

QUEENSTON MINING INC.

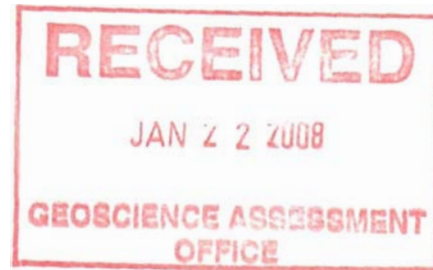
McBEAN PROJECT

McBEAN 2006 – REPORT ON DIAMOND DRILLING PROGRAM
(October, 2006 – December, 2006)

**GAUTHIER TOWNSHIP
LARDER LAKE MINING DIVISION
ONTARIO, CANADA**

VOLUME 1

**By Michel Leblanc (Geo)
And
Frank Ploeger (P.Geo)**



**Queenston Mining
Kirkland Lake, Ontario**

April 2007

TABLE OF CONTENT

1) SUMMARY	1
2) INTRODUCTION	2
3) DESCRIPTION, LOCATION and HISTORICAL WORK	2
4) PROPERTY GEOLOGY and MINERALIZATION:	5
5) PERSONNEL and CONTRACTOR	6
6) 2006 DRILLING PROGRAM	7
7) 2006 DRILLING OBSERVATIONS AND HIGHLIGHTS	8
a) HOLE MB06-36	8
b) HOLE MB06-36A	8
c) HOLE MB06-37	9
d) HOLE MB06-38	9
e) HOLE MB06-39	9
f) HOLE MB06-40	10
g) HOLE MB06-41	10
h) HOLE MB06-42	10
i) HOLE MB06-43	11
j) HOLE MB06-44	11
k) HOLE MB06-45	12
l) HOLE MB06-46	12
8) Interpretation of McBean Deep Geology (By Frank Ploeger)	12
9) QUALITY CONTROL	16
10) CONCLUSIONS	18
11) RECOMMENDATIONS	19
12) SELECTED BIBLIOGRAPHY	20

LIST OF FIGURES

Figure 1	Regional Geology – Gauthier Township
Figure 2	2006 DDH Location Map
Figure 3a	Idealized McBean section – Western Area
Figure 3b	Idealized McBean section – Eastern Area

LIST OF TABLE

Table 1	McBean-Anoki Claim List
Table 2	Mcbean 2006 Drilling Program
Table 3	Gold Intersection - Mcbean 2006
Table 4	McBean 2006 - Intersection variability
Table 5	Comparison Swastika to Labo Expert
Table 6	Diamond Drill Hole Proposal
Volume 2	Diamond Drilling Reports
Appendix 1	Sections and Plan Map
Appendix 2	Assay Preparation Protocole

MCBEAN PROPERTY

1) SUMMARY

During the period of October to December 2006, an exploration program consisting of 11 holes totaling 5902.5 meters were drilled by Queenston Mining Inc. They were designed to test the deep extension of the Green Carbonate Zone (GCZ) and felsitic intrusives below the McBean pit area within the Larder Lake Deformation Zone (LLDZ) between sections 9600E and 10600E.

All holes (but MB06-39) intersected the GCZ long section returning anomalous to economic gold values. Among the most significant intersections, hole MB06-40 intersected 7.74 g/t Au over 9.6 feet, 4.55 g/t over 22.1 feet and also 7.44 g/t over 10.9 feet. MB06-43 which returned a gold intersection of 9.27 g/t Au over 12.0 feet was the most significant gold intersection reported in that program.

The deep GCZ- felsite mineralization appears more complex than anticipated comprising many discontinuous and sub-parallel gold bearing structures that are variably associated with green carbonate rock, felsitic/ syenitic dikes, ultramafic units and tuffaceous horizons, all of which are affected by 3 to 4 late strike fault structures.

This report includes a proposed new interpretation of the McBean geology and mineralized zones, integrating the late fault structures with the historical geology/ drilling and the new 2006 drilling information.

2) INTRODUCTION

In the fall of 2006, the McBean property was the focus of diamond drill program consisting of 11 holes totaling 5902.5 meters (DDH MB06-36 to MB06-46, Table 2). This drill program was designed to test the deep extension of the green carbonate and felsitic intrusive package hosting the McBean pit mineralized zones beginning about 700 feet below surface. The purpose of the drill program was to verify the grade and continuity of the zones and to integrate the new drilling with the holes drilled previously by Inco and Queenston between 1986 and 2005. Based on historical and new drill information, a new geological interpretation is proposed for the McBean deposit.

3) DESCRIPTION, LOCATION and HISTORICAL WORK

The McBean property is immediately east of the Anoki claims in south central Gauthier Township. The property consists of eleven patented mining claims – both surface and mining rights are patented. A complete listing of the claims is found in Table 1. As on the eastern part of the Anoki, the property is covered by north-trending (azimuth 17.5 degrees) grid lines spaced 200 feet apart – baseline azimuth of 107.5 degrees.

