

**AN UPDATED MINERAL RESOURCE ESTIMATE  
FOR THE PICKLE CROW PROPERTY,  
PATRICIA MINING DIVISION,  
NORTHWESTERN ONTARIO,  
CANADA**

**Report Prepared for:**



**FIRST MINING  
GOLD**

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LIST OF ABBREVIATIONS	
Abbreviation	Unit or Term
'	minutes of longitude or latitude
~	approximately
%	Percent
<	less than
>	greater than
°	degrees of longitude, latitude, compass bearing or gradient
°C	degrees Celsius
2D	two-dimensional
3D	three-dimensional
µm	microns, micrometres
ac	acre
AAS	atomic absorption spectroscopy
Ag	silver
As	arsenic
Au	gold
AuEq	Equivalent gold grade
CDN\$	Canadian dollar(s)
CIM	Canadian Institute of Mining and Metallurgy
cm	centimetre(s)
Co	cobalt
Cu	copper
d	day
dmt	dry metric tonnes
E	East
et al.	and others
FA	fire assay
Fe	iron
ft	foot, feet
Ga	billion years
g/t	grams per tonne
g/t Au	grams per tonne of gold
GPS	global positioning system
h	hour(s)
ha	hectare(s)
h/d	hours per day
HQ	H-sized core, Longyear Q-series drilling system
ICP	inductively coupled plasma
ICP-AES	inductively coupled plasma-atomic emission spectrometry
ID	Inverse distance grade interpolation
in	inch(es)
IP	induced polarization geophysical surveys
kg	kilogram(s)
km	kilometre(s)
km <sup>2</sup>	square kilometre(s)
L	litre(s)
lb	pound(s)
LIMS	laboratory information management system
m	metre(s)
m <sup>3</sup>	cubic metre(s)
m/s	metres per second
M	million(s)
Ma	million years
masl	metres above sea level
mm	millimetre(s)
mL	millilitre(s)
Mn	manganese

<b>LIST OF ABBREVIATIONS</b>	
<b>Abbreviation</b>	<b>Unit or Term</b>
Mo	molybdenum
Mt	million tonnes
Mt/y	million tonnes per year
N	North
n.a.	not applicable, not available
Na	sodium
NAA	Neutron Activation Analysis
NI 43-101	National Instrument 43-101
NSR	Net smelter return (royalty)
OK	ordinary kriging grade interpolation
oz	Troy ounce(s)
oz/ton	Troy ounces per short ton
Pb	lead
pH	concentration of hydrogen ion
PIMA	portable infrared mineral analyzer
ppb	parts per billion
ppm	parts per million, equal to grams per tonne (g/t)
QA/QC	quality assurance/quality control
QP	qualified person
RC	reverse circulation
RQD	rock quality designation (data)
s	second
S	South
Sb	antimony
SD	standard deviation
SEM	scanning electron microscope/microscopy
SG	specific gravity
SI	International System of Units
t	tonne(s) (metric)
t/h	tonnes per hour
t/d	tonnes per day
t/m <sup>3</sup>	tonnes per cubic metre
t/y	tonnes per year
ton, T	short ton
US	United States
US\$	United States dollar(s)
US\$/oz	United States dollars per ounce
US\$/t	United States dollars per tonne
ULF-EM	very low frequency - electromagnetic geophysical surveys
W	west or watt
wt %	percent by weight
y	year
Zn	zinc



The conclusions and recommendations in this report reflect the author's best judgment in light of the information available to him at the time of writing. The author and Micon reserve the right, but will not be obliged, to revise this report and conclusions if additional information becomes known to them subsequent to the date of this report. Use of this report acknowledges acceptance of the foregoing conditions.

This report is intended to be used by First Mining Gold Corp. (First Mining) subject to the terms and conditions of its agreement with Micon. That agreement permits First Mining to file this report as a National Instrument 43-101 Technical Report with the Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities laws and for the reliance on the report by the TSX or TSXV, any other use of this report, by any third party, is at that party's sole risk.

## 1.0 SUMMARY

Micon International Limited (Micon) has been requested by First Mining Gold Corp. (First Mining) to update its 2011 mineral resource estimate for the Pickle Crow gold mine property. That estimate was completed for PC Gold Inc. (PC Gold). PC Gold was acquired by First Mining on November 16, 2015 (the “Acquisition Date”). References to PC Gold in this report: (a) for any period prior to the Acquisition Date means PC Gold Inc., on a pre-acquisition basis; and (b) for any period on or after the Acquisition Date means PC Gold Inc., on a post-acquisition basis and as a wholly-owned subsidiary of First Mining. PC Gold has been actively exploring on the Pickle Crow gold property since 2008.

All currency amounts in this report are stated in US or Canadian dollars (US\$, CDN\$), as specified, with commodity prices generally in US dollars (US\$). Quantities are generally stated in SI units, the Canadian and international practice, including metric tons (tonnes, t), kilograms (kg) or grams (g) for weight, kilometres (km) or metres (m) for distance, hectares (ha) for area, litres (L) for volume and grams per tonne for gold (g/t Au) and silver (g/t Ag) grades. Historical production information may be presented using the Imperial system of measurement. Base metal grades are usually expressed in weight percent (%). Geochemical results or precious metal grades may be expressed in parts per million (ppm) or parts per billion (ppb). (1 ppm = 1 g/t). Elevations are given in metres above sea level (masl). Precious metal quantities may also be reported in troy ounces (ounces, oz), a common practice in the mining industry.

The mineral concessions of the Pickle Crow project consist of 106 patented mining claims covering 1,712 ha and 88 contiguous, unpatented claims covering approximately 14,048 ha. Of the 106 patented claims, 98 (the Pickle Crow Lease) are held in the name of Teck Cominco Limited (Teck), and 8 are held in the name of PC Gold. The unpatented claims are held in the name of PC Gold. PC Gold has a lease on the 98 patented claims held by Teck which expires in 2067. These leasehold claims are subject to two net smelter return (NSR) royalties totalling 1.25%. The other 8 patented claims (the Crowshore Patents), plus certain unpatented claims are subject to NSR royalties ranging from 2% to 3%. The details of all of the NSR royalties to which the Pickle Crow project is subject, and PC Gold’s option to purchase any such royalties, are described in Section 4 of this report.

The Pickle Crow project is located near the town of Pickle Lake, in northwestern Ontario, approximately 400 km north of Thunder Bay (see Figure 1.1). The project is accessed by paved provincial highways to Pickle Lake and then by 7 km of gravel road from the nearby village of Central Patricia. Pickle Lake can also be reached via daily scheduled commercial turboprop aircraft from Thunder Bay, via Sioux Lookout. Pickle Crow is located in a relatively remote region at elevations of approximately 340 to 360 masl. Pickle Lake is a small town of approximately 500 people, however, there are a number of services available in the community including fuel, building supplies, and heavy equipment. The region has a recent history of mining and a skilled workforce is available in the region.

The Pickle Crow gold deposit was considered by PC Gold to be an Archean low-sulphide gold-quartz vein type deposit, also known as shear-zone-hosted gold, Archean quartz-carbonate vein gold deposits, Archean lode gold, Archean mesothermal gold deposits, or simply orogenic gold. The deposit occurs primarily within mafic volcanics and banded iron formation (BIF) in the Pickle Crow assemblage of the Pickle Lake greenstone belt in the Uchi Lake Subprovince, Superior Province of the Canadian Shield. There are other deposits and occurrences nearby, the most important of which is the past producing Central Patricia mine, some 6 km away.

The Pickle Crow deposit was originally discovered in the early 1930s by Northern Aerial Mineral Exploration which began sinking the No. 1 Shaft in 1933. Northern Aerial was acquired by Pickle Crow Gold Mines (PCGM) in 1934 and commercial production at the mine began in 1935. The Pickle Crow mine operated until 1966 during which time it produced 1,446,214 troy ounces of gold and 168,757 troy ounces of silver from 3,070,475 tons of ore milled (at an average grade of 0.47 oz/ton or 16.14 g/t).

**Figure 1.1**  
**Pickle Crow Property Location Map**



Source PC Gold, 2010

In 2008, shortly after the completion of an NI 43-101 Technical Report by MPH Consulting (MPH) in March of that year, PC Gold contracted Fladgate Exploration Consulting Corporation (Fladgate) of Thunder Bay, Ontario, to operate its exploration program. Neil

Pettigrew, M.Sc., P.Geo, former Vice President of Exploration for PC Gold is also a part owner and Vice President of Fladgate. Exploration activity included recovering, digitizing and verifying a significant amount of historical work in the area, such as chip-sampling and drilling by the mine and several phases of exploration by others through the 1980s and 1990s. PC Gold had also completed (to the 2011 mineral resource estimate by Micon) 62,968 m of drilling in 184 holes, collected 1,707 samples from nine trenched areas, and performed geological mapping and geophysics at Pickle Crow. Since the 2011 estimate, 173 new holes have been drilled totalling 35,840.4 m. Drilling concentrated mainly on the core mine trend and the postulated eastward extensions of the Central Patricia mine trend. The principal targets on the core mine trend were the No. 1 and No. 5 Veins and the BIF.

The drilling, sampling and historical data review carried out by PC Gold originally concentrated on defining the extents of the remaining mineralization in the core mine trend, following the old workings. Later exploration by PC Gold expanded to other trends and zones on the property. This exploration has demonstrated that many of the principal structures mined previously continue down-dip from the bottom of the old mine workings, and that they are sometimes surrounded by lower grade mineralization which was of little interest to the old miners due to the low price of gold at the time. This latter point is particularly true of mineralization hosted within banded iron formation adjacent to the veins. Additionally, several new veins and other mineralized zones have been discovered at the project.

As a result of the initial successes of the 2008 exploration program, PC Gold continued drilling throughout 2009, 2010 and into 2011 as part of the exploration and definition drill programs. The drilling program extended several known zones and outlined new discoveries. These include high-grade, narrow vein targets and more disseminated bulk tonnage targets which may be amenable to open pit or underground bulk mining.

It was determined that sufficient new data had been generated, and historical data recovered and verified, to allow for the estimation of an NI 43-101-compliant inferred mineral resource. PC Gold's exploration program operator, Fladgate, which had been involved in much of the historical data digitizing, commenced resource estimates on 16 separate zones in the core mine trend at Pickle Crow, which encompasses the No. 1 Shaft, No. 3 Shaft and the Albany Shaft areas.

In October, 2010, PC Gold approached Micon to review the exploration results to-date and audit and take responsibility for the resource estimate being completed by Fladgate personnel. Mr. B. Terrence Hennessey, P.Geo., of Micon visited the project site during October, 2010, to review the exploration activities, geology and mineralization at the deposit. A second site visit was made to the project site on April 10 and 11, 2017 in the company of First Mining representative Laird Tomalty, to review the Fall/Winter 2016/2017 drill program results and re-examine the conditions on the property.

In April, 2016, First Mining approached Micon to update the 2011 mineral resource estimate using the 2011 to 2014 drill results. The principal zones to be updated were the No.1 and No.

5 Veins and the BIF. Vein No. 2 was to be adjusted for the loss of a crown pillar which was found to have been removed but not included in the survey data. Additionally mineralization in Vein No. 19 was to be restricted to the Pickle Lake Porphyry and the new resource estimates completed by Fladgate on the newly discovered and closely-spaced Veins No. 22 and No. 23 were to be reviewed. In this estimate one intercept from Vein No. 8 was found to actually be part of the new Vein 22/23 zone and needed to be deducted from the Vein 8 estimate. All other zone block models were to remain unchanged but have been reported at different cut-off grades.

For the 2011 estimate review Micon received from Fladgate the following data:

- Drill hole database with collar location, down-hole survey, assay and geology data.
- Interpretation of the drilling at the Pickle Crow deposit.
- Three-dimensional model of the topography.
- Digitized underground workings for the mine and shafts.
- Results for the PC Gold quality assurance/quality control (QA/QC) program.
- Access to PC Gold's chosen assay laboratories for direct retrieval of assay certificates related to the exploration program.
- Summary logs of the drilling.
- QA/QC procedure descriptions.
- A bulk density (specific gravity) dataset.
- Historical reports including metallurgical test results for bulk samples.

The database was validated and verified as described later in this report (Sections 12 and 14) with particular attention paid to assay data entry.

While still a relatively early stage project, it was apparent that the drilling and other exploration completed to 2011 had resulted in sufficient sample density in three dimensions, and confidence in the geological interpretation, for Fladgate to reasonably estimate an NI 43-101-compliant inferred mineral resource for a number of the zones at Pickle Crow (including the BIF, No. 1, No. 2, No. 5, No. 6, No. 7, No. 8, No. 9, No. 11, No. 12, No. 13, No. 15, No. 16 and No. 19 Veins, as well as Conduit Zone 1 and Conduit Zone 2).

In the process of completing the 2011 estimate Micon interpreted the available data and came to the following conclusions:

- PC Gold's QA/QC program lends sufficient confidence to the assay data generated by its drilling program for it to be used in a mineral resource estimate.
- Comparisons of assay results from areas sampled both by PC Gold and previous operators of the project have shown the assay distributions to be very similar once top cuts are applied. Historical drill hole and chip-channel sample data have therefore been found acceptable for use in a resource estimate with appropriate top cuts applied.

- Digitizing of the locations of historical mine workings, underground mapping and chip-channel sampling has been completed to an acceptable level of accuracy for an inferred resource estimate. Upgrading to higher confidence categories will likely require accessing the underground workings and the completion of check surveying.
- Outlier values in the gold and silver assay population have been analyzed and top cuts were applied.
- Drilling has not yet found the bottom of several of the zones.
- The resources were estimated using kriging, where variograms could be modelled, and inverse distance cubed interpolation elsewhere. Based on the use of historic drilling and the somewhat imprecise modelling of the underground workings, the resources have been classified as inferred under the CIM guidelines. The resources were reported using a Whittle optimized pit shell or at underground cut-off grades.

For the 2016 estimate Micon received updated versions of the database and block models, as well as recent quality assurance/quality control (QA/QC), metallurgical and property data.

The resulting estimate of inferred mineral resources for the Pickle Crow project is presented in Table 1.1. The methodology for estimating the resources is described in Section 14 of this report.

**Table 1.1**  
**Estimated Inferred Mineral Resources for the Pickle Crow Project**

Area	Zone	Host	Mining Method	Tonnes	Grade (g/t Au)	Contained Ounces	Cut-off Grade (g/t Au)
Shaft 1	BIF	BIF & Vein	Open Pit	1,887,000	1.3	79,800	0.50
	BIF	BIF	Bulk Underground	5,297,000	3.8	644,700	2.00
	No. 1 Vein	Vein	Underground	594,000	6.1	116,000	2.60
	No. 5 Vein	Vein	Underground	362,000	8.0	93,000	2.60
	No. 9 Vein	Vein	Underground	148,000	7.4	35,300	2.60
	No. 11 Vein	Vein	Underground	21,000	6.0	4,100	2.60
	No. 19 Vein	Vein	Underground	186,000	9.1	54,400	2.60
			<b>Shaft 1 Total</b>		<b>8,495,000</b>	<b>3.8</b>	<b>1,027,300</b>
Shaft 3	No. 2 Vein	Vein	Underground	96,000	8.9	27,200	2.60
	No. 6 Vein	Vein	Underground	160,000	7.9	40,900	2.60
	No. 7 Vein	Vein	Underground	54,000	5.5	9,600	2.60
	No. 8 Vein	Vein	Underground	55,000	8.0	14,200	2.60
	No. 12 Vein	Vein	Underground	14,000	11.7	5,300	2.60
	No. 13 Vein	Vein	Underground	112,000	6.2	22,300	2.60
	No. 22 Vein	Vein	Underground	31,000	5.4	5,300	2.60
	No. 23 Vein	Vein	Underground	165,000	7.0	37,000	2.60
			<b>Shaft 3 Total</b>		<b>687,000</b>	<b>7.3</b>	<b>161,800</b>
Albany Shaft	CZ1	Conduit-Style	Bulk Underground	168,000	4.9	26,600	2.00
	CZ3	Conduit-Style	Bulk Underground	22,000	2.7	1,900	2.00
	No. 15 Vein	Vein	Underground	49,000	4.5	7,000	2.60
	No. 16 Vein	Vein	Underground	31,000	6.0	5,900	2.60
			<b>Albany Shaft Total</b>		<b>270,000</b>	<b>4.8</b>	<b>41,400</b>
		<b>Grand Total</b>		<b>9,452,000</b>	<b>4.1</b>	<b>1,230,500</b>	

Notes:

1. The mineral resource estimate is entirely classified as inferred mineral resources.
2. 2014 CIM Definition Standards were followed for mineral resources.
3. The mineral resource has been estimated using a gold price of US\$1,300/oz.
4. High-grade assays have been capped. Each domain was capped with respect to their unique geology and statistics.
5. The mineral resource was estimated using a block model. Three dimensional wireframes were generated using geological information. A combination of kriging and inverse distance estimation methods were used to interpolate grades into blocks of varying dimensions depending on geology and spatial distribution of sampling.
6. Mineral resources that are not mineral reserves do not have demonstrated economic viability. There is currently insufficient exploration to define these inferred resources as indicated or measured resources.
7. Mineral resources have been adjusted for mined out areas. Small rib and sill pillars around old stopes have not been considered or reported.
8. Numbers may not add due to rounding.

The data used in the preparation of this report are current as of February 28, 2017. The mineral resource estimate presented is current as of August 31, 2016. The 2016/2017 drill results did not affect the 2016 mineral resource estimate.

A total of 92 auger drill holes are planned to test tailings areas 1, 2, 3 and 4. (See Figure 18.2) These shallow holes will be less than 15 m in total depth and the total meterage planned is estimated to be approximately 1,000 m. Samples will be collected at one metre intervals and the individual samples submitted for assay for gold and silver.

From the samples collected composites will be made for additional metallurgical recovery test work. The proposed budget of \$100,000 for 1,000 m of drilling will involve one hollow stem/split spoon auger drill rig for 1 month of field work followed by 1 month of office work to receive the assay results including bottle roll tests on a total of four composites and prepare an assessment report. Details are provided in Section 18 of this report.

Micon has reviewed the proposed program and finds it to be reasonable and justified. Should it fit with First Mining management's strategic goals it is Micon's recommendation that the company conduct the proposed exploration program.



## 2.0 INTRODUCTION AND SCOPE OF WORK

At the request of First Mining Gold Corp. (First Mining), Micon International Limited (Micon) has updated the mineral resource estimate for the former producing Pickle Crow mine near Pickle Lake, Ontario and prepared a National Instrument 43-101 (NI 43-101) Technical Report to support its release to the public. The Pickle Crow mine was operated by Pickle Crow Gold Mines (PCGM) between 1935 and 1966 and produced 1,446,214 oz of gold and 168,757 oz of silver from 2,785,488 tonnes (3,070,475 tons) of ore milled.

Micon was originally retained in 2011 by Mr. Neil Pettigrew, Vice President, Exploration for PC Gold Inc. (PC Gold) to review and take responsibility for a mineral resource estimate for the remaining mineralization at the Pickle Crow mine and to prepare a National Instrument 43-101 (NI 43-101) Technical Report to support its release.

Since 2011, PC Gold has completed additional drilling on some of the known zones including the No. 1 and No. 5 Veins and the “BIF”, a mineralized banded iron formation target. Other drilling was completed elsewhere on the property. PC Gold also completed an in-house resource estimate on two newly discovered, closely spaced zones, the No. 22 and No. 23 Veins.

First Mining acquired PC Gold on November 16, 2015 (the “Acquisition Date”). References to PC Gold in this report: (a) for any period prior to the Acquisition Date means PC Gold Inc., on a pre-acquisition basis; and (b) for any period on or after the Acquisition Date means PC Gold Inc., on a post-acquisition basis and as a wholly-owned subsidiary of First Mining. In April, 2016, First Mining retained Micon to re-estimate the mineral resources in the No. 1 and No. 5 Veins and the “BIF”, and to review and take responsibility for the No. 22/23 Vein estimate. Additionally, minor adjustments were to be made on No. 2 Vein for a crown pillar that was found to be missing and the No. 19 Vein to limit the mineralized vein extents to the Pickle Crow Porphyry. This necessitated re-estimation of the No. 19 block model despite there being no new drilling. One intercept from Vein No. 8 was found to actually be part of the new Vein 22/23 zone and needed to be deducted from the Vein 8 estimate. All other zone block models were to remain unchanged but have been reported at different cut-off grades.

The original 2011 mineral resource estimate was completed under the direction of Sean Horan, P.Geo., of Fladgate Exploration Consulting Corporation (Fladgate) of Thunder Bay, Ontario, with the assistance of other Fladgate professional staff. Neil Pettigrew, M.Sc., P.Geo., the former Vice President of Exploration for PC Gold is also a part owner and Vice President of Fladgate thus requiring independent review of the 2011 estimate. The block models for the other zones at the mine have remained as Mr. Horan estimated them in 2011 but have been reported using a different gold price.

Descriptions of location, geology, history, drilling and exploration were provided by Neil Pettigrew, P.Geo., Michael Thompson, P.Geo. and Jason Arnold, P.Geo., Fladgate and PC Gold’s Qualified Persons (QPs). The mineral resources were prepared under the supervision of, and reviewed by B. Terrence Hennessey, P.Geo. Surpac and Gemcom software packages

were used to review the data and block models. A pit cone was floated using Whittle software to report the potentially open pittable portion of the mineral resource. This Technical Report has been compiled under the overall direction of Mr. Hennessey.

This report follows the format and guidelines of Form 43-101F1, Technical Report for National Instrument 43-101 (NI 43-101), Standards of Disclosure for Mineral Projects, and its Companion Policy NI 43-101CP, as amended by the Canadian Securities Administrators on June 30, 2011. The mineral resource estimate contained herein is compliant with NI 43-101 and the CIM definition standards for mineral resources and mineral reserves referenced therein.

The Pickle Crow project is located in a remote, but paved-road and air services accessible, part of northwestern Ontario. It is found at elevations of approximately 340 to 360 masl, some 400 km north of Thunder Bay, Ontario.

The Pickle Crow gold deposit is considered to be an Archean low-sulphide gold-quartz vein type deposit, also known as shear-zone-hosted gold, Archean quartz-carbonate vein gold deposits, Archean lode gold, Archean mesothermal gold deposits, or orogenic gold deposits. It occurs in mafic volcanics and banded iron formation of the Pickle Lake greenstone belt.

As of March, 2011, PC Gold had completed a total of 62,968 m of drilling in 184 holes and collected 1,707 samples from nine trenched areas at Pickle Crow. Additionally PC Gold has identified approximately 150,000 m of historical drilling, the data for much of which has now been digitized. Since 2011, 173 new holes have been drilled totalling 35,840.4 m.

The drilling completed as of the date of this report has reasonably demonstrated the extent and continuity of the mineralization at several zones, both old and new, on the Pickle Crow property with sufficient confidence to allow for the estimation of an inferred mineral resource.

B. Terrence Hennessey, P.Geo., of Micon, travelled to Pickle Lake and visited the Pickle Crow gold mine property and Fladgate's Thunder Bay offices during the period October 18 to 21, 2010, to review the exploration activities, geology and mineralization at the deposit. The visit was made in the company of Mr. Pettigrew and Mr. Horan. This was Micon's first visit to the Pickle Crow project site. A second site visit was made to the project site on April 10 and 11, 2017 in the company of First Mining representative Laird Tomalty to review the Fall/Winter 2016/2017 drill program results and re-examine the conditions on the property.

The holes completed in the Winter 2017 drill program have no effect on the interpretation of the mineral resource estimates presented in this report as they are drilled on a potential western extension to the core mine trend. The only intersections of potential economic significance from the Fall 2016 drilling come from hole PC-16-306 which intersected two veins interpreted to be the middle and lower No. 15 Vein. The No. 15 Vein mineral resource was not updated for only one drill hole.

Mr. Hennessey is a Professional Geoscientist registered in Ontario. He has over 35 years of experience in mineral exploration, mine operations, resource estimation and consulting. Mr. Hennessey is a Vice President of Micon and the principal author of this report. The author is a Qualified Person and independent of PC Gold as defined by NI 43-101.

At the time of Micon's first visit to the Pickle Crow property a diamond drill program was ongoing with two rigs in operation. During that visit Micon reviewed several drill hole intersections through the deposit and visited surface exposures of the mineralization at the No. 1 Shaft pillar. The project core logging facilities were also examined and mineralization styles, geology, previous exploration, and current logging, data collection and quality assurance/quality control (QA/QC) procedures were reviewed.

The economic viability of mineral resources that are not mineral reserves has not been demonstrated. Mineral resource estimates used in this report are entirely classified as Inferred resources. These estimates are considered too geologically speculative to have any economic considerations applied to them or to be considered as mineral reserves.

This report has been prepared using the following sources of information, including those in the public domain as well as privately acquired data.

- Data and transcripts supplied by and at the instruction of PC Gold originally acquired from previous owners and operators of the property.
- MPH Consulting Limited's (MPH) NI 43-101 Technical report dated April 21, 2008.
- A database of all historic drill holes and underground workings of the property assembled by MPH and Fladgate in 2008 and 2009 and validated by Fladgate against original paper copies of the data in June, 2010.
- Fladgate-generated assessment reports, internal reports and memos.
- Fladgate-generated 3D models of the mineralization (developed since June, 2009).
- Review of various geological reports and maps produced by the Ontario Geological Survey (OGS), its predecessors and the Geological Survey of Canada (GSC).
- Research of technical papers from various journals.
- Independent analysis of quartered core samples and sample pulps (assay splits).
- The principal author's and Fladgate staff's personal knowledge of Archean lode gold deposits and similar geological environments.
- An updated drill hole database and block model from Fladgate dated 2015.

All currency amounts in this report are stated in US or Canadian dollars (US\$, CDN\$), as specified, with commodity prices generally in US dollars (US\$). Quantities are generally stated in SI units, the Canadian and international practice, including metric tons (tonnes, t), kilograms (kg) or grams (g) for weight, kilometres (km) or metres (m) for distance, hectares (ha) for area, litres (L) for volume and grams per tonne for gold (g/t Au) and silver (g/t Ag) grades. Historical production information may be presented using the Imperial system of measurement. Base metal grades are usually expressed in weight percent (%). Geochemical results or precious metal grades may be expressed in parts per million (ppm) or parts per billion (ppb). (1 ppm = 1 g/t). Elevations are given in metres above sea level (masl).

Precious metal quantities may also be reported in troy ounces (ounces, oz), a common practice in the mining industry.

Micon is pleased to acknowledge the helpful cooperation of First Mining's, PC Gold's and Fladgate's management and field staff, all of whom made any and all data requested available and responded openly and helpfully to all questions, queries and requests for material.

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

The various agreements under which First Mining and PC Gold hold title to the mineral lands for this project have not been thoroughly investigated or confirmed by Micon and Micon offers no opinion as to the validity of the mineral title claimed. The information in Section 4 has been provided by them. The description of the property has been presented here for general information purposes only, as required by NI 43-101.

Micon is not qualified to provide professional opinion on issues related to mining and exploration title and land tenure, royalties, permitting and legal and environmental matters. The author has accordingly relied upon the representations of the issuer, First Mining, as well as Fladgate and PC Gold, for Section 4 of this report and has not verified the information presented in that section.

## 4.0 PROPERTY DESCRIPTION AND LOCATION

### 4.1 PROPERTY LOCATION

The Pickle Crow Gold property is located in northwestern Ontario about 400 km north of Thunder Bay and approximately 11 km east of the town of Pickle Lake. The property is centred at approximately 51° 31' North latitude and 90° West longitude in NTS map area 52O/11.

The property's location is shown in Figures 4.1 and 4.2.

**Figure 4.1**  
**Pickle Crow Property Location Map**



Source: PC Gold, 2010.



Figure 4.2  
Northwestern Ontario Property Location Map



Source: PC Gold, 2010.

## 4.2 TYPE OF MINERAL TENURE

In 2011, the Pickle Crow property consisted of 98 contiguous patented mining claims covering a surveyed area of 1,583 ha. On August 6, 2014, an additional 8 patented mining claims were acquired from Frontline Gold Corporation (Frontline) which increased the total property area to 1,712 ha. Additional property acquisitions, including 28 claims from Metalcorp Limited (Metalcorp), have increased the number of unpatented mining claims to 88, comprised of 878 units covering an area of approximately 14,048 ha. The claims forming the property boundary are marked by all appropriate line posts and corner posts. Their positions are recorded with the Ontario Ministry of Northern Development, Mines and Forestry (MNDMF) claims office. The patented mining claims are located in Connell and McCullagh Townships and the unpatented mining claims are located in Connell, McCullagh and Ponsford Townships as well as the Atik Lake, Collinshaw Lake, Dona Lake, Firstloon Lake and Tarp Lake Areas, in the Patricia Mining Division, northwestern Ontario.

An additional 5 unpatented claims in the Connell township (3002045, 3002046, 3002047, 3002048, and 3002050) currently owned by Rubicon Minerals and known as the ‘Pickle Lake #2 Claims’, are subject to an option agreement between Rubicon and PC Gold, as amended (“Rubicon Option Agreement”). Under the terms of the Rubicon Option Agreement, PC Gold has the option to acquire 100% ownership of these claims in exchange for certain cash payments to Rubicon. The final cash payment that PC Gold must make to Rubicon is due on March 28, 2018. Once this payment has been made, PC Gold can apply to have the claims transferred and registered in the name of PC Gold.

The unpatented and patented mining claims are set out in Tables 4.1 and 4.2.

**Table 4.1**  
**Pickle Crow Property Unpatented Mining Claims \***

Township/Area	Claim Number	Recording Date	Claim Due Date	Area** (ha)	Ownership	Annual Work Required	Total Reserve
Atik Lake Area	3008478	28-Jun-04	28-Jun-19	192	PC Gold Inc.	\$4,800	\$4,800
Collishaw Lake Area	3008479	28-Jun-04	28-Jun-19	256	PC Gold Inc.	\$6,400	\$6,400
Collishaw Lake Area	4214431	5-Mar-10	5-Mar-19	144	PC Gold Inc.	\$3,600	\$3,600
Collishaw Lake Area	4265583	7-Nov-14	7-Nov-18	256	PC Gold Inc.	\$6,400	\$0
Collishaw Lake Area	4265584	7-Nov-14	7-Nov-18	256	PC Gold Inc.	\$6,400	\$0
Collishaw Lake Area	4265585	7-Nov-14	7-Nov-18	64	PC Gold Inc.	\$1,600	\$0
Connell	1234493	13-Mar-03	13-Mar-19	16	PC Gold Inc.	\$400	\$400
Connell	1234494	13-Mar-03	13-Mar-19	64	PC Gold Inc.	\$1,600	\$1,600
Connell	1234495	13-Mar-03	13-Mar-19	32	PC Gold Inc.	\$800	\$800
Connell	1234496	13-Mar-03	13-Mar-19	64	PC Gold Inc.	\$1,600	\$1,600
Connell	1234499	4-Apr-03	4-Apr-19	32	PC Gold Inc.	\$800	\$800
Connell	1234500	4-Apr-03	4-Apr-19	256	PC Gold Inc.	\$6,400	\$6,400
Connell	1244526	22-Feb-02	22-Feb-19	112	PC Gold Inc.	\$2,800	\$2,800



Township/Area	Claim Number	Recording Date	Claim Due Date	Area** (ha)	Ownership	Annual Work Required	Total Reserve
Connell	1244527	22-Feb-02	22-Feb-19	32	PC Gold Inc.	\$800	\$800
Connell	1245440	31-Jan-03	31-Jan-19	256	PC Gold Inc.	\$6,400	\$6,400
Connell	1246889	21-Mar-03	21-Mar-19	192	PC Gold Inc.	\$4,800	\$4,800
Connell	1246892	21-Mar-03	21-Mar-19	160	PC Gold Inc.	\$4,000	\$4,000
Connell	3004371	4-Apr-03	4-Apr-19	256	PC Gold Inc.	\$6,400	\$6,400
Connell	3006076	28-Nov-02	28-Nov-18	240	PC Gold Inc.	\$6,000	\$7,202
Connell	3008481	28-Jun-04	28-Jun-19	96	PC Gold Inc.	\$2,400	\$2,400
Connell	3008482	28-Jun-04	28-Jun-19	128	PC Gold Inc.	\$3,200	\$3,200
Connell	4241793	5-Feb-10	5-Feb-19	32	PC Gold Inc.	\$800	\$800
Connell	4241794	5-Feb-10	5-Feb-19	32	PC Gold Inc.	\$800	\$800
Connell	4241795	5-Feb-10	5-Feb-19	48	PC Gold Inc.	\$1,200	\$1,200
Connell	4242656	23-May-08	23-May-19	128	PC Gold Inc.	\$3,200	\$532,401
Connell	4242657	23-May-08	23-May-19	96	PC Gold Inc.	\$2,400	\$5,275
Connell	4242658	23-May-08	23-May-19	192	PC Gold Inc.	\$4,800	\$151,556
Connell	4242659	23-May-08	23-May-19	144	PC Gold Inc.	\$3,600	\$3,567,284
Connell	4242660	23-May-08	23-May-19	64	PC Gold Inc.	\$1,600	\$2,778
Connell	4242665	23-May-08	23-May-19	176	PC Gold Inc.	\$4,400	\$4,400
Connell	4242791	23-May-08	23-May-19	112	PC Gold Inc.	\$2,800	\$2,800
Connell	4242792	23-May-08	23-May-19	256	PC Gold Inc.	\$6,400	\$6,400
Connell	4242793	23-May-08	23-May-19	256	PC Gold Inc.	\$6,400	\$6,400
Connell	4242794	23-May-08	23-May-19	224	PC Gold Inc.	\$5,600	\$5,600
Connell	4242795	23-May-08	23-May-19	112	PC Gold Inc.	\$2,800	\$2,800
Connell	4242797	23-May-08	23-May-19	32	PC Gold Inc.	\$800	\$1,180
Connell	4242798	23-May-08	23-May-19	112	PC Gold Inc.	\$2,800	\$6,233
Connell	4249592	16-Jun-09	16-Jun-19	176	PC Gold Inc.	\$4,400	\$0
Connell	4254823	16-Mar-10	16-Mar-19	64	PC Gold Inc.	\$1,600	\$1,600
Connell	4278000	6-Feb-14	6-Feb-19	16	PC Gold Inc.	\$400	\$0
Connell	4282646	18-Jan-16	18-Jan-19	64	PC Gold Inc.	\$1,600	\$0
Connell	4282647	18-Jan-16	18-Jan-19	32	PC Gold Inc.	\$800	\$0
Connell	4282648	18-Jan-16	18-Jan-19	256	PC Gold Inc.	\$6,400	\$0
Connell	4282649	18-Jan-16	18-Jan-19	256	PC Gold Inc.	\$6,400	\$0
Connell	4282650	18-Jan-16	18-Jan-19	256	PC Gold Inc.	\$6,400	\$0
Dona Lake Area	1234483	13-Mar-03	13-Mar-19	16	PC Gold Inc.	\$400	\$400
Dona Lake Area	1234484	13-Mar-03	13-Mar-19	192	PC Gold Inc.	\$4,800	\$4,800
Dona Lake Area	1234487	13-Mar-03	13-Mar-19	256	PC Gold Inc.	\$6,400	\$6,400
Dona Lake Area	1234488	13-Mar-03	13-Mar-19	64	PC Gold Inc.	\$1,600	\$1,600
Dona Lake Area	1234489	13-Mar-03	13-Mar-19	256	PC Gold Inc.	\$6,400	\$6,400
Dona Lake Area	4249594	16-Jun-09	16-Jun-19	240	PC Gold Inc.	\$6,000	\$0
Dona Lake Area	4249596	16-Jun-09	16-Jun-19	240	PC Gold Inc.	\$6,000	\$0
Dona Lake Area	4249598	16-Jun-09	16-Jun-19	256	PC Gold Inc.	\$6,400	\$0

Township/Area	Claim Number	Recording Date	Claim Due Date	Area** (ha)	Ownership	Annual Work Required	Total Reserve
Dona Lake Area	4249600	16-Jun-09	16-Jun-19	224	PC Gold Inc.	\$5,600	\$0
Firstloon Lake Area	1245450	31-Jan-03	31-Jan-19	192	PC Gold Inc.	\$4,800	\$4,800
Firstloon Lake Area	3008480	28-Jun-08	28-Jun-19	240	PC Gold Inc.	\$6,000	\$6,000
Firstloon Lake Area	4224322	5-Feb-08	5-Feb-19	112	PC Gold Inc.	\$2,800	\$2,800
Firstloon Lake Area	4224326	5-Feb-08	5-Feb-19	256	PC Gold Inc.	\$6,400	\$6,400
Firstloon Lake Area	4242662	23-May-08	23-May-19	256	PC Gold Inc.	\$6,400	\$15,475
Firstloon Lake Area	4265586	7-Nov-14	7-Nov-18	256	PC Gold Inc.	\$6,400	\$0
Firstloon Lake Area	4265587	7-Nov-14	7-Nov-18	256	PC Gold Inc.	\$6,400	\$0
Firstloon Lake Area	4265588	7-Nov-14	7-Nov-18	256	PC Gold Inc.	\$6,400	\$0
McCullagh	4242661	23-May-08	23-May-19	112	PC Gold Inc.	\$2,800	\$183,763
McCullagh	4242663	23-May-08	23-May-19	144	PC Gold Inc.	\$3,600	\$115,733
McCullagh	4242664	23-May-08	23-May-19	160	PC Gold Inc.	\$4,000	\$4,000
McCullagh	4242796	23-May-08	23-May-19	64	PC Gold Inc.	\$1,600	\$2,006,102
McCullagh	4245794	11-Feb-14	11-Feb-19	32	PC Gold Inc.	\$800	\$0
McCullagh	4245795	11-Feb-14	11-Feb-19	48	PC Gold Inc.	\$1,200	\$0
McCullagh	4245796	11-Feb-14	11-Feb-19	48	PC Gold Inc.	\$1,200	\$0
McCullagh	4276968	7-Mar-14	7-Mar-19	16	PC Gold Inc.	\$400	\$0
McCullagh	4276969	7-Mar-14	7-Mar-19	96	PC Gold Inc.	\$2,400	\$0
Ponsford	4249591	16-Jun-09	16-Jun-19	176	PC Gold Inc.	\$4,400	\$0
Tarp Lake Area	1245441	31-Jan-03	31-Jan-19	256	PC Gold Inc.	\$6,400	\$6,400
Tarp Lake Area	1245442	31-Jan-03	31-Jan-19	256	PC Gold Inc.	\$6,400	\$6,400
Tarp Lake Area	1245443	31-Jan-03	31-Jan-19	256	PC Gold Inc.	\$6,400	\$6,400
Tarp Lake Area	1245444	31-Jan-03	31-Jan-19	256	PC Gold Inc.	\$6,400	\$6,400
Tarp Lake Area	1245445	31-Jan-03	31-Jan-19	256	PC Gold Inc.	\$6,400	\$6,400
Tarp Lake Area	1245446	31-Jan-03	31-Jan-19	128	PC Gold Inc.	\$3,200	\$3,200
Tarp Lake Area	1245447	31-Jan-03	31-Jan-19	240	PC Gold Inc.	\$6,000	\$6,000
Tarp Lake Area	1245448	31-Jan-03	31-Jan-19	96	PC Gold Inc.	\$2,400	\$2,400
Tarp Lake Area	1245449	31-Jan-03	31-Jan-19	256	PC Gold Inc.	\$6,400	\$6,400
Tarp Lake Area	3006064	31-Jan-03	31-Jan-19	192	PC Gold Inc.	\$4,800	\$4,800
Tarp Lake Area	3006075	28-Nov-02	28-Nov-18	256	PC Gold Inc.	\$6,400	\$6,400
Tarp Lake Area	3006077	28-Nov-02	28-Nov-18	256	PC Gold Inc.	\$6,400	\$6,400
Tarp Lake Area	3008475	28-Jun-04	28-Jun-19	128	PC Gold Inc.	\$3,200	\$3,200
Tarp Lake Area	3008476	28-Jun-04	28-Jun-19	192	PC Gold Inc.	\$4,800	\$4,800
Tarp Lake Area	3008477	28-Jun-04	28-Jun-19	256	PC Gold Inc.	\$6,400	\$6,400
Tarp Lake Area	4248796	4-Feb-10	4-Feb-19	64	PC Gold Inc.	\$1,600	\$1,600
<b>TOTAL AREA</b>				<b>14,048</b>			

\* - As of March 7, 2018.

\*\* - Calculated from units per claim data (1 unit = 16 ha) as reported by MNDMF. The total area as calculated from spatial data as digitized by MNDMF is 14,048 ha. Units are used to determine assessment work requirements.

**Table 4.2  
Pickle Crow Property Patented Mining Claims\***

Patent ID	Registered Owner	Township	Area (ha)
<b>Pickle Crow Group (Teck Lease)</b>			
PA63	Teck Cominco Ltd.	Connell/McCullagh	16.8
PA64	Teck Cominco Ltd.	Connell/McCullagh	15.9
PA65	Teck Cominco Ltd.	Connell/McCullagh	11.3
PA66	Teck Cominco Ltd.	McCullagh	23.8
PA67	Teck Cominco Ltd.	Connell/McCullagh	9.3
PA68	Teck Cominco Ltd.	Connell	12.6
PA69	Teck Cominco Ltd.	Connell	9.7
PA70	Teck Cominco Ltd.	Connell	18.2
PA637	Teck Cominco Ltd.	Connell	19.6
PA638	Teck Cominco Ltd.	Connell	14.2
PA639	Teck Cominco Ltd.	Connell	19.3
PA640	Teck Cominco Ltd.	Connell	16.7
PA644	Teck Cominco Ltd.	Connell	19.4
PA646	Teck Cominco Ltd.	Connell	24.7
PA675	Teck Cominco Ltd.	Connell	10.2
PA676	Teck Cominco Ltd.	Connell	9.6
PA677	Teck Cominco Ltd.	Connell	11.7
PA684	Teck Cominco Ltd.	Connell	10.4
PA685	Teck Cominco Ltd.	Connell	10.6
PA686	Teck Cominco Ltd.	Connell	13.2
PA696	Teck Cominco Ltd.	Connell	14.3
PA697	Teck Cominco Ltd.	Connell	16.3
PA698	Teck Cominco Ltd.	Connell	11.2
PA699	Teck Cominco Ltd.	Connell	19.4
PA700	Teck Cominco Ltd.	Connell	18.2
PA701	Teck Cominco Ltd.	Connell	11.1
PA702	Teck Cominco Ltd.	Connell	10.5
PA703	Teck Cominco Ltd.	Connell	12.3
PA704	Teck Cominco Ltd.	Connell	13.2
PA705	Teck Cominco Ltd.	Connell	21.8
PA706	Teck Cominco Ltd.	Connell	22.3
PA707	Teck Cominco Ltd.	Connell	27.4
PA725	Teck Cominco Ltd.	Connell	20.8
PA726	Teck Cominco Ltd.	Connell	22.4
PA727	Teck Cominco Ltd.	Connell	11.7
PA728	Teck Cominco Ltd.	Connell	25.1
PA729	Teck Cominco Ltd.	Connell	26.3
PA730	Teck Cominco Ltd.	Connell	19.3
PA735	Teck Cominco Ltd.	Connell	16.7
PA736	Teck Cominco Ltd.	Connell	19.8
PA737	Teck Cominco Ltd.	Connell	20.2
PA738	Teck Cominco Ltd.	Connell	18.9
PA739	Teck Cominco Ltd.	Connell	24.0
PA740	Teck Cominco Ltd.	Connell	28.0
PA741	Teck Cominco Ltd.	Connell	21.7
PA742	Teck Cominco Ltd.	Connell	18.6

Patent ID	Registered Owner	Township	Area (ha)
PA743	Teck Cominco Ltd.	Connell	14.4
PA744	Teck Cominco Ltd.	Connell	21.4
PA745	Teck Cominco Ltd.	Connell	7.6
PA746	Teck Cominco Ltd.	Connell	21.8
PA747	Teck Cominco Ltd.	Connell	21.4
PA748	Teck Cominco Ltd.	Connell	21.0
PA749	Teck Cominco Ltd.	Connell	20.4
PA750	Teck Cominco Ltd.	Connell	22.1
PA751	Teck Cominco Ltd.	Connell	26.1
PA755	Teck Cominco Ltd.	Connell	6.9
PA756	Teck Cominco Ltd.	Connell	4.5
PA757	Teck Cominco Ltd.	Connell	20.4
PA758	Teck Cominco Ltd.	Connell	15.7
PA759	Teck Cominco Ltd.	Connell	15.2
PA760	Teck Cominco Ltd.	Connell	16.6
PA761	Teck Cominco Ltd.	Connell	17.5
PA762	Teck Cominco Ltd.	Connell	20.4
PA763	Teck Cominco Ltd.	Connell	25.8
PA773	Teck Cominco Ltd.	Connell	10.4
PA774	Teck Cominco Ltd.	Connell	12.6
PA775	Teck Cominco Ltd.	Connell	6.3
PA776	Teck Cominco Ltd.	Connell	12.1
PA777	Teck Cominco Ltd.	Connell	8.3
PA778	Teck Cominco Ltd.	Connell	5.2
PA779	Teck Cominco Ltd.	Connell	5.5
PA780	Teck Cominco Ltd.	Connell	6.0
PA781	Teck Cominco Ltd.	Connell	3.1
PA2011	Teck Cominco Ltd.	Connell	23.6
PA2061 (PA185)	Teck Cominco Ltd.	Connell	20.7
PA2062 (PA186)	Teck Cominco Ltd.	Connell	33.9
PA2062A (PA186)	Teck Cominco Ltd.	Connell	
PA2063 (PA187)	Teck Cominco Ltd.	Connell/McCullagh	15.5
PA2064 (PA188)	Teck Cominco Ltd.	Connell	20.0
PA2065 (PA189)	Teck Cominco Ltd.	Connell/McCullagh	18.5
PA2066 (PA201)	Teck Cominco Ltd.	Connell	17.2
PA2067 (PA199)	Teck Cominco Ltd.	Connell	16.8
PA2068 (PA200)	Teck Cominco Ltd.	Connell	15.5
PA2069 (PA202)	Teck Cominco Ltd.	Connell/McCullagh	17.0
PA2070 (PA670)	Teck Cominco Ltd.	Connell	17.6
PA2071	Teck Cominco Ltd.	Connell	17.7
PA2072	Teck Cominco Ltd.	Connell	2.4
PA2073 (PA665)	Teck Cominco Ltd.	Connell	14.7
PA2074 (PA671)	Teck Cominco Ltd.	Connell	10.6
PA2075 (PA668)	Teck Cominco Ltd.	Connell	17.0
PA2076 (PA666)	Teck Cominco Ltd.	Connell	13.8
PA2077 (PA667)	Teck Cominco Ltd.	Connell	15.4
PA2078 (PA669)	Teck Cominco Ltd.	Connell	19.0
PA2133	Teck Cominco Ltd.	Connell	14.0
PA2139	Teck Cominco Ltd.	Connell	12.7
PA2140	Teck Cominco Ltd.	Connell	22.9

Patent ID	Registered Owner	Township	Area (ha)
PA2141	Teck Cominco Ltd.	Connell	21.7
PA2185	Teck Cominco Ltd.	Connell	8.2
		<b>Sub Total</b>	<b>1,583.2</b>
<b>Crowshore Patents (acquired from Frontline in purchase agreement dated August 1, 2014)</b>			
PA90	PC Gold Inc.	McCullagh	17.0
PA91	PC Gold Inc.	McCullagh	14.4
PA92	PC Gold Inc.	McCullagh	19.2
PA93	PC Gold Inc.	McCullagh	16.2
PA94	PC Gold Inc.	McCullagh	16.9
PA95	PC Gold Inc.	McCullagh	16.3
PA96	PC Gold Inc.	McCullagh	13.0
PA2586	PC Gold Inc.	McCullagh	16.1
		<b>Sub Total</b>	<b>129.1</b>
		<b>Total All Claims</b>	<b>1,712.3</b>

\* - As of March 7, 2018.

The location of the claims can be seen in Figures 4.3 and 4.4.

First Mining, through its subsidiary PC Gold, owns 100% of the mining lease (99 year, expiring July 31, 2067) for the Pickle Crow patented claims, subject to payment to the lessor (Teck Resources Limited) of an annual fee of \$1.00 (fully pre-paid to 2067). Registered ownership of mineral rights and surface rights for the Pickle Crow patented claims is held by Teck as ‘fee simple, absolute’, the highest level possible. For practical purposes, all of the property’s value lies in the mining lease, which grants lessee PC Gold exclusive rights to explore and develop the property. A number of the patented and unpatented claims that comprise the Pickle Crow property are subject to NSR royalties, as detailed in Section 4.5 below.

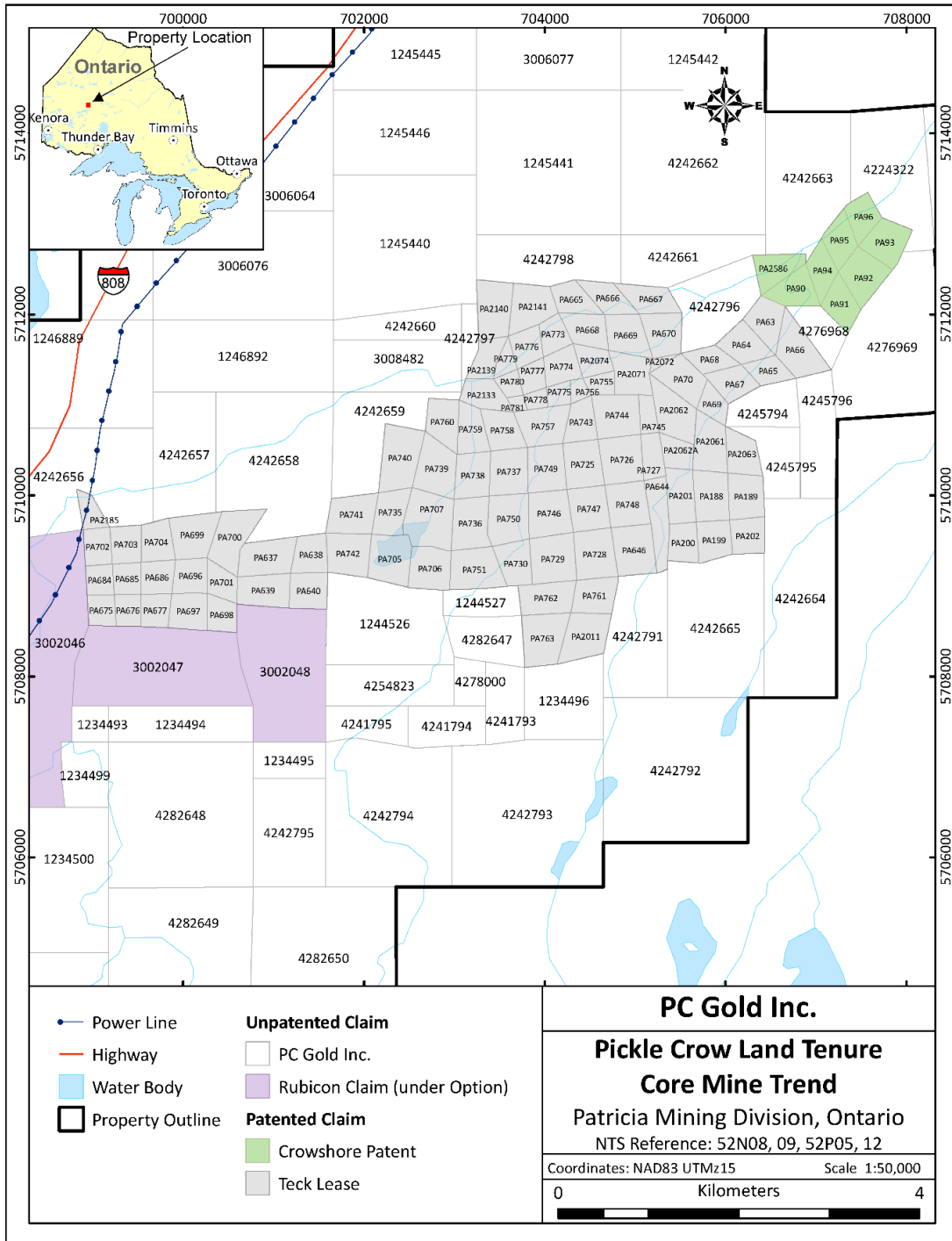
PC Gold obtained its leasehold interest in the Pickle Crow patented claims by entering into a property acquisition agreement dated December 21, 2007, with Premier Gold Mines Limited and Donald M. Ross (in trust) (the vendors), to acquire a 100% interest in the mining lease for the Pickle Crow property, which consisted of, at the time of acquisition, 98 patented mineral claims totalling 1,583 ha (3,911.6 ac) located in Connell and McCullagh Townships, Patricia Mining Division, near the town of Pickle Lake, Ontario, and hosting the past producing Pickle Crow gold mine, together with all surface infrastructure including a small mill, stockpiles, equipment and tailings.

Under the terms of the agreement, PC Gold agreed to pay the vendors CDN\$13 million for the property, to be satisfied through staged cash payments totalling CDN\$3.5 million plus the issuance of CDN\$9.5 million worth of common shares of PC Gold at the issue price under a then planned initial public offering, which subsequently occurred as planned on May 13, 2008.

As additional consideration, the vendors were also issued ¼ of a common share purchase w

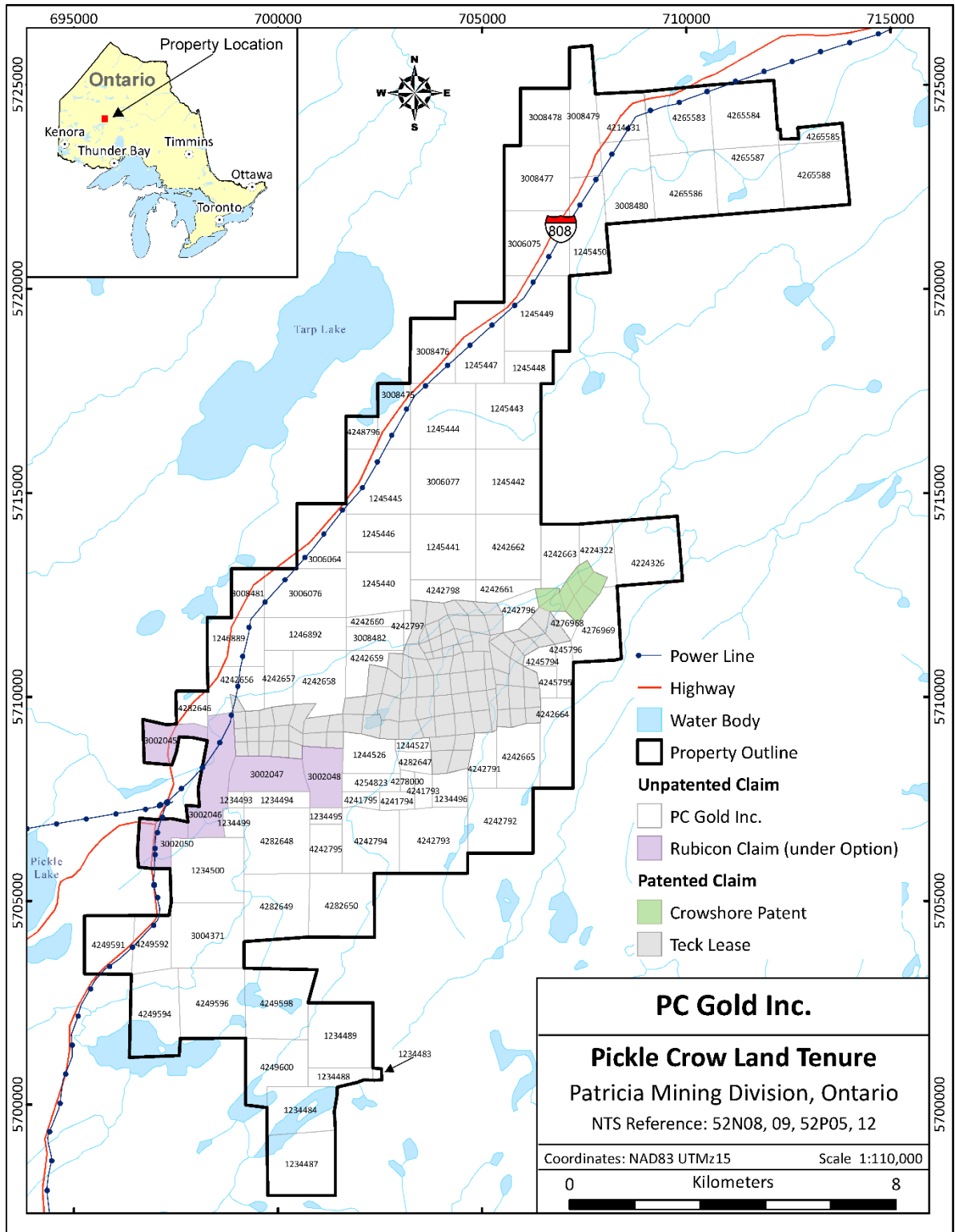
As additional consideration, the vendors were also issued 1/4 of a common share purchase warrant of PC Gold for each common share issued to them. Each of the vendors also received a 0.5% NSR royalty on the property (combined, 1%).

**Figure 4.3**  
**Pickle Crow Project Claim Map, Core Mine Trend**



Source First Mining, 2018

**Figure 4.4**  
**Pickle Crow Project Claim Map, Remainder of Unpatented Claims**



Source First Mining, 2018

### 4.3 ONTARIO MINERAL POLICY

In Ontario, the ownership of surface rights and mining rights can vary from one property to another, particularly in regions where settlement and industry have a long history. The Canada Constitution Act, 1867 gave the then existing provinces, including Ontario, ownership of the public property within their boundaries (i.e. to the provincial Crown), which then issued grants of land known as “Crown Patents”. In 1913, the province of Ontario amended its Public Lands Act so that any title granted by the Crown before the amendment was deemed to include mining rights ownership. Any parcels of land granted by the Crown after May 6, 1913, may or may not include the mining rights depending on how the title is worded. Ontario’s current Public Lands Act authorizes the Minister of Natural Resources to sell or lease land. Today, the province’s policy is to reserve mining rights to the Crown in the majority of land grants (MNDMF website [www.mndmf.gov.on.ca](http://www.mndmf.gov.on.ca)).

At the time of writing the core portions of the long established mining areas in Ontario, including the Pickle Crow property, are dominated by long standing Patented Mining Claims which may or may not include other ownership titles such as surface and timber rights. On Crown lands, and private lands that do not include mining rights, mineral exploration rights may be acquired by claim staking.

A staked mining claim provides the owner the exclusive right to explore for minerals. Once a claim is staked, the owner must perform exploration work to maintain it in good standing. This is called assessment work. This work must amount to at least CDN\$400 per claim unit (1 unit = 16 ha) per year and be reported to the Mining Lands Section of the MNDMF. Assessment work is not required in the first year after recording a mining claim. Claims are forfeited if the assessment work is not done. The mining rights affected by the forfeiture then return to the Crown and may be staked by another party.

Patented claims do not have assessment work expenditure or reporting requirements. These claims remain in good standing as long as applicable taxes are paid to the local municipality.

The claim holder’s right is only to explore for minerals on mining claims. Mining (i.e. extraction of the minerals) cannot take place until the claims are brought to lease. Mining leases are issued for the express purpose of undertaking mineral exploration, development or mining. The claim holder is entitled to a lease upon fulfilling the requirements of the Mining Act.

Currently mining leases are issued for 21-year terms and may be renewed for further 21-year periods. In the past however, lease terms for as long as 99 years were common, which is the case for the Pickle Crow property. Leases can be issued for surface and mining rights, mining rights only or surface rights only. Once issued, the lessee pays an annual rent to the province. Further, prior to a mine coming into production, the lessee must comply with all applicable federal and provincial legislation.



Ontario's Mining Act is the legislation which provides for acquiring land for mineral exploration and development. Ontario's MNDFM administers the Mining Act, which sets out rules for all aspects of mineral exploration and development.

#### **4.4 COSTS OF MAINTENANCE**

The annual rent for the original patented portion of the Pickle Crow property under the terms of the Mining Lease running until July 31, 2067 is the amount of CDN\$1.00 payable to the registered owner, Teck, by the leaseholder, PC Gold. These amounts have been fully pre-paid up to July 31, 2067. Annual municipal taxes for the Pickle Crow property are paid to the Township of Pickle Lake. For the leasehold claims, Teck, as lessor, pays the taxes and invoices PC Gold (the lessee) for reimbursement. For the other 8 patented claims (Crowshore Patents), PC Gold pays the taxes directly. The status of the mineral rights, surface rights and details of the supporting agreements have not been verified by the authors.

The unpatented portion of the Pickle Crow property is subject to assessment work requirements, as detailed in the previous sub-section, totalling CDN\$351,200 annually.

#### **4.5 ROYALTIES AND PROPERTY RIGHTS**

##### **4.5.1 Underlying Agreements**

The leasehold interest in the 98 contiguous Pickle Crow group patented mining claims is governed by the terms of the Mining Lease. Registered mineral and surface rights for the Pickle Crow group are owned by Teck, which is the lessor under the Mining Lease. The Mining Lease was originally entered into on July 3, 1968 between PCGM, a predecessor to Teck, as lessor, and Pickle Crow Explorations Limited (PCE), a predecessor to PC Gold as lessee. The Mining Lease has a term of 99 years expiring July 31, 2067 and, among other things, provides as follows:

- The lessee of the Pickle Crow property has the exclusive right to enter into and upon the Pickle Crow property during the term of the Mining Lease and to explore for, develop, mine, remove, leach in place, treat, produce, ship, sell or otherwise dispose of for its own account all ores, minerals and metals which may be found therein or thereon, and may in its sole discretion make use of the Pickle Crow property consistent with such purposes, including, without limitation, the construction of drains, dams, reservoirs, roads, railways, conveyors, plants, buildings, docks and aircraft landing areas, and the erection thereon or therein of all buildings, furnaces, structures, engines, pumps, machinery and appliances necessary or desirable for such purposes;
- The lessee has complete discretion and control with respect to any prospecting, exploration, development or other mining work carried out on the Pickle Crow property;

- The lessee must pay the lessor the amount of CDN\$1.00 annually during the term of the Mining Lease, and must pay all provincial land taxes and other taxes, fees or assessments and do all things necessary to maintain the Pickle Crow property in good standing;
- The lessee shall indemnify the lessor against all liabilities, claims and causes of action for injury to or death of persons, and damage to or loss or destruction of property resulting from the use or occupancy of the Pickle Crow property by the lessee or its operations;
- The lessee may at any time assign or sublet all or part of its rights under the Mining Lease; and
- The lessee shall have a first right of refusal to purchase the lessor's rights in the Pickle Crow property in the event the lessor receives any bona fide offer to purchase all or any part of the Pickle Crow property.

#### **4.5.2 Surface Rights**

Surface rights for the patented claims on the Pickle Crow property are held by Teck on the leased claims, and by PC Gold on the additional 8 patented claims (the Crowshore Patents). On November 1, 2016, PC Gold purchased the surface rights covering some of the Crowshore Patents from an individual for a purchase price of \$30,000.

#### **4.5.3 Royalty Interests**

PC Gold's 100% leasehold interest in the original 2008 Pickle Crow property is additionally subject to two NSR royalties totalling 1.25% that are payable upon the commencement of commercial production. These are a 0.5% NSR royalty payable to Premier Gold Mines Ltd., a 0.5% NSR royalty payable to Donald M. Ross (for a combined total of 1%), and an additional 0.25% NSR royalty held by Caspian Energy Inc. (Caspian).

The 8 patented claims held by PC Gold (the Crowshore Patents) and a further 5 unpatented claims are subject to a 2.0% NSR royalty in favour of Frontline Gold Corporation, one half of which may be purchased by PC Gold at any time for \$1.0 million. This NSR is also only payable upon the commencement of commercial production.

Certain of the Metalcorp claims are subject to a 2% NSR royalty in favour of Metalcorp Limited, one-half of which may be purchased by PC Gold at any time for \$2.0 million. The balance of the claims are subject to a 1% NSR royalty in favour of Metalcorp Limited, one-half of which may be purchased by the Company at any time for \$1.0 million, and a 1% NSR royalty in favour of each of two individuals (for an aggregate 2% NSR), one-half of which may be purchased by the Company at any time for \$1.0 million. The consideration for the NSR royalties may be paid in cash or, at the option of PC Gold, in common shares of the

Company, valued by reference to the market price of the Company's common shares prevailing on the date on which the Company becomes obligated to pay such consideration.

Fourteen unpatented claims belonging to the property known as 'Pickle Lake #6' are subject to a 2% NSR royalty payable to Cadillac Ventures Inc. (Cadillac). PC Gold has the option to acquire one-half of the 2% NSR royalty within 3 years of the commencement of commercial production on the Pickle Lake #6 claims by paying to Cadillac \$1,000,000.

## **4.6 ENVIRONMENTAL AND PERMITTING**

All phases of PC Gold's exploration activities are subject to environmental regulation in the jurisdictions in which it operates. These regulations mandate, among other things, the maintenance of air and water quality standards and land reclamation and provide for restrictions and prohibitions on spills, releases or emissions of various substances produced in association with certain exploration and mining industry activities and operations. They also set forth limitations on the generation, transportation, storage and disposal of hazardous waste. A breach of such regulations may result in the imposition of fines and penalties. In addition, certain types of exploration and mining activities require the submission and approval of environmental impact assessments.

The Pickle Crow property has, over the course of the past two decades, been subject to several environmental studies which examined, among other things, water quality and its impact, if any, on the health of aquatic populations in the watershed encompassing it. These preliminary studies indicate that in spite of the history of mining on the Pickle Crow property, including a significant volume of historical tailings sitting in four tailings basins on surface and extensive areas of flooded mine workings, water quality samples generally meet provincial water quality standards. This appears to be due in part to the generally low sulphide content and natural buffering effect of the carbonate minerals found in the vein ore historically mined.

### **4.6.1 Current Status**

As of the 2011 Technical Report (Hennessey, 2011) PC Gold was in the process of completing an "Inactive Production" Closure Plan previously filed by Cantera Mining Limited (Cantera) in 2002 as an incomplete "Production" Closure Plan with the MNDMF. In keeping with its obligations under the *Mining Act*, PC Gold retained DST Consulting Engineers Inc. (DST) to prepare the Closure Plan Amendment (CPA) for submission to MNDMF. This work was expected to provide for additional site assessment and environmental monitoring (soils, groundwater, surface water and aquatic resources), development of rehabilitation plans, and possibly other measures required for the further advancement of the Pickle Crow property.

Fladgate, PC Gold's field exploration consultant, reported that at the time no permits were required for the surface exploration it was carrying out at the Pickle Crow mine. This is due to the private land status of a patented mining claim and that the exploration conducted to date

is grass roots in nature. PC Gold has been in contact with MNDMF in regards to its activities and the ministry has visited the site. Should PC Gold wish to construct a water crossing, permits would be needed from the provincial Ministry of Natural Resources (MNR) and the Federal Department of Fisheries and Oceans (DFO).

Future, more advanced exploration at the project may involve re-accessing the underground workings of the mine. Dewatering, underground rehabilitation/development and bulk sampling projects fall under Part VII of Ontario's *Mining Act* and are defined under this act as "Advanced Exploration". Prior to commencement of this stage the following requirements and associated permits must be completed:

- Notice of Project Status (Change) must be submitted to the Director of Mines Rehabilitation.
- Consultation with any Aboriginal Communities potentially affected by the project.
- Public Notice (which must be completed prior to submission of the Closure Plan).
- Completion of a certified Closure Plan and Financial Assurance (including written acceptance from the Director of Mines Rehabilitation of this Closure Plan).
- Common Core Training for underground employees involved in rehabilitation.
- Permit to Take Water.
- Sewage Works Certificates of Approval.
- Permit to Test Mineral Content (only bulk samples in excess of 10 t).

Further information may be found by visiting Ontario's Minerals and Mining webpage: ([http://www.ontario.ca/en/information\\_bundle/mineral/STEL02\\_038013.html](http://www.ontario.ca/en/information_bundle/mineral/STEL02_038013.html) ).

In 2013, PC Gold drafted an amendment to Pickle Crow Mine Closure Plan. The plan envisaged production from No. 22 and 23 veins via a ramp and use of the 225 tpd processing plant on site to produce a gravity gold concentrate. This plan was not finalized.

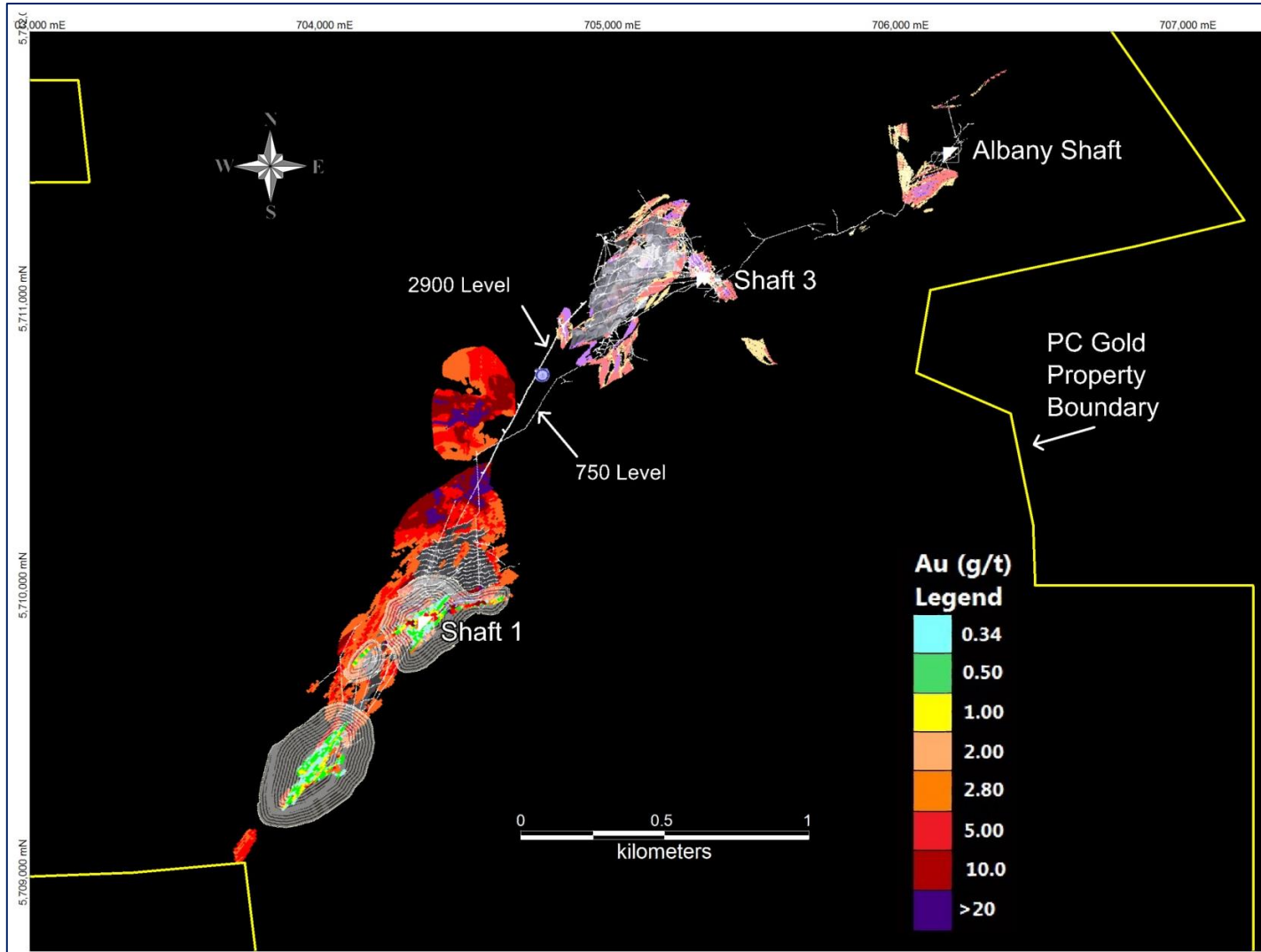
In February, 2015, PC Gold submitted a "Notice of Project" letter to the Director of Mine Rehabilitation, Ministry of Northern Development and Mines. This letter states that if sufficient "funds have not been raised by March, 2017 to proceed with completion of the onsite 225 tpd mill and tailings facility or additional exploration activities then reclamation and post closure monitoring activities as detailed in the revised closure plan (Tables 5 and 6) [not in this report] will begin". That plan calls for the expenditure of \$1.715 million.

#### **4.7 LOCATION OF MINERALIZED ZONES**

The location of the principal zones which have had mineral resources presented in this report can be seen in Figure 4.5. This figure also shows the location of the principal surface shafts. Two of the three shafts are known alternately as the No. 1 and No. 3 Shafts or Shaft 1 and Shaft 3. The third is the Albany Shaft.

Figure 4.6 is a longitudinal view of the three shafts showing the location of the mineral resources. Figure 7.19 in Section 7 shows the location of all known showings and occurrences on the property.

**Figure 4.5**  
**Location of Resources**



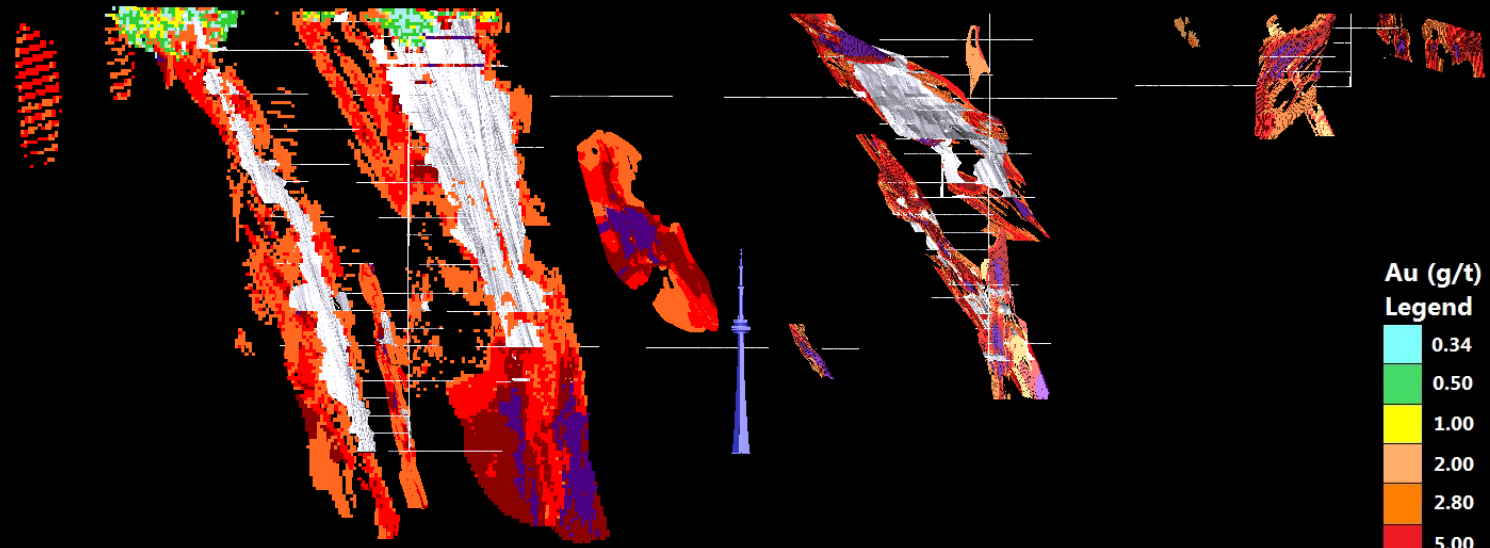
Source: Micon, 2016

Figure 4.6  
Location of Resources - Longitudinal View

### Shaft 1, Shaft 3 & Albany Shaft Combined Resource

SW

NE



**Au (g/t)**  
**Legend**

0.34
0.50
1.00
2.00
2.80
5.00
10.0
>20

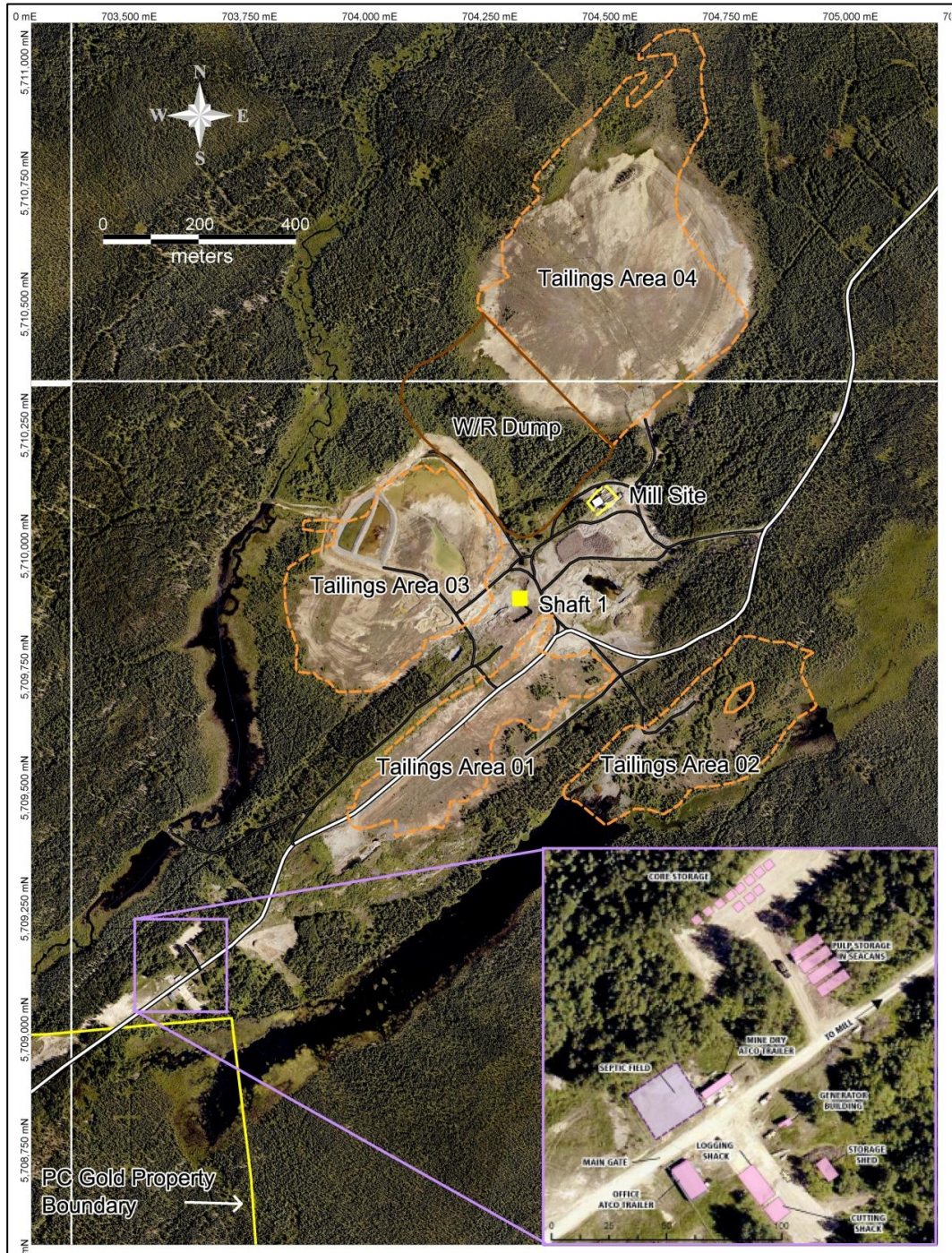
0 0.5 1  
kilometers

Source: Micon, 2016



Figure 4.7 is an air photo taken of the Pickle Crow property and showing the location of tailings ponds, shafts, the mill site and office facilities. The core mine trend follows the trend of the historical workings at the No.1, No. 3 and Albany shafts. It is not the only mineralized trend on the property.

**Figure 4.7**  
**Tailings Pond and Facilities Locations**



Source: PC Gold, 2010



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

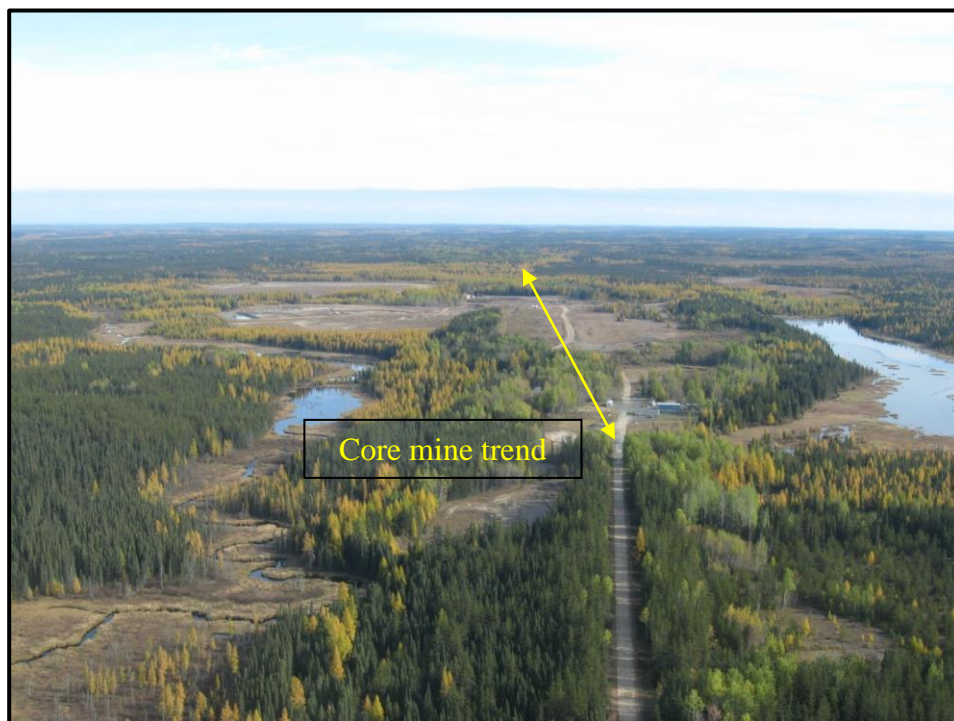
### 5.1 PHYSIOGRAPHY, RELIEF AND DRAINAGE

The Pickle Crow property has low to moderate relief and moderately undulating terrain with an elevation approximately 340 to 360 m above sea level. The main drainage feature in the area is the Kawinogans (Crow) River which is part of the major Attawapiskat River drainage system that flows into James Bay. Most of the property was originally covered by a combination of glacial overburden, wetlands and water, although fairly abundant outcrop is found locally in scattered places. Local low areas may contain marsh, swamp or small ponds.

Features related to the historic mining activities, such as waste rock and tailings areas, disused surface pits, building sites and local access roads, now occupy a substantial part of the property.

Figure 5.1 is an aerial view of the Pickle Crow mine site looking east. The main gate is in the middle ground and the ~225 t/d mill largely constructed by Cantera in 2002 can be seen in the background at the far end of the clearing to the left of the yellow arrow. Two of the tailings facilities can also be seen to the left of the arrow. The core mine trend, which hosts the principal zones accessed by the No. 1, No. 3 and Albany Shafts, is shown by the yellow arrow.

**Figure 5.1**  
**Aerial View of the Pickle Crow Mine Site**



Source PC Gold, 2010.



## **5.2 ACCESSIBILITY AND INFRASTRUCTURE**

The property can be reached from the city of Thunder Bay by proceeding westerly on the paved Trans-Canada Highway (Highway 17) for approximately 245 km to the town of Ignace and then northward on paved Provincial Highway 599 approximately 290 km to the town of Pickle Lake. From Pickle Lake, access to the Pickle Crow mine site is along a good gravel road that connects to Highway 599 near the village of Central Patricia.

The western boundary of the property is 6.5 road km from the turn off at Highway 599. The total road distance to the property from Thunder Bay is approximately 545 km.

