



# **MONETA PORCUPINE MINES**

**Assessment Report  
2010 DIAMOND DRILL PROGRAM**

**Porcupine Mining Division  
Timmins, Ontario  
N.T.S. 42A/6 & 42A/II**

# Moneta Porcupine Mines Inc.



## North Tisdale Project

### Summary

The Moneta Porcupine property lies between 2 and 10 kilometers north of Timmins, Ontario and is accessed by Highway 655 and adjoining bush roads, including a haulage road linking the McIntyre tailings dam to Hwy.655.

The property potentially covers the extension of the Hollinger - McIntyre gold system to the north east, the western extension of the Bell Creek - Hoyle Pond belt, and the western extension of the Pipestone fault system.

Past and recent work has confirmed that the Property is underlain an east-west trending belt of intercalated (tholeiitic) mafic volcanics and minor (komatiitic) ultramafic volcanic flows locally intercalated with graphitic argillites, recognizable as a prominent regional EM airborne conductors from historical surveys. Due to the lack of outcrop and thick overburden (5-50m) on the property, areas of interest detected by geophysics are best tested by diamond drilling.

Between September 12<sup>th</sup> and 15<sup>th</sup> 2010, Moneta completed 1 diamond drill hole totalling 317 metres. DDH MNT10-02 was drilled on the southeasterly and historical "Porcupine Prime" portion of the property (P948851/852) testing for a northwesterly trending structure with an associated felsic/porphyry intrusive. No significant gold mineralization was intersected.

### Previous Work

Several major campaigns of exploration have been completed on this property due to its' proximity to the Hollinger-McIntyre gold mines (35 million ounces gold -past production) 5 km south of the property. These included phases of linecutting, ground and airborne geophysical surveys as well as diamond drilling on various portions of the property by various operators including Keevil Exploration in 1964-65, Esso Minerals in 1982-1983, Hollinger Argus in 1984, Robert S. Middleton Exploration Services and Newmont Canada in 1984, and Moneta Porcupine Mines in 1987-2007.

From 1989 to 1991 Independence Mining completed linecutting, ground mag, IP, and a total of 5 diamond drill holes totalling 1500 metres with no significant results.

The work completed in 1996 by Placer Dome (Canada) included complete blanket coverage of Magnetic and HLEM geophysical surveys that generated several drill targets within the north-central portion of the Property. Seven diamond drill holes totalling 1667 metres were completed to test stratigraphy, and investigate numerous geophysical targets. The best results from this drilling were from Hole 546-005, which intersected 1.99 g/t Au over 1.18 m (including 10 g/t Au over 0.22 m from within "Grey Zone" carbon altered mafic volcanic in the central portion of the property.

Pentland Firth completed a MMI soil geochem survey over selected areas of the central and "Prime" areas of the property in 1998 and drilled 2 follow-up holes testing identified trends. Results were generally negative.

### Geology

The geology of the area has been well documented in the OGS reports by D.R. Pyke (1982) and by S.A. Ferguson (1968). The majority of the rocktypes underlying the Timmins area are

Archean in age. Metavolcanic rocks have been subdivided into two groups, the Deloro and Tisdale assemblages with the latter being the target stratigraphy for gold mineralization.

