Audited both internally and by outside parties, these programs include, but are not limited to, proficiency testing of a variety of parameters, ensuring that all key methods have standard operating procedures (“SOPs”) that are in place and being followed properly, and ensuring that quality control standards are producing consistent results.

ALS maintains ISO registrations and accreditations. ISO registration and accreditation provide independent verification that a QMS is in operation at the location in question. All ALS laboratories are either certified to ISO 9001:2008 or accredited to ISO 17025:2005.

## 11.3 QUALITY ASSURANCE/QUALITY CONTROL REVIEW

The QA/QC program employed at the Project was designed by Eastmain’s geological staff and is consistent with industry best practices. The Project is supervised by Eastmain’s Project Geologist.

Eastmain regularly inserts 3rd party certified reference material samples (“CRMs” or “standards”) and blank samples into the sample stream to monitor assay performance, as well as performs duplicate sampling at a second certified laboratory. During the exploration program, approximately 5% of samples submitted for laboratory analysis are part of Eastmain’s laboratory sample control protocols

A total of 20,658 drill core samples from the Project were sent for analyses from 2010 to 2017 and, along with these samples, 504 CRMs (2.2 %) and 449 blanks (2.4 %) were inserted into the sample stream to monitor for accuracy and contamination.

### 11.3.1 Performance of Certified Reference Materials

Eastmain Resources utilized 22 different CRMs throughout the 2010, 2011, 2016 and 2017 drill programs at the Project, as detailed in Table 11.1. The AMIS 0272 and AMIS 0274 standards are both sourced from African Mineral Standards of South Africa and the remaining Oreas standards from Ore Research & Exploration of Australia.

**TABLE 11.1**  
**SUMMARY OF REFERENCE MATERIALS USED TO MONITOR AU AT EASTMAIN MINE**

REFERENCE MATERIAL	Certified Mean Value Au (ppb)	+/- 2SD Au (ppb)	+/- 3SD Au (ppb)	ALS Results			
				Average Result Au (ppb)	No. Results	No. (-3SD) Failures	No. (+3SD) Failures
AMIS 0272	1220	100	150	1245	26	0	0
AMIS 0274	3310*	440	660	3423	28	1	0
Oreas 10C	6600	320	480	6563	6	0	0
Oreas 10Pb	7150	380	570	7081	51	0	0
Oreas 12a	11790	480	720	11838	4	0	0
Oreas 17c	3040	160	240	2972	6	1	1
Oreas 17Pb	2560	100	150	2554	50	5	2
Oreas 18c	3520	220	330	3388	24	4	0
Oreas 202	752	52	78	756	41	0	1
Oreas 205	1244	106	159	1300	27	1	1
Oreas 209	1580	88	132	1565	16	0	0
Oreas 214	3030	164	246	2992	25	0	0
Oreas 215	3540	194	291	3491	19	0	0
Oreas 228	8730	558	837	8515	2	0	0
Oreas 50c	836	56	84	840	5	0	0
Oreas 53Pb	623	42	63	590	60	6	0
Oreas 62c	8790	420	630	8402	19	4	0
Oreas 62d	10500	660	990	10850	1	0	0
Oreas 65a	520	34	51	509	16	0	0
Oreas 66a	1237	108	162	1200	13	0	0
Oreas 67a	2238	192	288	2151	9	0	0
Oreas 68a	3890	300	450	3796	10	0	0
<b>TOTAL</b>					458	22	5

\* Provisional value only

Standards are deemed to have passed if they fall between plus or minus three standard deviations from the certified mean value and failed if they fell outside of three standard deviations from the mean. Table 11.1 details the certified mean value and standards deviations for each CRM, as

well as how each standard performed. Most standards performed well, returning no failures and the majority of recorded failures (22 out of 27 failures) were less than three standard deviations from the certified mean value and are of no material impact to the current Mineral Resource Estimate.

Five failures greater than three standard deviations from the certified mean value, were recorded: one failure each for Oreas 17c, Oreas 202 and Oreas 205 and two for Oreas 17Pb. One of the two failures for the Oreas 17Pb standard appears to be a misallocated Oreas 10Pb standard, the failure for the Oreas 202 standard appears to be a misallocated Oreas 209 standard and the remaining three failures had at least one other standard passing in the same batch and no further action was considered necessary.

Of the 458 standards certified for gold, 74 standards were also certified for silver, 166 were certified for copper and 54 were certified for zinc. All standards were reviewed for these elements and there were no failures for silver, 8 failures below minus three standard deviations from the certified mean value for copper and 1 failure greater than three standard deviations from the certified mean value for zinc.

P&E considers that the standards demonstrate acceptable accuracy.

### **11.3.2 Performance of Blank Material**

All blank data for Au, Ag, Cu and Zn were reviewed. If the assayed value in the certificate was indicated as being less than detection limit the value was assigned the value of half the detection limit for data treatment purposes.

Blank material used is either barren brick masonry or quartz cobble material. A total of 449 blank data points were evaluated.

An upper tolerance limit was set at ten times the lower detection limit for Au. A total of six results were elevated above the set tolerance limit for gold, however two of those samples (H876900 and Q218750) were misallocated standards (Oreas 53B and AMIS 0274 respectively), according to their weights when received at the lab. Another three samples (C176150, C176271 and W477357) were above the set tolerance limit by one, two or five parts per billion respectively and are not considered a significant impact to the resource. The final sample (H875200) with a result of 81 ppb follows several elevated Au samples and the author considers this amount of contamination within normal limits and of no material impact to the current Mineral Resource Estimate.

The author reviewed the blank data for silver, copper and zinc and, excepting the two previously mentioned misallocated samples (H876900 and Q218750), no anomalous data was observed.

### **11.3.3 Performance of Field Duplicates**

Eastmain Resources commenced inserting field duplicates into the sample stream at the beginning of the 2010 drill program, however discontinued this soon after. There are only four field duplicates in the data set.

### **11.3.4 Performance of 2016-2017 ALS vs. Actlabs Check Assays**

Pulp (inline split of 100-150 g) and coarse reject (inline split of 250-500 g) laboratory duplicates are also acquired by the primary laboratory (ALS), at a rate of two per hundred samples submitted and shipped to a secondary laboratory (Actlabs) for check analyses.

The author reviewed the 2016 and 2017 check assay data for gold only. A total of 91 coarse reject duplicate check assays and 90 pulp duplicate check assays were assessed and precision was acceptable for both sets of data.

Actlabs is an independent commercial laboratory that is ISO 9001 certified and ISO 17025 accredited. The accreditation program includes ongoing audits to verify the QA system and all applicable registered test methods.

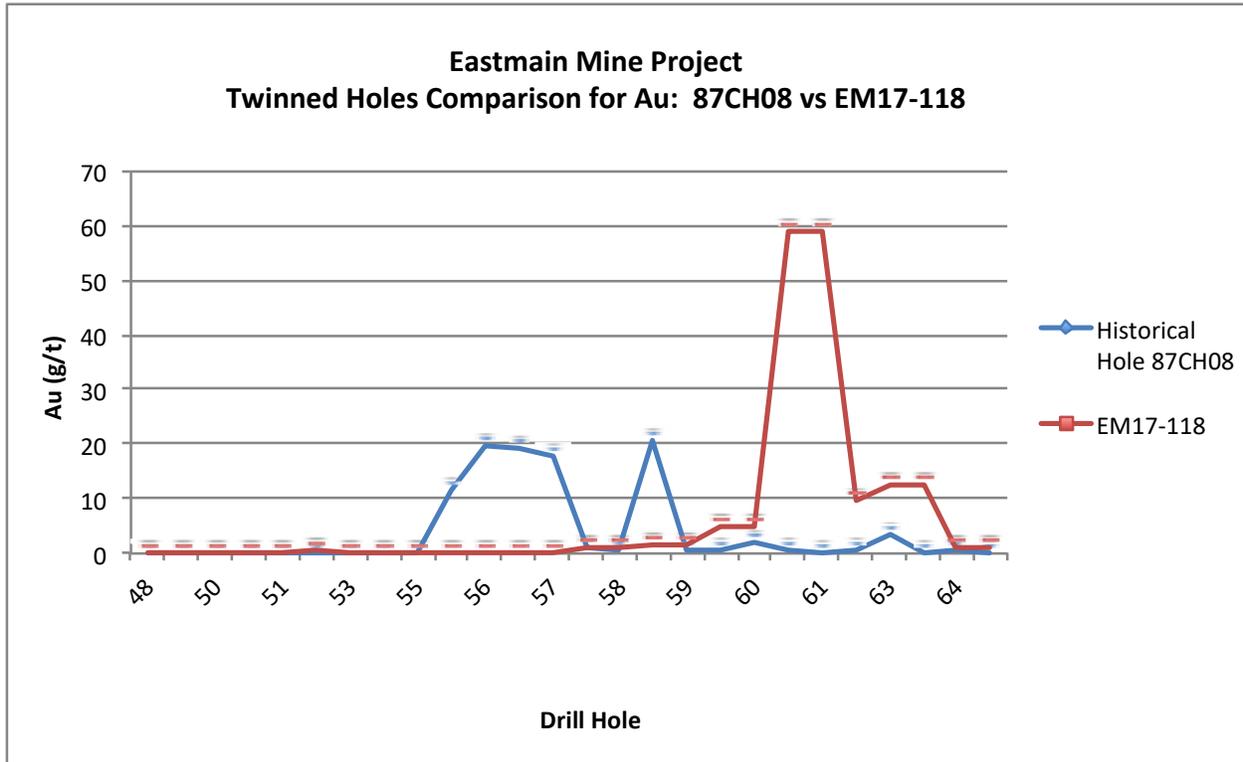
### **11.3.5 Eastmain 2017 Twinned Holes**

During Eastmain's 2017 drill program, two historical boreholes were twinned in an attempt to replicate the historical results.

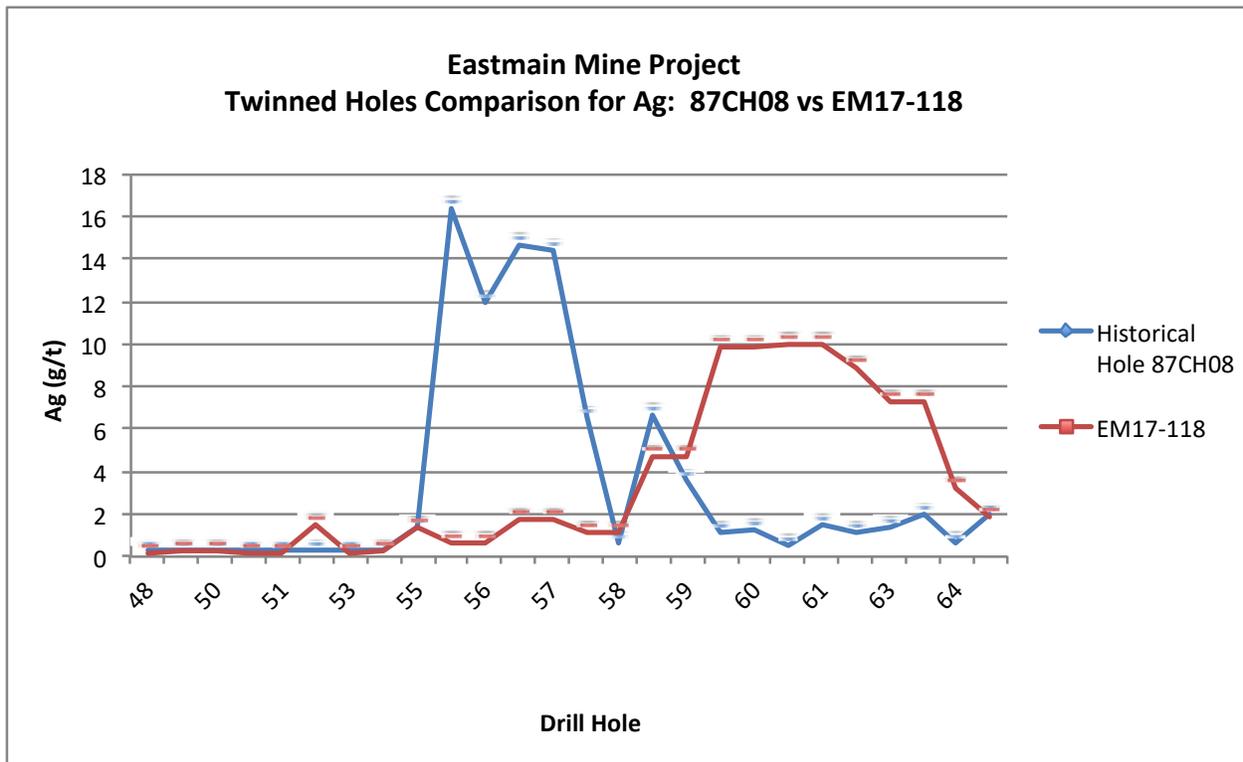
Drill hole EM17-118 is collared on historic hole 87CH08 and drill hole EM17-119 is collared on historic hole 332032, the 2017 holes twinning the original holes.

Figures 11.3 to 11.10 show comparison between the two twinned holes for gold, silver, copper and zinc.

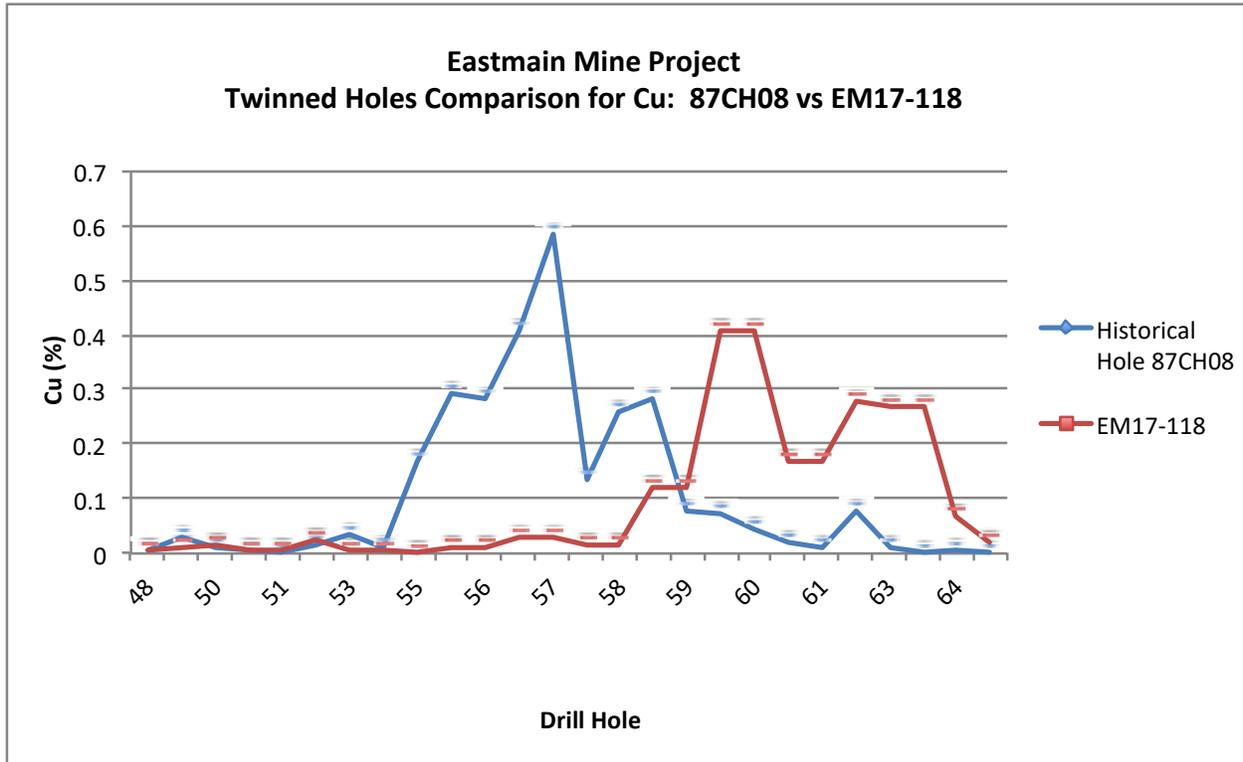
**Figure 11.1 Twinned Hole Comparison for Au: 87CH08 vs EM17-118**