The McBean property contains three existing shafts, the #1 or Murphy shaft, #2 and #4. The Anoki shaft was designated as the #3 shaft since the Anoki property was acquired about the same time as the #4 shaft was commissioned. The #1 shaft is capped, the #2 and #4 shafts occur within the limits of the McBean open pit (now flooded). The McBean open pit is roughly 175m by 200m in surface area (Figure 2) and extends to a depth of 266 feet (81m) via seven, 38-foot benches. The #1 shaft is 630 feet deep, with one level established at 600 feet; #2 shaft to 272 feet, with levels at 94, 125 and 250 feet, and; the #4 shaft extends to 722 feet with levels at 125, 250, 400, 550 and 700 feet.

The vast majority of the McBean property was logged in the early 1980's in preparation for the open pit operated by Canadian Nickel Company Ltd (Canico). Today, the vegetation is predominately immature jack pine in fine sandy soils. The existing grid, dating to 2000, was refreshed and use in the 2006 program. Unlike the Anoki claims, the natural topography around the McBean is only in the order of a few meters.

Highway 66 is just west of the southwest corner of the McBean property. An all-weather road from Highway 66 to the open pit readily accesses the claims. The property is within the Corporation of the Township of Gauthier – the townsite of Dobie (population 130) abuts the northern corner of the claims. The property can be operated on a year-round basis.

The historical work of the McBean property is summarized as:

- 1928: Murphy Mines, #1 shaft to 630 feet with 610m lateral development on the 600-foot level; #2 shaft to 100 ft with 45 m of lateral development on the 94-ft level; 10 surface drill holes.

- 1941: Queenston acquires Murphy claims; 4 surface drill holes (716m); #2 shaft to 272 ft, 228m of lateral development on 125 and 250 levels, 846 m of underground drilling in 41 holes; bulk sample shipped to Upper Canada Mine – 956 tonnes at 5.74 gms.

- 1946-47: #4 shaft to 267 ft, level established at 250 ft, and, 496 m lateral development at #2 shaft.

- 1947-51: #4 shaft to 722 ft, levels at 125, 250, 400, 550, and 700 ft; extensive surface and underground drilling, and, lateral development; mine closed in 1951.

- 1976: agreement signed with Canico, April 28; surface drilling

- 1984-86: open pit by Canico in #2 and #4 shaft areas.

- 1996-2001: start of joint venture with Franco-Nevada; 22,698 m drilled in 29 holes.

-2002: Queenston terminated JV by purchasing Franco-Nevada (then Newmont Mining Corp) interest; completed 1389.8 m diamond drilling in 4 surface holes.

-2005: Queenston Mining drilled two (2) surface diamond drill holes (MB05-34 and MB05-35) totaling 916 meters.

The historical production and resources on the McBean property are addressed in the 2003 Annual Information Form by Queenston Mining as:

'In 1983, Queenston and Inco extracted by open pit, the upper portion of the McBean deposit to a depth of 81 m. A total of 505,866 tonnes were mined producing 48,513 ounces of gold, yielding a recovered grade of 3.0 gms/tonne. Between 1996 and 1998, Queenston and joint venture partner Franco-Nevada Mining Corporation completed a program of deep drilling below the McBean deposit, discovering the McBean Green Carbonate Zone.'

'The McBean Green Carbonate Zone represents a system containing three gold zones located beneath the upper McBean at depths of 300 to 600 m below surface. The zones plunge to the east, average 3.1 m thick and represent highly deformed units of komatiite that have been altered to green carbonate. The gold mineralization is associated with silicified, carbonated and veined sections containing pyrite, ankerite, fuchsite, sericite and locally, visible gold.'

"In 1985, Inco and Queenston calculated a combined measured and indicated mineral resource of 835,520 t grading 5.1 g/t and an inferred mineral resource of 723,934 t grading 4.8 g/t. These resources were calculated using a cutoff grade of 1.7 g/t over a minimum true width of 1.5 m. Although the resources were calculated prior to 2001 and National Policy 43-101 Standards of Disclosure for Mineral Projects, they have

been audited by Roscoe Postle Associates Inc. in a technical report entitled "Report on the Kirkland Lake Project for Queenston Mining Inc." dated July 19, 1996 and comply with the resource/reserve classification adopted by the CIM."

"In 1997, Queenston calculated an inferred mineral resource of 1,111,303 t grading 7.5 g/t for the McBean Green Carbonate Zone. This resource was calculated using a cutoff grade of 3.4 g/t over a true width of 1.5 m and complies with the resource classification adopted by the CIM."