The Pickle Crow gold property has existing onsite permanent facilities, including a relatively new nominal 225 t/d modular gold ore processing plant, two 700 kW electrical generators for the mill operation and two smaller generators at the main gate, office and “dry” trailers (change rooms), heated core processing buildings, a tool shed, onsite exploration office, fuel storage tanks, a tailings impoundment area, and substantial underground workings including three surface shafts, two winze shafts, and ~40 km of lateral development. All of the historic PCGM mine infrastructure was demolished in the 1980s, the old shafts were capped and the underground workings are currently flooded and inaccessible. Other facilities and services such as telephone lines, adequate electrical energy for a mining/milling operation and an adequate fresh water supply are all situated within several kilometres of the property.

The available surface rights and area appear to be adequate to support future mining.

## **5.3 CLIMATE**

Climatic conditions are typical of northwestern Ontario. Mean total precipitation for Pickle Lake is 733.3 mm, including 498.7 mm of rainfall and 271.7 cm of snowfall. Higher levels of rainfall typically occur in July (average 105.8 mm) while the highest level of snowfall (average 55.5 cm) usually occurs in the month of November. Mean July daily temperature is 17.7° C while the mean January daily temperature is -20.5° C. Recorded temperatures have ranged from a low of -51.25° C in February, 1934 to a maximum temperature of 40.0° C in June, 1933. (Source: Meteorological Service of Canada). Exploration can be conducted year round with the greatest mobility occurring during the winter months when frozen bog and lakes can support heavy equipment.

## **5.4 VEGETATION AND FAUNA**

The property is situated in the Northern Coniferous Section of the Boreal Forest Region of northwestern Ontario. Forest stands are typically mixed with a variety of species including black and white spruce with balsam fir, aspen, and birch. Jack pine stands occur in well drained coarse textured soil areas. Shrubs in the area include blueberries, Labrador tea and leather leaf.

Wildlife (mammals) typical of the region include moose, wolf, fox, lynx, bobcat, fisher, marten, wolverine, river otter, least weasel, short-tail weasel, mink, snowshoe hare, red squirrel and beaver. Numerous species of wild birds are known to occur in the region. Pike and pickerel (walleye) fish species are present in the Kawinogans (Crow) River, and brook trout in streams onsite.

## **5.5 FIRST NATIONS**

On May 8, 2009, PC Gold signed an Exploration Memorandum of Understanding (MOU) with the Mishkeegogamang First Nation (Mishkeegogamang) in order to promote a cooperative and mutually respectful relationship with respect to PC Gold's exploration of the Pickle Crow property. The MOU establishes a framework for ongoing dialogue and consultation, including providing business, employment and training opportunities for band members of Mishkeegogamang. The MOU will govern First Mining's exploration activities on the property until such time as the company completes a positive feasibility study and elects to proceed with a return to production, at which time the parties will negotiate an Impact and Benefit Agreement.

In connection with the MOU, PC Gold issued 200,000 common share purchase warrants to Mishkeegogamang and agreed to establish a Community Fund to be financed by quarterly payments to Mishkeegogamang of 2% of onsite exploration expenditures.

## **5.6 LOCAL RESOURCES**

Pickle Lake (population ~500) is the most northerly community in Ontario that has year-round access by paved road. The town was founded in the late 1920s after gold was discovered nearby.

Between 1928 and 1995 over 2.5 million ounces of gold were produced from the Pickle Lake district (Central Patricia, Pickle Crow and Dona Lake Mines) and in the 1970s copper and nickel was also mined at the nearby Thierry mine. Pickle Lake can provide modern housing as well as basic educational, medical, recreational and shopping facilities. Labour, industrial supplies and services for mining and exploration activities are readily available in the region.

The Canadian National Railway crosses Highway 599 at Savant Lake, the closest railhead, located some 170 km south of the property. There is a small paved municipal airport at Pickle Lake as well as a float plane base. Scheduled daily flights are available to Thunder Bay via Sioux Lookout.

## 6.0 HISTORY

### 6.1 EARLY HISTORY

The first government survey of the area was performed by William McInnes of the Geological Survey of Canada (GSC) along the Crow River from 1903 to 1905. Prospecting in the Pickle Lake area commenced in 1926. In 1927, Louis Cohen of Haileybury formed a prospecting group and early that winter sent Alex and Murdock Mosher in to stake the first claims (December, 1927) on what ultimately became the Central Patricia Gold Mines property. These claims were optioned by F. M. Connell & Associates in August, 1928, and Central Patricia Gold Mines Limited was incorporated on February 19, 1929. Diamond drilling commenced at Central Patricia in February, 1929 and production in March, 1930.

The Central Patricia discovery paved the way for exploration in the region which led to the discovery and initial drilling (1929) of the first Pickle Crow ore body, the No. 1 (Howell) Vein, by Northern Aerial Mineral Exploration Limited, a company set up in 1928 by J. E. (Jack) Hammell. In 1928, gold was also discovered by Albany River Mines Ltd. (Albany River) at the No. 16 Vein on the Albany River claims to the east of the then Pickle Crow property. Northern Aerial was acquired by Pickle Crow Gold Mines Limited (PCGM) in 1934, with Jack Hammell continuing as President. Production from the Pickle Crow mine began on April 17, 1935. Albany River sank the Albany Shaft to a depth of 190 m (625 ft) between 1933 and 1938 and completed extensive underground development.

Winoga Patricia Gold Mines was created in 1936 and drilled 73 surface diamond drill holes on a pie-shaped property located between PCGM's holdings and the Albany River Mines ground to the east. A mine shaft was subsequently sunk on the property in 1938. That same year, PCGM took over ownership of both Albany River Mines and Winoga Patricia Gold Mines through a new company called Albany River Gold Mines Ltd. It is believed that the Winoga Patricia Gold Mines shaft later became the No. 3 Shaft of the Pickle Crow operation.

The Cohen-MacArthur zone, located 2 km to the north of the developing Pickle Crow mine, was discovered in 1933. A total of 14 surface diamond drill holes were drilled at Cohen-MacArthur in the winter of 1936. This property also was optioned by PCGM in 1938. With the acquisition of the Cohen-MacArthur claims, PCGM became one of the largest land holders in the Pickle Lake area. The GSC completed a regional synthesis of the Pickle Crow greenstone belt during this period as well.

Ground and airborne geophysical surveys have been completed over all or parts of the Pickle Crow property at various times during its early history. A dip-needle survey completed in 1936 on the Pickle Crow property was useful in tracing out the bands of iron formation. A detailed magnetic survey was carried out over the property by Teck (or its predecessor companies) around 1960.

## 6.2 PROPERTY HISTORY

By the end of 1938, the current lease area of the Pickle Crow property was assembled and consolidated under the control of PCGM and remained that way until mine closure in 1966. The only significant change during this period was the acquisition of PCGM by Teck Corporation Limited (Teck Corp.) in 1958 with Dr. Norman B. Keevil becoming president of PCGM. In July, 1968, PCGM leased the property's mining lease under a 99 year term expiring July, 31 2067 to Pickle Crow Explorations Ltd., at the time 27.2% owned by Teck. Teck remained the registered owner of the mineral rights and surface rights. The property underwent a series of ownerships until it became wholly owned by Teck on April 1, 1971. The property sat dormant until 1973 when Pickle Crow Explorations Ltd. reviewed the economics of reopening the mine. In 1978, a merger between Pickle Crow Explorations Ltd. and four other companies saw Teck's ownership reduced to 44.6% and a new company emerge called Highland-Crow Resources Ltd. (Highland-Crow).

Highland-Crow went on to option the property to Gallant Gold Mines Limited (Gallant) in 1979 whereby Gallant could earn 100% interest in the property by carrying it to production. Gallant performed a VLF-EM (very low frequency - electromagnetic) geophysical survey and drilled 47 surface diamond drill holes for 7,356 m. The only known soil geochemical survey done on the Pickle Crow property was completed for Gallant in 1983. The samples were collected along the same cut grid lines as used for the Gallant VLF-EM survey. Soil values ranged from 10 to 12,000 ppb, with the high values attributed to the mine tailings and thought to be cultural anomalies. In 1983, Highland-Crow returned to 100% ownership and Gallant failed to retain its interest in the property.

Noramco Mining Corporation (Noramco) was the major shareholder of Highland-Crow by 1987 and bought the company outright in a share for share deal in 1988. Between 1985 and 1987 Highland-Crow completed the most extensive exploration program on the property since its closure and up to that time. The program consisted of line-cutting, magnetometer and IP (induced polarization) geophysical surveying, geological mapping, surface trenching, diamond drilling and environmental baseline studies. Noramco drilled additional surface exploration holes, completed geophysical surveys and, in 1987, commenced dewatering of the No. 1 Shaft to the 750 level (750 ft below surface or 229 m). In total Noramco drilled 286 surface diamond drill holes for 46,189 m and 79 underground diamond drill holes for 9,341 m which were completed between 1985 and 1988. The underground drilling was assisted, in part, through the use of historical PCGM trucks and rails that remained in the mine in workable condition. These were used to convey drills and other equipment along the 750 level tramway. Following completion of the program, Noramco capped all shafts, ventilation raises and other surface openings with concrete in 1989, after spending (Highland-Crow and Noramco combined) an estimated \$9.2 million on the property. Noramco also commissioned two historic (non-NI 43-101 compliant) resource estimates, one by L. D. S. Winters in April of 1988 and a second by Watts, Griffis and McOuat Limited (WGM) in December of 1988.

In 1994, following financial difficulties, Noramco changed its name to Quest Capital Corporation and retained 100% ownership in the Pickle Crow property.

Quest Capital Corporation assigned its interest in the property to Pickle Crow Gold Mines Limited (No. 2 PCGM), a wholly owned subsidiary of Pickle Crow Resources Inc. A total of four surface diamond drill holes for 2,287 m were drilled in the fall of 1998. Quest Capital Corporation subsequently sold its wholly-owned No. 2 PCGM to Wolfden Resources Inc. (Wolfden) on August 27, 1999. Wolfden then entered into an option agreement with Jonpol Explorations Ltd. and completed 18 surface diamond drill holes for 2,173.5 m. Wolfden also entered into a surface mining agreement in June, 2000, with privately held Cantera Mining Limited (Cantera), resulting in fragmentation of the property ownership.

This latter agreement gave Cantera the right to explore and mine the surface ore above 100 m depth on the property. Between 1999 and 2001 Cantera took two bulk samples from the No. 5 Vein and No. 1 Vein crown pillars, respectively.

In 2002, Cantera commenced building a 225 t/d extreme gravity mill on the site, submitted a partially complete production closure plan with the then MNDM and began constructing a tailings management facility within the historic Pickle Crow tailings area. Cantera also commenced stockpiling of material mined from the historic No. 1 Vein shaft and crown pillar area in the summer of 2002. In January, 2004, Cantera was placed into receivership and Ernst & Young (Thunder Bay) Inc. was appointed by the Ontario Superior Court of Justice as receiver to hold the assets of Cantera, which included the partially complete mill. In June 2005, Donald M. Ross (in trust) (Ross) acquired all of Cantera's rights and interest in the Pickle Crow property, and subsequently completed additional work on the mill.

In August, 2006, in an effort to concentrate on its Nunavut base metal assets, Wolfden transferred its northwestern Ontario gold properties, including Pickle Crow, to the related company Premier Gold Mines Limited (Premier). At that time shares of Premier were issued to Wolfden shareholders.

On November 5, 2007, Premier and Ross (together referred to as the Vendors) announced the signing of a Letter of Intent (LOI) to sell their interests in the Pickle Crow gold project to PC Gold, at the time a private company. A definitive agreement was signed on December 21, 2007. On May 13, 2008, PC Gold satisfied the terms of the definitive agreement and completed the acquisition of the Vendors' interests in the property by completing an initial public offering and listing on the TSX. It then launched an exploration program in conjunction with the staking of surrounding unpatented claims which now define the boundaries of the current Pickle Crow property. PC Gold holds 100% of the mining lease encompassing the original patented claims of the Pickle Crow property, which expires July 31, 2067. Registered ownership of mineral rights and surface rights is held by Teck Resources Limited. PC Gold's leasehold interest is additionally subject to two NSR Royalties totalling 1.25%, each of which it has the option of purchasing (see Section 4 above).

### **6.3 HISTORICAL PRODUCTION**

The Pickle Crow mine was put into production in April, 1935 by PCGM and operated continuously until 1966, during which time it produced 1,446,214 oz of gold and 168,757 oz of silver from 3,070,475 tons of ore milled at an average grade of 0.47 oz/ton Au (16.14 g/t Au). PCGM began production on the No. 1 Vein in 1935 by sinking Shaft 1. This shaft bottomed at the 3050 level (930 m), followed by the Shaft 4 winze which further extended the mine workings to the 3800 level (1,158 m). On the 750 level (228 m), an exploration drift was extended in 1938 approximately 1 km northeast of the No. 1 Shaft to exploit the newly discovered No. 2 Vein via the No. 2 winze shaft (750 level (228 m) to 1600 level (488 m)) and later Shaft 3, which was sunk from surface to the 3000 level (915 m). Albany River Mines sunk the shallowest of the three surface mine shafts, the Albany Shaft, to the 625 level (190 m). In the last years of the mine, the Albany workings were connected to the rest of the mine via a raise from the 750 level. However, no production other than milling of development ore ever occurred on the former Albany River Mines claims.

PCGM used shrinkage stoping down to the 375 level on the No. 1 Vein but quickly adopted a cut-and-fill mining method to increase production. Between Shaft 1 and Shaft 3, PCGM mined a total of seven auriferous quartz veins. The average head grade over the mine life was 16.14 g/t Au (0.47 oz/ton Au) and 1.88 g/t Ag (0.055 oz/ton Ag) (in the early years of the mine there was some hand cobbing of the ore). Milling of the ore started with an initial 110 t/d mill in 1935 that was increased to 360 t/d by 1937. The mill was sold and removed from site after mine closure in 1966 and the remaining mill buildings were burned to reduce liabilities on the property.

### **6.4 BULK SAMPLES**

Two bulk samples were taken from the property by Cantera between December, 1999 and December, 2000. (See Section 13.) The bulk samples were taken to test the viability of the vein and iron formation mineralization as open pitable targets with the goal of mining the crown pillars. The first bulk sample was taken from the No. 5 Vein and sent to the St. Andrews Goldfields mill in Timmins, Ontario and the second, from the No. 1 Vein, was processed at the Golden Giant mine in Hemlo, Ontario. The first sample was comprised of 417.72 t at a head grade of 19.18 g/t Au with a recovery of 99.4% for 245.84 oz Au recovered. The second sample was comprised of 4,427 t at a head grade of 14.60 g/t Au with a recovery of 98.2% for 2,167.65 oz Au recovered. The bulk sample tests showed viable recovery of gold from open pitable mineralization on the property.

### **6.5 HISTORICAL RESOURCES AND RESERVES**

Several mineral resource and reserve estimates have been outlined on the property, ranging from mine reserves at the closure of the mine to a global resource estimate carried out in 1988. These resource and reserve estimates were not prepared in accordance with NI 43-101 but are believed to have been completed to industry standards in use at the date of preparation.

On mine closure in 1966, PCGM recorded reserves of 140,000 t averaging 11.31 g/t Au (46,190 oz Au). In September, 1988, L. D. S. Winters estimated proven, probable and possible geological reserves for the entire property of 4,991,967 t at 7.51 g/t (1,205,000 oz Au). In December of the same year, Watts Griffis and McOuat Limited (WGM) was retained to estimate 'probable in-situ and diluted mineral reserves' that it subdivided into shallow (above 229 m) and intermediate (229 m to depth of workings). WGM estimated total shallow and intermediate in-situ probable reserves of 1,072,000 t at an average grade of 7.67 g/t Au (264,813 oz Au).

Details on the estimation methodologies used were not available to Micon. Some of these estimates have been reported in categories not consistent with the current CIM guidelines. The historical mineral resources are relevant in that they provide a broad indication of the range of tonnes and grade that was believed to be present on the property at the time that they were prepared.

The reader is cautioned that a "qualified person" (as defined in NI 43-101) has not done sufficient work to classify these historical estimates as current mineral resources or mineral reserve in accordance with NI 43-101. They should not be relied upon, have not been checked by a qualified person at Micon, and First Mining is not treating these historical estimates as current mineral resources or mineral reserves.

## 7.0 GEOLOGICAL SETTING AND MINERALIZATION

There are several reports and compilations that describe the regional geology of the Pickle Lake greenstone belt with the focus on the Pickle Crow mine area. The most recent regional study published was by Young et al. (2006) and a very extensive description is also provided by Coates and Anderson (2008). The geological descriptions below are essentially a compilation of all available published and unpublished sources, including maps of the Ontario Geological Survey (OGS) and GSC, those maps accompanying various academic theses and the detailed diamond drill logs of mineralized zones and field maps of various companies that have worked in the Pickle Crow area. The reports on prospecting operations by various companies also address this matter to varying degrees of detail.

### 7.1 REGIONAL GEOLOGY

The Pickle Crow gold property lies within the Pickle Lake greenstone belt, part of the Uchi Subprovince, which is within the Superior Province of the Canadian Shield (see Figure 7.1). The Uchi Subprovince is host to many gold deposits, most notably those of the Red Lake greenstone belt which shares many similarities to the Pickle Lake greenstone belt. The Pickle Lake greenstone belt comprises an approximately 70-km long by 25-km wide area of supracrustal rocks and internal granitoid plutons surrounded by large granitoid batholiths.

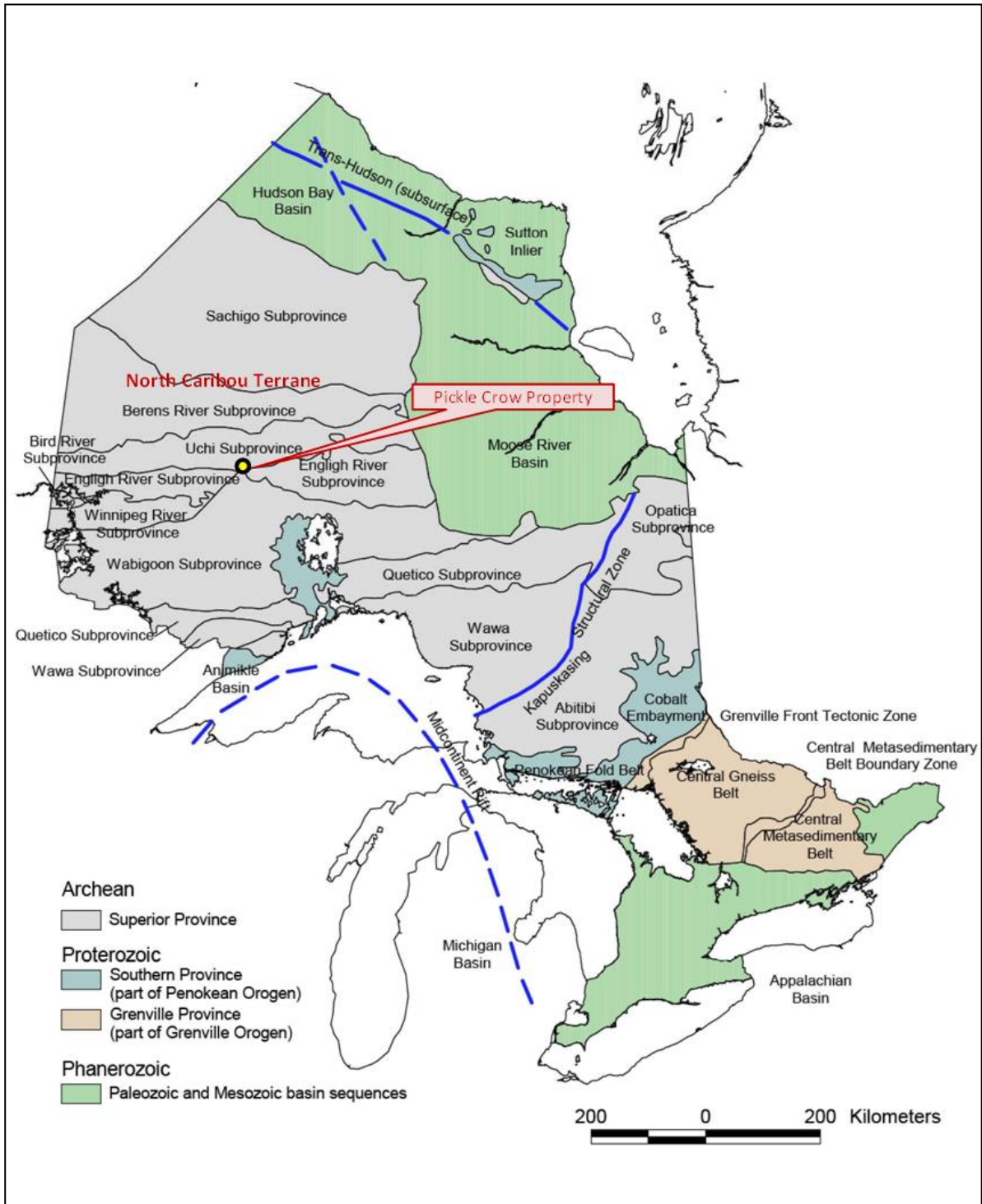
The supracrustal rocks have been deformed and metamorphosed to greenschist facies with amphibolite facies occurring in the thermal aureoles of younger plutonic bodies. The Pickle Lake greenstone belt is subdivided into four tectono-stratigraphic assemblages (Figure 7.2) including:

- The Pickle Crow assemblage (>ca. 2,909, +/-15 Ma).
- The Kaminiskag assemblage (~2,836 Ma) (not present on the Pickle Crow property).
- Unnamed Temiskaming-like assemblage (<2,752.2 +/- 2 Ma).
- The Confederation assemblage (~2,744 Ma).

On the property, the Pickle Crow assemblage is dominated by tholeiitic basalts with intercalated sediments (primarily banded iron-formation, sometimes referred to as BIF), and rare calc-alkaline volcanic and volcanoclastic units. The assemblage occupies the northwestern part of the greenstone belt and is interpreted to be unconformably overlain by the Confederation assemblage.

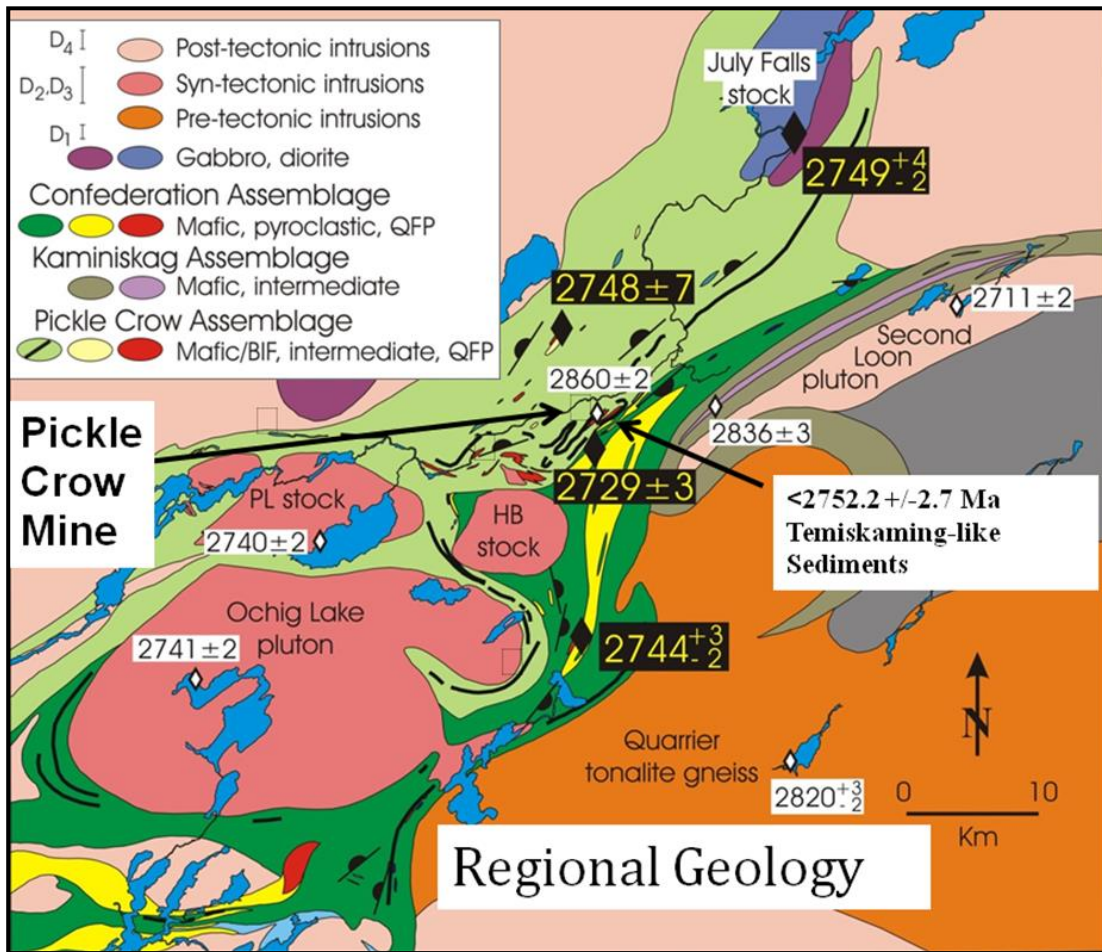


**Figure 7.1**  
**Major Precambrian Subdivisions, Ontario**



Source, Thurston, et al., 1991

**Figure 7.2**  
**Regional Geology with Geochronology Dates**



Modified from Young (2003).

The unnamed Temiskaming-like sedimentary assemblage was identified and dated by PC Gold in 2009 and is composed of polymictic conglomerate, sandstone, siltstone, argillite and argillaceous iron formation. The assemblage occupies a small fault bounded basin located near the contact between the Pickle Crow and Confederation assemblages, and likely represents the erosional unconformity between the two assemblages. The assemblage appears to represent a similar event to that which produced the Houston Lake assemblage of the nearby Red Lake greenstone belt.

The Confederation assemblage consists of intercalated mafic to intermediate volcanic rocks. The bulk of this assemblage occurs in the southwest part of the greenstone belt. The assemblage was deposited unconformably on the overturned Pickle Crow assemblage.

The Kaminiskag assemblage is composed of an approximately 2-km wide band of tholeiitic basalts and thinner calc-alkaline dacitic to rhyolitic pyroclastic rocks. The assemblage lies outboard of the Confederation assemblage, suggesting a tectonic juxtaposition.

Neoproterozoic intrusive rocks, internal and external to the greenstone belt, are volumetrically significant and range in age from 2.75 to 2.71 Ga. Intrusive rocks external to the belt include the composite Seach-Achapi Batholith to the east and the Bow Lake batholith to the northwest. Intrusive rocks internal to the belt include the Pickle Crow porphyry (2,860 Ma  $\pm$  2), the July Falls mafic stock (~2,749 Ma) and a suite of semi-circular to ovoid, granodioritic to trondhjemitic plutons in the central part of the belt, including the Ochig Lake pluton (~2,741 Ma), the Pickle Lake and Hooker-Burkowski stocks (~2,740 Ma), and the Albany porphyry (2,735 Ma  $\pm$  10).

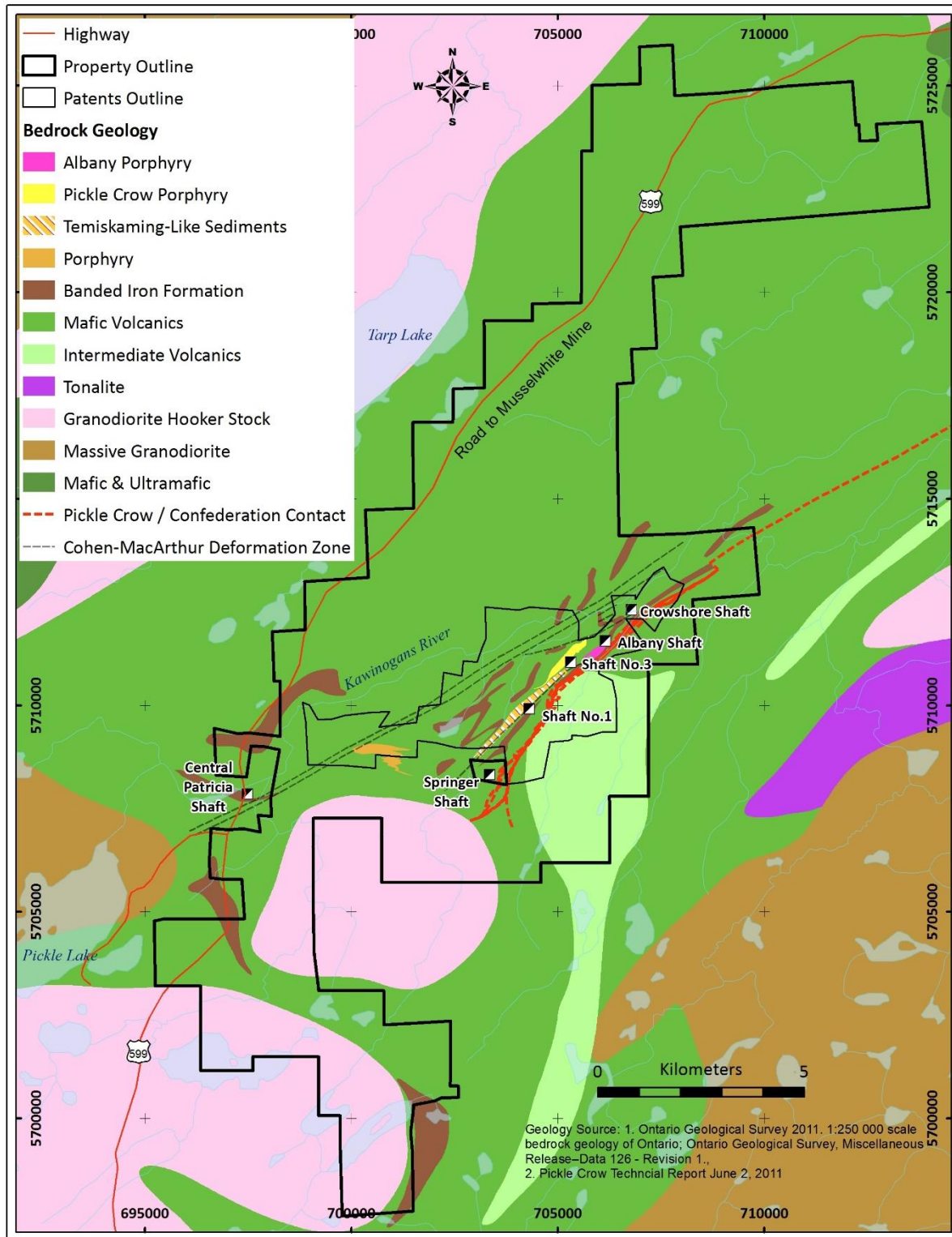
## **7.2 GEOLOGY OF THE PICKLE CROW PROPERTY**

Many geological investigations have been conducted on the Pickle Crow property. Detailed rock descriptions on a property scale have been completed by Thompson (1939), Pye (1956 and 1976), Ferguson (1966) and MacQueen (1987). Other workers have completed Pickle Lake regional scale geological, geochemical and isotopic investigations (Sage and Breaks, 1982; Stott, 1996; Young and Helmstaedt, 2001; Young, 2002; Young et al., 2006; Hollings, 1998, 2002; Corfu and Stott, 1993a, 1993b, 1996; and Henry et al., 2000). Still others, such as former PCGM employees R. J. Graham and L. D. S. Winter, have authored unpublished reports that contain much valuable information.

The following descriptions of the geological units of the Pickle Crow property are derived from the detailed property scale work referenced above, and placed into the most recent paleotectonic framework, namely that put forward by Young et al. (2006).

The simplified surface geology of the Pickle Crow property is shown in Figures 7.3 and 7.4.

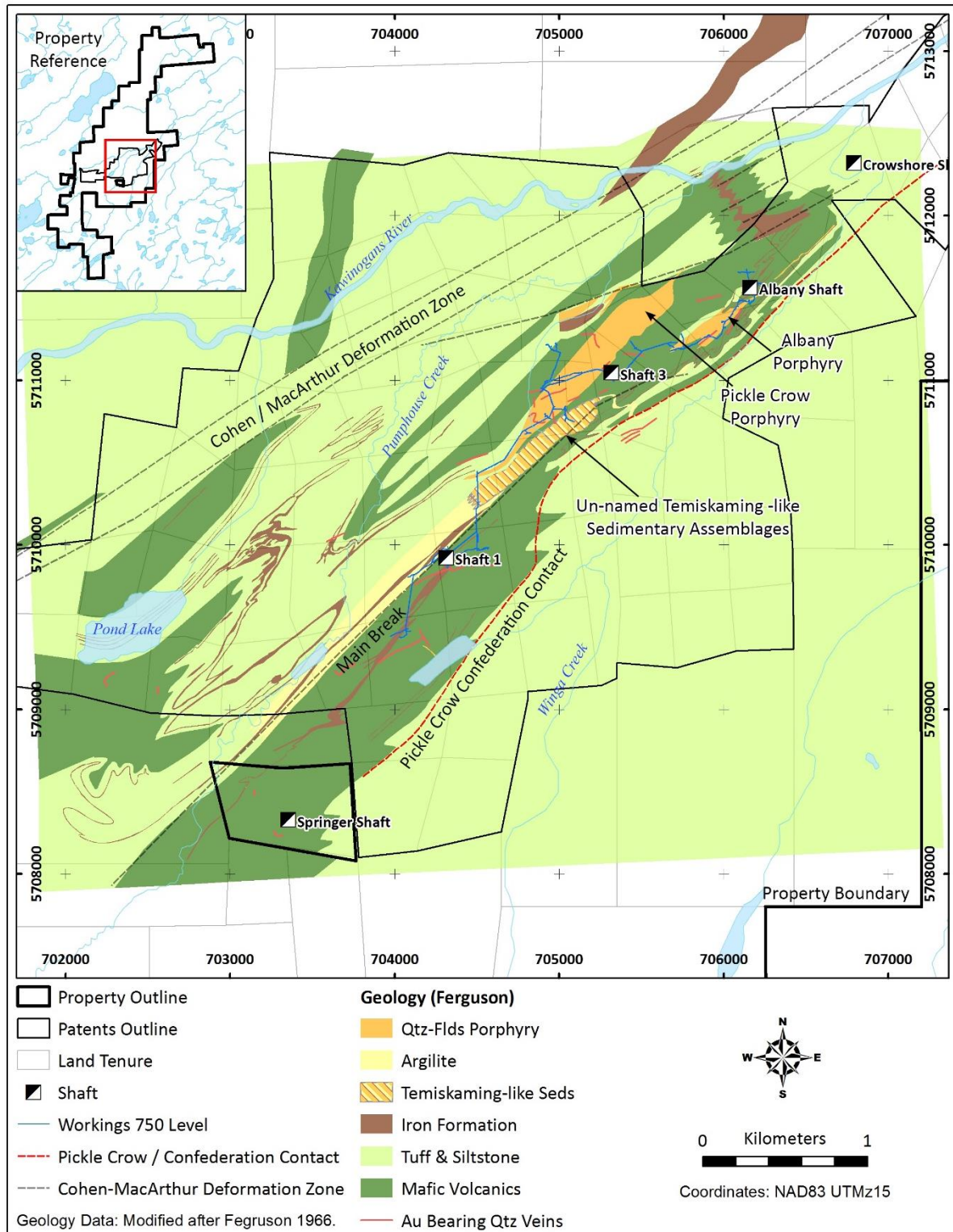
**Figure 7.3**  
**Simplified Geology of the Pickle Crow Property**



Source: First Mining, 2016.



**Figure 7.4**  
**Detailed Geology of the Core Mine Trend**



Modified after Ferguson, 1966.

## 7.2.1 Pickle Crow Assemblage

### Ultramafic Rocks

Rare ultramafic rocks (>20 wt% MgO) were observed in drill core, particularly in deep drilling in holes PC-08-014A and PC-10-085 at Shaft 1 and 3, respectively. These units are typically 5 to 20 m thick and are intensely talc altered. They can present a severe obstacle to drilling. Due to the alteration and deformation present in these units, their origin cannot be accurately determined. No relic spinifex texture has been observed and they are always found intercalated with tholeiitic basalt. At this time they are interpreted to represent subvolcanic sills.

### Tholeiitic Basalts

The tholeiitic lavas of the assemblage are compositionally consistent and no flows of intermediate composition have been observed. The basalt weathers to a greenish-grey colour and generally is fine-grained. Pillowed phases are associated with the basaltic flows and in most localities it has not been possible to separate the bands of pillow lava from the uniform fine-grained lava, or to map individual flows. Some flow contacts are marked by the presence of beds of iron formation. Flow top breccias are locally observed that contain light coloured, angular fragments up to 30 cm in diameter. The pillows range in size from 0.5 to 1 m and have narrow rims about a centimetre in thickness. Generally there are no amygdules in the pillows. They display a variety of shapes and in only a few places on surface has it been possible to make top determinations using the shape of pillows. (See Figure 7.5.)

**Figure 7.5**  
**Tholeiitic Pillow Breccias, No. 5 Vein Area**



Source PC Gold, 2010.

Parts of the flows are medium-grained with individual crystals up to 1.5 mm in diameter. These rocks are of medium grey colour with small light grey feldspars. All these medium-grained rocks have been included with the volcanic rocks and no dikes or sills have been mapped separately on surface. The medium-grained metabasalts consist essentially of fibrous amphibole, chlorite, and highly altered plagioclase with small amounts of carbonate, epidote, saussurite and quartz, and subordinate leucoxene, apatite, sphene and sometimes pyrrhotite (Pye, 1956).

### **Interbedded Sediments**

The interbedded sediments in the district are primarily chert-rich and very carbonate-rich, banded iron-formation which are described below. Figure 7.6 is a photograph of a piece of banded iron formation from the site stockpiles.

*Magnetite-Carbonate Iron Formation:* One main band of iron formation is known to be interbedded with the basalts adjacent to the workings of the Pickle Crow mine but, in places, there are additional local bands. This iron formation has been traced in the Shaft 1 area by surface exposures and by drilling for 2,700 m and ranges in thickness from about a metre up to 25 m or, where it has been thickened by folding, to about 45 m. In the No. 1 Shaft workings, the iron formation is known to extend down-dip for 1,200 m and is thought likely to persist to much greater depths.

The iron formation is prominently banded with alternate layers varying in thickness from thin laminae up to 5 cm. The more siliceous layers may be light grey in colour or may be a dark grey laminated chert. No jasper bands are known to be present. Some of the darker layers contain a high proportion of magnetite but the magnetite content varies along strike and consequently magnetic surveys have been only partially successful in tracing these beds. The weathering of some of the iron formation beds produces an iron oxide and this rusty alteration is typical of the iron formation outcrops.



**Figure 7.6**  
**BIF, No. 1 Shaft Area Low Grade Ore Stockpile**



Source: PC Gold, 2010

Microscopically, the iron formation is composed of bands consisting chiefly of cryptocrystalline quartz and siderite, varying amounts of magnetite and pyrrhotite, and occasional streaks of chlorite (Hurst, 1930). Some bands are made up entirely of small, sharp-cornered quartz grains which seem to be interlocked with one another rather than cemented together. In other bands, tiny, more or less angular, particles of iron carbonate predominate. In most of the layers, both quartz and siderite are intimately mixed together but in variable proportions. Some of the bands are composed almost wholly of magnetite in small, angular grains. Pyrrhotite occurs as patches, streaks, or grains replacing iron carbonate and chlorite or as veinlets traversing the various bands. Streaks of chlorite, which probably represent inclusions of schistose greenstone, are often associated with the carbonate bands.

*Carbonate Iron Formation:* Carbonate (ankerite) iron formation is exposed in outcrops and old trenches on Pickle Crow claims PA774 and 777 in the Cohen-MacArthur area. This zone of iron formation is about 550 m in length with thicknesses up to 10 m. The iron formation has sharp contacts, and abundant carbonate is not present in the adjacent rocks, although limonite from the weathering of the iron formation has stained these rocks. At the northeastern end of this zone, some outcrops are typically banded iron formation but, elsewhere, the more siliceous bands do not weather in relief and the weathered surface of the rock has a uniform surface. The fresh surface of the rock varies in colour from light grey to dark grey and some specimens of the iron formation are very hard and siliceous.

*Sulphide-Chert-Rich Argillaceous Iron Formation:* This type of iron formation is abundant in the Central Pat East Zone where it typically occurs as interbedded, magnetite-poor, chert-rich iron formation and sulphide-rich (pyrite) argillite with minor intermediate tuff. Thin section work (Kolb, 2011) indicates that this type of iron formation is also very carbonate-rich. Although regionally extensive on the order of a least hundreds of metres, this style of iron



formation displays great local variation in thickness and type (oxide versus sulphide facies). It is not well exposed at surface and is known almost entirely from diamond drilling.

Figure 7.7 shows a photograph of the Sulphide-Chert-Rich Argillaceous Iron Formation unit.

### Calc-Alkaline Volcanic and Volcaniclastic Units

The Pickle Crow assemblage contains significant amounts of calc-alkaline dacitic material. Although rare in the core mine trend, dacites are the most common rock type outside of it. In rocks of this type, individual units have gradational contacts with the adjacent types of dacite. Most rock units are lenticular in shape and in many cases cannot be correlated between adjacent outcrops. The presence of beds containing breccia fragments is a widespread and characteristic feature. There is no known interbedding between the basic metavolcanics and the acid to intermediate metavolcanics. In places, the contact is marked by a bed of sedimentary rock which would indicate that the sequence of basic lava flows was not followed immediately by the phase of explosive volcanism. These rocks appear to have been deposited in a deep water basin that alternated between intermediate volcanics (tuffs), poorly developed primitive turbidites/debris flows (volcaniclastic sediments) and the deposition of chemical sediments particularly thin interflow chert and argillite.

**Figure 7.7**  
**Sulphide-Chert-Rich Argillaceous Iron Formation from the Central Pat East Zone**



Source: PC Gold, 2010

Porphyritic dacite containing feldspar phenocrysts occurs in association with other types of dacite in the northwestern part of the property, often in tuff breccia units. Such rocks outcrop,

or have been recorded in drill core, in the area between the No. 1 Shaft and Powderhouse Lake on claims PA736, 746, 750 and 751. Quartz phenocrysts are very rare and have been reported in claims PA736 and 751 and in the Central Pat East Zone and generally are associated with feldspar phenocrysts.

## 7.2.2 Unnamed Temiskaming-like Sedimentary Assemblage

Although portions of the Temiskaming-like sedimentary assemblage, notably the argillite and conglomerate, had been reported historically (Graham, 1965) it was not recognized as a separate unit from the Pickle Crow assemblage until 2009 (Lynch, 2009). The sedimentary basin is quite restricted in its dimensions extending from just northeast of Shaft 3 (hole PC-09-050) to just north of the Springer Shaft. The unit appears to be fault bounded and behaves very much like the Temiskaming sediments in the Abitibi Subprovince or the Houston Lake Assemblage of the Red Lake greenstone belt. The basin is polymictic conglomerate-rich (see Figure 7.8) at its northeastern end and grades into fine grained greywacke (see Figure 7.9), siltstone, argillite, and argillaceous iron formation to the southwest. The assemblage is particularly pyrite rich, specifically the conglomerate (interstitial pyrite) and argillite (bedded nodular pyrite) facies. Locally this pyrite has been remobilized and converted to pyrrhotite, especially in the conglomerate facies.

**Figure 7.8**  
**Polymictic Temiskaming-like Conglomerate, Shaft 3 Area**  
**Hole PC-09-029**



Source: PC Gold, 2010

**Figure 7.9**  
**Interbedded Fine Grained Greywacke and Argillaceous Siltstone, Shaft 1 Area**  
**Hole PC-08-014A**



Source: PC Gold, 2010

### **7.2.3 Confederation Assemblage**

Unconformably overlying the Pickle Crow assemblage on the property, the Confederation assemblage includes:

- The lowermost basaltic unit.
- A thick succession of intermediate to felsic metavolcanic rocks located in the southeastern part of the property.

#### **Tholeiitic Basalts**

A thin, discontinuous unit of pillowed basalt occurs at the base of the assemblage and is distinguished from the lower sequence of the Pickle Crow basalt on the basis of trace element geochemistry. This lower basalt unit, or geochemical Suite I, is characterized by elevated FeO contents (13 to 16 wt %) and displays weak light rare earth element (LREE) enrichment and heavy rare earth element (HREE) fractionation with minor negative niobium anomalies (Young et al., 2006).

## **Calc-Alkaline Volcanic and Volcaniclastic Units**

The southeastern part of the property is underlain by calc-alkaline felsic to intermediate volcanic and volcaniclastic material that is similar in most respects to the calc-alkaline rocks in the Pickle Crow assemblage. Porphyritic dacite containing feldspar phenocrysts and dacite breccias are the main rock types, with both widely distributed in this part of the Pickle Crow property.

The dacites contain feldspar, quartz and sericite together with minor amounts of chlorite, epidote and leucoxene (Pye, 1956, Ferguson, 1966). The dacite breccias contain scattered light-coloured angular felsic fragments, usually less than 5 cm in maximum dimension. Near the east boundary of the property (claims PA646, 644 and 727) the fragments in the volcaniclastics are rounded and may be classified as agglomerates or volcanic conglomerates (Thompson, 1938).

## **Neoarchean Synvolcanic Intrusions**

There are two porphyry stocks and several porphyry dikes within the property boundaries. The Pickle Crow porphyry stock is located to the northwest of No. 3 Shaft and the Albany River porphyry stock outcrops near the Albany shaft. Dikes have been mapped on claims PA729, 1139 and 2011 (Ferguson, 1966).

*Pickle Crow Porphyry:* The Pickle Crow porphyry is elliptical in plan and is 1.8 km in length by 200 m in width. The major axis strikes N55°E and appears to be generally conformable in strike and dip with the enclosing rocks. But, on the 229 m (750 ft) level plan, it can be seen to cut across the trend of the volcanic rock units at a small angle. The complete outline of the stock has not been established on the 869 m (2,850 ft) level but over this vertical distance the porphyry appears to maintain its shape, become slightly wider, dips at 77°NW and does not appear to plunge. A few porphyry dikes or sills are present near the stock but the outline is regular without apophyses extending outward from the main intrusion. On the 229 m (750 ft) level the southern contact of the intrusion with the adjacent country rocks is sharp.

The Pickle Crow porphyry has recently been age dated by uranium-lead (U-Pb) zircon (SHRIMP) analysis at 2,909 +/-15 Ma (Young et al., 2006).

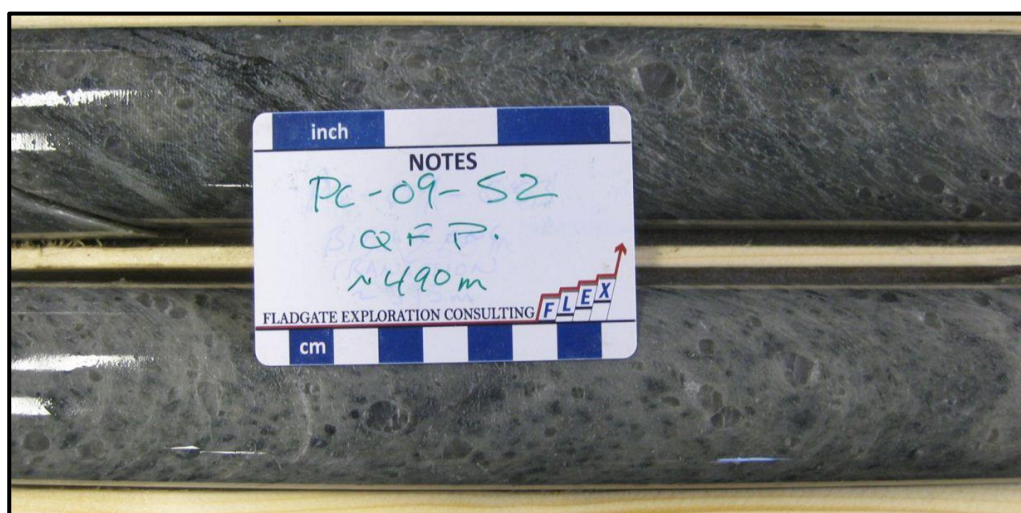
The Pickle Crow porphyry is distinctive because of its large phenocrysts of quartz. It weathers to a light grey colour. The quartz phenocrysts ranging in diameter from 2 to 10 mm (Figure 7.10) are rounded to oval in cross-section, but a few are rectangular with rounded corners. Individual feldspar crystals cannot be identified on the weathered surface as the quartz phenocrysts are enclosed in a matrix of kaolinized feldspar.

Microscopically, the rock is seen to also contain distinct well-formed but smaller fractured crystals of albite (Ferguson, 1966). The matrix of the rock is an aggregate of tiny anhedral grains of quartz and altered plagioclase with accessory amounts of magnetite-ilmenite, leucoxene, apatite, sphene, and rutile. Ferguson reports:



“in every thin section examined the groundmass was found to be schistose, and although the primary constituents of the rock themselves in most cases exhibit no linear parallelism, the structural feature is made quite evident by parallel wisps, flakes, and patches of sericite and chlorite. Chlorite occurs only sparingly in most sections. But locally it becomes prominent, where it imparts to the rock a distinct greenish cast. Its association with sericite indicates that the quartz albite porphyry, like the greenstones enclosing it, was subjected to only a low grade of regional metamorphism. Carbonate is also an abundant constituent, and like the sericite and chlorite replaces both the albite phenocrysts and the ground-mass feldspars.”

**Figure 7.10**  
**Pickle Crow Porphyry, Shaft 3 Area**  
**Hole PC-09-052**



Source: PC Gold, 2010

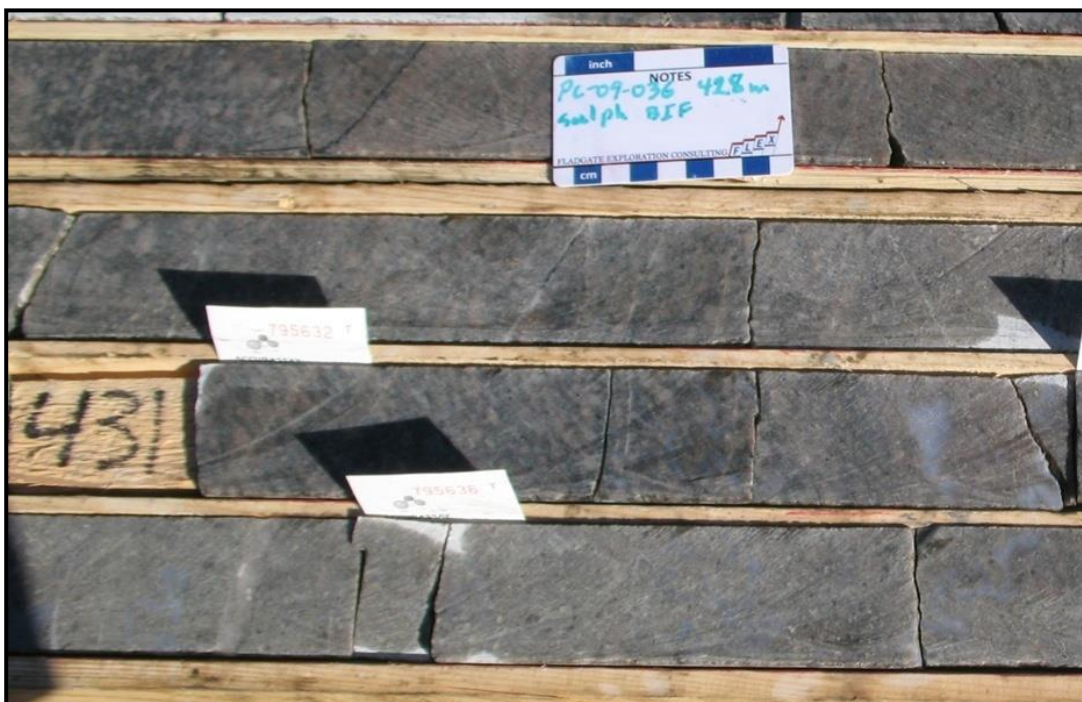
*The Albany Porphyry:* The Albany porphyry is 670 m in length by 120 m in width, with the sides of the body striking N60°E. This stock is somewhat irregular at the ends with lobes and dike-like apophyses. Some of the associated dikes are parallel with the trend of the enclosing rocks but others are crosscutting. From surface to the 625 ft (190 m) level the stock dips 65°NW. On surface the major axis of the stock makes a small angle with the strike of the enclosing rocks. The stock appears to maintain a similar shape and extend down the dip with no known plunge.

The Albany porphyry has recently been age dated by U-Pb zircon (SHRIMP) analysis at 2,735 +/-10 Ma (Young et al., 2006).

The Albany porphyry is a rock of faintly pinkish colour with abundant feldspar phenocrysts, scattered quartz phenocrysts and a few biotite crystals all of which are about 2 mm in size (Figure 7.11). In its most unaltered state it appears granodioritic in composition. In thin section the feldspar is considerably altered to white mica and in some local areas to saussurite. Some of the quartz phenocrysts are individual crystals but other phenocrysts consist of clusters of crystals. Quartz and carbonate occur as trains of interstitial material between the

larger feldspar phenocrysts. Small crystals of apatite are enclosed within the large biotite crystals.

**Figure 7.11**  
**Altered Albany Porphyry**  
**Hole PC-09-036**



Source: PC Gold, 2010

*Miscellaneous Porphyry Dykes:* A porphyry dike outcrops 400 m southwest of Pickle Crow No. 1 Shaft on claim PA729. It is about 3 m in width, and strikes N20°W. This rock is a light buff colour and contains scattered phenocrysts of feldspar from 2 to 4 mm diameter in a fine-grained matrix. The dike on claim PA2011 strikes N25°E and weathers to a light grey colour with some phenocrysts weathering in relief. On fresh surfaces the rock can be seen to consist of about 50% phenocrysts of light grey feldspar in a medium grey, fine-grained matrix. The dike on claim PA1139 has been stripped by prospectors and is about 1 m in width with scattered feldspar phenocrysts in a fine-grained buff matrix.

#### **7.2.4 Late to Post Tectonic Dykes**

A prominent northwest-southeast-trending diabase dike cuts across the western portion of the property. Narrow, fine-grained diabase dikes have also been mapped in the workings and encountered in underground drilling at the Pickle Crow mine. One dike occurs in the hangingwall of the No. 1 Vein and appears to be earlier than the vein, but another dike of similar appearance cuts this vein on the 411 m (1,350 ft) level (Pye, 1956). Diabase dikes also occur in the Pickle Crow porphyry. Although some of these dikes are parallel to the

margins of the stock, others are at angles of from 20° to 40° with the contact. All of these dikes within the porphyry are cut by the mineralized veins.

A dike of biotite lamprophyre outcrops along the southern side of the rock exposures on claim PA760 in the northwestern part of the Pickle Crow property, and a dike of similar composition occurs in the Pickle Crow porphyry and cuts the mineralized vein indicating its later age.

The lamprophyres are massive, dark grey to black, medium-grained rocks with a distinct porphyritic texture due to crystals of biotite that, in places, exceed 5 mm in length. Two varieties have been recognized. One, which cuts the Howell Vein (Figure 7.12), is composed chiefly of biotite, orthoclase, chlorite, and carbonate, and may be an altered minette. A second post-ore dike, which cuts the vein system (No. 2 Vein) at the Pickle Crow No. 2 operation is made up of biotite, andesite, quartz, subordinate clinopyroxene, and accessory apatite and zircon (Pye, 1956).

Lamprophyre dikes similar to those exposed at Shaft 1 are also very common and intimately associated with gold mineralization at the Central Pat East Zone.

**Figure 7.12**  
**Carbonate Altered Lamprophyre Dyke, No. 1 Vein Surface Stockpile**



Source: PC Gold, 2010

The Hooker-Burkowski (or Hooker) stock, which is located to the southwest of the Pickle Crow property, is shown on Figure 7.3. It is undeformed and intrudes all Pickle Lake greenstone belt assemblages. This unit is characterized as a quartz phyric trondhjemite.



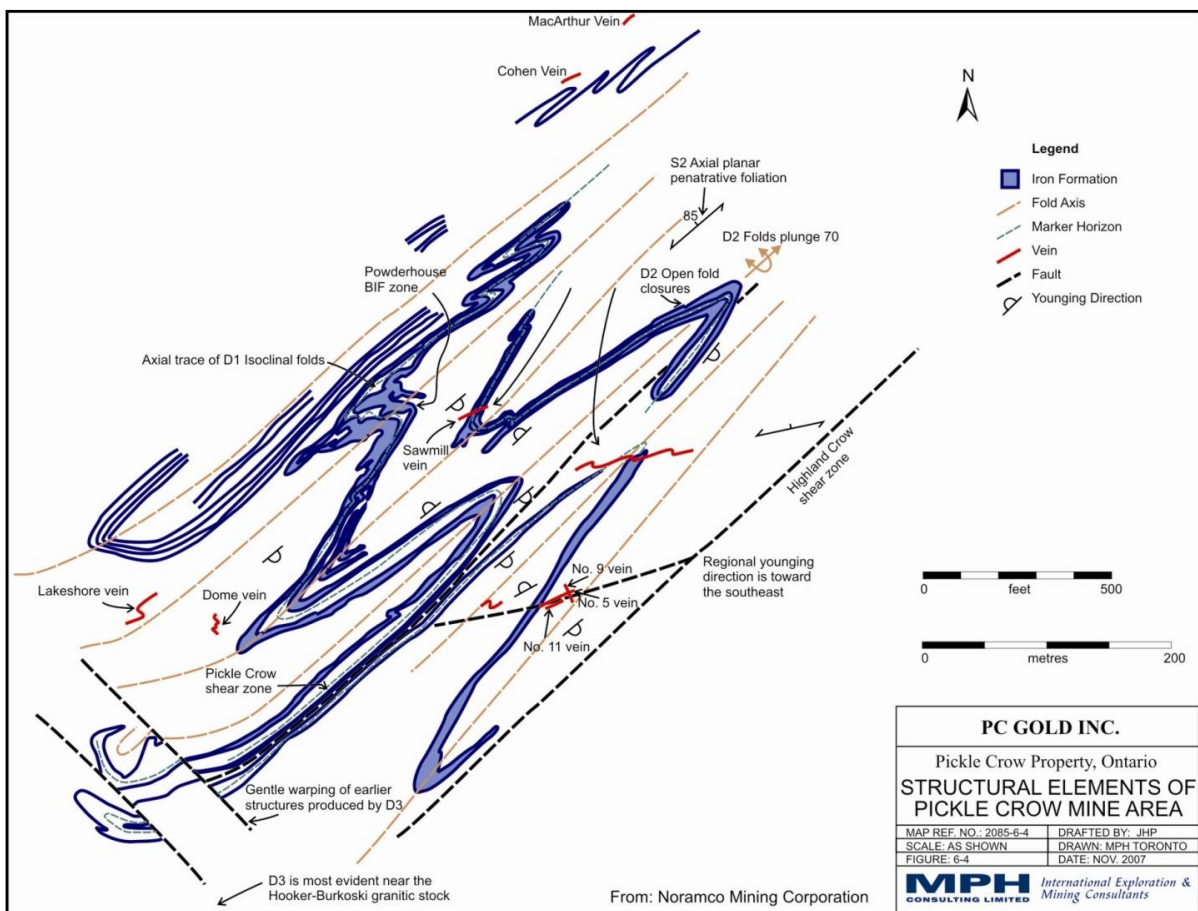
### 7.3 STRUCTURAL GEOLOGY OF THE PICKLE CROW PROPERTY

Below is a summary of the knowledge to date of the property's structural geology, including younging/facing criteria, marker horizons and polyphase deformation history as they relate to localized gold distribution.

The focus is mainly on the Pickle Crow assemblage and largely based on the descriptions of Ferguson (1966) and the deformation history account by MacQueen (1986). It should be noted that the structural history of the property, although fairly extensively studied, is by no means definitely understood.

Figure 7.13 illustrates the structural elements of the Pickle Crow area through the distribution of iron formation units.

**Figure 7.13**  
**Structure of Iron Formation, Pickle Crow Property**



Source: MPH, 2007. From Coates and Anderson 2008.



### 7.3.1 Younging/Facing Criteria and Marker Horizons

Structural determinations using the shape of pillows in basalt to indicate the ‘tops’ of beds have been possible in a few places (although it should be noted that strong stretching of the pillows makes younging determinations difficult). Ferguson notes that, generally, on surface it has not been possible to map particular parts of flows as continuous rock units and in underground workings the particular parts of flows have been mapped separately but in many parts of the mine it has not been possible to correlate these small rock units in adjacent workings. One persistent magnetite-carbonate iron formation bed forms an important marker unit in the Pickle Crow tholeiites.

Within the intermediate volcanic-volcaniclastic units no ‘tops’ determinations have been obtained from the generally lenticular bodies. In local areas the porphyritic dacite containing over 10% mafic minerals has proved to be a traceable unit. A bed of argillite which lies between the metabasalt and dacite rock unit also forms a local marker unit. Pye (1956) notes that grain gradation in a few of the beds of the only outcrop of this rock type suggest that the beds are younging to the north. The interbedded magnetite-carbonate iron formations have proved to be particularly useful as some beds persist for long distances and some lenticular beds are assumed to occupy the same stratigraphic position. Magnetic surveys have provided additional information on the continuity of particular beds.

The general strike of rocks on the property is northeast and the dip is 75° to 80°NW. The plunge of folds in the iron formation near No. 1 Shaft is due north at 75° to 80°. The rake of the three productive veins in the No. 1 Shaft area is 70° in a direction N20°E. The Pickle Crow porphyry stock and the Albany porphyry stock both extend down the dip and do not appear to plunge. Several of the anticlines narrow and plunge beneath the younger rocks in a pattern that would be consistent with a plunge to the northeast. Some other anticlines maintain a constant width for considerable distances and some anticlines have a shape, in plan, which suggests a plunge to the southwest. Along some fold axes the stratigraphic sequence is repeated in reverse order which indicates plunge reversals.

The major anticlines on the property are the Pickle Crow, Albany Shaft, Pumphouse Lake, Sawmill, Pumphouse Creek, Powderhouse Lake south, Powderhouse Lake central, and Powderhouse Lake north. The major adjacent synclines are the Albany Shaft, Township Line, No. 3 Shaft, Pickle Crow No. 1, Pickle Crow No. 2 and Pumphouse Lake (Ferguson, 1966). It is important to note that this complex folding is essentially confined to the Pickle Crow mine area, and that the upper (northerly) part of the Pickle Crow assemblage outside of the property is a simple north facing homoclinal sequence (Young et al., 2006).

The general trend of the fold axes is northeast but the Pickle Crow No. 2 syncline, the Pumphouse Creek anticline, and the Township Line syncline have fold axes which curve across the major fold axes. The folds strike northeast and dip steeply northwest forming isoclinal folds with overturned southeastern limbs.

A well-developed schistosity is present in the volcanic rocks in the mine area and on the limbs of folds. This schistosity conforms with the dip of the bedding and the axial plane cleavage of the latest period of folding. The porphyries are not strongly sheared but the platy minerals developed in the matrix are aligned in conformity with the schistosity of the adjacent volcanic rocks.

### 7.3.2 Deformation History

Lithologic units in the Pickle Crow area have been metamorphosed to greenschist facies. The greenschist-amphibolite facies isograd was observed below the mine workings in Shaft 1 (approximately 1,600 m depth) and is identified by the appearance of hornblende and abundant garnet (PC-10-052-W02). Greenschist mineral assemblages in basaltic rocks were petrographically determined to be:

- Chlorite + actinolite + epidote + quartz + albite, and
- Chlorite + sericite + quartz + albite

The chlorite and actinolite have a preferred orientation parallel to the second deformation foliation suggesting that this was the peak metamorphic episode.

MacQueen (1987) describes a complex polyphase deformation history that includes four tectono-metamorphic episodes summarized below.

*First Deformation (D1):* The earliest generation of structures (D1) is present as rare 1- to 3-m isoclinal fold closures or hinge zones (F1) within banded iron formation units that have been subsequently ‘refolded’ inside second generation or F2 fold closures. Due to refolding, the F1 folds have axial planes with a mean strike direction between east-northeast to east and a steep dip to the north with hinge lines (L1) plunging steeply (60° to 70°) to the northeast (Pye, 1956).

*Second Deformation (D2):* This generation of structures is the most prominent in terms of metamorphic overprint and the current distribution of rock units and mineralization on the property. In the mine area, D2 is characterized by a penetrative axial planar schistosity (S2), parallel, or at a small angle, to bedding/S1, striking northeast and dipping 75° to 87° to the northwest. Stretching lineations (L2) in the S2 plane, defined by chert and magnetite in iron formation, quartz phenocrysts in quartz feldspar porphyry and varioles in tholeiites, are steeply plunging (70° to 85°) to the north-northeast. The effect of this stretching lineation cannot be overstated as pillows have been measured with stretching ratios in excess of 30 to 1. The lineation is typically the strongest and most consistent fabric with the S2 foliation often a distant second. As a result, the most continuous direction of lithological continuity (and mineralization) on the property is vertical.

D2 fold closures (F2) have axial surfaces that strike northeast and dip steeply (75° to 85°) to the northwest, and hinge lines (L2) that plunge 60° to 80° to the northeast. D2 closures are characterized by 1-m to 200-m wide, tight, to isoclinal, similar folds, (best developed in

banded iron formation). They have thickened hinge zones, attenuated limbs and wavelengths of 300 m. The large D2 folds outlined by the BIF include the Pickle Crow Anticline, Pickle Crow Syncline, Sawmill Anticline and Powder House Anticline (Ferguson, 1966).

Figures 7.14, 7.15 and 7.16 show photographs of folds and shearing associated with the D2 event.

**Figure 7.14**  
**Sheared, Isoclinally Folded (F2) Banded Iron Formation, No. 1 Shaft Pit**



Source: PC Gold, 2010



**Figure 7.15**  
**Minor Fold (F2) in Banded Iron Formation, Stockpile Area**



Source: PC Gold, 2010

**Figure 7.16**  
**D2 Shear Zone Containing No. 5 Vein, West End of No. 5 Bulk Sample Pit**



Source: PC Gold, 2010

D2 shear zones occur throughout the Pickle Crow property as zones parallel to S2 surfaces (Type 1) and as discrete shear zones (S2') that splay off the Type 1 shear zones in a east-northeast direction, connecting Type 1 shear zones. Type 1 shear zones are strongly foliated



zones greater than 30 m wide which dip steeply (75° to 85°) to the northwest. They include the Pickle Crow Fault, Highland Crow Shear Zone, Pumphouse Shear Zone and Powderhouse Shear Zone.

Shear fractures in outcrop surfaces (Stott, 1986) trend east-northeast at low to moderate angles (20° to 40°) to S2. These east-northeast-striking sets of shear fractures have, in some instances, developed into discrete 2-m to 5-m wide Type 2 shear zones that are strongly foliated and run between substantial Type 1 structures. These Type 2 shears are an important structural control on gold mineralization.

D2 deformation was syn gold-bearing vein emplacement and deformation definitely continued sometime after vein emplacement, as evidenced by Z folding of the No. 1 Vein in Shaft 1 and even more intense folding and boudinaging of veins in Shaft 3 (Figure 7.17).

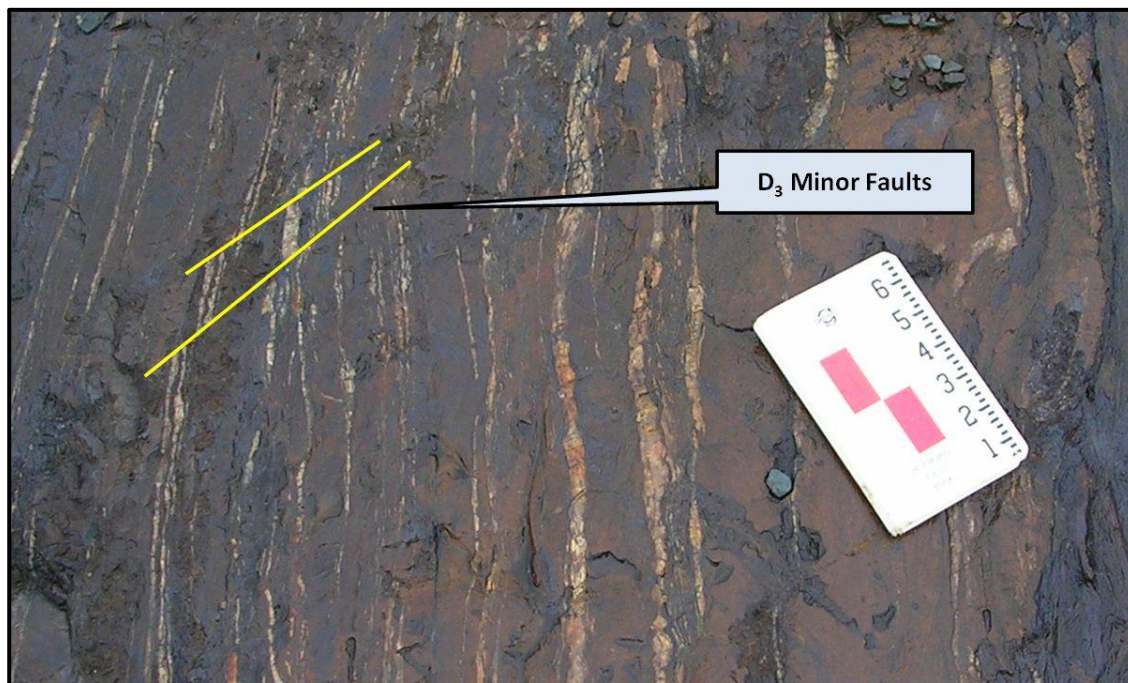
**Figure 7.17**  
**Boudinaged and Tightly Folded Gold-Bearing Vein**  
**No. 1 Vein High-grade Stock Pile**



Source: PC Gold, 2010

*Third Deformation (D3):* The third generation of structures on the Pickle Crow property consists of northwest- and north-striking conjugate faults, steeply dipping to the northeast, and crosscutting and displacing earlier structural fabrics (see Figure 7.18). Late undeformed veins, felsic dikes and lamprophyre dikes have been emplaced along fractures parallel to northwest- and north-striking conjugate sets of fractures which crosscut D2 fabrics.

**Figure 7.18**  
**D3 Minor Right-Lateral Faults**  
**West End of No. 5 Bulk Sample Pit**



Source: PC Gold, 2010.

*Fourth Deformation (D4):* The final (D4) deformation generation is represented by the development of late, continuous, northwest-striking, en-echelon extensional fractures that crosscut earlier fabrics (Sage and Breaks, 1982). These fractures are up to 20 m wide and have considerable strike lengths, up to hundreds of metres.

The Pickle Crow diabase dike, and other diabase dikes hosted in these structures, crosscut all strata, including the Hooker-Burkowski stock and the granitic terrane to the north and south of the Pickle Lake greenstone belt. The Pickle Crow diabase dike has been displaced sinistrally along a northeast-trending fault, the only record of post-D4 deformation within the Pickle Crow area.

#### **7.4 MINERALIZATION**

Gold mineralization on the Pickle Crow property is orogenic in nature and occurs in complexly folded and sheared, mainly tholeiitic, volcanic rocks of the Pickle Crow assemblage near its contact with calc-alkaline volcanic/volcaniclastic rocks of the Confederation assemblage. Host rocks for the mineralization include tholeiitic lavas, banded iron formation, intermediate volcanic/volcaniclastic rocks and quartz feldspar porphyry. Gold occurrences on the property are associated with four styles of mineralization:

- Narrow, high-grade gold-scheelite-bearing quartz veins, which were the main source of gold produced at the Pickle Crow mine from 1935 to 1966.
- Iron formation-hosted gold mineralization adjacent to vein structures. The iron formation contains stringers and discontinuous lenses of quartz and the iron-bearing minerals have been replaced by sulphides. Both quartz and sulphides are gold-mineralized. Only a limited amount of this type of material was processed at the Pickle Crow mine. However, iron formation-hosted gold was the main ore type at the adjacent Central Patricia mine to the southwest.
- Shear zone-hosted gold mineralization consisting of complex wide zones of intense shearing and alteration which are intimately associated with the intrusion of the Albany porphyry and characterized by disseminated pyrite, discontinuous quartz veining and sulphidation of interflow iron formation.
- Arsenopyrite-associated gold mineralization which typically occurs as disseminated to semi-massive arsenopyrite and quartz-arsenopyrite stockworks hosted by iron formation but can be also found, to a lesser extent, in shear zones and/or quartz veins in volcanic rocks. Similar arsenopyrite-rich iron formation-hosted gold was the main ore type at the adjacent Central Patricia mine.

A substantial number of auriferous quartz veins have been located on the property along with several occurrences of the iron formation-hosted mineralization (see Figure 7.19). The following quartz vein descriptions are mainly from the work of Thompson (1939), Pye (1956), and Ferguson (1966), while the subsequent iron formation mineralization descriptions also includes information from MacQueen (1987) and Winter (1988).

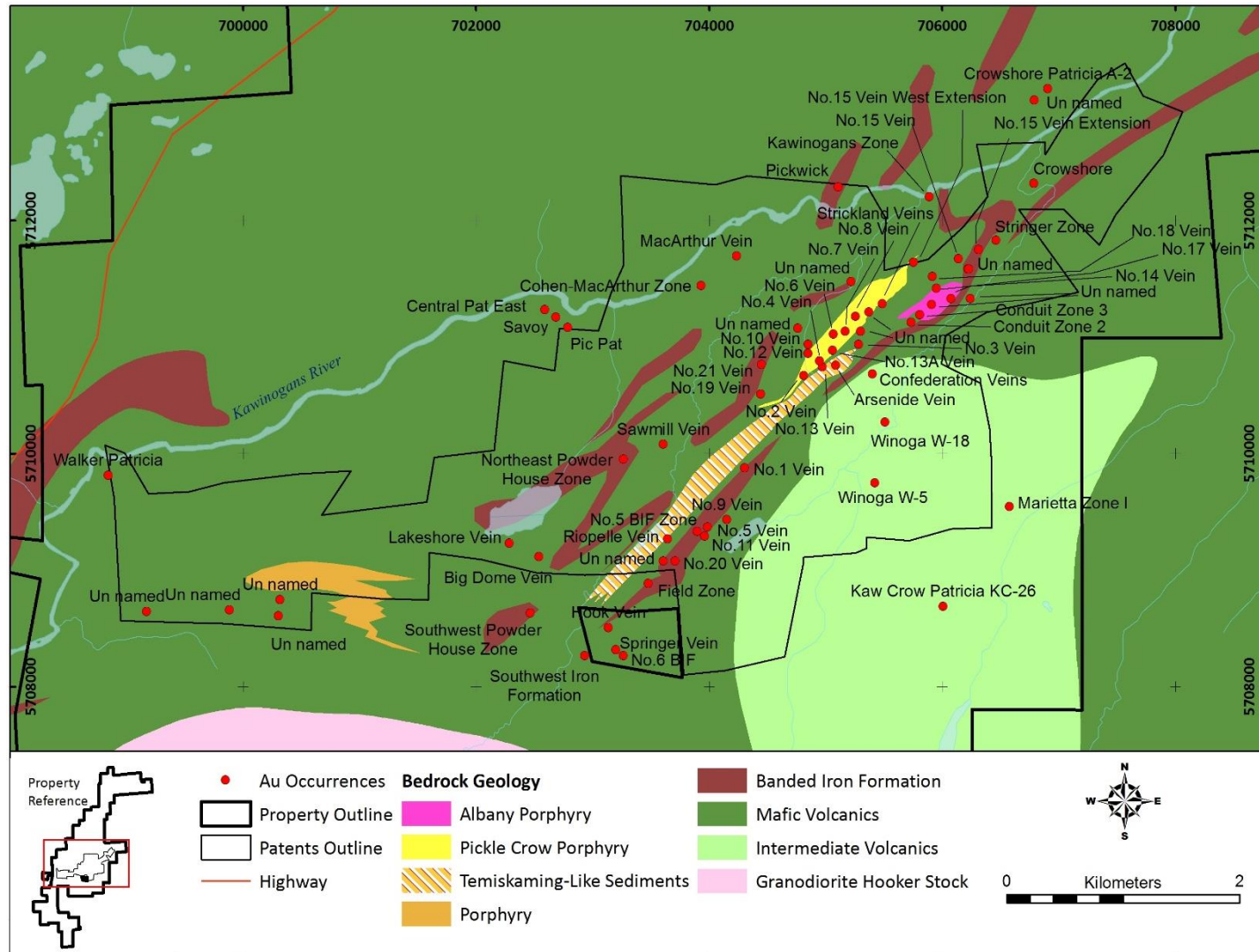
#### **7.4.1 Auriferous Quartz Vein Mineralization**

Gold was produced from the No.1, No. 2, No. 5, No. 6, No. 7, No. 8 and No. 9 Veins during the life of the Pickle Crow mine. The only additional mineralization of this type that was processed at the Pickle Crow mill came from exploration drifts at the Albany Shaft area.

The most productive of the quartz vein orebodies was the No. 1 Vein. This vein has been traced on surface over a strike length of 900 m and extends below the lowest level of the mine, or beyond a depth of 1,500 m (almost 700 m below the lowest historically mined level of the deposit). The average thickness of this vein is 0.9 m. The eastern part of the vein is highly contorted with an overall strike of N83°E, cuts across the lithologic units at an angle of 30 to 40°, and has an average dip of 73°N. The western part of the vein has an overall strike of N58°E, cuts the formations at about 10°, and has an average dip of 75°NW. The No. 1 ore body is a 'shoot' within the No. 1 Vein, with the eastern boundary determined by gold content and the western boundary by diminishing vein thickness (Pye, 1956).



**Figure 7.19**  
**Pickle Crow Property Gold Occurrences**



Source: First Mining, 2016



Although the No. 1 Vein is typical of the vein style mineralization at the Pickle Crow mine there are variations throughout the mine property. Veins in the Shaft 1 area are relatively undeformed, and more laminated, with more fine-grained gold. They have very little shearing or wall rock alteration and have significant down-dip continuity. Veins in the Shaft 3 area (e.g. No. 2), are more deformed, have few laminations with more coarse-grained gold, and possess wider zones of shearing and alteration in the wall rock. They are more en echelon in nature and have less down-dip continuity. Veins in the Albany Shaft area (e.g. No. 16), are even more deformed, with few laminations and generally rare visible gold, possess wide zones of shearing and intense alteration of the wall rocks, and generally poor continuity.

The No. 1 Vein consists largely of white or greyish, coarse to fine-grained, almost sugary quartz, a little ferro-dolomite, tourmaline and scheelite and subordinate amounts of metallic sulphides. The ankerite, tourmaline and scheelite, although locally occurring as patches completely enclosed by the quartz, generally occur in thin seams replacing chloritized greenstone in 'book and ribbon' structures or in the walls, and so help accentuate the banded character of the vein (Figure 7.20).

The sulphides occur only sparingly in the quartz and, while frequently found as disseminated grains in the altered lavas bordering the vein, the most favourable locus for their development appears to have been in the iron formation close to the main vein. The principal sulphide is pyrrhotite, but pyrite is also abundant, along with minor arsenopyrite, sphalerite, chalcopyrite and galena. The gold occurs largely as native metal in the vein quartz. Some gold is closely associated with the sulphides and traces are found in the altered wall rock but, in general, the gold is free and occurs along sericite-chlorite-fuchsite lined fractures and seams filling minute fractures in the quartz. Spectacular samples of visible gold have been observed in a number of places in the mine. As a general rule, however, the gold is very finely divided and practically invisible to the unaided eye (Pye, 1956).

Two distinct generations of quartz are recognizable; one gold-bearing and making up the body of the No. 1 Vein, the other barren and occurring, along with calcite, in narrow transverse veinlets that cut sharply across the earlier type.

**Figure 7.20**  
**No. 1 Vein, No. 1 Shaft Crown Pillar Stockpile.**



Source: PC Gold, 2010.

Most of the other mineralized veins at the Pickle Crow property have similar characteristics to the No. 1 Vein. Quartz is by far the most abundant mineral of all the veins and the two generations of quartz are found in many of the veins. The quartz in other veins in the metabasalt is a light grey colour and is banded due to the presence of inclusions of schist and dark coloured minerals. Similarly, the second generation of quartz consists of veinlets, generally less than a centimetre in thickness, which are approximately at right angles to the veins and extend completely across the veins but rarely extend into the wall rock. These veins consist of quartz with abundant white or pink calcite (Ferguson, 1966; Pye, 1956).

The next most abundant constituent of the veins after quartz is carbonate. Siderite is an original constituent of the iron formation and is found adjacent to the veins. In places the siderite is replaced by ferruginous dolomite which is found in the wall rocks and, in addition, forms ribbons within the veins. It is one of the early vein minerals. Calcite occurs with the quartz in the late, transverse veinlets.

Albite is present near the walls of the No.2 Vein but is erratically distributed and difficult to identify macroscopically. It also occurs in quartz stringers in diamond drill core and is abundant in a mineralized zone near the northeast corner of claim PA774. Chlorite is present in all the veins and is particularly abundant in inclusions within the veins. It is considered to be an early mineral and has been replaced by ferruginous dolomite. Sericite occurs as a product of wall rock alteration except where the walls are iron formation and also occurs within the veins and is particularly abundant in No.2 Vein. The sericite and chlorite ribbon structures within the veins are probably remnants of wall rock inclusions.

Tourmaline is widespread in minor quantities. It occurs as aggregates of tiny crystals replacing inclusions of wall rock and associated with the chlorite and sericite of the ribbon structures. Broken tourmaline crystals cemented by quartz and tourmaline inclusions within quartz are most abundant near the boundaries of inclusions.

Scheelite is a minor constituent of many of the veins and is a valuable indicator of the gold tenor in nuggety veins. It is a straw-coloured variety and many of the crystals are fractured and cemented by quartz.

Pyrite and pyrrhotite are the most abundant sulphides and both are about equally common in the veins in the metabasalt but pyrite is more abundant in the No.2 Vein, and only pyrite occurs in the No.16 Vein. In the metabasalt and iron formation wall rocks, pyrrhotite occurs as irregular masses, disseminated grains and narrow seams. It occurs in fractures in the veins, or the wall rock, or both, and as grains healing broken crystals of arsenopyrite and pyrite. The pyrrhotite is later than the quartz and the late variety of pyrite, but is replaced by sphalerite, chalcopyrite and galena.

Pyrite is the most abundant sulphide in the No.2, No. 16, and Springer Veins. An early variety of pyrite has been identified in the No.16 Vein where it is fractured and generally contains gold. A later pyrite occurs along fractures in the No. 1 and No. 2 Veins and generally does not contain gold. Pyrite of both ages is replaced by pyrrhotite.

Rare arsenopyrite is present in most of the veins but is more abundant where the wall rocks are iron formation. It occurs in crystals up to 6 mm in length within iron formation, in smaller crystals in metabasalt, and as euhedral crystals within the veins. In many places the crystals are fractured and healed by quartz, pyrrhotite, chalcopyrite and gold, but rarely by pyrite. Arsenopyrite is believed to be the first metallic mineral deposited and was followed closely by pyrite, which was deposited adjacent to the arsenopyrite. Overall arsenopyrite content of the veins is very low.

Magnetite occurs in the parts of the veins which are adjacent to iron formation, and as small grains in inclusions in pyrite. It appears that magnetite is an original wall rock mineral that has been included in the veins.

Chalcopyrite occurs in very small amounts in irregular blebs and grains and generally is associated with pyrrhotite, which it replaces. In a few places it is also associated with sphalerite. It is found either in the wall rocks or along fractures in the quartz.

Galena is also found in very small amounts and has been observed in the No. 1, No. 2, and No. 14 Veins where it forms tiny grains along minute fractures in the quartz and encloses, or is associated with, gold. In a specimen from the No. 1 Vein it appeared to replace sphalerite and is considered to be a late mineral. Sphalerite has been identified only in the No. 1 and No. 14 Veins. In the No. 1 Vein it occurs in narrow fractures in quartz and as a replacement in pyrrhotite. It is replaced by galena and gold.

Gold is present in many of the quartz veins and occurs in economic amounts in several veins within the area. The highest grades coincide with highly laminated and/or fractured portions of the veins. Visible gold (VG) occurs locally in small quantities, although the No. 2 Vein was known to contain spectacular amounts of free gold. An example of free gold from Vein 19 is shown in Figure 7.21. Gold has been deposited as a late mineral accompanied by galena and the late carbonate. Gold is moulded upon, or fills, fractures in quartz, pyrite and arsenopyrite and it replaces pyrrhotite, sphalerite and chalcopyrite.