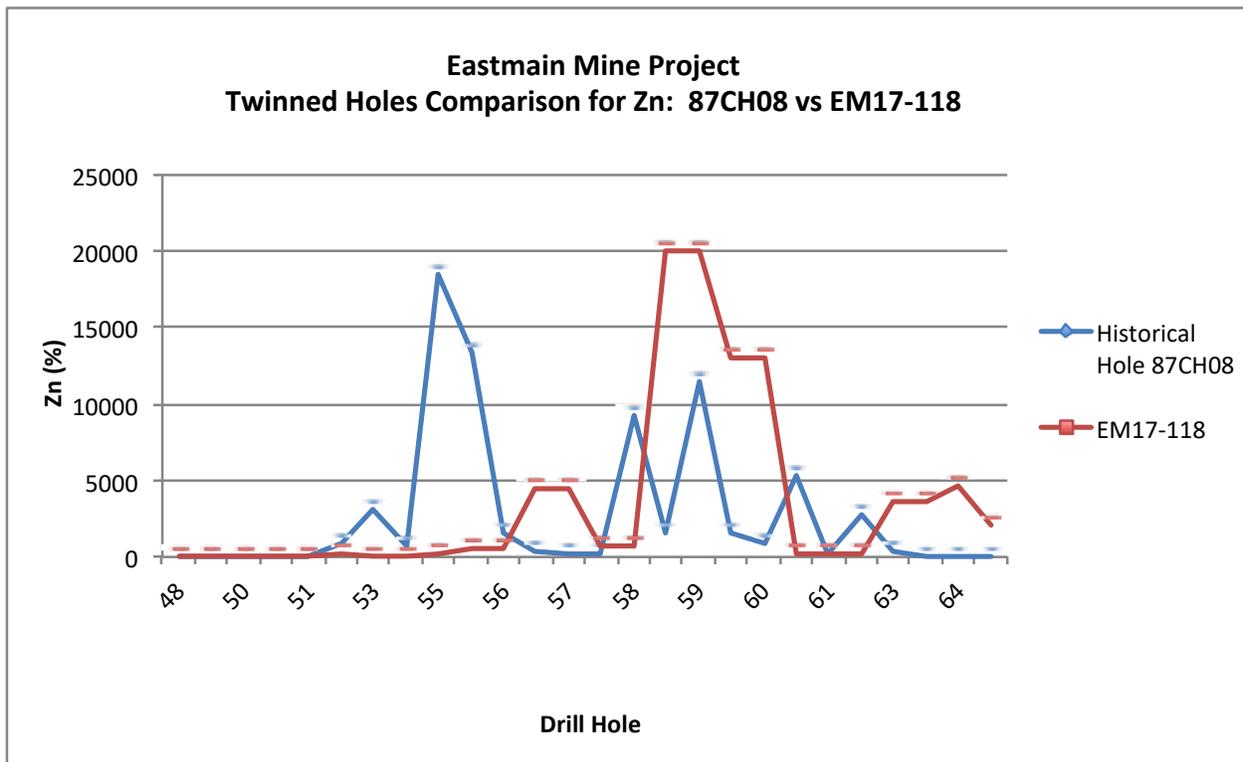
**Figure 11.2 Twinned Hole Comparison for Ag: 87CH08 vs EM17-118**



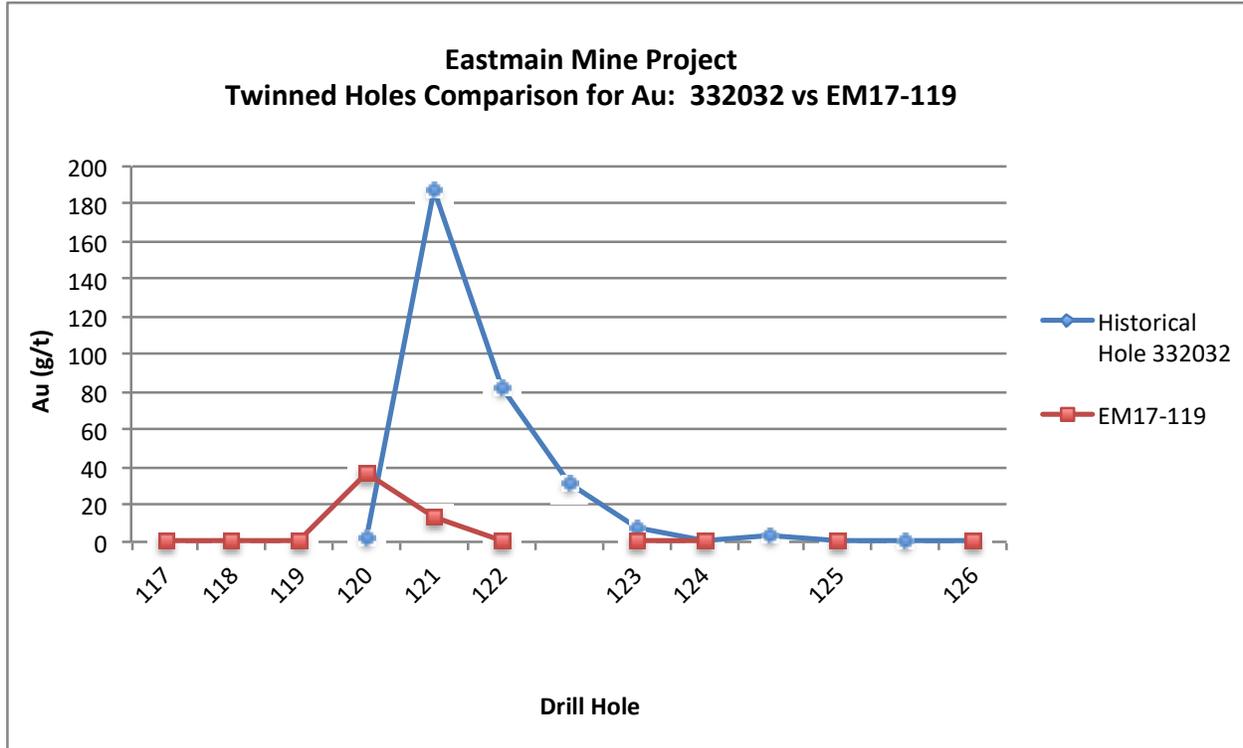
**Figure 11.3 Twinned Hole Comparison for Cu: 87CH08 vs EM17-118**



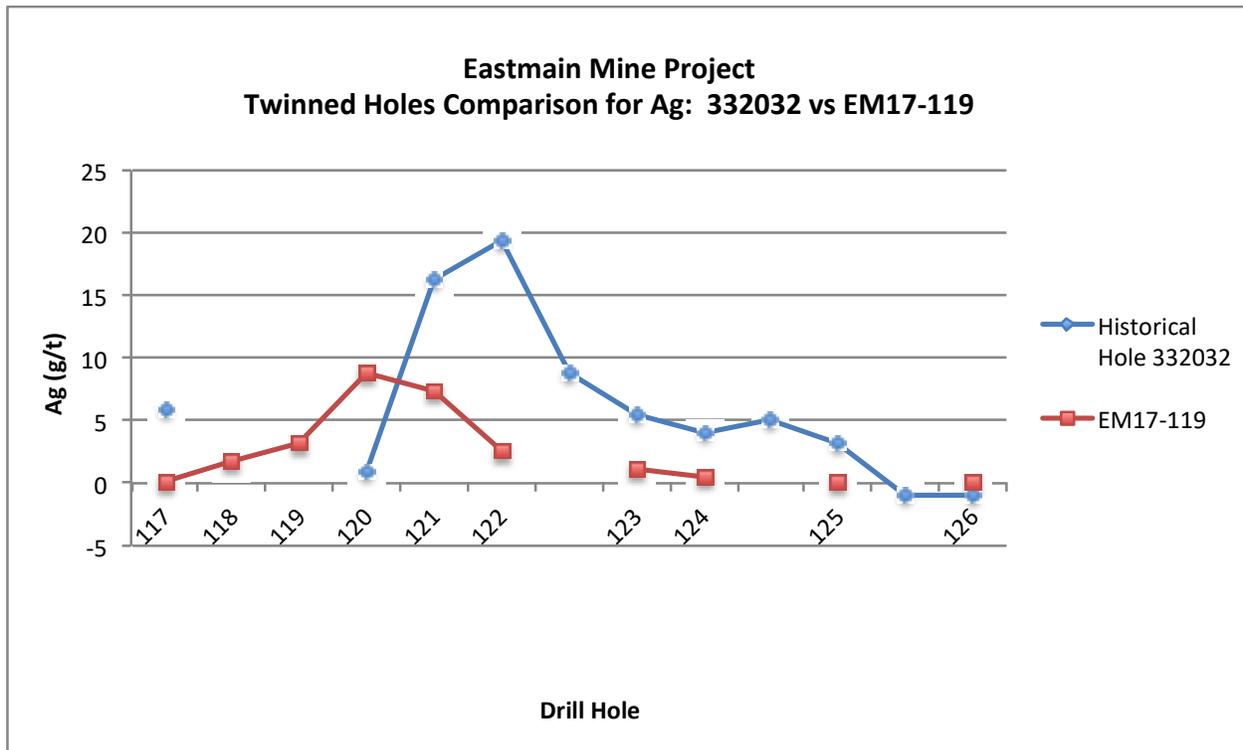
**Figure 11.4 Twinned Hole Comparison for Zn: 87CH08 vs EM17-118**



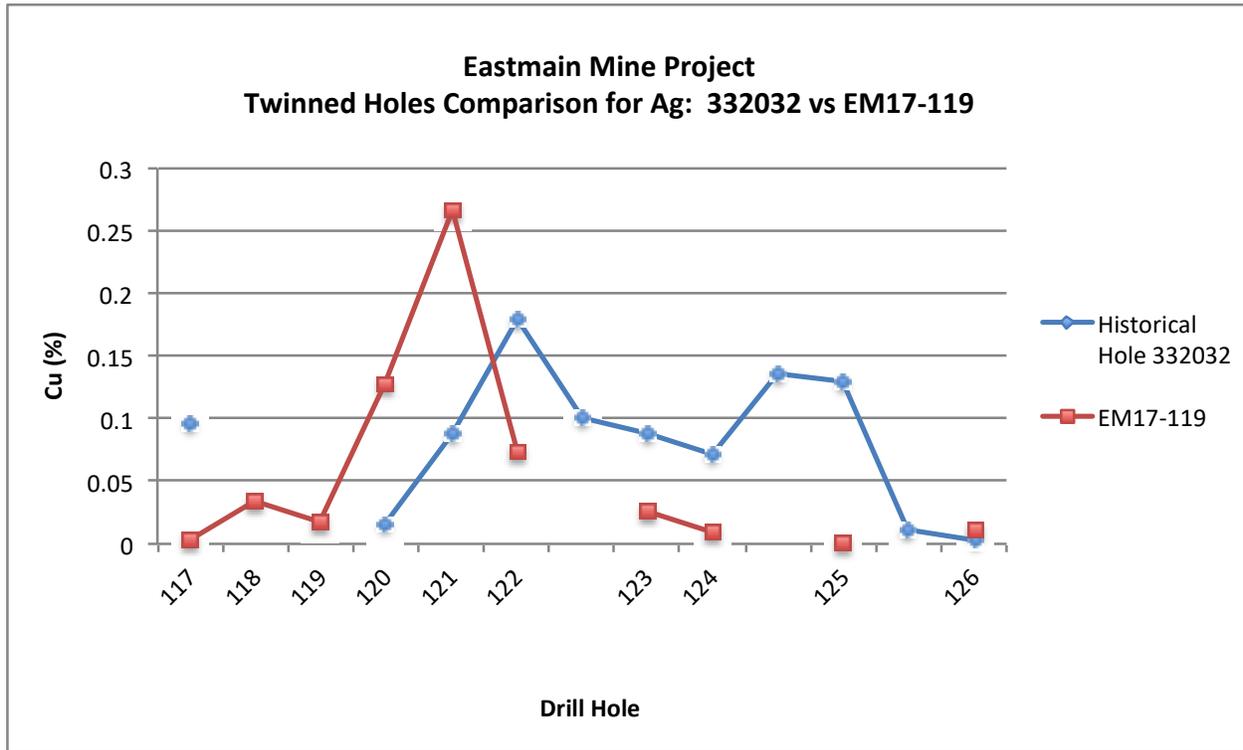
**Figure 11.5 Twinned Hole Comparison for Au: 332032 vs EM17-119**



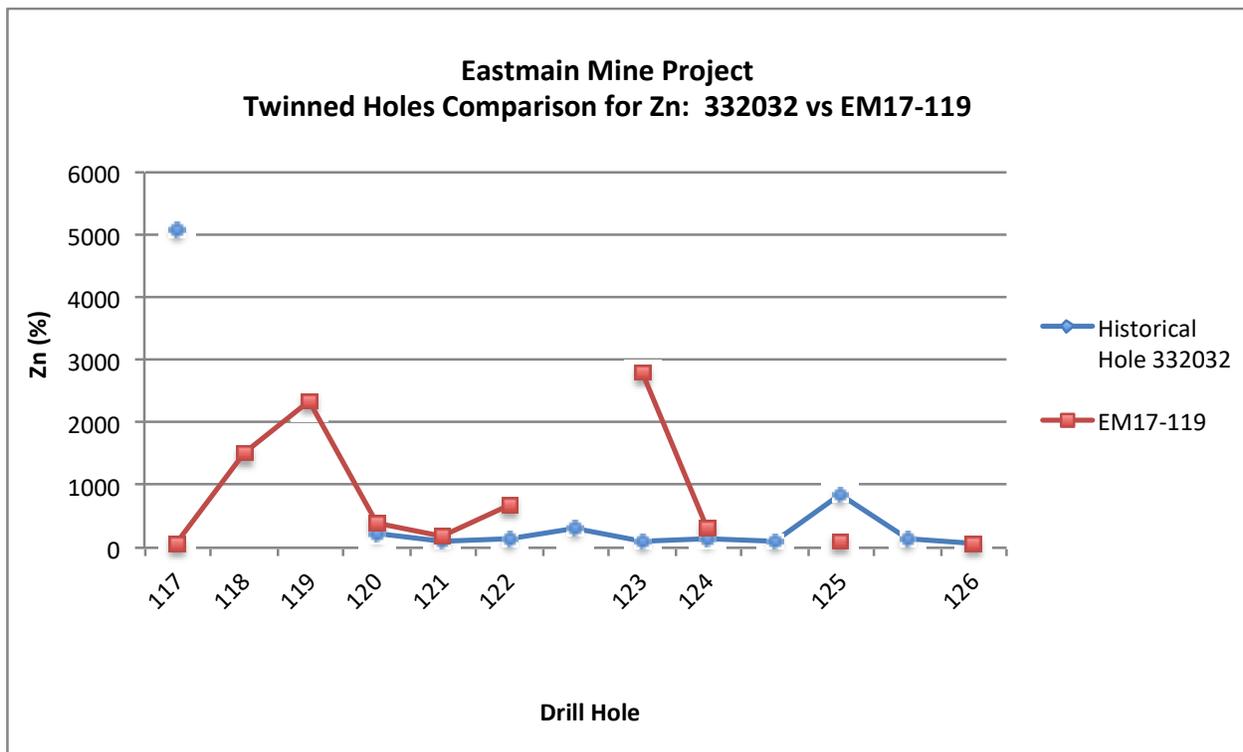
**Figure 11.6 Twinned Hole Comparison for Ag: 332032 vs EM17-119**



**Figure 11.7 Twinned Hole Comparison for Cu: 332032 vs EM17-119**



**Figure 11.8 Twinned Hole Comparison for Zn: 332032 vs EM17-119**



Hole depth is slightly offset for both of the twinned holes and, taking this into consideration, results are comparable between “twins” and mineralized zones intersected by the historical holes have been replicated successfully.

It is P&E’s opinion that the data to be of good quality and satisfactory for use in a Mineral Resource Estimate.

## **12.0 DATA VERIFICATION**

### **12.1 DATABASE VERIFICATION**

P&E conducted verification of the drill hole assay database by comparison of the database entries with assay certificates provided directly from ALS laboratory in digital format.

Assay data from 2010, 2011, 2016 and 2017 were verified for the Eastmain Mine Project. 74% (20,215 out of 27,199) of the drilling assay data were checked, against the ALS laboratory certificates, with 8% (97 out of 1,243) of this data being constrained. A number of discrepancies between the database results and certificates were observed for gold (less than 0.4% of the data) and two discrepancies for zinc. None of the observed discrepancies have material impact on the resource data and likely represent additional assay certificates not available at the time of verification.

### **12.2 P&E SITE VISIT AND INDEPENDENT SAMPLING**

The Eastmain Property was visited by Mr. Antoine Yassa, P.Geo., from November 6 to November 7, 2017 for the purposes of completing a site visit and due diligence sampling. During the site visit, Mr. Yassa viewed access to the Property, drill hole collar and trench locations, geology and topography, as well as took several GPS readings to confirm the location of the baseline grid intersections and locate several drill hole collars.

Mr. Yassa collected 21 verification samples from five Eastmain Mine drill holes that were stored at the core storage facility. The verification samples from the Project holes were collected by cutting the split core for each sample interval selected by Mr. Yassa. The 21 verification samples were collected to independently confirm the presence and tenor of gold, silver, copper and zinc mineralization. One half of the resulting ¼-core sample was placed into a plastic bag into which the blank sample tag was placed. The remaining ¼-core was put back into the core box. The samples were bagged and taken directly by Mr. Yassa to AGAT Labs, (“AGAT”) in Mississauga, ON for analysis.