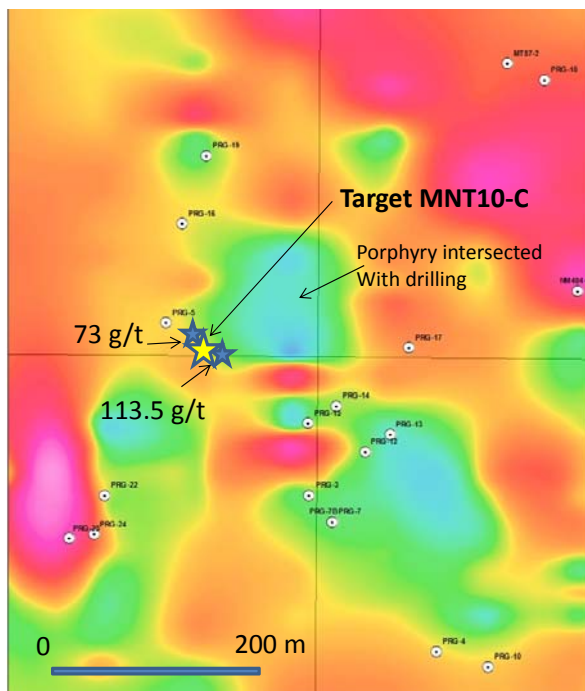
A major change in volcanism marks the beginning of the younger Tisdale Group. The basal formations are largely made up of ultramafic to mafic komatiitic flows, which are overlain by a thick sequence of tholeiitic basalts. The top of the group is composed primarily of calc-alkaline, dacitic volcanoclastics. Small quartz-feldspar porphyry intrusions, possibly of subvolcanic origin, were intruded into a restrictive stratigraphic interval of the Tisdale mafic flows.

The property is underlain by the lower portion of the favourable Tisdale Assemblage stratigraphy and most of the magnesium tholeiitic rocks of the Tisdale Group, including intercalated graphitic argillites and feldspar porphyry. Numerous zones of "grey zone" altered mafic volcanics containing quartz veining with locally anomalous gold values, were intersected by several drill holes throughout the northern volcanic stratigraphy. Structural trends are generally east southeasterly and east westerly often localized along graphitic horizons and major lithological contacts. Large scale fold axis follow a similar orientation.

The various volcanic central and northern horizons tested by past drill holes are thought to represent the extension of the general North Mine trend west of the Burrows Benedict fault. Past diamond drill holes had found weak gold values and carbonate/grey zone alteration. This geology also appears to be defined by several MMI soil geochem anomalies (Pentland Firth). To the south volcanic stratigraphy is more directly related to the flows associated with the historical Timmins camp with associated felsic intrusives and quartz tourmaline veining.

### Exploration Work

Between September 12<sup>th</sup> and 15<sup>th</sup> 2010, Moneta completed a one diamond drill hole totalling 317 metres. DDH MNT10-02 was drilled northeast to test target C which represents a magnetically inferred northwest structure and its contact to a potential felsic intrusive, as well as historical drilling results from Porcupine Prime Gold Mines (1950). These include 14 g/t Au over 0.76m and 73 g/t Au over 0.77m in DDH PRG-12, as well as 113.5 g/t Au over 0.46m in DDH PRG-16.



Gold mineralization in this area may be associated with prominent NW-trending faults, magnetic trends, and EM anomalies. The NW-trend is present in the SE portion of the property where one historical drill hole drilled into the margin of the magnetic low anomaly and intersected a porphyry body. Other holes drilled in to the west of the magnetic low anomaly intersected altered rocks/additional porphyry(?), sometimes described as felsic rocks. To the SW of the property, gold zones and mines are associated with porphyry units.

The drill area was accessed first by powerline, road, then the haulage road.

Fig.2  
Magnetic map (total field) of the SE corner of North Tisdale property with location of historical high grade intercepts. Small white dots are DDH. Magnetic low interpreted as porphyries and confirmed in some cases with drilling

Note that when assays/samples from the historical drill hole that returned high grade values in the SE part of the property were repeated or re-split, they did not return similar values and frequently were nil. In addition to the questionable results, it may be possible that veins (qtz/qtz-tour) are oriented parallel to the drill hole (or NW-trending) and thus were missed by most holes.

From DDH PRG-16

905 $\frac{1}{2}$ - 913 -- Core removed entirely. Sampled three times. Split core carried no values - Re-split quarter carried 3.31 ounces from 907.2 - 908.7. Final quarter did not assay. Reported to be quartz tourmaline vein.
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Unaltered to locally moderately altered mafic volcanics with scattered narrow carbonate veining constituted the upper portion of the drill hole. Deformation was variable with local shearing, blocky, and contorted sections. The drill hole ended in an undifferentiated mafic intrusive after crossing a series of mafic volcanic flows with minor pervasive carbonate alteration and minor shear in the contact area. The bulk of the deformation was within the ultramafic volcanics. A narrow intercalated mafic volcanic was crossed near the footwall contact of the ultramafic package which may represent the core of the North Tisdale Anticline. Several centimetre quartz, carbonate and quartz carbonate veins were intersected no significant mineralization was noted with trace results. Additional drilling along this drill hole azimuth is recommended as the current hole steepened and may not have advanced far enough.