4) PROPERTY GEOLOGY and MINERALIZATION:

The dominant feature on the McBean claims is the Cadillac-Larder Lake Break. The break/deformation zone hosts the McBean Deposit (Figure 1)

In this area, the deformation zone is 100 to 150 m thick, dips 70 to 75 degrees south, and is localized within ultramafic to mafic volcanics of the Tisdale assemblage. Tisdale assemblage rocks continue southward from the deformation zone although the hanging-wall system is dominated by a 1-km diameter gabbro complex. Footwall to the deformation zone is a 300-m package of variably sheared and altered tuffs, volcanoclastics and mafic to ultramafic units (the North Break environment) before more typical Timiskaming sediments are encountered. The North Break environment is in a similar physical position to the 40 East Zone on the Anoki property some 1.2 to 1.8 kms west.

The deformation zone is variably sheared to gouged, altered, and, cut by mafic to felsic and alkalic dykes. Mineralized zones are intimately associated with the felsic to alkalic intrusives and related carbonate to fuchsitic carbonate alteration. The carb alteration is slightly discordant in both plan and section to the overall geometry of the deformation zone.

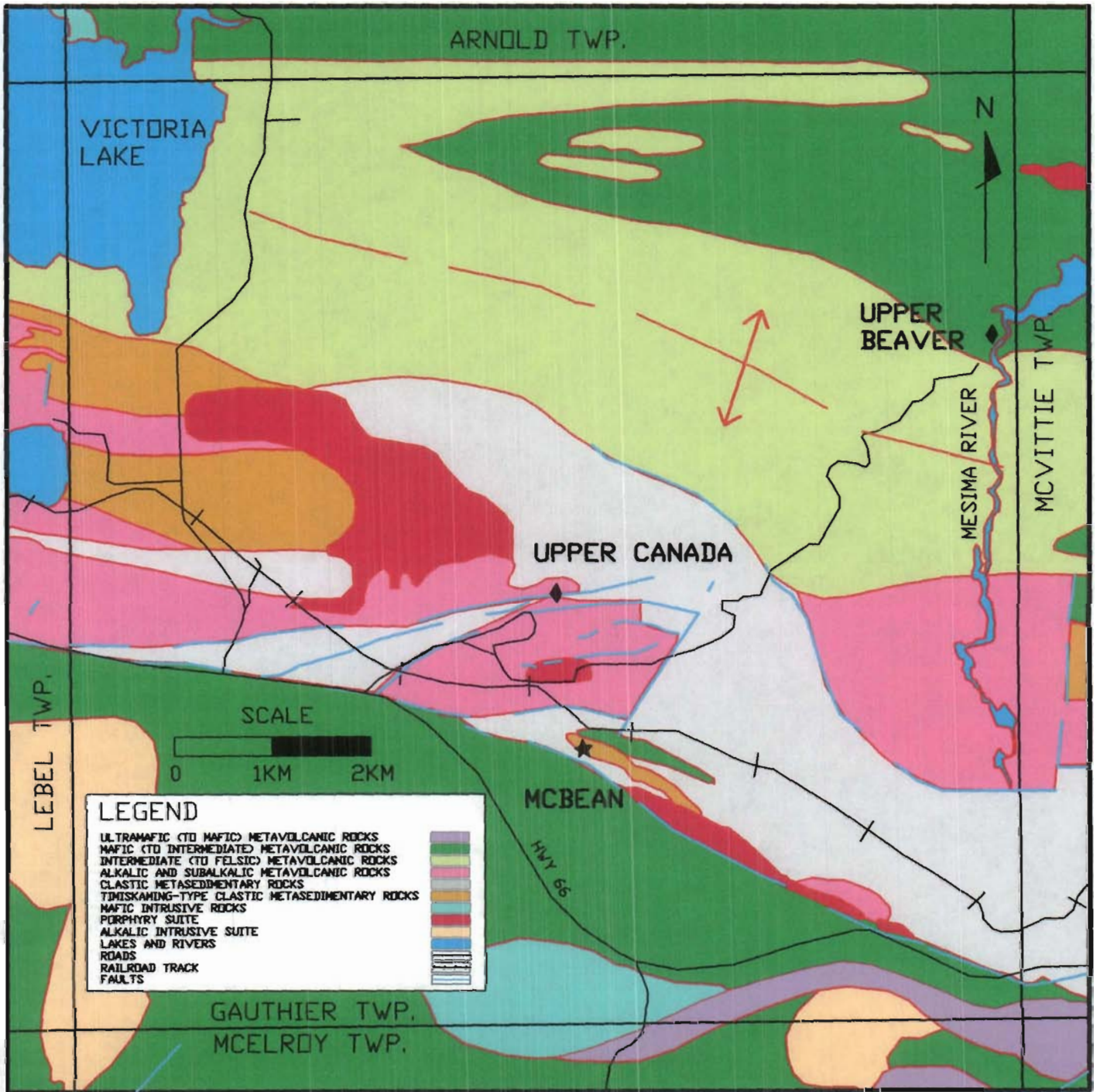


Figure 1 Regional Geology - Gauthier Township

All of the mineralized zones generally have some component of sericitic to fuchsitic carb alteration of the ultramafic protolith. The carb zones are typically stockworks with up to 60% quartz-ankerite and quartz veining. Siliceous to sericitic remnants of potential felsic intrusives are common in the better mineralized sections along with erratic felsite and syenite dykes. The intrusive remnants are normally mineralized with 3-5% disseminated pyrite, while the carb rocks contain minimal sulphides. Fine flecks of native gold are often present in the higher-grade corridors, and, tend to be associated with the quartz rather than the quartz-ankerite veins.