Samples at AGAT were analyzed for gold by fire assay method with an AAS finish. Samples returning results of greater than 10 g/t Au were further analyzed by fire assay method with a gravimetric finish. Samples were also analyzed for silver, copper and zinc by 4-acid digest method with an ICP/ICP-MS finish. Zinc samples returning results greater than 10,000 g/t Zn were further analyzed by sodium peroxide fusion method with an ICP-OES finish.

Core density was also determined for all samples utilizing wet immersion technique.

AGAT has developed and implemented at each of its locations a Quality Management System (“QMS”) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards.





### **13.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

This section is not applicable to this report.

## 14.0 MINERAL RESOURCE ESTIMATE

### 14.1 INTRODUCTION

The purpose of this Technical Report section is to provide a Mineral Resource Estimate for the Eastmain Mine Project. The Mineral Resource Estimate presented herein is reported in accordance with the Canadian Securities Administrators' National Instrument 43-101 and has been estimated in conformity with the generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices" guidelines. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the Mineral Resource will be converted into a Mineral Reserve. Confidence in the estimate of Inferred Mineral Resources is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Mineral Resources may be affected by further infill and exploration drilling that may result in increases or decreases in subsequent Mineral Resource Estimates.

This Mineral Resource Estimate was based on information and data supplied by Eastmain, and was undertaken by Yungang Wu, P.Geol., Antoine Yassa, P.Geol. and Eugene Puritch, P.Eng., FEC, CET of P&E Mining Consultants Inc. of Brampton, Ontario, all independent Qualified Persons in terms of NI 43-101. The effective date of this Mineral Resource Estimate is August 9, 2019.

### 14.2 DATABASE

All drilling and assay data were provided in the form of Excel data files by Eastmain. The Geovia Gems V6.8 database for this Mineral Resource Estimate, compiled by P&E, consisted of 538 drill holes totalling 110,655 m, of which 242 drill holes totalling 42,436 m were employed for the Mineral Resource Estimate (Table 14.1). Seven drill holes were drilled in 2017 to verify the historical drilling results, and those drill holes confirmed the position of the mineralization horizon developed from the historic database. A drill hole plan is shown in Appendix I.

<b>TABLE 14.1</b>				
<b>EASTMAIN MINE PROJECT DRILL HOLE DATABASE SUMMARY</b>				
<b>Year Drilled</b>	<b>No. of Holes</b>	<b>Metres Drilled</b>	<b>No. of Holes Used for Resource Estimate</b>	<b>Metres Used for Resource Estimate</b>
2017	26	7,033	7	1,461
2016	22	7,507	1	525
2010-2011	74	27,646	18	6,765
1976-1995	416	68,469	216	33,685
<b>Total</b>	<b>538</b>	<b>110,655</b>	<b>242</b>	<b>42,436</b>

The database contained 27,199 assays for Au, Ag, Zn and Cu, of which 1,271 assays were used for the Mineral Resource Estimate. The remaining 25,928 assays not utilized for the Mineral Resource Estimate were not included since they did not meet the potential economic threshold cut-off of 2.5 g/t Au or were not continuous with adjacent assays to be considered for inclusion for the constraining wireframe.

All drillhole survey and assay values are expressed in metric units, with grid coordinates in the NAD 83, Zone 18N UTM system.

### **14.3 DATA VALIDATION**

P&E also validated the Mineral Resource database by checking for inconsistencies in analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, survey and missing interval and coordinate fields. Some very minor errors were noted and corrected. P&E believes that the supplied database is suitable for Mineral Resource estimation.

### **14.4 DOMAIN INTERPRETATION**

Three (3) mineralization wireframes were initially created by Eastmain, and provided to P&E which P&E subsequently reviewed and modified.

The wireframes were created from successive cross-sectional polylines on NW facing vertical cross-sections with 25 m spacing. A 1.0 g/t Au cut-off and 1.5 m minimum core length were utilized for the construction of the wireframes. In some cases, mineralization below the 1.0 g/t Au cut-off were included for the purpose of maintaining zonal continuity and the minimum constraining width. On each section, polyline interpretations were digitized from drill hole to drill hole but not typically extended more than 50 m into untested territory. The resulting Mineral Resource domains were used as constraining boundaries during the Mineral Resource estimation process for rock coding, statistical analysis and compositing limits. The 3D domains are presented in Appendix II.

Surface of topography was created by Eastmain from LIDAR survey data. Underground mine infrastructure (ramp and workings) were digitized from historic plans and sections by Eastmain; while an overburden surface was generated by Eastmain using drill hole logs.

### **14.5 ROCK CODE DETERMINATION**

As shown in Table 14.2, a unique rock code was assigned for each mineralized domain in the resource model.

<b>Domain</b>	<b>Rock Code</b>	<b>Volume (m<sup>3</sup>)</b>
Vein A	100	500,649
Vein B	200	183,816
Vein C	300	224,800
Air	0	
OVB	10	
Waste	99	
Voids	999	

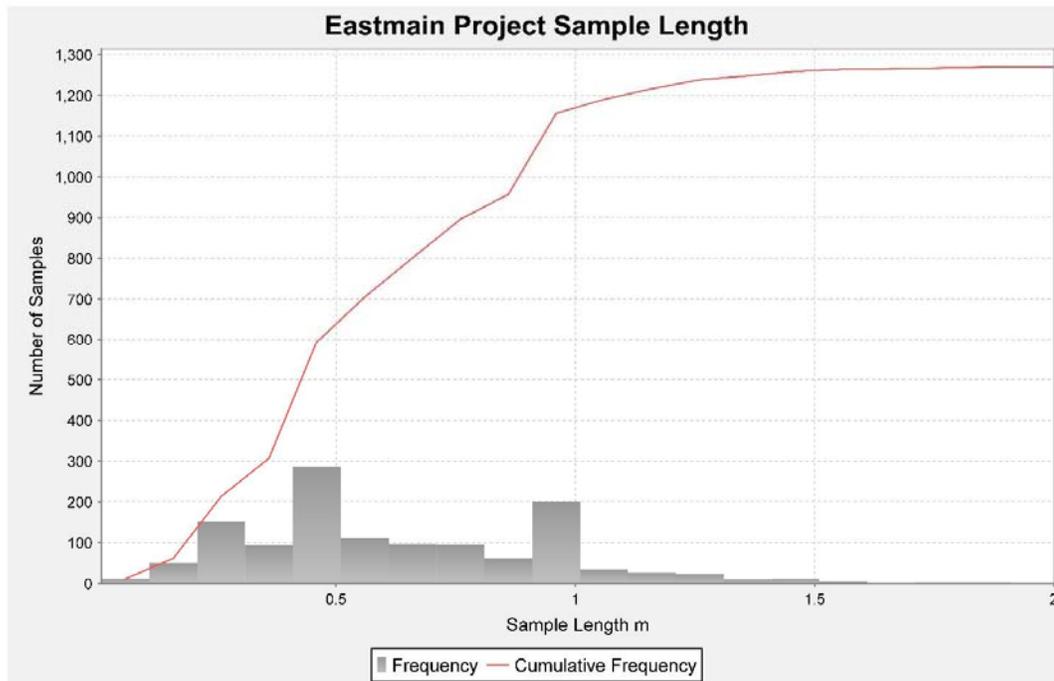
## 14.6 COMPOSITING

The basic statistics of all constrained assays and sample lengths are presented in Table 14.3.

<b>Variable</b>	<b>Au (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu (%)</b>	<b>Length (m)</b>
Number of samples	1,271	1,271	1,271	1,271
Minimum value	0.001	0.001	0.001	0.01
Maximum value	997.00	970.00	3.09	3.70
Mean	10.31	10.35	0.15	0.65
Median	2.35	4.50	0.05	0.55
Variance	1,876.77	1,056.99	0.06	0.10
Standard Deviation	43.32	32.51	0.25	0.32
Coefficient of Variation	4.20	3.14	1.69	0.50

As shown in Figure 14.1, approximately 91% of the constrained sample lengths were less than 1.0 m in length, with an overall average of 0.65 m. In order to regularize the assay sampling intervals for grade interpolation, a 1.0 m compositing length was selected for the drill hole intervals that fell within the constraints of the above-mentioned Mineral Resource domains. The composites were calculated for Au, Ag and Cu over 1.0 m lengths starting at the first point of intersection between assay data hole and hanging wall of the 3-D zonal constraint. The compositing process was halted upon exit from the footwall of the aforementioned constraint. Un-assayed intervals and below detection limit assays were set to 0.001 g/t for Au, Ag and Cu. Any composites that were less than 0.25 m in length were discarded so as not to introduce any short sample bias in the interpolation process. The constrained composite data were extracted to XYZ point files for a capping study. The composite statistics are summarized in Table 14.4.

**Figure 14.1 Constrained Sample Length Distributions**



**TABLE 14.4  
COMPOSITE SUMMARY STATISTICS**

Variable	Au COMP	Au CAP	Ag COMP	Ag CAP	Cu COMP	Cu CAP
Number of samples	934	934	934	934	934	934
Minimum value	0.001	0.001	0.001	0.001	0.001	0.001
Maximum value	769.70	45.00	517.71	60.00	1.38	1.38
Mean	9.22	6.56	8.72	7.87	0.12	0.12
Median	2.65	2.65	4.11	4.11	0.05	0.05
Geometric Mean	1.91	1.87	0.79	0.78	0.02	0.02
Variance	1,306.76	90.49	480.34	114.82	0.03	0.03
Standard Deviation	36.15	9.51	21.92	10.72	0.19	0.19
Coefficient of Variation	3.92	1.45	2.51	1.36	1.50	1.50

*Note: COMP = composite, CAP = capped.*

## 14.7 GRADE CAPPING

Grade capping was investigated on the 1.0 m composite values in the database within the constraining domains to ensure that the possible influence of erratic high values did not bias the database. Log-normal histograms of Au, Ag and Cu composites were generated for each mineralized zone and the selected resulting graphs are exhibited in Appendix III. The statistics of capped composites are summarized in Table 14.4 and the grade capping values are detailed in Table 14.5. The capped composites were utilized to develop semi-variograms and for block model grade interpolation.

**TABLE 14.5  
CAPPED COMPOSITE VALUES**

<b>Au Capping</b>									
<b>Domains</b>	<b>Rock Type</b>	<b>Total No. of Composites</b>	<b>Capping Value Au (g/t)</b>	<b>No. of Capped Composites</b>	<b>Mean of Uncapped Composites</b>	<b>Mean of Capped Composites</b>	<b>CoV of Uncapped Composites</b>	<b>CoV of Capped Composites</b>	<b>Capping Percentile</b>
Vein A	100	269	45	14	14.09	7.80	4.02	1.44	94.8%
Vein B	200	601	45	9	7.74	6.42	3.09	1.39	98.5%
Vein C	300	64	No Cap	0	2.65	2.65	1.47	1.47	100.0%
<b>Ag Capping</b>									
<b>Domains</b>	<b>Rock Type</b>	<b>Total No. of Composites</b>	<b>Capping Value Ag (g/t)</b>	<b>No. of Capped Composites</b>	<b>Mean of Uncapped Composites</b>	<b>Mean of Capped Composites</b>	<b>CoV of Uncapped Composites</b>	<b>CoV of Capped Composites</b>	<b>Capping Percentile</b>
Vein A	100	269	60	1	10.17	10.10	1.25	1.23	99.6%
Vein B	200	601	60	6	8.25	6.97	3.13	1.44	99.0%
Vein C	300	64	No Cap	0	6.99	6.99	1.04	1.04	100.0%
<b>Cu Capping</b>									
<b>Domains</b>	<b>Rock type</b>	<b>Total No. of Composites</b>	<b>Capping Value Cu %</b>	<b>No. of Capped Composites</b>	<b>Mean of Uncapped Composites</b>	<b>Mean of Capped Composites</b>	<b>CoV of Uncapped Composites</b>	<b>CoV of Capped Composites</b>	<b>Capping Percentile</b>
Vein A	100	269	No Cap	0	0.16	0.16	1.52	1.52	100.0%
Vein B	200	601	No Cap	0	0.10	0.10	1.45	1.45	100.0%
Vein C	300	64	No Cap	0	0.17	0.17	1.11	1.11	100.0%

## 14.8 SEMI-VARIOGRAPHY

A semi-variography study was performed as a guide to determining a grade interpolation search strategy. Omni, along strike, down dip and across dip semi-variograms were attempted for each vein using Au and Ag capped composites. Reasonable variograms were developed for Vein B, and selected variograms are attached in Appendix IV.

Continuity ellipses based on the observed ranges were subsequently generated and used as the basis for estimation search ranges, distance weighting calculations and Mineral Resource classification criteria.

## 14.9 BULK DENSITY

Antoine Yassa, P.Geo. of P&E collected 21 samples during his site visit on November 6 and 7, 2017. The samples were analyzed at AGAT Laboratories in Mississauga, and an average bulk density of 2.93 t/m<sup>3</sup> was attained with a variance between 2.67 to 3.25 t/m<sup>3</sup>. A uniform bulk density of 2.90 t/m<sup>3</sup> was employed for the Mineral Resource Estimate.

## 14.10 BLOCK MODELLING

The Eastmain Mineral Resource block model was constructed using Geovia Gems V6.8 modelling software and the block model origin and block size are tabulated in Table 14.6. The block model consists of separate model attributes for estimated grade of Au, Ag and Cu, rock type, percent, density and Mineral Resource classification.

<b>Direction</b>	<b>Origin</b>	<b>No. of Blocks</b>	<b>Block Size (m)</b>
X	699,310	318	2.5
Y	5,797,720	250	5.0
Z	500	230	2.5
Rotation	Counter clockwise 55°		

All blocks in the rock type block model were initially assigned a waste rock code of 99, corresponding to the surrounding country rocks. All mineralized domains were used to code all blocks within the rock type block model that contain 1 % or greater volume within the constraining mineralized domains. These blocks were assigned their appropriate individual rock codes as indicated in Table 14.2. The overburden and topographic surfaces were subsequently utilized to assign rock codes of 10 and 0 corresponding to overburden and air respectively to all blocks 50 % or greater above the respective surfaces. Mined out blocks were coded with 999.

A volume percent block model was set up to accurately represent the volume and subsequent tonnage that was occupied by each block inside the constraining domains. As a result, the domain boundaries were properly represented by the percent model's ability to measure

individual infinitely variable block inclusion percentages within each domain. The minimum coding percentage of the mineralized block was set to 1%.

A uniform bulk density of 2.9 t/m<sup>3</sup> was assigned to all mineralization blocks.

The Au and Ag grade blocks were interpolated with Inverse Distance Cubed (1/d<sup>3</sup>), while Cu was interpolated with Inverse Distance Squared (1/d<sup>2</sup>). Multiple passes were executed for the grade interpolation to progressively capture the sample points in order to avoid over-smoothing and preserve local grade variability. Search ranges were based on the variograms and search directions which were aligned with the strike and dip directions of each domain accordingly. Grade blocks were interpolated using the parameters in Table 14.7.

<b>Pass</b>	<b>Dip Range (m)</b>	<b>Strike Range (m)</b>	<b>Across Dip Range (m)</b>	<b>Max No. of Sample per Hole</b>	<b>Min No. Sample</b>	<b>Max No. Sample</b>
I	20	30	5	2	5	16
II	40	60	10	2	3	16
III	80	120	20	2	1	16

Selected cross-sections and plans of the Au grade blocks are presented in Appendix V.

#### **14.11 MINERAL RESOURCE CLASSIFICATION**

In P&E's opinion, the drilling, assaying and exploration work of the Eastmain project supports this Mineral Resource Estimate and are sufficient to indicate a reasonable potential for economic extraction and thus qualify it as a Mineral Resource under the CIM definition standards. The Mineral Resources were classified as Indicated and Inferred based on the geological interpretation, semi-variogram performance and drill hole spacing. The Indicated Mineral Resources were defined for the blocks interpolated by the grade interpolation Pass I and II, which used at least 3 composites from a minimum of two holes; and Inferred Mineral Resources were categorized for all remaining grade populated blocks within the mineralized domains. The classifications have been adjusted from the passes to reasonably reflect the distribution of each category. Selected classification block cross-sections and plans are attached in Appendix VI.

#### **14.12 AU CUT-OFF GRADE CALCULATION**

The Mineral Resource Estimate was derived from applying Au grade cut-off values to the block model and reporting the resulting tonnes and grade for potentially underground mineable areas. The following parameters were used to calculate the Au cut-off grade that determines potentially economic portions of the constrained mineralization.