**Figure 7.21**  
**Visible Gold in Quartz with Tourmaline-filled Fractures, No. 19 Vein**  
**In Hole PC-09-052A**



Source: PC Gold, 2010

#### **7.4.2 Iron Formation Hosted Gold Mineralization**

The second style of mineralization at Pickle Crow is the gold-bearing iron formation type. Considerable mineralization of this type was identified by PCGM on the property during its exploration and development work, mainly in the No. 1 Shaft area. These were locations adjacent to the No. 1 orebody (the No. 1 Iron Formation Zone or Eastern Iron Formation), the No. 5 orebody (the No. 5 Iron Formation Zone), and an area approximately midway, at depth, between the No. 1 and No. 5 Veins known as the Central Iron Formation Zone. After running iron formation material from test stopes in all three zones, PCGM found that it was unable to satisfactorily process both vein and iron formation mineralization styles due to their different metallurgical characteristics (Winter, 1987). It has also been reported that the average auriferous iron formation grade, believed to be about 6.85 g/t Au (0.20 oz/ton Au), was below the then cut-off grade of 8.57 g/t Au (0.25 oz/ton Au) (MacGregor, 1989).

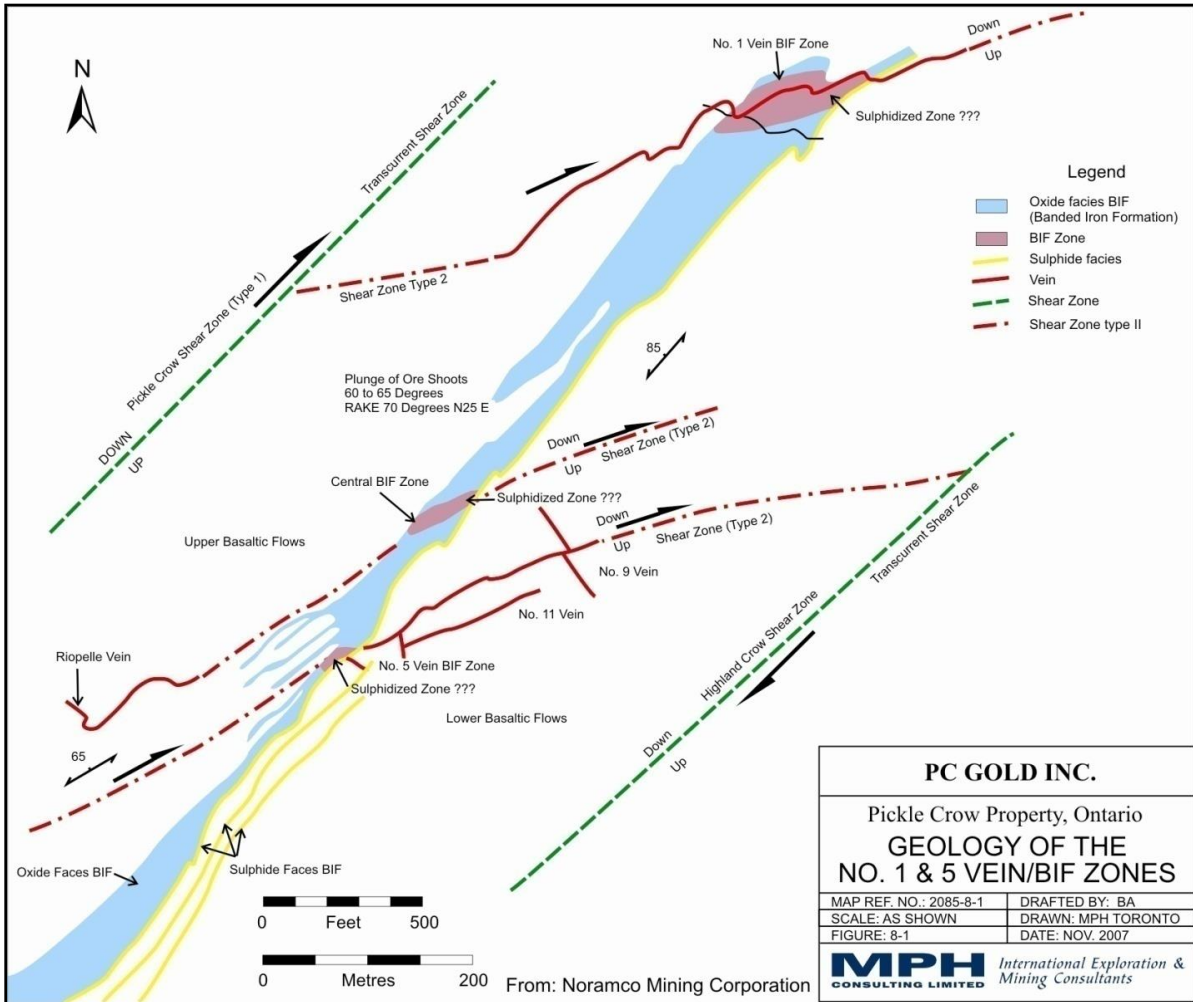
The Eastern, Central and No. 5 iron formations or quartz-sulphide zones on the Pickle Crow property comprise stringers and discontinuous lenses of quartz within iron formation. The iron bearing minerals of the iron formation have been replaced by sulphides adjacent to the veins and gold is present in the veins and the associated sulphides. Approximately 15,000 t of this type of mineralization, taken from test stopes in each of the above occurrences, were processed during the historic mining operations.

The iron formation mineralization consists of bleached and altered iron formation with variable amounts of pyrite, pyrrhotite and occasionally arsenopyrite, often with heavy secondary magnetite and quartz, and carbonate veins and veinlets.

The gold mineralization at Pickle Crow (both quartz vein and iron formation-hosted) is localized along or adjacent to Type 2 shear zones, i.e., shear zones that are developed oblique to greenstone belt lithological trends and cross between adjacent Type 1 zones, lithologically concordant shear zones or faults. The relationships between the structural features and mineralized bodies in the No. 1 Shaft area are shown in Figure 7.22 (plan view) and Figure 7.23 (longitudinal section).

The No. 1 iron formation on the 732 m (2,400 ft) level was described by Pye (1952). In this area the zone was traced along a strike length of about 60 m with maximum widths up to 20 m. Pye describes the zone as being highly “irregular in outline” and consisting of “highly contorted iron formation and occasional conformable strips of chlorite schist, both of which have been impregnated with metallic sulphides and cut by small quartz veins and stringers”. The quartz veins in the zone are localized along the limbs of minor folds or along east-west zones of shearing and fracturing. Quartz veins associated with the chlorite schist interbedded with the iron formation are highly lenticular in form, attaining widths of a metre or more but pinching out in short distances, and contain irregular patches and ribbons of altered wall rock (see Figure 7.24). However, in the iron formation they are narrower, more persistent and uniform in width, and locally contain angular fragments of wall rock suggesting pre-vein brecciation.

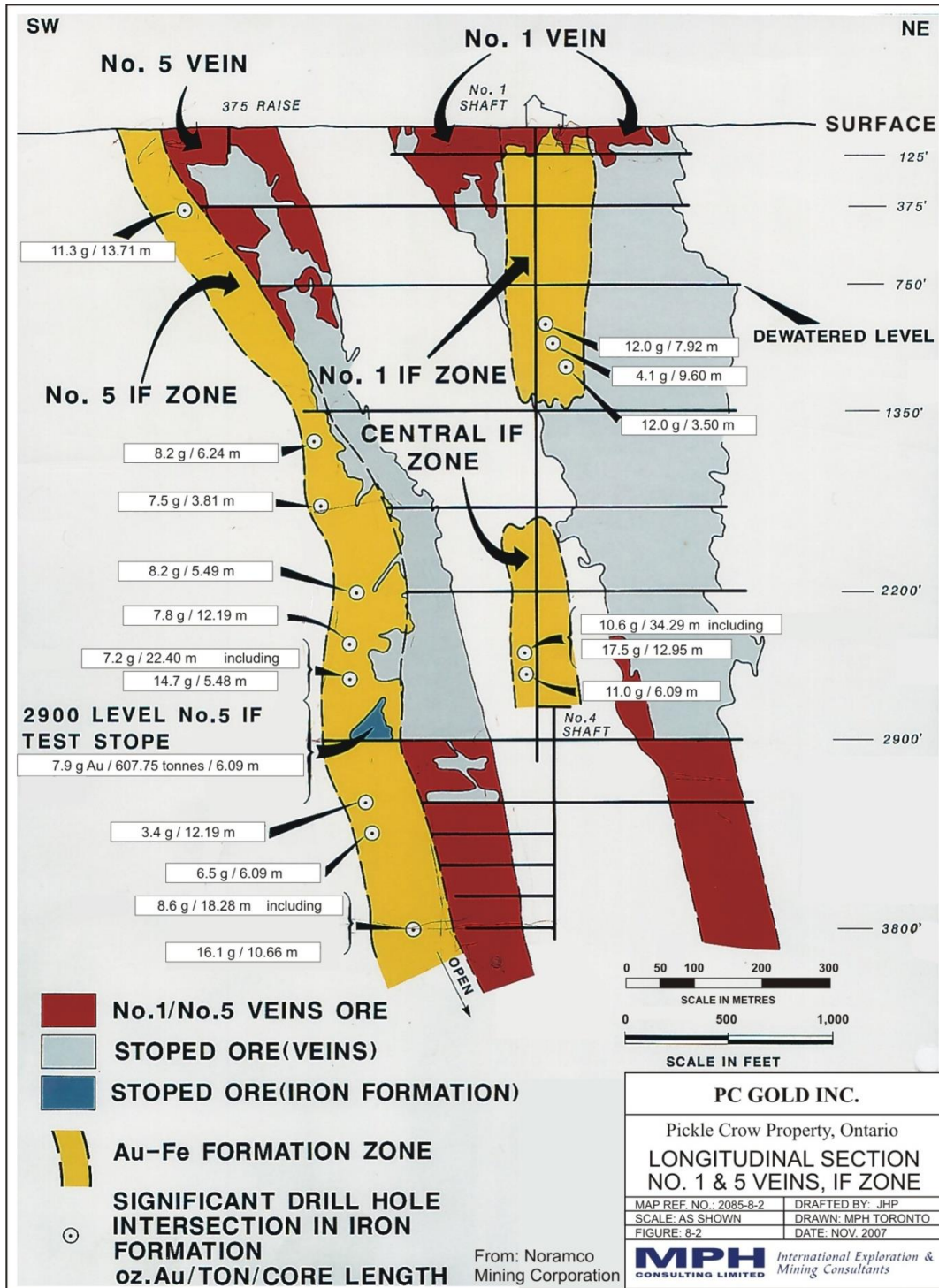
**Figure 7.22**  
**Structural Relationship Between Mineralized Zones, No. 1 Shaft Area**



Source: MPH, 2007, From Coates and Anderson 2008.



**Figure 7.23**  
**Longitudinal Section, No. 1 and 5 Veins and Associated Iron Formation Zones**  
**Shaft 1 Area**



Source: MPH ,2007, From Coates and Anderson 2008.

Note: mineralized intersections are drilled core length, not true width.

**Figure 7.24**  
**Gold-Bearing Patchy Quartz Veining and Disseminated Pyrite-Pyrrhotite Mineralization**  
**From the No. 5 BIF Zone in Hole PC-09-014A-W04**



Source: PC Gold, 2010.

Associated with the quartz are small amounts of scheelite, carbonate and tourmaline. Gold is localized for the most part in the accompanying sulphides (pyrrhotite and pyrite), which occur as:

- Irregular streaks and small masses replacing both iron formation and chlorite schist within and along the walls of the veins.
- Thin seams localized along bedding laminae in the iron formation and planes of foliation in the chlorite schist.
- Stringers healing fractures of various attitudes that cut both the quartz and the wall rocks.

Sulphide mineralization is localized near the quartz veins so that, a metre or so away from the veins, the wall rocks are only sparsely mineralized with finely divided pyrrhotite and pyrite. In general, the sulphides make up about 10 to 15% of the mineralized zone.

Iron formation-hosted gold similar to the No. 1, Central and No. 5 Iron Formation Zones is also found in the Northeast Powder House, Sawmill Vein, Southwest Powder House (located just south of the Pickle Crow property) and Kawinogans Zones (see Figure 7.25).



**Figure 7.25**  
**Gold-Bearing Patchy Quartz Veining and Disseminated Pyrite-Pyrrhotite Mineralization**  
**from the Kawinogans Zone**  
**In Hole PC-10-090**



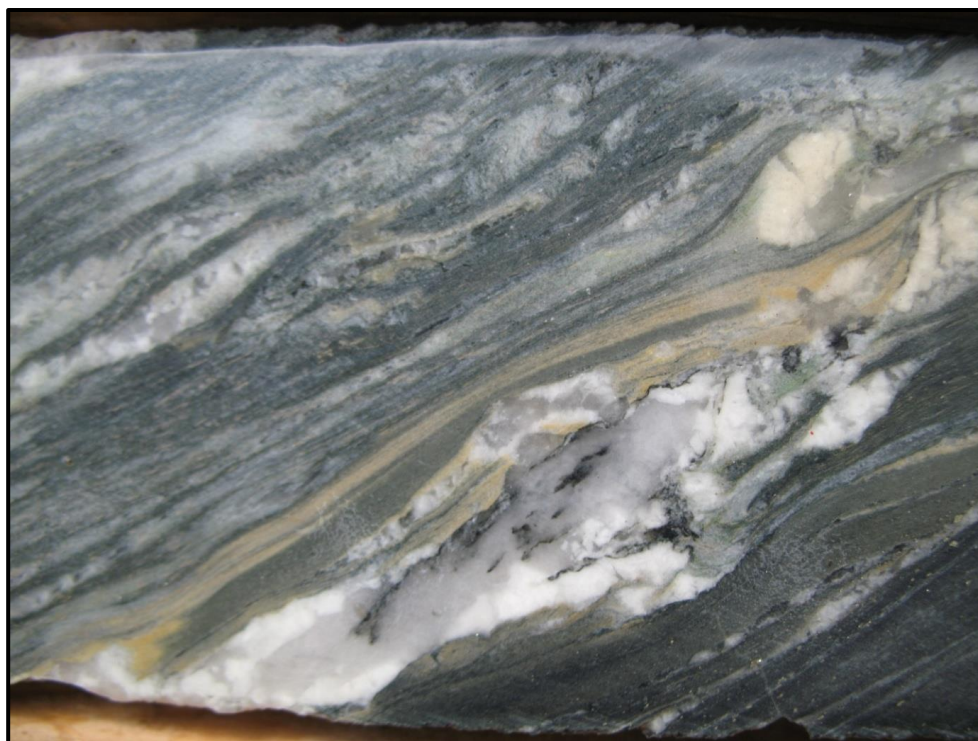
Source: PC Gold, 2010.

### 7.4.3 Shear Zone Hosted Gold Mineralization

The shear zone-hosted type of mineralization is restricted to the Albany Shaft area, and is referred to as Conduit style mineralization after Conduit Zones 1, 2 and 3 (formerly the A, B and C Zones).

The mineralization is characterized by wide, highly complex zones (both lithologically and structurally) of shearing with discontinuous quartz veining, sulphidized interflow iron formation and disseminated pyrite (see Figure 7.26). All rock types can be mineralized with a preference for the interflow iron formation where the highest grades occur, often in association with a pronounced crenulations fabric and abundant Z folds. Lithological complexity is a key component, providing abundant small-scale competency contrasts. Conduit style mineralization, when present in homogenous rocks such as massive basalt, is much less intense and lower grade.

**Figure 7.26**  
**Conduit Zone 1 Mineralization in NQ Drill Core**  
**Hole PC-10-037, Albany Shaft Area**



Source: PC Gold, 2010

Alteration mineralogy includes widespread carbonate (some calcite, but primarily ankerite) strong sericitization, chlorite, silicification and quartz veining, and abundant disseminated pyrite. Visible gold was not observed although grades greater than 1 oz/ton have been recorded. Minor alteration minerals include tourmaline, hematite, and fuchsite.

The geometry of the mineralization is poorly understood. In the case of Conduit Zone 1 it has been defined by drilling to be an approximately 40-m wide, northerly-plunging (~55°) pipe-shaped body, although Conduit Zones 2 and 3 do not mimic this geometry. There is also strong evidence that the Conduit style of mineralization is simply a much stronger manifestation of the shearing that surrounds the high-grade quartz veins at the Pickle Crow mine. For instance, there is evidence that Conduit Zone 2 is the southwest extension of the No. 16 Vein. The mineralization is often moderate to low grade and possibly amenable to open pit or bulk underground mining methods.

#### **7.4.4 Arsenopyrite Associated Gold Mineralization**

Arsenopyrite-bearing gold mineralization was described early on in the history of the Pickle Crow property when it was discovered at the Cohen-MacArthur Zone and MacArthur Vein in the 1930s. These are located north of the core mine trend and just south of the Kawinogans

(Crow) River. While historically it was not a significant style of mineralization at Pickle Crow, it was the principal ore at the nearby Central Patricia mine.

Subsequent work by PC Gold has found this style of mineralization to be much more widespread on the property than previously thought. The Cohen-MacArthur deformation zone is a wide (up to 100 m) zone of intense shearing and carbonate (ankerite)-sericite alteration that roughly parallels the core mine trend and runs the entire length of the property. It was identified through geophysics and drilling in 2010. The Cohen-MacArthur structure is the strongest structure present on the property and forms a dividing line between mineralization styles. All mineralization north of this structure is associated with arsenopyrite, whereas the mineralization south of it (with the rare exceptions of the Arsenide Vein and No. 21 Vein) is associated with minor scheelite and low arsenopyrite contents.

Arsenopyrite mineralization can occur in several forms such as localized shear zones, quartz veins, quartz stockworks and disseminations in both volcanic and chemical sedimentary rocks. The most widespread mineralization and highest grades occur within iron formation, such as the Central Pat East Zone (see Figure 7.27), where the mineralization is also spatially associated with several late unmineralized lamprophyre dikes which presumably used the same structures as the gold mineralization originally exploited. The tenor of the gold mineralization is very closely tied to arsenopyrite content, as seen in Figure 7.28, as well as the degree of silicification, quartz flooding and/or veining.

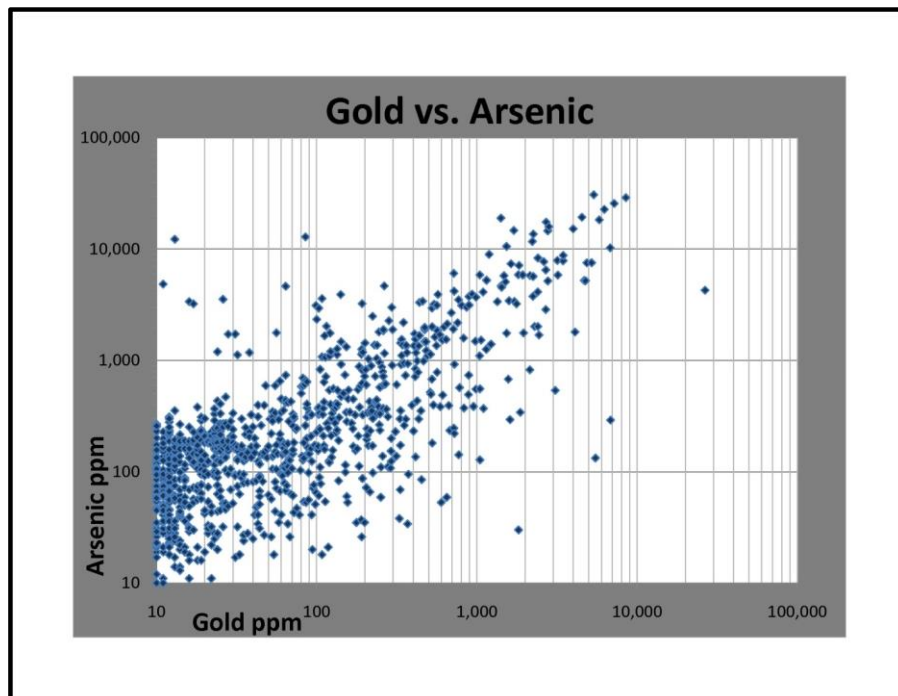
Alteration minerals associated with arsenopyrite mineralization are widespread and include often intense carbonate (ankerite) alteration and strong silicification, quartz flooding and/or veining and moderate sericite alteration. Minor alteration minerals include tourmaline, pyrrhotite and chalcopyrite. Petrographic studies by Kolb (2011) on the Central Pat East indicate that the gold is free, located within fractures or next to arsenopyrite crystals (Figure 7.29).

**Figure 7.27**  
**Semi-massive Arsenopyrite in Quartz-Flooded Chert-Rich Iron Formation, Central Pat East Zone**  
**In Hole PC-10-108**



Source: PC Gold, 2010

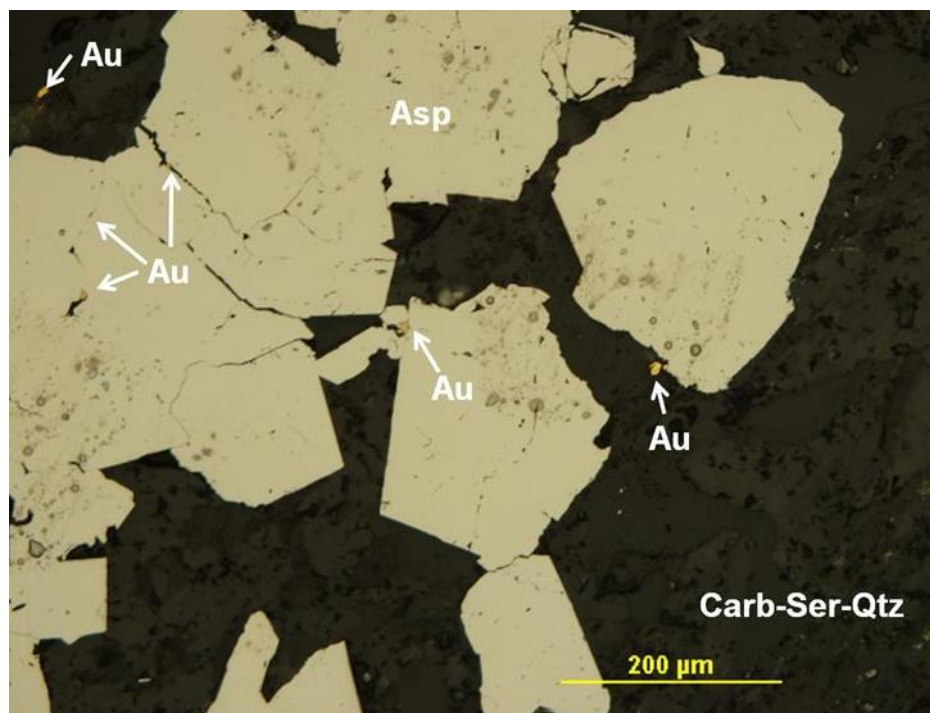
**Figure 7.28**  
**Plot of Gold Versus Arsenic Contents in the Central Pat East Zone**



Source: PC Gold, 2010



**Figure 7.29**  
**Photomicrograph of Arsenopyrite Associated Gold Mineralization, Central Pat East Zone**  
**In Hole PC-10-108**

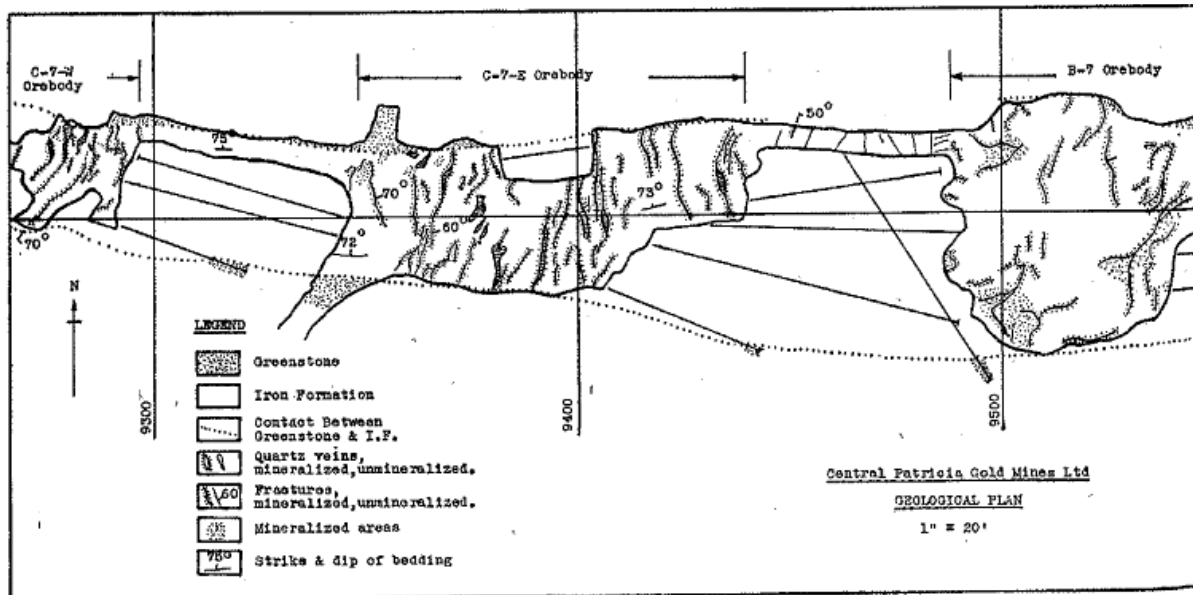


Source: PC Gold, 2010

An important structural component of the arsenopyrite-associated gold mineralization is the presence of fractures and/or veinlets at high angles to bedding. At the Central Patricia mine, the host iron formation possessed an east-west strike, however, the mineralization was present in sulphide-rich fractures oriented perpendicular to the strike of the iron formation. Figure 7.30 is a plan from the 750 level showing mineralized fracture patterns at a high angle to the strike of the iron formation which makes up the ore bodies at the Central Patricia mine (Tigert, 1949). At Central Patricia, miners exercised care to drill holes at approximately right angles to the locally prevailing fracture pattern (i.e. parallel to bedding). Normal drilling, at right angles to the drift (i.e. perpendicular to bedding) would produce very false results (Tigert, 1949).

These fractures plunge approximately 55° to the east and formed very consistent high-grade shoots within the iron formation. Similar structures have been observed at the Central Pat East Zone (Figure 7.31) where arsenopyrite fractures and arsenopyrite-quartz veinlets cut bedding at high angles. Similar high angle quartz veinlets, plunging to the northeast and perpendicular to the strike of the host iron formation, have been observed in the arsenopyrite-poor iron formation mineralization at the Sawmill Vein and may play an important role in controlling the geometry of this style of gold mineralization as well.

**Figure 7.30**  
Portion of the Geological Plan of the 750-Foot Level Central Patricia Mine



Modified from Tigert, 1949.

**Figure 7.31**  
High Angle Arsenopyrite Veinlets Cutting Low Angle Bedding in Chert-Rich Iron Formation  
Central Pat East Zone in Hole PC-11-131



Source: PC Gold, 2010.

## 8.0 DEPOSIT TYPES

PC Gold considers the gold occurrences in the Pickle Lake mining camp to be classical examples of deposits grouped under the descriptive model of Archean low-sulphide gold-quartz veins (Model 36b.2) (Klein and Day, 1994). This deposit type is also known as shear-zone-hosted gold, Archean quartz-carbonate vein gold deposits, Archean lode gold, Archean mesothermal gold or orogenic gold. This category of gold deposit is found in every major Archean craton and accounts for worldwide historic gold production in excess of 9,900 t, second only to the Witwatersrand modified paleoplacer gold deposits of South Africa.

The Pickle Lake greenstone belt also hosts a former base metal producer, the Thierry copper-nickel mine located 20 km north of Pickle Lake. This deposit is associated with ultramafic intrusive rocks. The ore consists of magmatic chalcopyrite, pyrite, pyrrhotite, pentlandite and platinum group metals (PGM). No host rocks for this type of mineralization are exposed on the Pickle Crow property.

The fundamental characteristics of the gold deposits in the Pickle Lake mining camp are summarized as follows:

- **Temporal Range:** Archean, Pickle Lake greenstone belt, Pickle Crow assemblage dated at  $>2,909 \pm 15$  Ma, Confederation assemblage dated at  $\sim 2,744$  Ma, Temiskaming-type sediments, mostly likely representing the erosional unconformity between the Pickle Crow and Confederation assemblage dated at  $2,752.2 \pm 2.7$  Ma (maximum age) (Pettigrew, 2010a).
- **Host Rock Types:** The major gold orebodies at Pickle Lake are hosted by the Pickle Crow assemblage, which includes mainly tholeiitic lavas with banded iron formation and minor calc-alkaline intermediate volcanic/ volcaniclastic lithologies, as well as quartz-feldspar porphyry intrusive rocks. Numerous gold occurrences including some with substantial gold production are known in the volcanic rocks of the Pickle Crow assemblage.
- **Paleotectonic Setting:** Most gold deposits in the Superior Province of the Canadian Shield are found in Archean greenstone belts, or their associated intrusions, along highly-deformed, steeply-dipping major shear zones, often referred to as “breaks”. Examples are the Destor Porcupine and Larder Lake-Cadillac breaks in the Abitibi greenstone belt. The Pickle Lake greenstone belt contains at least two such large structures. The core mine trend break, like the Abitibi, preserves Temiskaming-like sedimentary rocks and the Cohen-MacArthur deformation zone, which is up to 100 m wide.
- **Structure:** The gold-bearing veins at Pickle Crow fill pre- or syn-ore faults, shears and fractures in the various host rocks. Auriferous sulphide zones that are stratabound and contained within iron formation occur adjacent to shear zones in some areas.



- **Associated Deposits:** A small amount of scheelite was taken from the Pickle Crow mine during World War II. An unrelated deposit type in the Pickle Lake greenstone belt is magmatic copper-nickel-PGM at the Thierry mine.
- **Primary Ore Mineralogy:** The historical ore at Pickle Crow was contained in quartz veins that are generally banded with tiny streaks of tourmaline, chlorite or sericite, and in fracture fillings. Quartz is by far the main vein mineral along with lesser carbonates including siderite, ferruginous dolomite and calcite. Minor albite, chlorite and sericite, and local traces of tourmaline and scheelite have been noted. Native gold was the main ore element at the historical Pickle Crow mine. The main sulphide minerals are pyrrhotite and pyrite, which combined are usually less than 2% of the vein material, along with trace arsenopyrite, magnetite, chalcopyrite, galena and sphalerite.
- **Wall-Rock Alteration:** Alteration of wall rocks adjacent to veins and breaks is a prominent characteristic of Archean low-sulphide gold deposits. At Pickle Crow alteration minerals include silica, sericite, chlorite, carbonate and pyrite.

The Archean low-sulphide gold-quartz vein model is considered to be the main conceptual model that is relevant to the Pickle Crow property. Given the rarity of komatiites or mafic-ultramafic intrusions it is unlikely that nickel-copper-PGM deposits are present. However, the calc-alkaline volcanic units of the Confederation assemblage might be a potential host for volcanogenic massive sulphide (VMS) deposit types.

## 9.0 EXPLORATION

This section summarizes exploration work programs conducted by PC Gold since acquiring the Pickle Crow project. Details of all exploration work conducted by PC Gold can be found in several published and pending assessment reports including Sheridan (2011), Pettigrew (2011a, 2011b, 2011c, 2011d and 2011e), and Lynch (2010a and 2010b). Exploration activities conducted by previous operators is summarized in Section 6. A more detailed summary of past exploration can be found in Coates and Anderson (2008).

First Mining has completed a short drill program in late 2016/early 2017. See section 10.

### 9.1 2007 ACTIVITIES

MPH was engaged to write an NI 43-101 Technical Report on the Pickle Crow property in the fall of 2007. Mr. Howard Coates, M.Sc., P.Geo., Vice President of MPH, was the principal author of the report. At this time, sourcing and compilation of available historical data was also started.

During its site visit in October, 2007, MPH collected a total of nine samples from the property in connection with the report (Coates and Anderson 2008). Two types of samples were obtained on a spontaneous and random basis as follows:

- Eight field duplicate split core samples from a series of Noramco drill holes that are stored at two locations on the Pickle Crow property, and
- One composite chip channel sample taken from the outcropping No. 5 Vein in the No. 5 Vein bulk sample pit.

The results of this sampling are discussed in Section 11, MPH Data Verification.

The poor condition of the Noramco era drill core greatly limited the amount of check sampling that could be carried out (see Figure 9.1).

**Figure 9.1**  
**Noramco Drill Core Storage Area, Pickle Crow Property**



Source: PC Gold, 2010.

## **9.2 2008 ACTIVITIES**

MPH began digitizing the historical drill hole data, mine plans, and surface maps late in 2007, carrying on through the winter of 2008. In the spring of 2008, Fladgate was engaged to run all aspects of PC Gold's exploration program. Fladgate and MPH continued digitizing historical data until the fall of 2008 when Fladgate took over all further digitizing and 3D modelling of the data. Historical data digitization and 3D modelling continued right up to the completion of the previous NI 43-101-compliant mineral resource estimate that was released in the spring of 2011 and is described in this report. Extensive infrastructure upgrades to the Pickle Crow project site were also undertaken in 2008.

Starting in the spring of 2008, PC Gold commenced an extensive exploration program (Phase I) consisting of:

- Locating historical drill collars with a differential GPS.
- Surveying historical shafts.
- Reconnaissance geological mapping and relocating historical trenches.
- Limited channel sampling and mapping of historical trenches.
- Diamond drilling; 33 holes were drilled with up to 2 rigs totalling 8,638 m in the core mine trend to confirm historical holes, zones tested include:
  - Shaft 1 area.
    - No. 5 Vein and No. 5 BIF.
    - No. 1 Vein and No. 1 BIF.
  - Shaft 3 area.
    - No. 13 Vein.

- No. 3 Shaft Vein.
- No. 4 Vein.
- Albany Shaft area.
  - No. 15 Vein.
  - No. 15 Vein extension.
  - No. 16 Vein.
  - No. 17 Vein.
- C Zone (which would later be renamed Conduit Zone 3).
- A LIDAR (Light Detection and Ranging) and digital aerial photography survey over the property by McElhanney Consulting.
- Upgrading 7 km of road from the highway to property as well as upgrades to roads onsite from the gate to the Albany Shaft.
- Upgrading the old Pickle Crow Hotel in the town of Pickle Lake to serve as the exploration staff quarters.
- Upgrading the old Cantera-era office trailer onsite.
- Completing the Cantera-era mine dry and septic field.
- Constructing the core logging and core cutting facility onsite.
- Constructing a long term storage core yard onsite.

The results of the Phase I diamond drill program are discussed in more detail in Section 10 of this report.

The financial crash in the fall of 2008 resulted in a shutdown of field activities in November of that year, however, digitization and 3D modelling of historical and new data continued. The Phase I program confirmed the results of historical drill holes and provided confidence in the digital database.

### **9.3 2009 ACTIVITIES**

Field exploration was renewed in the spring of 2009 (Phase II) with a focus continuing on the core mine trend. This exploration program consisted of:

- Diamond drilling; 34 holes with up to 3 rigs totalling 14,308 m in the following areas:
  - Deep drilling at Shaft 1 targeting:
    - No. 1 Vein and BIF.
    - Central BIF.
    - No. 5 Vein and No. 5 BIF.
  - Shallow drilling in the Albany Shaft area targeting:
    - Newly identified Conduit style mineralization (Conduit Zone 1).
    - No. 14 Vein.
    - No. 16 Vein.
    - No. 17 Vein.
    - Madsen-style mineralization (after the Madsen mine in the Red Lake greenstone belt) at the Pickle Crow-Confederation assemblage contact.

- Shallow drilling in the Shaft 3 area targeting:
  - Sulphide-rich, Temiskaming-like conglomerate.
  - Arsenide Vein.
  - Several historical 1930s vintage (Winoga) drill holes (now renamed the Confederation Veins) located in the Confederation assemblage.
  - Madsen-style mineralization, at the Pickle Crow-Confederation assemblage contact.
- Reconnaissance mapping and whole rock sampling to test for Madsen-style mineralization along the Pickle Crow-Confederation assemblage contact.
- U-Pb age dating of detrital zircons from two samples (one conglomerate and one sandstone) of the Temiskaming-like sedimentary basin by the Jack Satterly Geochronology Laboratory at the University of Toronto.
- Line cutting (114.9 km) on the core mine and Cohen-MacArthur trends.
- A Titan IP (71.45 line-km, 80.25 km with current extensions) and ground magnetometer survey (110 line-km) conducted by Quantec Geoscience of Toronto.
- Prospecting with a focus on the Cohen-MacArthur trend.

Exploration continued uninterrupted through the end of the year. The most significant results of the 2009 program were the discovery of Conduit Zone 1, the discovery of Pickle Crow type high-grade veins hosted in intermediate volcanic rocks and gabbro of the Confederation assemblage (Confederation veins) southeast of Shaft 3, possibly representing surface expression of the No. 8 Vein, the identification of Temiskaming-like sediments in the core mine trend, and the identification of the Cohen-MacArthur trend by geophysics.

#### **9.4 2010 ACTIVITIES**

In 2010, exploration continued with the focus remaining on the core mine trend but expanding to include the Cohen-MacArthur trend. The exploration program consisted of:

- Diamond drilling; 106 holes with up to 4 rigs totalling 35,545 m, including helicopter supported drilling, in the following areas:
  - Shaft 1 shallow and deep drilling targeting:
    - No. 1 Vein.
    - No. 19 Vein.
    - No. 20 Vein.
    - No. 21 Vein.
  - Shaft 3 deep drilling targeting:
    - No. 2 Vein.
    - No. 6 Vein.
    - No. 7 Vein.
    - No. 8 Vein.
  - Cohen-MacArthur trend targeting:
    - MacArthur Vein.
    - Cohen-MacArthur Zone.

- Kawinogans Zone.
- Central Pat East Zone.
- Walker Patricia Showing
- Various regional Titan IP targets.
- Various regional prospecting targets.
- Trenching program consisting of 9 trenches totalling approximately 32,000 m<sup>2</sup> including 1,707 channel samples (from trenches A through I), (Figures 9.2 and 9.3) targeting:
  - Conduit Zone 2 (formerly A and B Zones), (Trench A).
  - Conduit Zone 3 (formerly C Zone), (Trench B).
  - No. 5 Vein, No. 11 Vein and No. 5 BIF (Trench C).
  - Sawmill Vein (Trench D).
  - Powder House area, western extension (Trench E).
  - Lake Shore Vein area (Trench F).
  - Powder House Zone proper (Trench G).
  - MacArthur Vein (Trench H).
  - Cohen-MacArthur Zone (Trench I).

Exploration continued uninterrupted except for two weeks during August, 2010, when drill contractors were changed.

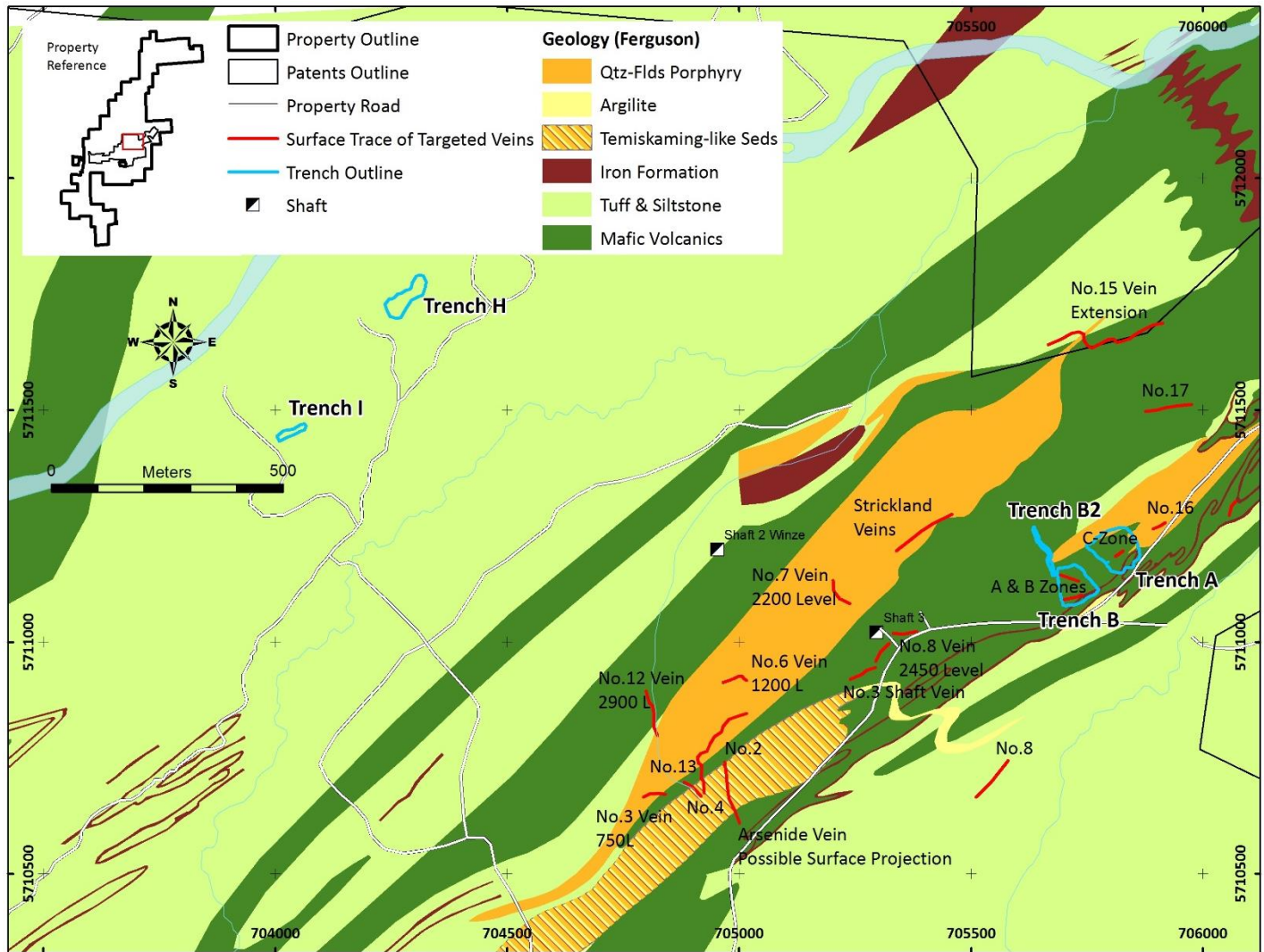
The most significant results of the 2010 program were the discovery of the No. 19 Vein, the Kawinogans Zone and the Central Pat East Zone and the extension of the No. 1 Vein 700 m below the historical workings. The No. 20 and 21 Veins were also discovered.

Trenches A through C were fully washed, mapped and channel sampled. Trenches D through F were washed and channel sampled but not mapped and trenches H and I were not washed before the onset of winter.

Work continued on digitizing, 3D modelling, and in-house resource estimations on select zones. In the spring of 2010, SRK Consulting Inc., of Toronto, Ontario was contracted to audit a mineral resource estimate, however, it was determined that the data and 3D model were not sufficiently complete to finish an NI 43-101-compliant resource at that time. In the fall of 2010, Micon was contracted to audit an updated mineral resource estimate.

Fladgate also continued work on the partially completed Cantera-era closure plan in conjunction with the MNDMF staff. In July, 2010, DST Consulting Ltd. of Thunder Bay, Ontario was contracted to assist in completing the Cantera plan as a “production closure plan” but in a state of “temporary suspension”.

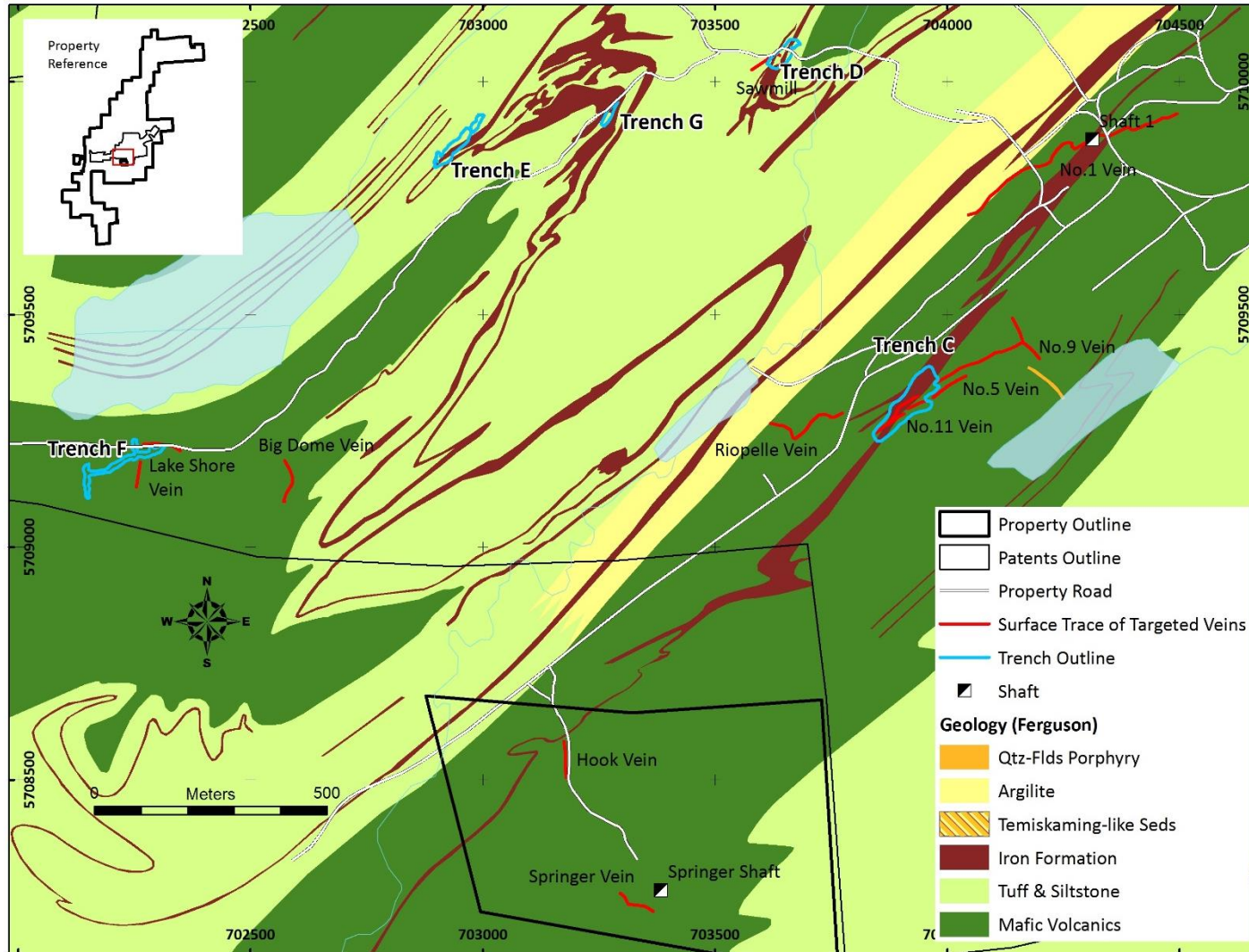
**Figure 9.2**  
**Trench Location Map, Northern Half of the Property**



Source: First Mining, 2016



**Figure 9.3**  
**Trench Location Map, Southern Half of the Property**



Source: First Mining, 2016

## 9.5 2011 ACTIVITIES

The exploration program continued in Q1 2011 with drill testing of the core mine but with a focus on regional targets along the Cohen-MacArthur trend. The exploration program consisted of:

- Diamond drilling; 11 holes with up to 3 rigs, totalling 4,476 m (by March 12, 2011) in the following areas:
  - Shaft 1 area targeting:
    - No. 19 Vein.
    - No. 21 Vein.
  - Regional targets including:
    - Central Pat East.
- 881.4 line-km of 50-m spaced helicopter borne AeroTEM and magnetometer surveys by Aeroquest International Limited of Vancouver, Canada, flown over the entire property.
- DST Consulting Ltd. of Thunder Bay, Ontario completed baseline water sampling and sampling of stockpiled high and low grade ore for finalizing the closure plan.

Significant results of the 2011 exploration program include the expansion of the Central Pat East Zone as a possible near surface, bulk tonnage target and the continued expansion of the No. 19 Vein.

## 9.6 2011 TO 2014 ACTIVITIES

The 2011 to 2014 exploration program consisted largely of diamond drilling and additional metallurgical testwork described in Sections 10 and 13 below.

## 10.0 DRILLING

### 10.1 HISTORICAL DRILLING

Section 10.1 on historical drilling is taken from the MPH Technical Report prepared for PC Gold (Coates and Anderson, 2008) and reflects what was known about the drilling completed by others at the time of PC Gold's acquisition of the Pickle Crow property.

“Drilling on the Pickle Crow Property falls under two broad categories, outline/definition drilling at the Pickle Crow Mine, and exploration drilling completed both before and after mine closure. The overall drilling database, as yet not compiled into a coherent management system, is huge and comprises:”

- “Early exploration drilling,
- 31 years of outline, definition and exploration drilling around the Pickle Crow Mine, and
- Several phases of surface and exploration drilling done after mine closure.”

“The lack of a comprehensive understanding of the historic drilling is illustrated by the fact that there is not even a simple list of the drill holes available at the time of preparation of this Report. However, a large amount of historic information is available that can be used to create a modern database and this should be done while the hardcopy records are still available.”

#### “Nature and Extent of Work”

“All of the drill hole data for the Pickle Crow Property comes from reports and drill logs prepared by previous holders of mineral rights in the area.”

“The most significant of these are reports, logs, sections, plans and assay information on surface and underground core drilling by Pickle Crow Gold Mines from 1934-66. Although the exact amount of drilling done over this period is unknown it is estimated that over 500,000 feet (>150 kilometres) of core drilling was completed, including at least 3,000 underground holes and 200 surface holes. MPH has compiled incomplete records from 1934 to 1959 (data for 6 years missing; 1936-37, 1940-42, & 1958) and found reference to 163 surface holes with a cumulative length of 75,923 feet (23,141 metres) and 2,406 underground holes totalling 302,865 feet (92,313 metres).”

“The Pickle Crow Property has lain dormant for most of the time since mine closure, although periodic interest in the area resulted in several drilling programs:”

- “In 1981, Gallant Gold Mines Limited completed a diamond drilling program of 47 holes totalling 7,536 metres (25,052 ft).”
- “From 1985 to 1988, Highland Crow Resources/Noramco drilled a total of 286 surface drill holes with a cumulative length in excess of 46,189 metres (151,540 ft). In 1987, the No. 1 Shaft was rehabilitated to allow underground drilling of 79 underground diamond drill holes totalling 9,341 metres (30,647 ft).”

- “In 1998, Pickle Crow Resources completed a diamond drilling program to test a number of target areas near and beneath the old Albany Shaft workings. A total of 4 holes with an aggregate length of 2,287 metres (7,502 ft) were drilled.”
- “In late 1999, Wolfden completed an 18 hole surface drilling program totalling 2,173.5 metres. A variety of target areas were tested, including; the No.1 Shaft Pillar iron formation, the Arsenide Vein, the No. 13 Vein, the No. 5 Vein, the E Zone and the Boundary Zone.”

“The known diamond drilling completed on the Pickle Crow Property from approximately 1934 to the present is summarized in Table 10-1 [Table 10.1 in this report]. This is a preliminary estimate that will likely require revisions as the drilling database is compiled.”

**Table 10.1**  
**Pickle Crow Property, Historic Drilling Totals**

Company	Period	Surface Diamond Drilling		Underground Diamond Drilling	
		Total holes	Total metres	Total holes	Total metres
Pickle Crow Gold Mines *	1934-66	<i>200</i>	<i>30,000</i>	<i>3,000</i>	<i>120,000</i>
Gallant Gold Mines Ltd.	1981	47	7,536	0	0
Highland Crow/Noramco	1985-88	286	46,189	79	9,341
Pickle Crow Resources	1998	4	2,287	0	0
Wolfden Resources	1999	18	2,174	0	0
Total *		555	88,000	3,080	129,000

\*italicised figures are approximate

### “Topographic Surveys”

“There appear to be a number of coordinate systems in use for the various historic exploration and drilling programs. The grid systems are as follows:”

- “Pickle Crow Mine Grid: Surveyed grid using astronomical true N-S, E-W directions. Grid origin (0.00 ft N, 0.00 ft E, 0.00 ft elevation) is center of middle compartment of No. 1 Shaft at the shaft collar. The mine grid origin was re-surveyed on August 13, 2002 for Cantera Mining Limited by J. D. Barnes Ltd of Thunder Bay using differential GPS equipment. The UTM coordinates for the center of the capped surface of the No. 1 Shaft Collar are as follows:”

“(NAD 83, Zone 15) - 5709873.514 m N; 704304.316 m E; 351.263 m elevation.”

- “Gallant Gold Mines Exploration Grid: A series of cut and picketed grid lines were installed over most of the Pickle Crow Property (excluding the No.1 Shaft and tailings area) to provide ground control for VLF-EM, soil geochemistry and diamond drilling. Several approximately northeast-southwest picket baselines each with different coordinate systems were installed throughout the Property. Northwest-southeast cross lines with 100 foot (~30 metre) pickets were cut at 400 foot (~120 metre) intervals.”
- “Highland Crow/Noramco Exploration Grid: The entire property was covered by a cut grid with baselines oriented at 045 degrees and cross lines at 200 foot (~60 metre) intervals. Part of the grid including the NE Powderhouse Lake and Albany Shaft

areas was covered with lines at 100 foot (~30 metre) spacings. These mid-1980's grid lines were still clearly visible during the MPH site visit.”

“The Gallant and Highland Crow/Noramco grids do not accurately tie in with each other, nor does any grid point on either of the cut grids tie in with the surveyed mine grid.”

#### **“Historic PCGM Diamond Drilling”**

“From 1934 to 1966 PCGM drilled over 3,000 surface and underground drill holes totalling over 150,000 metres. In addition to the drilling information there is another huge data set that consists of composite chip samples from underground workings including drifts, raises, cross-cuts and stopes. Complete drill logs, drill cross sections, level plans showing chip sample locations, longitudinal sections, and assay data are available for this work but not yet compiled.”

“The cumulative results of these many years of sampling and analysis were used for day to day mine planning and grade control. At mine closure the remaining un-mined sections that carried over into the final grade/tonnage estimates were based on this information.”

“A major compilation exercise is required to convert the drilling and underground sampling information to a modern digital database.”

“Wolfden (Downie, 2000) compiled PCGM assay information from drill holes that intersected a series of mineralized zones below the lowest development levels. Eight mined veins (Veins No. 1, 5, 9, 9B, 6, 7, 8 and 12) are open at depth. Table 10-2 [Table 10.2 in this report] summarizes most of the drilling below these levels.”

“The historic drilling demonstrates excellent potential for the continuation of high grade gold mineralization below the existing mine levels. There is also some indication that there may be a new style of mineralization, pyritic tuff with quartz stockwork or stringers, below the No. 7 Vein in the No. 3 Shaft area. Three holes into this tuffaceous mineralization, 3-28-45, 3-28-54 and 3-28-55A, indicate that wider zones similar to those in the iron formation hosted auriferous zones might be found there. Drill hole 3-28-54 with a 7.82 metre core length averaging 11.33 g/t Au (uncut) and 10.15 g/t Au (cut) is particularly encouraging.”

PC Gold arranged for the underground drilling and the chip sample data in the No. 1 Shaft area to be compiled, as recommended above.

**Table 10.2**  
**Summary of Historic PCGM Deep Drilling**

Vein	Lowest Development Level	Drill Hole #	Intersection Depth		Core Length		Gold Assay Average	
			feet	metres	feet	metres	oz/ton	g/t
No. 1 Vein	2900L		-2950	-899	3.0	0.91	0.41	14.06
			-3100	-945	3.0	0.91	0.34	11.66
			-3125	-953	4.2	1.28	0.20	6.86
			-3140	-957	4.8	1.46	0.20	6.86
No. 5 Vein	3800L		-3400	-1036	4.2	1.28	0.14	4.80
			-4080	-1244	2.4	0.73	2.40	82.29
			-4285	-1306	3.0	0.91	1.82	62.40
No. 9 Vein	3800L		-4465	-1361	2.0	0.61	0.23	7.89
			-3975	-1212	3.0	0.91	3.03	103.89
			-4100	-1250	3.0	0.91	2.57	88.11
			-4250	-1295	3.0	0.91	0.14	4.80
No. 9B Vein	3800L		-4000	-1219	3.0	0.91	0.24	8.23
No. 6 Vein	2850L	3-28-42	-2900	-884	6.3	1.92	1.29	44.23
		3-28-51	-2954	-900	1.0	0.30	1.28	43.89
		3-28-43	-3020	-920	1.8	0.55	0.43	14.74
		3-28-52	-3110	-948	2.5	0.76	0.19	6.65
		3-28-54A	-3200	-975	5.1	1.55	2.28	78.17
		3-28-53A	-3250	-991	3.1	0.94	3.06	104.91
No. 7 Vein	3000L	3-28-45	-3070	-936	16.9	5.15	0.05	1.71
		3-28-47	-3000	-914	1.9	0.58	0.11	3.89
		3-28-49	-3070	-936	1.3	0.38	0.21	7.20
		3-28-54	-3110	-948	25.7	7.82	0.33	11.33
		3-28-54	-3110	-948	25.7	7.82	0.30	10.15*
		3-28-55A	-3185	-971	5.5	1.68	0.40	13.56
No. 8 Vein	3000L	Drift	-3000	-914	3.0	0.91	0.38	13.03
No. 12 Vein	2850L		-2900	-884	3.0	0.91	0.74	25.37
			-2950	-899	3.0	0.91	0.72	24.69
			-2950	-899	3.0	0.91	0.73	25.03

\*One assay value > 75 g/t Au cut to 75 g/t Au

**“Historic Gallant Gold Mines 1981 Diamond Drilling”**

“Gallant conducted a diamond drilling program of 47 holes totalling 7,536 metres (25,052 ft). The diamond drilling resulted in the discovery of two new mineralized areas in the Albany Shaft area (Hodge, 1981). Complete drill logs, drill cross sections, level plans, longitudinal sections, assay data and assay certificates are available for this work. All assay values from the 47 hole program greater than 2.0 g/t Au are presented in Table 10-3 [Table 10.3 in this report] (modified from Hodge, 1981).”



**Table 10.3**  
**Gallant Gold Mines Ltd, Drilling Assays Summary (>2.0 g/t Au)**

Hole Number	Original British System Data				Metric Conversion			
	From (ft)	To (ft)	Interval	oz/ton Au	From (m)	To (m)	Interval	g/t Au
GP81-4	316.8	321.8	5.0	0.68	96.56	98.08	1.52	23.31
GP81-5	379.2	380.7	1.5	0.1	115.58	116.04	0.46	3.43
	397.2	402.2	5.0	0.32	121.07	122.59	1.52	10.97
GP81-6	227	230.6	3.6	0.22	69.19	70.29	1.10	7.54
GP81-11	371.6	376	4.4	0.46	113.26	114.60	1.34	15.77
GP81-12	370.3	371.1	0.8	0.33	112.87	113.11	0.24	11.31
GP81-13	373.5	378.5	5.0	0.94	113.84	115.37	1.52	32.23
GP81-14	390.3	395.3	5.0	0.06	118.96	120.49	1.52	2.06
	395.3	398	2.7	0.23	120.49	121.31	0.82	7.89
GP81-20	588	589.2	1.2	0.07	179.22	179.59	0.37	2.40
GP81-28	184.6	187.5	2.9	0.08	56.27	57.15	0.88	2.74
GP81-42	112.1	112.9	0.8	0.07	34.17	34.41	0.24	2.40
	223.8	225.4	1.6	0.07	68.21	68.70	0.49	2.40
GP81-43	113.8	114.2	0.4	0.17	34.69	34.81	0.12	5.83
GP81-45	618.1	618.5	0.4	0.07	188.40	188.52	0.12	2.40

**“Historic Highland Crow/Noramco 1985-88 Diamond Drilling”**

“In 1985-86, Highland-Crow commenced an exploration program including diamond drilling to define known resources and explore new targets on the Pickle Crow Property. From 1987 to 1988 Noramco completed additional surface exploration including a major drilling campaign. From 1985 to 1988 a total of 286 surface drill holes were completed with a cumulative length of 46,189 metres (151,540 ft). Also in 1987, Noramco dewatered the Pickle Crow Mine from the No. 1 Shaft to access the 229 metre (750 ft) level. The No. 1 Shaft was rehabilitated to allow underground drilling of 79 underground diamond drill holes totalling 9,341 metres (30,647 ft).”

“Complete drill logs, drill cross sections, level plans, longitudinal sections, assay data and assay certificates are available for this work but not yet compiled. Drill core was carefully labelled and placed into sturdy timber and steel (rebar) core racks for archiving. Unfortunately most of the racks have either fallen or slumped over, and in the case of one storage area intentionally bulldozed. In spite of this a great deal of Highland Crow/Noramco core is still salvageable although not for much longer, as each season takes a further toll.”

“A major compilation exercise is required to convert the surface and underground drilling information to a modern digital database.”

PC Gold arranged for this compilation to be completed.

**“Historic Pickle Crow Resources 1998 Diamond Drilling”**

“In 1998, Pickle Crow Resources completed a diamond drilling program to test a number of target areas near and beneath the old Albany Shaft workings, including: the North Porphyry Contact Zone, the No. 16 Vein iron formation and the ABC Zone. A total of 4 holes with an aggregate length of 2,286.6 metres (7,502 ft) were drilled between September 15 and October 14, 1998. All assay values from the 4 hole program greater than 2.5 g/t Au are presented in

Table 10-4 [Table 10.4 in this report]. Complete drill logs, drill cross sections, level plans, longitudinal sections, assay data and assay certificates are available for this work.”

**Table 10.4**  
**Pickle Crow Resources, 1998 Drilling Assays Summary (>2.5 g/t Au)**

Hole Number	Original British System Data				Metric Conversion			
	From (ft)	To (ft)	Interval	oz/ton Au	From (m)	To (m)	Interval	g/t Au
PC98-1	1316.5	1320.5	4.0	0.214	401.27	402.49	1.22	7.34
PC98-3	1054.5	1056.0	1.5	0.50	321.41	321.87	0.46	17.14

“A surface plan and typical cross section of the Albany Shaft area incorporating the 1998 and earlier drilling are shown in Figure 10-1 and Figure 10-2, [Figures 10.1 and 10.2 in this report] respectively.”

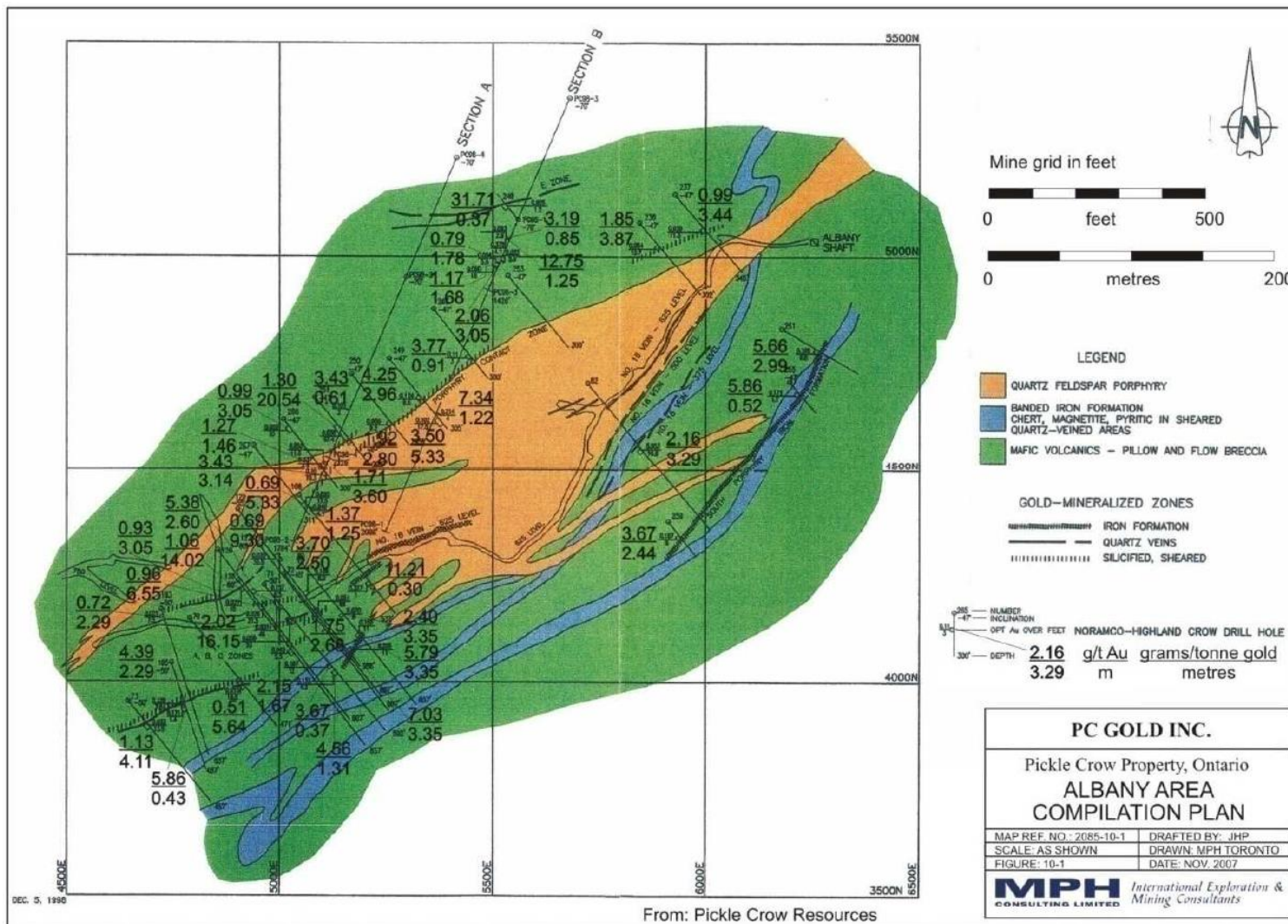
**“Historic Wolfden Resources 1999 Diamond Drilling”**

“In late 1999, Wolfden Resources completed an 18 hole surface drilling program totalling 2,173.5 metres. A variety of target areas were tested, including: the No.1 Shaft Pillar iron formation, the Arsenide Vein, the No. 13 Vein, the No. 5 Vein, the E Zone and the Boundary Zone. The target areas and significant drill intersections are summarized in Table 10-5 [Table 10.5 in this report] (Downie, 1999). Complete drill logs, drill cross sections, level plans, longitudinal sections, assay data and assay certificates are available for this work.”

**Table 10.5**  
**Wolfden/Jonpol, Drilling Assays Summary (>2.0 g/t Au)**

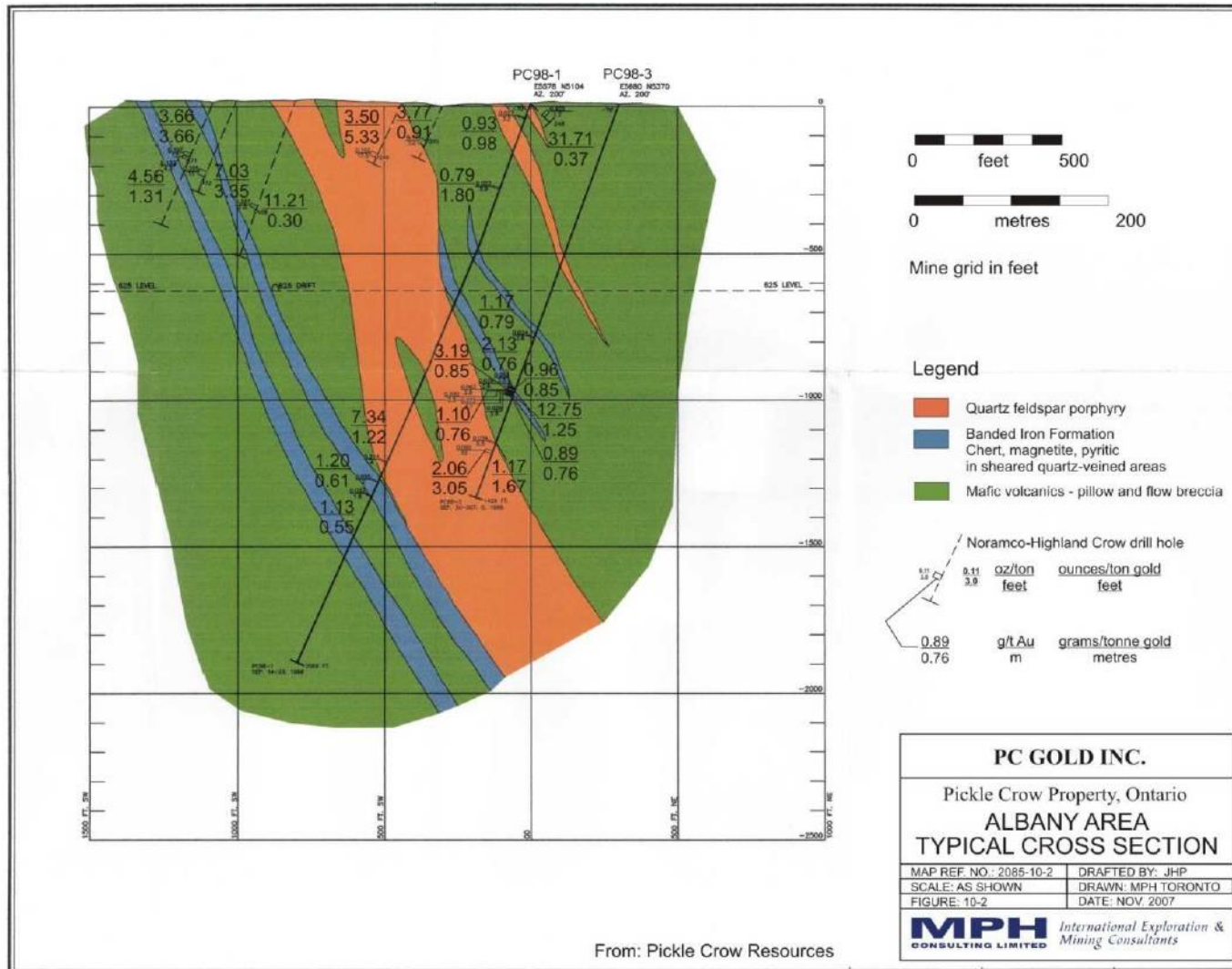
Hole Number	Target Area	Hole Depth (m)	From (m)	To (m)	Interval (m)	Au (g/t)
PC99-01	No. 1 Shaft Pillar	90.0	17.00	30.70	13.70	2.26
PC99-02	No. 1 Shaft Pillar	69.0	13.30	13.80	0.50	12.04
			20.00	26.00	6.00	2.50
PC99-04	No. 13 Vein	113.0	73.50	74.65	1.15	10.12
			77.75	80.05	2.30	38.55
PC99-05	No. 13 Vein	152.0	70.90	72.20	1.30	7.35
PC99-10	No. 5 Vein	21.0	3.63	5.45	1.82	3.26
			9.50	10.35	0.85	17.72
PC99-12	No. 13 Vein	183.0	146.15	148.05	1.90	5.91
			151.85	153.45	1.60	95.31
			156.50	157.55	1.05	149.98
PC99-14	E Zone	114.0	14.75	15.45	0.70	7.46
PC99-17	Boundary Zone	99.0	65.60	68.50	2.90	2.48

Figure 10.1  
Albany Area Compilation Plan



Source: Pickle Crow Resources. From MPH, 2007, Coates and Anderson 2008.

**Figure 10.2**  
**Albany Area Typical Cross Section**



Source: Pickle Crow Resources. From MPH, 2007 in Coates and Anderson 2008.

**“Historic Cantera Mining Limited 2002 Tailings Auger Drilling”**

“In May 2002, Cantera conducted auger drilling in two of the four tailings areas to assess the possibility of recovering gold from the tailings (Stevens, 2002). The technical database includes:”

- “Tailings Area 1: survey coordinates, descriptive logs, assay information and certificates from 2 test pits and 9 auger drill holes. Borehole samples were acquired using hollowstem auger/split-spoon sampling methods.”
- “Tailings Area 2: survey coordinates, descriptive logs, assay information and certificates from 24 auger drill holes.”

**10.2 PC GOLD DRILLING PROGRAMS**

Since acquiring the Pickle Crow property in early May, 2008, PC Gold has conducted an aggressive diamond drill program designed to confirm and expand the historic resources and make new discoveries. The most prominent of these new discoveries was the No. 19 Vein which was intersected by hole PC-09-052 with 15.95 g/t Au over 0.70 m. Follow-up intercepts of the zone included 43.28 g/t Au over 13.13 m and are considered by PC Gold to represent the most significant discovery since the closure of the mine in 1966. Other discoveries include the Conduit Zones in the Albany Shaft area and the Central Pat East Zone along the Cohen-MacArthur trend.

A total of 184 holes totalling 62,968 m were drilled on the Pickle Crow property between June, 2008 and March 12, 2011. Drilling was completed in three phases; Phase I from August 6 to November 17, 2008; Phase II from June 15, 2009 to July 23, 2010; and Phase III from August 18, 2010 to March, 2011.

Table 10.6 tabulates all holes drilled by PC Gold from June, 2008 to March 12, 2011.

**Table 10.6**  
**PC Gold Drill Holes, June, 2008 to March 12, 2011**  
**(All positional data collected on the property is in NAD 83, Zone 15 UTM coordinates)**

Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Start Depth (m)	End Depth (m)	Drilled Length (m)
PC-08-001	704295.0	5709831.0	343.8	350.0	-53.0	0	10	10
PC-08-001A	704294.5	5709840.8	343.4	348.7	-62.7	0	101	101
PC-08-002	704342.9	5709845.9	349.6	350.8	-59.1	0	116	116
PC-08-003	703923.5	5709339.8	349.5	145.8	-65.2	0	101	101
PC-08-004	703902.0	5709444.7	350.4	142.4	-59.7	0	188	188
PC-08-005	703986.0	5709509.0	351.5	141.6	-49.7	0	63	63
PC-08-006	704000.4	5709489.8	351.2	143.3	-73.4	0	254	254
PC-08-007	703965.9	5709495.2	351.1	144.3	-51.4	0	179	179
PC-08-008	704005.3	5709525.1	351.8	144.6	-49.0	0	227	227
PC-08-009	705012.9	5710834.3	340.7	191.1	-60.4	0	176	176
PC-08-010	704988.1	5710837.7	340.7	179.6	-49.8	0	221	221
PC-08-011	704960.4	5710851.5	340.5	176.4	-48.6	0	242	242

Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Start Depth (m)	End Depth (m)	Drilled Length (m)
PC-08-012	704936.7	5710810.0	340.6	182.2	-49.7	0	125	125
PC-08-013	704935.8	5710810.6	340.6	206.6	-50.4	0	157	157
PC-08-014	704075.0	5709962.5	344.6	163.3	-87.8	0	183	183
PC-08-014A	704075.0	5709962.5	344.6	163.3	-87.8	0	1,446	1446
PC-08-014A-W01	704075.0	5709962.5	344.6	163.3	-87.8	718	1,080	362
PC-08-014A-W02	704075.0	5709962.5	344.6	163.3	-87.8	499	597	98
PC-08-014A-W03	704075.0	5709962.5	344.6	163.3	-87.8	565	946	381
PC-08-014A-W03 EXT	704075.0	5709962.5	344.6	163.3	-87.8	946	1,069	123
PC-09-014A-W04	704075.0	5709062.5	344.6	163.3	-87.8	476	559	83
PC-09-014A-W04A	704075.0	5709962.5	344.6	163.3	-87.8	548	1,399	851
PC-08-015	705286.6	5710993.4	343.6	172.3	-47.6	0	152	152
PC-08-015 EXT	705286.6	5710993.4	343.6	172.3	-47.6	152	608	456
PC-08-016	705930.6	5711535.1	361.5	168.2	-50.3	0	122	122
PC-08-017	705881.9	5711521.3	363.1	168.2	-50.3	0	155	155
PC-08-018	706141.6	5711679.1	349.7	186.7	-52.3	0	74	74
PC-08-019	706245.5	5711793.0	341.3	180.3	-48.7	0	290	290
PC-08-020	705964.8	5711431.0	356.1	140.0	-63.0	0	284	284
PC-08-021	705801.8	5711261.8	352.2	139.9	-52.6	0	248	248
PC-08-022	705822.3	5711352.5	357.7	141.8	-50.1	0	299	299
PC-08-023	705822.0	5711353.0	357.6	141.8	-76.4	0	446	446
PC-08-024	705872.0	5711495.8	362.5	139.7	-58.7	0	366	366
PC-08-025	705871.8	5711496.0	362.5	140.7	-69.9	0	504	504
PC-08-026	705917.8	5711594.0	362.4	140.0	-58.0	0	420	420
PC-08-027	705917.8	5711594.0	362.4	140.0	-71.5	0	525	525
PC-09-028	705923.7	5711600.9	362.0	140.0	-75.0	0	575	575
PC-09-029	705162.7	5710749.8	342.4	265.0	-70.8	0	339	338
PC-09-030	705174.6	5710701.3	342.7	270.0	-50.0	0	248	248
PC-09-031	705174.6	5710701.3	342.7	265.0	-71.0	0	48	48
PC-09-032	705205.2	5710661.1	343.5	267.0	-62.0	0	323	323
PC-09-033	705259.5	5710835.0	343.7	140.0	-52.0	0	377	377
PC-09-034	705259.5	5710835.0	343.7	140.0	-62.0	0	416	416
PC-09-035	705361.5	5710714.1	344.1	140.0	-52.0	0	257	257
PC-09-036	705899.6	5711665.7	344.8	135.0	-71.0	0	668	668
PC-09-037	705927.7	5711505.6	361.7	140.0	-61.0	0	358	358
PC-09-038	705819.2	5711545.3	357.9	320.0	-50.0	0	614	614
PC-09-039	705944.8	5711608.4	360.1	140.0	-63.0	0	242	242
PC-09-040	705987.1	5711455.7	356.9	140.0	-63.0	0	263	263
PC-09-041	705875.6	5711691.2	342.3	135.0	-73.0	0	464	464
PC-09-042	705910.7	5711721.7	341.3	140.0	-74.0	0	428	428
PC-09-043	705949.7	5711580.4	361.0	355.0	-75.0	0	497	497
PC-09-044	705934.3	5711608.4	361.8	350.0	-74.0	0	560	560
PC-09-045	706011.5	5711676.3	350.2	175.0	-73.0	0	458	458
PC-09-046	705998.5	5711529.7	360.3	175.0	-71.5	0	524	524
PC-09-047	705994.2	5711392.7	353.5	140.0	-55.0	0	362	362
PC-09-048	705796.3	5711415.4	359.8	170.0	-52.0	0	299	299
PC-09-048 EXT	705796.3	5711415.4	359.8	170.0	-52.0	299	671	372
PC-09-049	705794.3	5711416.1	359.9	170.0	-75.0	0	350	350
PC-09-050	705699.9	5711323.0	358.7	170.0	-52.0	0	515	515
PC-09-051	705699.9	5711323.1	358.7	170.0	-75.0	0	286	286
PC-09-052	704453.8	5710602.8	343.1	186.0	-83.0	0	512	512
PC-09-052A	704453.8	5710602.8	343.1	186.0	-83.0	454	1,311	857
PC-09-053	705627.1	5711490.6	342.8	170.0	-52.0	0	428	428
PC-09-054	705685.5	5711518.2	346.3	170.0	-78.0	0	488	488
PC-09-055	705765.0	5711554.4	349.7	170.0	-75.0	0	381	381
PC-09-056	706403.1	5711717.1	348.2	140.0	-52.0	0	410	410



Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Start Depth (m)	End Depth (m)	Drilled Length (m)
PC-10-052A-W01	704453.8	5710602.8	343.1	186.0	-83.0	996	1,329	333
PC-10-052-W01	704453.8	5710602.8	343.1	186.0	-83.0	400	675	275
PC-10-052-W02	704453.8	5710602.8	343.1	186.0	-83.0	298	1,833	1535
PC-10-052-W03	704453.8	5710602.8	343.1	186.0	-83.0	1,420	1,665	245
PC-10-052-W04	704453.8	5710602.8	343.1	186.0	-83.0	1,130	1,175	45
PC-10-052-W05	704453.8	5710602.8	343.1	186.0	-83.0	1,113	1,614	501
PC-10-052-W06	704453.8	5710602.8	343.1	186.0	-83.0	1,484	1,611	127
PC-10-052-W07	704453.8	5710602.8	343.1	186.0	-83.0	1,508	1,605	97
PC-10-052-W08	704453.8	5710602.8	343.1	186.0	-83.0	495	637	142
PC-10-052-W09	704453.8	5710602.8	343.1	186.0	-83.0	451	609	158
PC-10-052-W10	704453.8	5710602.8	343.1	186.0	-83.0	441	599	158
PC-10-052-W11	704453.8	5710602.8	343.1	186.0	-83.0	383	560	177
PC-10-052-W12	704453.8	5710602.8	343.1	186.0	-83.0	358	563	205
PC-10-052-W13	704453.8	5710602.8	343.1	186.0	-83.0	387	530	143
PC-10-052-W14	704453.8	5710602.8	343.1	186.0	-83.0	423	539	116
PC-10-052-W15	704453.8	5710602.8	343.1	186.0	-83.0	442	542	100
PC-10-052-W16	704453.8	5710602.8	343.1	186.0	-83.0	285	515	230
PC-10-052-W17	704453.8	5710602.8	343.1	186.0	-83.0	297	554	257
PC-10-057	703589.2	5709118.5	351.4	140.0	-76.0	0	383	383
PC-10-058	703589.2	5709118.5	351.4	140.0	-65.0	0	302	302
PC-10-059	703589.2	5709118.5	351.4	140.0	-82.0	0	214	214
PC-10-060	703947.6	5711362.4	343.0	160.0	-50.0	0	317	317
PC-10-061	703982.8	5711414.1	342.2	138.0	-70.0	0	305	305
PC-10-062	702711.5	5711161.9	337.7	138.0	70.0	0	509	509
PC-10-063	705196.1	5712157.8	331.2	138.0	-71.0	0	509	509
PC-10-064	704468.0	5711915.6	336.4	138.0	-73.0	0	362	362
PC-10-065	705039.6	5712124.0	332.0	138.0	-51.0	0	371	371
PC-10-066	703879.7	5711550.3	339.0	160.0	-50.0	0	392	392
PC-10-067	704235.2	5711758.3	340.5	138.0	-50.0	0	104	104
PC-10-068	705628.4	5712425.7	336.1	138.0	-70.0	0	302	302
PC-10-069	704235.2	5711758.3	340.5	138.0	-75.0	0	149	149
PC-10-070	704186.1	5711810.1	339.9	138.0	-49.0	0	191	191
PC-10-071	705852.8	5712254.1	331.1	138.0	-52.0	0	308	308
PC-10-072	704186.1	5711810.1	339.9	138.0	-66.0	0	233	233
PC-10-073	704254.2	5711789.9	340.2	138.0	-50.0	0	128	128
PC-10-074	704213.9	5711744.0	340.7	138.0	-50.0	0	95	95
PC-10-075	704190.3	5711732.5	341.6	138.0	-51.0	0	137	137
PC-10-076	704479.8	5710709.2	341.5	170.0	-70.0	0	573	573
PC-10-076-W01	704479.8	5710709.2	341.5	170.0	-70.0	164	589	425
PC-10-077	703493.0	5709233.3	340.6	140.0	-63.0	0	344	344
PC-10-078	703493.0	5709233.3	340.6	182.0	-80.0	0	431	431
PC-10-079	703560.3	5709285.5	340.5	140.0	-50.0	0	383	383
PC-10-080	703560.3	5709285.5	340.5	140.0	-65.0	0	556	556
PC-10-081	703692.5	5709311.7	344.2	140.0	-55.0	0	350	350
PC-10-082	704429.3	5710701.1	341.5	170.0	-75.0	0	587	587
PC-10-082-W01	704429.3	5710701.1	341.5	170.0	-75.0	380	551	171
PC-10-083	704380.3	5710683.2	341.6	170.0	-50.0	0	560	560
PC-10-084	704380.5	5710683.9	341.6	170.0	-80.0	0	861	861
PC-10-084-W01	704380.5	5710683.9	341.6	170.0	-80.0	335	731	396
PC-10-084-W02	704380.5	5710683.9	341.6	170.0	-80.0	498	701	203
PC-10-084-W03	704380.5	5710683.9	341.6	170.0	-80.0	450	686	236
PC-10-084-W04	704380.5	5710683.9	341.6	170.0	-80.0	499	659	160
PC-10-084-W05	704380.5	5710683.9	341.6	170.0	-80.0	435	630	195
PC-10-084-W06	704380.5	5710683.9	341.6	170.0	-80.0	349	545	196
PC-10-084-W07	704380.5	5710683.9	341.6	170.0	-83.0	505	505	0

Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Start Depth (m)	End Depth (m)	Drilled Length (m)
PC-10-085	705410.0	5711693.8	338.2	195.0	-83.0	0	870	870
PC-10-085-W01	705410.0	5711693.8	338.2	195.0	-83.0	564	1,466	902
PC-10-085-W02	705410.0	5711693.8	338.2	195.0	-83.0	1,349	1,508	159
PC-10-085-W03	705410.0	5711693.8	338.2	195.0	-83.0	799	1,500	701
PC-10-086	704453.6	5710856.2	339.9	180.0	-80.0	0	1,007	1007
PC-10-086-W01	704453.6	5710856.2	339.9	180.0	-80.0	603	721	118
PC-10-086-W01A	704453.6	5710856.2	339.9	180.0	-80.0	699	857	158
PC-10-086-W02	704453.6	5710856.2	339.9	180.0	-80.0	500	954	454
PC-10-086-W03	704453.6	5710856.2	339.9	180.0	-80.0	370	862	492
PC-10-086-W04	704453.6	5710856.2	339.9	180.0	-80.0	650	734	84
PC-10-086-W05	704453.6	5710856.2	339.9	180.0	-80.0	454	809	355
PC-10-086-W06	704453.6	5710856.2	339.9	180.0	-80.0	636	776	140
PC-10-087	704380.4	5710683.4	341.6	170.0	-62.0	0	503	503
PC-10-088	704389.4	5711014.0	339.9	170.0	-55.0	0	860	860
PC-10-088-W01	704389.4	5711014.0	339.9	170.0	-55.0	488	523	35
PC-10-089	705908.8	5712191.9	333.9	140.0	-50.0	0	148	148
PC-10-090	705957.3	5712211.4	333.5	140.0	-50.0	0	295	295
PC-10-091	706049.9	5712109.4	337.3	140.0	-50.0	0	152	152
PC-10-092	705819.9	5712291.0	334.1	140.0	-50.0	0	308	308
PC-10-093	704989.5	5712011.6	335.1	180.0	-55.0	0	223	223
PC-10-094	702633.0	5711247.0	337.1	140.0	-70.0	0	45	45
PC-10-095	704389.4	5711014.0	339.9	170.0	-70.0	0	863	863
PC-10-095-W01	704389.4	5711014.0	339.9	170.0	-70.0	645	836	191
PC-10-095-W02	704389.4	5711014.0	339.9	170.0	-70.0	446	819	373
PC-10-095-W03	704389.4	5711014.0	339.9	170.0	-70.0	400	815	415
PC-10-095-W04	704389.4	5711014.0	339.9	170.0	-70.0	598	873	276
PC-10-096	702753.0	5711021.0	340.6	140.0	-50.0	0	23	23
PC-10-097	698848.4	5709941.9	336.0	140.0	-75.0	0	299	299
PC-10-098	699327.6	5709832.4	340.1	190.0	-55.0	0	308	308
PC-10-099	698848.6	5709941.8	336.0	180.0	-73.0	0	362	362
PC-10-100	699327.6	5709832.4	340.1	190.0	-75.0	0	320	320
PC-10-101	699327.6	5709832.4	340.1	135.0	-67.0	0	301	301
PC-10-102	705871.7	5712155.4	334.5	140.0	-55.0	0	153	153
PC-10-103	705954.3	5712211.5	333.2	180.0	-55.0	0	394	394
PC-10-104	705868.4	5712316.1	334.2	140.0	-50.0	0	437	437
PC-10-105	702632.8	5711244.6	337.2	140.0	-50.0	0	500	500
PC-10-106	705821.4	5712292.6	334.2	140.0	-70.0	0	461	461
PC-10-107	702577.1	5711067.7	339.7	140.0	-50.0	0	404	404
PC-10-108	702557.9	5711087.6	339.7	50.0	-52.0	0	380	380
PC-10-109	706005.1	5712242.8	332.2	235.0	-56.0	0	337	337
PC-10-110	705918.6	5712342.2	333.9	140.0	-50.0	0	516	516
PC-10-111	701671.5	5710035.9	350.8	140.0	-50.0	0	168	168
PC-10-112	705979.1	5712354.2	334.9	140.0	55.0	0	314	314
PC-10-113	701969.3	5710224.1	356.4	140.0	-50.0	0	151	151
PC-10-114	705771.4	5712270.3	331.9	164.0	-71.0	0	267	267
PC-10-115	701462.2	5710247.3	342.2	190.0	-50.0	0	416	416
PC-10-116	704437.6	5711097.6	338.3	164.0	-71.0	0	869	869
PC-10-117	705771.3	5712270.8	331.9	140.0	-70.0	0	260	260
PC-10-118	704687.7	5711169.3	338.8	140.0	-50.0	0	281	281
PC-10-119	702566.9	5711323.1	336.4	140.0	-70.0	0	401	401
PC-10-120	706674.0	5713052.2	336.7	140.0	-55.0	0	319	319
PC-11-121	702579.8	5711106.2	339.0	50.0	-50.0	0	284	284
PC-11-122	704655.7	5711024.4	337.0	185.0	-80.0	0	823	823
PC-11-123	702540.9	5711072.1	339.0	50.0	-50.0	0	75	75
PC-11-124	702541.2	5711072.7	339.0	50.0	-50.0	0	384	384

Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Start Depth (m)	End Depth (m)	Drilled Length (m)
PC-11-125	702599.0	5711208.2	337.0	140.0	-70.0	0	308	308
PC-11-126	702671.4	5711277.5	337.0	140.0	-70.0	0	335	335
PC-11-127	702229.8	5710800.7	337.0	150.0	-50.0	0	297	297
PC-11-128	702481.4	5711312.3	337.0	138.0	-50.0	0	383	383
PC-11-129	702069.3	5711128.6	337.0	138.0	-50.0	0	600	600
PC-11-130	702458.4	5711263.4	337.0	138.0	-50.0	0	459	459
PC-11-131	702655.0	5711290.0	337.0	230.0	-75.0	0	528	528

Figure 10.3 shows the collar location of PC Gold holes (red dots) on the Pickle Crow property as of the previous 2011 mineral resource estimate, with simplified geology.