#### References

- ODM Rpt. 219, Geology of the Timmins Area, by D.R. Pyke (1982)
- ODM GR 58, Geology and Ore Deposits of Tisdale Twp., S.A. Ferguson (1968).
- Geological Setting of Gold Deposits in the Porcupine Gold Camp, Timmins, Ont., PhD Thesis, Dan Brisbin (1997)

Company reports in the assessment files by:

- Porcupine Prime Gold Mines (assessment files)
- Independence Mining Co.
- Placer Dome work filed
- Pentland Firth work filed

Internal company information



R. Skeries

April 30<sup>th</sup>, 2011

Date: 1 May, 2011

MONETA PORCUPINE MINES INC.

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Northing: 0  
 Easting: 0  
 Elevation: 0

DRILL HOLE RECORD

Drill Hole: MNT10-02

Collar Azi.: 50.0  
 Collar Dip: -53.0

\*\*\* Dip Tests \*\*\*  
 Depth Azi. Dip  
 150 50.0 -53.0  
 317 50.0 -58.0

Project: Porcupine Camp  
 Property: North Tisdale  
 Claim:  
 Northing:  
 Easting:  
 GPS Northing: 5372429 NAD 83/17U  
 GPS Easting: 480295 NAD 83/17U  
 Date Started: Sept.12, 2010  
 Date completed: Sept.15, 2010  
 Drilled by: Denis Crites Dia.Dril.  
 Sample type: Core  
 Analyses: Au 30g FA  
 Lab FA: Expert  
 Sample series FA: A51830-36  
 Lab FA report: 29205  
 Lab metallics:  
 Check lab (P,R):  
 Check assay rept:

Hole length: 317.05  
 Units: Metric  
 Core size: NQ  
 Grid: No

Materials left: Casing  
 Collar survey: GPS  
 DH Survey method: Acid

Comments: Powerline and MacIntyre haulage road access  
 Logged by: M.Terry  
 Date(s) logged: sept.13-17, 2010  
 Purpose: Test for historical gold in Porc.Prime along potential NW structure  
 Core storage: Moneta Facility Timmins

From (m)	To (m)	Geology	Sample	From (m)	To (m)	L (m)	AU g/t	AU(D) g/t	AU(P) g/t	AU(R) g/t
.00	24.24	OVERBURDEN								
24.24	170.42	MAFIC VOLCANICS - FLOW BRECCIA 24.24 170.42 Light green to grey-green mafic volcanic flow breccia. Some clasts are in excess of 10cm but the vast majority are around 1cm to 2cm nodule length. Most of the clasts are angular to subangular wth rounded to subrounded clasts being rare. A few white quartz carbonate veins are noted but overall vein development in this unit is poor. No appreciable amounts of sulphides were observed. A few isolated narrow intervals display moderate to strong carbonatization. 28.31 28.32 5mm to 1cm grey-white boudinaged quartz carbonate vein with no sulphide. Vein is at 20 degrees to the core axis. 29.42 29.78 Blocky core. 43.22 43.24 1cm to 2cm grey quartz carbonate bladed vein at 30 degrees to the core axis. 47.18 47.23 3cm to 5cm (estimated true width) grey-white boudinaged quartz carbonate vein which runs subparallel to parallel to the core axis from 47.12m to 47.49m. 54.06 54.17 Interval of strong carbonatization with 2% Py. 60.76 60.78 1cm to 2cm white carbonate vein with no Py. Vein is at 20 degrees to the core axis. 73.36 73.37 5mm to 1cm grey-white quartz carbonate vein. Vein is at 30 degrees to the core axis. 77.25 77.27 1cm to 2cm grey-white sheared quartz carbonate vein. Some chloritic laminae and elongated inclusions of host volcanic. Vein is at 20 degrees								











SW

# TISDALE TWP.

NE

Vertical Projection

## MNT10-02

GPSE 480295 NAD83  
GPSN 5372429 NAD83

surface  
0

OVBN

AZIMUTH OF SECTION N50°E  
LOOKING NORTHWEST

~300m Elev.