## Au Cut-off Grade Calculation

Au Price	US\$1,288/oz Jul 31/19 – 24-month trailing average
Au Process Recovery	95.0%
Exchange Rate	US\$0.77 = C\$1.00
Mining cost (per tonne mined)	C\$85/t
Processing cost (per tonne milled)	C\$25/t
G&A (per tonne milled)	C\$15/t

The Au cut-off grade for the underground Mineral Resource Estimate is calculated as follows:

Mining, Processing and G&A costs = (C\$85 + C\$25 + C\$15) = C\$125/tonne

$(\$125) / (\$1,250 / 0.76 / 31.1035 \times 95\%) = 2.45 \text{ g/t}$ , Use **2.5 g/t Au** for cut-off

**The Eastmain Gold Deposit has the potential for economic extraction due to the 2.5 g/t Au cut-off derived from the C\$125/tonne operating cost being similar to other recently reported mining operations or advanced level engineering studies.**

### 14.13 MINERAL RESOURCE ESTIMATE

The resulting Mineral Resource Estimate is tabulated in Table 14.8. P&E considers the mineralization at Eastmain to be potentially amenable to underground extraction.

Mineral Resources are sensitive to the selection of a reporting Au cut-off value. The sensitivity to the Au cut-off grade is demonstrated in Table 14.9.

<b>Classification</b>	<b>Tonnes (kt)</b>	<b>Au (g/t)</b>	<b>Contained Au (koz)</b>	<b>Ag (g/t)</b>	<b>Contained Ag (koz)</b>	<b>Cu (%)</b>	<b>Contained Cu (klb)</b>
Indicated	899	8.19	236.5	8.0	232	0.13	2,577
Inferred	579	7.48	139.3	8.2	152	0.16	2,042

- (1) Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability.
- (2) The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- (3) The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
- (4) The Mineral Resources in this report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
- (5) Historic mined out areas were depleted from the model.

**TABLE 14.9**  
**EASTMAIN MINERAL RESOURCE ESTIMATE SENSITIVITY**

<b>Classification</b>	<b>Cut-off Au (g/t)</b>	<b>Tonnes (kt)</b>	<b>Au (g/t)</b>	<b>Contained Au (koz)</b>	<b>Ag (g/t)</b>	<b>Contained Ag (koz)</b>	<b>Cu (%)</b>	<b>Contained Cu (klb)</b>
Indicated	10.0	259	15.21	127	12.66	106	0.17	980
	9.0	304	14.36	141	12.02	118	0.17	1,120
	8.0	359	13.46	156	11.37	131	0.16	1,284
	7.0	419	12.61	170	10.80	146	0.16	1,452
	6.0	485	11.78	184	10.19	159	0.15	1,621
	5.0	565	10.89	198	9.61	174	0.15	1,825
	4.0	672	9.86	213	9.04	195	0.14	2,100
	3.0	814	8.76	229	8.35	218	0.14	2,440
	2.5	899	8.19	237	8.02	232	0.13	2,577
	2.0	999	7.59	244	7.76	249	0.13	2,825
	1.5	1,088	7.11	249	7.45	261	0.12	2,963
	1.0	1,175	6.68	252	7.14	270	0.12	3,087
0	1,264	6.25	254	6.79	276	0.11	3,171	
Inferred	10.0	127	16.80	69	14.32	59	0.21	585
	9.0	150	15.69	76	13.27	64	0.20	665
	8.0	178	14.55	83	12.10	69	0.19	741
	7.0	216	13.32	92	11.10	77	0.18	852
	6.0	265	12.06	103	10.11	86	0.17	983
	5.0	305	11.18	110	9.62	94	0.17	1,116
	4.0	363	10.11	118	9.19	107	0.17	1,323
	3.0	461	8.69	129	8.64	128	0.16	1,658
	2.5	579	7.48	139	8.15	152	0.16	2,042
	2.0	689	6.65	147	7.77	172	0.16	2,449
	1.5	817	5.88	154	7.55	198	0.16	2,834
	1.0	884	5.52	157	7.33	208	0.16	3,046
0	1,062	4.70	160	6.65	227	0.15	3,422	

## 14.14 CONFIRMATION OF MINERAL RESOURCE ESTIMATE

The block model was validated using a number of industry standard methods including visual and statistical methods.

Visual examination of composites and block grades on successive plans and sections was performed on-screen in order to confirm that the block model correctly reflects the distribution of composite grades. The review of grade estimation parameters included:

- Number of composites used for estimation;
- Number of drill holes used for estimation;
- Number of passes used to estimate grade;
- Mean distance to sample used;
- Mean value of the composites used.

Comparison of mean grades of composites with block model for all domains at a zero Au cut-off grade are presented in Table 14.10.

<b>Domain</b>	<b>Data Type</b>	<b>Au (g/t)</b>	<b>Ag (g/t)</b>	<b>Cu (%)</b>
Vein A	Composites	14.19	10.24	0.16
	Capped Composites	7.90	10.18	0.16
	Block Model IDW*	7.93	10.40	0.16
	Block Model NN**	7.95		
Vein B	Composites	7.74	8.25	0.10
	Capped Composites	6.45	7.00	0.10
	Block Model IDW*	6.09	6.16	0.10
	Block Model NN**	6.10		
Vein C	Composites	2.65	6.99	0.17
	Capped Composites	2.65	6.99	0.17
	Block Model IDW*	2.43	6.18	0.16
	Block Model NN**	2.43		

\* block model grades were interpolated using Inverse Distance Cubed for Au and Ag, while Inverse Distance Squared was used for Cu

\*\* block model grades were interpolated using Nearest Neighbour for Au only.

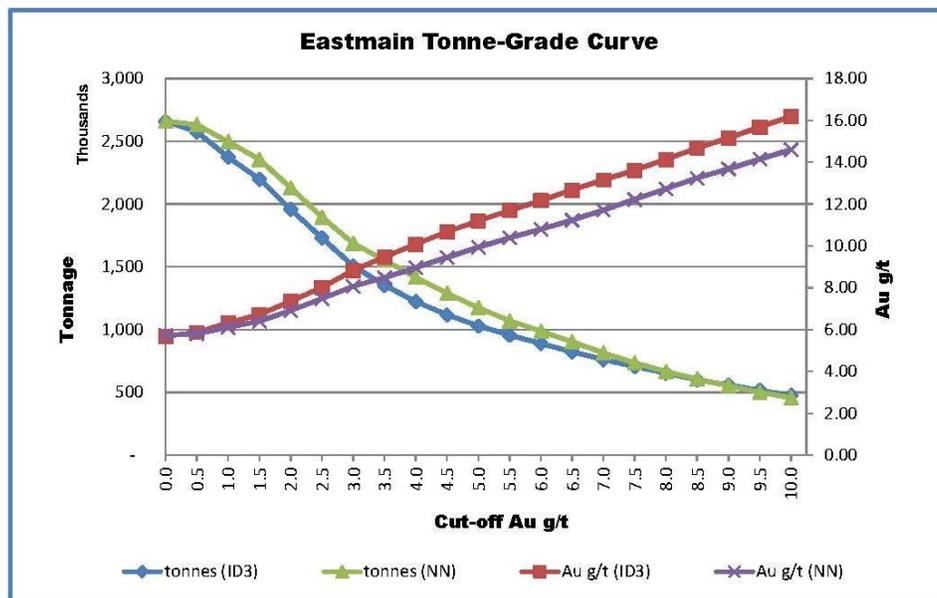
The comparison above shows the average grades of the block models to be slightly different from the average grades of capped composites used for grade estimation which is expected due to the smoothing that takes place with grade interpolation.

A volumetric comparison was performed with the block model volume versus the geometric calculated volume of the domain solids and the differences are detailed in Table 14.11.

TABLE 14.11 VOLUME COMPARISON OF BLOCK MODEL WITH GEOMETRIC SOLIDS	
Geometric Volume of Wireframes	909,265 m <sup>3</sup>
Block Model Volume	908,248 m <sup>3</sup>
Difference %	0.11%

A comparison of the grade-tonnage curve of the Au grade model interpolated with Inverse Distance cubed ( $1/d^3$ ) and Nearest Neighbour (NN) on a global resource basis for all zones is presented in Figure 14.2.

Figure 14.2 Au Grade-Tonnage Curve for NN and ID<sup>3</sup> Interpolation for All Zones



Au local trends of all zones were evaluated by comparing the ID<sup>3</sup> and NN estimate against Au Composites and Capped Composites. As shown in Figure 14.3, 14.4 and 14.5, the Au grade interpolation with Inverse Distance Cubed and Nearest Neighbour agreed well.

Figure 14.3 Au Grade Swath Easting Plot

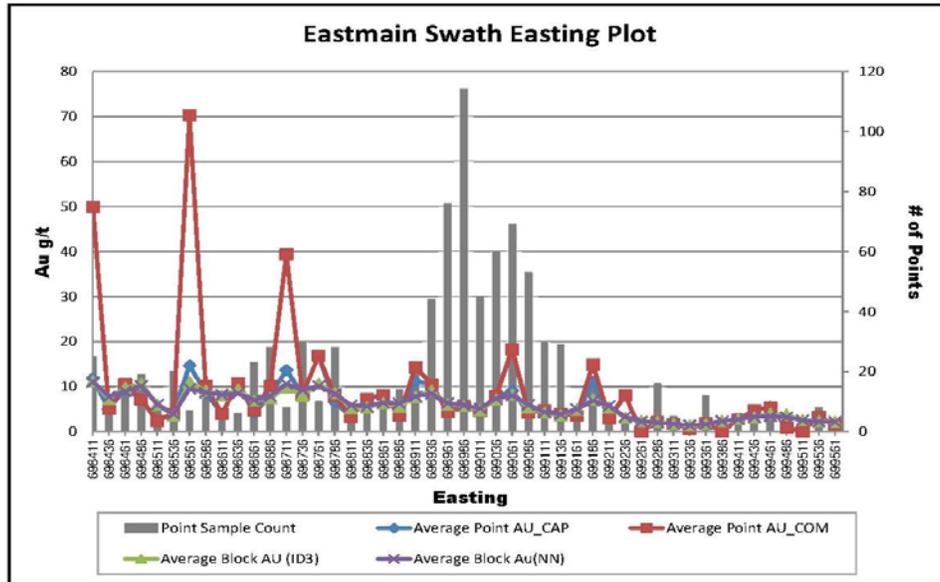


Figure 14.4 Au Grade Swath Northing Plot

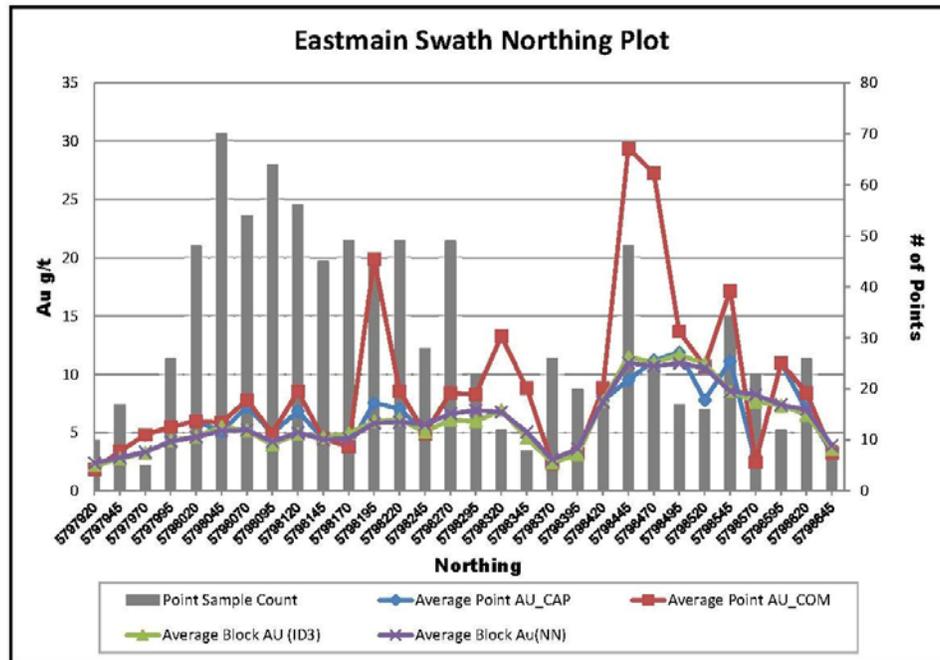
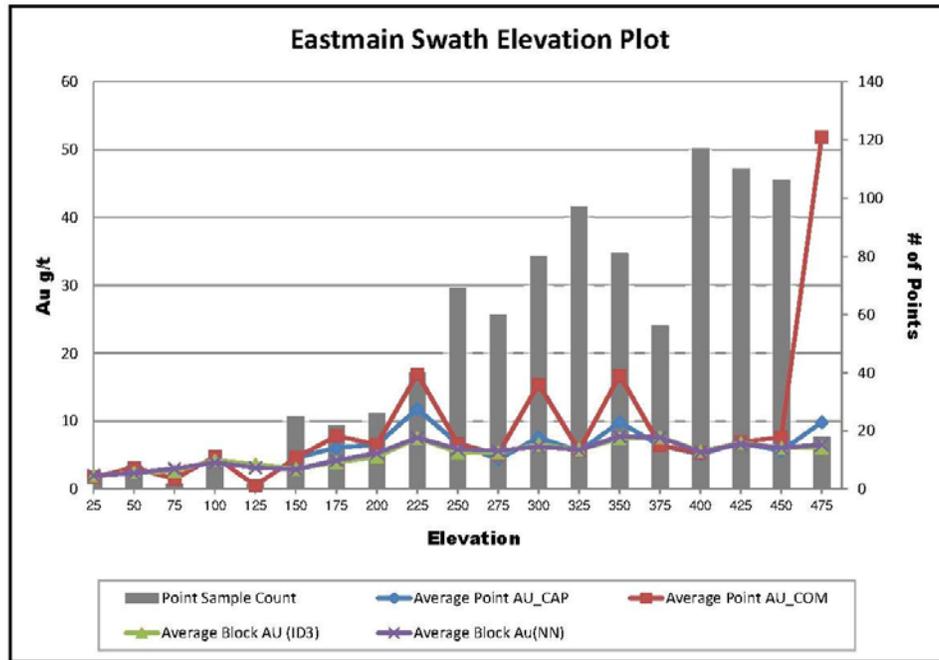


Figure 14.5 Au Grade Swath Elevation Plot



## **15.0 ADJACENT PROPERTIES**

There are no material adjacent properties that are significant to the Eastmain Deposit results and interpretations.

## **16.0 OTHER RELEVANT DATA AND INFORMATION**

To the best of the authors' knowledge there is no other relevant data, additional information or explanation necessary to make the Report understandable and not misleading.

## 17.0 INTERPRETATION AND CONCLUSIONS

The Eastmain Mine Property is located approximately 316 km northeast of Chibougamau and is road accessible via the Route 167 extension, a permanent all-season road. The Eastmain Mine Property is serviced by an existing camp, all season gravel roads, and an airstrip. The Project benefits significantly from access to Chibougamau, (population of 7,541) that serves as the main centre of communications and supplies for the area. A number of businesses provide services to the exploration sector and a long history of mining in the region contributes to a highly skilled work force.

The Eastmain Mine Property has a history of significant exploration that has been undertaken intermittently since Placer Development Limited's initial discovery of the Eastmain Deposit in 1969/1970. At this time the gold-silver-copper bearing A Zone was intersected while drill-testing an airborne geophysical conductor. Subsequent drill testing of airborne conductors in the 1980's defined two additional gold-rich zones known as the B and C Zones. In 1987, the Placer and MSV Resources Inc. Joint Venture completed underground development on the Eastmain Deposit including a 826.2 m decline, 226.2 m of sub-level drifting, and 95.5 m of raising. In 1994 to 1995, MSV Resources mined 118,356 tonnes grading 10.58 g/t Au and 0.3% Cu by room and pillar mining. The mineralization was milled at the Copper Rand in Chibougamau and 40,000 oz Au were recovered. Eastmain Resources Inc. acquired a 100% interest in the Eastmain Property from Campbell Resources Inc. in 2007. On August 9, 2019, Benz announced that it had entered into an option agreement with Eastmain Resources Inc. to acquire a 100% interest in the Eastmain Property.

The Eastmain Mine Property is located in the Opatica Sub-province of the ca. 2.7 Ga Archean Superior Geological Province within the Upper Eastmain River Greenstone Belt. The belt consists of a metavolcanic-metasedimentary terrain, dominated by massive and pillowed mafic flows interbedded with felsic to intermediate tuff and flows, ultramafic flows and meta-sediments.

In the Eastmain Gold Deposit, gold mineralization occurs in mineralized quartz veins associated with massive to semi-massive sulphide lenses and silicified zones contained in a strongly deformed and altered Mine Series assemblage of felsic, mafic and ultramafic rocks. The high strain deformation zone associated with the mineralization has a northwest trend and dips northeast at 35° to 45°. The Eastmain Deposit consists of three high-grade mineralized zones that have been traced for more than one km in length and to a vertical depth of 400 m. Mineralized quartz veins and lenses show a variable thickness between 10 cm and 13 m, and sulphide contents average 15 to 20%. Sulphides consist of pyrrhotite, pyrite, and chalcopyrite, with minor sphalerite, magnetite and molybdenite. Visible gold occurs in the mineralized quartz veins as small (<1 mm) grains associated with quartz and/or sulphides.