Similar to the flat South Splay feature on the Anoki property, a flatly dipping structure is noted in the west part of the McBean property within Tisdale assemblage rocks near the flank of the gabbro intrusive. Geological data are very limited on this structure which may be related to emplacement of the gabbro body.

5) PERSONNEL and CONTRACTOR

The complete list of Queenston Mining personnel and contractor involved in the different aspects of the Mcbean 2006 drilling program are listed as below:

Michel Leblanc (Consultant geologist)

1051, chemin Raymond
Canton-Tremblay (Saguenay), Qc
G7H 5B2

Frank Ploeger (Queenston Project Geologist)

P.O Box 313
Virginiatown, On
P0K 1X0

Terry Playford (Queenston Core shack technician)

26, Earl Street
Kirkland Lake, On
P2N 2X7

Shawn Playford (Queenston Core shack technician)
33 Dixon Avenue
Kirkland Lake, On
P2N 1W5

Aaron Demers (Independent Drafting technician)
72 McCamus Avenue, Apt. 13
Kirkland Lake, On
P2N 2J9

6) 2006 DRILLING PROGRAM

In 2006, the diamond-drilling program on the McBean property totaled 5902.5 m (19360 feet) in 11 drill holes, MB06-36 to MB06-46 inclusive (Table 2). Hole MB06-36A (abandoned) was not included with the present descriptions but was included in the total footage. The holes were drilled between October 10 and December 20, 2006 using Benoît Diamond Drilling Ltd from Val-d'Or, Québec as the drill contractor. All of the coring was done using NQ sized piping and the core stored at the Queenston exploration office at the former Upper Canada .mine site in Dobie, Ontario.

Drill holes were spotted via grid coordinates in the field, and, were checked for dip and azimuth once the drill rig was onsite and leveled. The drill contractors used metric rods. Wooden blocks were placed at three-meter intervals to differentiate 'runs'. The historic database for the McBean property is in imperial units such that the wooden blocks were converted to feet (and tenths of feet). The core was logged directly onto the computer using a Microsoft Excel format that could be loaded into the SURPAC software in CSV format files – Elevations were estimated from section topographic information including previously surveyed drill holes.

The 2006 drilling was designed to infill and follow up historical drill hole intersections on the McBean deep Green Carbonate/ felsic intrusive

Mcbean 2006 DDH Program									
Hole ID	Grid	Grid East	Grid North	Elevation	AZ	Dip	Depth	Target	Remark
MB06-36	MB	103+00	188+75	10985	17	-67	620	Testing 150 feet downdip of MB96-04	Restart of MB-06-36A
MB06-36A	MB	103+00	188+80	10985	17	-63	48	Bad start of MB06-36	Bad start on the angle side. Restarted 5 feet south.
MB06-37	MB	101+75	190+00	10990	17	-67	468	Testing 150 ft west of MB96-04 (8.0 Oz x ton over 6 feet)	Hole stopped sooner than expected due to technical problems in a faulted zone.
MB06-38	MB	103+00	191+00	10980	17	-62	489	Testing 150 feet updip of MB96-04	
MB06-39	MB	96+00	188+00	11000	17	-63	541.5	Testing 150 ft west and downdip of MB06-36	
MB06-40	MB	104+50	190+00	10980	17	-64	576	Testing 150 ft east of MB96-04 (8.0 Oz x ton over 6 feet)	
MB06-41	MB	97+75	190+00	11000	17	-55	492	Testing in between MB06-35 and MB96-8B. Validating underground hole no 331_0	
MB06-42	MB	104+50	189+00	10980	17	-70	619	Testing 200 ft east and down plunge of MB96-04.	
MB06-43	MB	100+25	191+10	11000	17	-69	537	Testing between MB96-8B and MB97-23. Proximity of previous underground DDH 387_0.	
MB06-44	MB	100+00	192+00	11000	17	-66	462	Testing 150 ft west and updip of MB96-07	
MB06-45	MB	99+00	192+00	11000	17	-66	432	Testing 150 ft west of MB06-34	Deviation more accentuated than expected toward west. Apparent pierce point in vicinity of previous MB-06-34. Should be clarified by Gyro survey.
MB06-46	MB	102+00	187+40	10990	17	-64	618	Testing 200 ft below MB06-37 (7.62g/t Au over 7.6 feet)	

TABLE 2

5902.5 Meters
19360 Feet

mineralization between sections L96+00E and L106+00E and elevations 10150 and 9400 feet (Table 2). All eleven (11) of the drill holes in the program (MB-06-36 to 46 inclusive) intersected the deformation corridor within the mafic-ultramafic- felsitic/ syenitic package that dips 65 to 75 degrees south. Every hole except MB06-39, encountered the green carbonate zone/ felsic intrusive horizon as expected, returning anomalous to economic gold values (Table 3). Assay composites are presented in a format of grams gold per tonne over a width in feet.