AZ 50°  
DIP -53°

2FB

948851

-100m

948852

2A

2U

2A

2U

2FB

2A

2FB

2P

-200m

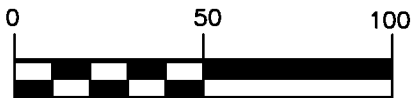
-300m

317.00m

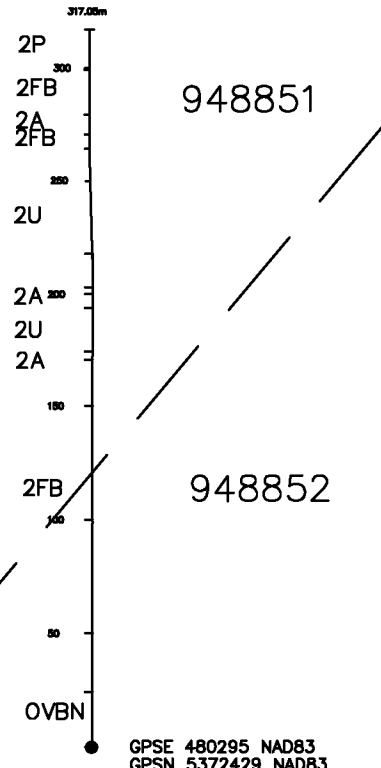
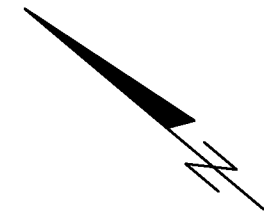
### LEGEND

- OVBN Overburden
- 2A Mafic Volc. - altered
- 2U Mafic Volc. - undifferentiated
- 2FB Mafic Volc. - flow breccia
- 2P Mafic Volc. - pillowed

SCALE



METRES



GPSE 480295 NAD83  
GPSN 5372429 NAD83

## MNT10-02

AZ 50°  
DIP -53°

MONETA PORCUPINE MINES INC.