Genetic models for the Eastmain Deposit have ranged from a synvolcanic and stratabound deposit hosted in a recrystallized chert horizon to an epigenetic, orogenic deposit that is structurally controlled in a silicified shear zone. Recent geological work has led to the preferred model being a synvolcanic or syngenetic deposit.

Eastmain drill core samples were sent for analysis to ALS Chemex Labs in Sudbury, Ontario, Rouyn-Noranda, Quebec or Vancouver, British Columbia. All samples were analyzed for gold, silver and copper. Gold was determined using fire assay on a 50 gram aliquot with an atomic absorption finish, giving a lower limit of detection of 5 ppb and an upper limit of detection of 10,000 ppb Au. Gold samples returning over-limit results of >10,000 ppb were also analyzed by fire assay method with a gravimetric finish. Samples were also analyzed for a suite of trace elements using inductively coupled plasma (ICP) methods.

The QA/QC program employed at the Project was designed by Eastmain's geological staff and is consistent with industry best practices. A total of 20,658 drill core samples from the Project were sent for analyses from 2010 to 2017 and, along with these samples, 504 CRMs (2.2 %) and 449 blanks (2.4 %) were inserted into the sample stream to monitor for accuracy and contamination. P&E considers that the CRM standards demonstrate acceptable accuracy.

The Eastmain Property was visited by Mr. Antoine Yassa, P.Geo., from November 6 to November 7, 2017 for the purposes of completing a site visit and due diligence sampling. During the site visit Mr. Yassa viewed access to the Property, drill hole collar and trench locations, geology and topography.

This Technical Report has described the process by which P&E has identified a potential underground economically extractable Mineral Resource Estimate for the Eastmain Gold Deposit. This estimate was derived from compiling drillhole assay data, developing constraining mineralized wireframes and creating a Mineral Resource block model. This process resulted as follows: At a 2.5 g/t Au cut-off, the Eastmain Deposit is estimated to contain an Indicated Mineral Resource of 899,000 tonnes at a grade of 8.19 g/t Au, 8.0 g/t Ag and 0.13 % Cu. The Inferred Mineral Resource is estimated at 579,000 tonnes at a grade of 7.48 g/t Au 8.2 g/t Ag and 0.16 % Cu.

The Mineral Resource Estimate in this Technical Report were estimated using the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council. Mineral Resources which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by metal prices, US\$/CDN\$ exchange rate, environmental, permitting, legal, title, taxation, socio-political, marketing, infrastructure development or other relevant issues. Any one of the preceding items has the potential to render the project uneconomic. The quantity and grade of reported Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration. There is no guarantee that the Mineral Resource Estimate in this Technical Report will be converted to a Mineral Reserve.

## **18.0 RECOMMENDATIONS**

### **18.1 RECOMMENDATIONS AND PROPOSED BUDGET**

P&E considers that the Eastmain Mine Property contains a significant precious metal and base metal endowment that is associated with a well-defined mineralized trend. The Property has potential for delineation of additional Mineral Resources both near the current historic mine and current Mineral Resource as well as along the Mine Trend. Further exploration in the areas is warranted as follow-up to work completed to date.

Specific opportunities for expanding Mineral Resources include:

#### **18.1.1 NW Zone**

Three holes testing this target in 2017 and results from historic hole 83CH029 have delineated a Mine Series drill target of greater than 100 m strike length and over 200 m in potential plunge (from surface). Historic hole 83CH029 located 500 m NW of Eastmain Mine Zone A intersected 1.5 m of 19.2 g/t Au, 7.85 g/t Ag at a vertical depth of 240 m and hole EM17-126 (2 m of 9.33 g/t Au, 23.8 g/t Ag and 0.44% Cu at a vertical depth of 220 m) 100 m further to the northwest represent a potential new on-strike zone at the Eastmain Mine of similar dimensions to currently defined resource envelopes. This area will be a priority target for further drill evaluation.

The new zone identified by EM17-126 is approximately midway between the A Zone and the Hillhouse Target and further work will help identify the stratigraphic correlation between these zones. The identification of the NW Zone footprint has led to a re-evaluation of historic results and recent field work along the Mine Trend to establish whether mineralized zones such as the NW Zone and the Hillhouse Target are developed at common spatial intervals along the Mine Trend which can help optimize drill targeting in predicted areas.

#### **18.1.2 Mine Trend**

The Property has significant potential for discovery of mineralization further along the Mine Trend. Geophysics, trenching, geological mapping and drilling completed in 2017, near the Julien and Hillhouse Targets and the discovery of the Meg Target, provided important geological and structural information to guide future exploration within and parallel to the Mine Series and along the Mine Trend.

2017 exploration by Eastmain and additional information obtained from new mapping and interpretation by the government of Quebec (Beauchamp and Massei, 2017) has underscored the importance of NE trending D2 affected structures which may be transposed feeder systems to sulphide horizons in the Mine Series or late structures which have remobilized gold-silver-base metal mineralization. Eastmain staff favours the former interpretation. Based on the almost orthogonal relationship between the SE trending Mine Series lithologies and the NE structures, historic drilling has not been efficient at testing the latter. Development and relative intensity of alteration along these structures could help determine stratigraphic locations of sulphide-rich stratabound horizons. It is recommended that geophysical results and surface mapping

identifying these structures be used to target future drilling and that a more southerly azimuth be applied to allow holes to continue to intersect stratigraphy while ensure the NE structures can be intersected.

A two-phase Exploration Program is proposed for the Eastmain Mine Project for CAD\$3,355,000 is summarized in Table 18.1.

A Phase I program should focus on the evaluation of prospective targets on the Mine Trend and is budgeted at CAD\$200,000. The program is recommended to include:

- Target prioritization including reprocessing/ remodelling of existing geophysical data, particularly airborne VLF and ground IP against interpreted geology of known mineralization in targets such as the NW, Hillhouse and Julian targets and the Main Zone;
- Investigate airborne VLF anomalies, particularly along the southeast projection of the Mine Trend that have not been fully investigated – review with prospecting mapping and assaying;
- BHEM on selected 2016 and 2017 drill holes, particularly at the NW, Hillhouse and Julian targets in order to attempt to project mineralization already intersected in these earlier holes – helps set up drilling. Also, a couple of holes deep in each of the A and B Zones of the Main Deposit to test for deeper projections of the Mineral Resource; and

A Phase II program is budgeted at CAD\$3,155,000 and should include:

- Additional pulse TDEM for deeper penetration along the southeast Mine Trend;
- Geology, Prospecting, Stripping and Assays on any new EM targets defined by TDEM or anything else of interest;
- 3,500 m drilling of new EM targets and BHEM on any mineralized intersections and/or on mineralized holes from Phase I; and
- 5,000 m Mineral Resource expansion.

At the end of the proposed Phase I and II exploration, a review of the Mineral Resource Estimate should be considered in advance of a more critical study such as a PEA for the Project, with a view to advance towards advanced underground exploration or mine development.

**TABLE 18.1  
RECOMMENDED PROGRAM AND BUDGET - EASTMAIN MINE PROJECT**

<b>Work Program</b>	<b>Units</b>	<b>Unit Cost (C\$)</b>	<b>Budget (C\$)</b>
<b>Phase I Program</b>			
Target Prioritization & Drill hole Planning			\$40,000
Geology, Prospecting & Assays			\$20,000
Bore-holes EM Logging & Interpretation	12 to 15 holes		\$50,000
Management field programs	6 months	\$15,000/ mo.	\$90,000
<b>Sub-Total Phase I</b>			<b>\$200,000</b>
<b>Phase II Program</b>			
Surface Deep EM – additional target development	40-50 line-km		\$125,000
Geology, Prospecting, Stripping & Assays			\$100,000
Stage I Drilling – test new targets (incl. logging & assays)	15 to 17 holes, 3,500 m	\$300/m	\$1,050,000
Bore-holes EM Logging & Interpretation	5 - 7 holes		\$25,000
Stage II Drilling – resource expansion (incl. logging & assays)	5,000 m	\$300/m	\$1,500,000
Metallurgical Test-work			\$50,000
Initial Environmental & Baseline Studies			\$50,000
Independent resource update			\$75,000
Management field programs	12 months	\$15,000/ mos.	\$180,000
<b>Sub-Total Phase II</b>			<b>3,155,000</b>
<b>Total</b>			<b>\$3,355,000</b>

## 19.0 REFERENCES

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## 20.0 CERTIFICATES

### CERTIFICATE OF QUALIFIED PERSON

#### EUGENE PURITCH, P. ENG., FEC, CET

I, Eugene J. Puritch, P. Eng., FEC, CET, residing at 44 Turtlecreek Blvd., Brampton, Ontario, L6W 3X7, do hereby certify that:

1. I am an independent mining consultant and President of P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “NI 43-101 Technical Report and Mineral Resource Estimate on the Eastmain Mine Property, James Bay District, Quebec” (the “Technical Report”), with an effective date of August 9, 2019.
3. I am a graduate of The Haileybury School of Mines, with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen’s University. In addition I have also met the Professional Engineers of Ontario Academic Requirement Committee’s Examination requirement for Bachelor’s Degree in Engineering Equivalency. I am a mining consultant currently licensed by the: Professional Engineers and Geoscientists New Brunswick (License No. 4778); Professional Engineers, Geoscientists Newfoundland and Labrador (License No. 5998); Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216); Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252); Professional Engineers of Ontario (License No. 100014010); Association of Professional Engineers and Geoscientists of British Columbia (License No. 42912); and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (No. L3877). I am also a member of the National Canadian Institute of Mining and Metallurgy.

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

I have practiced my profession continuously since 1978. My summarized career experience is as follows:

- Mining Technologist - H.B.M. & S. and Inco Ltd., 1978-1980
- Open Pit Mine Engineer – Cassiar Asbestos/Brinco Ltd., 1981-1983
- Pit Engineer/Drill & Blast Supervisor – Detour Lake Mine, 1984-1986
- Self-Employed Mining Consultant – Timmins Area, 1987-1988
- Mine Designer/Resource Estimator – Dynatec/CMD/Bharti, 1989-1995
- Self-Employed Mining Consultant/Resource-Reserve Estimator, 1995-2004
- President – P&E Mining Consultants Inc, 2004-Present

4. I have not visited the Property that is the subject of this Technical Report.
5. I am responsible for co-authoring Sections 1, 14, 25 and 26 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had prior involvement with the Property that is the subject of this Technical Report. I was a co-author of a Technical Report on the Property titled “NI 43-101 Technical Report and Initial Mineral Resource Estimate on the Eastmain Mine Property, James Bay District, Quebec” with an effective date of January 9, 2018.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective date: August 29, 2019

Signing date: October 21, 2019

**{SIGNED AND SEALED}**

**[Eugene Puritch]**

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Eugene Puritch, P.Eng., FEC, CET

## CERTIFICATE OF QUALIFIED PERSON

**ANTOINE R. YASSA, P.GEO.**

I, Antoine R. Yassa, P.Geo. residing at 3602 Rang des Cavaliers, Rouyn-Noranda, Quebec, J0Z 1Y2, do hereby certify that:

1. I am an independent geological consultant contracted by P&E Mining Consultants Inc.
2. This certificate applies to the Technical Report titled “NI 43-101 Technical Report and Mineral Resource Estimate on the Eastmain Mine Property, James Bay District, Quebec” (the “Technical Report”), with an effective date of August 9, 2019.
3. I am a graduate of Ottawa University at Ottawa, Ontario with a B. Sc (HONS) in Geological Sciences (1977) with continuous experience as a geologist since 1979. I am a geological consultant currently licensed by the Order of Geologists of Québec (License No 224) and by the Association of Professional Geoscientist of Ontario (License No 1890);

I have read the definition of “Qualified Person” set out in National Instrument 43-101 (“NI 43-101”) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “Qualified Person” for the purposes of NI 43-101.

My relevant experience for the purpose of the Technical Report is:

- Minex Geologist (Val d’Or), 3D Modeling (Timmins), Placer Dome 1993-1995
- Database Manager, Senior Geologist, West Africa, PDX, 1996-1998
- Senior Geologist, Database Manager, McWatters Mine 1998-2000
- Database Manager, Gemcom modeling and Resources Evaluation (Kiena Mine) 2001-2003
- Database Manager and Resources Evaluation at Julietta Mine, Bema Gold Corp. 2003-2006
- Consulting Geologist 2006-present

4. I visited the Property that is the subject of that report on November 6 & 7, 2017.
5. I am responsible for authoring Sections 2 to 13 and 15 to 24 and co-authoring sections 1, 14, 25 and 26 of this Technical Report.
6. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101. I am independent of the Vendor and the Property.
7. I have had prior involvement with the Property that is the subject of this Technical Report. I was an author of a Technical Report titled “NI 43-101 Technical Report and Initial Mineral Resource Estimate on the Eastmain Mine Property, James Bay District, Quebec” with an effective date of January 9, 2018.
8. I have read NI 43-101 and Form 43-101F1. This Technical Report has been prepared in compliance therewith.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: August 29, 2019.