The results of the 2006 McBean drilling are tabulated in Table 3

7) 2006 DRILLING OBSERVATIONS AND HIGHLIGHTS

a) HOLE MB06-36

Collared on Line 103+00E / 188+75N (UTM 587711E / 5330732N) at -67 degrees and azimuth of 017 degrees; (See sections in appendicies)

MB06-36 was designed to pierce the green carbonate zone long section at 9400 feet elevation on section 103+00E, an area 150 feet down dip of previous hole MB96-04 (6.02 gms/t Au over 7.3 ft). It was collared in the hanging wall gabbroic sequence and was followed by the Larder Lake Deformation Zone (LLDZ) which extends from 1200ft to 1850 ft. Three (3) main gold intersections are reported: 1) 2.24 g/t Au over 6.2 feet from 1306.5 to 1312.7 ft in an altered tuffaceous (V9) unit; 2) 1.05 g/t Au over 21 ft from 1570 to 1591 ft in another tuffaceous unit intruded by a narrow felsic dyke (1F); and 3) 4.64 g/t Au over 7.0 ft was intersected at the hanging wall contact of a foliated GCZ horizon. MB06-36 was stopped at 2033.6 ft (620.0 m) in the volcanoclastic sequence (Temiskaming?) north of the LLDZ.

b) HOLE MB06-36A

MB06-36A was the initial hole that was abandoned in the hanging wall gabbro at 158.7 ft (48 m) after the first reflex dip test revealed that it was collared at a bad angle.

Gold intersections, Mcbean 2006									
Hole no	from (ft)	to (ft)	Width (ft)	Au g/t	Hole no	from (ft)	to (ft)	Width (ft)	Au g/t
					MB06-42	1425.7	1443.2	17.5	3.14
MB06_36	1306.5	1316	9.5	1.55	Including	1440	1443.2	3.2	12.7
Including	1306.5	1312.7	6.2	2.24	MB06-42	1463.3	1477.3	14	2.14
MB06_36	1328.9	1339.5	10.6	0.95	MB06-42	1526.2	1531.4	5.2	5.78
MB06_36	1535	1554	19	0.21	MB06-42	1537	1546.3	9.3	0.83
MB06_36	1570	1591	21	1.05	MB06-42	1577.7	1584	6.3	0.74
Including	1580.4	1583	2.6	5.41	MB06-42	1786.7	1796	9.3	0.83
MB06_36	1617	1624	7	0.19	MB06-43	1230.3	1238.8	8.5	1.66
MB06_36	1652	1716	64	0.83	MB06-43	1244	1253	9	3.05
Including	1683	1690	7	4.64	MB06-43	1281	1287	6	1.34
MB06_37	1256	1262	6	1.26	MB06-43	1328	1340	12	9.27
MB06_37	1310.2	1361.5	51.3	2.61	MB06-44	952.4	958	5.6	0.87
Including	1353	1361.5	8.5	5.22	MB06-44	964	969.7	5.7	3.18
MB06_37	1460	1467.6	7.6	7.62	Including	964	966.6	2.6	6.59
MB06_37	1494	1505	11	2.49	MB06-44	985	1003	18	0.85
MB06_38	1085.6	1091	5.4	0.96	MB06-44	1024	1042	18	0.73
MB06_38	1145	1156.3	11.3	0.33	MB06-44	1074.2	1095.3	21.1	1.32
MB06_38	1245.9	1252.9	7	2.96	MB06-44	1274	1280	6	1.1
MB06_40	1129.5	1151.6	22.1	4.55	MB06-45	993.5	998	4.5	3
Including	1135	1144.6	9.6	7.74	MB06-45	1034	1040	6	0.97
MB06_40	1319	1329.9	10.9	7.44	MB06-45	1066.4	1082	15.6	0.94
MB06_40	1335	1344	9	3.3	MB06-46	1556	1560.5	4.5	1.97
MB06_41	1102	1111	9	4.51	MB06-46	1590	1601.8	11.8	1.08
MB06_41	1126	1157.6	31.6	1.84	MB06-46	1611	1617	6	3.04
MB06_41	1242	1248.5	6.5	5.05	Including	1611	1614	3	5.88
MB06-41	1269.7	1282	12.3	1.8	MB06-46	1644	1654.5	10.5	1.61
MB06-41	1292.6	1317	24.4	1.34	MB06-46	1669.5	1691	21.5	1.88
MB06-41	1353	1366	13	3.98	Including	1672.5	1675.1	2.6	9.32
Including	1360.7	1366	5.3	6.24	MB06-46	1974	1984.4	10.4	0.9

TABLE 3

c) HOLE MB06-37

Collared Line 101+75E / 190+00N (UTM 587899E / 5330748N) at -67 degrees and azimuth of 017 degrees.