### 10.2.1 Drilling Protocols

All holes were drilled with NQ-sized core (47.6 mm) with the exception of 9 BQ Thin Wall holes (40.7 mm) drilled by Cartwright Drilling in the fall of 2010. Drilling in Phase I and II was carried out by Major Drilling Group International Inc. using Duralite and Major 50 rigs. Phase III was carried out by Bradley Brothers Limited using a Longyear 50, and Bradley 56, 25 and 250 rigs.

Steel casing was left in all holes, and all holes were fitted with an aluminum cap with the hole ID stamped on it. Drill core was recovered in 3 m or 6 m runs, and placed in wooden core boxes with lids fibre taped on. The core was transported from the rig to the core logging building by the drillers at the end of each shift. The drill was also visited every day by at least one geologist onsite, as well as whenever a hole was due to be shut down.

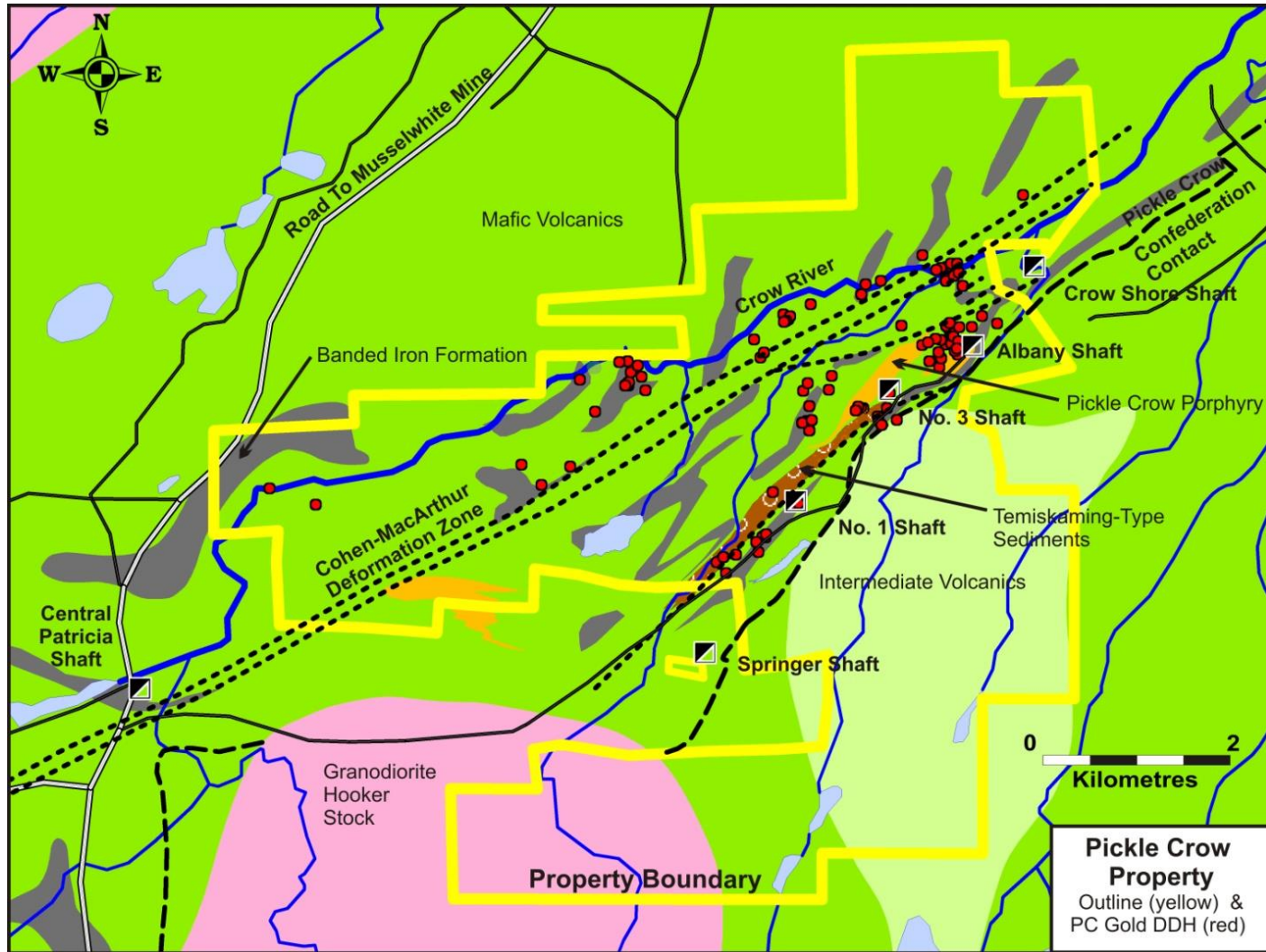
Deep drilling and wedge holes employed a variety of techniques including long reaming shells, 6-m hexagonal core barrels, steel wedges, and the Devico Directional System which was operated by Tech Directional Services and IDS Directional Services.

Due to the variability in magnetism across the property, traditional magnetic compass-based tools are ineffective. As a result, specific protocols using an SX Blue II GPS (SX Blue) were developed, and specialized down-hole survey tools were used. The SX Blue is a differential GPS, however, it was used without a base station. Even so, it consistently displayed sub-metre accuracy in the X and Y plane. Elevation corrections were made digitally using the LIDAR topographic survey flown over the property in the summer of 2008.

### 10.2.2 Spotting and Surveying of Drill Collars

Drill holes were spotted and azimuths sited using the SX Blue to achieve sub-metre accuracy. Front and back site picket locations were calculated using trigonometry and located a minimum of 100 m from the collar to minimize azimuth error. For QA/QC purposes, the calculated sighted picket locations were plotted using MapInfo software to ensure the calculation was performed correctly. Using this method the possible error in the azimuth of the hole was kept to a maximum of +/-1.25°.

**Figure 10.3**  
**PC Gold Drill Hole Location Map**



Source: PC Gold., 2011. Note: property boundary shown is as of 2011.

The pickets were cut with a sharp point on the top, and made long enough to sight through the drill at eye level. The sighting lines were then brushed out to increase SX Blue accuracy.

Upon completion of drilling the drill casing was sealed with an aluminum cap and a final SX Blue II coordinate was collected and used as the final hole location. It has been found through the use of third party contractors Delta Surveying and J. D. Barnes of Thunder Bay, Ontario that collar SX Blue locations are within +/-1 m of the third party consultant surveys. It has been determined that this level of accuracy is adequate for the program.

### **10.2.3 In-Hole Directional Surveys**

A variety of down-hole survey tools have been used on the property. All holes were surveyed at 50-m intervals, while drilling, using an EZY Shot magnetic compass based tool supplied by the drillers. In conjunction with this, all holes were surveyed after completion with a non-magnetic down-hole instrument.

In 2008, the Maxibore tool provided by Reflex Instruments of Porcupine, Ontario was used by Fladgate personnel to survey the holes. Reproducibility on deeper holes proved an issue and TECH Directional Services of Newfoundland was brought in during the fall of 2009 to operate the Deviflex tool. The Deviflex, although an improvement, still suffered from some reproducibility issues, so that the SPT North Seeking Gyro was brought in and operated by TECH during the spring of 2009. In the summer of 2010, IDS Direction Services of Sudbury, Ontario replaced TECH onsite, however, the SPT North Seeking Gyro continued to be used.

### **10.2.4 Core Logging Procedures**

All core was stored in wooden boxes capable of holding 4.5 m of core. Core was brought into the core logging shed each morning, unboxed and quick-logged by a geologist. Geotechnicians then checked the metreage markers and took recovery and rock quality designation (RQD) measurements of the core. Afterwards, geologists logged the core, paying particular attention to lithology, structure, veining, alteration and sulphide mineralization.

Sample intervals were selected by the geologist based on the veining, alteration and sulphide mineralization. Sample lengths vary from no less than 0.3 m to a maximum of 2.0 m but averaged about 1 m (sampling procedures are described in Section 10.3).

Consistency in core logging was maintained by a senior geologist, one of whom was onsite at all times and directly supervised the project geologists logging the core.

Oriented core was performed on select holes during 2008 and 2009 using the Reflex ACT tool. Difficulties maintaining quality control at the drill hindered this exercise although some useful data was acquired on the high-grade veins in the core mine trend.

Once all of the above procedures were completed the core was marked up and the data entered directly into the Gems Logger program (an MS Access-based database) and stored on

the onsite server. At approximately weekly intervals the server onsite was synchronized with the main server in Fladgate's Thunder Bay office where the master drill hole database is stored. Only one individual was responsible for synchronizing the field and office databases.

Once logged, the core was stored in racks inside the locked core logging and core cutting buildings in preparation for cutting. All logging and cutting facilities are located behind a locked gate onsite. All personnel working in the core logging and core cutting buildings are experienced people who have been trained at, and worked on, PC Gold's Pickle Crow project.

## 10.2.5 Drill Results

The bulk of the PC Gold holes were drilled in the core mine trend with the second largest concentration along the Cohen-MacArthur trend (see Figure 10.3). Several new mineralized zones were intersected, as previously stated, with the most significant being the No. 19 Vein, Central Pat East Zone and Conduit Zone 1 (see Table 10.2). Other newly discovered zones include the No. 20 and 21 Veins, the Confederation Veins, and the Kawinogans Zone. Significant extensions to known zones include extending the No. 1 Vein at Shaft 1 to 1,500 m depth and the intersection of abundant quartz veining beneath the workings of Shaft 3 which is interpreted to be the extension of the No. 6 and 7 Veins.

Table 10.7 below, tabulates all the significant intersections made by PC Gold from June, 2008 until March 12, 2011.

**Table 10.7**  
**Significant Intersections**

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
PC-08-001	Shaft 1	Hole lost due to open space	2.00	5.00	3.00	1.54	0	NA	
PC-08-001A	Shaft 1	No. 5 BIF zone	3.50	66.95	63.45	1.29	0	NA	
		Sub zone	3.50	12.50	9.00	2.98	0	NA	
		Including	9.50	12.50	3.00	5.51	1	NA	
		Including	9.50	11.00	1.50	7.97	1	NA	
		Sub zone	30.50	32.00	1.50	2.26	0	NA	
		Sub zone	36.50	42.50	6.00	2.13	0	NA	
		Including	39.50	42.50	3.00	3.27	0	NA	
		Sub zone	53.00	54.70	1.70	3.83	0	NA	
		Including	54.20	54.70	0.50	10.10	1	NA	
		Sub zone	60.30	66.95	6.65	3.53	1	NA	
		Including	63.50	66.30	2.80	5.51	1	NA	
		Including	63.50	64.15	0.65	8.81	2	NA	
PC-08-002	Shaft 1	No. 1 Vein area	40.50	43.00	2.50	1.25	<0.2	NA	
PC-08-003		No. 5 BIF zone	7.30	8.35	1.05	5.65	1	NA	
		No. 5 Vein and BIF	35.00	39.10	4.10	4.81	0	NA	
		Including	35.00	37.00	2.00	8.65	1	NA	
		No. 11 Vein	46.50	47.00	0.50	2.39	<0.2	NA	
PC-08-004	Shaft 1	No. 5 BIF zone	106.35	109.60	3.25	0.90	<0.2	NA	
		No. 5 BIF zone	109.10	109.60	0.50	1.55	<0.2	NA	
		No. 5 BIF zone	132.00	133.00	1.00	1.08	0	NA	
		No. 5 Main BIF zone	143.40	162.30	18.90	1.78	0	NA	
		Including	143.40	144.80	1.40	3.74	1	NA	
		Including	143.40	144.10	0.70	4.32	1	NA	
		Including	152.40	157.30	4.90	3.32	1	NA	
		Including	155.40	156.80	1.40	6.66	1	NA	
		Including	161.80	162.30	0.50	2.04	0	NA	
PC-08-005	Shaft 1	Hole abandoned due to rods getting stuck	59.20	60.20	1.00	1.10	<0.2	NA	
PC-08-006		No. 5 BIF anomalous zone	47.00	116.00	69.00	0.79	<0.2	NA	
		Sub zone	47.00	48.00	1.00	8.44	1	NA	



Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG	
		Sub zone	51.00	52.00	1.00	1.39	<0.2	NA		
		Sub zone (Main zone)	64.00	78.00	14.00	2.22	0	NA		
		Including	65.00	69.00	4.00	4.31	0	NA		
		Including	65.00	66.00	1.00	9.59	1	NA		
		Sub zone	114.00	116.00	2.00	3.32	0	NA		
		Including	115.00	116.00	1.00	4.20	0	NA		
		Undefined zone	199.00	200.00	1.00	1.01	<0.2	NA		
		Narrow veins in MV	213.00	215.85	2.85	1.83	<0.02	NA		
		Including	215.00	215.85	0.85	3.28	<0.03	NA		
		1 cm strongly folded qtz py vein in MV	242.00	243.00	1.00	8.76	<0.2	NA		
PC-08-007	Shaft 1	No. 5 BIF	73.00	79.00	6.00	1.88	0	NA		
		Including	76.00	77.00	1.00	4.03	0	NA		
		No. 5 BIF	102.00	106.00	4.00	9.05	1	NA		
		Including	104.00	105.00	1.00	30.10	2	NA		
PC-08-008	Shaft 1	Narrow veins in MV No. 5 Vein?	157.00	159.00	2.00	2.29	0	NA		
PC-08-009	Shaft 3	No. 13 Vein?	133.80	134.60	0.80	0.59	NC	NA		
		No. 13 Vein?	148.75	153.00	4.25	<5	NC	NA		
PC-08-010	Shaft 3	No. 13 Vein. No silver assays, this the grade of the entire zone	120.37	191.80	71.43	1.63	NC	NA	VG	
		Sub zone	120.37	134.26	13.89	3.60	NC	NA	VG	
		Including	125.10	134.26	9.16	4.88	NC	NA	VG	
		Including	125.93	134.26	8.33	5.08	NC	NA	VG	
		Including	127.63	133.81	6.18	6.21	NC	NA	VG	
		Including	128.50	129.00	0.50	16.25	NC	NA	VG	
		Including	133.30	133.81	0.51	13.15	NC	NA	VG	
		Including	141.41	141.91	0.50	9.23	NC	NA	VG	
		Sub zone	151.23	175.90	24.67	1.83	NC	NA	VG	
		Including	158.18	171.00	12.82	2.53	NC	NA	VG	
		Including	165.95	167.42	1.47	9.98	NC	NA	VG	
		Sub zone	190.00	191.80	1.80	3.70	NC	NA		
PC-08-011	Shaft 3	No. 2 Vein?	72.87	75.16	2.29	2.59	0	NA		
		Including	72.87	73.34	0.47	9.57	1	NA		
		No. 13 Vein	100.00	101.00	1.00	1.10	1	NA		
PC-08-012	Shaft 3	No. 4 Vein	54.45	58.00	3.55	1.57	1	NA		
		Including	55.40	56.00	0.60	4.57	0	NA		
PC-08-013	Shaft 3	No. 4 Vein	57.75	58.25	0.50	2.07	<0.2	NA		
		Undefined zone	153.85	154.35	0.50	1.60	1	NA		
PC-08-014	Shaft 1	Hole abandoned due to azimuth deviation						NA		
PC-08-014A	Shaft 1	Undefined zone	506.50	510.00	3.50	1.36	0	NA		
		Including	506.50	507.00	0.50	5.96	1	NA		
		BIF	861.00	862.05	1.05	1.29	0	NA		
		BIF (all anomalous mineralization)	924.00	950.00	26.00	0.69	1	NA		
		BIF	924.00	928.00	4.00	2.40	0	NA		
		Including	924.00	926.00	2.00	3.93	1	NA		
		BIF	933.85	934.20	0.35	2.14	0	NA		
		BIF	943.15	944.60	1.45	2.19	0	NA		
		Including	944.14	944.60	0.46	4.62	1	NA		
		BIF	949.50	950.00	0.50	2.95	0	NA		
		No. 5 Vein	955.85	956.25	0.40	4.31	1	NA		
		Quartz vein zone from 958.15 - 959.45	958.80	959.45	0.65	1.54	0	NA		
		No. 11. Vein?	989.15	989.65	0.50	1.95	0	NA		
PC-08-014A-W01	Shaft 1	BIF	856.85	857.15	0.30	1.24	0	NA		
		BIF	860.05	861.00	0.95	1.40	<0.2	NA		
		BIF	932.55	948.65	16.10	0.98	1	NA		
		Including	932.55	942.80	10.25	1.27	0	NA		
		Including	932.55	936.10	3.55	1.86	0	NA		
		Including	941.80	942.80	1.00	3.38	1	NA		
		BIF	947.95	948.65	0.70	2.22	2	NA		
		No 5. Vein zone	954.00	958.20	4.20	8.20	1	NA		
		Including	956.00	956.60	0.60	52.70	1	NA	VG	
		No. 11 Vein	982.15	982.65	0.50	31.90	2	NA	VG	
PC-08-014A-W02	Shaft 1	Abandoned, used to wedge hole PC-08-014W03 from						NA		
PC-08-014A-W03	Shaft 1	Undefined zone	692.80	693.30	0.50	3.71	0	NA		
		BIF (plus one 10 cm qtz veining)	870.00	871.40	1.40	10.99	1	NA		
		Including	870.00	871.00	1.00	13.65	2	NA		
		Undefined zone	880.55	881.60	1.05	1.03	0	NA		

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		(Hole stopped short of Target)	943.60	944.60	1.00	2.94	1	NA	
PC-08-014A-W03-EXT		No. 5 Vein	959.50	960.65	1.15	112.15	10	NC	VG
		No. 11 Vein	971.70	972.00	0.30	38.77	<1	NC	VG
		No. 11A Vein (new vein)	998.80	999.30	0.50	1.80	<1	NC	
PC-09-014A-W04	Shaft 1	No. 1 Vein	503.00	503.30	0.30	9.22	NC	NC	
PC-09-014A-W04A	Shaft 1	New vein	747.40	747.80	0.40	56.30	NC	NC	
		Undefined zone vein?	1,025.00	1,025.30	0.30	8.76	NC	NC	
		Zone (BIF)	1,080.95	1,081.80	0.85	2.19	NC	NC	
		Zone No. 5 BIF	1,137.20	1,163.00	25.80	1.02	NC	NC	
		Including	1,137.20	1,142.50	5.30	2.55	NC	NC	
		Including	1,138.50	1,142.00	3.50	3.41	NC	NC	
		Including	1,139.50	1,142.00	2.50	4.09	NC	NC	
		Including	1,139.50	1,141.00	1.50	5.61	NC	NC	
		Including	1,140.00	1,140.50	0.50	8.41	NC	NC	
		And	1,148.30	1,148.80	0.50	3.39	NC	NC	
		And	1,161.00	1,162.00	1.00	8.06	NC	NC	
		No. 11 Vein?	1,264.00	1,265.00	1.00	1.09	NC	NC	
		PC-08-015	Shaft 3	No significant assays					
PC-08-015 EXT	Shaft 3	Zone (Sulphidized BIF)	219.10	220.10	1.00	4.03	<1	NC	
		Zone (Sulphidized BIF)	289.80	293.70	3.90	0.72	<1	NC	
		Undefined zone (vein)	321.70	324.30	2.60	0.56	<1	NC	
		Undefined zone (vein)	433.00	434.00	1.00	0.51	<1	NC	
PC-08-016	Albany Shaft	No significant assays							
PC-08-017	Albany Shaft	No significant assays							
PC-08-018	Albany Shaft	D Zone	40.27	40.91	0.64	9.70	7	NA	VG
PC-08-019	Albany Shaft	Undefined zone	133.00	134.00	1.00	2.93	1	NA	
		Undefined zone	280.00	281.00	1.00	1.49	1	NA	
PC-08-020	Albany Shaft	Undefined zone	6.40	10.45	4.05	1.12	0	NA	
		Undefined zone	21.55	22.55	1.00	1.80	0	NA	
		Conduit Zone	87.30	135.70	48.40	1.72	1	NA	
		Including	87.30	100.80	13.50	4.03	1	NA	
		Including	96.50	100.30	3.80	9.13	2	NA	
		Including	96.50	97.00	0.50	18.15	2	NA	
		And	130.40	135.70	5.30	4.99	0	NA	
		Including	130.40	131.20	0.80	28.00	1	NA	
		Undefined zone	155.30	156.30	1.00	1.16	1	NA	
		Undefined zone	178.45	179.30	0.85	1.14	<0.2	NA	
		Zone, No. 16 Vein, vein from 202.2 - 202.6 hosted in heavily sulphidized BIF	200.00	203.90	3.90	17.39	3	NA	
		Including	200.00	200.50	0.50	42.50	7	NA	
		Including	202.00	203.90	1.90	23.92	4	NA	
Including	202.00	202.90	0.90	33.73	4	NA			
PC-08-021	Albany Shaft	Zone C	66.60	95.80	29.20	1.47	0	NA	
		Including	74.40	95.80	21.40	1.70	0	NA	
		Including	74.40	75.40	1.00	4.59	1	NA	
		Including	91.70	95.80	4.10	3.66	1	NA	
		Including	91.70	92.00	0.30	15.40	3	NA	
		Including	94.50	95.50	1.00	5.90	1	NA	
		Undefined zone	101.05	101.95	0.90	1.22	1	NA	
		Zone No. 16 Vein?	108.80	109.70	0.90	15.90	1	NA	
		Undefined zone	169.55	170.50	0.95	1.85	0	NA	
PC-08-022	Albany Shaft	E Zone?	6.85	8.50	1.65	1.44	1	NA	
		Undefined zone	22.80	34.90	12.10	0.97	0	NA	
		Including	22.80	25.55	2.75	2.47	1	NA	
		Including	22.80	23.90	1.10	3.63	1	NA	
		Including	28.50	29.30	0.80	2.12	1	NA	
		Including	33.95	34.90	0.95	2.05	1	NA	
		Undefined zone	57.25	57.55	0.30	3.06	6	NA	
		Undefined zone	63.00	64.25	1.25	1.43	1	NA	
		Undefined zone	162.10	163.40	1.30	1.44	0	NA	
		Undefined zone	176.75	177.35	0.60	2.81	1	NA	
		Including	177.05	177.35	0.30	4.46	2	NA	
		Undefined zone	180.00	184.45	4.45	1.38	0	NA	
		Including	180.00	181.20	1.20	3.02	1	NA	
		Including	180.80	181.20	0.40	5.53	1	NA	
		Including	183.85	184.45	0.60	3.88	0	NA	
		Including	184.15	184.45	0.30	6.82	1	NA	
		Undefined zone	203.75	204.75	1.00	3.80	0	NA	
		Zone, No. 16 Vein?	228.30	230.00	1.70	3.80	2	NA	
		Including	228.30	229.65	1.35	4.59	2	NA	

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
PC-08-023	Albany Shaft	Including	229.05	229.65	0.60	5.61	1	NA	
		E Zone?	17.60	18.45	0.85	4.71	1	NA	
		Including	17.60	18.10	0.50	5.72	1	NA	
		Undefined zone	44.00	48.45	4.45	1.53	1	NA	
		Including	47.00	48.45	1.45	2.42	1	NA	
		Including	47.90	48.45	0.55	3.85	2	NA	
		Undefined zone	172.50	173.00	0.50	1.32	1	NA	
		Undefined zone	203.10	208.00	4.90	1.06	0	NA	
		Undefined zone	269.45	269.95	0.50	2.29	3	NA	
		Undefined zone	272.75	273.75	1.00	4.54	1	NA	
		Zone, No. 16 Vein?	309.80	310.20	0.40	4.28	0	NA	
Undefined zone	333.40	333.85	0.45	1.32	0	NA			
PC-08-024	Albany Shaft	Undefined zone	304.50	305.50	1.00	3.24	1	NA	
		Undefined zone	337.45	340.20	2.75	1.04	0	NA	
		Including	337.45	338.00	0.55	3.84	0	NA	
		Undefined zone	347.50	348.05	0.55	1.32	<0.2	NA	
		Zone, No. 16 Vein?	354.50	356.30	1.80	4.49	1	NA	
		Including	355.70	356.30	0.60	11.85	1	NA	
PC-08-025	Albany Shaft	Undefined zone	200.58	201.53	0.95	1.09	1	NA	
		Undefined zone	251.88	252.63	0.75	1.49	0	NA	
		Undefined zone	301.18	302.28	1.10	1.10	1	NA	
		Undefined zone	374.20	374.80	0.60	1.59	1	NA	
		Undefined zone	383.75	384.55	0.80	1.10	<0.2	NA	
		Undefined zone	388.45	389.58	1.13	1.34	0	NA	
		Zone, No. 16 Vein?	399.00	400.30	1.30	1.42	<0.2	NA	
		Undefined zone	405.95	406.25	0.30	1.39	<0.2	NA	
PC-08-026	Albany Shaft	E Zone	226.55	228.05	1.50	1.90	0	NA	
		Including	227.45	227.75	0.30	4.25	0	NA	
		Conduit Zone	298.00	300.20	2.20	3.00		NA	
		Including	299.30	299.90	0.60	7.56		NA	
		Undefined zone	335.00	335.45	0.45	1.12	1	NA	
		Undefined zone	354.35	355.20	0.85	1.68	0	NA	
		No. 16 Vein zone?	359.35	360.00	0.65	1.78	<0.2	NA	
PC-08-027	Albany Shaft	E Zone?	242.15	242.45	0.30	1.00	1	NA	
		Undefined zone	317.93	318.80	0.87	1.56	0	NA	
		Conduit Zone	346.45	364.10	17.65	2.30	1	NA	
		Sub zone, sulphidized BIF	346.45	354.40	7.95	3.01	1	NA	
		Including	348.10	348.70	0.60	23.30	5	NA	
		Sub zone, sulphidized BIF	361.17	364.10	2.93	5.55	3	NA	
		Including	363.66	364.10	0.44	26.60	12	NA	
		Undefined zone	377.85	378.85	1.00	1.21	0	NA	
		Zone, sulphidized and veined BIF, No. 16 Vein	420.95	421.75	0.80	23.75	2	NA	
		Including	420.95	421.45	0.50	36.00	3	NA	
		Undefined zone	451.50	455.60	4.10	1.88	0	NA	
		Including	453.60	454.60	1.00	4.85	0	NA	
		Undefined zone	461.60	462.60	1.00	1.80	1	NA	
		No. 16 foot wall vein	489.75	490.50	0.75	9.41	2	NA	
PC-09-028	Albany Shaft	Conduit Zone	273.90	306.30	32.40	1.42	<1	NC	
		Including	273.90	278.00	4.10	6.40	<1	NC	
		Including	276.00	277.40	1.40	8.01	<1	NC	
		And	281.50	283.50	2.00	1.90	<1	NC	
		And	302.00	306.30	4.30	1.81	<1	NC	
		Including	304.40	305.00	0.60	3.04	<1	NC	
		Undefined zone	376.00	376.50	0.50	2.02	<1	NC	
		Undefined zone	388.00	388.45	0.45	1.23	<1	NC	
		Zone, No. 16 Vein?	556.75	557.60	0.85	2.36	<1	NC	
		No. 16 hanging wall vein	561.45	562.80	1.35	4.96	<1	NC	
		Including	562.00	562.80	0.80	5.94	<1	NC	
PC-09-029	Shaft 3	Undefined zone (vein)	220.15	221.15	1.00	2.37	<1	105	
		Undefined zone (anomalous conglomerate)	224.00	230.00	6.00	0.24	<1	120	
		Including	224.00	225.90	1.90	0.42	<1	72	
		Arsenide zone (alteration zone)	251.00	253.50	2.50	0.63	<1	1,964	
		Including	252.85	253.50	0.65	1.06	<1	2,049	
		Zone (vein) No. 13 Vein?	285.75	287.40	1.65	0.37	3	71	
		Undefined zone (anomalous conglomerate)	312.20	313.20	1.00	0.41	<1	9	
Undefined zone (anomalous conglomerate)	322.80	323.30	0.50	0.55	3	6			
PC-09-030	Shaft 3	Arsenide zone (alteration	213.90	230.60	16.70	1.45	2	881	

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		zone)							
		Including (>1 g/t cut off)	213.90	224.00	10.10	2.17	2	1,367	
		Including	220.00	224.00	4.00	3.45	1	2,913	
		Including	221.00	222.00	1.00	5.09	1	4,715	
PC-09-031	Shaft 3	Hole abandoned due to collapse							
		Undefined zone (vein)	56.80	57.30	0.50	1.94	1	13	
		Undefined zone (sericite alt. qtz stringer zone)	74.00	79.50	5.50	1.50	1	831	
		Including	74.50	76.00	1.50	2.29	1	808	
		Undefined zone (chl alt. Qtz stringer zone)	153.40	161.00	7.60	0.47	<1	54	
		Including	157.50	158.00	0.50	1.70	1	5	
		And	160.00	160.50	0.50	1.35	<1	12	
PC-09-033	Shaft 3	Undefined zone (sericite alt. qtz stringer zone) upper vein zone	171.90	190.00	18.10	0.33	<1	240	
		Including	171.90	172.20	0.30	0.91	<1	3,347	
		And	183.70	188.00	4.30	1.11	<1	619	
		Including	184.30	186.00	1.70	1.90	<1	624	
		Including	184.30	184.80	0.50	3.76	1	11	
		Zone (vein) lower vein zone	240.40	241.00	0.60	3.40	3	35	
		Zone (vein) lower vein zone (1st vein)	263.30	267.15	3.85	1.32	2	8	
		Including	266.75	267.15	0.40	5.36	3	6	VG
		Zone (vein) lower vein zone (2nd vein)	306.90	307.50	0.60	2.91	6	8	
		Zone (vein) lower vein zone (3rd vein)	316.00	317.00	1.00	1.40	2	6	
PC-09-034	Shaft 3	Zone (sericite alt. qtz stringer zone) upper vein zone	198.00	228.00	30.00	0.54	NC	NC	
		Including	198.00	208.00	10.00	1.18	NC	NC	
		Including	200.00	201.00	1.00	5.99	NC	NC	
		Zone (vein) lower vein zone	302.90	303.20	0.30	0.91	NC	NC	
		Zone (vein) lower vein zone (1st vein)	333.50	334.10	0.60	0.92	NC	NC	
		Zone (vein) lower vein zone (2nd vein)	344.80	345.60	0.80	3.60	NC	NC	
		Zone (vein) lower vein zone (3rd vein)	380.50	382.40	1.90	0.90	NC	NC	
		Including	381.75	382.40	0.65	1.93	NC	NC	
PC-09-035	Shaft 3	Undefined zone (vein)	9.90	10.20	0.30	0.40	1	NC	
		Undefined zone	40.00	40.30	0.30	0.47	2	NC	
PC-09-036	Albany Shaft	Zone (vein, D Zone?)	118.10	121.60	3.50	0.57	<1	NC	
		Including	119.80	120.10	0.30	1.28	<1	NC	
		Undefined zone	172.50	172.90	0.40	1.79	<1	NC	
		Conduit Zone	289.10	324.70	35.60	3.17	1	NC	
		Including	289.10	292.20	3.10	4.13	1	NC	
		Including	289.10	290.50	1.40	7.16	1	NC	
		And	314.60	324.70	10.10	9.53	1	NC	
		Including	318.60	324.70	6.10	15.25	2	NC	
		Including	319.20	322.10	2.90	28.91	4	NC	
		Including	319.20	320.70	1.50	48.92	6	NC	
		Including	319.20	320.00	0.80	58.78	6	NC	
		Zone (sulphidized BIF)	343.80	344.60	0.80	2.82	4	NC	
		Zone (sulphidized BIF)	420.80	421.40	0.60	11.41	3	NC	
		Undefined zone (vein)	428.00	429.00	1.00	8.12	<1	NC	
		Anomalous zone	482.00	531.80	49.80	0.32	<1	NC	
		Including	486.10	487.00	0.90	8.51	<1	NC	
PC-09-037	Albany Shaft	Conduit Zone	144.50	185.00	40.50	2.11	1	NC	
		Including	151.00	179.00	28.00	2.73	1	NC	
		Including	168.00	179.00	11.00	5.55	2	NC	
		Including	175.70	179.00	3.30	14.83	4	NC	
		Including	176.90	177.55	0.65	56.22	12	NC	
		Undefined zone (vein Albany porphyry hosted)	246.10	246.55	0.45	1.45	1	NC	
		Zone (quartz vein zone in BIF) No. 16 Vein?	299.30	299.60	0.30	2.36	<1	NC	
		Zone (BIF-hosted sulphidized?)	317.00	318.00	1.00	2.88	1	NC	
PC-09-038	Albany Shaft	D Zone western extension	127.50	130.40	2.90	0.88	1	NC	

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		Including	129.60	130.40	0.80	1.53	2	NC	
		Undefined zone	488.81	489.31	0.50	1.65	<1	NC	
PC-09-039	Albany Shaft	qtz-carb alt. zone & No. 16 Vein zone	182.00	212.90	30.90	1.10	<1	NC	
		qtz-carb alt. zone	182.00	200.60	18.60	0.90	<1	NC	
		Including	182.00	186.80	4.80	1.56	<1	NC	
		Including	182.00	183.00	1.00	3.82	<1	NC	
		No. 16 Vein zone	209.60	212.90	3.30	5.11	1	NC	
		Including	209.60	210.90	1.30	9.06	1	NC	
		Including	209.60	210.00	0.40	18.29	1	NC	
		Undefined zone (vein)	233.40	234.40	1.00	1.16	<1	NC	
PC-09-040	Albany Shaft	Conduit Zone plus several lower zones	118.00	176.70	58.70	0.57	<1	NC	
		Conduit Zone	118.00	131.00	13.00	1.12	<1	NC	
		Including	129.40	131.00	1.60	5.12	<1	NC	
		Including	129.40	130.40	1.00	7.51	<1	NC	
		Undefined zone (vein)	147.75	148.15	0.40	7.78	<1	NC	
		Undefined zone	157.00	158.00	1.00	1.05	<1	NC	
		Undefined zone	169.60	176.70	7.10	1.68	<1	NC	
		Including	169.60	170.65	1.05	4.55	2	NC	
		And	176.00	176.70	0.70	7.69	<1	NC	
		No. 16 Vein zone	203.55	208.20	4.65	1.55	<1	NC	
		Including	207.70	208.20	0.50	7.77	<1	NC	
		Undefined zone (vein)	218.40	218.90	0.50	3.51	<1	NC	
PC-09-041	Albany Shaft	D Zone western extension	74.00	89.50	15.50	0.32	<1	NC	
		Including	74.00	74.60	0.60	1.12	<1	NC	
		And	89.00	89.50	0.50	1.16	2	NC	
		Undefined zone (shear with qtz veining, D Zone related?)	285.00	285.40	0.40	3.05	2	NC	
		Conduit Zone	357.50	388.00	30.50	0.18	2	NC	
		Including	381.20	386.00	4.80	0.67	2	NC	
		Including	385.00	386.00	1.00	1.56	2	NC	
PC-09-042	Albany Shaft	D Zone western extension	190.40	198.00	7.60	0.22	<1	NC	
		Including	197.00	198.00	1.00	0.93	<1	NC	
		Conduit Zone	326.50	374.55	48.05	0.23	<1	NC	
		Including	326.50	329.40	2.90	2.70	<1	NC	
		Including	326.50	327.90	1.40	4.47	<1	NC	
PC-09-043	Albany Shaft	D Zone?	204.00	205.20	1.20	1.97	2	NC	
		D Zone?	365.00	366.00	1.00	1.05		NC	
		Conduit Zone	365.00	411.70	46.70	0.23	<1	NC	
		Including	392.40	399.00	6.60	1.03	<1	NC	
		Including	396.30	396.90	0.60	2.12	<1	NC	
PC-09-044	Albany Shaft	Vein (not mineralized in any surrounding holes)	31.30	31.80	0.50	5.25	<1	NC	
		D Zone?	287.10	290.50	3.40	1.31	<1	NC	
		Including	287.80	288.30	0.50	2.29	<1	NC	
		Undefined zone	446.70	447.40	0.70	1.12	<1	NC	
		Conduit Zone	470.70	523.00	52.30	0.27	<1	NC	
		Including	471.70	472.70	1.00	8.98	2	NC	
		Including	511.20	523.00	11.80	0.37	<1	NC	
PC-09-045	Albany Shaft	Undefined zone	162.30	163.20	0.90	1.17	<1	NC	
		Zone (conduit related?)	266.00	267.60	1.60	0.52	<1	NC	
		Zone (conduit related?)	331.50	331.95	0.45	1.52	<1	NC	
		Zone (conduit related?)	400.80	402.80	2.00	1.08	<1	NC	
PC-09-046	Albany Shaft	Conduit Zone	167.40	210.10	42.70	0.49	<1	NC	
		Including	167.40	169.20	1.80	4.06	<1	NC	
		Including	167.90	168.40	0.50	7.40	<1	NC	
		Including	192.00	193.00	1.00	1.03	<1	NC	
		Including	205.90	210.10	4.20	2.42	<1	NC	
		Including	208.80	209.70	0.90	7.56	1	NC	
		Undefined zone	218.20	218.80	0.60	1.09	<1	NC	
		Undefined zone	222.70	223.40	0.70	1.19	<1	NC	
		Undefined zone	233.60	234.40	0.80	1.30	<1	NC	
		Zone (BIF)	322.90	323.80	0.90	1.04	<1	NC	
		Zone (BIF)	332.20	332.80	0.60	3.19	2	NC	
		Zone (BIF)	379.30	380.30	1.00	1.57	2	NC	
PC-09-047	Albany Shaft	Zone (conduit related?)	27.90	28.50	0.60	1.01	<1	NC	
		Undefined zone	96.35	98.08	1.73	2.89	1	NC	
		No. 16 Vein zone	132.10	133.75	1.65	17.21	2	NC	
		Including	132.10	132.60	0.50	31.08	3	NC	
PC-09-048	Albany Shaft	C Zone	88.00	125.90	37.90	0.42	<1	NC	

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		Including	88.00	93.00	5.00	2.06	<1	NC	
		Including	88.98	89.35	0.37	6.44	<1	NC	
		And	125.00	125.90	0.90	1.77	1	NC	
		No. 16 Vein zone?	244.64	245.00	0.36	1.40	3	NC	
		Zone (BIF)	313.00	314.00	1.00	5.30	2	NC	
PC-09-049	Albany Shaft	C Zone	36.65	55.00	18.35	1.45	<1	NC	
		Including	45.90	53.60	7.70	2.17	1	NC	
		Including	52.80	53.60	0.80	5.39	2	NC	
		C Zone?	143.50	152.00	8.50	0.66	<1	NC	
		Including	143.50	144.50	1.00	3.25	<1	NC	
		Including	144.00	144.50	0.50	4.35	<1	NC	
PC-09-050	Albany Shaft	Undefined zone	50.00	51.00	1.00	4.43	<1	NC	
		Undefined zone	119.00	120.00	1.00	2.68	<1	NC	
		Undefined zone	159.00	160.00	1.00	1.04	<1	NC	
		Undefined zone	171.65	172.00	0.35	2.57	<1	NC	
		Anomalous zone (A&B?)	196.70	282.60	85.90	0.45	<1	NC	
		And	196.70	197.20	0.50	7.96	<1	NC	
		And (subzone)	223.40	282.60	59.20	0.56	<1	NC	
		And	223.40	224.00	0.60	2.46	<1	NC	
		And	237.00	237.50	0.50	2.53	<1	NC	
		And (subzone)	248.50	256.50	8.00	1.93	<1	NC	
		Including	248.50	251.00	2.50	3.11	<1	NC	
		Including	272.40	273.40	1.00	3.44	<1	NC	
		And (subzone, veining No. 16?)	281.10	282.60	1.50	4.01	<1	NC	
		Including	281.10	281.60	0.50	9.58	<1	NC	
		Zone (BIF)	319.00	319.50	0.50	1.97	<1	NC	
PC-09-051	Albany Shaft	Anomalous zone (A&B?)	81.00	105.70	24.70	1.72	<1	NC	
		Including	81.00	82.00	1.00	3.69	<1	NC	
		And (subzone, vein zone)	102.20	105.70	3.50	11.00	<1	NC	
		Including	103.70	104.75	1.05	34.53	<1	NC	
		Including	104.25	104.75	0.50	69.02	<1	NC	VG
		Anomalous zone (A&B?)	218.00	273.60	55.60	0.11	<1	NC	
		Including	267.83	268.13	0.30	1.94	<1	NC	
PC-09-052	Shaft 1	Vein zone	18.10	19.10	1.00	0.91	NC	NC	
		Undefined zone	95.00	96.00	1.00	1.70	NC	NC	
		Undefined zone	453.60	454.40	0.80	2.78	NC	NC	
		No. 19 Vein	504.60	505.30	0.70	15.95	2	NC	VG
PC-09-052A	Shaft 1	No. 19 Vein	506.50	508.00	1.50	7.50	4	NC	VG
		Including	507.00	507.60	0.60	14.49	6	NC	
		No. 1 Vein	1,139.80	1,143.00	3.20	134.26	10	NC	VG
		Including	1,140.30	1,141.80	1.50	284.13	19	NC	VG
		Including	1,140.30	1,140.80	0.50	838.14	56	NC	VG
PC-10-052A-W01	Shaft 1	No. 1 Vein	1,132.80	1,134.20	1.40	6.35	1	NC	
		Including	1,133.10	1,133.40	0.30	25.60	3	NC	
PC-10-052-W01	Shaft 1	No. 19 Vein	492.50	500.10	7.60	8.23	NC	NC	VG
		Including	498.30	500.10	1.80	19.37	NC	NC	VG
		Including	498.30	498.90	0.60	36.70	NC	NC	VG
PC-10-052-W02	Shaft 1	No. 19 Vein	530.35	543.48	13.13	43.28	9	NC	VG
		Including	530.35	531.00	0.65	16.24	10	NC	VG
		And	539.48	543.48	4.00	138.89	27	NC	VG
		Including	539.48	541.50	2.02	201.96	35	NC	VG
		Including	540.00	540.48	0.48	299.10	60	NC	VG
		Undefined zone 10% stringer po + py in mafic volcanics	789.00	790.00	1.00	1.58	<1	NC	
		Undefined zone 10% stringer po + py in mafic volcanics	817.00	820.30	3.30	1.02	<1	NC	
		Including	817.00	817.50	0.50	2.10	<1	NC	
		Vein zone	1,226.20	1,226.90	0.70	1.20	1	NC	
		Undefined zone sheared mafic flow 1% py-po	1,504.00	1,505.50	1.50	0.79	<1	NC	
		No. 1 Vein	1,571.20	1,571.75	0.55	0.68	<1	NC	
		Zone BIF	1,721.00	1,730.30	9.30	0.28	1	NC	
		Including	1,721.00	1,722.50	1.50	0.60	1	NC	
PC-10-052-W03	Shaft 1	No significant assays (no No. 1 Vein or shear found)							
PC-10-052-W04	Shaft 1	Vein zone (qtz-carb veining from 1,132-1,138.5 m)	1,133.00	1,135.00	2.00	1.47	<1	NC	
		Including	1,133.00	1,133.50	0.5	2.21	<1	NC	
		Vein zone? (strong tungsten	1,158.50	1,160.00	1.50	2.45	<1	NC	



Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG	
		hit)								
		Hole abandoned due to ground conditions before No. 1 Vein target								
PC-10-052-W05	Shaft 1	No. 1 Vein	1,573.30	1,574.10	0.80	0.70	<1	NC		
PC-10-052-W06		No. 1 Vein	1,570.00	1,570.95	0.95	4.56	<1	NC		
		Including	1,570.40	1,570.95	0.55	7.33	<1	NC		
PC-10-052-W07	Shaft 1	No. 1 Vein	1,567.25	1,569.00	1.75	0.19	<1	NC		
PC-10-052-W08	Shaft 1	No. 19 Vein	547.67	550.50	2.83	11.24	8	NC	VG	
		Including	547.67	548.60	0.93	21.86	23	NC	VG	
			548.20	548.60	0.40	29.99	4	NC	VG	
PC-10-052-W09	Shaft 1	No. 19 Vein	525.30	528.15	2.85	0.72	2	NC	VG	
		Including	527.70	528.15	0.45	3.37	1	NC	VG	
PC-10-052-W10	Shaft 1	No. 19 Vein	538.00	539.95	1.95	137.22	13	NC	VG	
		Including	538.50	539.95	1.45	178.78	17	NC	VG	
		Including	539.50	539.95	0.45	380.12	27	NC	VG	
PC-10-052-W11	Shaft 1	No. 19 Vein	527.30	529.00	1.70	9.05	5	NC	VG	
		Including	527.30	527.90	0.60	25.40	15	NC	VG	
PC-10-052-W12	Shaft 1	Anomalous zone	415.50	441.50	26.00	0.23	<1	NC		
		Including	435.50	437.00	1.50	1.53	<1	NC		
		No. 19 Vein	504.50	505.10	0.60	9.36	2	NC		
PC-10-052-W13	Shaft 1	No. 19 Vein zone	485.00	506.00	21.00	2.49	1	NC	VG	
		Including	490.30	506.00	15.70	3.25	1	NC	VG	
		Including	490.30	492.38	2.08	15.70	7	NC	VG	
		Including	491.00	491.70	0.70	35.34	13	NC	VG	
		And	505.32	506.00	0.68	26.11	<1	NC	VG	
PC-10-052-W14	Shaft 1	No. 19 Vein zone	481.00	512.00	31.00	0.13	2	NC		
		Including	481.00	482.50	1.50	1.05	3	NC		
		And	489.70	491.20	1.50	0.59	2	NC		
PC-10-052-W15	Shaft 1	Undefined zone, vein	462.90	464.10	1.20	0.75	2	NC		
		Including	462.90	463.50	0.60	1.44	2	NC		
		No. 19 Vein zone	481.50	489.40	7.90	2.90	NC	NC	VG	
		Including	485.30	489.40	4.10	5.24	NC	NC	VG	
		Including	485.90	487.00	1.10	11.21	NC	NC	VG	
		Including	485.9	486.5	0.60	14.47	NC	NC	VG	
		And	488.90	489.40	0.50	14.39	NC	NC	VG	
PC-10-052-W16	Shaft 1	Undefined zone, vein	503.80	504.40	0.60	0.78	18	NC		
PC-10-052-W16	Shaft 1	No. 19 Vein, VG	488.00	488.90	0.90	68.03	6	NC	VG	
PC-10-052-W17	Shaft 1	No. 19 Vein	488.50	489.40	0.90	0.18	<1	4	VG	
PC-09-053	Albany Shaft	Undefined zone	113.00	114.00	1.00	1.06	NC	NC		
		Undefined zone	340.00	341.00	1.00	1.01	NC	NC		
		Undefined zone	354.45	355.54	1.09	1.92	NC	NC		
		Anomalous zone (A&B)	396.00	422.00	26.00	0.35	NC	NC		
		Including (BIF-hosted)	396.00	398.00	2.00	1.85	NC	NC		
		Including	397.40	398.00	0.60	4.45	NC	NC		
		And	421.00	422.00	1.00	2.18	NC	NC		
PC-09-054	Albany Shaft	Vein	41.50	41.85	0.35	3.64	NC	NC		
PC-09-054		Zone (remnant of ABC Zones?)	340.00	341.00	1.00	1.57	NC	NC		
PC-09-055	Albany Shaft	Undefined zone	81.00	82.00	1.00	1.37	NC	NC		
		Undefined zone	266.70	267.70	1.00	1.00	NC	NC		
		Undefined zone	296.00	297.00	1.00	0.98	NC	NC		
PC-09-056	Albany Shaft	Undefined zone	89.90	90.90	1.00	1.09	NC	NC		
		Undefined zone	334.00	335.00	1.00	0.75	NC	NC		
PC-10-057	Shaft 1	No. 20 Vein	125.60	126.10	0.50	20.96	NC	NC	VG	
		Zone (BIF-hosted)	292.00	293.00	1.00	1.01	NC	NC		
		Zone (BIF-hosted)	315.00	316.00	1.00	2.52	NC	NC		
PC-10-058	Shaft 1	No. 20 Vein	108.20	108.80	0.60	2.04	NC	NC		
		Zone (BIF-hosted)	226.00	289.00	63.00	0.33	NC	NC		
		Including	240.00	247.00	7.00	1.02	NC	NC		
		Including	240.00	241.00	1.00	3.17	NC	NC		
		And	287.90	289.00	1.10	2.07	NC	NC		
PC-10-059	Shaft 1	No. 20 Vein	135.60	135.90	0.30	41.25	NC	NC	VG	
PC-10-060	Central Coh-Mac	near Coh-Mac Zone	37.00	38.00	1.00	4.96	NC	NC		
PC-10-061	Central Coh-Mac	near Coh-Mac Zone	71.00	72.00	1.00	5.72	NC	NC		
PC-10-062	Central Pat East	Anomalous Au-As zone	70.00	96.10	26.10	0.21	<1	458		
		Diss. arseno. in volcanoclastic sed. at sed-mafic contact	91.40	93.10	1.70	1.55	<1	2,444		
		Including	92.40	93.10	0.70	2.24	<1	3,763		
		Qtz stringers in narrow shear zone in int. tuff	233.00	234.00	1.00	1.82	<1	NC		
		Anomalous Au-As zone	325.00	356.00	31.00	0.21	<1	425		
		Qtz stringers in py-po	328.00	328.50	0.50	1.93	<1	5,858		

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		bearing thick chert unit							
		Qtz stringers in int. tuff	351.50	353.00	1.50	1.53	<1	1,757	
PC-10-063	Central Coh-Mac	qtz stringers in ~5% po-py mineralized chert	211.00	212.00	1.00	0.42	NC	NC	
PC-10-064	Central Coh-Mac	No significant assays							
PC-10-065	Central Coh-Mac	No significant assays							
PC-10-066	Central Coh-Mac	Qtz vein in chert unit with py and asp (0.2% As)	101.00	102.00	1.00	1.17	NC	NC	
		Including	101.00	101.40	0.40	2.07	NC	NC	
PC-10-067	Central Coh-Mac	MacArthur Vein	30.50	44.80	14.30	1.48	<1	NC	
		Including	30.50	33.10	2.60	4.99	<1	NC	
		Including	32.00	32.50	0.50	14.85	1	NC	
		And	44.30	44.80	0.50	7.38	2	NC	
		Lower qtz-arseno zone	68.90	69.70	0.80	1.04	2	NC	
PC-10-068	West Coh-Mac	BIF-hosted, qtz veining and 5-10% py-po	156.40	156.90	0.50	1.78	NC	NC	
		BIF-hosted, qtz veining and ~10% py-po	197.00	197.50	0.50	1.36	NC	NC	
		Qtz-carb stringers in gabbro	201.00	202.00	1.00	1.17	NC	NC	
PC-10-069	Central Coh-Mac	MacArthur Vein	35.50	41.80	6.30	2.99	NC	NC	
		Including	41.30	41.80	0.50	30.27	NC	NC	
		Lower qtz-arseno zone	53.75	61.50	7.75	0.41	NC	NC	
		Including	53.75	55.20	1.45	1.01	NC	NC	
		And	61.00	61.50	0.50	1.81	NC	NC	
PC-10-070	Central Coh-Mac	MacArthur Vein	121.50	122.00	0.50	9.35	NC	NC	
		BIF-hosted, 1-2% diss py-po	149.00	149.50	0.50	1.06	NC	NC	
PC-10-071	Kawinogans	Anomalous BIF zone	41.00	53.38	12.38	0.22	<1	NC	
		Including	42.00	43.00	1.00	0.92	<1	NC	
		Anomalous BIF zone	89.42	91.52	2.10	0.40	<1	NC	
		BIF-hosted qtz stringers/patches and diss to stringer po-py	151.04	171.67	20.63	1.02	NC	NC	
		Including	151.04	160.00	8.96	1.41	NC	NC	
		Including	157.00	160.00	3.00	2.78	NC	NC	
		Including	158.00	159.00	1.00	4.20	NC	NC	
		Anomalous BIF zone	200.00	202.00	2.00	0.44	<1	NC	
PC-10-072	Central Coh-Mac	Qtz vein in intermediate tuff with blebby po	134.00	134.95	0.95	1.15	NC	NC	
		MacArthur Vein	160.12	160.66	0.54	1.73	NC	NC	
PC-10-073	Central Coh-Mac	MacArthur Vein	50.60	55.50	4.90	0.91	NC	NC	
		Including	50.60	52.10	1.50	1.56	NC	NC	
PC-10-074	Central Coh-Mac	MacArthur Vein	29.50	31.00	1.50	0.83	NC	NC	
		Lower qtz-arseno zone	39.00	39.63	0.63	1.00	NC	NC	
PC-10-075	Central Coh-Mac	MacArthur Vein	44.00	45.50	1.50	0.35	NC	NC	
PC-10-076		Zone, BIF sulphide-rich	14.50	15.00	0.50	1.32	<1	NC	
		Zone, BIF sulphide-rich	83.00	84.00	1.00	1.04	1	NC	
		Zone, BIF Sulphide-rich (>40% po-py)	501.50	502.00	0.50	9.86	<1	NC	
		No. 19 Vein	507.50	512.50	5.00	0.50	<1	NC	VG
		Including	511.00	511.50	0.50	1.80	1	NC	VG
		No. 19 Vein (lower vein)	523.00	523.50	0.50	0.02	<1	NC	VG
		Undefined zone	527.00	528.00	1.00	1.05	NC	NC	
PC-10-076W01	Shaft 1	Undefined zone	493.90	494.30	0.40	0.93	<1	NC	
		No. 19 Vein	495.75	496.30	0.55	0.02	<1	NC	
PC-10-077	Shaft 1	No. 20 Vein	237.90	238.40	0.50	0.01	<1	NC	
		Undefined zone, shear zone, no vein	275.00	276.50	1.50	0.32	<1	NC	
PC-10-078	Shaft 1	No. 20 Vein	258.00	259.10	1.10	0.47	<1	NC	
		Including	258.00	258.50	0.50	0.69	<1	NC	
		Undefined zone Vein	327.50	328.70	1.20	0.03	<1	NC	
PC-10-079	Shaft 1	No. 20 Vein	254.30	255.30	1.00	1.57	<1	NC	
		Anomalous zone, BIF	305.00	372.00	67.00	0.27	<1	NC	
		Including	305.00	306.50	1.50	3.58	2	NC	
PC-10-080	Shaft 1	Undefined zone, vein	136.00	137.00	1.00	2.70	<1	NC	
		Zone, Riopelle Vein?	181.50	182.50	1.00	0.34	<1	NC	
		No. 20 Vein	309.50	311.00	1.50	1.41	<1	NC	
		Including	310.50	311.00	0.50	3.06	<1	NC	
		Undefined zone vein	339.00	339.50	0.50	0.05	<1	NC	
		Anomalous zone, BIF	396.50	486.50	90.00	0.38	<1	NC	
		Including	405.50	465.50	60.00	0.48	<1	NC	
		Including	417.50	432.50	15.00	0.81	<1	NC	

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		Including	417.50	419.00	1.50	4.12	<1	NC	
		And	456.50	465.50	9.00	1.20	<1	NC	
PC-10-081	Shaft 1	No. 20 Vein	192.00	192.50	0.50	1.02	<1	NC	
PC-10-082		Undefined zone, vein	122.00	124.10	2.10	2.42	<1	NC	
		Including	123.60	124.10	0.50	4.04	<1	NC	
		Undefined zone, vein?	404.00	405.50	1.50	1.90	<1	NC	
		Undefined zone vein, (480.4-481.2 vein in porphyry)	479.00	482.00	3.00	0.13	<1	NC	
		Undefined zone vein, (519.8-519.9 vein in porphyry)	519.00	520.00	1.00	0.43	NC	NC	
		No. 19 Vein	528.00	532.70	4.70	4.16	NC	NC	VG
		Including	528.00	531.00	3.00	6.42	NC	NC	
		Including	528.00	528.60	0.60	16.72	NC	NC	
PC-10-082W01	Shaft 1	Undefined zone vein	425.55	426.00	0.45	1.02	<1	NC	
		Undefined zone vein (good tungsten hit)	458.20	459.20	1.00	0.02	<1	NC	
		No. 19 Vein	520.80	521.30	0.50	0.15	1.00	NC	VG
PC-10-083	Shaft 1	Zone, BIF	59.30	59.90	0.60	1.86	<1	NC	VG
		Zone, good looking vein (VG)	260.76	263.50	2.74	2.81	<1	NC	
		No. 19? (weak tungsten hit)	411.76	412.50	0.74	0.04	<1	NC	
PC-10-084	Shaft 1	Undefined zone	119.30	119.90	0.60	1.17	1.00	NC	
		Undefined zone, vein	127.90	129.50	1.60	1.78	<1	NC	
		Undefined zone	211.05	211.50	0.45	2.03	2	NC	
		Zone, BIF	362.00	363.70	1.70	2.52	<1	NC	
		No. 19 Vein	613.00	613.70	0.70	7.25	NC	NC	
		No. 19 Vein	622.80	623.20	0.40	0.19	NC	NC	
PC-10-084W01	Shaft 1	Zone, BIF	354.50	357.50	3.00	0.73	1.00	NC	
		No. 19 Vein	603.50	605.00	1.50	0.75	<1	NC	
PC-10-084W02	Shaft 1	Undefined zone, vein	537.50	538.10	0.60	0.23	<1	NC	
		Undefined zone, vein	544.85	545.15	0.30	0.38	<1	NC	
		Undefined zone, vein	546.70	547.60	0.90	0.12	<1	NC	
		No. 19 Vein	595.90	596.40	0.50	135.37	7	NC	VG
PC-10-084W03	Shaft 1	No. 19 Vein	612.57	613.18	0.61	11.52	1	NC	VG
PC-10-084W04	Shaft 1	No. 19 Vein	614.50	615.40	0.90	68.03	2.00	NC	VG
PC-10-084W05	Shaft 1	No. 19 Vein	589.35	590.65	1.30	33.43	NC	NC	VG
		Including	589.90	590.65	0.75	44.16	NC	NC	VG
PC-10-084W06	Shaft 1	Anomalous BIF zone	351.50	356.00	4.50	0.47	<1	NC	
		abandoned before intersecting No. 19 Vein							
PC-10-084W07	Shaft 1	abandoned before intersecting No. 19 Vein							
PC-10-085	Shaft 3	No. 2 Vein	643.20	643.70	0.50	0.02	<1	NC	
		Hole abandoned due to deviation before intended final depth							
PC-10-085-W01	Shaft 3	No. 2 Vein, f. g. VG noted	650.10	650.70	0.60	0.02	<1	NC	VG
		Vein zone, (stringer (mm scale), in Pickle Crow porphyry)	675.00	676.50	1.50	3.51	1	NC	
		No. 6-7 Vein zone (veins up to 1.10 m)	1,120.80	1,131.00	10.20	0.25	1	NC	
		Undefined zone	1,160.00	1,161.00	1.00	3.61	<1	NC	
		Undefined zone, vein	1,316.75	1,320.60	3.85	1.13	<1	NC	
		Including	1,319.00	1,319.55	0.55	6.38	<1	NC	
		Anomalous zone (mod shearing, mafic flow, 2% py, local Qtz-carb veining flooding 5-50 cm scale)	1,369.55	1,387.20	17.65	0.37	<1	NC	
		Including	1,381.25	1,383.50	2.25	1.49	<1	NC	
		Including	1,382.80	1,383.50	0.70	2.39	<1	NC	
		Anomalous zone (mod shearing, mafic flow, 2% py, local Qtz-carb vein flooding)	1,429.50	1,455.00	25.50	0.17	<1	NC	
		Including	1,444.00	1,445.00	1.00	0.82	<1	NC	
		Hole abandoned due to ground conditions before intended final depth							
PC-10-085-W02	Shaft 3	Anomalous zone (mod shearing, mafic flow, 2% py, local Qtz-carb veining flooding 5-50 cm scale)	1,369.50	1,386.00	16.50	0.31	<1	NC	
		Including	1,374.50	1,376.50	2.00	1.30	<1	NC	
		Including	1,375.50	1,376.00	0.50	2.19	<1	NC	
		Anomalous zone (mod shearing, mafic flow, 2%	1,427.10	1,450.50	23.40	0.36	<1	NC	

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		py, local qtz-carb veining flooding)							
		Including	1,427.10	1,431.00	3.90	1.24	<1	NC	
		Hole abandoned due to ground conditions before intended final depth							
PC-10-085-W03	Shaft 3	Temporarily suspended at a depth of 960 m							
PC-10-086	Shaft 1	New zone	408.50	414.90	6.40	2.97	NC	NC	
		Includes	414.20	414.90	0.70	13.72	NC	NC	
		Undefined zone	475.20	476.20	1.00	0.90	<1	NC	
		Undefined zone	519.50	521.00	1.50	0.29	<1	1,444	
		Undefined zone	525.50	528.00	2.50	2.44	NC	NC	
		Anomalous zone	589.00	623.00	34.00	0.66	NC	NC	
		No. 21 Vein zone	589.00	602.00	13.00	1.51	NC	NC	
		Including	590.00	598.00	8.00	2.10	NC	NC	
		Including (5 cm wide QV)	590.00	591.30	1.30	10.72	NC	NC	VG
		And	620.00	621.20	1.20	0.73	NC	NC	
		Undefined zone	725.00	728.00	3.00	2.09	NC	NC	
		Undefined zone	746.00	749.00	3.00	1.49	NC	NC	
		No. 19 Vein	756.40	756.90	0.50	0.64	NC	NC	
PC-10-086W01	Shaft 1	No. 21 Vein zone	619.00	621.00	2.00	0.70	<1	NC	
		Zone, vein (0.5 m qtz vein and surrounding alt.)	684.50	687.50	3.00	0.37	<1	NC	
		No. 19 Vein	716.00	717.50	1.50	0.46	<1	NC	
PC-10-086W01A	Shaft 1	No. 19 Vein, (vein is 0.4 cm wide)	716.00	717.07	1.07	0.33	<1	NC	
		Undefined zone	722.00	723.50	1.50	0.71	<1	NC	
		Undefined zone	725.00	727.50	2.50	2.74	<1	NC	
		No. 19 Vein (60 cm wide)	744.60	746.30	1.70	1.76	<1	NC	
		Including	745.60	746.30	0.70	3.20	1	NC	
		Undefined zone, vein (0.5 cm wide)	752.70	754.40	1.70	1.85	<1	NC	
PC-10-086W02	Shaft 1	No. 21 Anomalous zone (really 2 zones)	594.50	622.50	28.00	0.64	<1	NC	
		No. 21 Vein zone	596.00	600.50	4.50	2.73	<1	NC	
		Including	596.00	597.50	1.50	5.20	<1	NC	
		And	615.50	616.50	1.00	1.54	<1	NC	
		No. 19 Vein	708.00	711.00	3.00	9.80	1	NC	
		Including	708.00	709.50	1.50	16.82	1	NC	
		No. 19 Vein	729.00	730.50	1.50	1.38	<1	NC	
		Undefined zone, vein?	739.50	741.00	1.50	0.48	<1	NC	
		Undefined zone, vein?	745.50	747.00	1.50	0.20	<1	NC	
		Undefined zone, vein (0.57 cm wide)	883.50	884.30	0.80	0.37	<1	NC	
		Undefined zone, vein	927.70	928.20	0.50	0.28	<1	NC	
PC-10-086W03	Shaft 1	New zone	423.00	426.50	3.50	0.91	2	NC	
		Including (20 cm wide QV)	423.00	423.50	0.50	3.97	2	NC	
		Undefined zone, vein (15 cm wide)	495.40	496.00	0.60	7.65	1	NC	
		No. 21 Vein zone	623.50	626.50	3.00	4.24	1	NC	
		Including	625.00	626.50	1.50	7.83	1	NC	
		Undefined zone	652.00	653.50	1.50	1.00	<1	NC	
		Undefined zone	682.00	685.70	3.70	1.43	<1	NC	
		Including	685.20	685.70	0.50	4.50	1	NC	
		No. 19 Vein (20 cm wide)	696.90	698.40	1.50	1.96	<1	NC	VG
		Including	696.90	697.40	0.50	4.52	1	NC	VG
		Undefined zone	785.50	787.00	1.50	0.70	<1	NC	
		Anomalous zone (mafic vol, silicified, ~2% py-po, local qtz-carb stringers)	845.50	860.50	15.00	0.33	<1	NC	
		Including	851.50	853.00	1.50	1.36	<1	NC	
PC-10-086W04	Shaft 1	No. 19 anomalous zone?	678.50	694.50	16.00	0.46	<1	NC	
		No. 19 Vein zone (possibly the No. 21 Vein)	678.50	685.00	6.50	0.90	<2	NC	
		Including	684.00	685.00	1.00	1.93	<3	NC	
		And (possibly No. 19 Vein)	694.00	694.50	0.50	1.37	<4	NC	
PC-10-086W05	Shaft 1	Undefined zone, vein (local qtz veining, flooding, 3% py, No 21 Vein?)	492.00	496.50	4.50	2.72	2	1,292	
		Including	492.00	495.00	3.00	4.18	2	1,889	
		Including	492.00	494.00	2.00	5.00	2	2,742	
		Including	493.60	494.00	0.40	8.79	2	159	
		No. 19 anomalous zone?	668.85	690.69	21.84	0.43	<1	53	
		Including (possibly the No.	670.02	673.32	3.30	1.79	<1	204	

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		21 Vein)							
		Including	670.02	671.00	0.98	3.84	<1	675	
		And (more like the No. 19 Vein)	683.20	683.97	0.77	1.74	<1	<2	
		Undefined zone	743.00	744.50	1.50	0.95	<1	NC	
PC-10-086W06	Shaft 1	No. 19 Anomalous?	642.60	644.00	1.40	1.90	<1	NC	
		Including (possibly the No. 21 Vein)	669.50	674.50	5.00	0.86	<1	280	
		Including	669.50	670.84	1.34	2.05	<1	576	
		Zone (possibly the No. 19 Vein)	708.50	711.50	3.00	1.39	<1	NC	
		Including	708.50	710.00	1.50	2.03	<1	NC	
		Undefined zone	714.50	716.00	1.50	0.60	<1	NC	
PC-10-087	Shaft 1	Anomalous BIF zone	242.00	245.00	3.00	0.32	<1	NC	
		Zone, vein (10 cm wide)	250.30	250.70	0.40	1.52	<1	NC	
		No. 19 Vein (36 cm wide)	428.75	429.30	0.55	0.62	<1	NC	
PC-10-088	Shaft 1	Anomalous zone (No. 21 Vein alt.?)	552.50	612.50	60.00	0.86	NC	NC	
		Including	560.00	560.50	0.50	2.21	<1	1,862	
		And (vein)	592.00	592.50	0.50	37.57	2	55	
		And	610.00	611.00	1.00	26.89	2	213	
		Undefined zone, vein (60 cm)	810.00	810.50	0.50	1.30	1	107	
		Undefined zone	837.00	838.00	1.00	7.92	2	130	
PC-10-088-W01	Shaft 1	Hole abandoned due to wedge issues							
PC-10-089	Kawinogans	Anomalous BIF zone	30.28	62.50	32.22	0.68	NC	NC	
		Including	43.10	62.50	19.40	0.84	NC	NC	
		Including	43.10	53.50	10.40	0.91	NC	NC	
		Including	43.10	44.30	1.20	2.81	NC	NC	
		And	52.90	53.50	0.60	5.74	NC	NC	
PC-10-090	Kawinogans	Anomalous BIF zone	53.50	56.86	3.36	0.62	<1	NC	
		Including	54.50	55.40	0.90	1.14	<1	NC	
		Anomalous BIF zone	76.00	78.33	2.33	0.24	<1	NC	
		Anomalous BIF zone	131.00	159.60	28.60	0.15	<1	NC	
		Including	151.50	158.92	7.42	0.34	<1	NC	
		Including	151.50	153.00	1.50	0.96	<1	NC	
		Anomalous BIF zone	246.57	252.00	5.43	0.58	1	NC	
		Including	246.57	249.00	2.43	0.94	1	NC	
PC-10-091	Kawinogans	Anomalous BIF zone	19.90	24.00	4.10	0.31	2	NC	
		Anomalous BIF zone	38.00	59.90	21.90	0.36	2	NC	
		Including	47.20	48.30	1.10	5.25	5	NC	
		Anomalous BIF zone	74.70	99.30	24.60	0.15	3	NC	
		Including	74.70	75.90	1.20	0.82	2	NC	
		Zone, BIF	116.50	123.90	7.40	1.16	2	NC	
		Including	122.50	123.00	0.50	5.80	2	NC	
PC-10-092	Kawinogans	Anomalous BIF zone	82.75	85.00	2.25	0.68	NC	NC	
		Including	84.00	84.50	0.50	1.88	NC	NC	
		Zone, BIF	102.50	114.00	11.50	1.50	NC	NC	
		Including	107.50	112.25	4.75	3.38	NC	NC	
		Including	107.50	108.50	1.00	11.71	NC	NC	
		Zone, BIF	196.00	219.50	23.50	1.41	NC	NC	
		Including	201.00	213.00	12.00	2.48	NC	NC	
		Including	211.00	213.00	2.00	9.14	NC	NC	
		Including	212.00	213.00	1.00	12.56	NC	NC	
PC-10-093	Central Coh-Mac	Undefined zone	207.30	207.90	0.60	0.90	2	39	
PC-10-094	Central Pat East	Abandoned due to excessive overburden							
PC-10-095	Shaft 1	Undefined zone	269.00	270.50	1.50	0.84	1	NC	
		Undefined zone	447.50	449.00	1.50	0.75	1	1,094	
		Undefined zone, vein	492.00	493.00	1.00	0.41	1	NC	
		No. 21 Vein anomalous zone	555.50	645.50	90.00	0.21	<1	NC	
		Including	573.50	579.50	6.00	0.75	<1	NC	
		Including	574.50	575.00	0.50	1.95	<1	NC	
		And (No. 21 Vein)	602.50	603.50	1.00	2.11	<1	1,532	
		And	631.00	645.50	14.50	0.42	<1	NC	
		Including	644.00	645.50	1.50	2.86	<1	NC	
		Undefined zone, sulphide stringers	687.50	689.50	2.00	0.85	1	NC	
		Including	687.50	688.50	1.00	1.19	1	NC	
		No. 19 Vein zone	787.50	792.50	5.00	2.00	1	NC	VG
		Including	787.50	788.00	0.50	12.48	14	NC	VG
		And (No. 19 Vein)	792.10	792.50	0.40	7.57	<1	NC	VG

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
PC-10-095-W01	Shaft 1	Undefined zone, sulphide stringers	686.50	689.50	3.00	0.76	<1	NC	
		Undefined zone	707.50	709.00	1.50	0.99	1	NC	
		Undefined zone	718.00	719.50	1.50	1.43	1	NC	
		Zone, vein (No. 19 Vein?)	732.00	733.50	1.50	0.75	<1	NC	
		No. 19 Vein?	754.50	756.00	1.50	1.71	<1	NC	
PC-10-095-W02	Shaft 1	Undefined zone	448.50	449.60	1.10	1.49	1	3,923	
		No. 21 Vein anomalous zone	537.30	617.00	79.70	0.16	1	NC	
		Zone (veining in BIF)	537.30	540.10	2.80	3.30	1	NC	
		Including	537.60	539.10	1.50	4.55	1	NC	
		Zone (No. 21 Vein)	603.50	605.00	1.50	0.33	2	1,687	
		Including	609.50	611.00	1.50	0.02	2	3,132	
		No. 19 Vein	785.50	786.10	0.60	260.38		NC	VG
PC-10-095-W03	Shaft 1	No. 21 Vein anomalous zone	532.70	606.50	73.80	0.23	NC	NC	
		Undefined zone	532.70	535.40	2.70	0.72	NC	NC	
		Including	534.10	534.50	0.40	2.29	NC	NC	
		Undefined zone	547.40	548.90	1.50	0.93	NC	NC	
		Zone (No. 21 Vein)	597.50	606.50	9.00	1.39	2	1,307	
		Including	597.50	598.50	1.00	3.63	4	3,945	
		And	601.50	605.00	3.50	2.03	0	903	
		Undefined zone	673.40	674.40	1.00	0.77	1	NC	
		No. 19 Vein	785.67	786.26	0.59	21.34	5	NC	VG
		PC-10-095-W04	Shaft 1	No. 21 Vein zone	597.50	611.00	13.50	0.97	<1
Including	603.97			606.61	2.64	3.68	<1	2,641	
Including	605.86			606.61	0.75	4.74	<1	3,647	
Undefined zone, vein	706.73			707.15	0.42	0.49	1	NC	
No. 19 Vein zone	791.56			795.10	3.54	1.05	2	669	
Including	791.56			791.86	0.30	2.48	2	NC	
Including	794.62			795.10	0.48	5.56	11	NC	
Undefined zone	806.44			806.79	0.35	1.07	<1	2,399	
PC-10-096	Central Pat East	hole abandoned due to excessive overburden							
PC-10-097	Walker Patricia	No Significant Assays							
PC-10-098	Dumbell Anomaly	No Significant Assays							
PC-10-099	Walker Patricia	No Significant Assays							
PC-10-100	Dumbell Anomaly	No Significant Assays							
PC-10-101	Dumbell Anomaly	No Significant Assays							
PC-10-102	Kawinogans	Zone, BIF	105.17	105.73	0.56	2.09	<1	14	
PC-10-103	Kawinogans	Zone, BIF	2.50	4.00	1.50	0.94	2	16	
		Zone, BIF	121.60	130.05	8.45	0.40	1	2	
		Anomalous zone, BIF	170.87	278.50	107.63	0.24	3	1	
		Including	171.30	176.60	5.30	2.45	3	1	
		Including	171.30	173.00	1.70	5.57	2	1	
		Including	172.20	173.00	0.80	10.19	2	<2	
		And	186.50	187.00	0.50	1.06	<1	<2	
		And	222.50	223.00	0.50	2.11	<1	9	
		And	231.00	232.00	1.00	1.36	<1	4	
PC-10-104	Kawinogans	Undefined zone, vein	10.00	11.00	1.00	4.04	<1	73	
		Undefined zone	23.00	24.50	1.50	0.94	<1	127	
		Zone, BIF	123.85	132.30	8.45	0.22	<1	26	
		Including	125.00	125.50	0.50	0.95	<1	12	
		Zone, BIF	211.85	230.10	18.25	0.17	<1	34	
		Including	212.85	213.85	1.00	1.03	<1	41	
		Anomalous zone, BIF	280.65	313.86	33.21	0.11	<1	3	
		Including	286.65	287.65	1.00	1.14	<1	2	
PC-10-105	Central Pat East	Au-As zone	79.90	213.97	134.07	0.24	<1	955	
		Including	134.95	139.00	4.05	1.44	1	1,426	
		And	160.50	203.70	43.20	0.42	<1	2,445	
		Including	160.50	164.00	3.50	2.41	<1	9,727	
		Including	161.00	161.50	0.50	5.81	<1	18,292	
		And	193.79	203.70	9.91	0.70	<1	4,684	
		Including	203.17	203.70	0.53	2.81	<1	15,890	
PC-10-106	Kawinogans	Zone, BIF	117.50	125.30	7.80	0.64	<1	34	
		Including	122.00	123.00	1.00	1.82	2	38	
		Zone, BIF	155.00	164.35	9.35	1.08	2	27	
		Including	163.30	163.80	0.50	3.43	3	32	
		Zone, BIF	314.00	315.00	1.00	1.48	1	40	
PC-10-107	Central Pat East	Zone, BIF (cherty)	155.60	160.60	5.00	1.05	1	498	
		Including	159.10	160.60	1.50	3.26	1	60	
		Undefined zone	370.35	371.47	1.12	0.22	<1	913	
PC-10-108	Central Pat East	Au-As zone	114.00	251.50	137.50	0.75	<1	1,064	



Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		Including	114.00	132.00	18.00	0.93	<1	1,458	
		Including	129.50	130.70	1.20	6.80	<1	10,270	
		and	168.00	169.65	1.65	2.55	<1	3,906	
		Including	169.50	169.65	0.15	4.10	<1	1,796	
		And	214.50	250.15	35.65	2.24	<1	1,905	
		Including	232.80	250.15	17.35	4.01	<1	5,758	
		Including	241.13	250.15	9.02	6.10	<1	1,841	
		Including	242.00	243.50	1.50	31.03	1	4,271	VG
PC-10-109	Kawinogans	Undefined zone	31.00	32.50	1.50	0.83	<1	33	
		Zone, BIF	160.00	175.90	15.90	0.49	<1	52	
		Including	169.40	175.00	5.60	1.05	<1	25	
		Including	169.40	170.00	0.60	3.11	<1	7	
		And	174.23	175.00	0.77	4.23	<1	6	
		Zone, BIF	235.40	239.80	4.40	0.32	<1	8	
		Including	236.20	236.80	0.60	1.08	<1	4	
PC-10-110	Kawinogans	Zone, BIF	145.65	148.22	2.57	4.38	2	17	
		Including	146.65	148.22	1.57	7.09	2	2	
		Including	146.65	147.15	0.50	13.26	2	2	
		Zone, BIF	235.43	237.63	2.20	0.51	1	9	
		Including	235.93	236.43	0.50	1.28	1	11	
		Zone, BIF	403.50	413.00	9.50	0.25	<1	41	
		Zone, BIF	422.29	427.88	5.59	0.20	2	33	
		Zone, BIF	460.00	469.30	9.30	0.51	3	74	
		Including	465.00	465.86	0.86	1.32	5	54	
PC-10-111	Mag Blob	Zone, BIF	80.50	81.20	0.70	1.03	2	45	
PC-10-112	Kawinogans	Zone, BIF	50.25	51.85	1.60	4.05	<1	127	
		Zone, vein	188.28	188.95	0.67	1.69	<1	26	
PC-10-113	Mag Blob	No significant assays							
PC-10-114	Kawinogans	Zone, BIF	88.85	101.50	12.65	0.24	1	24	
		Including	96.00	97.04	1.04	0.81	<1	19	
		Zone, BIF	118.96	119.61	0.65	0.71	3	5	
		Zone, BIF	120.69	121.07	0.38	0.58	<1	20	
PC-10-115	Mag Blob	No significant assays							
PC-10-116	Shaft 1	Zone, BIF	47.00	52.04	5.04	0.89	<1	NC	
		Including	51.24	52.04	0.80	3.54	<1	NC	
		Zone, BIF	296.70	297.23	0.53	1.28	<1	NC	
		Zone, BIF	446.06	446.50	0.44	2.74	1	145	
		Zone, vein	526.79	534.19	7.40	0.58	1	67	
		Including	529.36	531.26	1.90	1.40	1	68	
		Undefined zone	609.00	610.00	1.00	2.33	2	267	
		Undefined zone	647.30	648.52	1.22	0.98	1	127	
		Undefined zone	678.64	679.36	0.72	2.50	<1	57	
		No. 21 Vein	731.56	743.70	12.14	1.11	1	370	
		Including	739.80	743.00	3.20	3.92	1	915	
		Including	740.58	741.31	0.73	11.25	2	637	
		Including	772.85	773.35	0.50	7.22	1	1,727	
		No. 19 Vein	832.23	833.27	1.04	19.67	2	6	VG
		Including	832.23	832.75	0.52	34.19	2	9	VG
PC-10-117	Kawinogans	Zone, BIF	120.90	130.29	9.39	0.77	2	58	
		Including	120.90	127.77	6.87	0.91	2	54	
		Including	125.83	126.96	1.13	1.59	1	50	
		Zone, BIF	188.85	194.00	5.15	0.20	2	55	
PC-10-118	IP Target	Undefined zone, vein	211.90	217.87	5.97	0.92	1	1,736	
		Including	211.90	214.00	2.10	2.38	1	4,575	
		Including	211.90	213.10	1.20	3.48	1	6,380	
		Including	212.50	212.80	0.30	5.88	<1	6,096	
		Undefined zone	241.00	242.10	1.10	0.60	1	149	
PC-10-119	Central Pat East	Au-As zone	32.30	142.50	110.20	0.39	<1	1,307	
		Including	32.30	101.00	68.70	0.53	<1	1,676	
		Including	35.00	38.60	3.60	0.97	<1	4,434	
		And	41.60	43.10	1.50	1.25	<1	4,571	
		And	58.70	61.40	2.70	1.10	<1	369	
		And	73.70	88.10	14.40	1.02	<1	3,050	
		Including	73.70	75.20	1.50	4.80	<1	17,578	
		Including	74.90	75.20	0.30	8.51	<1	28,995	
		Au-As zone	259.90	313.00	53.10	0.85	<1	1,791	
		Including	261.90	277.50	15.60	2.49	<1	4,801	
		Including	267.40	274.20	6.80	3.39	1	7,663	
		Including	273.20	274.20	1.00	6.24	<1	22,764	
PC-10-120	Far East Coh-Mac	Undefined zone	58.10	58.40	0.30	1.20	1	18	
		Undefined zone	79.35	92.50	13.15	0.42	9	103	
		Including	82.82	84.58	1.76	1.78	10	440	

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
PC-11-121	Central Pat East	Undefined zone	183.92	184.88	0.96	1.33	1	88	
		Au-As zone	76.00	223.64	147.64	0.19	1	439	
		Including	84.10	114.13	30.03	0.49	<1	916	
		Including	84.10	91.00	6.90	1.45	<1	2,768	
		And	179.00	179.90	0.90	1.69	3	6,044	
		And	199.80	201.00	1.20	1.11	2	1,359	
PC-11-122	Shaft 1	And	221.00	223.64	2.64	1.51	1	4,666	
		Undefined zone, vein	157.09	158.37	1.18	1.24	1	37	
		Undefined zone, vein	186.58	192.05	5.47	1.45	1	2,435	
		Including	190.04	191.00	0.96	3.48	<1	1,658	
		Undefined zone, vein	222.24	222.75	0.51	2.82	1	218	
		Undefined zone, vein	282.50	285.50	3.00	2.28	1	336	
		Including	283.42	284.00	0.58	8.90	3	863	
		Undefined zone, vein	417.00	417.86	0.86	1.27	<1	309	
		Undefined zone, vein	566.26	566.85	0.59	1.27	<1	1,988	
		Undefined zone, vein	589.00	599.00	10.00	0.51	<1	884	
		Including	589.00	590.80	1.80	1.15	<1	4,638	
		Undefined zone, vein	724.50	725.90	1.40	1.49	1	9	
		No. 19 Vein zone	784.50	789.00	4.50	0.69	<1	21	
		Including	787.20	787.80	0.60	2.22	<1	17	
PC-11-123	Central Pat East	Hole abandoned in overburden							
PC-11-124	Central Pat East	Au-As zone	161.44	327.62	166.18	0.11	<1	176	
		Undefined zone	161.44	179.50	18.06	0.43	1	444	
		Including	161.44	167.35	5.91	1.22	<1	1146	
		Including	165.70	167.35	1.65	2.07	<1	3159	
		Undefined zone	292.64	293.84	1.20	5.77	<1	8582	
		Including	292.64	293.34	0.70	8.87	<1	8837	
PC-11-125	Central Pat East	Au-As zone	38.00	232.00	194.00	0.27	<1	854	
		Including	38.00	133.17	95.17	0.35	<1	1,482	
		Including	38.00	40.39	2.39	3.90	2	2,360	
		Including	39.25	40.39	1.14	7.19	2	2,738	
		Including	39.68	40.39	0.71	8.74	2	2,349	
		Undefined zone	86.10	133.17	47.07	0.70	1	2,869	
		Including	113.00	133.17	20.17	1.55	<1	6,306	
		Including	113.96	115.00	1.04	4.01	<1	13,386	
		And	122.25	133.17	10.92	2.24	<1	8,313	
		Including	122.25	124.00	1.75	3.99	<1	13,604	
		And	129.00	133.17	4.17	3.45	<1	13,296	
		Including	131.00	132.86	1.86	5.97	<1	22,973	
		And	210.49	211.05	0.56	1.58	<1	6,801	
		And	225.50	227.48	1.98	2.14	1	5,737	
		Including	226.19	226.76	0.57	3.28	1	10,897	
		PC-11-126	Central Pat East	Undefined zone	139.44	150.70	11.26	0.15	<1
Undefined zone	222.46			225.50	3.04	0.59	<1	961	
Including	225.00			225.50	0.50	1.14	<1	2,615	
Undefined zone	290.95			291.86	0.91	0.74	<1	1,534	
PC-11-127	Central Pat East	Undefined zone	80.90	81.70	0.80	0.43	1	478	
		Anomalous zone	245.00	254.00	9.00	0.12	2	50	
PC-11-128	Central Pat East	Au-As zone	157.00	327.90	170.90	0.18	1	490	
		Undefined zone	161.00	175.3	14.30	0.58	<1	1,800	
		Including	161	162	1.00	1.46	<1	6,207	
		Including	172.50	174.90	2.40	0.99	<1	4,881	
		Undefined zone	204.50	219.05	14.55	0.72	<1	2,390	
		Including	205.00	212.90	7.90	0.85	<1	3,743	
		Including	205.00	209.45	4.45	1.06	<1	5,055	
		Including	206.35	206.92	0.57	3.01	<1	7,900	
		Undefined zone	260.00	261.10	1.10	1.50	<1	1,094	
		Undefined zone	319.70	327.90	8.20	0.63	<1	1,174	
PC-11-129	Central Pat East	Including	320.20	320.90	0.70	4.51	1	6,570	
		Au-As zone	469.40	501.00	31.60	0.12	<1	482	
		Including	469.40	472.50	3.10	0.79	<1	1,334	
		Including	469.40	470.40	1.00	1.92	<1	3,033	
PC-11-130	Central Pat East	And	500.00	501.00	1.00	0.80	<1	2,721	
		No significant assays (this is where the BIF zone should have been)	113.00	162.00	49.00	0.04	2	186	
PC-11-131	Central Pat East	Including	160.75	162.00	1.25	0.36	<1	378	
		Au-As zone	222.00	489.00	267.00	0.77	<1	3,626	
		Au-As zone	224.00	475.05	251.05	0.82	<1	3,848	
		Including	225.00	230.20	5.20	3.04	<1	6,406	
		And	256.00	282.00	26.00	1.22	1	2,725	
Including	276.00	278.00	2.00	3.38	1	17,319			

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		And	377.00	466.45	89.45	1.46	<1	8,981	
		Including	377.00	387.25	10.25	2.50	1	14,806	
		Including	380.10	381.00	0.90	6.92	1	28,124	
		And	399.00	408.30	9.30	2.06	1	10,292	
		Including	403.00	406.00	3.00	3.07	1	5,520	
		And	420.00	435.65	15.65	2.17	<1	15,293	
		Including	434.40	435.65	1.25	6.95	<1	25,782	
		And	454.30	466.45	12.15	2.64	<1	16,022	
		Including	455.30	459.55	4.25	4.02	<1	23,877	

All intersections are drilled core lengths. VG denotes visible gold observed. NA denotes not analyzed for. NC denotes not calculated. Albany = Albany Shaft, Coh-Mac = Cohen MacArthur Zone

## 10.2.6 Core Recovery

A review of the diamond drill core from the Pickle Crow project indicates that nearly all of the holes produced excellent recoveries. Rare examples of problems generally occurred near surface where late brittle faulting, and deeper weathering, had occurred, most notably in the Central Pat East Zone. A review of RQD results show an average of >90% core recovery.