Signing Date: October 21, 2019

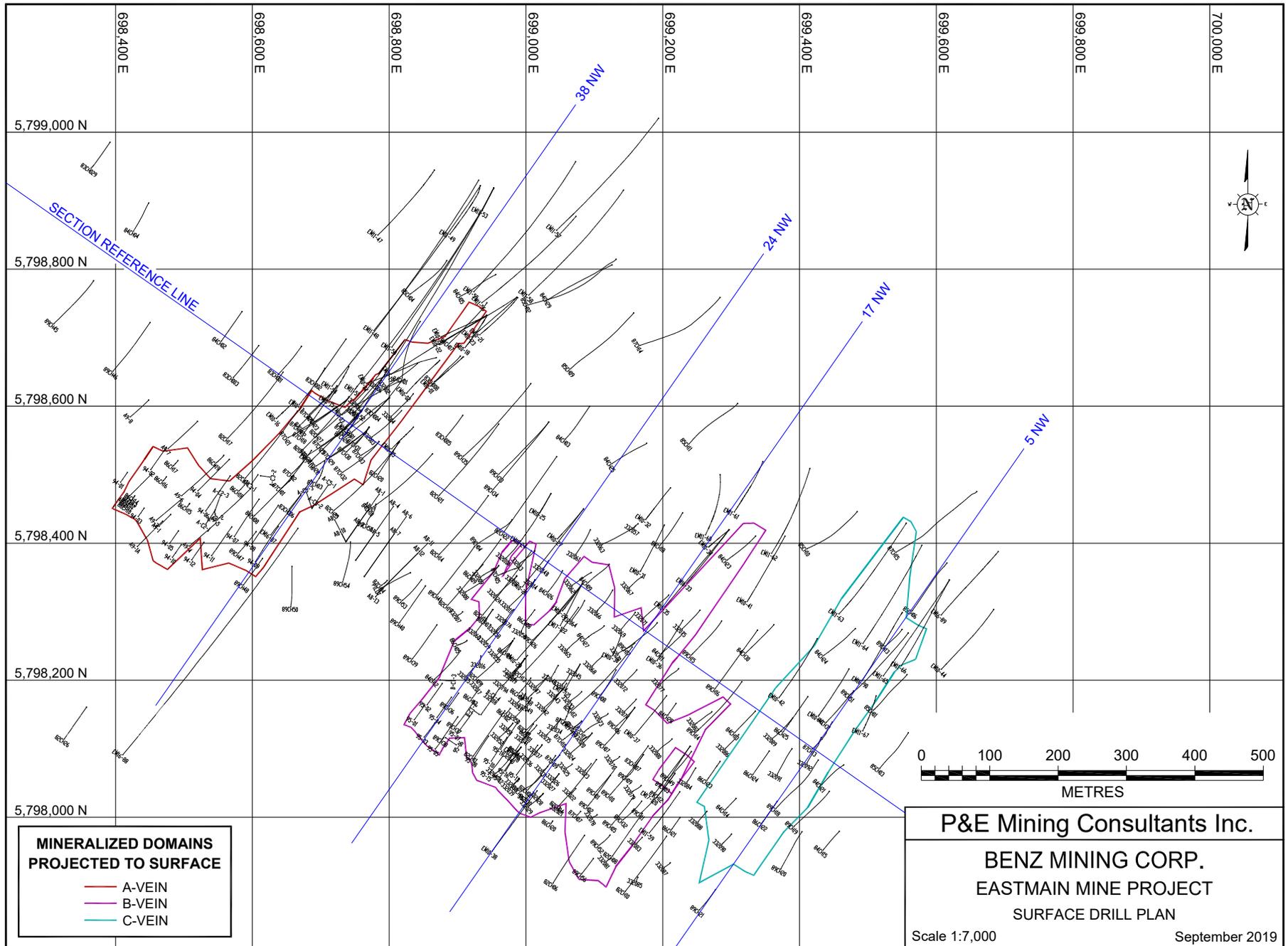
***{SIGNED AND SEALED}***

***[Antoine R. Yassa]***

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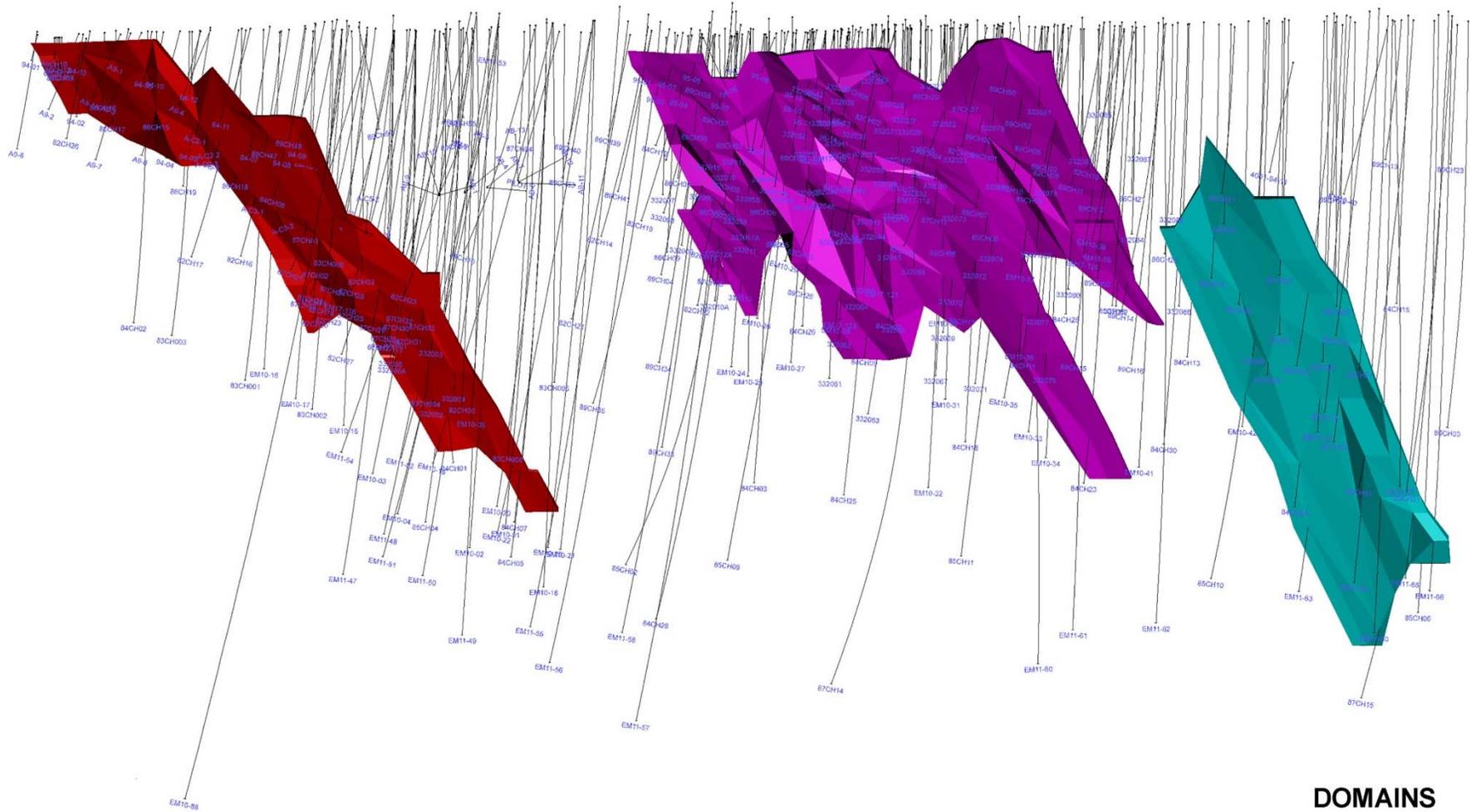
Antoine R. Yassa, P.Geo.