MB06-37 was designed to test the GCZ at 9650 feet elevation on section 101+75E in an area 150 feet west of previous hole MB96-04 (6.0 gm/t Au over 7.3 ft). Hole MB-06-37 was collared into the hanging wall gabbroic sequence and entered into the LLDZ volcanic package at 1000 feet. Three (3) mineralized intersections were encountered in MB-06-37: 1) 1.26 g/t Au over 6.0 feet from 1256 to 1262 feet in a felsic hematized (syenitic) unit; 2) 51.3 feet (from 1310.2 to 1361.5) averaging 2.61 g/t Au, (including 5.22 g/t Au over 8.5 feet from 1353 to 1361.5') that straddles the contact between a thick felsic dyke and an overlaying tuffaceous unit; and 3) 7.60 g/t Au over 7.6 ft in a green carbonate unit mixed with tuff. MB06-37 was abandoned after encountering a strong fault zone at 1535.4 feet (468.0 m.).

d) HOLE MB06-38

Collared on Line 103+00E / 191+00N (UTM 587942E / 5330765N) at -62 degrees and azimuth of 017 degrees.

MB06-38 was designed to test the (GCZ) at 9900 feet elevation on section 103+00E in an area located 150 feet up dip of previous MB96-04 (6.02 gm/t Au over 7.3 ft). Hole MB06-38 traversed the LLDZ package grossly between 900ft to 1500 ft returning one intersection of 2.96 g/t Au over 7.0 feet from 1245.9 to 1252.9 ft. The intersection occurs in a hematized syenitic dyke contained within a green carbonate zone. Two other anomalous gold intervals are reported respectively at 1091- 1094 and 1145-1156.3 m (0.96 gm/ 3.0' & 0.33gm/ 11.3'). MB06-38 was stopped at 1605.5 ft (489.0 m.) within the footwall tuffaceous sequence.

e) HOLE MB06-39

Collared on Line 96+00E / 188+00N (UTM 587711E / 5330732N) at -63 degrees and azimuth of 017.

MB06-39 was designed to test the McBean deep area at 9900 feet elevation on section 96+00E and 200 feet down dip and west of previous hole MB05-35 (5.8 g/t over 14.4' &

9.36g/t over 17.7'). Hole MB06-39 was collared into the hanging wall gabbroic sequence and intersected the LLDZ package roughly between 1020 ft to 1675 feet down hole. No significant gold bearing zone and no green carbonate unit are reported in MB06-39 which was stopped at 1777 ft (541.5 m) in the tuffaceous.

f) HOLE MB06-40

Collared on section 104+50E / 190+00N (UTM 587978E / 5330725N) at a dip of -64 degrees and azimuth of 017.

MB06-40 was designed to test the GCZ at 9800 feet elevation on section 104+50E in an area 150 feet east of previous hole MB96-04. Hole MB-06-40 entered LLDZ from 950 to 1630 feet encountering three (3) main gold intersections: 1) 4.55 g/t Au over 22.1 feet from 1129.5 to 1151.6 (including 7.74 g/t Au over 9.6 ft (1135-1144.6 ft)) in an altered tuffaceous (V9) unit; 2) 7.44 g/t Au over 10.9 ft from 1319 to 1329.9 ft in a pyritized felsic dyke (1F); and, finally, 3.3 g/t Au over 9.0 ft in a second felsic dyke footwall to the previous one. In MB06-40, no significant values were obtained in green carbonate rocks and the hole was terminated in the footwall tuffs at 1889.7 ft (576.0 m).

g) HOLE MB06-41

Collared at 97+75E / 190+00N (UTM 587779E / 5330777N) at -65 degrees and azimuth of 017.

MB06-41 was designed to fill a gap in the McBean mineralized zones at 9850 feet elevation on section 97+75E between previous holes MB96-01, MB97-8B, MB97-13 and MB05-35. After exiting the gabbroic sequence, it traversed the LLDZ from 880 ft to 1410 ft. Six (6) anomalous gold intersections were encountered in hole MB06-41 (see Table 1 above) between 1102 and 1366 feet in a variety of lithologies including felsitic dikes, tuffs, green carbonate zones and ultramafics. The best value, which returned an average gold value of 3.98 g/t over 13 feet, occurs from 1353-1366 ft at the contact between an ultramafic and GCZ unit. The hole ended at 1614.2 ft (492.0 m).

h) HOLE MB06-42

Collared on Line 104+50E / 189+00N (UTM 587970E / 5330695N) at -70 degrees and azimuth of 017.