## 10.2.7 2011 to 2014 Drill Program

After completion of the previous 2011 mineral resource estimate, PC Gold continued exploration drilling on the property. The holes completed are listed in Table 10.8.

**Table 10.8**  
**PC Gold Drill Holes, 2011 to 2014**

Hole No.	Easting	Northing	Elevation	Azimuth	Dip	Start Depth (m)	End Depth (m)	Drilled Length (m)
PC-11-132	702613.50	5711255.90	337.12	230	-75	0	399.3	399.3
PC-11-133	702685.14	5711316.66	335.83	230	-76	0	69	69
PC-11-134	702683.85	5711314.82	335.89	230	-75	0	600	600
PC-11-135	702696.20	5711259.20	336.21	230	-75	0	144.7	144.7
PC-11-136	702646.02	5711269.86	336.96	320	-50	0	40	40
PC-11-137	702644.34	5711270.20	337.05	320	-55	0	40	40
PC-11-138	702764.00	5711105.80	339	140	-50	0	195	195
PC-11-139	702674.90	5711244.80	337.09	230	-75	0	546	546
PC-11-140	702451.57	5710927.95	340.59	140	-50	0	257	257
PC-11-141	702661.04	5711250.12	337.05	320	-50	0	250	250
PC-11-142	702442.62	5711122.82	339.59	140	-50	0	33	33
PC-11-143	702442.62	5711122.82	339.59	140	-55	0	263	263
PC-11-144	702513.54	5711247.26	337.57	140	-50	0	222	222
PC-11-145	702662.20	5711271.56	336.63	230	-75	0	546	546
PC-11-146	705835.21	5712853.18	338.45	140	-50	0	231	231
PC-11-147	703525.09	5711125.78	339.38	320	-50	0	301	301
PC-11-148	703640.05	5711230.61	339.92	320	-50	0	222	222
PC-11-149	702695.00	5711226.00	337.01	230	-75	0	80	80
PC-11-150	702695.45	5711222.81	336.95	230	-75	0	352	352
PC-11-151	702588.07	5711263.88	337.08	140	-50	0	227.5	227.5
PC-11-152	702472.94	5711086.76	339.84	140	-50	0	201	201
PC-11-153	704049.25	5709570.21	352.87	140	-50	0	171	171
PC-11-154	704069.48	5709621.77	355.65	140	-55	0	201	201
PC-11-155	704103.26	5709659.02	356.2	140	-54	0	150	150
PC-11-156	704027.17	5709596.75	355.48	140	-67	0	261	261
PC-11-157	704076.02	5709692.55	346.97	140	-65	0	276	276
PC-11-158	704133.82	5709780.38	344.89	140	-65	0	276	276
PC-11-159	704024.61	5709506.75	351.6	200	-50	0	202	202

PC-11-160	704159.87	5709747.93	345.6	140	-50	0	147	147
PC-11-161	703948.27	5709407.90	350.17	140	-50	0	28.08	28.08
PC-11-162	704186.76	5709860.35	346.53	140	-62	0	276	276
PC-11-163	703945.25	5709407.48	350.1	203	-50	0	181	181
PC-11-164	704258.56	5709863.40	343.47	190	-50	0	219	219
PC-11-165	704095.28	5709629.80	355.39	195	-50	0	223	223
PC-11-166	704179.09	5709741.09	354.76	190	-50	0	198	198
PC-11-167	703878.45	5709282.10	350.67	210	-50	0	198	198
PC-11-168	703835.93	5709355.06	349.08	140	-65	0	304	304
PC-11-169	703738.86	5709237.65	350.66	140	-55	0	207	207
PC-11-170	703808.67	5709189.07	352.99	203	-50	0	233	233
PC-11-171	703738.84	5709160.80	352.77	140	-50	0	150	150
PC-11-172	703797.15	5709323.15	349.18	140	-55	0	196	196
PC-11-173	703745.38	5709124.08	353.68	205	-50	0	264	264
PC-11-174	703672.13	5709161.74	352.74	140	-57	0	201	201
PC-11-175	703695.02	5709213.42	349.56	140	-63	0	265	265
PC-11-176	703738.84	5709160.80	352.77	140	-55	0	151	151
PC-11-177	703639.31	5709121.92	353.04	140	-65	0	273	273
PC-11-178	703665.64	5709093.53	353.19	140	-50	0	150	150
PC-11-179	703738.84	5709160.80	352.77	140	-65	0	151	151
PC-11-180	703528.57	5709090.27	350.14	140	-50	0	151	151
PC-11-181	703738.84	5709160.80	352.77	140	-75	0	220	220
PC-11-182	703627.15	5709214.20	349.04	140	-65	0	351	351
PC-11-183	703662.53	5709224.51	348.63	140	-65	0	91	91
PC-11-184	703621.72	5709200.10	349.49	140	-57	0	324	324
PC-11-185	703662.53	5709224.51	348.63	140	-67	0	322	322
PC-11-186	703590.64	5709178.95	349.46	140	-57	0	342	342
PC-11-187	703747.37	5709186.60	353.25	140	-50	0	202	202
PC-11-188	704536.80	5710231.30	343.52	140	-65	0	276.24	276.24
PC-11-189	704498.36	5710115.23	346.19	140	-50	0	151	151
PC-11-190	704498.23	5710115.79	346.14	140	-78	0	250	250
PC-11-191	703747.37	5709178.95	353.05	140	-60	0	151	151
PC-11-192	704592.30	5710163.64	345.23	140	-50	0	150	150
PC-11-193	703747.37	5709186.66	353.25	140	-70	0	139	139
PC-11-194	704402.24	5710079.21	343.35	140	-65	0	271	271
PC-11-195	703765.87	5709203.91	352.89	140	-50	0	151	151
PC-11-196	703612.29	5709203.42	349.06	140	-75	0	421	421
PC-11-197	703765.87	5709203.91	352.89	140	-68	0	151	151
PC-11-198	704333.18	5710006.06	345.43	140	-65	0	180	180
PC-11-199	704532.58	5710159.06	343.65	140	-60	0	202	202
PC-11-200	703765.87	5709203.91	352.89	140	-80	0	199	199
PC-11-201	703597.65	5709290.65	341.51	140	-65	0	451	451
PC-11-202	703945.01	5709680.42	341.67	145	-54	0	76	76
PC-11-203	703783.27	5709220.70	352.46	140	-50	0	139	139
PC-11-204	703988.44	5709705.77	342.26	145	-54	0	76	76
PC-11-205	703966.36	5709735.88	342.07	145	-57	0	139	139
PC-11-206	703783.27	5709220.70	352.46	140	-60	0	127	127
PC-11-207	703665.01	5709339.00	341.68	140	-75	0	501	501
PC-11-208	703629.80	5709320.13	341.33	140	-60	0	396	396
PC-11-209	704022.87	5709744.46	343.05	145	-52	0	76	76
PC-11-210	703783.27	5709220.70	352.46	140	-70	0	142	142
PC-11-211	704022.87	5709744.46	343.05	145	-73	0	113	113
PC-11-212	703635.18	5709302.50	341.94	140	-60	0	367	367
PC-11-213	704135.69	5709689.09	355.77	140	-60	0	118	118
PC-11-214	703782.83	5709220.99	352.49	145	-80	0	172	172
PC-11-215	704135.69	5709689.09	355.77	195	-50	0	202	202
PC-11-216	703629.80	5709320.13	341.33	121	-50	0	591	591
PC-11-217	703665.01	5709339.00	341.68	140	-80	0	600	600
PC-11-218	703779.30	5709224.40	352.48	70	-50	0	211	211
PC-11-219	703635.18	5709302.50	341.94	140	-55	0	388	388
PC-11-220	703747.76	5709148.08	353.2	220	-75	0	398	398
PC-11-221	703499.93	5709128.48	346.22	121	-50	0	346	346
PC-11-222	703870.73	5709366.05	349.78	140	-50	0	127	127
PC-11-223	703846.50	5709348.65	349.18	140	-50	0	76	76
PC-11-224	704392.48	5710570.65	343.7	140	-80	0	460	460

PC-11-225	703820.86	5709330.96	349.3	140	-50	0	76	76
PC-11-226	703530.18	5709169.65	342.26	140	-60	0	349	349
PC-11-227	703852.17	5709358.87	349.07	140	-50	0	122.16	122.16
PC-11-228	704410.45	5710637.46	342.47	170	-75	0	476	476
PC-11-229	703672.80	5710097.95	346.5	215	-50	0	76	76
PC-11-230	704409.47	5710682.47	341.67	170	-75	0	600	600
PC-11-231	703672.80	5710097.95	346.5	215	-70	0	151	151
PC-11-232	703932.98	5709264.80	352.64	320	-50	0	126	126
PC-11-233	704301.93	5710427.97	342.99	150	-50	0	322	322
PC-11-234	704386.22	5710657.92	342.01	170	-50	0	407	407
PC-11-235	704012.20	5709311.08	351.4	140	-50	0	237	237
PC-11-236	703662.48	5709029.84	352.18	140	-50	0	52	52
PC-11-237	705278.29	5710852.60	343.86	140	-50	0	351	351
PC-11-238	705221.74	5711459.13	336.14	140	-70	0	127	127
PC-11-239	703673.04	5709057.16	352.71	140	-50	0	76	76
PC-11-240	705476.15	5710738.58	343.69	140	-60	0	100	100
PC-11-241	703881.52	5709476.31	351.96	140	-60	0	225	225
PC-11-242	705298.50	5711501.05	336.09	147	-50	0	127	127
PC-11-243	705494.80	5710737.60	343.52	140	-50	0	100	100
PC-11-244	705456.54	5710801.75	345.1	140	-60	0	98.5	98.5
PC-11-245	705426.68	5710781.88	344.95	140	-50	0	202	202
PC-11-246	705506.04	5710742.44	343.46	140	-50	0	85	85
PC-11-247	705540.18	5710760.70	343.62	140	-50	0	100	100
PC-11-248	705277.44	5710812.91	344.7	140	-60	0	30	30
PC-11-249	705491.75	5710739.23	343.52	140	-70	0	50.65	50.65
PC-11-250	705277.44	5710812.91	344.7	140	-50	0	351	351
PC-11-251	705491.75	5710739.23	343.52	140	-80	0	50.67	50.67
PC-11-252	705497.86	5710764.60	343.42	140	-60	0	99	99
PC-12-244 EXT	705456.54	5710801.75	345.1	140	-60	0	201	201
PC-12-253	705491.00	5710738.60	343.6	140	-90	0	51	51
PC-12-254	705486.00	5710738.00	343.66	140	-80	0	54	54
PC-12-255	705486.00	5710738.00	343.66	140	-90	0	54	54
PC-12-256	705497.80	5710746.60	343.53	140	-80	0	54	54
PC-12-257	705474.80	5710757.00	343.81	140	-60	0	127	127
PC-12-258	705461.00	5710757.90	343.88	140	-50	0	126	126
PC-12-259	705511.00	5710747.00	343.31	140	-50	0	126	126
PC-12-260	705474.80	5710757.00	343.81	140	-70	0	78	78
PC-12-261	705474.80	5710757.00	343.81	140	-80	0	78	78
PC-12-262	705327.10	5710718.48	344.1	140	-75	0	99	99
PC-12-263	705327.10	5710718.48	344.1	140	-75	0	300	300
PC-12-264	705491.07	5710785.42	343.69	140	-50	0	150	150
PC-12-264 EXT	705491.07	5710785.42	343.69	140	-50	0	201	201
PC-12-265	705516.33	5710750.39	343.37	140	-50	0	75	75
PC-12-266	705524.61	5710741.78	343.3	140	-50	0	51	51
PC-12-266 EXT	705524.61	5710741.78	343.3	140	-50	0	102	102
PC-12-267	705513.73	5710773.76	343.49	140	-50	0	126	126
PC-12-268	705530.02	5710753.85	343.56	140	-50	0	102	102
PC-12-269	705513.81	5710773.88	343.49	140	-60	0	150	150
PC-12-270	705513.81	5710773.88	343.49	140	-70	0	165	165
PC-12-271	705551.62	5710767.92	343.41	140	-50	0	150	150
PC-12-272	705435.62	5710750.23	344.12	140	-50	0	141	141
PC-12-273	705525.10	5710781.58	343.93	140	-60	0	177	177
PC-12-274	705263.00	5710768.00	344.63	140	-50	0	309	309
PC-12-275	705267.51	5710738.02	343	140	-50	0	310	310
PC-12-276	705271.34	5710712.46	343	140	-50	0	226.33	226.33
PC-12-277	705279.07	5710680.11	343	140	-50	0	300	300
PC-12-278	705456.03	5710845.35	343	140	-50	0	201	201
PC-12-279	705233.96	5710703.66	343	140	-50	0	300	300
PC-12-280	705271.76	5710721.79	343	140	-50	0	300	300
PC-14-281	705309.92	5710616.93	344	160	-70	0	170	170
PC-14-282	705310.08	5710617.05	344	115	-70	0	176	176
PC-14-283	705336.46	5710679.19	344	160	-70	0	230	230
PC-14-284	705336.34	5710679.32	344	160	-60	0	155	155
PC-14-285	705348.82	5710643.35	344	160	-70	0	101	101
PC-14-286	705354.36	5710705.95	344	160	-70	0	213.3	213.3

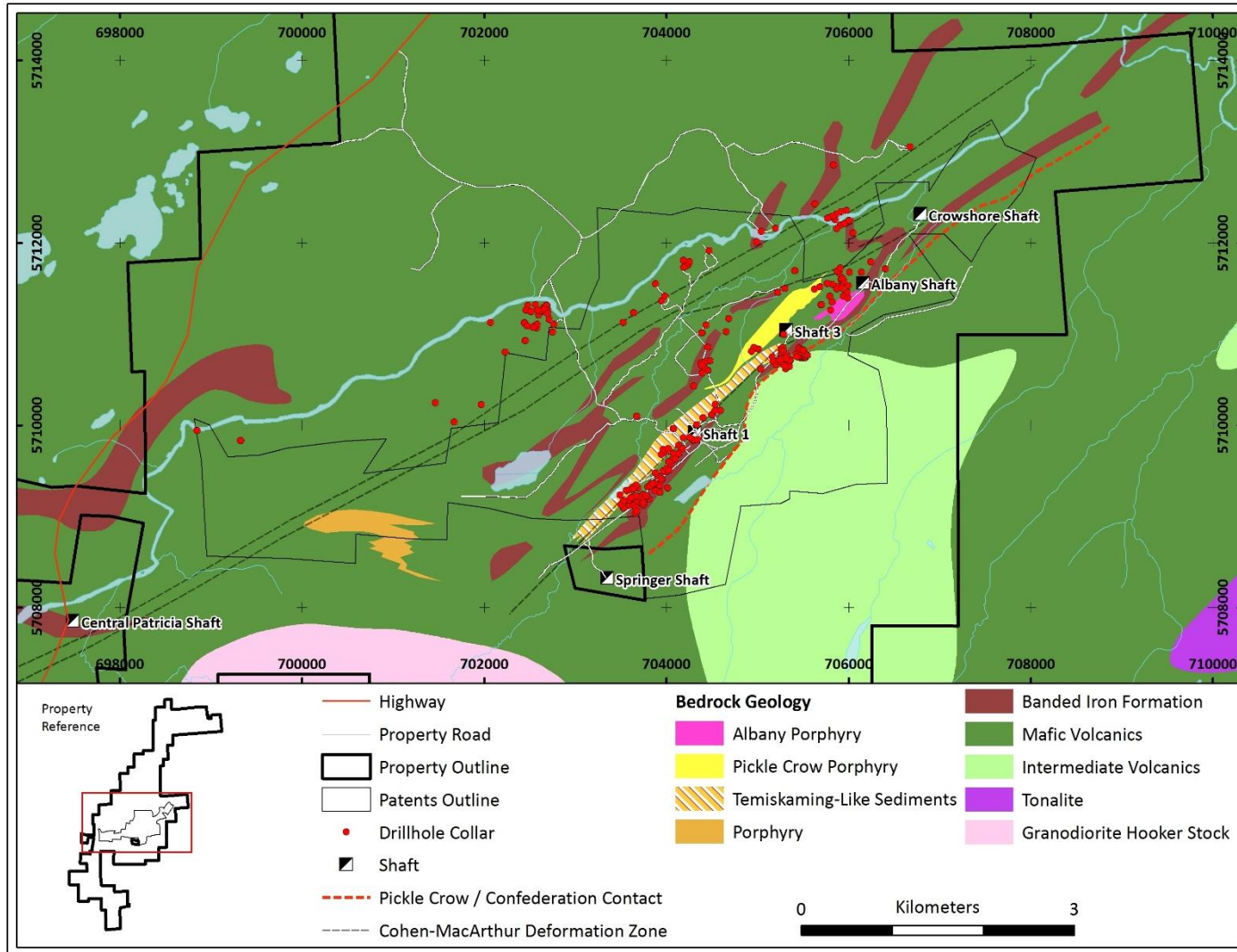
PC-14-287	705354.89	5710705.55	344	160	-50	0	176	176
PC-14-288	705299.61	5710652.61	344	140	-50	0	131	131
PC-14-289	705252.78	5710694.31	344	140	-50	0	227	227
PC-14-290	705290.75	5710731.98	344	160	-60	0	260	260
PC-14-291	705483.14	5710799.43	344	201	-70	0	134	134
PC-14-292	705475.82	5710832.54	344	201	-70	0	182	182
PC-14-293	705289.35	5710730.94	344	140	-65	0	251	251
PC-14-294	705500.77	5710822.00	344	201	-70	0	182	182
PC-14-295	705322.28	5710756.55	344	140	-65	0	254	254
PC-14-296	705500.99	5710821.14	344	155	-65	0	200	200
PC-14-297	705312.91	5710734.20	344	160	-50	0	230	230
PC-14-298	705500.97	5710820.77	344	140	-60	0	197	197
PC-14-299	705501.85	5710820.02	344	135	-52	0	221	221
PC-14-300	705250.52	5710717.42	344	140	-55	0	239	239
PC-14-301	705039.31	5710615.92	342	140	-50	0	101	101

Since 2011, 173 new holes have been drilled totalling 35,840.4 m. Figure 10.4 is an updated version of 10.3 with additional drill holes shown.

The 2011 to 2014 drilling concentrated mainly on the core mine trend and postulated eastward extensions of the Central Patricia trend. The principal targets on the core mine trend were the No. 1 and No. 5 Veins and the BIF.

Significant intersections and targets drilled are listed in Table 10.9.

**Figure 10.4**  
**PC Gold Drill Hole Location Map with 2011 to 2014 Drilling**



Source: First Mining, 2016.



**Table 10.9**  
**Significant Intersections, 2011 to 2014**

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG		
PC-11-132	Central Pat East	Au-As Zone	51.00	363.20	312.20	0.13	<1	779			
		Including	201.00	363.20	162.20	0.20	<1	1,196			
		Including	201.00	245.00	44.00	0.31	1	1,135			
		Including	218.20	219.25	1.05	1.01	2	3,370			
		And	243.00	245.00	2.00	1.90	<1	10,160			
		Including	244.00	245.00	1.00	2.46	<1	9,034			
		And	296.50	297.60	1.10	1.55	2	1,471			
		And	328.80	329.50	0.70	1.95	<1	7,716			
		And	343.40	355.00	11.60	0.46	<1	4,320			
		Including	343.40	344.40	1.00	1.52	<1	15,826			
PC-11-133	Central Pat East	Abandoned in due to deviation in overburden									
PC-11-134	Central Pat East	Au-As Zone	332.67	600.00	267.33	0.26	<1	602			
		Including	332.67	494.20	161.53	0.35	1	703			
		Including	332.67	351.00	18.33	1.18	<1	2,595			
		Including	334.20	339.00	4.80	3.11	<1	5,222			
		Including	334.20	335.05	0.85	8.71	1	3,873			
		And	391.95	394.10	2.15	2.29	<1	5,355			
		And	468.70	477.20	8.50	1.20	2	738			
		And	582.00	600.00	18.00	0.63	<1	2,312			
		Including	582.00	595.00	13.00	0.73	<1	2,752			
		Including	582.00	585.38	3.38	1.85	<1	9,044			
Including	584.20	585.38	1.18	3.86	<1	11,384					
PC-11-135	Central Pat East	Cut short of target depth due to fault zone									
PC-11-136	Central Pat East	Abandoned in overburden									
PC-11-137	Central Pat East	Abandoned in overburden									
PC-11-138	Central Pat East	Anomalous Au-As Zone	101.00	131.00	30.00	0.06	<1	387			
PC-11-139	Central Pat East	Au-As Zone	91.20	464.00	372.80	0.58	1	2,467			
		Including	99.90	433.50	333.60	0.63	1	2,636			
		Including	99.90	108.70	8.80	3.78	1	13,533			
		Including	101.60	106.20	4.60	6.03	1	19,894			
		Including	101.60	104.80	3.20	7.74	1	23,476			
		Including	103.80	104.80	1.00	15.86	2	31,221			
		And	172.45	270.30	97.85	1.03	1	5,815			
		Including	172.45	178.70	6.25	4.22	0	16,562			
		Including	173.80	175.55	1.75	6.43	0	15,011			
		And	198.80	203.05	4.25	2.94	1	12,973			
		And	239.50	241.70	2.20	4.07	1	16,941			
		And	264.75	265.35	0.60	5.20	2	24,148			
		And	398.00	409.00	11.00	4.28	2	7,227			
		Including	403.00	409.00	6.00	6.35	2	11,992			
		Including	404.00	406.00	2.00	10.39	2	27,497			
		PC-11-140	Central Pat East	Au-As Zone	122.00	170.00	48.00	0.16	<1	470	
				Including	130.00	136.00	6.00	0.51	1	1,530	
Including	133.00			134.00	1.00	1.02	1	3,625			
Zone	225.00			226.50	1.50	1.25	<1	242			
PC-11-141	Central Pat East	Au-As Zone	66.00	181.00	115.00	0.52	2	755			
		Including	75.00	126.00	51.00	1.03	3	1,291			
		Including	96.00	114.00	18.00	2.33	6	2,655			
		Including	108.00	114.00	6.00	6.05	16	5,998			
		Including	108.00	111.00	3.00	8.17	23	7,425			
PC-11-142	Central Pat East	Hole abandoned in overburden due to snapped casing									
PC-11-143	Central Pat East	Au-As Zone	167.00	250.00	83.00	0.27	1	668			
		Including	215.00	249.00	34.00	0.57	<1	1,278			
		Including	217.00	224.00	7.00	0.84	<1	3,086			
		And	243.00	249.00	6.00	1.41	<1	1,596			
		Including	243.00	244.00	1.00	4.32	<1	2,487			
PC-11-144	Central Pat East	Au-As Zone	48.00	164.50	116.50	0.42	<2	1,394			
		Including	94.00	160.25	66.25	0.64	<3	2,162			
		Including	118.00	160.25	42.25	0.89	<4	2,844			
		Including	125.00	133.70	8.70	1.39	<5	3,194			
		Including	126.00	127.00	1.00	6.50	<6	12,761			
		And	147.00	160.25	13.25	1.10	<7	5,494			
		Including	156.00	160.25	4.25	2.34	<8	13,943			
		Including	159.00	160.25	1.25	4.16	<9	16,095			
PC-11-145	Central Pat East	Au-As Zone	216.00	470.00	254.00	0.78	<1	2,197			
		Including	232.00	446.00	214.00	0.88	<1	2,511			

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG	
		Including	232.00	338.00	106.00	1.00	<1	2,218		
		Including	232.00	279.00	47.00	1.71	1	3,228		
		Including	232.00	238.00	6.00	7.67	1	17,577		
		Including	233.00	238.00	5.00	8.94	1	19,802		
		Including	233.00	237.00	4.00	9.95	1	21,781		
		Including	233.00	235.00	2.00	13.60	1	19,428		
		And	264.45	267.10	2.65	3.35	1	202		
		Including	264.45	265.25	0.80	5.26	5	156		
		And	370.00	446.00	76.00	1.05	<1	3,889		
		Including	411.00	425.00	14.00	1.87	<1	5,589		
		And	420.00	425.00	5.00	3.01	<1	8,222		
		Including	420.00	422.00	2.00	4.82	1	9,867		
		And	441.70	446.00	4.30	3.30	<1	13,629		
		Including	444.00	445.00	1.00	4.98	<1	12,330		
PC-11-146	Isolated EM anomaly	Zone	187.12	188.13	1.01	0.45	4	1,957		
PC-11-147	strong EM-IP Anomaly	Zone, Vein	123	123.62	0.62	2.04	1	48		
PC-11-148	strong EM-IP Anomaly	Zone, BIF	191	193.00	2.00	1.82	<1	258		
PC-11-148	strong EM-IP Anomaly	Zone, Vein?	74.94	75.68	0.74	4.32	<1	273		
PC-11-149	Central Pat East	Hole abandoned in overburden due to snapped casing								
PC-11-150	Central Pat East	Au-As Zone	100.00	121.00	21.00	1.07	<1	2,050		
		Including	100.00	103.00	3.00	6.20	<1	10,426		
PC-11-151	Central Pat East	Au-As Zone	54.00	209.70	155.70	0.53	<1	1,313		
		Including	61.00	167.50	106.50	0.59	<1	1,352		
		Including	62.50	137.50	75.00	0.67	<1	1,481		
		Including	119.50	137.50	18.00	1.23	<1	3,647		
		Including	119.50	128.50	9.00	2.07	<1	6,938		
		And	197.10	201.10	4.00	4.05	<1	12,366		
		Including	197.10	198.60	1.50	6.33	<1	18,097		
PC-11-152	Central Pat East	Au-As Zone	114.00	178.11	64.11	0.35	<1	1,577		
		Including	121.00	161.00	40.00	0.46	<1	2,235		
		Including	133.00	139.00	6.00	1.27	<1	5,921		
		Including	138.00	139.00	1.00	3.08	<1	15,914		
PC-11-153	Core Mine Trend BIF	Zone, BIF	25.00	25.90	0.90	0.61				
		Zone, mafic (vein?)	50.90	51.20	0.30	1.58				
		Zone, BIF	88.50	91.00	2.50	0.38				
		Zone, BIF	94.10	95.10	1.00	0.60				
PC-11-154	Core Mine Trend BIF	Zone, BIF	54.00	63.30	9.30	0.62				
		Zone, BIF	59.00	63.30	4.30	1.05				
		Zone, BIF	61.00	62.00	1.00	2.15				
PC-11-155	Core Mine Trend BIF	Zone, BIF	41.00	43.50	2.50	0.41				
		Zone, BIF	49.96	51.00	1.04	1.32				
PC-11-156	Core Mine Trend BIF	Zone, BIF	153.35	168.50	15.15	0.86				
		Including	154.09	167.00	12.91	0.93				
		Including	158.00	167.00	9.00	1.18				
		Including	159.50	162.50	3.00	2.40				
PC-11-157	Core Mine Trend BIF	Zone, BIF	149.50	152.59	3.09	0.40				
		Zone, Vein	164.65	165.65	1.00	1.06				
		Zone, Vein	210.00	211.82	1.82	0.74				
PC-11-158	Core Mine Trend BIF	Zone, BIF	124.60	126.00	1.40	0.46				
		Zone, BIF & Vein	214.50	220.63	6.13	1.08				
		Including, Vein (No. 5?)	220.04	220.63	0.59	2.71				
PC-11-159	Core Mine Trend BIF	Zone	8.00	10.00	2.00	0.40				
		Zone, BIF	47.50	58.00	10.50	0.42				
		Zone, BIF	74.52	76.00	1.48	1.38				
		Zone, BIF	106.00	134.50	28.50	2.33				
		Including	112.00	134.50	22.50	2.79				
		Including	112.00	130.75	18.75	3.17				
		Including	112.00	115.00	3.00	8.96				
		Zone, Vein (No. 11?)	170.65	171.15	0.50	0.51				
		Zone, Vein (No. 11?)	194.62	195.12	0.50	4.39				
PC-11-160	Core Mine Trend BIF	Zone, BIF	79.50	81.00	1.50	0.53				
		Zone, BIF	96.00	97.50	1.50	0.44				
PC-11-161	Core Mine Trend BIF	Zone, BIF	19.00	24.39	5.39	1.47				
		Including	23.89	24.39	0.50	4.58			VG	
PC-11-162	Core Mine Trend BIF	Zone	51.45	52.45	1.00	0.47				
		Zone, Vein	54.29	55.29	1.00	1.11				
		Zone	62.00	64.00	2.00	0.44				
		Zone	71.00	71.89	0.89	0.36				
		Zone, Vein	72.89	73.39	0.50	0.41				
		No. 1 Vein	82.79	83.29	0.50	8.17			VG	
		Zone, BIF	151.50	153.00	1.50	0.83				
PC-11-163	Core Mine Trend BIF	Anomalous Zone	22.65	138.37	115.72	0.57				

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		Zone, BIF	28.31	29.81	1.50	1.06			
		Zone, BIF	38.45	41.45	3.00	3.58			
		Zone, BIF	55.02	65.43	10.41	0.82			
		Including (Vein, 0.36m)	63.90	64.90	1.00	3.33			
		Zone, BIF	94.96	138.37	43.41	0.95			
		Including	99.46	123.71	24.25	1.51			
		Including	104.50	106.00	1.50	13.05			
		And	110.50	112.00	1.50	4.13			
		Including (Vein, 0.50m, No. 5?)	122.71	123.71	1.00	2.93			
PC-11-164	No. 1 Vein	No. 1 Vein	14.32	14.80	0.48	17.35			
		Zone, Vein?	36.00	38.00	2.00	1.02			
		Zone, BIF	70.50	72.00	1.50	0.90			
		Zone, BIF	189.00	198.00	9.00	0.40			
		Including	189.00	193.50	4.50	0.53			
PC-11-165	Core Mine Trend BIF	Zone, BIF	50.37	58.76	8.39	0.64			
		Including	54.05	55.55	1.50	1.62			
		Zone, BIF	140.50	159.18	18.68	0.74			
		Including	145.00	157.00	12.00	1.04			
		Including	145.90	147.59	1.69	1.91			
		And	154.00	157.00	3.00	2.24			
		Zone, BIF	173.00	174.31	1.31	0.68			
PC-11-166	Core Mine Trend BIF	Zone, BIF	8.00	11.00	3.00	1.20			
		Including (0.42m Vein)	9.62	10.14	0.52	2.20			
		Zone, BIF	94.00	95.00	1.00	0.43			
		Zone, BIF	104.00	105.00	1.00	1.95			
		Zone, BIF	112.00	113.00	1.00	0.40			
		Zone, Vein (0.05 m)	116.88	117.64	0.76	14.19			VG
PC-11-167	Core Mine Trend BIF	Zone, Vein	3.00	4.00	1.00	0.82			
		Zone, Vein, Mafic & BIF	31.90	48.50	16.60	1.12			
		Including (1.1m Vein, No. 20?)	31.90	33.00	1.10	8.56			
		And (BIF)	44.00	48.50	4.50	1.39			
		Zone, BIF	152.00	155.00	3.00	0.75			
PC-11-168	Core Mine Trend BIF	Zone, BIF	75.20	80.36	5.16	0.87			
		Including	78.20	79.20	1.00	1.75			
		Zone, BIF	143.67	144.67	1.00	0.35			
		Zone, BIF	151.39	152.39	1.00	0.52			
		Zone, Vein	176.66	177.16	0.50	2.60			
PC-11-169	Core Mine Trend BIF	Zone, Vein?	75.00	77.00	2.00	5.33			
		Zone, No. 20 Vein	100.90	101.30	0.40	3.32			
		Zone, BIF	149.00	150.00	1.00	0.37			
PC-11-170	Core Mine Trend BIF	Zone, Vein, No. 20?	8.00	10.00	2.00	1.62			
		Zone, BIF	22.50	24.50	2.00	0.96			
		Zone, BIF	29.50	31.60	2.10	3.20			
		Including	30.50	31.60	1.10	5.66			
		Zone, BIF	42.00	43.00	1.00	0.46			
		Zone, BIF	70.00	71.00	1.00	1.09			
PC-11-171	Core Mine Trend BIF	No. 20 Vein	33.80	34.80	1.00	0.70			
PC-11-172		Zone, Vein	27.55	28.07	0.52	0.64			
		Zone, BIF	68.84	69.56	0.72	1.24			
		Zone, BIF	72.65	73.58	0.93	0.46			
PC-11-173	Core Mine Trend BIF	Zone, BIF	75.00	76.00	1.00	0.47			
		Zone, BIF	84.00	85.00	1.00	0.68			
		Zone, BIF	103.00	104.00	1.00	0.41			
		Zone, BIF	109.80	111.00	1.20	2.74			
		Anomalous BIF Zone	135.00	236.00	101.00	0.52			
		Including	135.00	136.00	1.00	1.07			
		And	146.00	148.00	2.00	1.25			
		And	160.00	161.00	1.00	0.37			
		And	162.00	163.00	1.00	1.20			
		And	171.00	172.00	1.00	2.35			
		Sub Zone	175.00	179.50	4.50	0.50			
		Including	178.50	179.50	1.00	1.07			
		Sub Zone (Field Zone?)	190.00	236.00	46.00	0.84			
		Including	190.00	191.00	1.00	1.69			
		And	196.00	198.00	2.00	1.21			
		And	206.00	208.00	2.00	1.23			
		And	220.00	236.00	16.00	1.74			
		Including	220.00	230.00	10.00	2.54			
		Including	228.00	230.00	2.00	5.72			
PC-11-174	Core Mine Trend BIF	Zone, BIF	150.50	155.00	4.50	0.50			
		Zone, BIF	177.50	179.00	1.50	0.50			
PC-11-175	Core Mine Trend BIF	Zone, BIF	52.60	53.50	0.90	0.45			

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		Zone, BIF	55.00	55.30	0.30	0.41			
		Zone, BIF	178.00	185.30	7.30	0.31			
		Including	181.00	185.30	4.30	0.39			
		Including	184.00	185.30	1.30	0.62			
PC-11-176	Core Mine Trend BIF	Zone, No. 20 Vein	37.00	40.00	3.00	1.31			
		Including	37.00	37.50	0.50	5.79			VG
		Zone, BIF	64.00	65.50	1.50	0.44			
		Zone, BIF	80.50	82.00	1.50	0.37			
		Zone, BIF	88.00	89.50	1.50	0.35			
PC-11-177	Core Mine Trend BIF	Zone, Vein, No. 20?	89.50	90.00	0.50	0.24			
		Zone, BIF	160.50	163.67	3.17	1.44			
		Including	163.17	163.67	0.50	2.90			
		Zone, BIF	171.00	172.50	1.50	0.37			
		Zone, BIF	213.00	220.83	7.83	0.65			
		Including	213.00	214.50	1.50	1.79			
PC-11-178	Core Mine Trend BIF	Zone, BIF	79.50	81.00	1.50	0.73			
		Including	80.50	81.00	0.50	1.49			
		Zone, BIF	99.50	101.00	1.50	0.56			
PC-11-179	Core Mine Trend BIF	Zone, Vein No. 20	41.50	46.80	5.30	0.80			VG
		Including	43.60	44.10	0.50	6.43			
		Zone, BIF	103.50	107.50	4.00	1.67			
PC-11-180	Core Mine Trend BIF	No. 20 Vein	68.80	69.90	1.10	2.42			
PC-11-181	Core Mine Trend BIF	No. 20 Vein Structure?	55.00	57.00	2.00	0.40			
PC-11-182		Zone (Vein?)	30.00	32.00	2.00	2.87			
		Zone, BIF	145.20	145.90	0.70	0.89			
		Zone, Vein (No. 20?)	191.50	192.00	0.50	0.45			
		Zone, BIF (Field Zone)	265.50	336.78	71.28	0.31			
		Including	265.50	318.10	52.60	0.36			
		Including	265.50	274.50	9.00	0.75			
		Including	265.50	267.00	1.50	2.21			
		And	288.00	289.50	1.50	1.10			
		And	314.91	317.10	2.19	1.78			
PC-11-183	Core Mine Trend BIF	Hole abandoned before target due to deviation							
PC-11-184		Zone, Vein (No. 20?)	169.72	170.17	0.45	0.74			
		Zone, BIF	248.60	249.60	1.00	0.38			
		Zone, BIF	258.50	261.80	3.30	0.73			
		Including	258.50	260.00	1.50	1.10			
		Zone, BIF (Field Zone)	271.45	282.26	10.81	0.29			
		Including	271.95	274.95	3.00	0.56			
PC-11-185	Core Mine Trend BIF	Zone, Shear	26.00	28.00	2.00	0.46			
		Zone, Vein (No. 20?)	182.80	183.30	0.50	3.57			
		Zone, BIF	253.00	255.00	2.00	1.20			
PC-11-186	Core Mine Trend BIF	Zone, Vein (No. 20?)	161.50	162.00	0.50	0.58			
		Field Zone (anomalous Zone)	226.00	308.00	82.00	0.28			
		Including	226.00	228.00	2.00	0.58			
		And	242.00	244.00	2.00	0.54			
		And	265.00	269.00	4.00	0.80			
		And	277.90	286.30	8.40	0.45			
		Including	278.90	280.40	0.50	0.98			
		And	302.00	308.00	6.00	1.17			
		Including	306.00	308.00	2.00	1.85			
PC-11-187	Core Mine Trend BIF	No. 20 Vein	43.50	44.00	0.50	0.38			
		Zone, BIF	50.79	52.00	1.21	0.47			
		Zone, BIF	88.00	90.00	2.00	0.54			
PC-11-188	Core Mine Trend BIF	Zone, Vein	196.50	199.19	2.69	0.69			
PC-11-189	Core Mine Trend BIF	No Significant Values							
PC-11-190	Core Mine Trend BIF	Zone, Vein	49.30	49.90	0.60	1.52			
		Zone, BIF	179.70	181.00	1.30	0.41			
PC-11-191	Core Mine Trend BIF	Zone, Vein No. 20	47.80	48.25	0.45	3.57			VG
		Zone, BIF	83.50	85.00	1.50	0.50			
		Zone, BIF	104.50	106.00	1.50	1.55			
PC-11-192	Core Mine Trend BIF	Zone, Vein	65.35	67.85	2.50	0.82			
		Including	66.35	66.85	0.50	1.97			
PC-11-193	Core Mine Trend BIF	Zone, BIF	97.90	98.40	0.50	0.94			
		Zone, BIF	120.00	126.00	6.00	1.06			
		Including	125.00	126.00	1.00	1.77			
PC-11-194	Core Mine Trend BIF	Zone, Vein?	62.00	64.00	2.00	1.81			
		Zone, Vein?	218.00	220.00	2.00	0.86			
		Zone, Vein	264.90	268.00	3.10	0.69			
PC-11-195	Core Mine Trend BIF	No. 20 Vein	50.85	51.35	0.50	0.24			VG
PC-11-196	Core Mine Trend BIF	Zone, Vein (Riopelle?)	79.71	82.45	2.74	0.37			
		No. 20 Vein Structure?	204.75	207.55	2.80	0.27			

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		Including	207.30	207.55	0.25	2.05			
		Field Zone	321.00	409.00	88.00	0.54			
		Including	335.50	359.00	23.50	1.58			
		Including	338.00	341.00	3.00	4.25			
		And	357.00	358.00	1.00	7.04			
PC-11-197	Core Mine Trend BIF	No. 20 Vein	65.80	69.00	3.20	0.65			VG
		Including	65.80	66.30	0.50	2.86			
PC-11-198	Core Mine Trend BIF	Zone, BIF (& possibly No. 1 Vein?)	133.00	157.10	24.10	0.55			
		Including	134.00	135.10	1.10	8.09			
		And	156.38	157.10	0.72	1.35			
PC-11-199	Core Mine Trend BIF	Zone, Vein?	143.00	145.00	2.00	0.79			
PC-11-200	Core Mine Trend BIF	Zone, BIF	152.00	153.00	1.00	3.28			
PC-11-201	Core Mine Trend BIF	Zone, Vein?	113.00	117.00	4.00	0.65			
		Zone, Vein (No. 20?)	264.64	265.14	0.50	0.01			VG
		Zone, Vein (No. 20?)	270.78	271.28	0.50	0.14			VG
		Field Zone	350.50	362.50	12.00	0.78			
		Including	352.00	355.00	3.00	1.67			
		Zone, BIF	393.00	394.00	1.00	1.83			
		Zone, BIF	401.00	402.00	1.00	0.62			
PC-11-202	No. 1 Vein	Zone, Vein	60.30	62.00	1.70	0.35			
		No. 1 Vein (vein is 10cm wide)	70.80	71.40	0.60	0.53			
PC-11-203	Core Mine Trend BIF	No. 20 Vein	44.50	44.80	0.30	3.30			
PC-11-204	No. 1 Vein	No. 1 Vein (vein is 20cm wide)	30.75	31.20	0.45	6.90			VG
PC-11-205	No. 1 Vein	No. 1 Vein (vein is 30cm)	70.00	71.00	1.00	0.46			
PC-11-206	No. 1 Vein	No Significant Values							
PC-11-207	Core Mine Trend BIF	Zone, Vein (Riopelle?)	127.70	128.20	0.50	0.68			
		Zone, Vein (No. 20?)	345.30	345.60	0.30	4.36			
		Field Zone	426.60	441.60	15.00	0.33			
		Including	440.10	441.60	1.50	1.24			
		Zone, BIF	463.40	464.70	1.30	0.40			
PC-11-208	Core Mine Trend BIF	Zone, Vein (Riopelle?)	72.20	72.60	0.40	0.82			
		Field Zone	342.80	355.20	12.40	0.36			
		Including	350.30	353.30	3.00	1.01			
PC-11-209	Core Mine Trend BIF	No Significant Values							
PC-11-210	Core Mine Trend BIF	No. 20 Vein	64.60	66.00	1.40	0.52			VG
PC-11-211	No. 1 Vein	No. 1 Vein (70cm vein)	63.00	69.80	6.80	1.71			
		Including	65.60	66.60	1.00	6.45			
PC-11-212	Core Mine Trend BIF	Zone, Vein (Riopelle?)	41.80	42.20	0.40	0.38			
		Zone, Vein (Riopelle?)	70.20	71.20	1.00	0.72			
		Zone, Vein (No. 20?)	234.72	235.08	0.36	9.94			VG
		Zone, BIF	288.00	289.00	1.00	0.42			
		Zone, BIF	297.00	299.00	2.00	0.53			
PC-11-213	Core Mine Trend BIF	Zone, BIF (Central BIF?)	14.55	26.50	11.95	0.61			
		Including	17.30	18.50	1.20	2.38			
		Zone, BIF	68.60	70.60	2.00	1.14			
		Including	68.60	69.60	1.00	1.91			
		Zone, BIF	91.30	93.00	1.70	0.58			
PC-11-214	Core Mine Trend BIF	Zone, Vein (No. 20?)	82.35	85.50	3.15	0.96			
		Including	82.35	82.75	0.40	4.25			
		Zone, BIF	124.60	126.60	2.00	0.59			
		Zone, BIF	139.60	140.60	1.00	0.39			
		Zone, BIF	148.60	149.60	1.00	0.35			
PC-11-215	Core Mine Trend BIF	Zone, BIF	32.77	34.00	1.23	1.30			
		Zone, BIF	44.00	46.00	2.00	0.40			
		Zone, BIF	52.00	53.00	1.00	0.46			
		Zone, BIF (Central BIF?)	58.90	78.00	19.10	0.45			
		Including	68.40	69.40	1.00	1.63			
		And	75.20	76.00	0.80	1.26			
		Zone, BIF	116.50	118.00	1.50	0.93			
		Zone, BIF	141.75	142.75	1.00	0.54			
		Zone, BIF	153.00	154.00	1.00	0.79			
		Zone, BIF	169.12	170.12	1.00	0.93			
PC-11-216	Core Mine Trend BIF	Zone, Vein	174.00	175.23	1.23	0.77			
		Zone, Vein (No. 20?)	346.46	349.18	2.72	0.84			
		Field Zone (anomalous Zone)	444.00	562.90	118.90	0.26			
		Zone, BIF	444.00	445.00	1.00	3.12			
		Zone, BIF	454.00	455.00	1.00	1.08			
		Zone, BIF	461.00	462.00	1.00	0.36			
		Zone, BIF	467.00	472.00	5.00	1.27			
		Including	467.00	468.00	1.00	3.83			
		Zone, BIF	486.00	487.00	1.00	0.39			
		Zone, BIF	494.00	495.00	1.00	0.36			

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		Zone, BIF	501.00	505.00	4.00	0.90			
		Including	504.00	505.00	1.00	1.98			
		Zone, BIF	519.00	522.00	3.00	0.60			
		Including	521.00	522.00	1.00	1.05			
		Zone, BIF	530.00	532.00	2.00	1.10			
		Zone, BIF	539.00	541.00	2.00	1.43			
		Including	540.00	541.00	1.00	2.34			
		Zone, BIF	551.00	552.00	1.00	0.63			
		Zone, BIF	555.70	556.70	1.00	0.56			
		Zone, BIF	562.00	562.90	0.90	0.37			
PC-11-217	Core Mine Trend BIF	Zone, Vein (Riopelle?)	78.30	78.60	0.30	4.57			
		Zone, Vein	112.10	112.90	0.80	0.37			
		Zone, Vein	158.40	159.40	1.00	0.47			
		Zone, BIF	485.70	487.00	1.30	0.39			
		Zone, BIF	489.00	490.00	1.00	0.57			
		Zone, BIF	502.00	503.50	1.50	0.56			
		Zone, BIF	515.50	518.50	3.00	2.00			
		Field Zone	540.00	584.80	44.80	0.44			
		Including	578.00	579.50	1.50	2.22			
PC-11-218	Core Mine Trend BIF	Zone, Vein?	148.92	149.40	0.48	1.35			
PC-11-219	Core Mine Trend BIF	Zone, Vein (Riopelle?)	68.21	68.47	0.26	0.51			
		Zone, Vein (No. 20?)	227.27	227.58	0.31	0.98			
		Field Zone	280.00	289.00	9.00	0.40			
		Including	285.00	286.00	1.00	1.22			
PC-11-220	Core Mine Trend BIF	No. 20 Vein Zone	39.50	49.20	9.70	0.53			
		Including	39.50	41.00	1.50	2.32			
		Zone, BIF	91.00	92.00	1.00	0.36			
		Zone, BIF	96.90	97.60	0.70	0.39			
		Zone, BIF	221.00	227.00	6.00	0.61			
		Field Zone	240.50	253.20	12.70	1.47			
		Including	242.50	245.70	3.20	2.16			
		Including	245.20	245.70	0.50	4.67			
		And	250.20	251.70	1.50	4.78			
		Zone, BIF	284.70	286.20	1.50	0.56			
		Zone, BIF	313.20	314.70	1.50	0.49			
		Zone, BIF	325.00	328.30	3.30	0.48			
		Zone, BIF	346.10	347.60	1.50	0.54			
		Zone, BIF	357.80	361.80	4.00	0.63			
		Including	360.80	361.80	1.00	1.37			
PC-11-221	Core Mine Trend BIF	No. 20 Vein	39.56	40.16	0.60	0.03			
		Zone, Vein	83.00	83.75	0.75	0.48			
		Zone, Vein	136.22	136.72	0.50	3.51			
		Zone, BIF	218.00	219.00	1.00	0.35			
		Zone, BIF	223.00	224.00	1.00	0.48			
		Field Zone	238.00	295.00	57.00	0.48			
		Including	247.00	280.00	33.00	0.67			
		Including	247.00	248.00	1.00	7.18			
		And	253.00	254.00	1.00	3.86			
		And	263.00	264.00	1.00	1.46			
		And	266.00	267.00	1.00	1.13			
		And	279.00	280.00	1.00	1.97			
		And	292.00	293.20	1.20	1.19			
PC-11-222	Core Mine Trend BIF	Zone, BIF (northern No. 5 BIF arm)	30.80	35.06	4.26	0.97			
		Including	33.00	34.00	1.00	2.52			
		Zone, BIF	84.00	85.00	1.00	0.57			
		Zone, BIF	93.50	96.10	2.60	1.22			
		Zone, Vein	94.50	95.00	0.50	4.08			
		Zone, Vein	109.90	110.40	0.50	2.63			
PC-11-223	Core Mine Trend BIF	Zone, BIF	13.69	14.70	1.01	4.48			
		Zone, BIF (northern No. 5 BIF arm)	31.85	35.00	3.15	1.09			
		Including	33.00	34.00	1.00	2.20			
PC-11-224	No. 19 Vein	Zone, Vein?	206.00	207.00	1.00	0.57			
		Zone, Shear	277.00	278.50	1.50	0.86			
PC-11-225	Core Mine Trend BIF	No. 5 BIF northern arm	37.00	38.20	1.20	3.64			
PC-11-226	Core Mine Trend BIF	Zone, Vein	77.29	77.66	0.37	0.94			
		Zone, Vein No. 20	170.34	170.84	0.50	0.42			VG
		Zone, BIF	244.00	245.00	1.00	0.38			
		Zone, BIF	257.00	258.00	1.00	0.57			
		Zone, Field Zone BIF	265.00	273.00	8.00	1.21			
		Including	270.00	272.00	2.00	2.11			
		Zone Field Zone BIF	299.00	301.00	2.00	4.40			
		Including	300.00	301.00	1.00	8.06			

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
PC-11-227	Core Mine Trend BIF	Zone, BIF	305.00	306.00	1.00	0.55			
		No. 5 BIF	43.37	45.40	2.03	0.74			
		Zone, BIF	104.57	105.25	0.68	0.86			
PC-11-228	Shaft 3	Zone, BIF	66.80	67.40	0.60	0.53			
		Zone, Vein?	236.00	237.00	1.00	0.80			
		Zone, Vein, No. 21?	293.00	293.50	0.50	0.97			
		Zone, Vein, No. 19?	428.30	428.80	0.50	0.13			
		Zone, BIF and Sawmill Vein	28.00	32.00	4.00	2.15			
PC-11-229	Shaft 1	Including	29.60	31.00	1.40	4.95			
		Including	30.60	31.00	0.40	11.16			
		Zone BIF	59	70.17	11.17	0.31			
PC-11-230	Shaft 1	Including	60	61.00	1.00	1.04			
		Zone, Vein	227.93	228.40	0.47	0.79			
		Zone Vein No. 21?	348.93	349.43	0.50	1.52			
		Zone, Vein?	360	360.62	0.62	1.14			
		Zone, Vein, No. 19?	554.4	555.30	0.90	0.42			
		Zone, BIF and Sawmill Vein	43.35	49.65	6.30	0.59			
		Including	48.15	49.65	1.50	1.44			VG
PC-11-232	Core Mine Trend BIF	No Significant Values							
PC-11-233	Shaft 1	Zone, BIF	23.45	26.50	3.05	0.97			
		Including	25.15	26.50	1.35	1.49			
PC-11-234		Zone, BIF	42.45	43.60	1.15	0.74			
		Zone, Vein?	134.29	134.78	0.49	0.50			
		Zone, BIF	182.71	184.00	1.29	0.39			
		Zone, No. 5 BIF	188.50	233.00	44.50	0.53			
PC-11-235		Including	198.00	207.00	9.00	1.28			
		Including	204.00	207.00	3.00	2.60			
		Zone, Field Zone BIF	17.50	42.50	25.00	0.41			
PC-11-236		Including	17.50	19.00	1.50	1.81			
		Zone, BIF	100.28	109.50	9.22	0.25			
PC-11-237	Shaft 3	Including	108.50	109.50	1.00	0.64			
		Zone, Veining	199.05	209.22	10.17	0.22			
		Including	203.00	204.00	1.00	0.41			
PC-11-238	Shaft 3	Zone, BIF	26.00	37.00	11.00	0.68			
		Including	32.00	37.00	5.00	1.18			
PC-11-239	Core Mine Trend BIF	Zone, BIF	5.00	6.00	1.00	0.90			
		Zone, Field Zone BIF	31.00	35.00	4.00	1.53			
		Including	32.50	34.00	1.50	2.83			
		Zone, BIF	67.00	68.00	1.00	0.40			
		Zone, BIF	71.00	75.00	4.00	0.34			
PC-11-240	Shaft 3	No Significant Values							
PC-11-241	Core Mine Trend BIF	No. 5 BIF Zone	152.50	193.00	40.50	0.98			
		Including	155.20	162.50	7.30	2.37			
		Including	156.20	156.95	0.75	12.83			
		Zone, BIF	200.10	201.40	1.30	0.81			
PC-11-242	Shaft 3	Zone, Shear	52.00	55.00	3.00	0.74			
PC-11-243	Shaft 3	No. 22 Vein	20.00	21.25	1.25	3.00			VG
		Including	20.00	20.60	0.60	6.14			
		Zone, Vein?	75.30	76.00	0.70	0.46			
PC-11-244	Shaft 3	Zone, Vein	50.75	53.25	2.50	0.74			
		Including	50.75	51.75	1.00	1.37			
		Zone	97.00	98.50	1.50	0.55			
PC-11-244EXT	Shaft 3	No. 22 Vein	110.17	111.56	1.39	2.59			VG
PC-11-244EXT		Including	111.00	111.56	0.56	5.54			
PC-11-245	Shaft 3	Zone	3.70	5.00	1.30	0.55			
		Zone, Veining, sericite alt.	35.00	43.00	8.00	0.28			
		Including	37.80	39.00	1.20	0.47			
		No. 22 Vein	153.85	154.40	0.55	0.52			
PC-11-246	Shaft 3	Zone, Vein	19.65	22.50	2.85	0.57			
		Including	22.00	22.50	0.50	1.36			
		Zone, Vein	31.50	32.50	1.00	0.29			
		No. 22 Vein Zone	74.15	81.00	6.85	0.26			
		Including	79.15	81.00	1.85	0.66			
PC-11-247	Shaft 3	Zone, Vein (No. 22?)	55.70	56.30	0.60	0.05			
		Zone, Vein (No. 22?)	83.70	84.35	0.65	0.71			
PC-11-248	Shaft 3	only 30m drilled abandoned due to hole azimuth error							
PC-11-249		No. 22 Vein	20.84	28.00	7.16	0.68			VG
		Including	26.65	28.00	1.35	2.41			
		Including	27.15	28.00	0.85	3.12			
PC-11-250	Shaft 3	Zone, BIF	63.00	72.00	9.00	0.17			
		Including	63.00	64.00	1.00	0.51			
		Zone, Vein	170.80	171.80	1.00	0.87			



Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		Zone, Vein	184.67	185.17	0.50	0.68			
		Zone, Vein	217.30	217.80	0.50	0.35			
		Zone, Vein	224.10	224.85	0.75	28.70			VG
		No. 23 Vein	270.75	272.15	1.40	7.28			
PC-11-251	Shaft 3	No. 22 Vein	22.65	24.15	1.50	444.38			VG
		Including	23.65	24.15	0.50	1325.73			
		Zone, Vein	31.00	32.50	1.50	0.47			
PC-11-252	Shaft 3	Zone, Vein (No. 22?)	51.94	52.49	0.55	0.84			
		Zone Veining (No. 22?)	64.95	69.14	4.19	0.16			
		Including	68.64	69.14	0.50	0.61			
PC-12-253	Shaft 3	Zone, Vein	15.30	15.80	0.50	1.15			
		No. 22 Vein	23.70	25.70	2.00	69.10			VG
		Including	24.70	25.70	1.00	137.19			
PC-12-254	Shaft 3	No. 22 Vein	16.88	18.38	1.50	25.69			VG
		Including	16.88	17.63	0.75	34.48			
PC-12-255	Shaft 3	Zone, (vein?)	13.88	14.40	0.52	0.91			
		No. 22 Vein	27.55	28.55	1.00	16.80			VG
		Zone, Vein	53.50	54.00	0.50	3.30			
PC-12-256	Shaft 3	Zone Vein (No. 22?)	45.45	45.95	0.50	0.36			
PC-12-257	Shaft 3	Zone Vein	4.95	5.45	0.50	0.34			
		No. 22 Vein	44.90	45.50	0.60	1.78			VG
PC-12-258	Shaft 3	Zone, Vein (No. 22?)	42.54	42.86	0.32	0.91			
PC-12-259	Shaft 3	Zone, Vein (No. 22?)	33.50	35.00	1.50	0.74			
		Zone, Vein (No. 22?)	41.74	42.50	0.76	1.62			
		Zone, Vein (No. 22?)	82.05	83.21	1.16	0.87			
PC-12-260	Shaft 3	Zone Vein	5.75	6.25	0.50	0.89			
		No. 22 Vein	49.29	49.81	0.52	2.97			VG
PC-12-261	Shaft 3	Zone, Vein?	7.00	7.60	0.60	0.31			
		No. 22 Vein	61.00	61.50	0.50	3.27			
PC-12-262	Shaft 3	Zone, Vein	13.96	16.03	2.07	0.41			
		Zone, Vein?	39.10	40.70	1.60	1.39			
		hole abandoned after 98m due to deviation							
PC-12-263	Shaft 3	Zone, Vein?	59.00	60.00	1.00	0.58			
		Zone, Vein?	124.40	124.90	0.50	0.74			
		Zone, Vein	134.40	134.90	0.50	0.78			
		Zone, Vein	177.30	179.64	2.34	2.79			
		Including	178.30	178.90	0.60	6.05			
		No. 23 Vein	221.55	231.70	10.15	3.24			
		Including	221.55	230.00	8.45	3.82			
		Including	221.55	227.10	5.55	4.56			
		Including	223.35	225.35	2.00	9.93			
		Including	223.35	224.35	1.00	15.76			
		Zone, Vein	291.20	291.70	0.50	1.43			
PC-12-264	Shaft 3	No. 22 Vein Zone	95.00	99.00	4.00	1.20			
		Including	95.00	95.65	0.65	4.49			
		Zone, Vein?	111.50	112.47	0.97	0.39			
PC-12-264EXT	Shaft 3	No Significant Intercepts							
PC-12-265	Shaft 3	No. 22 Vein Zone	46.30	51.00	4.70	1.08			
		Including	50.30	51.00	0.70	4.19			
PC-12-266	Shaft 3	Zone, Vein (No. 22?)	38.00	39.00	1.00	1.91			
PC-12-266EXT	Shaft 3	No. 22 Vein	77.29	77.79	0.50	0.18			
PC-12-267	Shaft 3	Zone, Vein (No. 22?)	78.45	80.30	1.85	0.83			
		Including	79.80	80.30	0.50	1.07			
		No. 22 Vein Zone	98.90	109.93	11.03	0.30			
		Including	102.81	103.76	0.95	0.68			
PC-12-268	Shaft 3	Zone, Vein	51.85	52.35	0.50	0.46			
		Zone, Veining (No. 22?)	60.00	76.96	16.96	1.47			
		Including	61.02	73.12	12.10	1.82			
		Including	61.02	64.80	3.78	3.32			
		Including	63.00	63.80	0.80	9.61			
		No. 22 Vein Zone	84.90	97.80	12.90	0.49			
		Including	86.00	91.16	5.16	0.74			
		Including	86.00	87.00	1.00	1.24			VG
PC-12-269	Shaft 3	Zone, Vein	68.60	69.10	0.50	0.55			
		Zone Veining (No. 22?)	87.76	90.40	2.64	2.31			
		Including	88.76	89.74	0.98	3.91			
		No. 22 Vein	119.55	120.13	0.58	5.75			VG
PC-12-270	Shaft 3	Zone, Vein (No. 22 Vein?)	97.71	99.77	2.06	1.41			
		Shear Zone (No. 22 Vein?)	126.09	126.74	0.65	0.23			
PC-12-271	Shaft 3	Zone, Vein (No. 22 Vein?)	63.82	64.32	0.50	0.01			
		Zone, Shear (No. 22 Vein?)	88.50	89.50	1.00	0.10			
PC-12-272	Shaft 3	Zone, Vein	8.40	10.52	2.12	0.13			

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG		
PC-12-273		No. 22 Vein Zone	91.60	131.50	39.90	0.54					
		Including	101.00	117.50	16.50	0.92					
		Including	101.00	111.60	10.60	1.27					
		Including	111.10	111.60	0.50	8.96					
		And	128.00	130.80	2.80	1.00					
		Zone, Vein (No. 22?)	146.00	148.00	2.00	0.68					
PC-12-274		Including	147.00	148.00	1.00	1.10					
		Zone, Vein?	99.64	100.14	0.50	1.08					
PC-12-274	Shaft 3	Zone, Vein?	104.30	104.80	0.50	0.42					
		Zone, Vein?	113.00	113.50	0.50	0.50					
		Zone, Vein	118.50	119.00	0.50	3.75					
		Zone, Vein?	123.00	124.00	1.00	0.71					
		Zone, Vein	161.50	164.50	3.00	2.16					
		Zone, Vein	161.50	162.00	0.50	11.26			VG		
		Zone, Vein?	183.60	184.20	0.60	0.86					
		No. 23 Vein	202.90	204.90	2.00	2.24					
		Including	203.90	204.90	1.00	3.91					
		Zone, Vein	249.90	250.40	0.50	1.49					
		Zone, Vein	263.10	263.60	0.50	2.62					
		Zone, Vein?	292.70	293.20	0.50	0.92					
		Zone, Vein?	301.40	302.00	0.60	0.53					
		PC-12-275	Shaft 3	Zone, Vein	65.00	66.50	1.50	1.79			VG
				Zone, Vein?	73.00	74.00	1.00	0.58			
	90.50			91.00	0.50	2.80					
	100.00			102.00	2.00	0.51					
Upper Vein Zone	137.75			138.25	0.50	10.81			VG		
No. 23 Vein Zone	189.00			191.50	2.50	4.47			VG		
Including	190.50			191.00	0.50	14.97					
Lower Vein Zone	205.20			217.20	12.00	0.32					
Including	209.50			210.00	0.50	2.27					
Zone, Vein	229.00			230.70	1.70	0.60					
Zone, Veining	254.30			267.50	13.20	0.37					
Including	258.00			259.30	1.30	1.52					
And	264.70			265.20	0.50	1.15					
Zone, Veining	272.50			275.30	2.80	0.64					
Including	274.70			275.30	0.60	1.20					
Zone, Veining	289.40			300.30	10.90	0.45					
Including	289.40			289.90	0.50	3.93					
PC-12-276	Shaft 3	Zone, Vein	39.00	41.00	2.00	0.61					
		Zone, Vein	67.90	68.40	0.50	2.04					
		Upper Vein Zone	110.10	110.60	0.50	12.98					
		Zone, Vein	125.50	126.00	0.50	1.30					
		Zone, Vein	140.90	141.40	0.50	0.98					
		No. 23 Vein Zone	162.60	172.40	9.80	4.92			VG		
		Including	168.10	172.40	4.30	10.73					
		Including	170.00	171.00	1.00	39.12					
		Zone, Vein	184.40	186.40	2.00	0.34					
		Lower Vein Zone?	197.00	198.00	1.00	0.88					
		Zone, Vein	204.50	205.00	0.50	0.32					
		PC-12-277	Shaft 3	Zone, Vein	34.50	35.60	1.10	1.80			
				Zone, Vein?	61.00	62.00	1.00	17.35			
Zone, Vein	79.30			79.80	0.50	1.08					
Upper Vein Zone	112.80			113.60	0.80	26.88			VG		
Zone, Vein	117.60			118.10	0.50	1.10					
Zone, Vein	119.50			120.00	0.50	0.84					
No. 23 Vein Zone	129.00			141.50	12.50	0.36					
Including	129.00			130.60	1.60	1.20					
And	138.20			139.00	0.80	2.14					
Lower Vein Zone?	169.00			170.00	1.00	0.46					
Zone, Vein	254.20			255.00	0.80	1.38					
PC-12-278	Shaft 3			Zone, Vein	21.10	21.80	0.70	1.17			
		Zone, Alt.	32.00	33.00	1.00	1.70					
		Zone, Alt.	43.00	44.00	1.00	0.75					
		Zone, Vein?	117.00	118.00	1.00	2.75					
		No. 22 Vein	161.00	163.00	2.00	0.89					
		PC-12-279	Shaft 3	Zone, Qtz-Sericite Alt. & Veining	48.90	67.00	18.10	0.48			
Including	50.00			60.00	10.00	0.70					
Including	50.00			54.80	4.80	1.04					
Zone, Vein?	220.10			221.10	1.00	0.60					
PC-12-280	Shaft 3	Upper Vein Zone	122.50	123.50	1.00	2.78			VG		
		Including	123.00	123.50	0.50	4.01					
		No. 23 Vein	178.00	185.10	7.10	2.61			VG		

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		Including	182.40	185.10	2.70	5.81			
		Including	184.10	185.10	1.00	13.35			
		Zone, Vein?	190.50	193.00	2.50	0.54			
		Zone, Lower Vein Zone	197.50	199.10	1.60	0.21			
PC-14-281	Shaft 3	Upper No. 23 Vein?	15.30	15.80	0.50	0.58			VG
		Lower No. 23 Vein?	114.20	115.70	1.50	0.90			
		Including	115.20	115.70	0.50	1.79			
PC-14-282	Shaft 3	Upper No. 23 Vein?	16.70	17.20	0.50	1.49			
		Shear zone with minor veining	44.90	45.40	0.50	1.20			
		Zone of qtz veinlets and sericite alt.	95.13	97.40	2.27	0.57			
		Lower No. 23 Vein?	135.23	136.45	1.22	1.39			
PC-14-283	Shaft 3	Upper No. 23 Vein	65.89	66.79	0.9	878.69			VG
		No. 23 Vein Zone	71.45	77.00	5.55	10.60			VG
		Including	71.45	72.00	0.55	83.48			
		Including	75.50	76.27	0.77	9.83			
		No. 23 Vein Zone	80.20	81.70	1.5	1.92			
		No. 23 Vein Zone	89.85	91.06	1.21	5.03			VG
		Lower No. 23 Vein	171.80	173.32	1.52	0.65			VG
PC-14-284		Upper No. 23 Vein	66.20	70.23	4.03	12.72			VG
		Including	66.20	66.70	0.50	85.36			
		No. 23 Vein zone	73.42	76.05	2.63	28.51			VG
		Including	74.00	75.06	1.06	68.95			
		Lower No. 23 Vein?	138.38	139.40	1.02	0.14			
PC-14-285		No Significant Assays							
PC-14-286		Zone, sericite alt. qtz flooding	45.07	45.57	0.50	1.14			
		Lower No. 23 Vein Zone	174.75	177.75	3.00	2.87			VG
		Including	175.75	176.70	0.95	7.69			
		No. 23 Vein Zone	179.90	180.45	0.55	0.77			VG
		No. 23 Vein Zone	187.10	188.50	1.40	1.06			
		No. 23 Vein Zone	198.45	198.95	0.50	0.65			
PC-14-287		Zone, sericite alt. qtz flooding	34.45	35.00	0.55	1.79			
		Lower No. 23 Vein Zone	160.00	160.60	0.60	0.69			
PC-14-288		Zone, Vein	49.50	50.50	1.00	0.82			
		Upper No. 23 Vein Zone	80.90	81.40	0.50	1.64			
		Middle No. 23 Vein Zone	112.50	113.00	0.50	4.91			VG
PC-14-289		Zone, BIF	56.00	58.10	2.10	2.38			
		Upper No. 23 Vein Zone	146.35	146.75	0.40	5.79			VG
		Middle No. 23 Vein Zone	165.70	167.00	1.30	5.72			VG
		Including	165.70	166.20	0.50	12.82			
		Lower No. 23 Vein Zone	188.90	189.45	0.55	1.17			
PC-14-290		Zone, Vein	55.45	56.45	1.00	1.32			
		Qtz-chl-tour-asp Vein	74.00	74.50	0.50	2.89			VG
		Upper No. 23 Vein Zone?	92.00	93.50	1.50	1.13			
		Lower No. 23 Vein Zone?	219.20	220.70	1.50	0.50			
PC-14-291	Shaft 3	No. 22 Vein	100.22	100.72	0.50	68.71			VG
PC-14-292		Assays Pending	60.00	60.50	0.50	1.88			
		Sericite alt. Shear with qtz flooding	92.25	96.02	3.77	2.54			VG
		Including	95.00	96.02	1.02	6.39			
		Zone, Vein	100	101.00	1.00	1.36			
		No. 22 Vein	158.50	159.00	0.50	0.02			
PC-14-293		Zone, Veining	64.75	65.25	0.50	3.66			
		Qtz-Sericite Alt. zone	95.80	100.57	4.77	0.50			
		Upper No. 23 Vein	140.88	141.43	0.55	16.10			VG
		Middle No. 23 Vein	195.93	196.43	0.50	0.58			VG
		Lower No. 23 Vein?	222.26	222.76	0.5	0.621			
		Lower No. 23 Vein?	230.00	231.00	1.00	0.41			
PC-14-294		No. 22 Vein Zone	146.40	148.90	2.50	0.13			
PC-14-295		Qtz-Sericite Alt. Zone	112.80	127.70	14.90	0.18			
		Including	112.80	113.30	0.50	1.44			
		Upper No. 23 Vein?	181.10	181.60	0.50	0.91			
		Middle No. 23 Vein?	202.30	203.40	1.10	4.91			VG
		Including	202.30	202.80	0.50	6.52			
PC-14-296		Zone, Vein	78.50	79.60	1.10	0.36			
		No. 22 Vein (upper splay)	150.02	151.02	1.00	4.71			VG
		Including	150.52	151.02	0.50	7.93			
PC-14-297		Zone Vein	43.00	43.50	0.50	1.95			
		Qtz-Sericite Alt. zone	51.80	52.30	0.50	2.46			
		Zone, Vein (No. 23 type?)	115.10	115.60	0.50	1.64			
		Upper No. 23 Vein?	134.80	135.30	0.50	11.52			VG
		Middle No. 23 Vein?	161.40	164.90	3.50	4.83			
		Including	162.90	164.40	1.50	10.64			
		Including	162.90	163.40	0.50	18.11			

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Ag (ppm)	As (ppm)	VG
		Lower No. 23 Vein?	180.70	188.00	7.30	1.93			
		Including	180.70	182.20	1.50	8.33			VG
		Including	181.20	181.70	0.50	18.98			
		No. 23 type vein	200.50	201.00	0.50	0.50			
PC-14-298		Zone, Vein	21.00	21.50	0.50	1.14			
		Qtz-Sericite Alt. Zone	74.5	75.63	1.13	0.48			
		No. 22 Vein Zone	148.85	169.93	21.08	0.87			
		Upper No. 22 Vein Zone	148.85	152.55	3.7	1.32			
		Including	149.85	150.35	0.5	4			
		Lower No. 22 Vein Zone	161.5	169.93	8.43	1.55			
		Including	161.50	162.00	0.50	20.59			VG
PC-14-299		No. 22 Vein Zone	177.60	199.20	21.60	0.67			
		Upper No. 22 Vein Zone	177.60	185.50	7.90	1.14			
		Including	178.10	179.10	1.00	3.08			VG
		Lower No. 22 Vein Zone	192.10	199.20	7.10	0.67			
		Including	193.80	195.50	1.70	1.46			
PC-14-300		Qtz-Sericite Alt. Zone	72.90	74.00	1.10	1.35			
		Qtz-Sericite Alt. Zone	82.60	88.60	6.00	0.73			
		Including	85.33	85.83	0.50	2.54			
		Lower No. 23 Vein?	224.30	224.80	0.50	0.50			
PC-14-301	Shaft 3	Zone, Vein, py-po rich	32.90	34.00	1.10	1.01			

All intersections are drilled core lengths. VG denotes visible gold observed. NA denotes not analyzed for. NC denotes not calculated. Albany = Albany Shaft, Coh-Mac = Cohen MacArthur Zone

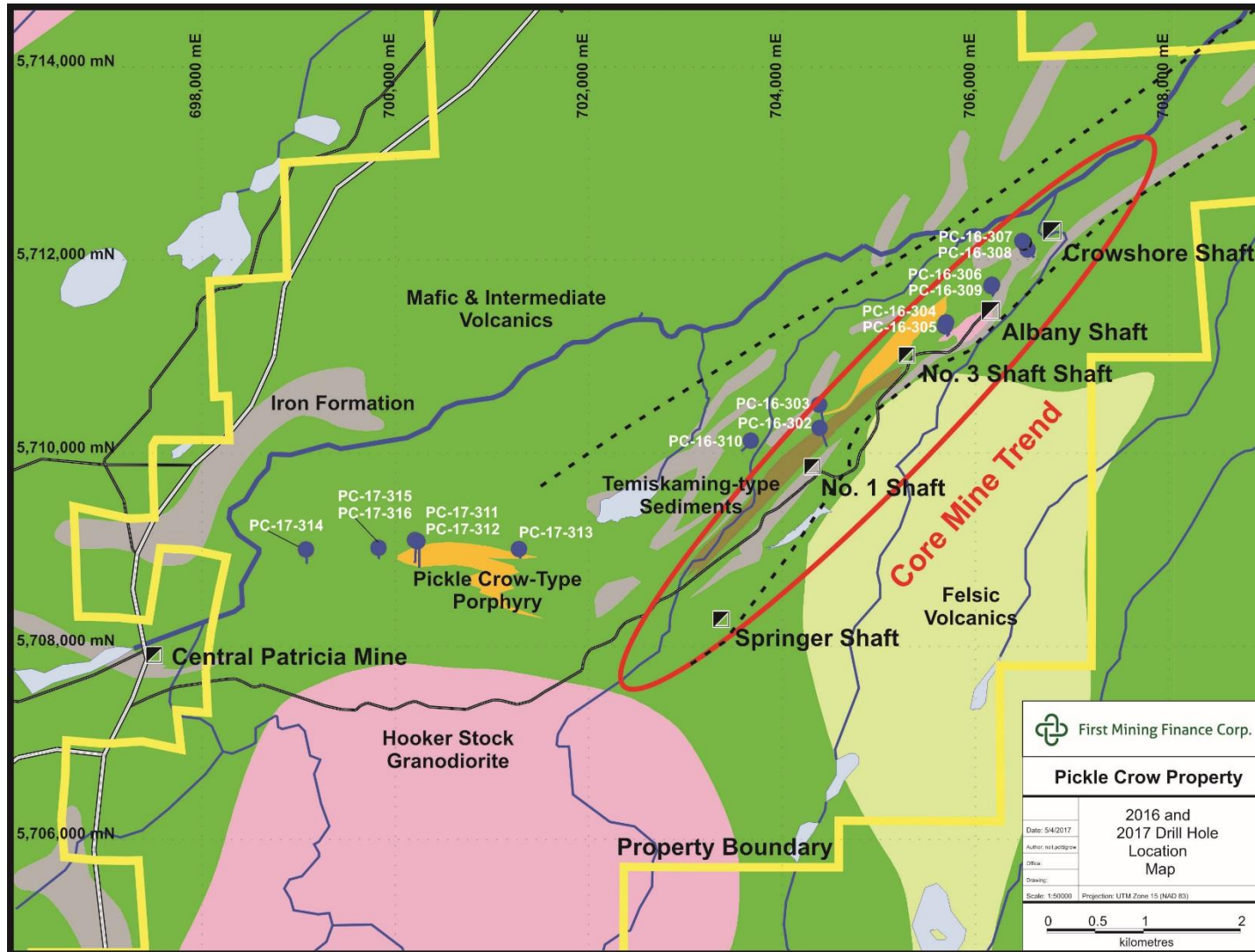
### 10.2.8 2016/2017 Fall/Winter Drill Program

The Fall/Winter 2016/2017 drill program was required to meet First Mining's assessment work requirements for the Pickle Crow property.