**APPENDIX I**  
**SURFACE DRILL HOLE PLAN**



**APPENDIX II**  
**3D DOMAINS**

# EASTMAIN MINE PROJECT 3D DOMAINS

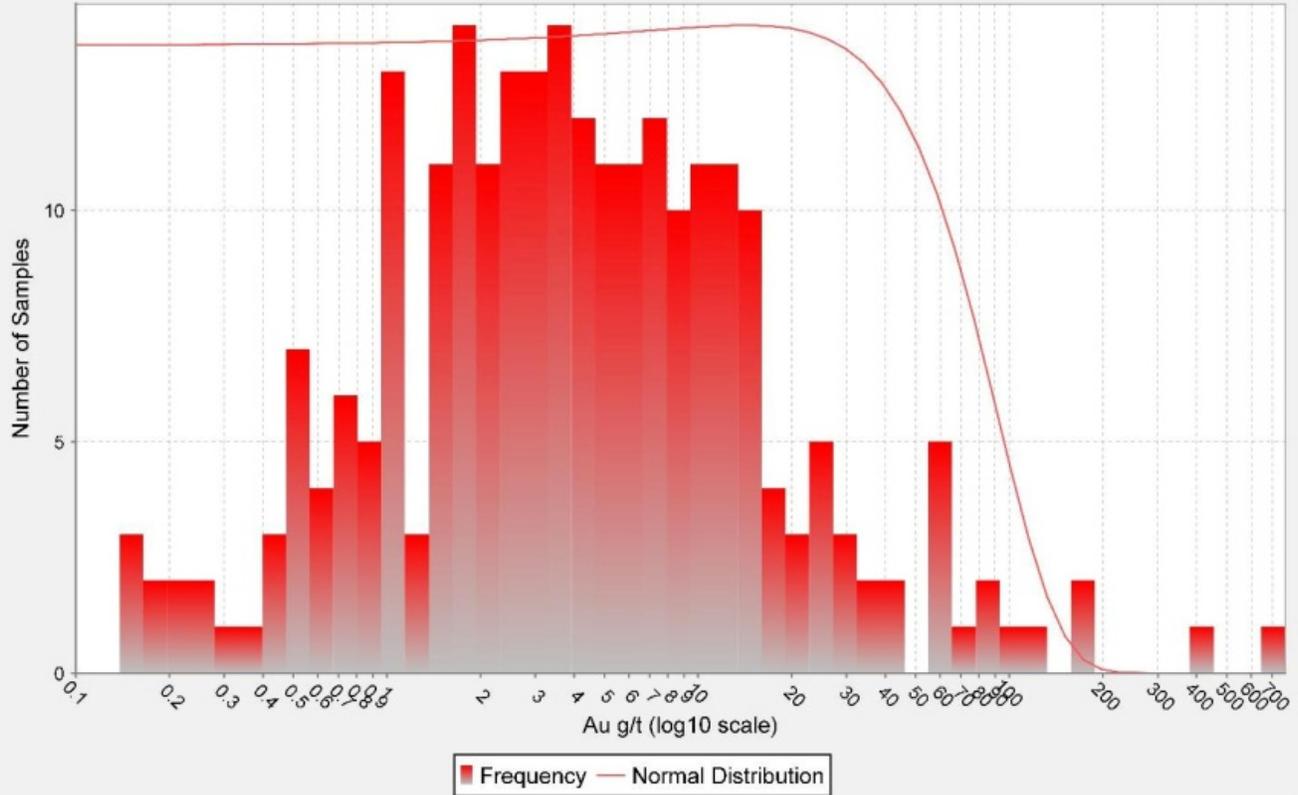


## DOMAINS

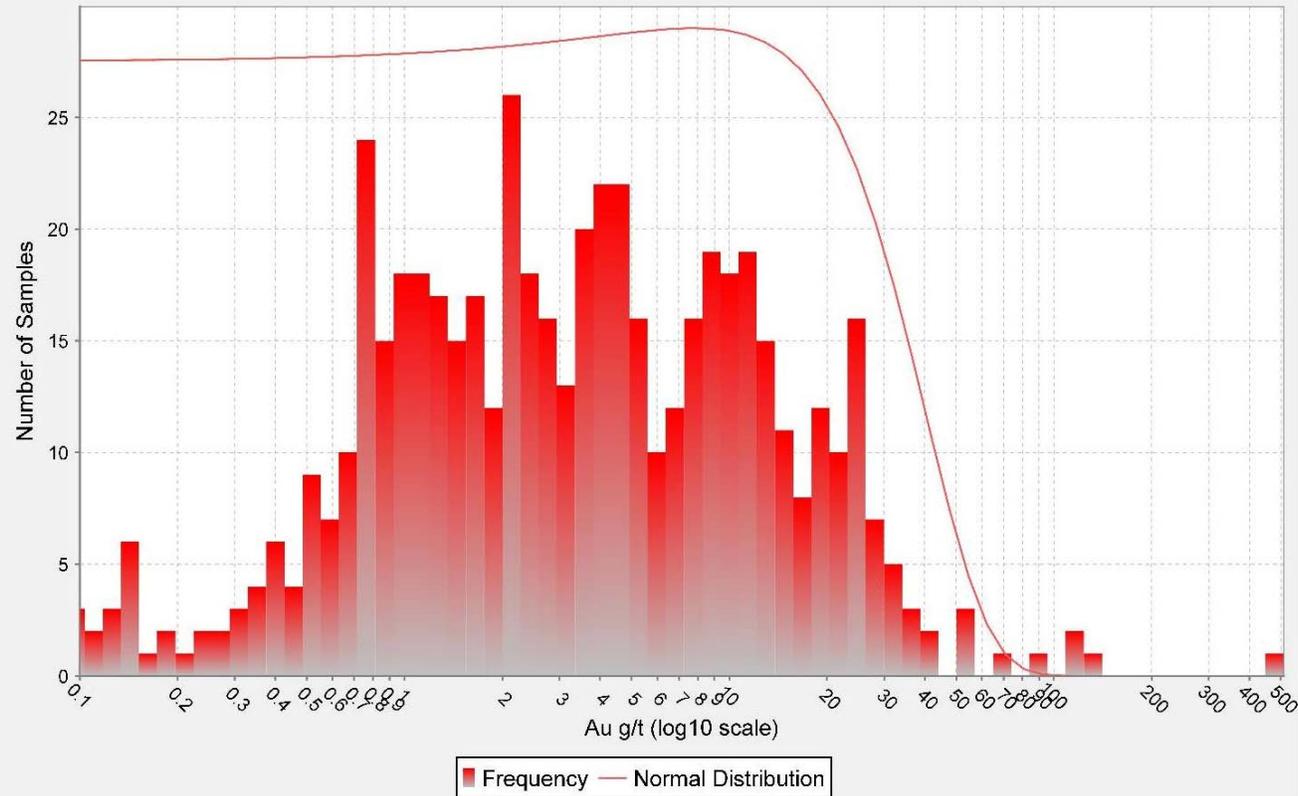
- A-VEIN
- B-VEIN
- C-VEIN

**APPENDIX III  
LOG NORMAL HISTOGRAMS**

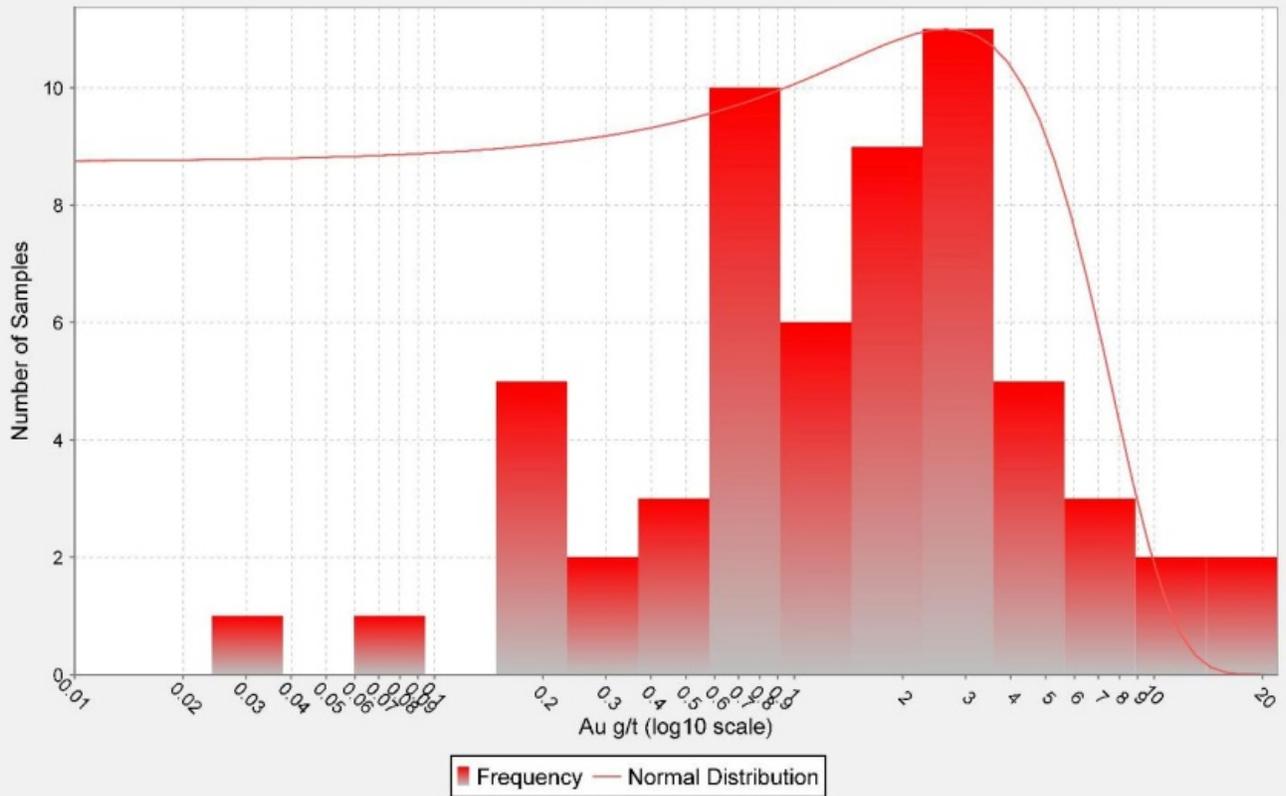
### Vein A Au Composite Distribution



### Vein B Au Composite Distribution

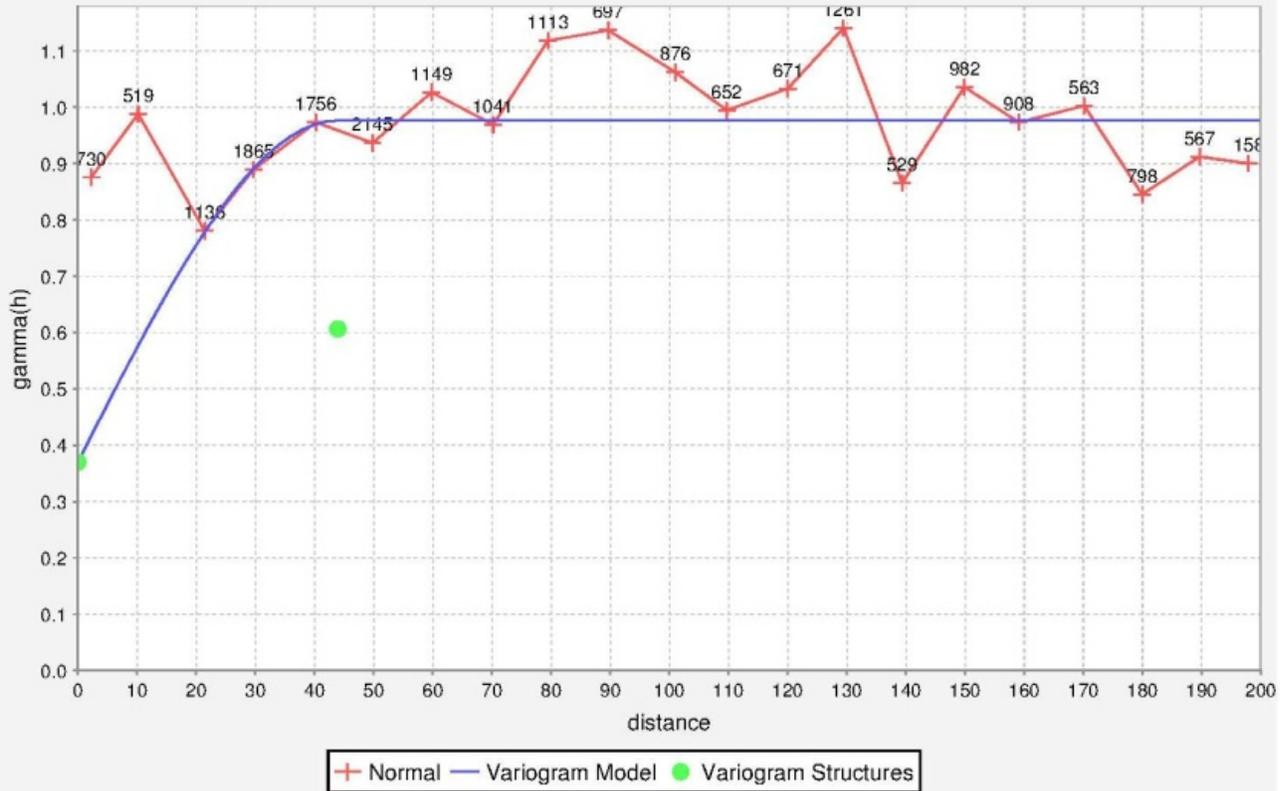


### Vein C Au Composite Distribution

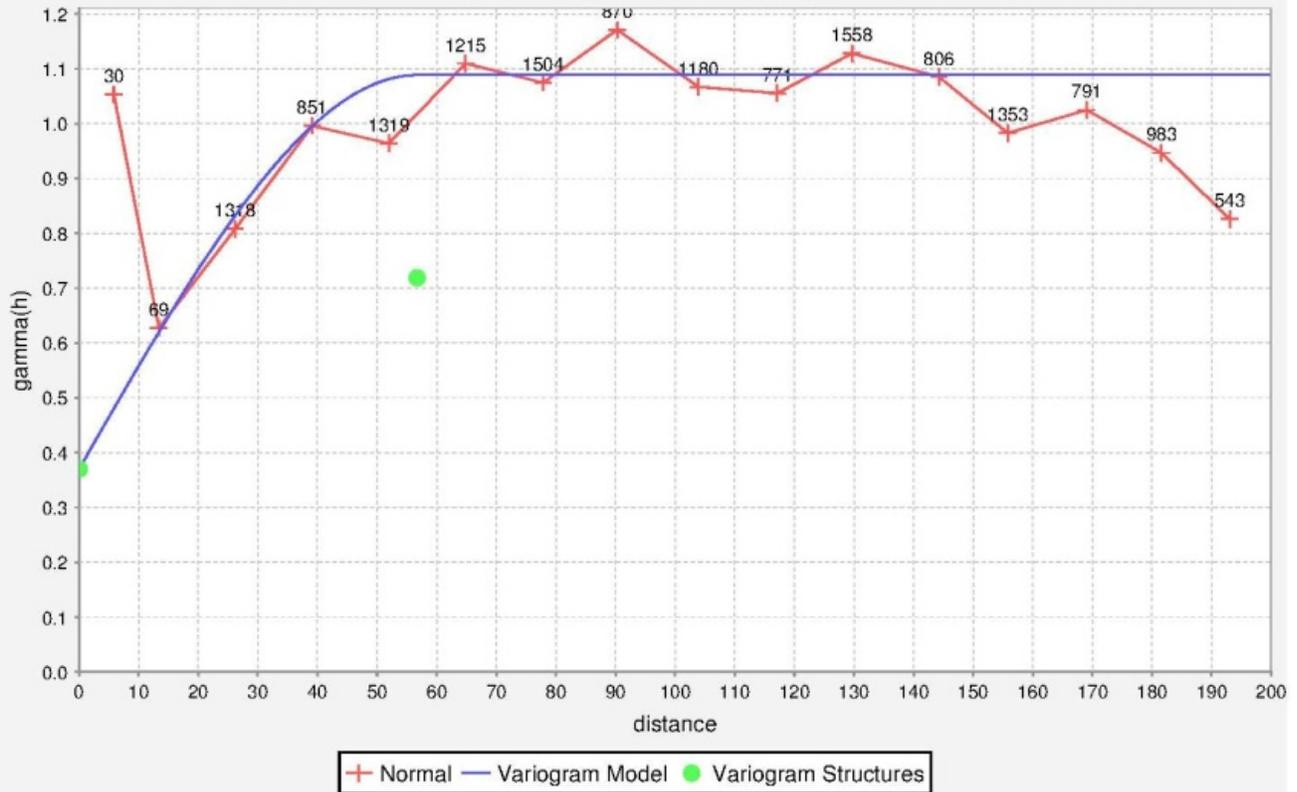


**APPENDIX IV  
VARIOGRAMS**

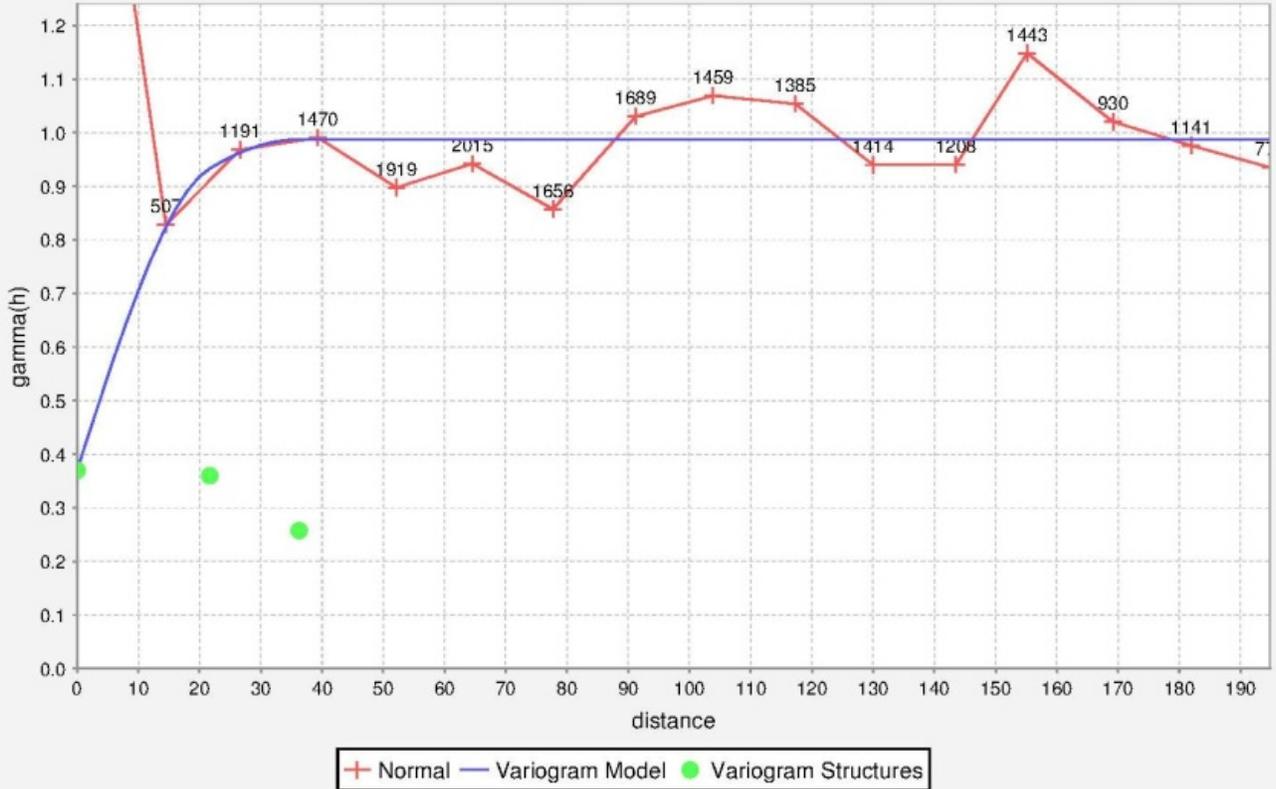