MB06-42 was designed to test an area halfway between previous holes MB96-04 and MB97-18 at an elevation of 9500 feet on section 104+50E traversing the LLDZ from 1300ft to 1950 ft. Four significant gold intersections are reported: 1) 3.14 g/t Au over 17.5 feet (including 12.7 g/t Au over 3.2 ft) from 1425.7 to 1443.2 ft in a felsic dike; 2) 2.14 g/t Au over 14 feet from 1463.3 to 1477.3 feet in a dull green carbonate altered ultramafic; 3) 5.78 g/t Au over 5.2 ft in a narrow felsic dyke; and, 4) 0.83 g/t over 9.3 ft in a sliver of altered tuff within a green carbonate zone. MB06-42 was stopped at 2030 ft (619.0 m) in the tuffaceous sequence .

i) HOLE MB06-43

Collared at 100+25E / 191+10N (UTM 587864E / 5330789N) at -69 degrees and azimuth of 017.

MB06-43 was designed to test a gap in the data of the green carbonate zone at 9800 feet elevation on section 100+25E between previous holes MB8B, 12, 13, 23 and 37. Three (3) main gold intersections are reported within the deformation corridor between 870ft to 1560 ft as follow: 1) 1.66 g/t Au over 8.5 feet from 1230.3 to 1238.8 ft in sedimentary (tuffaceous?) and GCZ units; 2) 3.05 g/t Au over 9.0 ft from 1244 to 1253 ft located in an altered wacke; and, 3) 9.27 g/t Au over 12.0 ft at a wacke/ green carbonate zone contact between 1328.0 and 1340.0 ft. Hole MB06-43 was stopped at 1761.8 ft (537.0 m) in the tuffaceous sequence.

j) HOLE MB06-44

Collared on Line 100+00E / 192+00N (UTM 587863E / 5330817N) at -66 degrees and azimuth of 017.

MB06-44 tested the green carbonate zone at 10000 feet elevation on section 100+00E encountering the LLDZ from 750ft to 1120 ft which encounteed several anomalous gold intersections, the best of which include: 3.18 g/t Au over 5.7 feet from 964 to 969.7 ft in a narrow felsite dike; and, 1.32 g/t Au over 21.1 ft from 1074.2 to 1095.3 ft green carbonate. The hole was stopped at 1515.7 ft (462.0 m) in the tuffs.

k) HOLE MB06-45

Collared on Line 99+00E / 192+00N (UTM 587835E / 5330820N) at -66 degrees and azimuth of 012.

Hole MB06-45 penetrated the deformation corridor between 750ft to 1150 ft encountering two significant gold intersections: 1) 3.0 g/t Au over 4.5 feet from 993.5 to 998 ft in a sheared silicified felsite; and, 2) 0.97 g/t Au over 6.0 ft from 1034 to 1040 ft in a green carbonate unit. MB06-45 was stopped in the tuffs at 1417.3 ft (432.0 m).

l) HOLE MB06-46

The last drill hole of the McBean 2006 program, MB06-46 was collared on Line 102+00E / 187+40N (UTM 587889E / 5330671N) at -64 degrees and azimuth of 017.

MB06-46 was designed to test the GCZ at 9450 feet elevation on section 98+50E and test the LLDZ from 1300ft to 1850 ft. Six anomalous to low grade gold intersections (see table 1) were reported, the best of which was intersected between 1611 and 1617 ft ,returning 3.04 g/t Au over 6.0 ft. MB06-46 was stopped in the tuffs at 2028.3 ft (618.0 m).

8) Interpretation of McBean Deep Geology (By Frank Ploeger)

Introduction:

Following the various past and present drilling campaigns, the geology below the McBean pit area was reinterpreted in preparation for resource/ reserve / estimations. A new set of diamond drill sections at 50 foot intervals, including the most recent (2006) drill results, was prepared at 1 inch to 100 feet scale from sections 9000 to 11000E with the most detail occurring between 9600 and 10600E.

Prior to defining the individual mineralized horizons, the deformation corridor was identified from the start of the deformation zone (SDZ) to the Timiskaming contact (TG). Then strike faults and possible cross faults were identified and carried through the sections, followed by interpretation of the general geology and alteration corridors, and finally, the location of the mineralized horizons within this package.