The Fall 2016 program was centred on selected targets in the core mine trend from the No.1 Shaft to the Crowshore shaft. The hole locations are shown on Figure 10.5.

The Winter 2017 drill program was designed to test the potential westward extension of the core mine trend. The hole locations are also shown on Figure 10.5. (Taken from Pettigrew, 2017.)

**Figure 10.5**  
**PC Gold Drill Hole Location Map, 2016/2017 Fall Winter Drilling**



Source: First Mining, 2017.

The location, details and selected target veins and/or zones of the Fall 2016 drill program are set out in Table 10.10. (Taken from Pettigrew, 2016.)

**Table 10.10**  
**Fall 2016 Drill Holes**

Hole ID	East UTM NAD83	North UTM NAD83	Elevation (m)	Azimuth	Dip	Metres Drilled (m)	Target	Patent/ Claim
PC-16-302	704398.00	5710247.70	338.89	170.3	-50.1	153.00	Up plunge of No. 19 Vein	PA725
PC-16-303	704394.27	5710490.01	342.39	170.2	-50.0	158.10	Up plunge to PC-10-083	PA725
PC-16-304	705695.18	5711303.18	361.12	170.1	-75.0	138.00	Up plunge to PC-09-051	PA70
PC-16-305	705708.33	5711338.74	359.02	170.0	-74.9	183.00	Down plunge to PC-09-051	PA70
PC-16-306	706174.55	5711717.83	345.14	179.8	-60.0	161.50	No. 15 Vein extension	PA64
PC-16-307	706547.73	5712091.42	341.95	140.2	-50.0	108.00	Crowshore C-Zone	PA63
PC-16-308	706496.30	5712181.24	337.35	140.2	-50.0	111.00	Crowshore A1-A2 Zones	PA90 and PA63
PC-16-309	706182.54	5711728.79	346.04	180.0	-60.0	155.60	No. 15 Vein extension	PA64
PC-16-310	703688.06	5710115.56	345.38	233.2	-70.3	150.00	Sawmill Vein	PA737
						Total	1,318.20	

A summary of the successes in hitting the 2016 target zones is summarized in Table 10.11. (Taken from Pettigrew, 2016.)

**Table 10.11**  
**Summary of 2016 Target Success**

Hole-ID	Target	Was Target Hit?
PC-16-302	Shaft 3, No. 19 Vein	No
PC-16-303	Shaft 3, un-named vein	No
PC-16-304	Albany, un-named vein	No
PC-16-305	Albany, un-named vein	No
PC-16-306	No. 15 Vein	Yes
PC-16-307	C-Zone	No
PC-16-308	A1-A2 Zones	Yes
PC-16-309	No. 15 Vein extension	Yes
PC-16-310	Sawmill Vein	No

A summary of the significant intersections obtained from the Fall 2016 drill program is presented in Table 10.12. (Taken from Pettigrew, 2016.)

**Table 10.12  
Fall 2016 Drill Results**

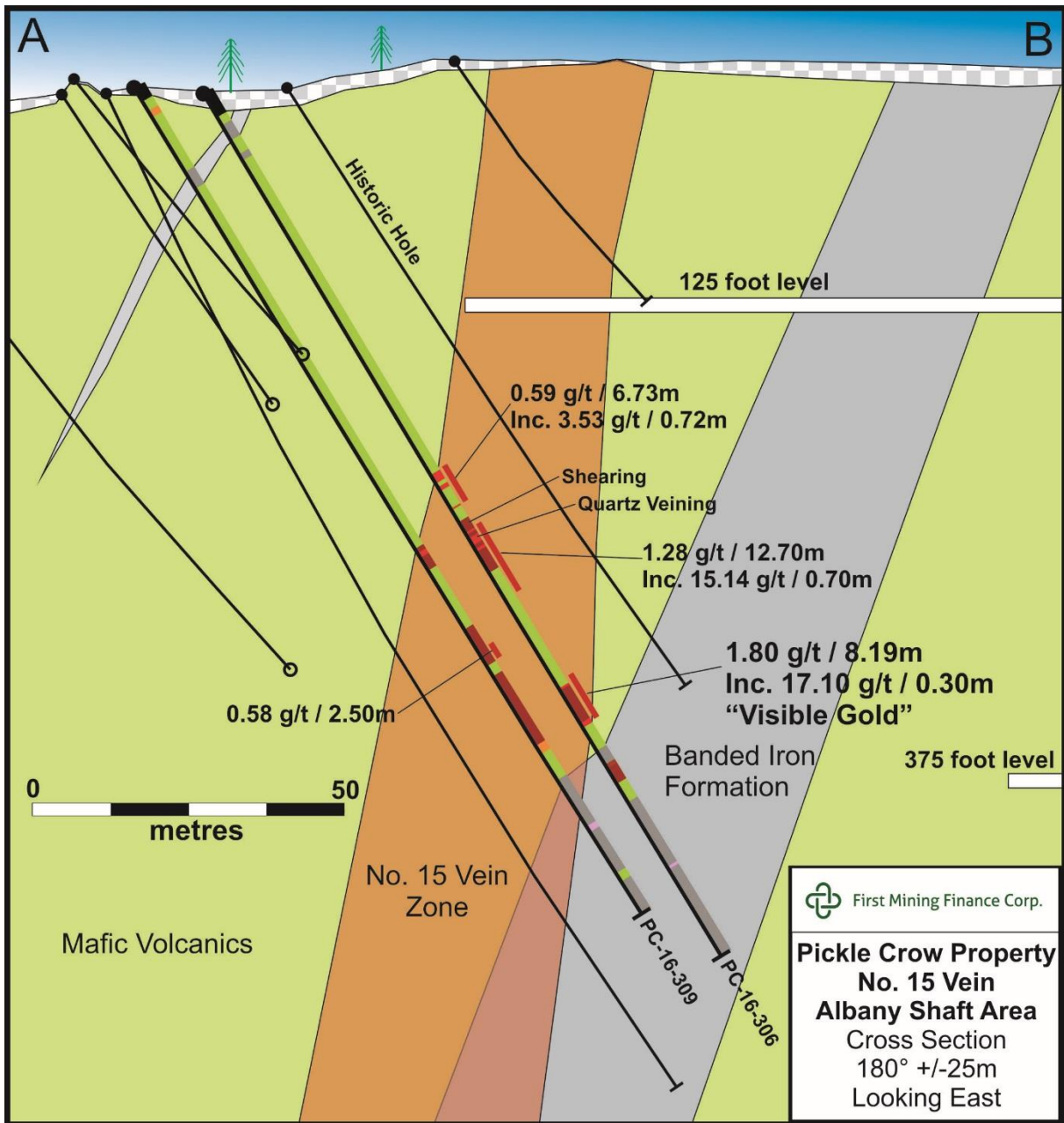
Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)	Comments
PC-16-302	Shaft 3 (No. 19 Vein up dip)		No Significant Assays				
PC-16-303	Shaft 3 (PC-103-083 vein up dip)		No Significant Assays				
PC-16-304	Albany (PC-09-051 Vein)	Shear zone	106.50	107.00	0.50	1.57	
		Zone, QFP	129.00	135.70	6.70	0.36	
		Including	133.50	134.70	1.20	1.18	
PC-16-305	Albany (PC-09-051 Vein)	Zone, Vein	53.30	53.80	0.50	1.62	
		Zone, QFP & MV	125.56	149.40	23.84	0.53	
		Including	137.10	140.10	3.00	2.53	
		Zone, QFP	160.90	162	1.10	0.71	
PC-16-306	No. 15 Vein	Upper No. 15 Vein	71.27	78.00	6.73	0.59	
		Including	74.28	75.00	0.72	3.53	
		Middle No. 15 Vein	82.00	94.70	12.70	1.28	
		Including	83.15	84.43	1.28	1.20	
		Including	88.83	89.53	0.70	15.14	
		Including	92.00	93.00	1.00	1.72	
		Lower No. 15 Vein	110.41	118.60	8.19	1.15	*VG
		Including	113.00	114.00	1.00	2.66	
PC-16-307	Crowshore	Including	116.00	117.80	1.80	2.63	
		Zone, BIF	34.67	37.20	2.53	0.34	
		Shear zone	96.40	98.04	1.64	0.51	
PC-16-308	Crowshore	Shear zone	101.91	103.30	1.39	0.70	
		Zone, BIF	20.10	21.40	1.30	0.28	
PC-16-309	No. 15 Vein	Upper No. 15 Vein	86.56	90.10	3.54	0.14	
		Shear zone	106.10	108.60	2.50	0.58	
		Shear zone	115.00	121.40	6.40	0.12	
PC-16-310	Sawmill	Vein Zone, BIF	37.50	42.00	4.50	1.34	
		Zone, BIF	49.00	52.50	3.50	0.34	

\* The 2016 assessment report says “assays are pending for VG sample from 111.31 to 111.52 m”. Figure 10.6 (from the 2017 assessment report) shows that a 0.30 m intersection, sampled later in 2017, returned 17.10 g/t Au.

The only intersections of potential economic significance come from hole PC-16-306 which intersected two veins interpreted to be the middle and lower No. 15 Vein. An updated cross section showing the new holes is presented in Figure 10.6. The No. 15 Vein mineral resource was not updated for only one drill hole.



**Figure 10.6**  
**No. 15 Vein Cross Section**



Source: First Mining, 2017 (Pettigrew, 2017.).

The location, details and selected target veins and/or zones of the Winter 2017 drill program are set out in Table 10.13. (Taken from Pettigrew, 2017.)

**Table 10.13**  
**Winter 2017 Drill Holes**

Hole ID	Easting (m E)	Northing (m N)	Elevation (m)	Azimuth	Dip	Metres Drilled (m)	Target	Patent/Claim
PC-17-311	700241.44	5709083.33	343.61	180°	-47°	336	Between 698-1 and 696-1, mineralized quartz vein	PA696
PC-17-312	700216.59	5709084.67	342.61	180°	-50°	330	25 m step-out of PC-17-311	PA696
PC-17-313	701289.40	5708993.95	351.22	180°	-50°	132	High grade quartz vein hosted in mafic volcanics near 65 m	PA640
PC-17-314	699090.07	5708988.84	343.49	188.2°	-50°	201	Undercut of historical drill hole 675-1 and 675-2	PA684
PC-17-315	699839.3	5709005.3	345.50	188.2°	-65°	36	Shear zone with irregular quartz stringers intersected by historic hole 686-1	PA686
PC-17-316	699838.61	5709001.95	345.50	188.2°	-65°	219	Shear zone with irregular quartz stringers intersected by historic hole 686-1	PA686

A summary of the significant intersections obtained from the Winter 2017 drill program is presented in Table 10.14. (Taken from Pettigrew, 2017.)

**Table 10.14**  
**Winter 2017 Drill Results**

Hole	Area	Description	From (m)	To (m)	Width (m)	Au (ppm)
PC-17-311	West Core Mine Ext	Zone, sericite alt. trace diss. py	293.00	295.00	2.00	0.34
		Zone, silicification, trace diss py	301.75	302.26	0.51	0.60
PC-17-312	West Core Mine Ext	Zone, Vein	160.00	160.50	0.50	0.80
PC-17-313	West Core Mine Ext	Zone, Vein	104.00	105.00	1.00	0.32
PC-17-314	West Core Mine Ext	Zone, sericite alt. trace diss py	92.50	93.00	0.50	0.72
		Shear Zone	98.20	99.00	0.80	2.38
		Zone, Veining in Felsic Intrusive	128.00	137.00	9.00	0.14
		Including	136.00	137.00	1.00	0.34
PC-17-315*	West Core Mine Ext	Zone Veining	31.00	37.51	6.51	0.12
		Including	31.00	32.00	1.00	0.34
PC-17-316	West Core Mine Ext	Zone Veining	48.50	57.00	8.50	0.18
		Including	55.25	56.00	0.75	1.18
		Zone, Vein	204.84	205.50	0.66	1.10

\*Hole abandoned after 33 m due to deviation.

## 10.3 SAMPLING METHOD AND APPROACH

### 10.3.1 Historic Sampling

Section 10.3 on historical sampling is taken from the MPH Technical Report prepared for PC Gold (Coates and Anderson, 2008) and reflects the sampling completed by others at the time of PC Gold's acquisition of the Pickle Crow property.

"The assay data for the Pickle Crow Property comprises:

- surface and underground diamond drill core samples,
- underground chip samples and muck samples from drifts, raises, cross cuts and stopes,
- Cantera muck and blast hole samples, No. 1 Shaft open pit area, and
- Cantera tailings samples."

#### "Historic Diamond Drill Core Samples"

"Pickle Crow Gold Mines Limited: The reports available to MPH do not provide any details of the sampling methodology utilized for the vast amount of surface and underground drilling completed during the operational life of the Pickle Crow Gold Mine. However, the drill logs and mine drawings show that the sampling was done in a thorough and systematic manner. Standard PCGM procedure was to sample mineralized intervals based on geology rather than [sic] predetermined lengths. PCGM sampled all quartz veins with thickness greater than 1 inch (2.54 cm) and individual veins over 1 foot (~30 cm) wide were subdivided into two or more samples that seldom exceeded 12 inches (30.48 cm) in core length. Broader sections of geological units such as altered sheared material, quartz stringer zones, disseminated sulphide zones, etc. were sampled for the most part at 24 inch (~60 cm) intervals. Drill cuttings (sludge samples) were routinely collected and selectively assayed over intervals from 5 feet (1.52 metres) to 100 feet (~30 metres). Historic assays were reported as \$ Value per short ton (gold price US\$35 per troy ounce) or as troy ounces per short ton. Sample lengths were reported as inches or feet (to 1 decimal place). The samples were most likely sent to an assay laboratory at the mine."

"Gallant Gold Mines Limited: The report on the 1981 drilling by Gallant does not provide any details of the sampling methodology utilized for the program. The drill logs show that the sample intervals were generally based on geological features, although not to the same degree of detail as PCGM. Gallant sampled all quartz veins with thickness from 0.2 feet (6.1 cm) and 5.0 feet (1.52 metres) as individual split core samples. Broader sections of geological units such as altered sheared material, iron formation, quartz stringer zones, disseminated sulphide zones, etc. were sampled for the most part at 5 foot (1.52 metre) intervals. Historic assays were reported as troy ounces per short ton over intervals measured in feet. The samples were sent initially to the Cochenour Assay Office in Red Lake, Ontario and subsequently to the Bell White Laboratories in Haileybury, Ontario."

"Highland Crow Resources/Noramco: The reports on the 1985-88 drilling by Highland Crow/Noramco do not provide any details of the sampling methodology utilized for the program. It is evident from the drill logs and core racks still remaining at the Pickle Crow Property that sample records were kept as numbered sample books, as tags placed in the core boxes and on sample sheets incorporated into the drill logs. Nominal split core sample intervals in all mineralized areas were 2.5 feet (0.76 metres) for surface and underground

drilling. Core boxes were labelled and the remaining core was stored and stacked onsite. Historic assays were reported as troy ounces per short ton over intervals measured in feet. Most of the samples were sent to Accurassay Laboratories in Thunder Bay, Ontario and others were sent to Bondar-Clegg & Company Ltd. in Ottawa, Ontario.”

“Wolfden Resources: The report on the 1999 drilling by Wolfden Resources does not provide any details of the sampling methodology utilized for the program. The drill logs show that the sample intervals were generally based on geological features. Samples taken from the No.1 Shaft Iron Formation Zone were mostly in excess of 1 metre in length with several over 1.5 metres. For drill holes outside of this area Wolfden sampled all quartz veins with thickness greater than 20 centimetres as individual split core samples. Altered wallrock samples were usually in the 0.5 to 1 metre range. The location of any remaining core is unknown. The samples were sent to Accurassay Laboratories in Thunder Bay, Ontario for assay.”

#### **“Historic Underground Chip and Muck Samples”**

“Pickle Crow Gold Mines Limited: The reports available to MPH do not provide any details of the sampling methodology utilized for the underground sampling programs completed during the operational life of the Pickle Crow Gold Mine. However, the drill logs and mine drawings show that the sampling was done in a thorough and systematic manner. Standard PCGM procedure was to chip sample mineralized sections of drifts and raises at approximately 5 foot (~1.5 metre) spacing. The muck sampling locations are unknown. Historic assays were reported as \$ Value per short ton (gold price US\$35 per troy ounce) or as troy ounces per short ton. Sample lengths were reported as inches or feet (to 1 decimal place). The samples were most likely sent to an assay laboratory at the mine.”

“Highland Crow Resources/Noramco: The reports on the underground sampling by Highland Crow/Noramco do not provide any details of the sampling methodology utilized for the program. Most of the samples were sent to Accurassay Laboratories in Thunder Bay, Ontario for assay. Other assays were done at Bondar-Clegg & Company Ltd. in Ottawa, Ontario.”

#### **“Cantera Mining Limited No. 1 Shaft Pit, Muck and Blast Hole Samples”**

“The reports available to MPH do not provide any details of the sampling methodology utilized for muck and blast hole sampling programs conducted by Cantera in the latter part of 2002. The muck samples were combined into four composites, with a total of 248 individual samples, as follows:

- Series A: Composite sample comprising 61 approximately 5 kilogram samples taken every middle last [loader] bucket per truckload.
- Series B: Composite sample comprising 91 approximately 5 kilogram samples taken every truckload, stockpile No. 1.
- Series C: One sample every fourth truckload, stockpile No. 1, 46 approximately 5 kilogram samples.
- Series D: Composite sample comprising 50 approximately 5 kilogram samples of four truckloads.”

“The blast hole samples were collected from rotary air-track drill cuttings, one composite sample per hole. A total of 103 blast hole cuttings samples were collected by Cantera Mining personnel during the mining program.”

“The samples were sent to Accurassay Laboratories in Thunder Bay, Ontario for assay. Some check assays were done at Bourlamaque Assay Laboratories Ltd. in Val d’Or, Quebec.”

#### **“Cantera Mining Limited Tailings Samples”**

“Dominion Soils and Testing Engineering Consultants Inc. (“DST”) of Thunder Bay, Ontario was retained by Cantera in May 2002 to complete a tailings sampling program on Tailings Basin 3 as well as geotechnical drilling at Tailings Basin 1. A Cantera report is available detailing the sampling methods (Stevens, 2002).”

“The sampling was carried out on a picket line grid utilizing a rubber tired CME 750 soils drill equipped with 200 mm (8 inch) hollow stem augers and ‘split spoon’ sampling tools. The split spoon sampling tool provides a more or less complete and undisturbed core profile through the tailings and other unconsolidated materials. A typical drill hole profile from top to bottom is as follows:”

- “Oxidized tailings.
- Grey un-oxidized tailings.
- Peat/organics.
- Glacial till.
- Bedrock”

“The auger samples were logged and the tailings divided into oxidized and un-oxidized sections for sampling. Sample records were kept as numbered sample books, on ‘chain of custody’ sample sheets, and as tables incorporated into the drill logs. Samples were double bagged, a numbered sample tag was placed inside each sample bag sent for analysis and the appropriate sample number was also marked on the outside of each bag.”

“The samples were sent to Accurassay Laboratories in Thunder Bay, Ontario for assay. Some check assays were done at Bourlamaque Assay Laboratories Ltd. in Val d’Or, Quebec.”

#### **“MPH Consulting Verification Samples”**

“MPH collected a total of 9 samples from the Property in connection with this Technical Report. Two types of samples were obtained on a spontaneous and random basis as follows:”

- “Eight field duplicate split core samples from a series of Noramco drill holes that are stored at two locations on the Pickle Crow Property, and
- One composite chip channel sample taken from the outcropping No. 5 Vein in the No. 5 Vein bulk sample pit.”

“The above samples were collected by MPH on October 24th, 2007. These were taken by collecting approximately half of the remaining split core for the drill core sections and collecting a representative composite chip sample for the specific sample interval at the No. 5 Vein pit location. The samples were collected by H. Coates and were continuously in his

possession until shipped by courier to the laboratory. All samples were submitted to the Accurassay Laboratories in Thunder Bay, Ontario for assay.”

The results of MPH’s verification samples can be found in Section 11 of this report.

Fladgate has used some of the historical drill holes and underground chip samples in the preparation of the mineral resource estimate presented in this report. Only chip samples from the Shaft 1 area were digitized and available. Drill hole selection criteria are discussed in Section 14 below.

### **10.3.2 PC Gold Samples**

Two types of sample collected by PC Gold during exploration of the Pickle Crow property were used in the preparation of the mineral resource estimate presented in this report: channel samples from trenches and diamond drill core. Sampling procedures remained the same after the previous 2011 mineral resource report (Hennessey, 2011).

#### **10.3.2.1 Channel Samples**

Collection of the trench channel samples was completed after the trenches were excavated, washed and mapped. Channel sampling was performed utilizing a Stihl ‘quick-cut’ rock saw. Two continuous parallel cuts were sawn approximately 5 cm apart and approximately 5 cm deep, with the rock in between then chipped out using a chisel. Sample lengths varied between 0.3 and 2.0 m averaging 0.90 m.

Each sample was placed in a thick plastic bag with the sample number clearly written on the outside of the bag with permanent marker and with one portion of a three-part sampling ticket placed inside. Each sample was sealed with a cable strap.

The location of the samples was noted in the sample book and on the trench map. Aluminum tags with etched sample numbers were hammered into the cross cuts, using cement nails, at the beginning of each sample interval for a permanent record on the trench. Once collected, the samples were bagged and shipped as per the sample shipment procedures described below, with the exception that all channel samples were shipped to AGAT Laboratories Ltd. of Mississauga, Ontario.

#### **10.3.2.2 Diamond Core Logging and Sampling**

NQ diameter (47.6 mm) drill core was logged, then sawn in half using diamond bladed saws at the secure logging/core-cutting buildings onsite, under the overall supervision of the logging geologists. The core was sawn in half following a sample cutting line determined by the geologists during logging.

After cutting, one half of the core was bagged, labelled and sealed with a zip tie or staples after one part of the three-part sample tag was placed inside. The second part of the sample tag was stapled into the core box at the beginning of each sample. The third part of the tag

was kept in the sample tag book as a permanent record. The remaining half core was placed in core boxes to serve as a permanent record and stored in a secure onsite facility.

All samples were shipped from the site in a locked wooden crate with security tags. The samples were transported via Manitoulin Transport to laboratory preparation facilities in Thunder Bay, Ontario for crushing, pulverization and pulp preparation. In 2008, samples were shipped to ALS Chemex's facility in Thunder Bay. In 2009 and 2010, samples were sent to Accurassay Laboratories in Thunder Bay.

### **10.3.3 Security and Chain-of-Custody**

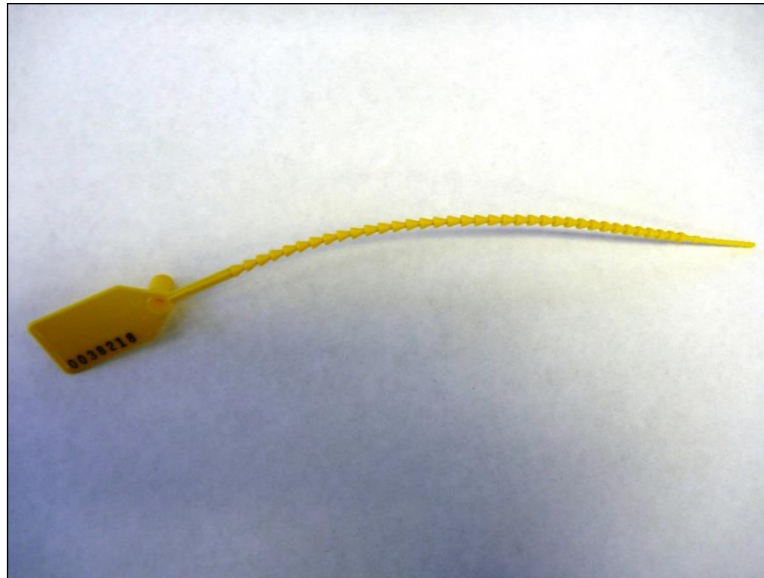
Once the core/channel samples were cut, bagged and sealed with zip ties or staples, ten samples were put into a larger rice bag, which was then sealed with a secure, numbered security tag (see Figure 10.5). The security tag numbers were recorded along with the corresponding samples within the bag, and then shipped in the locked wooden crates to the laboratory. Once they arrived at the laboratory, the security tags and corresponding samples were recorded again by the laboratory and emailed back to the PC Gold field site for confirmation.

Prior to shipment, the sample bags were stored in a locked building onsite. The site is always occupied. No samples were left at the project site during field breaks.

A total of 5,797 drill samples, which include QA/QC samples (i.e. duplicates, standards and blanks) were submitted to ALS Chemex in 2008 for analysis. A total of 42,392 drill samples, including QA/QC samples, were submitted to Accurassay in 2009 and 2010 for analysis. A total of 1,577 channel samples, including QA/QC samples, were submitted to AGAT Laboratories in 2010 for analysis.



**Figure 10.7**  
**Sample Bag Seals**



Source: PC Gold, 2010.

#### **10.3.4 2011, 2016/2017 Drilling**

The 2011 and 2016/2017 drilling campaigns were supervised and implemented by Fladgate. Fladgate used the same sampling method and approach as they did for PC Gold.

#### **10.3.5 Summary and Conclusions**

It is Micon's opinion that the logging and sampling protocols used by First Mining and PC Gold at the Pickle Crow project conform to conventional industry standards and to what are generally regarded as best practices. Micon is confident that the system is appropriate for the collection of a database suitable for the estimation of an NI 43-101 compliant mineral resource estimate.

## 11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

### 11.1 MPH DATA VERIFICATION

The information on historical data validation is taken from the MPH Technical Report prepared for PC Gold (Coates and Anderson, 2008).

“The data verification aspects include the confirmation of existence of work sites such as survey grids, property boundaries, drill holes and underground workings as well as procedures to test the reliability of the historic database, in particular the gold analytical results. With respect to the analytical data, the in-laboratory and intra-laboratory QA/QC procedures, or lack thereof, of the various previous Property operators were reviewed along with the preliminary results of duplicate sampling results between the Cochenour Assay Laboratory and Accurassay Laboratories. This duplicate sampling was completed by Noramco in the late 1980’s in connection with the 1981 Gallant Gold Mines drilling. The office procedures used by PCGM, Noramco, and others to verify the database used in the historic resource estimates for the PCGM mine and Noramco feasibility study (preliminary economic evaluation) were also reviewed, as well as QA/QC protocols implemented by Cantera Mining Limited for the 2002 tailings sampling program. Finally MPH implemented a limited check sampling program in connection with this Report.”

“The confirmation of existence of work sites investigation for MPH was done by H. Coates during his October 23rd and 24th, 2007 site visit. In essence all of the work sites and technical observations reported by previous operators and checked by MPH were found to be properly recorded and accurate within acceptable limits.”

“As noted in Section 12.0 [of the MPH Technical Report], the laboratories utilized by the various post-mining Pickle Crow Property operators employed the usual in-laboratory blanks, standards and duplicate analyses to ensure precision and accuracy of results. While there is no documentation available for the earlier PCGM results it is likely that similar procedures would have been adhered to.”

“Very minimal assay quality control (QC) and quality assurance (QA) data exists for the PCGM mining operation, the post-mining exploration programs, and the various historic resource estimates.”

#### **“Historic PCGM Gold Assay Information”**

“There are no known external check assays or assay certificates for the estimated hundreds of thousands of samples assayed for gold at the mine laboratory during the operational life of the Pickle Crow Gold Mine. However, the ultimate test of this database is the mine’s prolonged successful operational history as defined by its gold sales. In the opinion of MPH, the mine assay database is founded on thoroughly tested sampling and analytical practices, so therefore must be considered sound and reliable.”

**“Noramco Field Duplicate Samples, 1981 Gallant Drill Core”**

“While examining drill logs from the 1981 Gallant Gold Mines diamond drilling program MPH noted the existence of a second set of samples and gold assays penciled into the original logs at certain intervals. This sampling was subsequently traced to a core re-logging/re-sampling exercise completed by Noramco in the late 1980’s. No report on this work is currently available to MPH.”

“MPH considered this to be important information that might provide a degree of corroborative verification of analytical data between historic exploration programs. The analytical results for original split core samples submitted to the Cochenour Assay Laboratory and the field duplicate core samples sent to Accurassay Laboratories, as compiled by MPH (samples with assays below detection limit not included: units converted to metric system), are shown in Table 13-1 [Table 12.1 in this report]. Scatter plots were prepared by MPH as a check of the data and are presented in Figure 13-1 [Figure 12.1 in this report].”

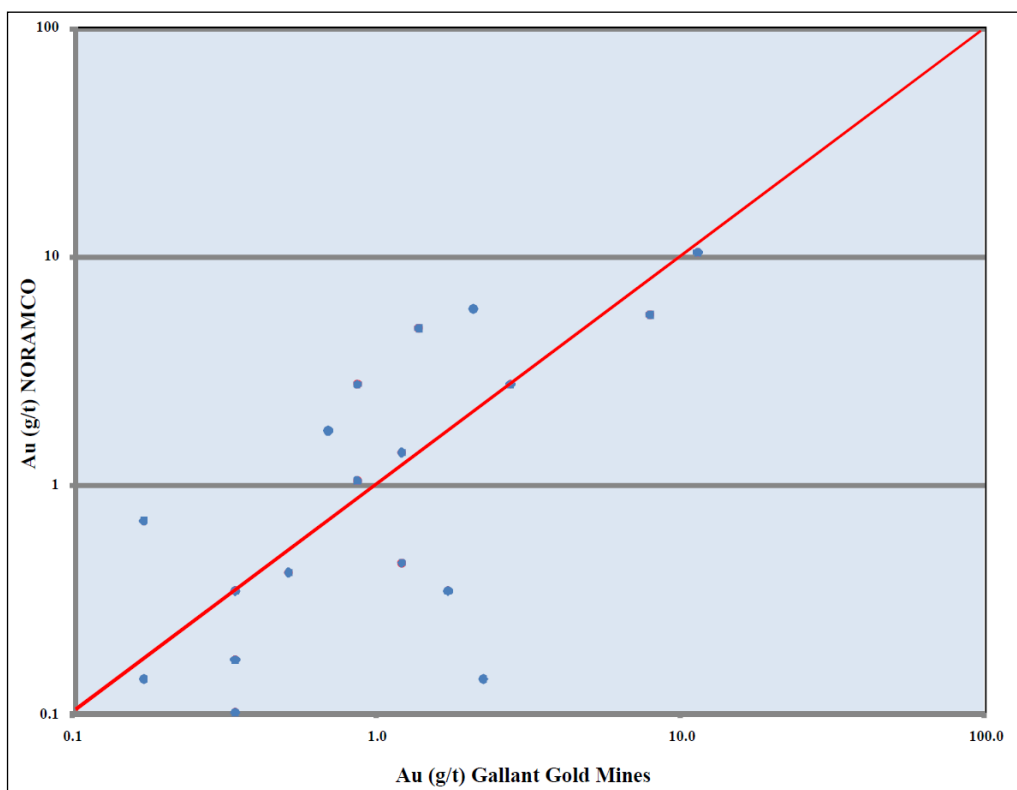
**Table 11.1  
Noramco Field Duplicate Samples, 1981 Gallant Drill Core**

Drill Hole	Interval		Gallant (Cochenour)		Noramco (Accurassay)	
	From (m)	To (m)	Sample #	g/t Au	Sample #	g/t Au
GP81-12	112.87	113.11	3042	11.31	64464	10.29
	114.85	115.82	3043	0.69	64466	1.71
GP81-14	37.34	37.95	3072	0.34	64481	0.10
	118.96	120.49	3079	2.06	64484	5.83
	120.49	121.31	3080	7.89	64486	5.49
	131.67	132.31	3082	0.34	64488	0.34
GP81-15	81.41	82.08	3094	0.34	63564	0.17
GP81-16	23.74	23.96	3101	0.34	64496	0.03
	78.52	79.16	3111	0.17	64495	0.03
GP81-17	79.55	81.08	3132	1.03	64498	0.03
	202.11	202.84	3151	1.37	64500	4.80
GP81-18	199.83	203.64	3168	0.17	63554	0.03
	207.02	208.21	3169	0.34	63555	0.34
	221.16	221.74	3171	0.86	63556	1.03
GP81-19	170.93	171.42	3197	0.17	63557	0.69
	171.42	172.67	3198	0.86	63558	2.74
	172.67	173.10	3199	1.71	63559	0.34
GP81-28	56.27	57.15	8473	2.74	63562	2.74
GP81-32	44.04	45.17	1556	0.17	63563	0.03
GP81-35	19.42	20.36	1609	0.17	64264	0.14
GP81-36	58.46	59.89	1631	0.34	64279	0.17
GP81-39	114.12	115.03	1700	0.17	64257	0.03
GP81-42	34.17	34.41	1790	2.23	64233	0.14
GP81-43	105.31	105.64	PL21	1.20	64309	0.45
GP81-44	113.29	114.06	PL41-42	0.51	64317	0.41
GP81-45	250.33	250.85	821	1.20	64335	1.37

“In MPH’s opinion the previous laboratory assaying was most probably done to industry standard at the times of completion. Both laboratories are known by MPH to have operated in a highly professional manner. MPH believes that assaying accuracy is very likely to be reasonable.”

“However, reproducibility (precision) is generally low, most likely as a result of ‘nugget effect’ caused by the presence of free particulate gold that is typically randomly distributed even in pulverized samples. Also it is noted that neither laboratory’s assays are consistently higher or lower than the other’s. This provides further evidence of ‘nugget effect’ as well as laboratory reliability.”

**Figure 11.1**  
**Check Assays Scatter Plot, Cochenour-Accurassay, Field Duplicates Au.**



Source: PC Gold

**“Late 1980’s Noramco Mineral Resource Estimates”**

“Several mineral resource estimates were completed by or for Noramco in the latter part of the 1980’s (Winter, 1986, 1987, 1988; McAuley, 1988; Noramco, 1988; MacGregor, 1989; MacQueen and McAuley, 1989). The parameters utilized and grade/tonnage estimates for the most pertinent of these to the current situation are summarized in Section 16 below [in the MPH Technical Report]. Data verification aspects are summarized here.”

“Of the estimates noted above, only the study by MacQueen & McAuley, (1989) on the No. 5 Vein and the No. 5 Iron Formation Zone utilized computer software for the resource estimation. This study also represents the first (and only) known exercise to systematically combine detailed PCGM mine data with the more recent Highland Crow/Noramco exploration data to form an integrated database. Using old PCGM detailed level plans and stope longitudinal sections as a base, together with data from over 300 drill holes and survey points, a new set of plans and sections was generated utilizing Borsurv software. Approximately

25,000 assays from drill holes, stopes, drifts and raises were entered into LOTUS 123 spreadsheets to determine reserve block average grades. The reports available regarding this work do not state what cross checks, if any, were conducted to verify the accuracy of the data base vis a vis the original assay records, drill logs, certificates, etc. It is also unknown if the drill hole collar and down-hole survey azimuth and dip values have been checked.”

#### **“Historic QA/QC Protocols”**

“In reviewing the historic information on the Pickle Crow Property there is occasional information that might indicate some degree of attention to Quality Assurance/Quality Control (QA/QC) matters. However, nowhere in the records examined to date are there written protocols covering the following technical aspects of the historic exploration and development programs:”

- Survey control of drill holes and other physical features,
- Core and auger drilling procedures,
- Core, chip, grab, muck and tailings sample handling, transportation, logging, sampling and security procedures,
- Data storage and management,
- Submission of quality control samples (standards, blanks, duplicates) to the principal laboratory,
- Intra-laboratory or umpire assays,
- Assay quality monitoring,
- Twinned and scissor holes to verify historic database information, and
- Bulk density measurement procedures.

“The first three items on the list of protocols have been discussed as much as possible in earlier sections of this Report. The remaining items, dealing with data storage and management and the reliability of historic analytical results, are discussed further below.”

“Data storage and management is currently in the form of hard copy files and drawings that were kept at or near the Pickle Crow mine site. While the files have suffered some deterioration mostly due to moisture damage over time they are for the most part intact and useable. It would be a major undertaking to convert all of these records to a digital database, although a fully warranted one in the opinion of MPH.”

“It would be advisable, in MPH’s opinion, to follow procedures to ensure that potential problems with future assay quality are identified and rectified promptly. PC Gold should initiate a regimen for submitting its own blanks, standard samples and field duplicates with each batch of samples sent to the laboratory. This would be in addition to the principal laboratory duplicates, blanks and internal standards. Inter-laboratory analyses or umpire checks should be done on pulp residues by outside independent laboratories on a regular basis.”

“At the time of writing this Report no historic drill holes by previous operators have been twinned by subsequent operators. Nor have any scissor holes have been completed crossing from footwall to hanging-wall instead of the customary opposite.”

“No bulk density determinations have been found in the Pickle Crow Property records. Historically PCGM used a tonnage factor of 12.0 cubic feet per short ton (2.67 tonnes/m<sup>3</sup>) to convert volume to tonnage. This tonnage factor is considered by MPH to be reasonable and reliable for the auriferous quartz vein material mined by PCGM. Various post-mining reserve estimates utilized a variety of tonnage factors:”

- Highland Crow, 1986: 9.0 ft<sup>3</sup>/ton (3.56 t/m<sup>3</sup>)
- Noramco, 1988a: iron formation 10.0 ft<sup>3</sup>/ton (3.20 t/m<sup>3</sup>), veins 11.0 ft<sup>3</sup>/ton (2.91 t/m<sup>3</sup>)
- WGM, 1989: Iron Formation 10.0 ft<sup>3</sup>/ton (3.20 t/m<sup>3</sup>), Veins 12.0 ft<sup>3</sup>/ton (2.67 t/m<sup>3</sup>)
- Noramco, 1989: Iron Formation 10.0 ft<sup>3</sup>/ton (3.20 t/m<sup>3</sup>), Veins 12.0 ft<sup>3</sup>/ton (2.67 t/m<sup>3</sup>)

“The reasons for the broad range of tonnage factors are unknown to MPH. PC Gold should institute a plan to accumulate a bulk density database by collecting data from all rock types, all porosity states, and from both mineralization and waste. Measurements should be taken from all samples collected in the mineralized horizons.”

“In general, there seems that not much attention has been given to recording the basic elements of QA/QC during the work programs at Pickle Crow. However, there is still an opportunity available to verify all or part of the historic database by re-sampling of historic sites as they become accessible during future work. Twinning of existing drill holes may also help to confirm historic results.”

#### **“MPH Consulting Check Samples”**

“MPH collected a total of 9 samples from the Property. Two types of samples were obtained on a spontaneous and random basis as follows:”

“Eight split core field duplicate samples of potential gold bearing material were collected from drill core sections stored at the Pickle Crow Property core storage areas. One composite chip sample was collected from the No. 5 Vein bulk sample pit.”

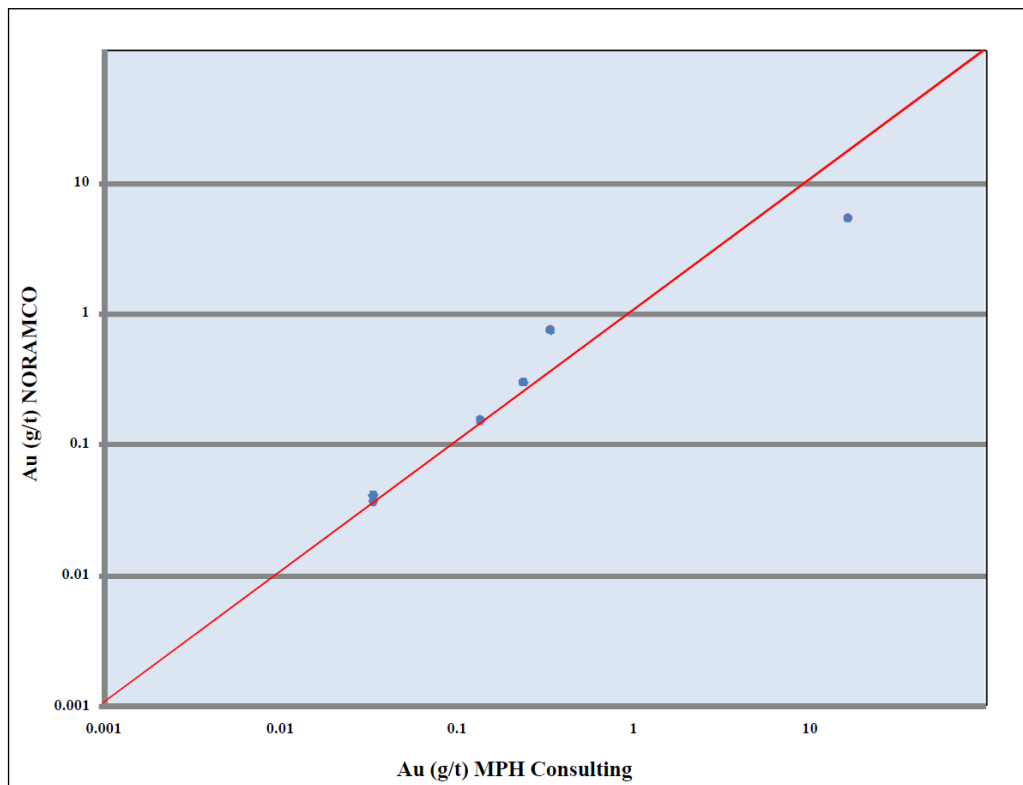
“The gold bearing sections have been sampled by two unrelated parties including previous property holder Noramco and MPH. Duplicate samples for split core samples from drill holes were collected by MPH on October 23rd and 24th, 2007. These were taken by collecting approximately 50% of the remaining split half core for the specific sample intervals. The samples were collected by H. Coates and were continuously in his possession until shipped by courier to the laboratory. All samples were submitted to the Accurassay Laboratories analytical laboratory in Thunder Bay, Ontario for assay and the results compared. The original assays of two of the samples have not yet been located.”

“The MPH split core field duplicates and other samples along with the original Noramco assay results where available are shown in Table 13-2 [Table 12.2 in this report]. The MPH field duplicates and original Noramco assay results are compared in Figure 13-2” [Figure 12.2 in this report].

**Table 11.2**  
**MPH Consulting Limited Check Samples**

Location	Sample Type	From (m)	To (m)	Interval (m)	Original Sample #	Au (g/t)	MPH Sample #	Au g/t
HC86-51	Split core	25.91	27.43	1.52	12014-15	0.240	G54525	0.292
HC86-59	Split core	38.71	40.23	1.52	12221-22	0.340	G54526	0.729
HC86-84	Split core	141.43	142.95	1.52	A13469-70	0.034	G54527	0.040
HC86-86	Split core	144.17	145.69	1.52	13558-59	16.371	G54528	5.235
HC88-205	Split core	7.16	8.68	1.52	256591-92	0.137	G54529	0.149
CP87-47	Split core	110.64	112.16	1.52			G54530	0.042
CP88-80	Split core	85.22	86.74	1.52	S 2-62217		G54531	6.988
HC88-227	Split core	54.83	56.35	1.52	267134-35	0.034	G54532	0.036
No. 5 Pit (s end)	Chip			2.0	G54533	9.754		
	Lab. Dup.			2.0	G54533	8.832		

**Figure 11.2**  
**Check Assays Scatter Plot, MPH-Noramco, Field Duplicates Au.**



Source: PC Gold, 2010.

“There is good general agreement between the duplicate sample results, although with minor indications of nugget effect. The nugget effect is illustrated by moderate differences in gold values for individual samples both within and between laboratories. The fact that neither laboratory is systematically higher or lower than the other indicates that the analytical data is generally reliable.”



## **11.2 PC GOLD AND FIRST MINING SAMPLES**

### **11.2.1 Analytical Laboratories**

For the analysis of Pickle Crow drill core samples, ALS Chemex, a subsidiary of ALS Group, was chosen as the primary laboratory in 2008. Accurassay Laboratories was chosen as the primary laboratory for drill core samples in 2009 and going forward.

In 2008, samples were crushed and prepared at ALS Chemex's facilities in Thunder Bay, Ontario and sample pulps were shipped to its North Vancouver, British Columbia laboratory for analysis. ALS Chemex's facilities in Thunder Bay are certified to ISO 9001. The laboratory in North Vancouver is accredited to ISO 17025 for gold fire assay by atomic absorption and gravimetric finish, as well as four-acid multi-element analysis by ICP and MS.

In 2009 and 2010, samples were crushed, prepared and analyzed at the Accurassay Laboratories facility in Thunder Bay, Ontario. Accurassay is accredited to ISO 17025 for gold by fire assay with atomic absorption finish.

Fladgate visited the ALS Chemex and Accurassay Laboratory facilities in Thunder Bay and reviewed the sample preparation equipment and appropriate preparation areas, and in the case of Accurassay, fire assay and ICP analysis equipment and procedures.

The trench channel samples were assayed at AGAT Laboratories in Mississauga, Ontario. AGAT is accredited to ISO 17025.

### **11.2.2 Sample Preparation**

All samples received by ALS Chemex in Thunder Bay are processed through a sample tracking system that is an integral part of the company's Laboratory Information Management System (LIMS). This system utilizes bar coding and scanning technology that provides complete chain-of-custody records for every stage in the sample preparation and analytical process and helps to limit the potential for sample switches and transcription errors.

All samples sent to ALS Chemex for analysis were prepared using a jaw crusher, which was cleaned with compressed air between samples, resulting in 70% of the sample passing through a 10 mesh screen. A 1,000 g split of the crushed sample was then pulverized to 85% passing a 200 mesh screen.

Prepared sample pulps were shipped to North Vancouver by ALS Chemex for analysis. Duplicate pulps and coarse rejects from the prepared samples were returned to PC Gold and stored onsite in steel shipping containers (pulps) and steel drums (rejects) for future reference.

Accurassay Laboratories also uses a LIMS tracking system for its samples. All samples sent for analysis were prepared using a jaw crusher, which was cleaned with a silica abrasive

between samples, resulting in 90% of the sample passing through an 8 mesh screen. A split of the crushed sample weighing 1,000 g was then pulverized to 90% passing a 150 mesh screen.

AGAT Laboratories' sample preparation procedures include crushing to 75% passing 2 mm and pulverizing to 85% passing 75 µm.

### **11.2.3 Analyses**

For all three laboratories, the prepared sample pulps were analyzed for gold by fire assay using 50 g sample charge with atomic absorption spectroscopy (AAS) finish. If the returned assay result was equal to or greater than 5 g/t then the sample was reassayed by fire assay with gravimetric finish. All samples greater than 10 g/t, and any samples suspected of nugget gold (quartz veins) were additionally sent for pulp metallics analysis using the remainder of the pulp (~950 g of sample). The procedure to determine which gold assay method to enter into the database was as follows. If a pulp metallic assay was performed it was used. If a pulp metallic assay was not performed then a gravimetric assay was used. If a gravimetric assay was not performed then the AAS assay was used. If re-assays were performed then the first analysis was used unless a QA/QC investigation proved that the first assay was suspect, in which case the second analysis was then used.

### **11.2.4 Laboratory QA/QC**

#### **ALS Chemex**

Like most modern analytical laboratories, ALS Chemex runs its own internal QA/QC program involving the use of blank and standard reference materials, as well as duplicate samples.

ALS Chemex reports:

“In addition to routine screen tests, sample preparation quality is monitored through the insertion of sample preparation duplicates. For every 50 samples prepared, an additional split is taken from the coarse crushed material to create a pulverizing duplicate. The additional split is processed and analyzed in a similar manner to the other samples in the submission.”

“Quality control samples including certified reference materials, blanks, and duplicates are inserted within each analytical run. The blank is inserted at the beginning, standards are inserted at random intervals, and duplicates are analyzed at the end of the batch. The minimum number of quality control samples required to be inserted are based on the rack size specific to the method. Examples are shown in the following table” [Table 11.1 in this report]:

**Table 11.3  
ALS Chemex Quality Control Sample Allocation**

Rack Size	Methods	Quality Control Sample Allocation
20	Specialty methods including specific gravity, bulk density, and acid insolubility	2 standards, 1 duplicate, 1 blank
28	Specialty fire assay, assay-grade, umpire and concentrate methods	1 standard, 1 duplicate, 1 blank
39	XRF methods	2 standards, 1 duplicate, 1 blank
40	Regular AAS, ICP-AES and ICP-MS methods	2 standards, 1 duplicate, 1 blank
84	Regular fire assay methods	2 standards, 3 duplicates, 1 blank

“If any data for reference materials, duplicates, or blanks falls beyond the control limits established, it is automatically flagged red by the computer system for serious failures, and yellow for borderline results. The Department Manager conducting the final review of the Certificate is made aware that a problem may exist with the data set.”

“Most geochemical procedures are specified to have a precision of  $\pm 10\%$ , and assay procedures are  $\pm 5\%$ . The precision of Au analyses is dominated by the sampling precision. Control charts for frequently used method codes are generated, evaluated, and distributed to Departmental managers for posting in the lab on a weekly basis. The control charts are evaluated to ensure internal specifications for precision and accuracy are met. The data are also reviewed for any long-term trends and drifts. These control charts for standards and methods are available for client review.”

### **Accurassay Laboratories**

Accurassay Laboratories reports:

“The prepared pulverized samples are processed by the fluxing department of the fire assay laboratory. Each load consists of either 27 or 28 samples and includes one blank, one internal standard (either a certified reference material or an in-house reference material traceable to certified reference material), two duplicates and sometimes a replicate. A sample list is written up that identifies every sample and standard included on the load. Every duplicate, replicate and standard (both internal and standards from the client) receive a double shot of silver inquart. This is done so that when the wet lab technicians process the load they can visually verify that the samples they are processing match the list of samples generated by the fluxers. A copper inquart is introduced to one sample somewhere on the load to also aid in the visual verification of the load. The samples are then fused and a lead button is produced. The lead button is then cupelled to produce a silver bead which will contain the precious metals. During these processes the chain of custody accompanies the samples.”

“The silver beads are picked and digested by wet lab technicians. As the samples are being picked the technician looks for where the double silvered samples fall and compare the location of the double silvered samples to the sample list. The copper inquart will turn the cupel green and is a visual aid in guaranteeing that the samples in the load match the samples on the sample list. All reagents used are metered to dispense the correct amounts. The

volumes are checked every shift using calibrated balances traceable to ISO/IEC 17025 standards.’

“The digested samples are analyzed using Varian 240FS spectrometers in manual mode. The samples are analyzed against a calibration curve generated by calibration solutions made from certified stock solutions. The calibration curve is verified using a second solution made from certified stock solutions from a lot number different than the lot number used to make the calibration solutions. As the technician analyzes the samples they look for irregularities in the load, i.e. duplicate and/or replicate samples don’t match, the internal standard doesn’t fall within established ranges, the calibration appears to drift, etc. Depending on the situation the technician may take corrective actions, i.e. re-run a sample, re-assay portions of the load, re-assay the entire load, recalibrate the instrument, etc.”

“The results are then imported into the LIMS. The data entry technician makes any mass or volume changes manually. The laboratory manager verifies the data by checking the internal QC data and generates a report.”

## **AGAT Laboratories**

AGAT Laboratories reports:

“For standard lead fire assay techniques replicate samples are assayed at a minimum of every 40 samples, reference materials at a minimum of every 20 samples and a reference blank at least every 40 samples. Pulp metallic assays involve taking the reject sample, pulverizing, and passing through a 100 mesh screen. The entire plus fraction is assayed using fire assay procedures and duplicate fractions of the minus fraction. All fractions, and weights used, are reported as well as the total gold calculated.”

### **11.3 POST 2011, INCLUDING 2016/2017**

In the drilling completed since the previous 2011 mineral resource estimate, First Mining and PC Gold’s retained consultant, Fladgate, maintained the same sample preparation and analysis protocols.

### **11.4 CONCLUSIONS**

It is Micon’s opinion that the sample preparation, security and analytical procedures used by First Mining and PC Gold are adequate for the purposes of generating data for mineral resource estimation.

Procedures to validate the quality of earlier data are described in Sections 11.5 and 11.6 below.

## 11.5 PC GOLD DATA VERIFICATION

### 11.5.1 QA/QC Program

PC Gold stores its diamond drill hole and trench data in Excel spreadsheets. These can easily be imported into Microsoft Access database software and used in many resource estimation/mine planning software packages. The company also uses Gemcom software to evaluate drill results and has the finalized data stored in Microsoft Access. Excel is used to manage the data and QA/QC program.

PC Gold reports that all data inputs and imports are validated for errors before being imported into Access. Data are analyzed, graphed and formatted before being exported for further evaluation.

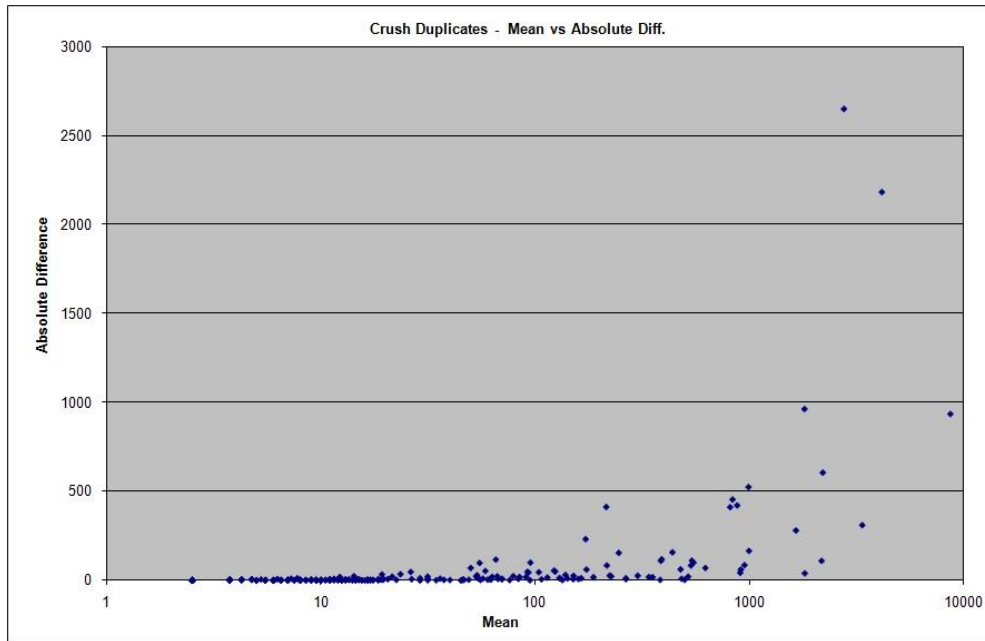
The Pickle Crow QA/QC program includes the use of crush duplicates, ¼-split drill core (field duplicates), the insertion of certified reference materials (CRM) including low, medium and high-grade standards and coarse blanks. This is accomplished by inserting the QA/QC samples sequentially in the drill core sample numbering system. One set of the four QA/QC types were inserted every 30 samples, consisting of 1 crush duplicate, 1 quarter-split field duplicate, 1 standard (alternating between a low, medium and high standard), and 1 blank. This resulted in approximately every seventh sample being a QA/QC sample.

Sample assay results are evaluated through control charts, log sheets, sample logbook and signed assay certificates to determine the nature of any anomaly or failure. Failures identified by Fladgate are re-assayed by the laboratory at which the failure occurred until a cause of the failure and correct analysis is obtained. Check assaying is also conducted on approximately 1 in every 20 samples. The pulps are re-numbered with new, sequentially-inserted QA/QC samples and sent to a second ISO certified laboratory (Actlabs of Ancaster, Ontario).

### 11.5.2 Duplicates

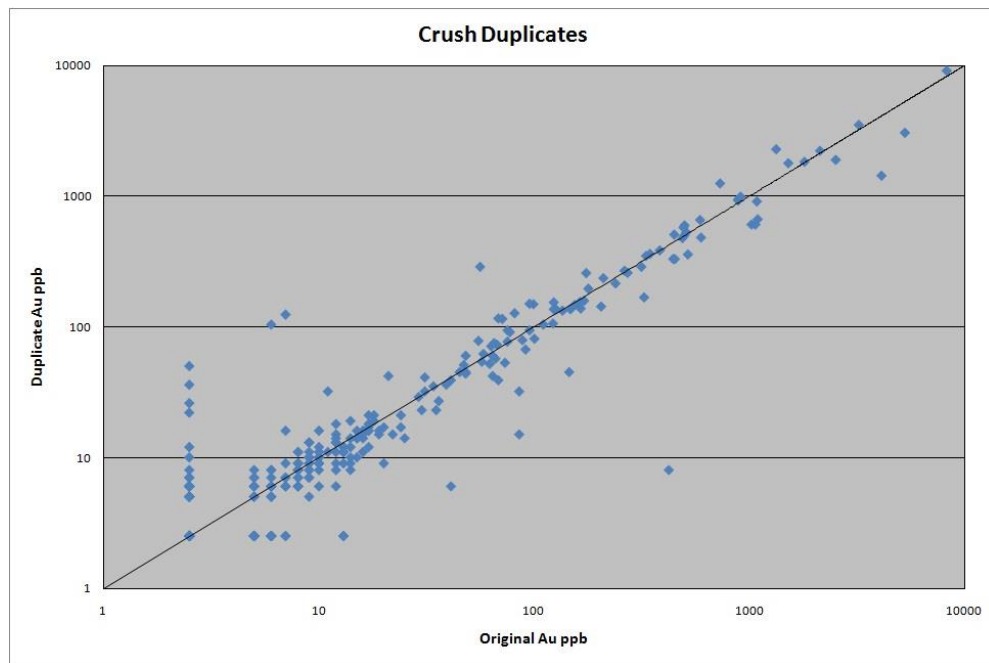
Crush sample and ¼-split core duplicate sampling was done to test analytical precision as well as the natural variability (nugget effect) of the mineralization. The variance between the original and duplicate sample pair assays is evaluated by plotting the absolute difference versus the mean (see example chart in Figure 12.3) to see the amount of scatter, as well as by plotting the original gold value versus the duplicate gold value (see example chart in Figure 12.4) to see the amount of deviation from a 1:1 line. Since Pickle Crow is primarily a nuggety vein deposit, no duplicates were considered failed. Duplication becomes more difficult the more nuggety the gold in a vein becomes, and this is most apparent at higher grades.

**Figure 11.3**  
**Crush Duplicate Plot of Mean Versus Absolute Difference**



Source: PC Gold, 2010.

**Figure 11.4**  
**Crush Duplicate Plot of Original Versus Duplicate Au Values**



Source: PC Gold, 2010.

### 11.5.3 Coarse Blanks

Approximately 1 kg of coarse blank material is used in each blank sample. The blank material used is crushed granitic rock obtained from a quarry at Vermilion Bay, Ontario and hence, is not a certified material. However, the characteristics of this material are well established as it has been used for nearly 10 years at the nearby Musselwhite mine as its source of blank samples. PC Gold reports that the recommended safe value is 100 ppb Au based on a study done by the Musselwhite mine. Assays below the detection limit of 5 ppb are given a 2.5 ppb grade by default. Coarse blank values above 15 ppb (3 times the detection limit) are reviewed and correlated with preceding assays and nearby CRMs to weigh their significance.

The coarse blanks are used to test for possible contamination or smearing effect of high-grade values to succeeding samples during sample preparation. Eleven coarse blank samples showed results >15 ppb, from which there were three cases that were indicative of smearing.

Overall, of the 1,505 coarse blank assays tested, three samples (0.2%) had values above the 100 ppb safe limit with indication of smearing but the economic effect appears limited and insignificant.

### 11.5.4 CRM/Standards

CRMs from Rocklabs Ltd., of Auckland, New Zealand were used in 2008 and early 2009. From mid-2009 onward, CRMs from Geostats Pty Ltd, of O'Connor, Australia, were used. Three types of CRM were used, representing low grade, marginal and high-grade material. Table 12.3 below shows the different CRMs that were used in the program and their accepted values.

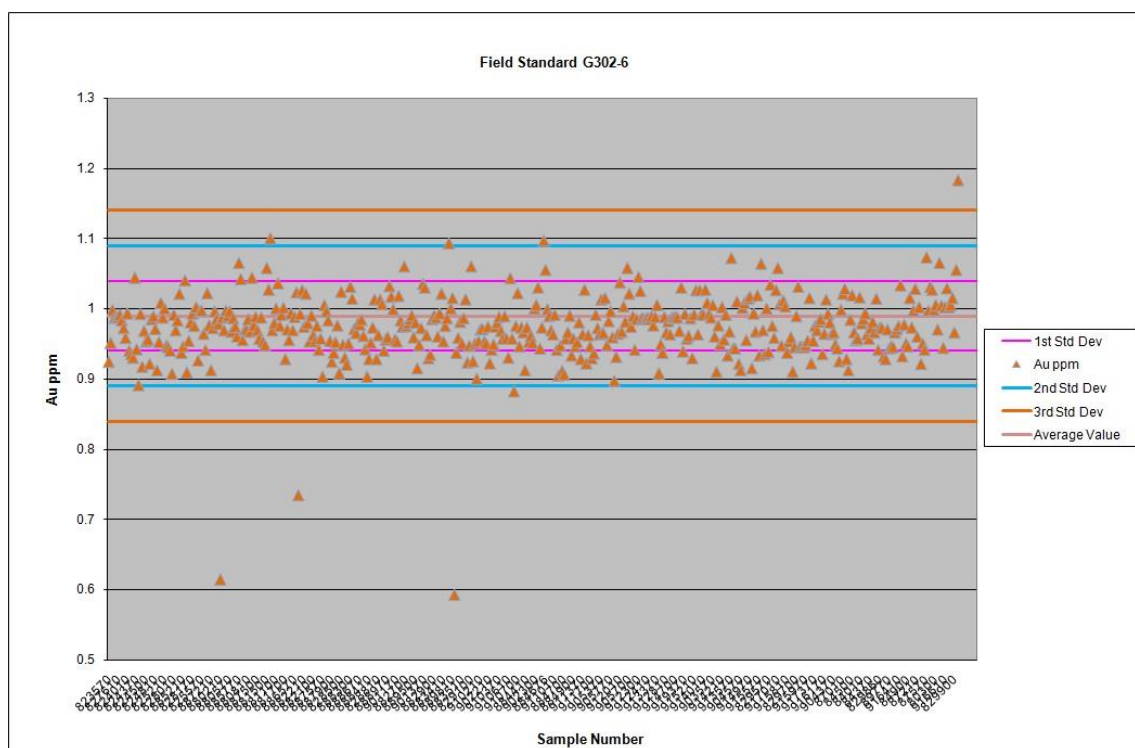
**Table 11.4**  
**Summary of Standards**

Standard	Mean Value (Au ppb)	-2 Std Dev (Au ppb)	+2 Std Dev (Au ppb)	-3 Std Dev (Au ppb)	+3 Std Dev (Au ppb)
Rocklabs SG31	996	940	1052	912	1,080
Rocklabs SJ32	2,645	2,509	2,791	2,441	2,849
Rocklabs SL34	5,893	5,612	6,172	5,472	6,312
Rocklabs SL46	5,867	5,527	6,207	5,357	6,377
Rocklabs SP37	18,140	17,380	18,900	17,000	19,280
Geostats G302-6	990	890	1,090	840	1,140
Geostats G301-10	5,570	5,150	5,990	4,940	6,200
Geostats G904-3	13,660	12,420	14,900	11,800	15,520

Control charts were used to evaluate the assaying accuracy through the CRM's performance in various "gates," where a pass was usually set within +/-2 standard deviations. The charts were generated in Microsoft Excel. Figure 12.5 is an example control chart from the program showing sample results and the control limits.



**Figure 11.5**  
**Example Control Chart**



Source: PC Gold, 2010.

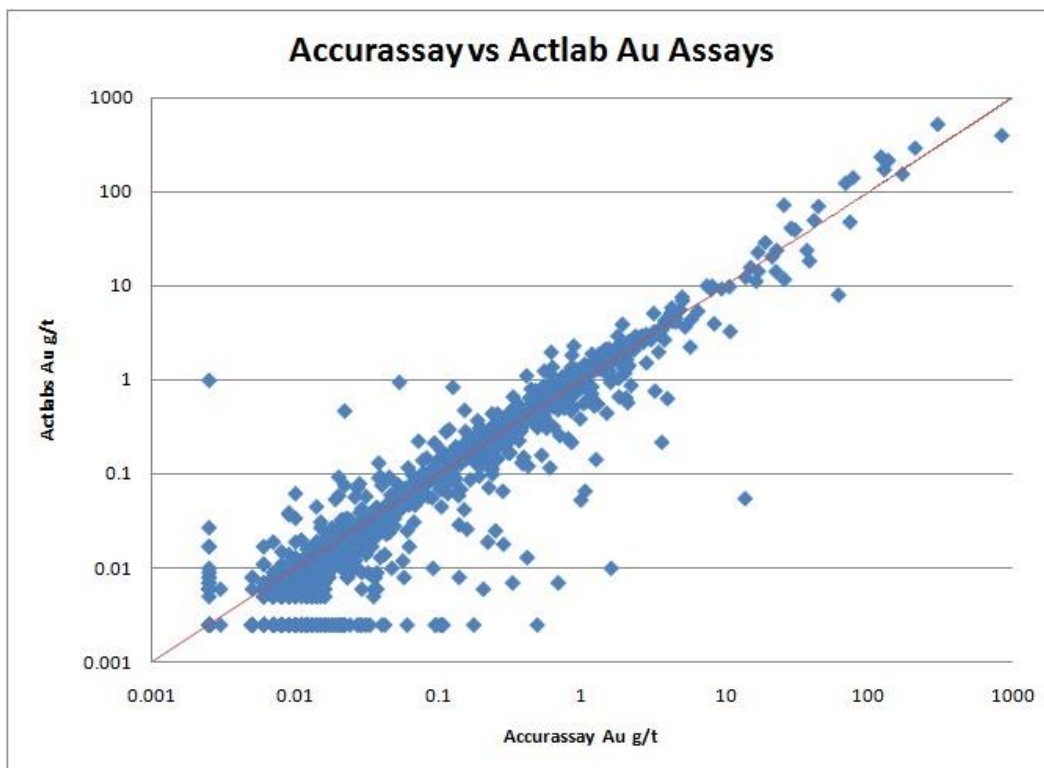
There were 136 cases of failure out of 1,983 CRMs used, affecting 81 batches of assay certificates. These were usually isolated results in a batch where several other CRMs and blanks passed. Whenever a CRM failed by being outside of two standard deviations, the CRM and the five samples both above and below were sent back to the laboratory for reanalysis. After a series of significant CRM failures in 2008, an investigation into procedures was undertaken with ALS Chemex and it was determined that there was a problem with the amount of PbO used in the flux during the fire assay process. It was further determined that this only affected the Rocklabs standards, not the surrounding core samples, as the Rocklabs standards are an artificial standard consisting predominantly of feldspar with some sulphide and an added gold-silver chloride solution. This led to a decision to change laboratories to Accurassay Laboratories in 2009, as well to Geostats standards, which are created from real rock.

### 11.5.5 Check Samples

Approximately 1 out of every 20 samples for the Pickle Crow project was submitted to a second laboratory, Actlabs, an ISO 17025 certified laboratory with a sample preparation and analytical facility in Ancaster, Ontario. The assaying protocol used is similar to ALS Chemex and Accurassay's using fire assaying with a 50-g charge and AAS finish. Samples above 3 g/t Au are re-assayed using a gravimetric finish, and above 10 g/t by pulp metallic methods. A total of 2,117 check samples were sent to Actlabs. Check assays generally matched the value

obtained by the original laboratory and the overall variation between laboratories was well within the natural variation of the sample material as indicated by the field and crush duplicates (see Figure 12.6).

**Figure 11.6**  
**Sample Check Assay Plot**



Source: PC Gold, 2010.

## 11.6 REVIEW OF HISTORICAL DATA

Some of the information provided in this section is drawn from an internal technical memorandum prepared for PC Gold by SRK Consulting Inc. The section entitled “Review of Historical Data” was used for this Technical Report.

Historical information from the Pickle Crow Shaft 1 area was collected, digitized and transformed into a digital database by both MPH and Fladgate. Much of the initial work was completed by MPH from 2007 to 2008.

### 11.6.1 Coordinate System

The original historical mine data were recorded in mine grid coordinates for each of the mine shaft areas. Hard copy long sections and plans from the mine were scanned and digitized by MPH in mine coordinates. All digitized products were transformed from mine grid coordinates to UTM NAD83, Zone 15 coordinates by MPH. Fladgate reviewed the

transformations and a re-survey of the Shaft 1 centre pipe. This review indicated errors in the location of the shaft centre pipe as well as a 2.0° to 2.5° skew in the orientation of the mine grid coordinates. Fladgate corrected these errors by using an affine coordinate transform using nine control points for the Shaft 1 data. All historical data in mine grid coordinates, including all digitized products compiled by MPH, including drill hole collars, were then transformed into UTM NAD83, Zone 15, metric coordinates by Fladgate using the new conversion. Recent drill holes drilled by PC Gold were located using the UTM NAD83, Zone 15 metric coordinate system.

### **11.6.2 Drill Hole Database**

The Pickle Crow drill hole database contains 3,423 historical surface and underground drill holes that contain 92,732 gold assays which were digitized by MPH and Fladgate from original hard copies of the drill logs. Fladgate carried out an extensive validation program on the Shaft 1 drill hole database removing composite samples and re-assay data from the assay database. The integrity of the database was verified by Fladgate, which checked 10% of the database against the original hard copy data sources. Down-hole survey data for surface drill holes were limited to a minimum frequency of about 60 m to a maximum of approximately 200 m. Underground drilling was, for the most part, surveyed only at the collar. However, these holes are generally short. All down-hole surveys contained dip and azimuth data. The paucity of down-hole survey measurements for the surface and underground drill holes used here may introduce an inaccuracy in determining the location of logged and assayed intervals.

Historical elevation data for surface drill hole collars are considered approximate and were largely based on 1:50,000 Imperial-scale historical topographic maps. Fladgate recalculated all historical surface collar elevations based on the 2008 LIDAR survey. Lithological descriptions in the drill hole database are generally good, but descriptions of auriferous vein intersections were not always explicitly identified.

### **11.6.3 Shaft 1 Area Mine Survey Pins**

Mine survey pins were digitized from level plans as two-dimensional X and Y coordinates. As actual pin elevation data were not available, the pin elevation was assumed to be at the mining level elevation. The lack of detailed elevation data for each level will result in some inaccuracies in locating chip sample locations, vein contacts as well as stope outlines. It is not anticipated that material errors in tonnage estimation will occur.

### **11.6.4 Chip Sample Data**

The Shaft 1 area chip sample database is comprised of 27,826 chip samples. No chip sample data were collected for the BIF or Conduit Zones. Stope chip samples were taken on average every 5 ft (1.5 m). Assay data for the stope chip samples were recorded as gross metal value in units of dollars per short ton. Sample lengths were recorded in inches. Each stope chip sample was digitized from scans of detailed mine long sections at a scale of one inch to

twenty feet. The Fladgate procedure used to generate data points for the stope chip samples was:

- Two dimensional digitization of sample point locations into mine grid coordinates;
- Entry of assay and length values for each sample point;
- Point coordinates adjusted to mine survey pin data at upper and lower levels of digitized area extent; and
- Point data placed in three dimensional coordinates by draping the point data on to the footwall surfaces of Veins 1 and 5.

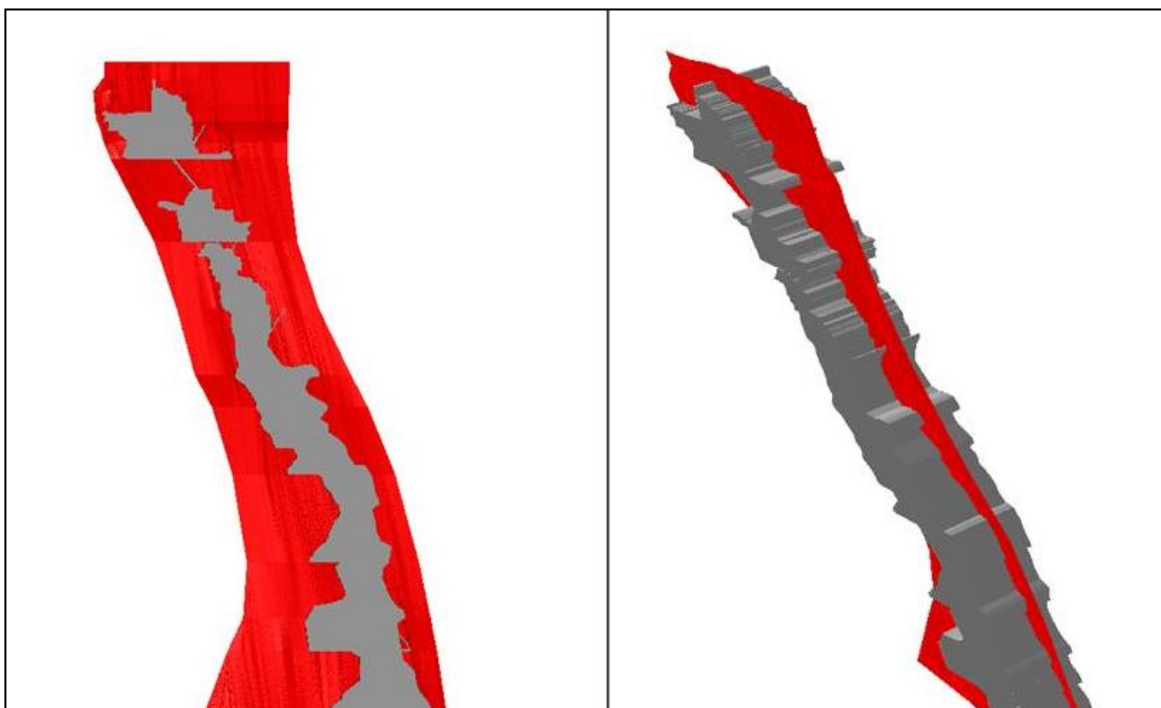
The level chip samples consisted of samples taken across mining drifts. It is not known if these samples were taken along drift faces or backs. In a procedure similar to stope chip samples, MPH digitized level plan scans at a scale of one inch equals twenty feet. The MPH procedure to generate the level chip sample data points was:

- Two dimensional digitization of sample point locations in mine grid coordinates;
- Entry of each assay and length values for each sample point;
- Assignment of point elevation based on the mining level elevation; and
- Draping of sample points onto footwall surfaces of Veins 1 and 5.

#### **11.6.5 Mining Excavations**

The outlines of the mine workings, including drifts, cross-cuts, and shafts, were digitized by MPH, from mine level plans, as two dimensional polylines. The true elevations for the mine excavations could not be generated as survey pin elevations were not available. MPH assigned mine level elevations to the digitized polylines to provide an approximate location in three dimensional space. Wireframe solids for the drifts were generated by Fladgate by extruding the polyline surface 2 m upwards. Shaft wireframe solids were generated by connecting shaft polylines at each level. The stoped-out areas were generated by digitizing outlines from long sections of the stopes. The stope polyline was then simplified to account for unrecoverable material within sill pillars and between raises and stopes. The simplified polyline was then extruded perpendicular to the long section to create a large solid encompassing all vein material within the stope limits within the 2D long section view (see Figure 12.7).

**Figure 11.7**  
**Extruded Vein 5 Stope Solid**



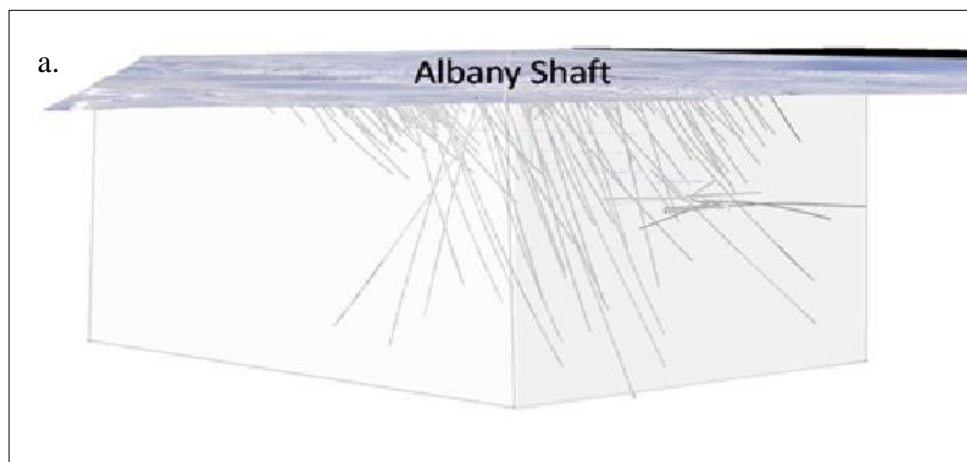
Stope shown in grey intersecting Vein 5 shown in red. The image on the left is a long section view while the right hand side is an isometric view. Source: PC Gold, 2011.

### **11.6.6 Comparison Between Drilling Generations**

In order to justify the use of historical assay data, Micon suggested that Fladgate perform a study to compare generations of drilling for the project, specifically in areas affecting the resource estimation. To effectively compare the drill holes, blocks encompassing drill holes in certain mine zones, with comparable drilling density, were chosen. The first block chosen for comparison of drill holes was PC Gold versus Noramco holes in the Albany Shaft area (all surface holes) (Figure 12.8). This area was chosen as comparable densities of drilling for each campaign in this area exist. The second area chosen was in the Shaft 1 area encompassing the BIF-Vein 5 intersection, comparing Noramco drilling to PCGM drilling. This block is suitable for comparison as surface and underground drilling for each campaign exists. (See Figure 12.9).

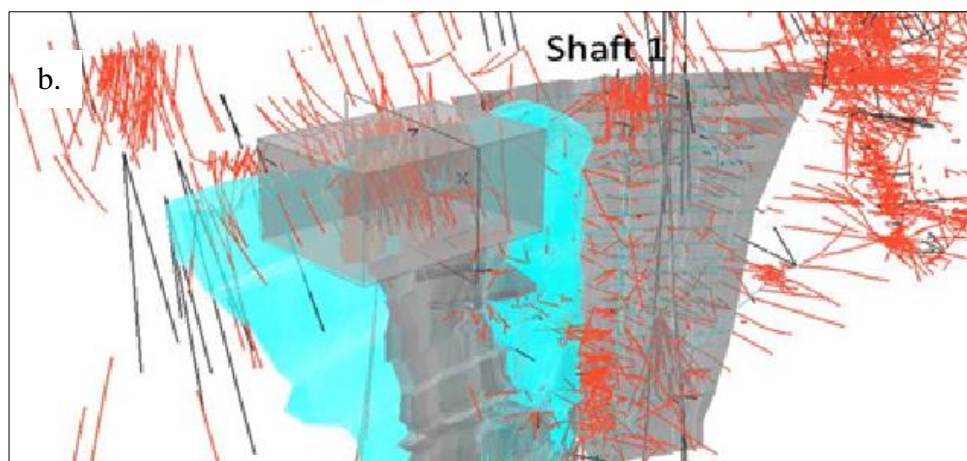
Log probability plots, histograms and univariate statistical analysis were used for comparisons of the data sets.

**Figure 11.8**  
**Block Used for Comparing PC Gold to Noramco Drill Holes**



Source: PC Gold and Fladgate, 2011.

**Figure 11.9**  
**Block Used For Comparing Noramco Holes to PCGM Holes**



Source: PC Gold and Fladgate, 2011.

#### **11.6.6.1 PC Gold Versus Noramco - Albany Shaft Area**

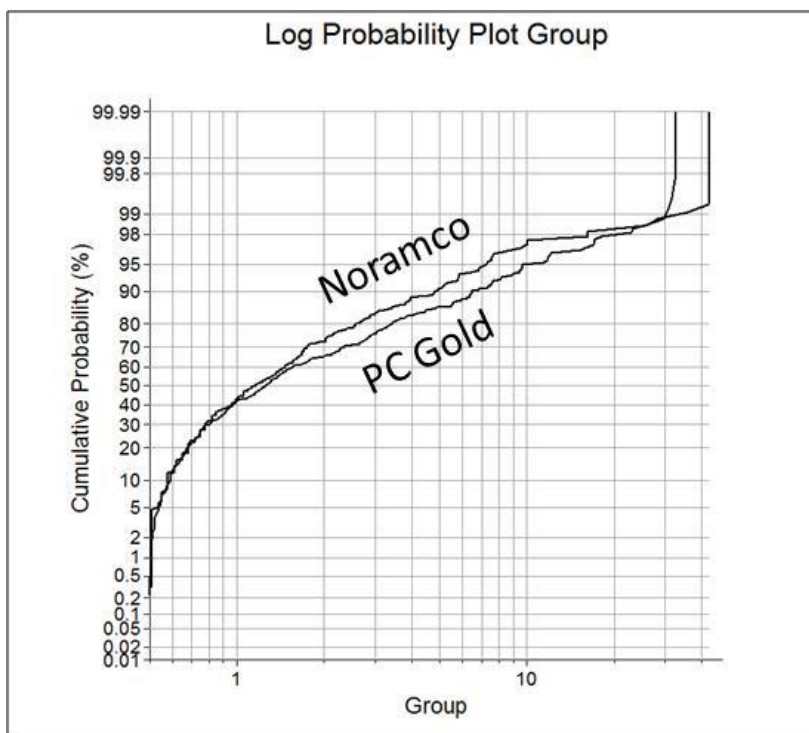
The Albany Zone is characterized by mineralization which can either be vein-hosted or associated with a zone of alteration. Therefore, comparing down-hole samples unrestricted by lithology is appropriate considering that the mineralization is not strictly constrained to any particular rock type. However, a lower cut at 0.5 g/t Au was applied to eliminate discrepancies as a result of historical laboratory detection limits and level of precision. The probability plots, histograms and univariate statistics comparisons (Table 12.4 and Figures 12.10 and 12.11) demonstrate the correlation between the data sets.

The greatest difference in the data occurs above the median, towards and above the 75<sup>th</sup> percentile, which is expected in skewed populations. Log histograms and log probability plots show comparable distributions, with PC Gold data slightly higher from around the 50<sup>th</sup> percentile to around the 98<sup>th</sup> percentile.

**Table 11.5**  
**Univariate Statistical Comparison Between Noramco and PC Gold**  
**Drilling in the Albany Shaft Area**

	Uncapped								
	Number of Holes	Number of samples	Mean	Standard Deviation	CV	Max Au	25%	50%	75%
<b>Noramco</b>	67	317	2.32	4.086	1.76	32.64	0.75	1.16	2.06
<b>PC Gold</b>	39	424	2.95	5.189	1.76	42.50	0.74	1.26	2.88
<b>% diff</b>			21%	21%	0%	23%	-1%	8%	28%
	Capped @ 30g/t								
	Number of Holes	Number of samples	Mean	Standard Deviation	CV	Max Au	25%	50%	75%
<b>Noramco</b>	67	317	2.31	3.975	1.72	30.00	0.75	1.16	2.06
<b>PC Gold</b>	39	424	2.85	4.492	1.58	30.00	0.74	1.26	2.88
<b>% diff</b>			19%	12%	-9%	0%	-1%	8%	28%

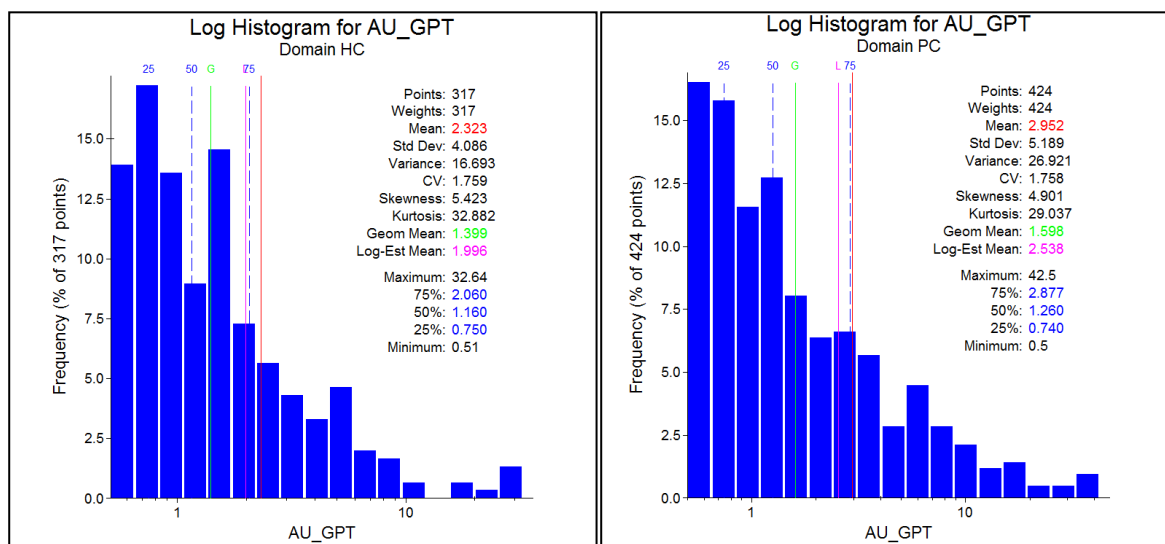
**Figure 11.10**  
**Log Probability Plot for PC Gold Versus Noramco Drilling**



Source: PC Gold and Fladgate, 2011.