### Vein B Omnivariogram



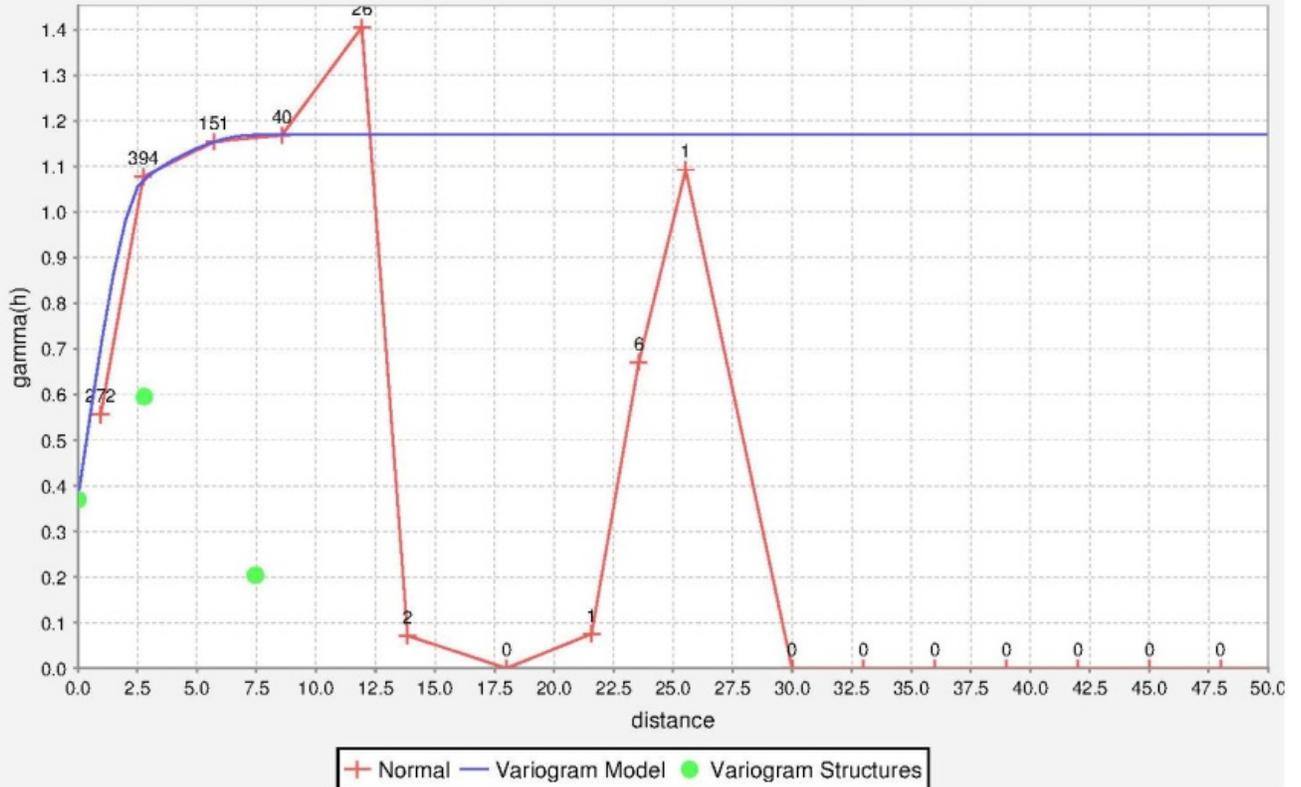
### Vein B Along Strike Variogram



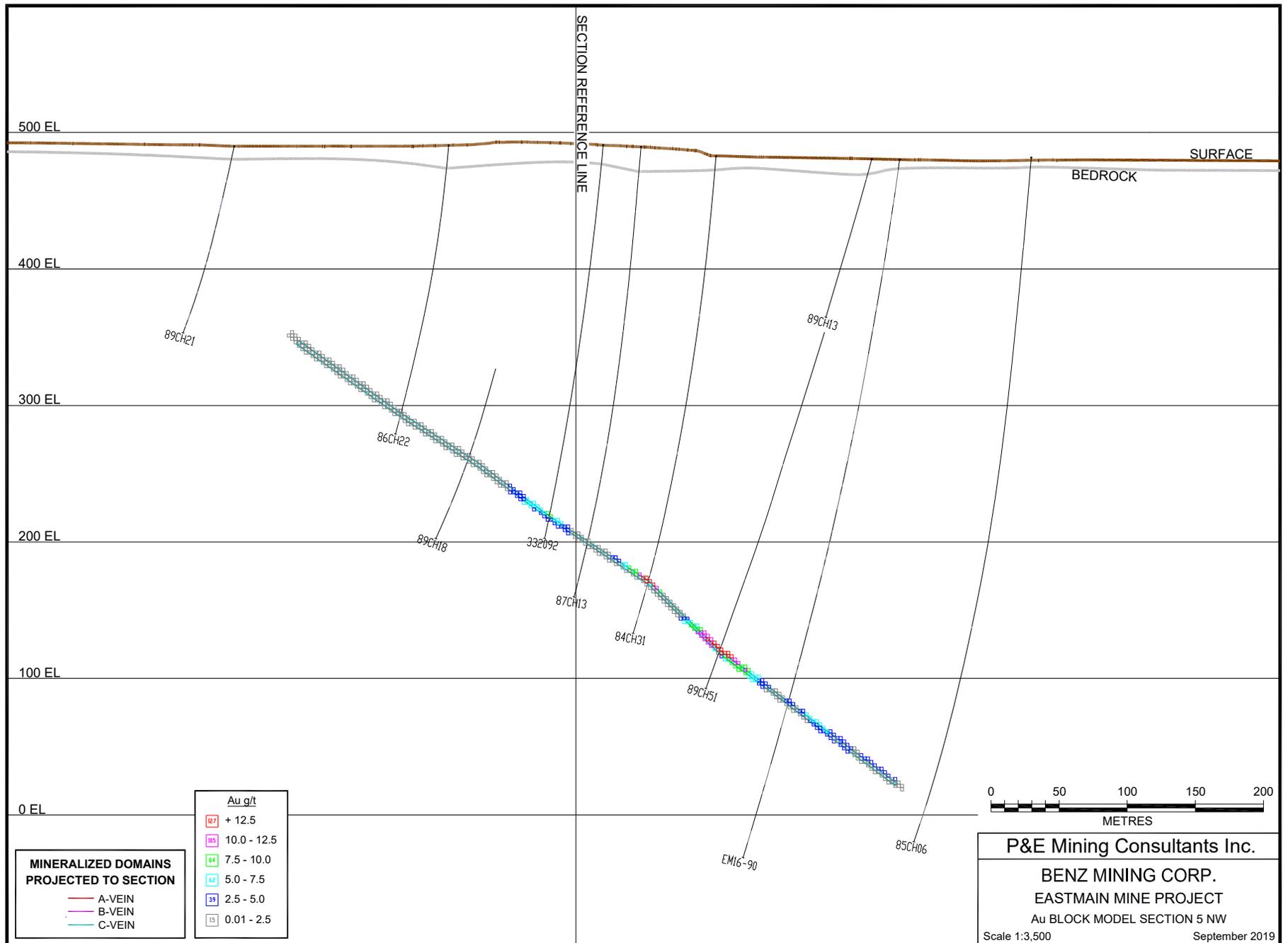
### Vein B Down Dip Variogram

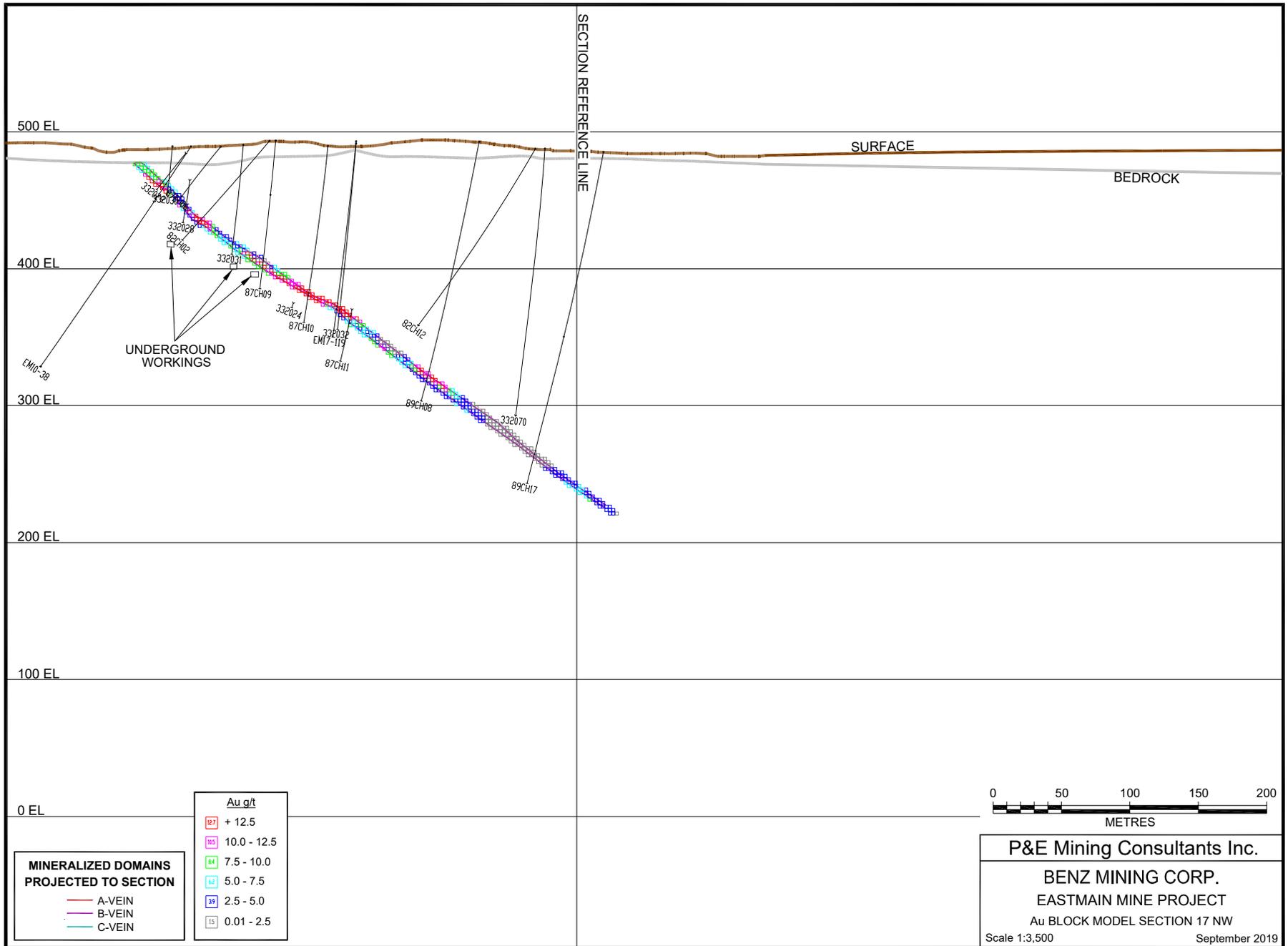


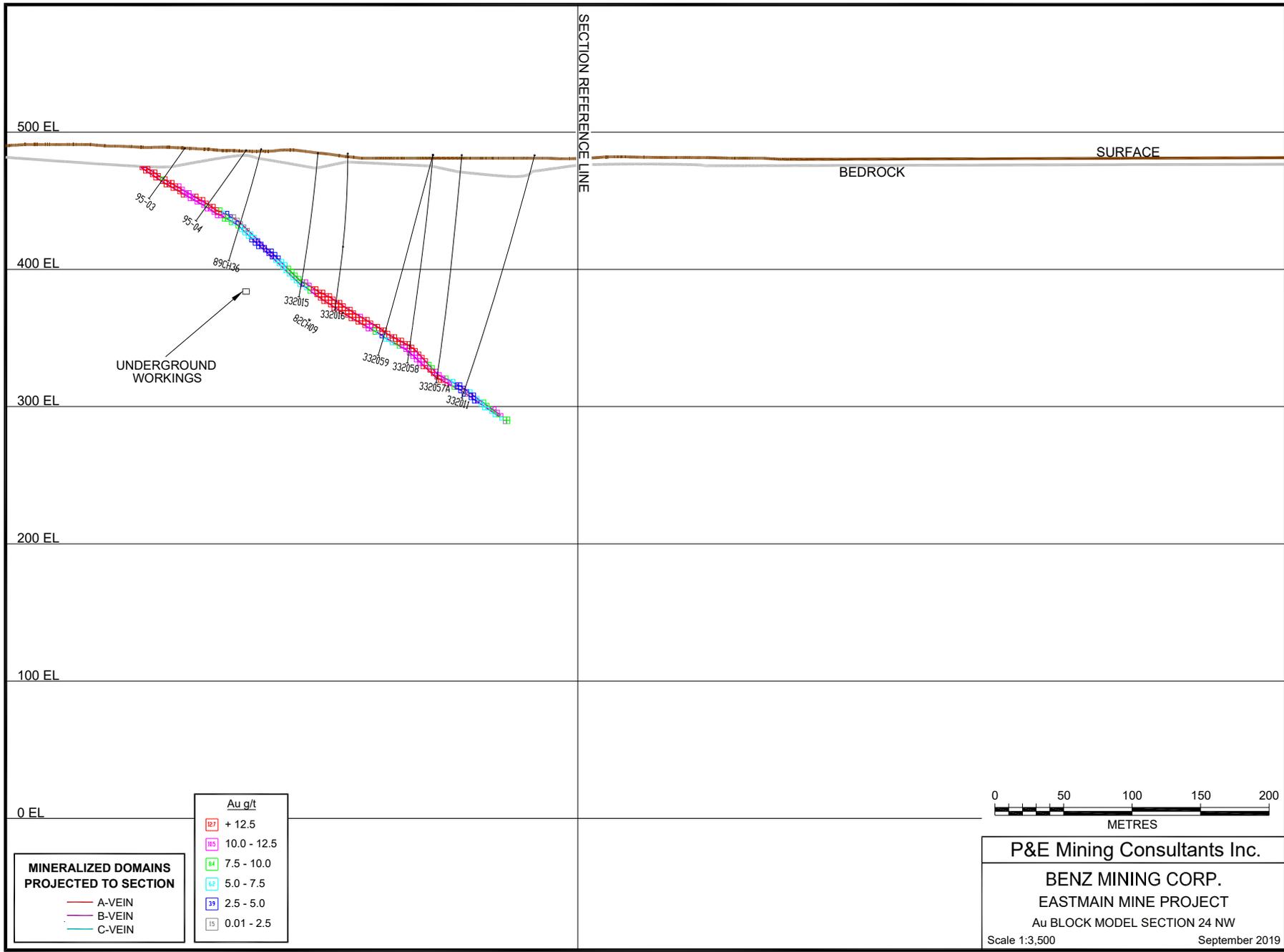
### Vein B Across Dip Variogram

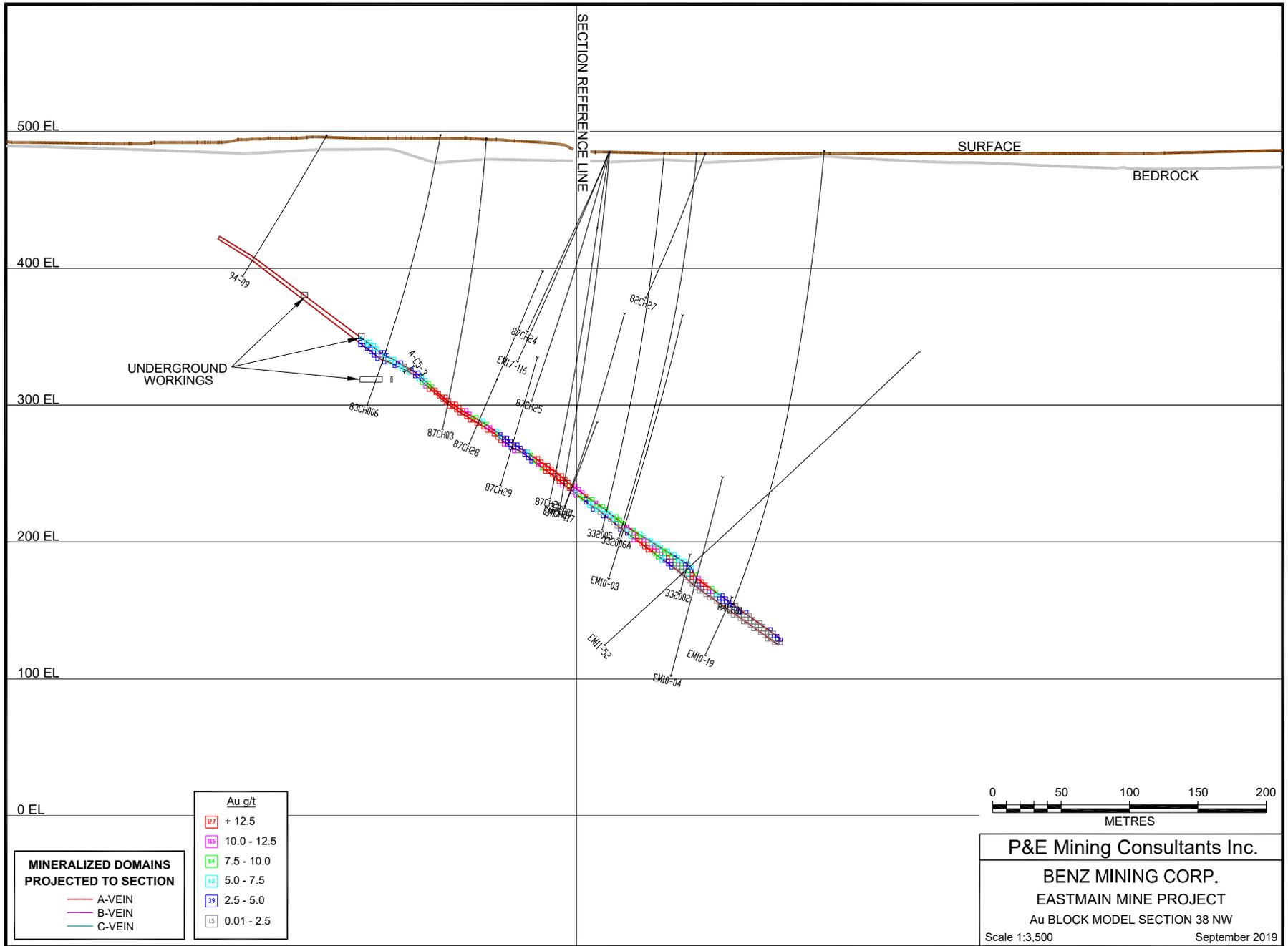


**APPENDIX V  
AU BLOCK MODEL  
CROSS SECTIONS AND PLANS**

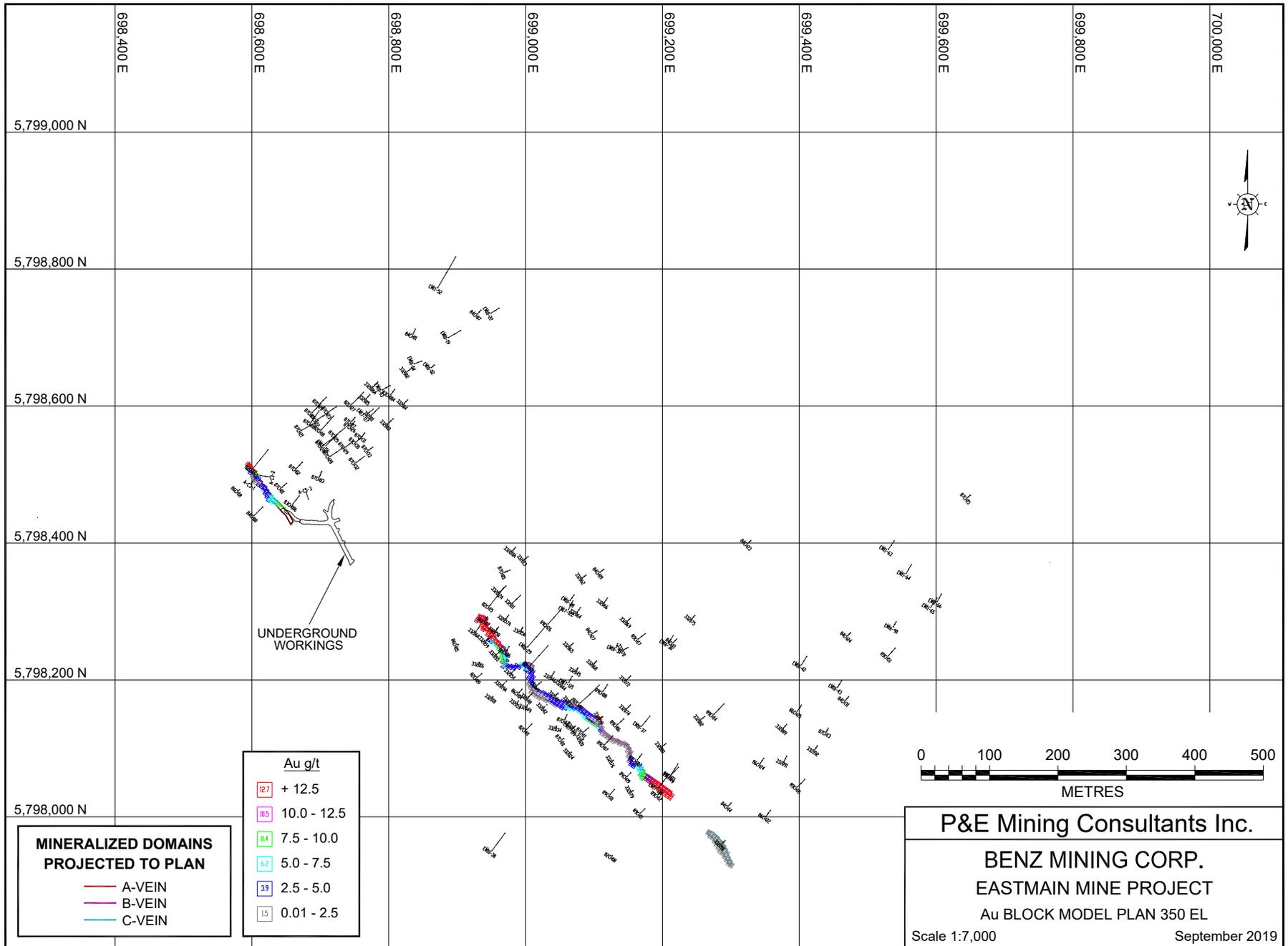


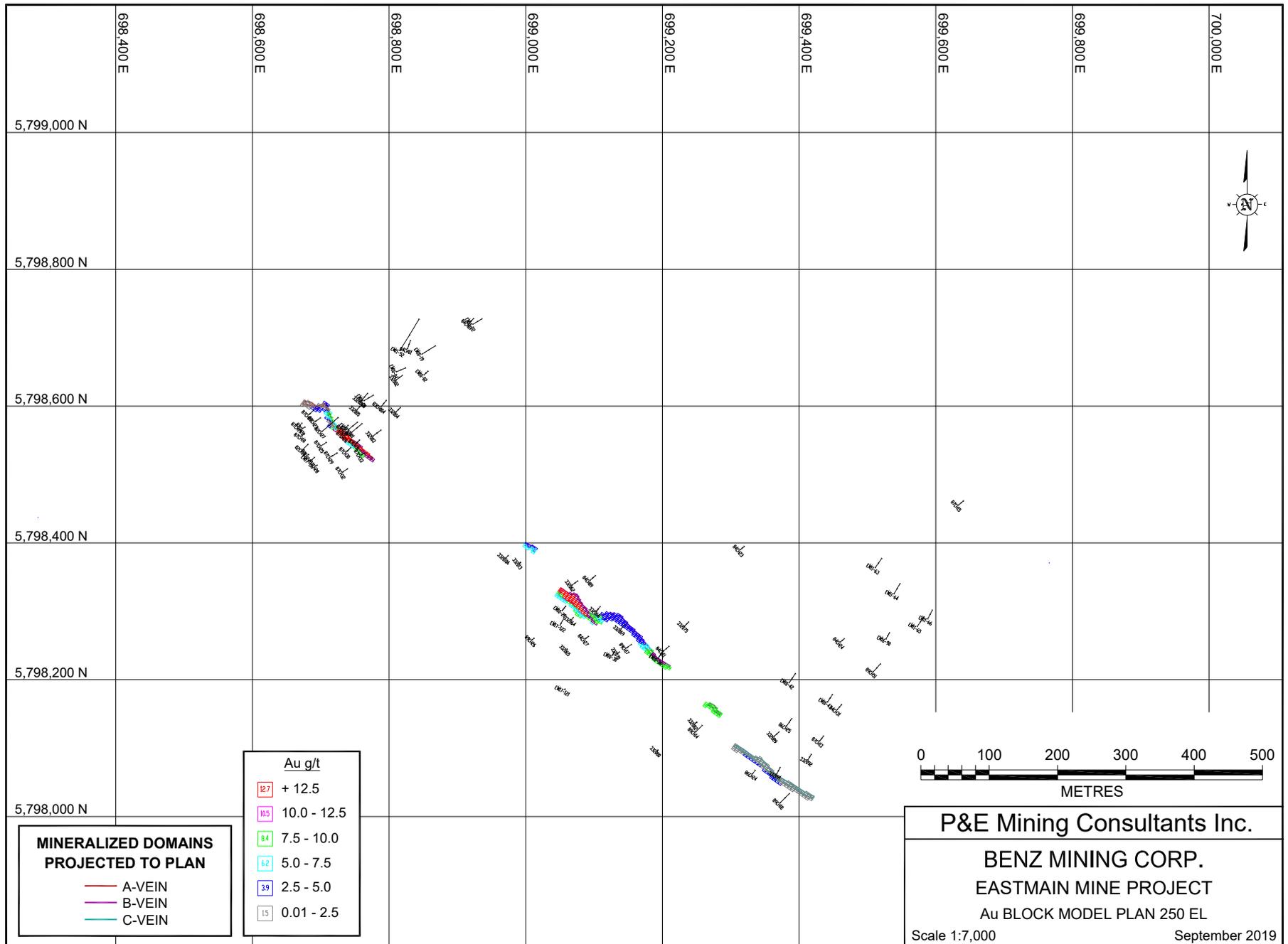












**APPENDIX VI**  
**CLASSIFICATION BLOCK MODEL**  
**CROSS SECTIONS AND PLANS**