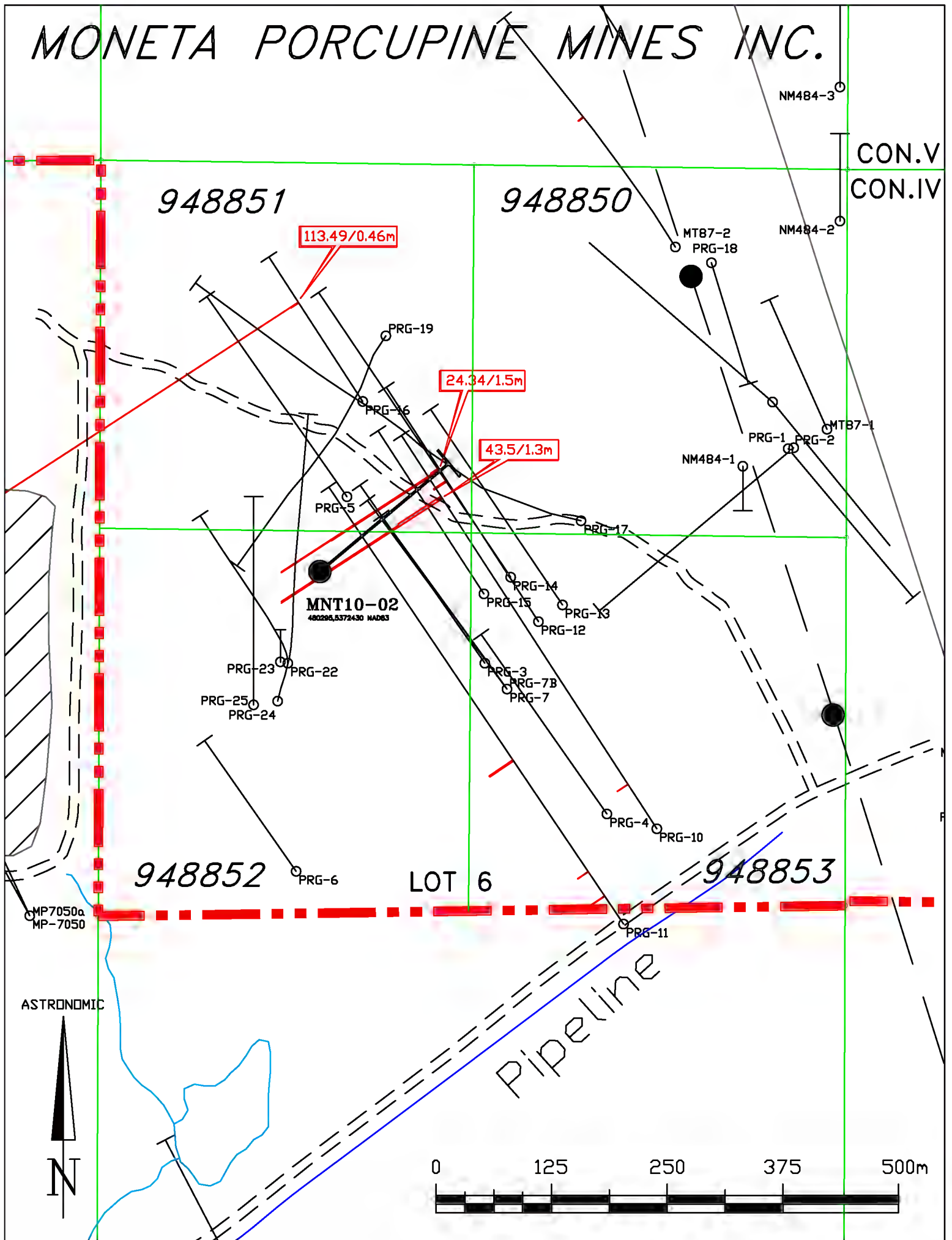
NORTH TISDALE PROPERTY

DDH MNT10-02: Plan and Section

April 2011

R. SKERIES

# MONETA PORCUPINE MINES INC.



**\*\*\* Certificate of analysis \*\*\***

Date : 2011/02/22

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**Laboratoire Expert Inc.**

127, Boulevard Industriel  
Rouyn-Noranda, Québec  
Canada, J9X 6P2  
Telephone : (819) 762-7100, Fax : (819) 762-7510

Client : <b>Moneta Porcupine Mines Inc.</b>	
Addressee : <b>Rainer Skeries</b>  65, Third Avenue Timmins Ontario P4N 1C2  Telephone : (705) 264-2296 Fax : (705) 267-7490	Folder : <b>29205</b> Your order number : Project : <b>MNT</b> Total number of samples : <b>24</b>

<u>Designation</u>	Au FA-GEO ppb 5	Au-Dup FA-GEO ppb 5	Au FA-GRAV g/t 0.03
A51813	7	7	
A51814	12		
A51815	<5		
A51816	12		
A51817	7		
A51818	6		
A51819	13		
A51820	24		
A51821	13		
A51822	6		
A51823	12		
A51824	18		
A51825	7	7	
A51826	8		
A51827	9		
A51828	7		
A51829	9		
A51830	<5		
A51831	10		
A51832	4660		4.80



Joe Landers, Manager

\*\*\* Certificate of analysis \*\*\*

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<u>Designation</u>	Au FA-GEO ppb 5	Au-Dup FA-GEO ppb 5	Au FA-GRAV g/t 0.03
A51833	23		
A51834	13		
A51835	5		
A51836	6		