**Figure 11.11**  
**Log Histograms for Noramco (left) and PC Gold (right) Drilling in the Albany Shaft Area**



Source: PC Gold and Fladgate, 2011.

### 11.6.6.2 Noramco Versus PCGM - Shaft 1 Area

PCGM was responsible for a number of surface drill holes and countless underground definition drill holes in the Shaft 1 area, drilled between the 1930s and late 1960s. During the 1980s, Noramco drilled a number of surface holes, dewatered the shaft down to the 750 level and drilled exploration holes from the old mining levels. The similarity of the drilling locations and density of the drilling make these two sample sets suitable for comparison.

The block chosen for analysis (Figure 12.9.) encompasses the intersection between the BIF and Vein 5. Mineralization in this zone is typically vein-hosted and for this reason it is necessary to analyze samples associated with vein material. This was achieved by going through historical hard copies of the drill logs, identifying vein intercepts and flagging them in an Excel spreadsheet. These veins typically exhibit highly positively skewed distributions as is observed in the log histograms. The coefficient of variation for both data sets is greater than 200%, which is fairly high, as is common in high nugget narrow vein deposits. The PCGM data have higher outliers which contribute to an elevated positive skewness and shifting of the mean further to the right.

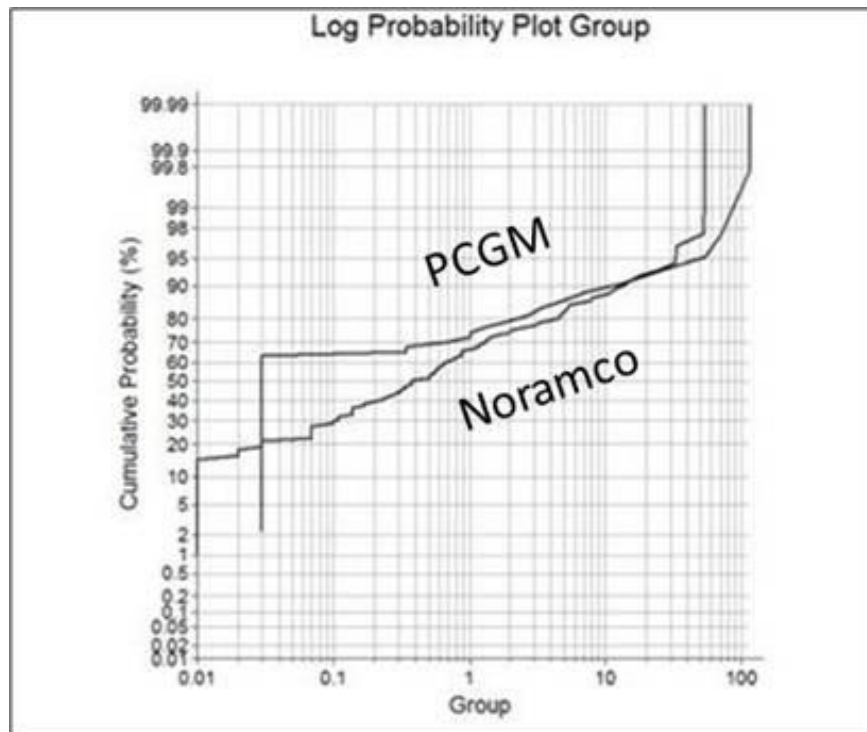
A level of correlation can be observed on the log probability plot (Figure 12.12) between 1 g/t and 25 g/t Au. The top cuts employed for these veins have eliminated data over this level.



**Table 11.6**  
**Univariate Statistical Comparison Between Noramco and PCGM Drilling**  
**Shaft 1 Area**

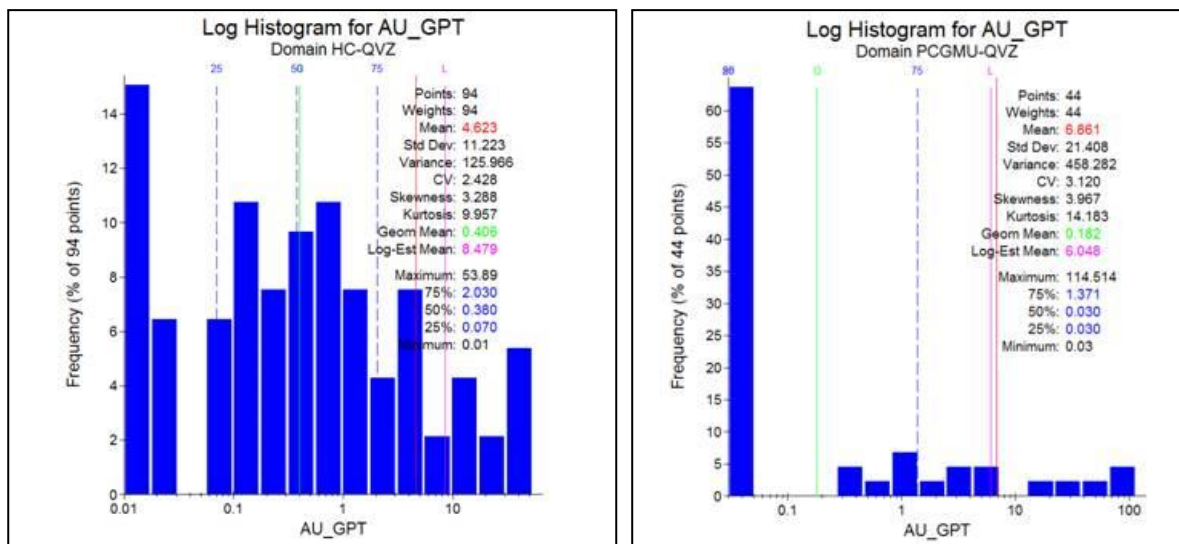
	Number of Samples	Mean	Standard Deviation	CV	Max Au	25%	50%	75%
<b>Noramco</b>	317	4.63	11.22	2.43	53.89	0.07	0.38	2.031
<b>PCGM</b>	424	6.86	21.40	3.12	114.51	0.03	0.03	1.371

**Figure 11.12**  
**Log Probability Plot for PCGM Versus Noramco Drilling**



Source: PC Gold and Fladgate, 2011.

**Figure 11.13**  
**Log Histograms for Noramco (left) and PCGM (right) Drilling**  
**Shaft 1 Area**



Source: PC Gold and Fladgate, 2011.

### 11.6.7 Limitations of Historical Data

Best efforts were undertaken by MPH and Fladgate to develop a drill hole and chip database and models for each zone and excavation wireframes that are as accurate as possible. However, there are inherent limitations to the accuracy of the historical data resulting from:

- Lack of detailed elevation data for each mining level;
- Limited down-hole survey data for historical surface and underground holes;
- Limited accuracy of the elevation data for surface drill hole collars;
- Drill hole collar locations are based on transformed historical coordinates and are therefore only approximately located;
- Lack of data or inconsistency in drill hole lithology descriptions; and
- Limited accuracy of historical chip sample gold values due to the conversion from gross metal value to grams per tonne.

### 11.7 SPECIFIC GRAVITY

PC Gold has completed bulk density measurements on 2,602 samples of mineralized and unmineralized diamond drill core, and select grab samples from “ore” stockpiles onsite from the Pickle Crow property. Of these, 1,918 measurements were used in the calculation of average specific gravity for the property. During a review of the data, 684 measurements were discarded due to laboratory errors that produced unrealistic specific gravity values. A summary of the specific gravities for the Pickle Crow project is given in Table 11.2 below:

**Table 11.7**  
**Specific Gravity Averages for Pickle Crow Rock Types**

Rock Type	Rock Code	Specific Gravity	No. of Samples	Standard Deviation
Mafic Metavolcanic Rocks	2	2.84	30	0.1
Massive Mafic Flows	2a	2.82	389	0.12
Intercalated Mafic Flows with BIF	2d	3.02	8	0.21
Intermediate Volcanic Rocks	3	2.61	2	0.1
Intermediate Tuff	3b	2.82	44	0.26
Clastic Metasedimentary Rocks	5	2.84	30	0.16
Sandstone	5c	2.82	44	0.26
Conglomerate	5d	2.88	44	0.29
Iron Formation: Unsubdivided	6c	3.23	120	0.33
Iron Formation: Chert-rich	(6c)	3.14	24	0.25
Iron Formation: Magnetite-rich	(6c)	3.26	77	0.3
Gabbro	7ac	2.81	203	0.13
Quartz Feldspar Porphyry	8d	2.82	3	0.01
Pickle Crow Porphyry	8da	2.70	924	0.1
Late Mafic Dykes	9a	2.78	3	0.07
Shear Zone	11a	2.74	22	0.11
Sulphide Replacement	11d	3.50	12	0.67
Quartz Vein	12a	2.70	11	-
Quartz Carbonate Vein	12b	2.73	29	0.11

The majority of the samples were measured by Accurassay of Thunder Bay, Ontario. Their procedure for calculation was as follows. A 400 mL beaker was weighed to determine  $W_b$ . The beaker was filled to 400 mL with water and the weight of the beaker and the water is recorded as  $W_{bw}$ . A 5- to 7cm piece of core or pieces of core was/were weighed and recorded as  $W_s$ . The beaker was filled with water to the 350 mL mark and left to sit for 24 hours until the core was saturated with water. After 24 hours, the beaker was filled up to the 400 mL mark with water and the beaker with the core sample was weighed. This weight is recorded as  $W_{bws}$ . The specific gravity is calculated using the following equation:

$$\text{Specific Gravity (g/mL)} = \frac{W_s}{W_s + W_{bw} - W_{bws}}$$

Approximately 50 samples, both drill core and grab samples were measured by Actlabs of Thunder Bay, Ontario. Its procedure for calculation of SG was as follows. The rock or core section was weighed dry. The sample was then weighed while it was suspended in water. The specific gravity was calculated from the following equation:

$$\text{Specific Gravity} = \frac{\text{weight of sample (g)}}{\text{weight in air (g)} - \text{weight in water (g)}}$$

## 11.8 SUMMARY

Other than the core cutting and bagging described in Section 10.3 above, no aspect of the sample preparation procedure was conducted by an employee, officer, director or associate of PC Gold.

Both ALS Chemex and Accurassay Laboratories' facilities in Thunder Bay and North Vancouver are fenced and secure. The laboratories employ industry standard equipment for the determination of gold content in rock samples. Micon considers the sample preparation, security and analytical procedures employed to be adequate for the analytical requirements of PC Gold.

Micon has reviewed the specific gravity results. The results are reasonable and within the expected range for a deposit of this type.

Micon considers the security, sample preparations and analytical methods conducted at the Pickle Crow project to be adequate for the preparation of a database suitable for use in a mineral resource estimate compliant with NI 43-101. Data verification has led sufficient confidence in the historic data to use it in a mineral resource estimate.

## **12.0 DATA VERIFICATION**

The QA/QC procedures employed by the ALS Chemex, Accurassay and AGAT laboratories in North Vancouver, British Columbia and Thunder Bay to verify analytical results have been discussed in Section 10.3 above. Other data verification steps taken by MPH, PC Gold are described in Section 11 of this report. Micon's data verification is described below.

### **12.1 MICON DATA VERIFICATION**

#### **12.1.1 Check Sampling**

During the October 2011 site visit, Micon did not complete any check sampling. Micon did examine surface exposures and stockpiles of mineralization from the No. 1 Vein and No. 5 Vein. Visible gold was noted in the samples on the No. 1 Vein stockpile. Micon also reviewed the MPH check sample results described in Section 12.1 above.

#### **12.1.2 Database Validation**

Sean Horan of Fladgate visited the Micon office on January 4, 2011, to present and explain the work conducted in relation to the database and geological models for the Pickle Crow property.

The final database was sent to Micon in early March, 2011, for validation. Micon performed a thorough validation of the database and specifically performed a cross-check validation of the assay table against assay results received directly from the laboratories in electronic form. The cross-check validation of the assay table described above was possible only for the newer PC Gold-generated data which contained laboratory sample identification numbers.

Several minor problems were found and corrected, most of them located outside of the modelled zones. The problems were related to the fact that the majority of the database was collected from historical data digitized from old paper logs.

#### **12.1.3 Block Model Validation**

Micon also validated the block models produced by Fladgate. The results of the block model checks are discussed in Section 14.4.2.

### **12.2 CONCLUSIONS**

It is Micon's opinion that First Mining and PC Gold have run an industry standard QA/QC program for the drill hole database and insertion of control samples into the stream of core and channel samples for the Pickle Crow project exploration program.

While certain minor discrepancies in survey data of old workings have been noted, it has been determined they will only affect the precise location in space of the workings and are not

likely to materially affect the estimate of remaining volumes of mineralization. As such they are suitable for use in an inferred resource estimate. Determination of measured and indicated resources or reserves in the future will require resolution of these minor discrepancies, likely by dewatering and re-accessing the workings.

The historic drill data from Noramco and PCGM have been shown to be acceptable for use in a mineral resource estimate with appropriate application of assay top cuts as discussed above.

### 13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Fladgate reports that the metallurgical history of the Pickle Crow property up to 2002 is best summarized by the MPH Report (Coates and Anderson, 2008), which accounts for much of the information presented here. A summary of all metallurgical testwork done on the core mine trend is presented in Table 13.1.

**Table 13.1**  
**Compilation of all Metallurgical Data on the Main Core Trend Pickle Crow Mineralization**

Year	Company	Mill	Sample Type	Zone	Average Head Grade Au g/t	Final Grind Size Microns	Average Gravity Recovery	Average Total Recovery	Process
1935 - 1966	Pickle Crow	Pickle Crow	Run of Mine	Shaft 1 & 3 Veins	14.47	~74	>40%*	>98%	Ball Mill, Gravity/Amalgam & Cyanidation
1999	Cantera	Oretech	1 Met Sample	No. 1 or 5 Vein	40.04	149	N/A	95.4%	Bond Ball Mill, Cyanide bottle roll test
2000	Cantera	St. Andrews	418 t Bulk Sample	No. 5 Vein	16.82	Unknown	N/A	99.4%	Ball Mill, Cyanidation
2000	Cantera	Golden Giant	1 Met Sample	No. 1 Vein	19.0	75	50.2%	>98.5%	Bond Ball Mill Gravity (Knelson) & Cyanidation
2000	Cantera	Golden Giant	4,880 t Bulk Sample	No. 1 Vein	14.60**	Unknown	69.9%**	98.2%**	Ball Mill, Gravity (Knelson) & Cyanidation (Results Disputed)
2001	Cantera	Knelson Group	1 Met Sample	No. 1 BIF	6.99	89	87.6%	87.6%	Gravity (Knelson) three passes, and 2 regrinding steps
2001	Cantera	Knelson Group	1 Met Sample	No. 1 Vein	362.9	183	97.1%	97.1%	Gravity (Knelson) three passes, and 2 regrinding steps
2001	Cantera	Knelson Group	5 Met Samples	No. 1 Vein	19.9	Assumed to be ~90	91.2%	>99%	Gravity (Knelson) three passes, and 2 regrinding steps + cyanidation
2001	Cantera	PRA	2 Met Samples	No. 1 Vein	8.53	106	94.0%	94.0%	Gravity (SB 40 Falcon) single pass
2012	PC Gold	SGS Lakefield	4 Met Samples	No. 1 & 5 BIF	4.25	75	28.8%	90.9%	Rod Mill, Gravity (Knelson) single pass + cyanidation
2013	PC Gold	SGS Lakefield	2 Met Samples	No. 1 Vein	115.7	63	87.6%	87.6%	Rod Mill, Gravity (Knelson) single pass

\*Note: this gravity recovery value is from the 1948 year of operation, gravity was recovery was said to have improved in the later years of the mine with newer technology to ~60%.

\*\*Note: there is uncertainty in these numbers due to disputes.

Recent tests (1999 to present) indicate that a high proportion of the gold is recoverable by modern gravity methods, however, these results have varied between 50 and >90%.



Significant test work carried out by Cantera Mining Limited (1999 to 2002) indicated that >90% gravity only recovery could be achieved with a modern “extreme gravity” techniques. Unfortunately, the only recent bulk sample that was sent to a mill with a gravity circuit experienced a number of technical failures and disputes over head grades such that it cannot be used as a reliable measure of production scale gravity recoverable gold. The most recent laboratory bench scale test work by PC Gold indicates that the high-grade veins have gravity recoverable gold of about 85%, which supports the earlier Cantera bench scale studies.

Throughout all the tests and historical production it appears that a grind size of between 60 and 90 microns appears optimal for recovery of Pickle Crow high-grade vein ore.

### 13.1 MPH TECHNICAL REPORT

The information on mineral processing and metallurgical testing in this section is taken from the MPH Technical Report prepared for PC Gold (Coates and Anderson, 2008).

“The historic ore produced at the Pickle Crow mine presented no major milling problems.”

“**Pickle Crow Mill, 1935-1966:** The long since removed process plant for the Pickle Crow mine ran from 1935 to 1966. The 400 ton/day (360 tonne/day) mill recovered gold by a combination of gravity/amalgamation and cyanidation. Overall gold recovery averaged slightly over 98%. When the mine closed in 1966 efficiency in the gravity section had been improved to achieve as much as 60% of the total recovery.”

“**Noramco, 1988:** In June 1988, McCormack and White (1988) recommended that Noramco should obtain fresh 50 kilogram mineralization from the following locations for the purposes of conducting metallurgical testwork:”

- No. 1 Vein at 125 Level West
- No. 1 Iron Formation at 125 shaft cross-cut area
- No. 1 Vein at 375 Level West
- No. 5 Vein Iron Formation at 375 x-cut
- No. 5 Vein at 375 level

“The following bench scale testwork was recommended but to the knowledge of MPH never carried out:”

- Crushing all samples to -5/8 inch
- Determine head assays of each sample
- Perform whole rock analysis of each sample
- Grind test portions to 80% minus 200 mesh
- Bond Work Index for each sample
- Gravity separation testwork for each sample
- Direct cyanidation on gravity tails for each sample
- Determine chemistry of effluent solutions
- Chemical and natural degradation testing on effluent

**“Cantera Mining, 1999-2002:** In October 1999, prior to mining the first of two bulk samples, Cantera collected grab samples from the surface exposures of the No. 5 Vein. These samples were sent to ORTECH Inc. of Mississauga, Ontario for bottle roll leach tests. The bottle roll tests were conducted on minus 8 [mesh] material assaying 53.2 g/t Au, and minus 100 mesh material assaying 40.04 g/t Au. After 48 hours, 53.5% and 95.4% recoveries were achieved for the minus 8 and minus 100 mesh fractions respectively. No written account of the rationale for acquisition and testing of these samples is available to MPH.”

**“No. 5 Vein Crown Pillar Bulk Sample:** In December 1999, Cantera mined and processed a bulk sample from the No. 5 Vein crown pillar, estimated by WGM to contain 9,500 tons (8,600 tonnes) averaging 0.38 oz/T Au (13.02 g/t Au) assuming a 3.0 ft (0.91 metre) minimum mining width; cut to 1 oz/T and 25% diluted. The average grade of the resource block was determined using a weighted average 9 drill hole and channel samples located inside the block. MPH notes that only 4 of the samples were inside the portion of the block actually mined and these averaged 0.53 oz/T Au (18.17 g/t Au).”

“The bulk sample was carefully mined from a small open pit, with vein material comprising an estimated 95% and wall rock dilution only 5% of the sample. The bulk sample was shipped to the St. Andrews Goldfields Ltd. 1,300 tonne/day CIP (carbon-in-pulp) gold process plant located at Stock Township near Timmins, Ontario for custom milling. The shipment was processed on December 21, 1999. The bulk sample custom milling results as reported by Cantera are presented in Table 15-1 [Table 13.2 in this report]. After some debate regarding sampling procedures, the commercial settlement between St. Andrews and Cantera was agreed upon at a recovered grade of 16.72 g/t Au (0.49 oz/T Au).”

**Table 13.2**  
**No. 5 Vein Crown Pillar Bulk Sample St. Andrews Milling Results**

<b>Description</b>	<b>Metric</b>	<b>Imperial</b>
Wet weight milled	417.72 t	459.97 T
Moisture content	2.63%	2.63%
Dry weight milled	406.75 t	448.65 T
Head grade	19.18 g/t Au	0.56 oz/T Au
Tailings grade	0.118 g/t Au	0.0035 oz/T Au
Mill Recovery %	99.4%	99.4%
Recovered grade	16.72 g/t Au	0.49 oz/T Au
Recovered gold	6.984 kg	224.54 troy oz

**“No. 1 Vein Crown Pillar Bulk Sample:** A second phase of bulk sampling was initiated by Cantera in 2000. The planned program called for the removal and custom milling of 10,180 tons @ 0.52 oz/T Au (9,235 tonnes @ 17.83 g/t Au) from two small pits at the No. 5, No. 1 and Riopelle Veins. Due to various factors the program start-up was delayed until October 2000, and only 4,427 tonnes of material (over 90% from the No. 1 Vein) were trucked to the Golden Giant mill near Hemlo, Ontario for custom milling. The custom milling flowsheet included secondary crushing, grinding, gravity concentration, leaching, CIP, stripping, electrowinning and refining. The shipment was processed between December 4th and 10th, 2000. The bulk sample custom milling results as reported by Cantera are presented in Table 15-2 (Table 13.3 in this report). After a vigorous dispute lasting some nine months, the commercial settlement between Golden Giant and Cantera was agreed upon at a recovered grade of 16.72 g/t Au (0.49 oz/T Au).”

**Table 13.3**  
**No. 1 Vein Crown Pillar Bulk Sample Golden Giant Milling Results**

<b>Description</b>	<b>Metric</b>	<b>Imperial</b>
Wet weight milled	4,427.0 t	4,879.93 T
Moisture content	2.82%	2.82%
Dry weight milled	4,302.1 t	4,741.15 T
Head grade	14.60 g/t Au	0.426 oz/T Au
Mill Recovery %	98.2%	98.2%
Recovered grade	14.31 g/t Au	0.417 oz/T Au
Recovered gold	61.581 kg	1,979.91 troy oz

“Prior to accepting the Pickle Crow bulk sample, Golden Giant completed laboratory metallurgical tests to determine if the material could be treated in their mill and if the tailings produced would have a negative environmental impact on their tailings basin. No environmental problems were noted. The testwork indicated that about 40% of the gold was recoverable with a single pass gravity Knelson concentrator. The remaining gold could be easily leached with cyanidation with an optimum grind of 75% passing 200 mesh. Testwork indicated that higher grinds could result in lower gold recoveries. Leach retention times of greater than 48 hours might be required. An overall recovery of 98.4% was achieved in the tests.”

**“No. 1 Vein Crown Pillar Bench Scale GRG & Leaching Testwork:** A set of 5 approximately 20 kilogram samples from the No. 1 Vein Crown Pillar bulk sample were submitted to the Knelson Research and Testing Centre (KRTC) in Langley, British Columbia for GRG (gravity-recoverable-gold) and leaching testwork (Grewal, 2001). These samples were sent from the Golden Giant mine on behalf of Cantera. The samples were received at the KRTC facility on July 3rd, 2001. The samples were weighed and logged prior to any processing.”

“The primary objective of this test work was to quantify the gravity recoverable gold content of the ore using a standard test. The secondary objectives were to determine the average head grade of the sample and to perform cyanide leach tests on sub-samples of the final tails. A KC-MD3 laboratory scale Knelson Concentrator was utilized for the GRG testwork (Grewal, 2001).”

“The procedure used for the KC-MD3 stage test was as follows:”

1. “The samples were sorted by time and date into lots of approximately 20 kg.
2. Each sample was screened at 10 mesh prior to the first pass through the KC-MD3 in order to prevent plugging. The oversize was saved and subsequently added into the first grind.
3. The ~20 kg test samples were processed through a 3” Laboratory Knelson Concentrator at a fluidization water flow rate of ~3.5 litre/min and at 60G's.
4. During the test, sub-samples of the tailings stream were collected for assays.
5. At the end of the concentration stage, the concentrate was washed from the inner cone of the KC-MD3.
6. The concentrate was panned to produce a pan concentrate and pan tailings (middlings) sample.

7. The concentrate and tailings samples were labelled, dried, weighed and sent to an independent local lab for assaying.
8. The tailings were re-ground two more times and steps 3 to 6 were repeated after each grind.
9. During the final stage, an additional 2 kg sample of the tails was sub-sampled, dried and sent for cyanide leach test work.
10. The remaining tails samples are being stored at the test facility.”

“This testing scheme is based on the philosophy that progressive size reduction allows the determination of gold liberated at finer grinds without over-grinding and smearing coarse gold present in the initial sample.”

“Results indicate that the No. 1 Vein crown pillar samples have a very high gravity-recoverable gold content of 91.2% with a back-calculated head grade of 20.0 g-Au/t. The overall mass pull to the concentrate was 1.4%. The results indicate that the gold is fairly liberated in this particular material and is readily recoverable. Visible gold was observed in all final concentrate samples. Table 15-3 [Table 13.4 in this report] summarizes the GRG results for the individual samples. Two averages for the recovery and grades are shown in the table: one is the weighted average based on the amount of sample tested and the other is a numerical average of the values.”

**Table 13.4**  
**Knelson KC-MD3 Gravity Recoverable Gold Tests**

Test	Using Fire-Assayed Tails			Calculated Using Leach		
	Calc. Head (g-Au/t)	Tail Grade (g-Au/t)	Recovery GRG (%)	Calc. Head (g-Au/t)	Tail Grade (g-Au/t)	Recovery GRG (%)
1	20.7	1.54	92.0	20.7	1.78	91.0
2	23.5	1.71	92.4	23.5	1.70	92.4
3	17.9	1.89	88.9	17.9	1.68	90.0
4	20.3	1.54	92.1	20.3	1.55	92.1
5	17.2	1.54	90.6	17.2	1.52	90.7
<b>Avg.</b>	19.9	1.64	91.2	19.9	1.65	91.2
<b>Wt. Avg.</b>	20.0	1.65	91.2	20.0	1.65	91.3

“Cyanide leaching was performed on sub-samples of the final GRG test tails. This test work was carried out by International Metallurgical and Environmental Inc. A summary of the results is provided below in Table 15-4 [Table 13.5 in this report] (note that the tests numbers of 100 to 104 correspond to tests 1 to 5 respectively above).”

**Table 13.5**  
**Summary of Cyanide Leach Testwork on GRG Test Tails**

Test	Calc. Head (g/t Au)	Tail Grade (g/t Au)	Recovery (%)	NaCN Consumption (kg/t)	Lime Consumption (kg/t)
100	1.78	0.09	94.9	0.40	2.2
101	1.70	0.09	94.7	0.54	1.9
102	1.68	0.11	93.5	0.45	1.7
103	1.55	0.09	94.2	0.35	1.9
104	1.52	0.07	95.4	0.57	1.9



“**Pickle Crow Tailings Bench Scale GRG & Leaching Testwork:** In September 2001, a composite sample from Tailings Area 1 was submitted to Lakefield Research of Lakefield, Ontario for cyanide leach testwork. The sample, a blend of oxidized (10%) and unoxidized (90%) tailings, was leached for 48 hours. The results are summarized in Table 15-5 [Table 13.6 in this report].”

**Table 13.6**  
**Summary of Lakefield Leach Testwork on Tailings Area 1 Composite**

Test	Calc. Head (g/t Au)	Recovery Au (%)	Calc. Head (g/t Ag)	Recovery Ag (%)	NaCN Consumption (kg/t)	Lime Consumption (kg/t)
Composite	0.44	88.7%	3.60	4.8%	0.17	0.69

“In May-June, 2002, a set of two approximately 8 kilogram composite samples from Tailings Area 3 were subjected to ‘gravity recoverable gold’ and cyanide leach testwork. Composite A was made up of auger drill hole sample material assaying >0.3 g/t Au and composite B material assaying <0.3 g/t Au. The GRG testwork was performed by the Knelson Research and Testing Centre in Langley, British Columbia and leach tests were conducted at Accurassay Laboratories of Thunder Bay, Ontario.”

“The leach testwork conducted at Accurassay Laboratories is summarized in Table 15-6 [Table 13.7 in this report].”

**Table 13.7**  
**Summary of Accurassay Leach Testwork on Tailings Area 3 Composites**

Test	Calc. Head (g/t Au)	Recovery (%)	NaCN Consumption (kg/t)	Lime Consumption (kg/t)
Composite A	0.522	65.1	1.17	-
Composite B	0.211	64.0	0.66	-

“The GRG testwork at KRTC is summarized in Table 15-7 [Table 13.8 in this report].”

**Table 13.8**  
**Summary of KRTC Gravity Recoverable Gold Testwork**

Test	Product	Mass		Gold	
		(g)	(%)	Assay (g/t)	Distribution (%)
Composite A	Pan Conc.	6.6	0.09	52.5	6.3
	Middlings	83.9	1.14	2.52	3.8
	Tails	7,288	98.8	0.68	89.9
	Totals (Head)	7,378	100.0	0.75	100.0
	Knelson Conc.	90.5	1.23	6.17	10.1
Composite B	Pan Conc.	21.2	0.26	7.57	5.3
	Middlings	59.4	0.72	1.86	3.6
	Tails	8,177	99.0	0.34	91.1
	Totals (Head)	8,258	100.0	0.37	100.0
	Knelson Conc.	80.6	0.98	3.35	8.9

## 13.2 POST 2011 METALLURGICAL TESTING

After the completion of the previous 2011 mineral resource estimate, PC Gold completed some additional metallurgical testwork. The information presented in this section is taken from a Fladgate summary report on the history of metallurgical testing on the core mine trend.

### 2012 Banded Iron Formation (BIF) Samples

Four samples ranging from approximately 40 to 100 kg were sent to SGS Lakefield in two batches in 2012. Samples BIF-1 and BIF-2 were selected from Cantera's low grade BIF stockpile, care was taken to select samples with minimal weathering. Samples BIF-3 and BIF-4 were collected from PC Gold drill core from the No. 5 BIF zone. Sample BIF-3 represents the deepest intercept (approximately 1,100 m) to date on the No. 5 BIF zone.

Samples were ground in a rod mill and passed through a Knelson MD-3 concentrator, and the concentrate was then further treated by a Mozley table. Gravity tails then underwent bottle roll test cyanidation.

Historically, the BIF-hosted mineralization was typically below the cut-off grade (8.57 g/t) of the historic Pickle Crow mine and thus was not mined in any significant quantities. As such, there is no documented metallurgical history. Anecdotal evidence from past workers at Pickle Crow suggest that their mill setup did not result in great recoveries when processing BIF, however, what constitutes bad recovery in a mine where >98% recoveries were the norm is unclear.

Cantera performed one bench scale gravity test on the BIF which resulted in 87.6% recovery. PC Gold's results do not support this; it could be that Cantera's sample had a high proportion of stringer high-grade vein material in it. PC Gold's results (Table 13.9) indicate the BIF has poor gravity recoveries (average of 28.8% at 75 microns), however, it has acceptable gravity plus cyanide recoveries (average 89.9%).

**Table 13.9**  
**SGS Lakefield Results, Banded Iron Formation Style Mineralization.**

Test No.	Sample No.	Zone	Feed Size Microns	Head Grade g/t	% Gravity Recovery	% Total Recovery
CN1	BIF-1	No. 1 BIF	150	9.29	37.4	93.4
CN2	BIF-1	No. 1 BIF	75	9.29	35.7	95.5
CN3	BIF-1	No. 1 BIF	50	9.29	34.3	96.2
CN4	BIF-2	No. 1 BIF	150	3.74	58.5	93.9
CN5	BIF-2	No. 1 BIF	75	3.74	42.0	96.5
CN6	BIF-2	No. 1 BIF	50	3.74	59.0	97.7
CN31	BIF-3	No. 5 BIF	150	0.93	31.5	83.6
CN32	BIF-3	No. 5 BIF	75	0.93	N/A	92.0
CN33	BIF-3	No. 5 BIF	50	0.93	N/A	89.8
CN34	BIF-4	No. 5 BIF	150	3.03	6	73.2
CN35	BIF-4	No. 5 BIF	75	3.03	N/A	79.7
CN36	BIF-4	No. 5 BIF	50	3.03	N/A	86.8

### 2013 High-Grade Vein Samples

In January, 2013, PC Gold submitted two samples, each comprising approximately 100 kg from Cantera's high-grade stockpile from the crown pillar of the No. 1 Vein, to SGS Lakefield (SGS), in Lakefield, Ontario. These consisted of a high-grade sample (HG) with a moderate amount of visible gold, and a low grade sample (LG) with no visible gold, the samples were of vein material only and care was taken to select unweathered material.

The results of SGS indicated that the HG sample returned a head grade of 198 g/t and the LG sample 33.4 g/t. The test was carried out by milling the samples using a rod mill to three different grind sizes, approximately 160, 90, and 60 microns and then passing them through a Knelson concentrator with a Mozley table finish. The results are reported in Table 13.10.

It should be noted that although PC Gold's test work is on the low end of Cantera's Knelson test work, PC Gold's % recoveries were achieved with a single grind and pass through the Knelson, whereas Cantera's involved 3 passes through the Knelson and 2 stages of grinding.

**Table 13.10**  
**SGS Lakefield Results, No. 1 Vein Material From Cantera's High-grade Stockpile**

Test No.	Feed Size Microns	Gravity Concentrate		
		Mass (%)	Assay (Au g/t)	% Recovery
HG1	161	0.11	136,700	72.7
HG2	89	0.11	163,300	87.3
HG3	63	0.12	165,900	89.8
LG1	159	0.07	33,300	85.7
LG2	95	0.07	34,300	79.9
LG3	63	0.08	26,200	85.5



### 13.3 CONCLUSIONS

As a result of the metallurgical testwork described above, Micon decided to use 98% as the gold recovery for determination of a cut-off grade for the reporting of mineral resources in the veins. For mineralization in the BIF the open pit and underground mineral resource was reported, and the Whittle pit was optimized, using 89.9% recovery.

## 14.0 MINERAL RESOURCE ESTIMATES

Micon has been retained by First Mining to update the mineral resource estimates on the No. 1 and No. 5 Veins and the BIF where most of the new drilling was concentrated. A new discovery, the closely spaced No. 22 and No. 23 Veins, has been modelled by Fladgate and these models were reviewed. The No. 2 Vein block model was adjusted to remove the crown pillar which, since the previous 2011 mineral resource estimate, was found to have been mined out. The uppermost intercept in the 2011 Vein 8 model was found to have been part of the Vein 22/23 discovery. Therefore the upper parts of the Vein 8 model were truncated. The No. 19 Vein was adjusted to constrain it to the Pickle Crow porphyry and remodeled.

All other zone models were left unchanged, although they have been reported at different cut-off grades given the current higher gold prices. For this reason much of the description of the methodology used in the 2011 modelling has been retained in this report. Description sections solely about the BIF, No. 1, No. 5 and No. 19 Veins, which were remodeled, have been updated with the differences employed.

GEMS V6.5 software was used to remodel No. 1, No. 5 and No. 19 Veins and the BIF. A new wireframe was created for No. 19 Vein using Leapfrog software. Surpac v6.3 software was used to report the mineral resources in the unchanged vein models.

### 14.1 GENERAL

The previous 2011 resource estimate compiled by Fladgate, and described in Hennessey (2011), represented the first mineral resource estimate completed on the Pickle Crow property that had been prepared in accordance with NI 43-101. It has now been updated with the recent drilling. Numerous non-compliant historical estimates exist for the property (see Section 6). Neil Pettigrew, M.Sc., P.Geo, Vice President of Exploration for PC Gold, was also a part owner and Vice President of Fladgate necessitating an independent review of the 2011 and 2016 resource estimates.

PC Gold has now been acquired by First Mining.

The Pickle Crow project resource estimate is divided into three distinct areas within the core mine trend; the Shaft 1 area, the Shaft 3 area and the Albany Shaft area. These areas comprise three mineralization styles, high-grade narrow veins, iron formation-hosted and alteration-shear zone-hosted gold mineralization. A list of known domains/mineralized zones used in 2011 and their descriptions is provided in Table 14.1 below:

**Table 14.1**  
**Pickle Crow Project Resource Domains**

Shaft	Domain	Number of Sub-domains	Mineralization Style	PC Gold DDH	Historic DDH	Stope Chips	Level Chips
1	Vein 1	2	Narrow Quartz Vein	√	√	√	√
1	Vein 5	-	Narrow Quartz Vein	√	√	√	√
1	Vein 9	3	Narrow Quartz Vein		√		√
1	Vein 11	-	Narrow Quartz Vein		√		√
1	Vein 19	-	Narrow Quartz Vein	√	√		
1	BIF	-	Iron Formation Hosted	√	√		
3	Vein 2	2	Narrow Quartz Vein	√	√		√
3	Vein 6	4	Narrow Quartz Vein		√		√
3	Vein 7	2	Narrow Quartz Vein		√		√
3	Vein 8	2	Narrow Quartz Vein	√	√		√
3	Vein 12	1	Narrow Quartz Vein		√		
3	Vein 13	2	Narrow Quartz Vein		√		√
Albany	Vein 15	2	Narrow Quartz Vein	√	√		√
Albany	Vein 16	1	Narrow Quartz Vein	√	√		√
Albany	Conduit Zone 1	1	Alteration Hosted	√	√		
Albany	Conduit Zone 2	1	Alteration Hosted	√	√		

Since the 2011 estimate, PC Gold discovered the No. 22/23 Vein structure which is another narrow quartz vein.

## 14.2 RESOURCE ESTIMATION METHODOLOGY

### 14.2.1 Description of Database

The drill hole database used for the 2011 resource estimate was comprised of drill holes, underground chip samples and surface trench channel samples. In total, 1,533 drill holes amounting to 126,983 m were used, of which 103 drill holes (39,134 m) belonged to PC Gold drilling campaigns (see Table 14.2). A total of 27,826 chip samples taken by PCGM and 45 surface trench channel samples, taken by PC Gold, were used for estimation purposes.

Since 2011, an additional 173 holes have been drilled from surface. A total of 35,840.4 m of drill core has been added to the database. The drilling on the core mine trend has largely been in the No. 1 shaft area. The No. 22 and 23 Vein drilling is located near the No. 8 Vein in the No. 3 shaft area.

**Table 14.2**  
**2011 Database Description\***

Program	Shaft 1		Shaft 3		Albany Shaft		Total	
	Number of Holes	Total Length (m)	Number of Holes	Total Length (m)	Number of Holes	Total Length (m)	Number of Holes	Total Length (m)
Noramco Underground	54	4,229					54	4,229
Noramco Surface	59	9,691	1	91	48	6,101	108	15,883
Historic (PCGM)	500	25,730	747	38,599			1,247	64,329
PC Gold	66	25,798	11	3,166	26	10,170	103	39,134
Wolfden			8	1,206			8	1,206
Gallant					13	2,201	13	2,201
<b>Grand Total</b>	<b>679</b>	<b>65,449</b>	<b>767</b>	<b>43,062</b>	<b>87</b>	<b>18,472</b>	<b>1,533</b>	<b>126,983</b>

\* - 2016/2017 drill results not included as they were not available at the time of resource estimation in 2016.

The last finalized assay results that were used in the 2011 resource estimate were received on January 19, 2011 (hole PC-10-116 targeting Vein 19). Although drilling continued after this date and the database was subsequently added to, many of the targets that have been drilled later in 2011 were outside of the core mine trend and the results had no effect on the 2011 resource estimation database. Later in 2011 and in 2013 and 2014, a lot of the drilling was concentrated on the core mine trend. The results have been used in the 2016 update of the five zones identified in the Section 14 introduction above.

The data used in the 2016 mineral resource re-estimation comes from the drill holes and channel samples described in Tables 14.2 and 14.3.

**Table 14.3**  
**Data Used in 2016 by Mineralized Zone**

Zone	Drill Hole Count	Channels Count
BIF	634	0
N°1 Vein	117	16,982
N°5 Vein	88	8,509
N°19 Vein	47	0

#### 14.2.2 Application of Minimum Mining Width for Veins

In order to deal with vein widths significantly less than potentially feasible underground mining widths, blocks located in these areas were required to be diluted to a set minimum width (1 m) before application of a cut-off grade for resource evaluation. The most common method applied for this is to calculate true width from drill holes and interpolate widths and grade accumulations into the model. However, this method applied during construction of wireframe solids for the veins at Pickle Crow resulted in solids where drill hole widths were poorly representative of the vein thicknesses. A much higher level of precision is introduced from digitizing level plans than is represented by the drill holes from one intercept to another.

For this reason, Fladgate developed a routine for determining vein thicknesses from the solid itself and interpolating these thicknesses into the block model. Blocks with interpolated thicknesses less than 1 m were then diluted to 1 m of thickness and reported above the cut-off grade as diluted tonnes and grade.

The routine mentioned above used the following procedures:

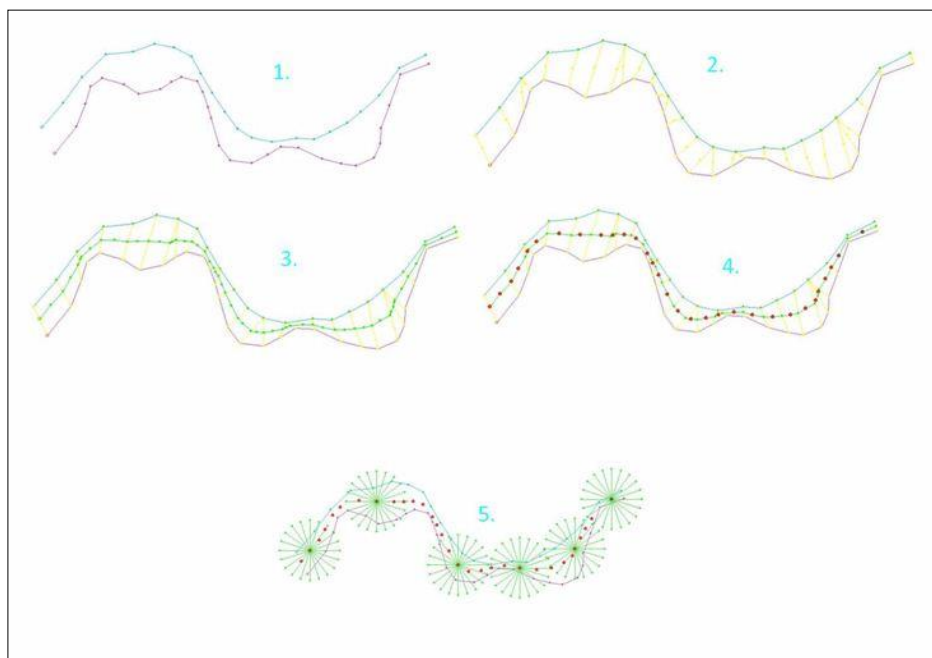
1. Creating polylines from slices of the wireframe at set intervals (normally 20 m intervals on plan view) and separating the polylines into hangingwall and footwall.
2. Pairing hangingwall and footwall vertices and calculating centroid of paired lines.
3. Ordering centroids to form a line midway between hangingwall and footwall.
4. Calculating centroid coordinates between vertices of the line constructed in step 3.
5. Constructing pseudo-drill holes in a 360° fan around the centroid, 3 m in length.
6. Running the modelling software process for selecting drill hole intercepts and then using an algorithm to select the minimum length intercept per centroid calculated in step 4.
7. Interpolation of widths from sample set constructed from above into blocks.

Interpolation of grades into blocks, from the sample set generated, used the following parameters:

- Large spherical search ellipse (~100 m to 200 m in all directions).
- Inverse distance to the 1<sup>st</sup> power (1<sup>st</sup> power allows for smooth transition of widths between samples).
- Minimum of 3 and maximum of 3 samples per estimate.
- Maximum of 2 samples per elevation forcing ellipse to search for samples on different plan sections to account for change in thickness on plan and vertical sections.

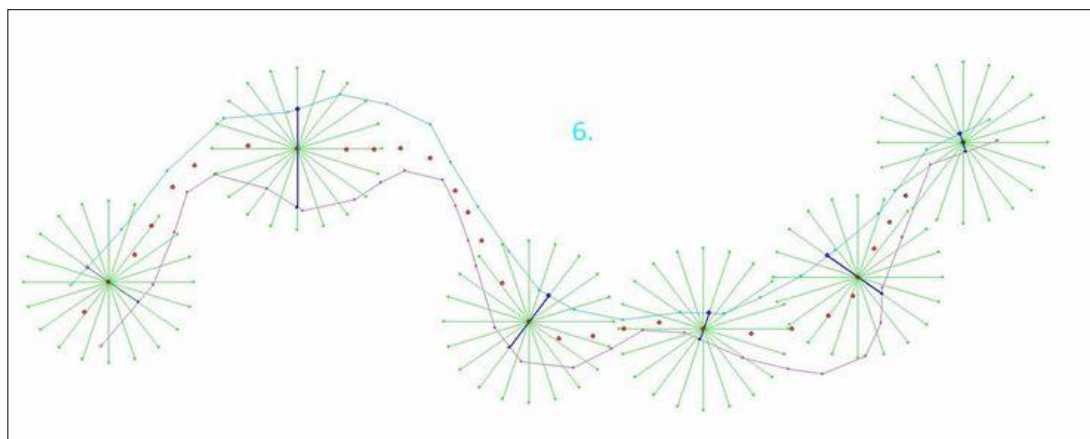
See Figures 14.1 and 14.2.

**Figure 14.1**  
**Conceptual Diagram for Generation of Vein Width Sample Sets (I)**



Source: PC Gold and Fladgate, 2011.

**Figure 14.2**  
**Conceptual Diagram for Generation of Vein Width Sample Sets (II)**



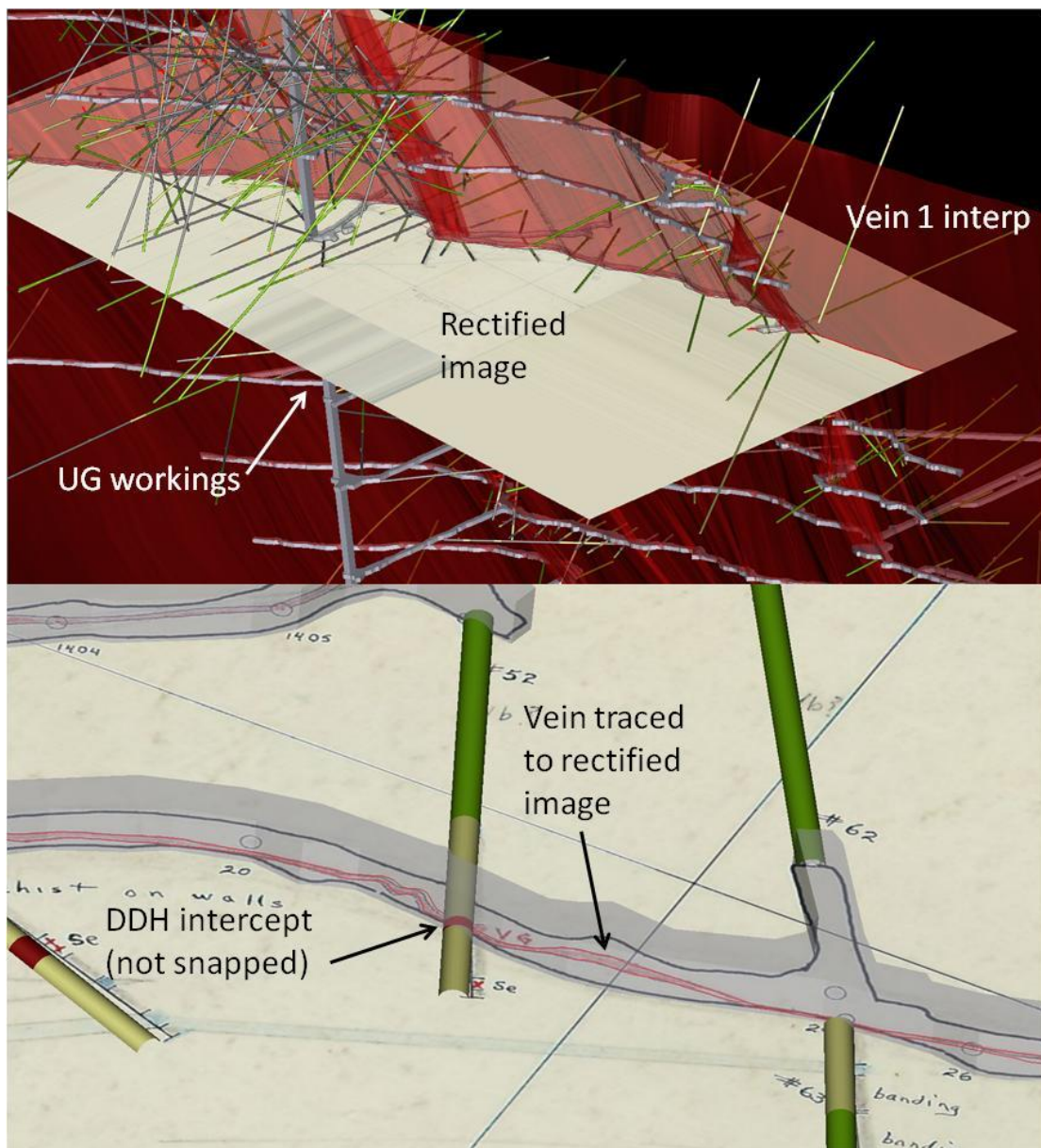
Source: PC Gold and Fladgate, 2011.

### 14.2.3 Geological Interpretations

Separate mineral constraints were used for estimation of the various geologically distinct domains in the 2011 estimate. These were constructed as wireframe solids by Fladgate using Gemcom© Gems, Mapinfo® and Datamine® Studio 3 software. Datamine Studio 3 and Gemcom Gems were used for the block modelling process.

Veins 1 and 5 were modelled in 2011 based on historical underground drift plans. The outline of the mapped vein was traced from rectified scanned images, extended along strike and down-dip to drill hole intercepts and designated with an elevation based on the level elevation, essentially modelled in 2D. This method is demonstrated in Figure 14.3. For 2016, the modelled extents of the vein, based on drift plans, remained largely unchanged but the additional new drill intercepts were flagged to the zones. The rest of the veins on the property were modelled in much the same fashion with the exception that the vein trace was modelled at drift elevation and was adjusted and snapped to vein intercepts.

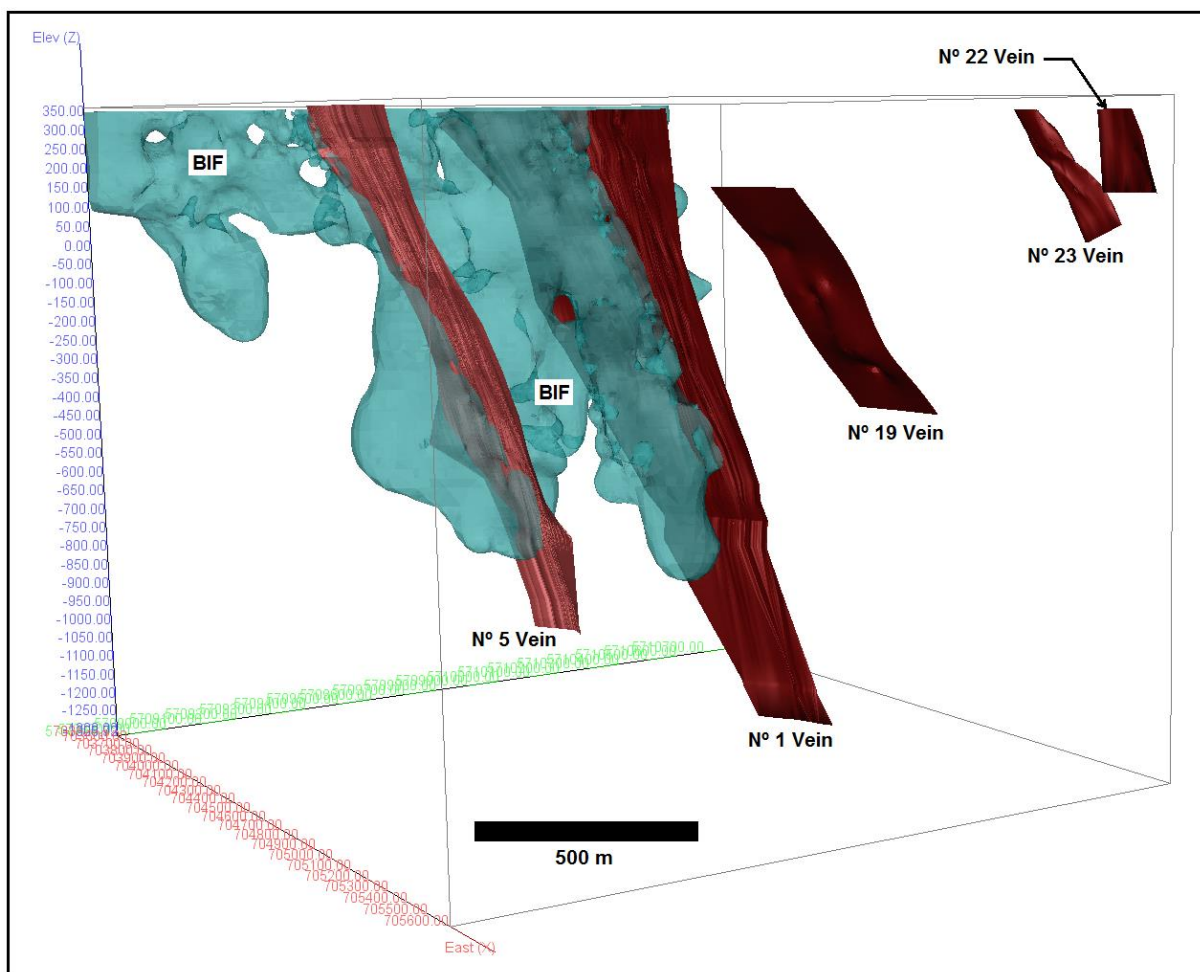
**Figure 14.3**  
**Screenshots of Vein 1 Showing Method Used During Modelling of Veins**



Source: PC Gold and Fladgate, 2011.

In 2016, a single wireframe solid was constructed for the Shaft 1 iron formation based solely on the banded iron formation (BIF) lithology codes. This was performed using Leapfrog software (see Figure 14.4). The interpretation of the 3D model was aided by down-hole logs, historical underground mapping, historical interpretations and current PC Gold surface trench maps. The lithological wireframe solid was constructed using all of the historical holes, however, only BIF intercepts sampled to greater than two thirds of the intercept length were used for interpolation (see Section 14.2.4 for a more detailed explanation).

**Figure 14.4**  
**Leapfrog BIF Model**



Source, Micon, 2016.

No. 19 is a vein discovered by PC Gold and has no underground development. For the 2011 estimate it was modelled on vertical sections spaced 15 m apart, snapping to vein intervals. All but two holes used in the interpretation were part of the PC Gold exploration drilling campaign. In 2016, Micon remodelled the No. 19 Vein using Leapfrog software and constrained its volume to the extents of the Pickle Crow porphyry. The geological solid for the porphyry was used as a clipping polygon to restrict interpretation.



The Conduit Zones were modelled in 2011 based on trench mapping conducted on surface. The general shape of the alteration and structural zone could be made out from trench mapping. This shape was extrapolated down to depth, snapping to drill hole intercepts, adjusting the shape of the zone to agree with the intercepts.

Stope and mine development solids were constructed from historical data for use in block model depletion.

#### **14.2.4 Data Analysis**

Historically, the majority of the underground definition drilling by PCGM targeted higher grade quartz vein structures and often only the quartz vein would have been sampled. Extending of samples into surrounding rock was limited, if present at all. This does not pose a problem in the estimation of quartz vein resources as the mineralization is constrained to the structure that was sampled. However, this does pose a problem in the iron formation where mineralization is concentrated around structural controls (often hosting veins) and weakens with distance from the structure. Although the iron formation (BIF) host lithology is easily modelled based on the rock type from drill hole logs, the complete available sample set is not necessarily representative of the contained metal, the more weakly mineralized BIF not having been routinely sampled. If unsampled, sections of BIF are excluded from the data set. The samples used may cause overestimation as only the better looking material would likely be assayed, whereas if artificial background values are inserted for unsampled BIF, underestimation will likely occur.

After a visual review of the drill hole sections it was decided that only those holes that had more than two thirds of the BIF sampled would be included in the resource estimate. Under the assumption that the missing assays would represent poorly mineralized rock, the missing sample data were replaced with the value 0.03 g/t Au. It is believed that this will result in a slightly conservative estimate of mineral resources for the BIF. Leaving the unsampled lengths blank would have allowed the interpolation algorithm to “look” through the unsampled areas to samples with a higher chance of being better mineralized.

During the life of the mine, chip sampling along levels and in stopes was conducted for grade control purposes. As part of this procedure, the grades were capped using a sliding scale capping grade depending on the grade of the assay returned (Table 14.3). Unfortunately, raw grades were not available to Fladgate and PC Gold for distribution analysis. As such PC Gold had little choice but to treat the historical PCGM data (including drill holes, level and stope chips) as uncut and apply the same top cut procedures to this data as to all the other data. As a result, the historical PCGM data has been cut twice, which may result in some underestimation of the actual grade of the high-grade vein portion of the inferred resource estimate.

In order to test the validity of using a combination of underground chips and drill holes for estimation, the univariate statistics for chips and drill holes in the mined out areas of No. 1 Vein 1 were analyzed. The mean of the chips is approximately 2 g/t Au higher than drill

holes. However, the chips are clustered in the higher grade areas of the vein where most of the mining took place. When chip samples are declustered to a grid size more representative of the drill hole spacing (40 m x 40 m x 40 m), the difference in the mean between drill hole samples and chips was found to be negligible as demonstrated in Tables 14.4 and 14.5.

**Table 14.4  
Historical Capping Methodology**

Procedure		Example		
Assay Results		Cap Used	Original Assay (Au oz/T)	Capped Assay (Au oz/T)
From (Au oz/T)	To (Au oz/T)			
0	2	none	1	1
2	4	0.5 oz/T subtracted	3	2.5
4	9	1/2 assay used	5	2.5
9	16	1/3 assay used	10	3.33
16	25	1/4 assay used	17	4.25
25	36	1/5 assay used	27	5.4
36	49	1/6 assay used	40	6.67
49	64	1/7 assay used	50	7.14
64	81	1/8 assay used	72	9

**Table 14.5  
Comparison Between DDH, Chips and Clustered Chips Inside Vein 1 Stopped Out Area**

Data Set	Au Mean	Standard Deviation	Coefficient of Variation
DDH intersecting stopes	19.59	74.21	3.79
CHIPS	21.61	23.48	1.09
Declustered chips	19.62	13.69	0.70

Based on this analysis, it was decided to use the underground chips sample assays for resource estimation, where available.

#### 14.2.5 Capping and Composites

In 2011, full width composites were chosen for veins. As vein thicknesses are highly variable (0.1 to a few metres), no suitable composite length could be selected. Sample support issues in the veins were solved by length-weighted block estimates.

Each domain was analyzed separately for determination of suitable capping grades to reduce the possibility of bias caused by high-grade outlying assays. These outlier thresholds are easily seen on the log probability plot where the probability curve is deflected at higher grades (Figure 14.5 to Figure 14.7). In some cases where smaller populations of data did not warrant individual population distribution analysis, veins were grouped based on their locations, raw

composite means and orientations. The three domains in Vein No. 9 were analyzed collectively. No. 15 and 16 Veins were also analyzed and capped collectively. In the Shaft 3 area veins were grouped into the following groups for outlier analysis:

Main High (Main vein set - high mean):

- Vein 6 domain 1
- Vein 8 domain 3

Main Low (Main vein set - low mean):

- Vein 2 domain 1
- Vein 6 domain 2
- Vein 8 domain 4

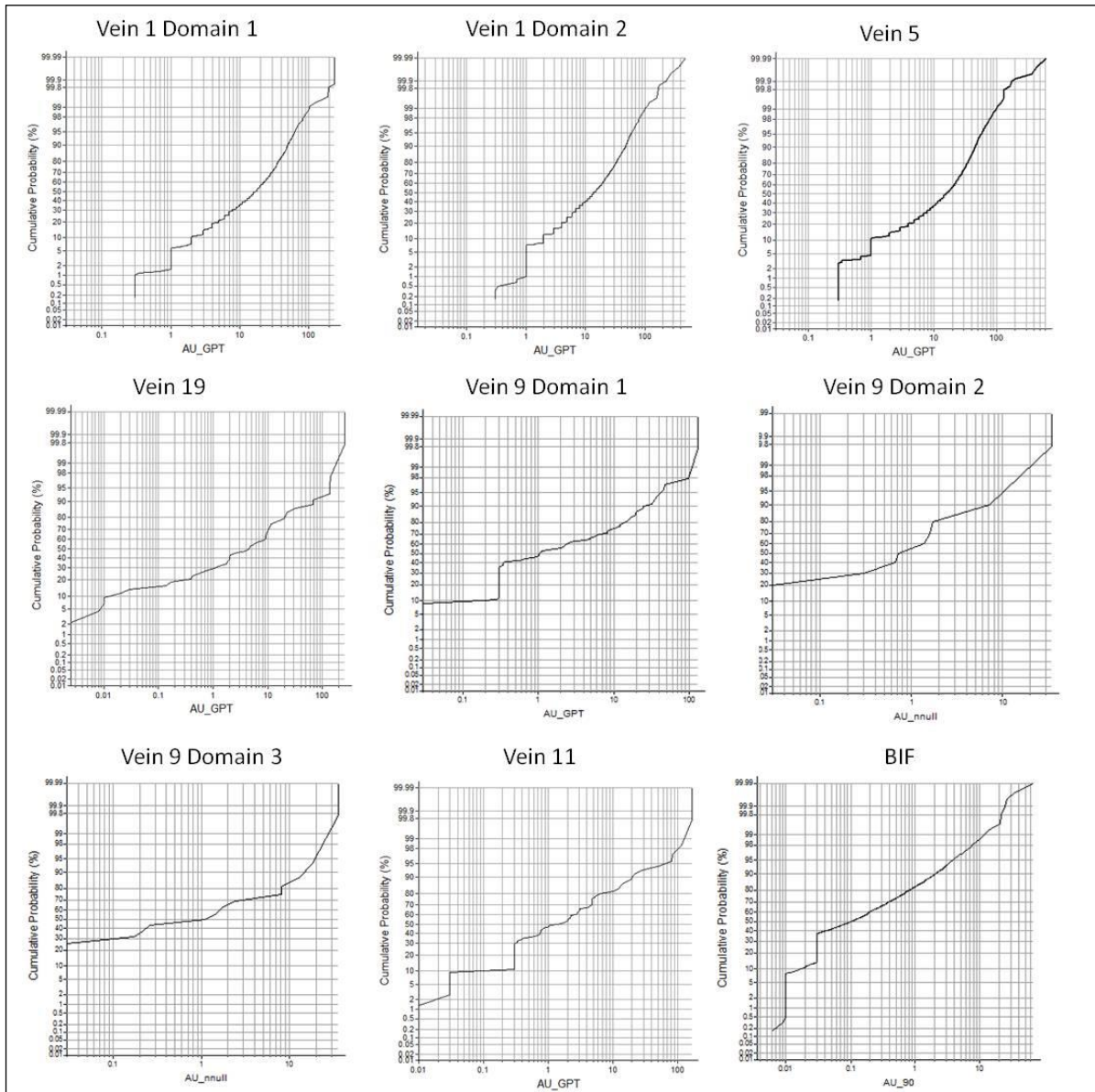
Secondary (Secondary vein set):

- Vein 7 domain 1
- Vein 7 domain
- Vein 6 domain 3
- Vein 6 domain 4
- Vein 12
- Vein 13 domain 1

Tertiary (Tertiary vein set):

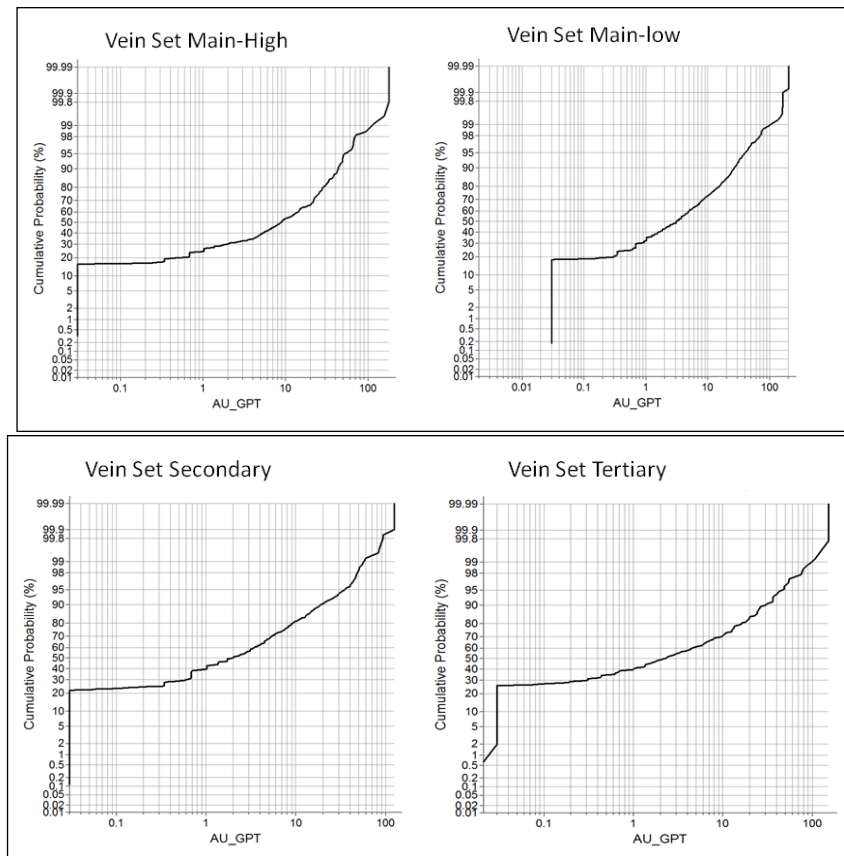
- Vein 13 domain 2
- Vein 2 domain 3

**Figure 14.5**  
**2011 Log Probability Plots, Uncapped Composited Gold Grade for Domains in Shaft 1 Area**



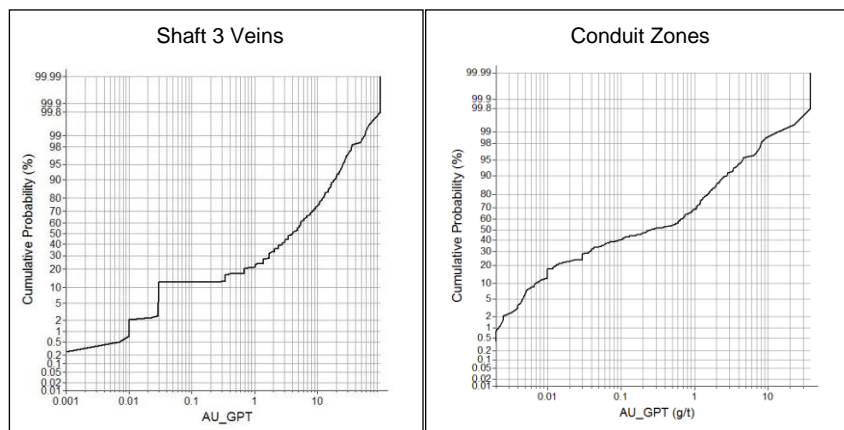
Source: PC Gold and Fladgate, 2011.

**Figure 14.6**  
2011 Log Probability Plots, Uncapped Composed Gold Grade for Domains in the Shaft 3 Area



Source: PC Gold and Fladgate, 2011.

**Figure 14.7**  
2011 Log Probability Plots, Uncapped Composed Gold Grade for Domains in the Albany Shaft Area



Source: PC Gold and Fladgate, 2011.

Table 14.6 below summarizes the capping thresholds used in the 2011 Pickle Crow resource estimate.

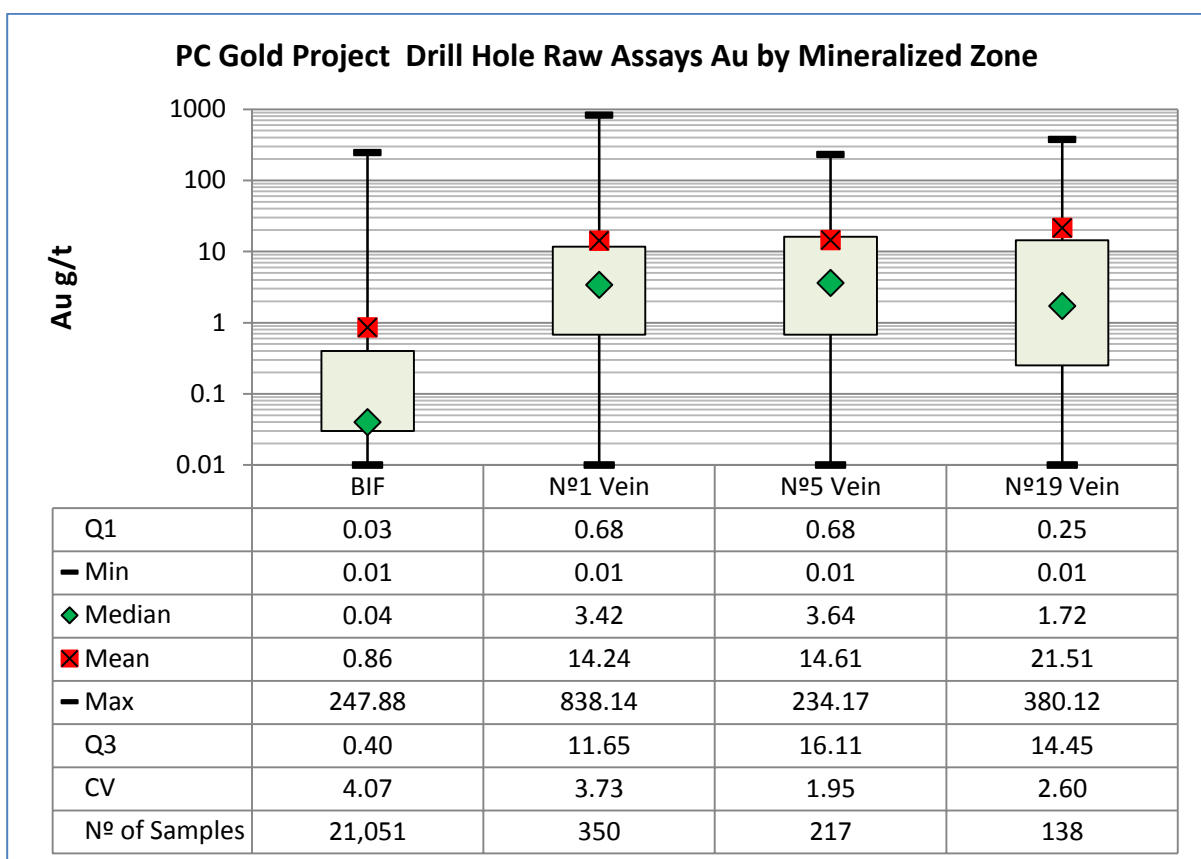
**Table 14.6  
Pickle Crow Composite Statistics**

Shaft	Domain	Sub-domain	Number of Composites	Min Au (g/t)	Max Au (g/t)	Mean (g/t Au)	Capped Mean	Comp Length (m)	Number of Caps	Percentile	Cap Value (g/t Au)
1	Vein 9	1	251	0.03	227.65	11.74	10.53	Vein Width	4	99.8	51.35
1	Vein 9	2	54	0.03	151.54	13.30	11.44	Vein Width	1	99.1	51.35
1	Vein 9	3	33	0.30	84.68	9.83	9.83	Vein Width	0	-	51.35
1	Vein 11	-	79	0.01	167.65	9.74	6.78	Vein width		94.3	53.82
3	Vein 2	1	985	0.03	201.87	9.58	8.44	Vein width	27	97.3	49.54
3	Vein 2	2	56	0.03	151.77	15.34	12.26	Vein width	3	94.9	55.50
3	Vein 2	3	74	0.02	55.49	7.82	7.82	Vein width	0	100	55.50
3	Vein 6	1	256	0.03	104.49	16.08	15.31	Vein width	10	96.4	51.77
3	Vein 6	2	71	0.03	151.18	7.30	5.87	Vein width	1	98.7	49.54
3	Vein 6	3	246	0.03	84.69	9.11	8.31	Vein width	13	95	42.00
3	Vein 6	4	25	0.03	38.88	6.24	6.24	Vein width	0	100	42.00
3	Vein 7	1	263	0.03	50.74	5.56	5.48	Vein width	4	98.5	42.00
3	Vein 7	2	50	0.03	93.07	4.59	3.57	Vein width	1	98.6	42.00
3	Vein 8	3	57	0.03	178.46	20.11	14.39	Vein width	6	89.9	51.77
3	Vein 9	4	83	0.00	97.13	15.69	13.38	Vein width	9	89.5	49.54
3	Vein 12	-	29	0.03	58.81	9.91	9.00	Vein width	3	92.5	42.00
3	Vein 13	1	255	0.03	124.42	6.00	5.52	Vein Width	9	96.8	42.00
3	Vein 13	2	25	0.03	74.67	7.56	6.79	Vein Width	1	98.4	55.50
Albany	Vein 15	1	78	0.00	49.36	7.48	7.29	Vein width	1	98.7	35.00
Albany	Vein 15	2	24	0.01	23.09	3.93	3.93	Vein width	1	97.9	35.00
Albany	Vein 16	1	300	0.03	99.94	9.83	9.06	Vein Width	1	95.7	35.00
Albany	CZ1	-	75	0.00	50.55	3.14	2.31	1.5	3	96	10.00
Albany	CZ3	-	200	0.00	14.14	0.86	0.70	1.5	0	100	10.00

### 14.2.5.1 2016 Analysis

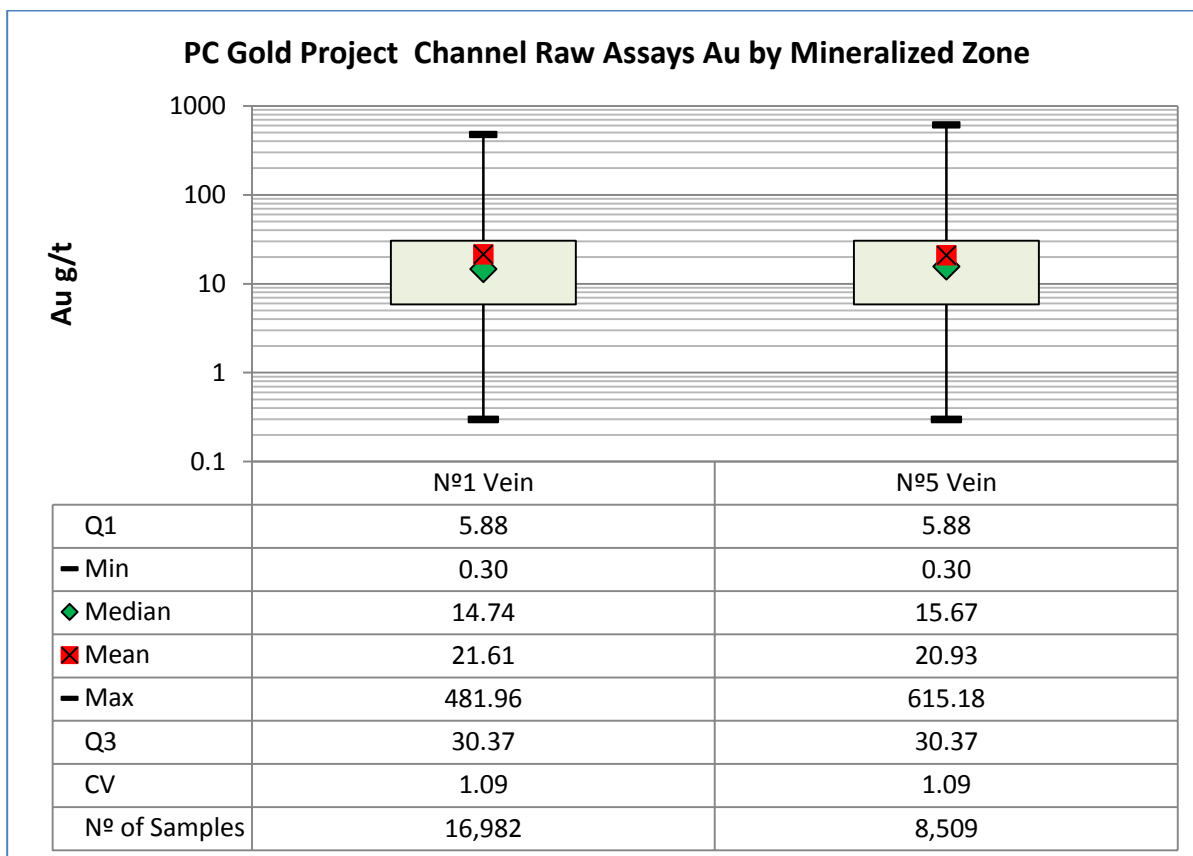
The analyzed assay statistics for the four fully re-estimated zones were constrained to those assays within the mineralized envelopes. Box and whisker plots for the raw drill hole assay data within the BIF, No. 1, No. 5 and No. 19 Veins are shown in Figure 14.8. Plots for the channel samples are shown in Figure 14.9.

**Figure 14.8**  
**Box and Whisker Plot of Raw Drill Hole Assay Data**



Source: Micon, 2016.

**Figure 14.9**  
**Box and Whisker Plot of Raw Channel Sample Assay Data**

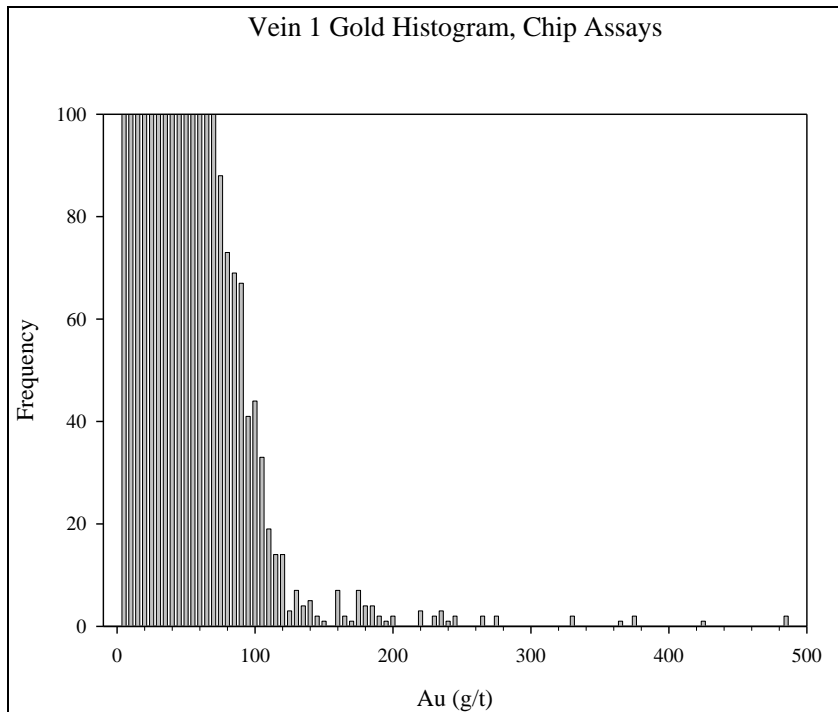


Source: Micon, 2016.

Assay capping values were investigated through the use of histograms and probability plots for the assay data in the BIF, No. 1, No. 5 and No. 19 Veins. Drill hole and the old channel assay data (chips) were investigated separately, except in the BIF where the few channels were converted to pseudo drill holes. Example plots for the No. 1 Vein channel assays are shown in Figure 14.10 and Figure 14.11. The gold grade capping values employed are shown in Table 14.7.

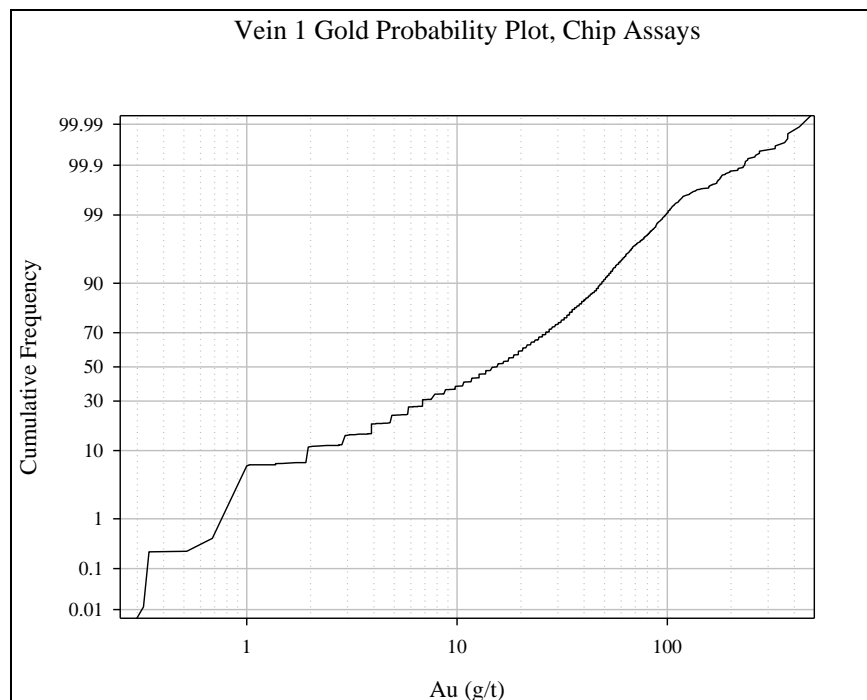


**Figure 14.10**  
**Vein 1 Channel Assay Histogram**



Source: Micon, 2016.

**Figure 14.11**  
**Vein 1 Channel Assays Probability Plot**



Source Micon, 2016.

**Table 14.7**  
**Pickle Crow Project: Gold Grade Capping Values in g/t**

<b>Zone</b>	<b>Drill Holes</b>	<b>Channels</b>	<b>No. Cut in DH</b>	<b>No. Cut in CH</b>
BIF	25.7	N/A	5	0
N°1 Vein	32.3	104.8	10	49
N°5 Vein	31.8	89.1	7	9
N°19 Vein	20.5	N/A	10	0

Source: Micon 2016

Grade capping is a conservative practice to minimize the potential bias in the resource estimate derived from the influence of high outlier values in the grade population. Extreme high values can cause overestimation if they are not restricted or controlled. The BIF was first composited to 1.5 m and then capped. The channel samples were first diluted to a minimum 1 m horizontal width and then investigated for capping.

### **Compositing**

Samples were composited into 1-m equal length intervals. The procedure was constrained to the mineralized zone intervals, from the top to bottom contact along the intersecting drill holes. For most quartz vein intercepts there was only one composite. For the BIF zone compositing was done at 1.5 m. The old underground channel samples were not composited since they were already individual points, however, they were diluted to a minimum 1-m horizontal width.

Table 14.8 below summarizes the statistics of the resulting composites within the updated mineralized envelopes of the Pickle Crow Gold project.

**Table 14.8**  
**Pickle Crow Project: Combined Drill Hole Channel Sample Composite Statistics**

<b>Variable</b>	<b>BIF</b>	<b>Vein No. 1</b>	<b>Vein No. 5</b>	<b>Vein No. 19</b>
Number of samples	13,937	17,295	8,825	52
Minimum value	0.01	0.01	0.009	0.03
Maximum value	25.70	104.80	89.10	20.50
Mean	0.67	15.23	8.01	8.52
Median	0.07	9.80	4.94	6.34
Geometric Mean	0.12	7.51	3.55	2.63
Variance	3.71	276.28	93.03	62.44
Standard Deviation	1.92	16.62	9.65	7.90
Coefficient of Variation	2.85	1.09	1.20	0.93

Source: Micon 2016

## **14.2.6 Variography**

### **14.2.6.1 2011 Estimate**

Variograms in the maximum, medium and minimum directions of continuity were created for Vein 1, Vein 5 and the BIF. These have been superseded by the 2016 variography. Continuity analysis for the No. 9, 19, 11 and 2 Veins was tested but achieved poor results due to smaller sample populations.

The principal geological assumption taken into consideration during continuity analysis was the considerable down-dip continuity of vein structures coincident with the stretching lineation observed on the property. This stretching lineation is easily observed in aspect ratios of stretched pillows or the pronounced down-plunge extension of stoping blocks in the mine. Along-strike or medium axes the ranges of semi-variograms are generally less than half of those of the maximum axes in the down-dip direction. Across strike or minimum axes of semi-variogram ranges are negligible for veins considering that full length composites were used.

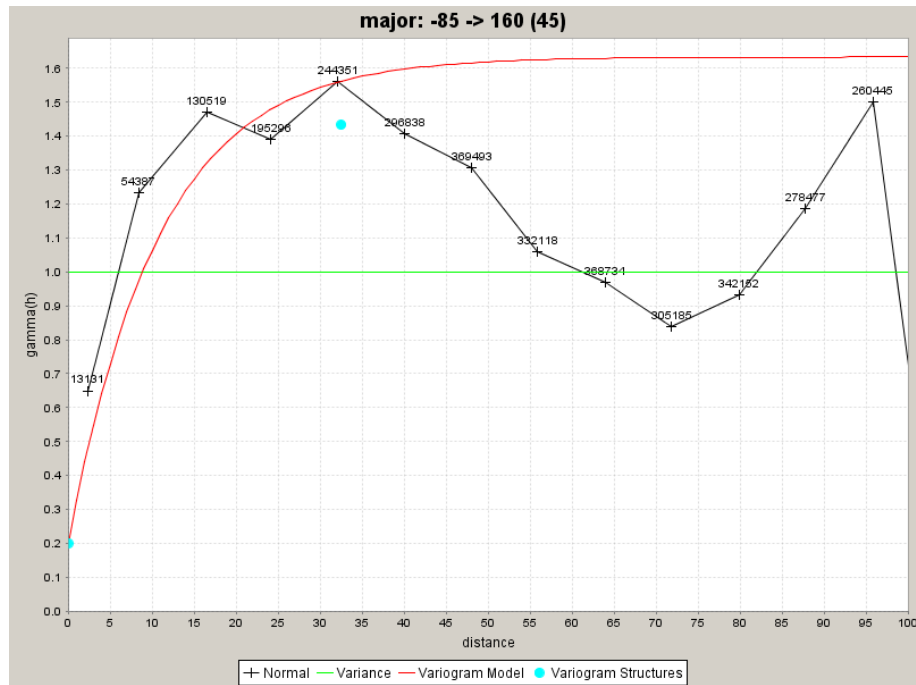
### **14.2.6.2 2016 Estimate**

The updated zones at the Pickle Crow project were again found to have sufficient gold assay data to allow the successful modelling of the semi-variograms necessary for ordinary kriging. Variography is the basis for the selection of search and/or kriging parameters in the estimate.

For the variographic analysis, a down-the-hole semi-variogram, a linear variogram, was investigated to determine the nugget effect. Due to the predominance of single composites per hole in the narrow veins, this was possible only for the BIF zone.

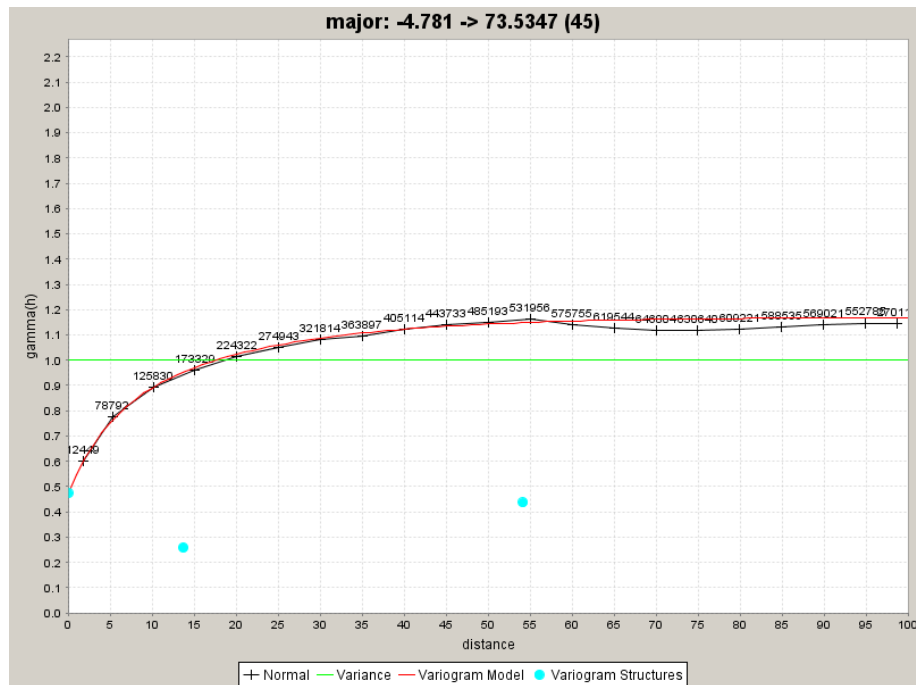
Using the GEMS statistical module, each of the composite sets was evaluated in multidirectional variograms to construct a variogram map that was used to determine the direction of major continuity. After that direction was chosen, a secondary variogram map was built normal to that plane and finally a third direction perpendicular to the secondary axis. Figures 14.12 through 14.15 show example variogram plots. The resulting search parameters are summarized in Table 14.9 below.

**Figure 14.12**  
**Pickle Crow Project: BIF Au Major Axis Semi-variogram.**



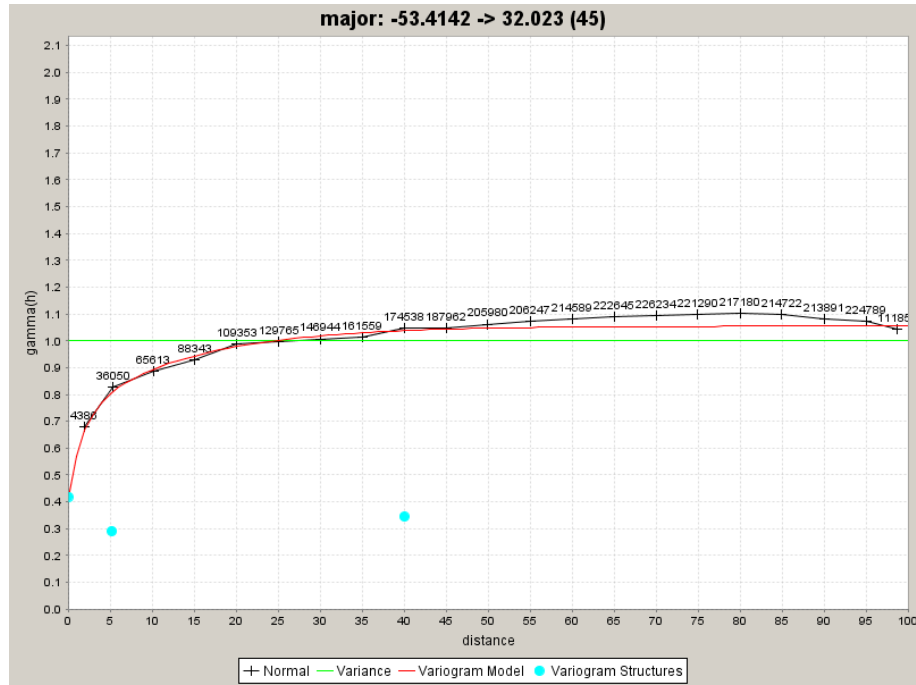
Source: Micon, 2016.

**Figure 14.13**  
**Pickle Crow Project: N°1 Vein Au Major Axis Semi-variogram.**



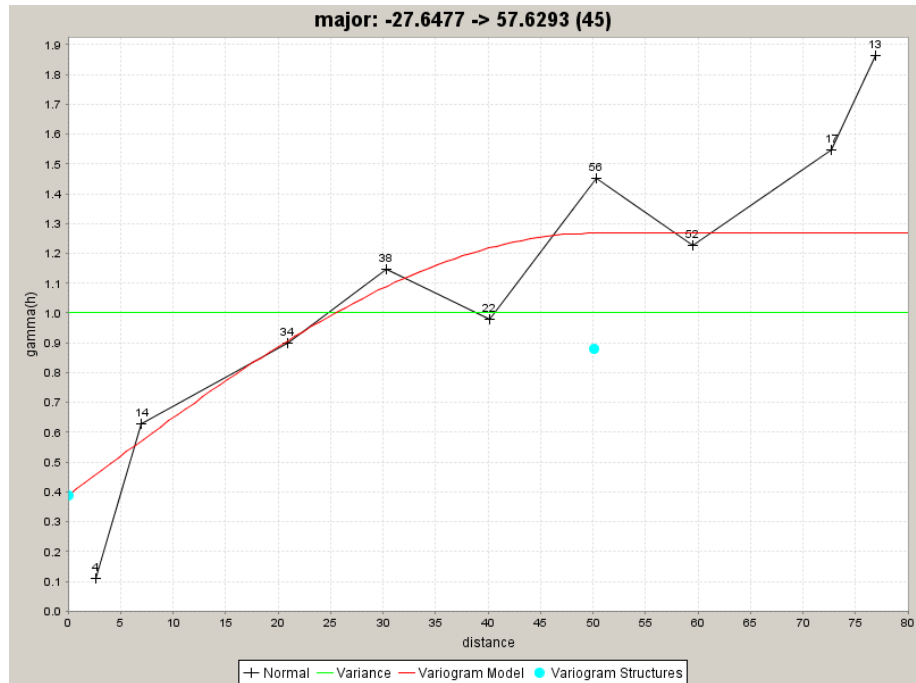
Source: Micon, 2016.

**Figure 14.14**  
**Pickle Crow Project: N°5 Vein Au Major Axis Semi-variogram.**



Source: Micon, 2016.

**Figure 14.15**  
**Pickle Crow Project: N°19 Vein Au Major Axis Semi-variogram.**



Source: Micon, 2016.

**Table 14.9**  
**Pickle Crow Updated Zone Search Parameters**

N°	Bearing	Pass	Search Parameters									
			Az. (°)	Dip (°)	Plunge (°)	Range X (m)	Range Y (m)	Range Z (m)	Min. Samples	Max. Samples	Max. Samp. Per Hole	Interpol. Method
BIF	215	1	160	-25	-85	32	18	9	8	12	3	OK
BIF	215	2	160	-25	-85	64	36	18	6	15	3	OK
BIF	215	3	160	-25	-85	192	107	51	4	15	3	OK
V1	255	1	74	-75	-5	54	37	37	6	8	2	OK
V1	255	2	74	-75	-5	108	74	74	6	8	2	OK
V1	255	3	74	-75	-5	162	112	112	3	8	2	OK
V5	245	1	32	-75	-53	40	40	40	6	8	2	OK
V5	245	2	32	-75	-53	80	80	80	6	8	2	OK
V5	245	3	32	-75	-53	120	120	120	3	8	2	OK
V19	260	1	58	-45	-27	50	50	50	4	8	2	OK
V19	260	2	58	-45	-27	100	100	100	4	8	2	OK
V19	260	3	58	-45	-27	150	150	150	3	8	2	OK

Source: Micon 2016. OK = Ordinary Kriging

### 14.2.7 Local Rock Density

Average rock density values, as received from Fladgate, were used for Pickle Crow multiple zones. The values were reviewed by Micon and deemed to be reasonable. The density values are presented in Table 14.10 below.

**Table 14.10**  
**Average Density Values by Mineralized Zone**

Zone	Density (t/m <sup>3</sup> )
BIF	3.21
N°1 Vein	2.70
N°5 Vein	2.70
N°19 Vein	2.70
Waste Rock	2.83

Source: Fladgate. Table compiled by Micon

### 14.2.8 Block Model

#### 14.2.8.1 2011 Estimate

At Shaft 1, Datamine Studio 3 was used to estimate grade, a software package that makes use of sub-cells. Gemcom was used for block modelling the Shaft 3 and Albany Shaft domains.

#### Shaft 1

Block model parameters for all veins except 1, 5 and 11 were chosen to best fit the geometry of the narrow veins. Parent cells were split using three splits in each direction to better represent tonnages of the wireframes. The block model parameters for the No. 1, 5, and 11

Veins and the BIF were chosen keeping the open pit optimization in mind. Parameters best suiting the most predominant BIF unit were selected considering average sampling length (~0.76 m), across strike continuity of the BIF (3 to 6 m) and the sampling density. Sub-cells were split three times in each direction for better tonnage representation. A parent cell estimation technique was used for all domains. This involves estimating a grade for each sub-cell and reporting it as the weighted average grade for each parent cell.

### Shaft 3 and Albany Shaft

Shaft 3 and Albany Shaft model cell sizes were chosen to best fit the geometry of the veins and 3 m x 3 m x 3 m cells were deemed appropriate for the Conduit Zones. The Gemcom “needling” technique was adopted for determining the percentage of the tonnage of the blocks falling inside the mineralized solid.

Models in all zones were rotated to best fit the strike and dip of the domains.

The block model parameters are summarized in Table 14.11.

**Table 14.11  
Pickle Crow Block Model Parameters**

Domain	Size X (m)	Size Y (m)	Size Z (m)
Veins	1	1	1
Veins 1, 5, 11 and BIF	3	9	9
Shaft 3	1	1	1
Conduit Zones	3	3	3
Other Albany Shaft Zones	1	1	1

#### 14.2.8.2 2016 Estimate

After examining the available drilling data and potential mining methods for the Pickle Crow gold deposit, the following block model selections were made:

- The BIF block model was designed for an open pit/bulk underground mining scenario, a block size of 5 m (X) by 5 m (Y) by 5 m (Z) was used;
- The No.1, 5 and 19 Veins were modelled with a block size of 5 m (X) by 1 m (Y) by 5 m (Z), given the narrow nature of the veins and the minimum mining width selection, the 1 m side of the block was oriented across the strike direction of each vein.

A partial percentage model was used to report the mineralization in each block.

## 14.2.9 Grade Interpolation

### 14.2.9.1 2011 Estimate

Shaft 1 was modelled using Datamine, while Shaft 3 and the Albany Shaft were modelled using Gemcom Gems. The general interpolation plan is summarized in Table 14.12.

For block models in the Shaft 1 area, 2 different interpolation approaches were utilized depending on mineralization styles and sample size. Ordinary kriging (OK) was used in the BIF, Vein 5 and Vein 1 as the sample sets support the use of kriging weights determined by the modelled semi-variograms. Inverse distance cubed ( $ID^3$ ) was used for the remaining domains. For the BIF, standard OK was used to interpolate capped composite grades into the block model. The veins were estimated using a length weighted estimation. This was achieved in the No. 1 and No. 5 Veins by an OK interpolation of capped grade accumulation over the vein intercept (AU\_CAP X length of intercept) and the length of the intercept into blocks. The final gold grade for the block was calculated by dividing the grade accumulation by the length interpolated into the block. For the No. 9, 11 and 19 Veins, grade was interpolated using a length-weighted  $ID^3$  interpolation. These length weighting techniques solve the sample support issue caused by full vein width compositing.

Veins in the Shaft 3 and Albany Shaft areas were modelled using  $ID^3$  interpolations. The grade accumulation and intercept length attribute (as described in the paragraph above) were interpolated into blocks. During a first attempt, some grade accumulation bias was noticed, caused by drill holes drilled close to or directly down the dip of the vein. This was accounted for in Vein 2 Domain 1, Vein 12 and Vein 13 Domain 1 by adjusting the intercepts to true thickness across the vein. The Conduit Zones were modelled using  $ID^3$ , interpolating capped composite gold grades into the block model.

For veins using only level chips (no stope chips), clustering of data along levels was solved by restricting the estimation to a maximum of three samples per level. This constraint forces the ellipse to search for at least one sample from elsewhere.

In addition to interpolation of gold grades, grade accumulation and lengths of intercepts, widths of the vein were interpolated into the blocks. The sample set was derived from the procedure described in Section 14.2.2. Interpolation of values into blocks is also mentioned in this section.



**Table 14.12  
Generalized Interpolation Plan for the Pickle Crow Project Resource Estimate**

Shaft	Domain	Method	Attribute	Search Pass 1			Pass 2	Pass 3	Sample Declustering
				Range 1 (m)	Range 2 (m)	Range 3 (m)	Expansion	Expansion	
1	Vein 9, Vein 11,	ID <sup>3</sup>	AU_CAP, Width of Vein	30 - 50	15	5 - 15	2 times	2.5 - 6 times	Max 3 per level
3	All Veins	ID <sup>3</sup>	AU_Accumulated, Length of intercept, Width of Vein	49 - 91	17 - 29	17 - 29	2 times	2.5 times	Max 3 per level
Albany	All Veins	ID <sup>3</sup>	AU_Accumulated, Length of intercept, Width of Vein	75 - 150	20 - 25	10 - 20	2 times	2.5 times	Max 3 per level
Albany	Conduit	ID <sup>3</sup>	AU_CAP	40 - 75	25 - 30	25 - 30	-	-	Max 2 per hole

ID = Inverse Distance, OK = Ordinary Kriging

### 14.2.9.2 2016 Estimate

Gold grade values were interpolated into the remodelled zones using the Ordinary Kriging method and the search parameters set out in Table 14.9.

## 14.3 MINERAL RESOURCES

### 14.3.1 Whittle Optimization

The widths and grade of the mineralized BIF in the Shaft 1 area indicate that any mining scenario may involve an open pit operation. However, the mineralization extends much deeper than would likely be economically viable for an open pit. Therefore, in compliance with CIM mineral resource reporting standards, Micon floated a simple Whittle pit to evaluate the open pit prospect.

Micon used the following cost parameters for the exercise, based on experience with similar sized operations in North America (see Table 14.13).

**Table 14.13**  
**Pickle Crow BIF Deposit: Open Pit Economic Parameters**

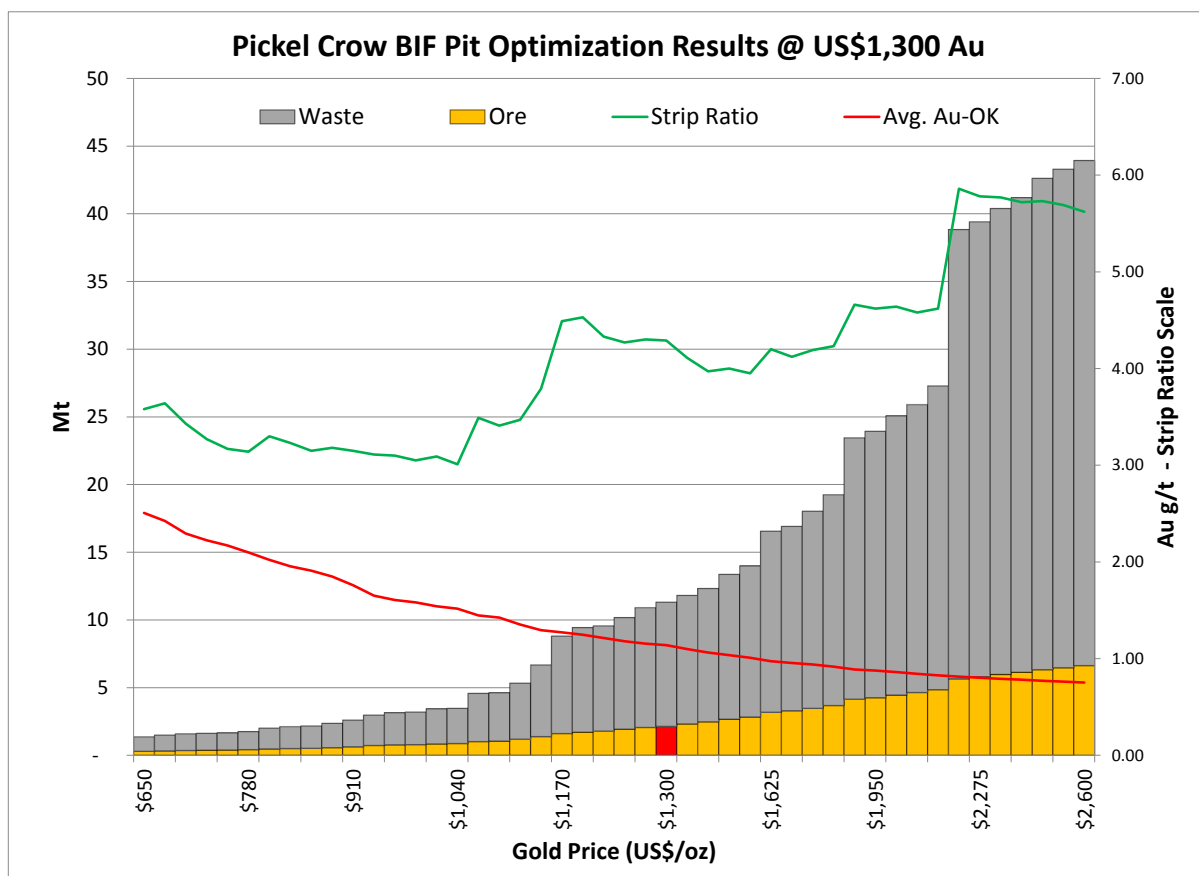
Description	Amount	Units
Metal Price Au	1,300	US\$
Metallurgical Recovery Au	89.9	%
Mining Cost Ore (Open Pit)	2.0	US\$/t
Mining Cost Waste	2.0	US\$/t
Processing Cost	13.6	US\$/t
G&A	3.6	US\$/t
Pit Slope	45	degrees

Source: Micon 2016

No geotechnical data were available for pit slope determination so a relatively conservative 45° angle was assumed, again based on previous experience with open pits in competent rocks of the Canadian Shield. Metallurgical recovery from BIF mineralization has been updated from post-2011 metallurgical testwork as summarized in Section 13.

The open pit optimization results are presented in summary in Figure 14.16.

**Figure 14.16**  
**Pickle Crow BIF Deposit: Pit Shell Results Chart**



Source: Micon, 2016.

The Whittle pit results reflect a simple cone and do not constitute a fully designed and optimized pit which would be conducted for a mineral reserve determination.

### 14.3.2 Cut-off Grades

The economic criteria used for selecting the cut-off grades for resource reporting are set out in Table 14.14.

**Table 14.14**  
**Cut-off Grade Criteria**

Parameters	BIF (OP)	BIF (UG)	All Veins (UG)
Mining Cost US\$/t	2.0	60.0	90.0
Milling Cost US\$/t	13.6	13.6	13.6
G&A Cost US\$/t	3.6	3.6	3.6
Overall Cost US\$/t	19.2	77.2	107.2
Au Met. Recovery %	89.9%	89.9%	98.0%
Au Price US\$/oz	1,300	1,300	1,300
Cut-off Au g/t	0.5	2.1	2.6

### 14.3.3 Mineral Resource Results

The mineral resources estimates for the Pickle Crow project are presented in Table 14.15 below. The underground portion of the resource consists of two components, a bulk tonnage long-hole stoping component (the BIF) using a 2.0 g/t Au cut-off grade and a high-grade cut-and-fill component using a 2.6 g/t Au cut-off grade over a minimum width of 1 m. Vein widths less than 1 m were diluted to 1 m prior to application of the 2.6 g/t Au cut-off grade.

Whittle does not calculate a cut-off grade for resources. It estimates a cash flow from mining every block inside a series of cones of increasing size. The mine haulage costs are incremented as the pit gets deeper so that, in effect, each bench has a slightly different cut-off grade as the pit gets deeper. The ultimate pit chosen as the pit to report the mineral resource is the one with the highest net cash flow or net present value. Using the data in Section 14.3.2 the cut-off grade would be approximately 0.5 g/t Au.

**Table 14.15**  
**Estimated Inferred Mineral Resources for the Pickle Crow Project**

Area	Zone	Host	Mining Method	Tonnes	Grade (g/t Au)	Contained Ounces	Cut-off Grade (g/t Au)
Shaft 1	BIF	BIF & Vein	Open Pit	1,887,000	1.3	79,800	0.50
	BIF	BIF	Bulk Underground	5,297,000	3.8	644,700	2.00
	No. 1 Vein	Vein	Underground	594,000	6.1	116,000	2.60
	No. 5 Vein	Vein	Underground	362,000	8.0	93,000	2.60
	No. 9 Vein	Vein	Underground	148,000	7.4	35,300	2.60
	No. 11 Vein	Vein	Underground	21,000	6.0	4,100	2.60
	No. 19 Vein	Vein	Underground	186,000	9.1	54,400	2.60
		<b>Shaft 1 Total</b>			<b>8,495,000</b>	<b>3.8</b>	<b>1,027,300</b>
Shaft 3	No. 2 Vein	Vein	Underground	96,000	8.9	27,200	2.60
	No. 6 Vein	Vein	Underground	160,000	7.9	40,900	2.60
	No. 7 Vein	Vein	Underground	54,000	5.5	9,600	2.60
	No. 8 Vein	Vein	Underground	55,000	8.0	14,200	2.60
	No. 12 Vein	Vein	Underground	14,000	11.7	5,300	2.60
	No. 13 Vein	Vein	Underground	112,000	6.2	22,300	2.60
	No. 22 Vein	Vein	Underground	31,000	5.4	5,300	2.60
	No. 23 Vein	Vein	Underground	165,000	7.0	37,000	2.60
		<b>Shaft 3 Total</b>			<b>687,000</b>	<b>7.3</b>	<b>161,800</b>
Albany Shaft	CZ1	Conduit-Style	Bulk Underground	168,000	4.9	26,600	2.00
	CZ3	Conduit-Style	Bulk Underground	22,000	2.7	1,900	2.00
	No. 15 Vein	Vein	Underground	49,000	4.5	7,000	2.60
	No. 16 Vein	Vein	Underground	31,000	6.0	5,900	2.60
		<b>Albany Shaft Total</b>			<b>270,000</b>	<b>4.8</b>	<b>41,400</b>
	<b>Grand Total</b>			<b>9,452,000</b>	<b>4.1</b>	<b>1,230,500</b>	

Notes:

1. The mineral resource estimate is entirely classified as inferred mineral resources.
2. 2014 CIM Definition Standards were followed for mineral resources.
3. The mineral resource has been estimated using a gold price of US\$1,300/oz.

4. High-grade assays have been capped. Each domain was capped with respect to their unique geology and statistics.
5. The mineral resource was estimated using a block model. Three dimensional wireframes were generated using geological information. A combination of kriging and inverse distance estimation methods were used to interpolate grades into blocks of varying dimensions depending on geology and spatial distribution of sampling.
6. Mineral resources that are not mineral reserves do not have demonstrated economic viability. There is currently insufficient exploration to define these inferred resources as an indicated or measured resource.
7. Mineral resources have been adjusted for mined out areas. Small rib and sill pillars around old stopes have not been considered or reported.
8. Numbers may not add due to rounding.

The data used in the preparation of this resource estimate are current as of July 15, 2014. The mineral resource estimate presented is current as of August 31, 2016. Both dates are prior to the 2016/2017 First Mining drill program which did not affect the mineral resource estimate.

#### **14.3.4 Classification**

The 2011 mineral resource estimates presented previously were classified in accordance with the 2010 CIM Guidelines. Those zone models which have not changed have been reviewed and they, along with the newly estimated resources, in this report have been classified according to the 2014 CIM Guidelines as required by NI 43-101.

According to the 2014 CIM definitions:

“An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.”

“An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.”

“An Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.”

“There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a Measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an Indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to

report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource.”

Considering that a combination of current drilling, historic drilling and underground chip samples were used in the resource estimation, no particular common sample grid exists. There also exists a known minor error in terms of sample location and the accuracy of the digitized underground workings. However, even though these known inaccuracies exist, the grade and tonnage discrepancy caused by this margin of error is within reasonable limits for an inferred resource and the estimate is reported as such.

## **14.4 CONFIRMATION OF ESTIMATE**

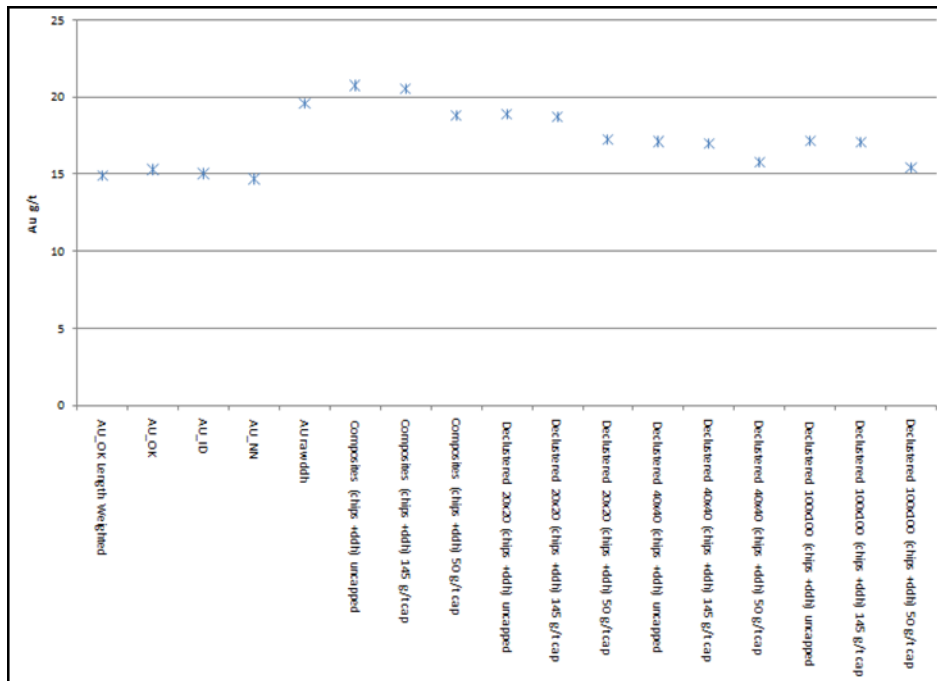
### **14.4.1 2011 Fladgate Checks**

In order to validate the block model results, Fladgate performed the checks described below.

#### **Comparison of Means and Trend Analysis**

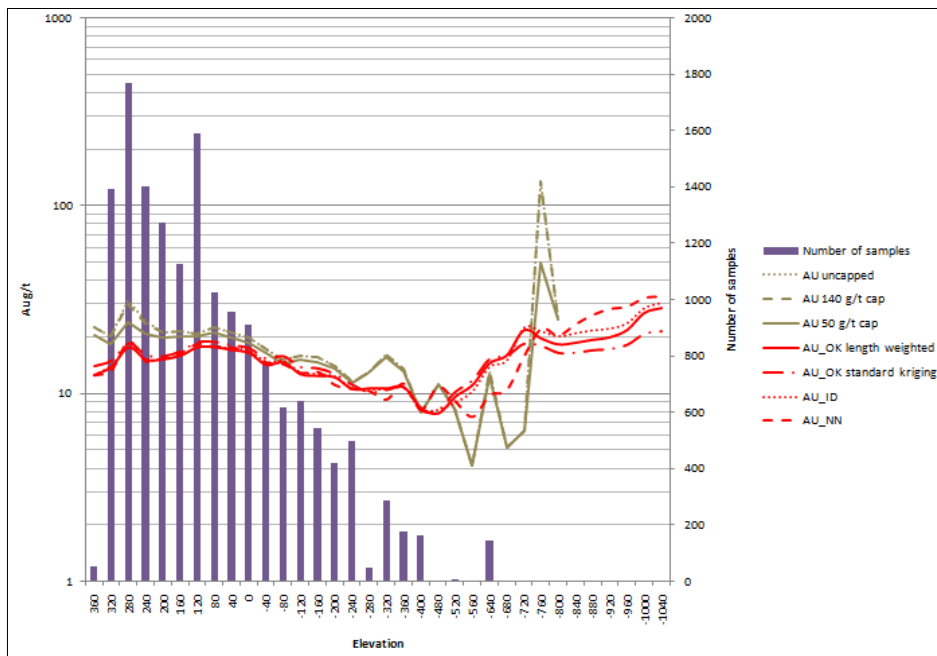
Fladgate analyzed the means of raw assays, composites, declustered composites and block model estimates. The mean of declustered composites is a better representation of the sample mean in areas where excessive clustering (usually of stope chip samples) biases the mean. The trend analysis, on the other hand, displays the integrity of the local estimate. Trough and ridges of the model should correspond to troughs and ridges in the samples. Trend analyses were performed for each domain. Plan sections were identified as the suitable direction for trend analysis. Examples of mean comparison and trend analysis can be seen in Figure 14.17 and Figure 14.18.

**Figure 14.17**  
**Comparison of Mean Gold Grades for Estimates, Vein 1 (Shaft 1 Area)**



Source: PC Gold and Fladgate, 2011.

**Figure 14.18**  
**Vein 1 Block Model Versus Composites Trend Analysis Chart**

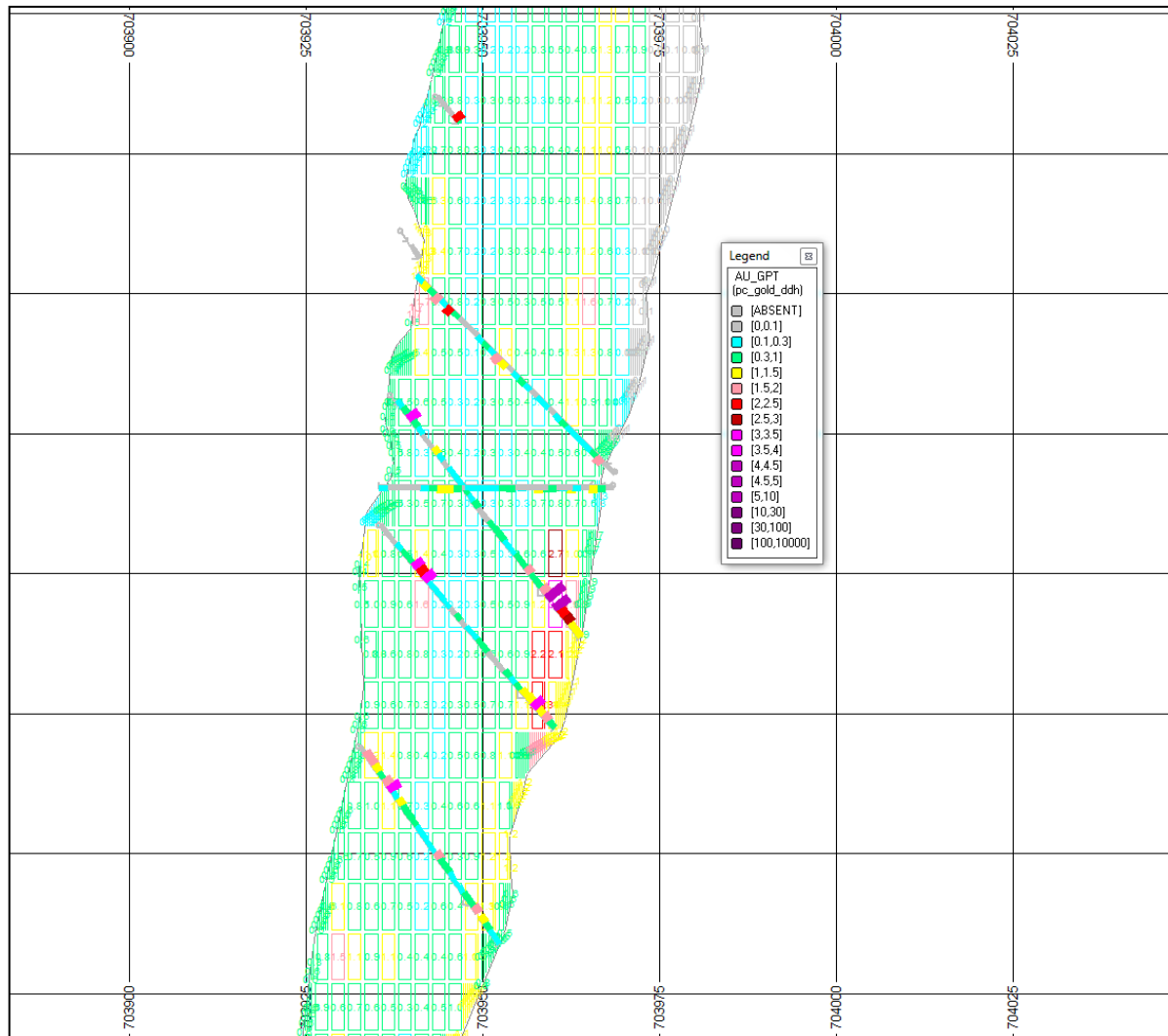


Source: PC Gold and Fladgate, 2011.

## Visual Checks of the Model

Fladgate performed visual checks of block models against composites on section for the BIF and Conduit Zones and in long section views for veins. An example of a vertical section of the BIF can be seen in Figure 14.19, a long section view of Vein 1 in Figure 14.20 and veins in the Shaft 3 Area in Figure 14.21.

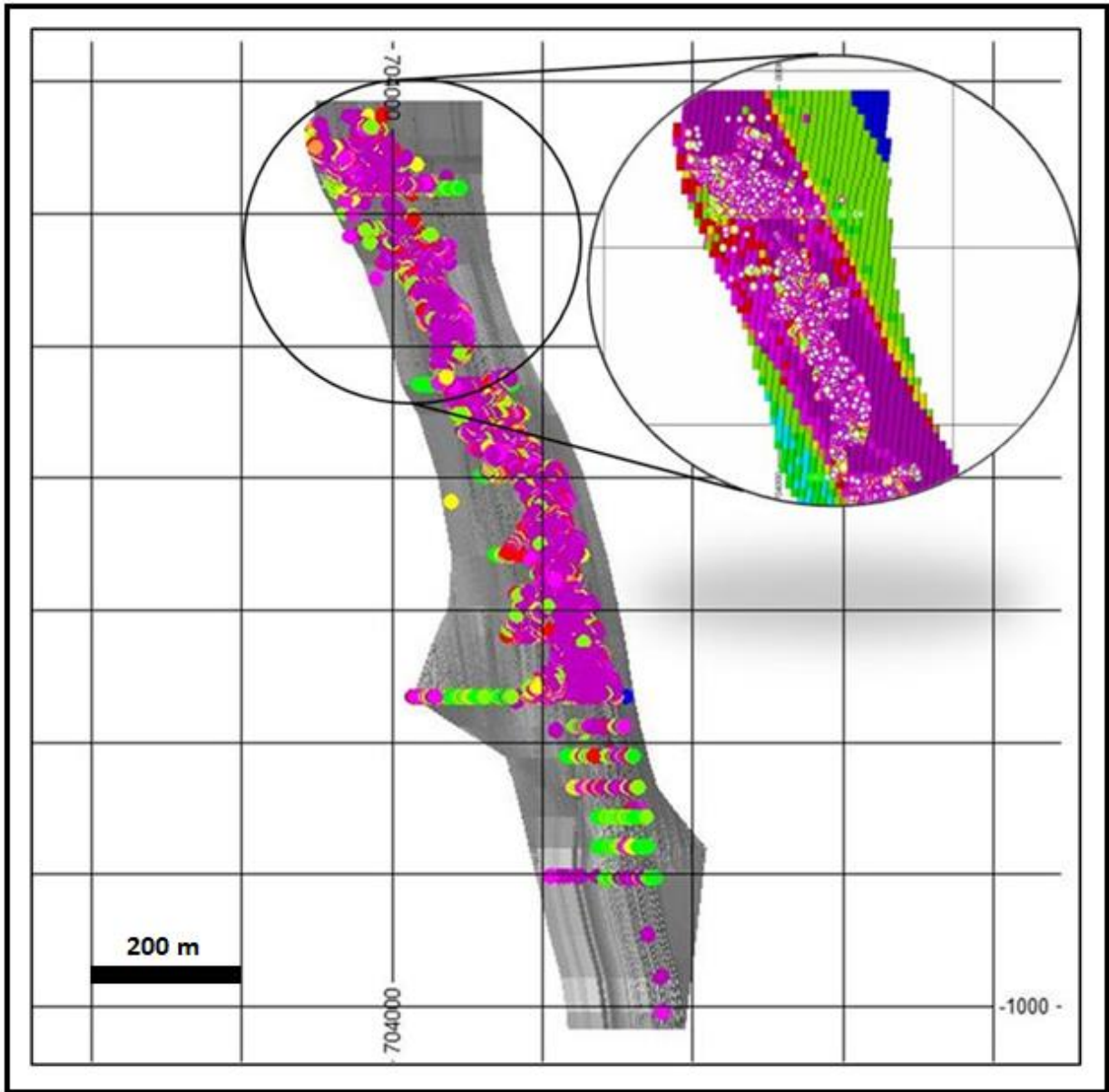
**Figure 14.19**  
**Example of Vertical Section Through the BIF**



Source: PC Gold and Fladgate, 2011. Grid squares = 25 m.

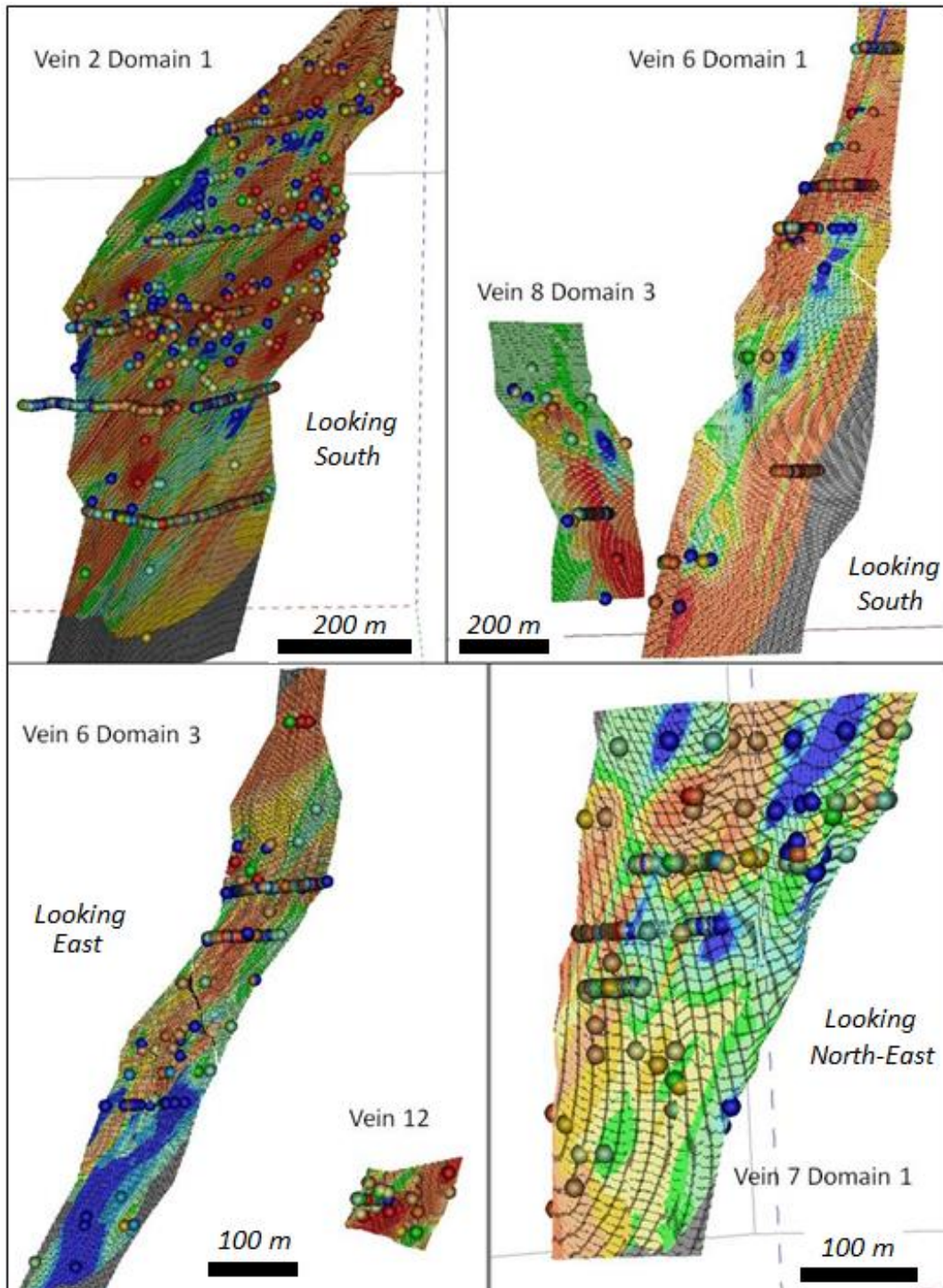


**Figure 14.20**  
**Example of Vein 5 Block Model Long Section Versus Sample Visual Check (Shaft 1)**



Source: PC Gold and Fladgate, 2011.

Figure 14.21  
Example, Shaft 3 Block Model Long Section Versus Sample Visual Check



Source: PC Gold and Fladgate, 2011.

## Conclusions

The checks described above were performed by Fladgate and reviewed by Micon. Micon considers the results of the confirmation studies to be acceptable for an inferred resource.

### 14.4.2 2011 Micon Checks

Micon noted that this is, in part, a vein gold deposit with large variations in grade and characterized by a relatively high nugget effect. However, it displays good structural controls on the grade distribution. Such features can make this a challenging and difficult deposit type to model.

## Geological Models

Micon reviewed the geological models for the mineralized zones and veins located in the old stopping areas and in the unmined sections. As these models were constructed by Fladgate, a number of validations were performed for each of them to make sure that they were reasonably modelled and acceptable for NI 43-101-compliant disclosure. Micon made suggestions to improve some of the models. These changes were completed by Fladgate and re-submitted to Micon for final review. The zones checked are set out in Table 14.16.

**Table 14.16**  
**List of Audited Mineralized Zones and Veins**

<b>Zone/Vein Name</b>	<b>Location</b>	<b>Mined</b>
BIF	Shaft 1	Yes
No. 1 Vein	Shaft 1	Yes
No. 5 Vein	Shaft 1	Yes
No. 9 Vein	Shaft 1	Yes
No. 11 Vein	Shaft 1	Yes
No. 19 Vein	Shaft 1	Yes
No. 2 Vein	Shaft 3	Yes
No. 6 Vein	Shaft 3	Yes
No. 7 Vein	Shaft 3	Yes
No. 8 Vein	Shaft 3	Yes
No. 12 Vein	Shaft 3	Yes
No. 13 Vein	Shaft 3	Yes
Conduit Zone 1	Albany Shaft	No
Conduit Zone 2	Albany Shaft	No
No. 15 Vein	Albany Shaft	No
No. 16 Vein	Albany Shaft	No

## Database

The database was checked as described in Section 12.4 of this report.

## **General Statistics**

The univariate statistics reports presented by Fladgate were reviewed by Micon and no material problems were discovered.

## **Geology Model and/or Domains**

The submitted geological models were reviewed and found to be reasonable and suitable for use as constraints for the modelled veins. Due to the high complexity of the shapes, the envelopes were not always physically containing the assays but samples were selected manually to be part of the local statistics and subsequent interpolation of that particular model. Some models were found to be somewhat optimistic in projection down-dip. Micon suggested restriction of these projections in the interpolation passes, meaning that not all blocks were filled with grade.

## **Grade-capping**

Micon reviewed the univariate statistics provided by Fladgate and checked the selected grade-capping for the different geological models. They were all found to be reasonable.

## **Sample Compositing**

The compositing strategy was different depending on the geological model and interpolation method to be used. Micon reviewed and reproduced the composites of every geological model with exception of the “variables best fit” compositing method. In this case, a random manual check was performed successfully.

## **Variography and Search Parameters**

Fladgate submitted all of its variography reports to Micon. They were reviewed and it was found that the resulting selected search parameters for the estimate were acceptable.

## **Rock Density**

Constant density values were applied for each geological model with different values used in the BIF and for the different quartz veins. The densities applied were found to be reasonable for the associated rock types.

## **Block Model Validation**

Micon advised Fladgate on the validation approaches that should be performed in order to gain confidence in the resulting estimates. The validations included statistical comparison of the composites against the block model, drift analysis, and visual checks. These were reviewed and spot-checked by Micon.

## Block Model Categorization

All resources were categorized as inferred with which Micon is in agreement. This resource estimate likely cannot be moved to a higher confidence category without further drilling and until access to the underground development for surveying has been completed successfully.

### 14.4.3 2016 Micon Checks

Micon has completed several checks of the 4 remodelled zones and has relied on the checks completed in 2011 for the other zones.

#### 14.4.3.1 Block Model Statistical Comparison

A tabulated comparison of the statistics for the informing composites against the resulting block grade values gives a global sense of the accuracy of the mineral resource estimate. Table 14.17 shows the results of this comparison.

**Table 14.17**  
**Pickle Crow Gold Project: Block Model Statistical Comparison**

Block Model	Block Grades (Au g/t)	Composite Grades (Au g/t).
BIF	0.46	0.67
N°1 Vein	8.01	15.23
N°5 Vein	6.15	8.01
N°19 Vein	8.53	8.52

Source: Micon 2016

There is a bias in grade for the No. 1 and No. 5 Veins due to the large number of high-grade channel samples used which are predominately located in the now mined out areas. Those high-grade blocks in the model have been removed due to production. In the No. 19 Vein, there is a good statistical correlation because this vein estimate used only drill hole sample data and has not yet been mined.

#### 14.4.3.2 Visual Inspection

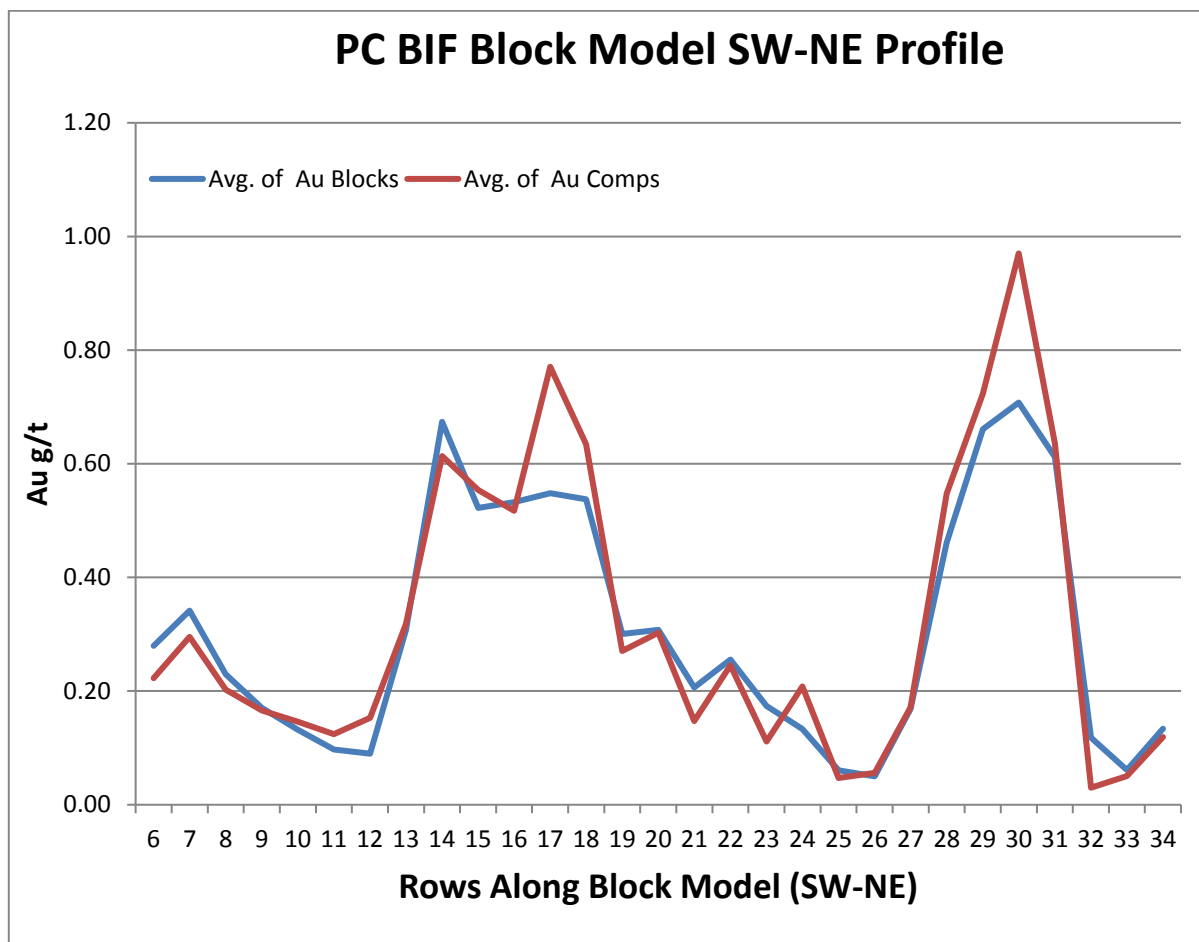
After finalizing the grade interpolation, a visual inspection was carried out stepping through vertical sections, along strike, to verify that drill hole grades agree with the local estimated block grades. In this procedure, drill holes and blocks are displayed together using the same colour table scale for the grade. The inspection found no visible problems.

#### 14.4.3.3 Trend Analysis

Trend analysis is a validation technique that extracts grade profiles from composites and blocks in a specified direction. The resulting curves are plotted together on a chart called a Swath Plot. The curves were adjusted to show 50-m intervals as an adequate resolution to perform a

regionalized comparison of the input versus the output grade trends. Figure 14.22 shows the resulting swath plot for the Pickle Crow BIF block model.

**Figure 14.22**  
Pickle Crow BIF Swath Plot for Gold, 1.5m Composites (input) vs. Resulting Blocks (output)



Source: Micon, 2016.

## 14.5 RESPONSIBILITY FOR ESTIMATION

The 2011 estimate of mineral resources described in this report and Hennessey (2011) was prepared by a team of modellers working under the supervision of Sean Horan, P.Geo., at Fladgate. The estimation methodology, supporting data and results were reviewed under the supervision and overall direction of B. Terrence Hennessey, P.Geo., Vice President of Micon.

The 2016 update of the zones outlined in Section 14 above, and the reporting of new resource estimates for all zones at new cut-off grades, have been conducted under the overall direction of Mr. Hennessey.

Mr. Hennessey is a Qualified Person as defined in NI 43-101, and is independent of First Mining, PC Gold and Fladgate.

## 15.0 ADJACENT PROPERTIES

### 15.1 NEARBY MINES

The Pickle Lake greenstone belt has produced approximately 2,269,000 oz (~70.6 t) of gold from three mining operations since the 1930s. The bulk of this production, 1,446,214 oz (~45 t) came from the Pickle Crow mine on the current property. The balance came from the adjacent properties of Central Patricia Gold Mines Limited and the Dona Lake mine of Placer Dome Canada Limited (Placer Dome). Also located in the region is the former Thierry mine of Union Miniere Explorations and Mining Corporation (UMEX) which processed 5.8 million tons of ore with an average grade of 1.13% copper and 0.14% nickel. The location of those properties in relation to the Pickle Crow mine can be seen on Figure 15.1.

The summary information in Section 15 was provided by PC Gold and Fladgate personnel based on their on-going historical research for the mining camp.

#### 15.1.1 Central Patricia Gold Mines Limited

The Central Patricia gold mine is a former producer contiguous with, and lying southwest of, the Pickle Crow property. Mining operations were carried out at two locations:

- Central Patricia mine, located about 7 km west of the Pickle Crow mine. Predominantly iron formation-hosted gold ore was mined between 1934 and 1951, and
- Central Patricia No. 2 Operation (Springer Shaft) located about 1.8 km southwest of the Pickle Crow No. 1 Shaft. A high-grade auriferous quartz vein was mined between 1938 and 1940.

Between 1934 and 1951, Central Patricia recovered approximately 650,000 oz (20.2 t) of gold at an average recovered grade of 0.38 oz/ton Au (13.03 g/t Au) at the Central Patricia and No. 2 operations, from about 1.73 million tons (1.57 million tonnes) of ore milled.

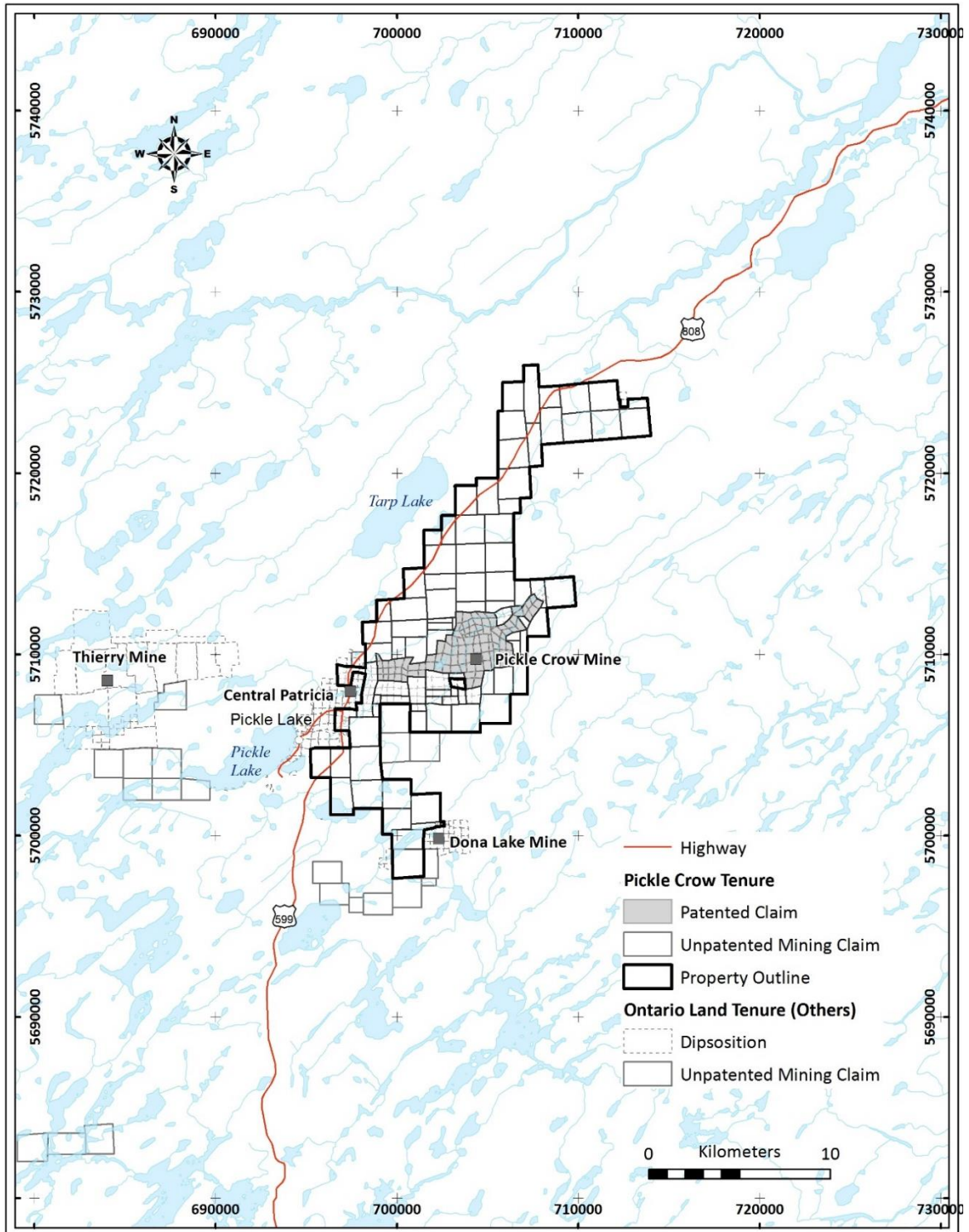
The Central Patricia mineralization (arsenopyrite-rich), although iron formation-hosted, differs from the iron formation-hosted mineralization (arsenopyrite-poor) present in the core mine trend of the Pickle Crow property. However, it possesses many similarities to the arsenopyrite-rich iron formation-hosted mineralization of the Central Pat East zone located along the Cohen-MacArthur trend on the Pickle Crow property. The Central Patricia No. 2 operation (Springer Shaft) produced from a narrow, high-grade quartz vein (the Springer Vein) very similar to the vein which produced the bulk of the ore at Pickle Crow.

The current owners of the Central Patricia patented claim group are unknown at this time.

Micon has been unable to verify the information pertaining to the Central Patricia Mine. The information is not necessarily indicative of the mineralization on the Pickle Crow property that is the subject of this technical report.



**Figure 15.1**  
**Location of PC Gold Claims and Leases and Adjacent Properties**



Source PC Gold, 2011. Adjacent property boundaries have been determined using a combination of publicly available sources including company websites, recent assessment file reports and the MNDMF claim map website.



### 15.1.2 Dona Lake Gold Mine

The Dona Lake gold deposit, located about 9 km southeast of Pickle Lake, was discovered by Dome Exploration Limited in 1980. Production by Placer Dome began in February, 1989, at a rated concentrator capacity of 550 tons per day, with “proven and probable reserves” totalling 754,000 tons (684,000 tonnes) averaging 0.24 oz/ton Au (8.23 g/t Au). The mine closed in 1994 due to exhaustion of viable resources after producing 218,868 oz (6.81 t) of gold. The statement of “proven and probable reserves” predates the implementation of NI 43-101 and is not therefore compliant. A qualified person has not confirmed the results for this report and they should not be relied on.

The Dona Lake deposit is predominantly iron formation-hosted mineralization. The pyrrhotite-rich mineralization, although iron formation-hosted, differs from the iron formation-hosted mineralization (pyrrhotite-poor) present in the core mine trend of the Pickle Crow property. However, it does possess some similarities to the iron formation-hosted mineralization of the Central Pat East zone located along the Cohen-MacArthur trend on the Pickle Crow Property, in that it is localized in the hinge zones of complex folds. The mining lease covering the Dona Lake deposit continues to be held by Goldcorp Inc.

Micon has been unable to verify the information pertaining to the Dona Lake Mine and the information is not necessarily indicative of the mineralization on the Pickle Crow property that is the subject of this technical report.

### 15.1.3 Thierry Copper-Nickel Mine

The former producing Thierry mine of UMEX, which operated from 1976 to 1982, is located about 20 km west of Pickle Lake. Commencing in October, 1976, production from the Thierry deposit was at a rated concentrator capacity of 4,000 tons/day (3,600 t/d). Initial mining was by two open pits that eventually progressed to underground operations in 1978. Between 1976 and 1982, UMEX mined and processed 5.8 million tons (5.26 Mt) of ore averaging 1.13% copper and 0.14% nickel. In total, the mine produced concentrates containing 480.1 million pounds of copper, 15.2 million pounds of nickel, 17,500 oz platinum, 47,000 oz palladium and 17,000 oz gold. Sustained operating losses resulted in mine closure in April, 1982.

The Thierry copper mineralization occurs within a major shear zone in mafic and ultramafic volcanic units of the Pickle Crow assemblage. The potentially mineralized section extends over 2,000 m along strike and has been traced to a depth of over 3 km. The presence of PGMs in the Thierry deposit has long been recognized and minor amounts of PGMs were recovered during historical mining operations conducted by UMEX. On June 9, 2010, Cadillac Ventures Inc. released an updated NI 43-101 compliant resource consisting of 6,228,000 tonnes (measured and indicated) at 1.92 % Cu, 0.20% Ni, 7.3 g/t Ag, 0.14 g/t Au, 0.14 g/t Pt, and 0.41 g/t Pd and 8,379,000 tonnes (inferred) at 1.79% Cu, 0.18% Ni, 9.6 g/t Ag, 0.18 g/t Au, 0.12 g/t Pt, and 0.35 g/t Pd.

Micon has been unable to verify the information pertaining to the Thierry Copper-Nickel Mine and the information is not necessarily indicative of the mineralization on the Pickle Crow property that is the subject of this technical report.

The style of mineralization found at the Thierry mine is not known to occur on the Pickle Crow property.

Cadillac Ventures Inc. currently owns the mining lease covering the Thierry mine, and is seeking permits to dewater the workings.

## **15.2 OTHER ADJACENT PROPERTIES**

Several companies and individuals hold claims around the Pickle Crow property. No information is known from those claims which affects the opinion offered in this report.

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

All relevant data and information in regard to the exploration activities at, and information required to support the disclosure of a mineral resource estimate for, First Mining's Pickle Crow property are included in other sections of this report.

## 17.0 INTERPRETATION AND CONCLUSIONS

The exploration work completed by PC Gold has demonstrated that the veins mined by PCGM continue down-dip and have not been closed off, new veins on the property have been discovered (e.g. the No. 19, No. 22 and No. 23 Veins) and that lower grade 'halo' mineralization around old stopes and in the banded iron formation is extensive. The latter was not generally mined by PCGM due to metallurgical incompatibilities and the rather high cut-off grade used at the time of operation.

Since acquiring the Pickle Crow property, PC Gold has completed some 357 drill holes totalling 98,812.4 m on a number of different targets. The company has also stripped, washed and sampled outcrop exposure of sulphidized banded iron formation and shear zone style targets. This has resulted in the extension of known zones and the discovery of new veins on the property. Initial sampling of the deposits and historical mining results indicate that their grade is potentially economic under either open pit or underground mining scenarios.

The work completed by PC Gold and previous operators has resulted in sufficient drill and channel sample density, and confidence in the geological interpretation, for Fladgate personnel to reasonably estimate an inferred mineral resource for the Pickle Crow property in 2011. Micon advised Fladgate during the estimation process and reviewed the results. In the process of completing the estimate, Micon interpreted the available data and came to the following conclusions:

- PC Gold's QA/QC program lends sufficient confidence to the assay data generated by its drilling program for it to be used in a mineral resource estimate.
- Comparisons of assay results from areas sampled both by PC Gold and previous operators of the project have shown the assay distributions to be very similar once grade capping (top cutting) is applied. Historical drill hole and chip-channel sample data have therefore been found acceptable for use in a resource estimate with appropriate top cuts applied.
- Digitizing of the locations of historical mine workings, underground mapping and chip-channel sampling has been completed to an acceptable level of accuracy for an inferred resource estimate. Upgrading to higher confidence categories of estimation will likely require accessing the underground workings and the completion of check surveying.
- Outlier values in the gold and silver assay population have been analyzed and top cuts were applied. Although PCGM top cutting procedures had already been applied to historical chip samples and drill holes, the PCGM values were treated by PC Gold as uncut and had the same top cut procedures applied to them as to all the other data. As a result the historical PCGM data has been cut twice, possibly resulting in some underestimation of the actual grade of the high-grade vein portion of the inferred resource estimate.

- Drilling has not yet found the bottom of several of the zones.
- The resources were estimated using kriging, where variograms could be modelled, and ID<sup>3</sup> interpolation elsewhere. Based on the use of historic drilling and the somewhat imprecise modelling of the underground workings, the resources have been classified as inferred under the CIM guidelines. The resources were reported using a Whittle optimized pit shell or at underground mine cut-off grades.

In 2016, Micon updated the mineral resource models for the No. 1 and No. 5 Veins and the BIF using new drilling completed since 2011. The No. 19 Vein block model was adjusted so as to constrain interpretation to the Pickle Crow porphyry and then re-estimated. The No. 2 Vein block model had the crown pillar removed when it was discovered to have been mined out. The newly discovered Vein 22/23 structure was modelled by Fladgate and that model was reviewed. Otherwise, the remaining vein models are unchanged from 2011 but have been reported using different cut-off grades.

The resulting 2016 estimate of NI 43-101-compliant inferred mineral resources for the Pickle Crow project is presented in Table 17.1.

**Table 17.1**  
**Estimated Inferred Mineral Resources for the Pickle Crow Project**

Area	Zone	Host	Mining Method	Tonnes	Grade (g/t Au)	Contained Ounces	Cut-off Grade (g/t Au)
Shaft 1	BIF	BIF & Vein	Open Pit	1,887,000	1.3	79,800	0.50
	BIF	BIF	Bulk Underground	5,297,000	3.8	644,700	2.00
	No. 1 Vein	Vein	Underground	594,000	6.1	116,000	2.60
	No. 5 Vein	Vein	Underground	362,000	8.0	93,000	2.60
	No. 9 Vein	Vein	Underground	148,000	7.4	35,300	2.60
	No. 11 Vein	Vein	Underground	21,000	6.0	4,100	2.60
	No. 19 Vein	Vein	Underground	186,000	9.1	54,400	2.60
		<b>Shaft 1 Total</b>		<b>8,495,000</b>	<b>3.8</b>	<b>1,027,300</b>	
Shaft 3	No. 2 Vein	Vein	Underground	96,000	8.9	27,200	2.60
	No. 6 Vein	Vein	Underground	160,000	7.9	40,900	2.60
	No. 7 Vein	Vein	Underground	54,000	5.5	9,600	2.60
	No. 8 Vein	Vein	Underground	55,000	8.0	14,200	2.60
	No. 12 Vein	Vein	Underground	14,000	11.7	5,300	2.60
	No. 13 Vein	Vein	Underground	112,000	6.2	22,300	2.60
	No. 22 Vein	Vein	Underground	31,000	5.4	5,300	2.60
	No. 23 Vein	Vein	Underground	165,000	7.0	37,000	2.60
		<b>Shaft 3 Total</b>		<b>687,000</b>	<b>7.3</b>	<b>161,800</b>	
Albany Shaft	CZ1	Conduit-Style	Bulk Underground	168,000	4.9	26,600	2.00
	CZ3	Conduit-Style	Bulk Underground	22,000	2.7	1,900	2.00
	No. 15 Vein	Vein	Underground	49,000	4.5	7,000	2.60
	No. 16 Vein	Vein	Underground	31,000	6.0	5,900	2.60
			<b>Albany Shaft Total</b>		<b>270,000</b>	<b>4.8</b>	<b>41,400</b>
		<b>Grand Total</b>		<b>9,452,000</b>	<b>4.1</b>	<b>1,230,500</b>	

Notes:

1. The mineral resource estimate is entirely classified as inferred mineral resources.
2. 2014 CIM Definition Standards were followed for mineral resources.
3. The mineral resource has been estimated using a gold price of US\$1,300/oz.
4. High-grade assays have been capped. Each domain was capped with respect to their unique geology and statistics.
5. The mineral resource was estimated using a block model. Three dimensional wireframes were generated using geological information. A combination of kriging and inverse distance estimation methods were used to interpolate grades into blocks of varying dimensions depending on geology and spatial distribution of sampling.
6. Mineral resources that are not mineral reserves do not have demonstrated economic viability. There is currently insufficient exploration to define these inferred resources as an indicated or measured resources.
7. Mineral resources have been adjusted for mined out areas. Small rib and sill pillars around old stopes have not been considered or reported.
8. Numbers may not add due to rounding.

The data used in the preparation of the mineral resources in this report are current as of July 15, 2014. The mineral resource estimate presented is current as of August 31, 2016.

After completion of three years of field exploration, PC Gold has drilled a large number of holes and recovered and digitized a large amount of historical drilling and sampling data. This work has led to the estimation of an NI 43-101-compliant inferred resource, the extension of known zones and the discovery of new ones. Given this success the exploration potential of the Pickle Crow project must be considered to be good. There is the possibility for the delineation of several other new zones at the project. Therefore, further exploration has the potential to increase the current resources.

Micon believes that further exploration work is justified on the property.

## 18.0 RECOMMENDATIONS

First Mining's predecessor operating company and new subsidiary, PC Gold, has carried out a successful exploration and drilling program at the former producing Pickle Crow mine site and has made potentially important discoveries of gold mineralization. In light of this Micon makes the following recommendation:

- Based on the results of the mineral resource estimate presented herein, it is Micon's opinion that First Mining will be justified in proceeding with further exploration of the Pickle Crow project.

The exploration has resulted in the delineation of several potentially economic gold zones/deposits and the estimation of a mineral resource as described in Section 14 above. In addition significant volumes of older tailings remain on the property.

As a result of the successful exploration and drilling program conducted at Pickle Crow since 2008, First Mining has proposed additional exploration for the project, the details of which are presented below.

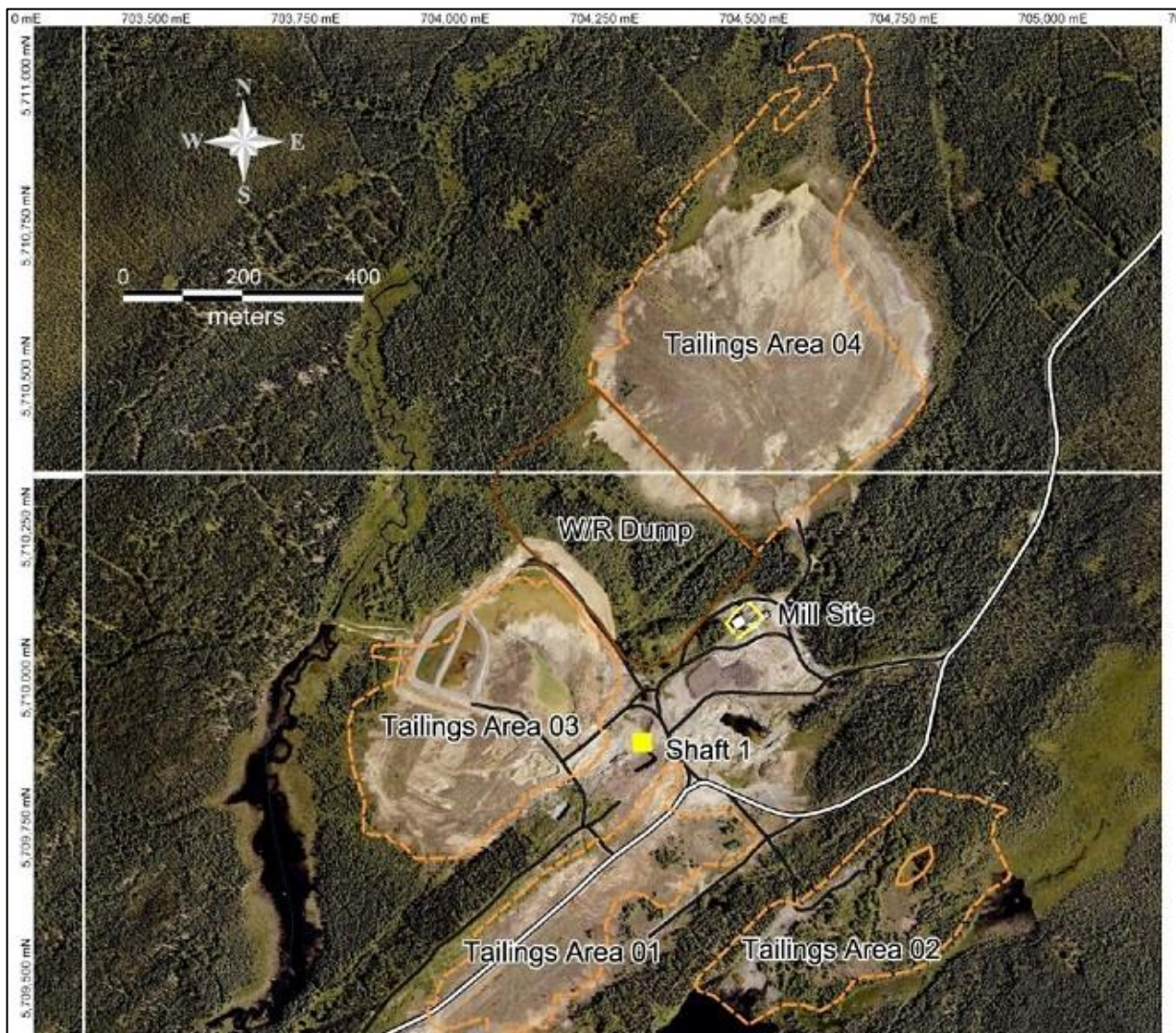
### 18.1 PROPOSED EXPLORATION PROGRAM

The Pickle Crow property contains four tailings areas containing the tails from the historic mining operations. These areas are shown below in Figure 18.1.

Cantera conducted a sampling program for two of these in 2001/2002 to assess the potentially recoverable gold contained within all of these areas. Cantera completed 9 auger holes in tailings area 1, and 24 Auger holes in tailings area 2 and commissioned metallurgical testing to establish recovery estimates for separate cyanide leach and gravity recovery methods.

First Mining proposes to complete a more comprehensive assessment of the tailings through additional auger drilling and metallurgical tests.

**Figure 18.1**  
**Air Photo Showing the Historic Tailings Areas.**



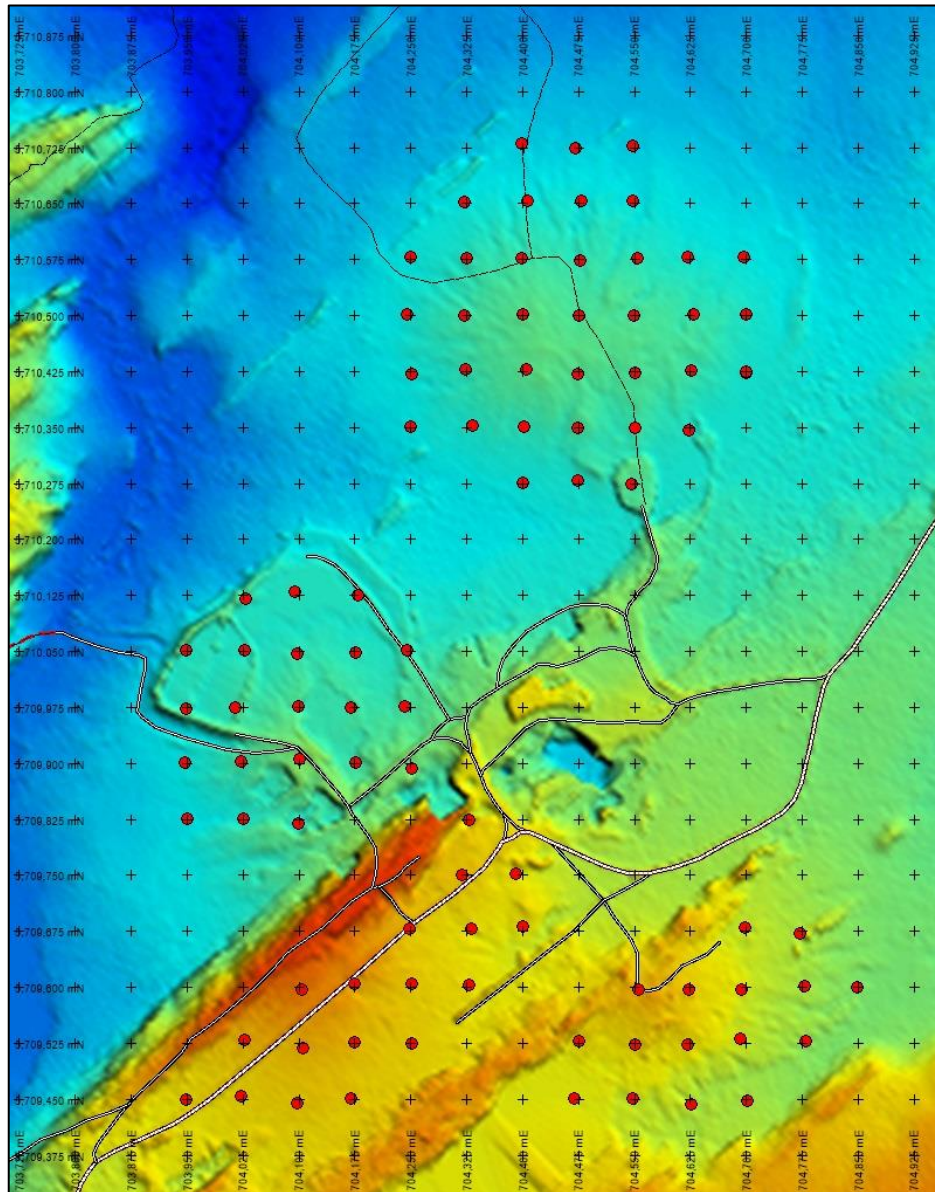
After PC-Gold

### 18.1.1 Proposed Tailings Auger Drill Program

A total of 92 auger drill holes are planned to test tailings areas: 1, 2, 3 and 4. (Figure 18.2) These shallow holes will be less than 15 m in total depth and the total meterage planned is estimated to be approximately 1,000 m. Samples will be collected at one metre intervals and the individual samples submitted for assay for gold and silver.



**Figure 18.2**  
**Lidar Relief Map Showing Outlines of the Historic Tailings Areas and Proposed Holes on 75m Centres.**



Source: First Mining, 2018

From the samples collected composites will be made for additional metallurgical recovery test work. The proposed budget of \$100,000 for 1,000 m of drilling will involve one hollow stem/split spoon auger drill rig for 1 month of field work followed by 1 month of office work to receive the assay results including bottle roll tests on a total of four composites and prepare an assessment report.

Micon has reviewed the proposed exploration program and finds it to be reasonable and justified. Should it fit with First Mining's strategic goals, it is Micon's recommendation that the company conduct the proposed exploration program.

The data used in the preparation of this report are current as of February 28, 2017. The mineral resource estimate presented is current as of August 31, 2016. The 2016/2017 drill results did not affect the 2016 mineral resource estimate.

MICON INTERNATIONAL LIMITED

*"B. Terrence Hennessey" {signed, sealed and dated}*

B. Terrence Hennessey, P.Geo.  
Vice President  
Micon International Limited

June 15, 2018

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## 20.0 CERTIFICATE

### B. TERRENCE HENNESSEY

As the author of this report on certain mineral properties of First Mining Gold Corp. and its subsidiary, PC Gold Inc., in northwestern Ontario, I, B. Terrence Hennessey, P.Geo., do hereby certify that:

1. I am employed by, and carried out this assignment for:

Micon International Limited  
Suite 900, 390 Bay Street  
Toronto, Ontario  
M5H 2Y2

Tel.: (416) 362-5135  
Fax: (416) 362-5763  
e-mail: thennessey@micon-international.com

2. I hold the following academic qualifications:

B.Sc. (Geology)      McMaster University      1978

3. I am a registered Professional Geoscientist with the Association of Professional Geoscientists of Ontario (membership # 0038); as well, I am a member in good standing of several other technical associations and societies, including:

The Canadian Institute of Mining, Metallurgy and Petroleum (Member).

4. I have worked as a geologist in the minerals industry for over 35 years.
5. I have read the definition of “Qualified Person” set out in National Instrument 43-101 *Standards of Disclosure for Mineral Projects* (NI 43-101) and, by reason of my education, past relevant work experience and affiliation with a professional association, fulfill the requirements to be a Qualified Person for the purposes of NI 43-101. My work experience includes 7 years as an exploration geologist looking for iron ore, gold, base metal and tin deposits, more than 10 years as a mine geologist in both open pit and underground mines and 20 years as a consulting geologist working in precious, ferrous and base metals as well as industrial minerals.
6. I visited the Pickle Crow project site in northwestern Ontario and Fladgate Exploration Consulting Corporation’s Thunder Bay office during the period October 18 to 21, 2011, to review the results of exploration at site. I conducted a second site visit to the project site on April 10 and 11, 2017 in the company of First Mining

- representative Laird Tomalty to review the Fall/Winter 2016/2017 drill program results and re-examine the conditions on the property.
7. I am responsible for the preparation of all sections of the technical report titled “An Updated Mineral Resource Estimate for The Pickle Crow Property, Patricia Mining Division, Northwestern Ontario, Canada” dated June 15, 2018 (the “Technical Report”). The mineral resource has an effective date of August 31, 2016.
  8. I am independent of the issuer and all parties involved in this Technical Report, as defined in Section 1.5 of NI 43-101.
  9. I have had no prior involvement with the property that is the subject of the Technical Report other than the auditing of a mineral resource estimate for PC Gold Inc. in 2011.
  10. I have read NI 43-101 and Form 43-101F1 and the portions of this Technical Report for which I am responsible have been prepared in compliance with that instrument and form.
  11. As of the date of this certificate, 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 be misleading.

Report Date: June 15, 2018

Mineral Resource Effective Date: August 31, 2016

Dated this 15<sup>th</sup> day of June, 2018 in Toronto, Ontario, Canada.

*“B. Terrence Hennessey” {signed and sealed}*

B. Terrence Hennessey, P.Geol.