McBean Deep Geology: See Tables 3a and 3b

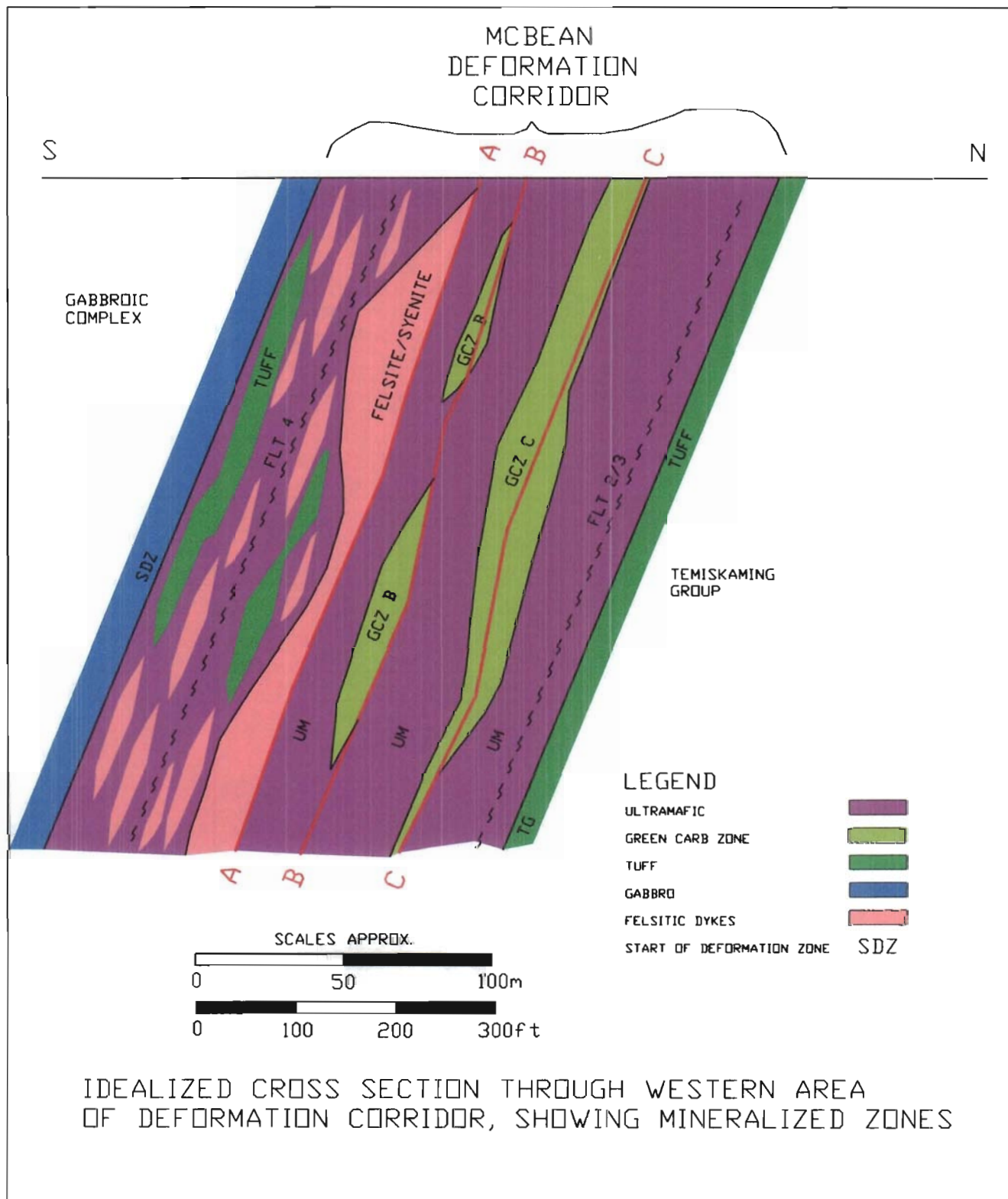


Figure 3a

The SDZ begins at the base of a thick gabbroic complex where it contacts an ultramafic package, averaging 500 feet in width, which forms the basic protolith of the deformation corridor. This continues to a footwall contact with a thick sequence of mafic tuffs interpreted as belonging to the Timiskaming Group. Cutting the ultramafic unit is a series of four main strike faults that slice through the package at shallow angle to the stratigraphy.

Deformation Corridor- All of the mineralized zones are located within the deformation corridor, hosted by variably altered ultramafic units, probably komatiitic flows that are cut by a series of boudinaged felsitic intrusives. The weakest stages of alteration in the ultramafics range from talc chlorite to amphibolite, the latter which forms an amphibole- calcite (chlorite- biotite?) mix that is slightly pinkish toned and has been termed "incipient" alteration in the logs. As the degree of alteration increases, the host becomes more strongly veined with streams of ankerite veinlets along foliation planes, and then by pervasive carbonatization of the matrix. In the strongest stage, parts of the matrix become pervaded with fuchsite forming the typical "green carbonate" horizons found along the Larder Lake Break. All of the rocks in this corridor are weakly to strongly deformed through shearing and folding, the entire unit dipping south at approximately 65 degrees.

Felsitic Zone- The upper third of the deformation corridor is dominated by talcose and incipient altered ultramafics, tuffs and gabbro cut by a series of felsitic intrusives of varying compositions and widths, forming a hanging wall zone that ranges from 80- 220' in thickness. Individual dikes are described as syenite or felsite, depending on the grain size, and range from a few inches to 120 feet in thickness. Narrow felsic dikes (possibly altered felsitic tuffs), which are also found through the remainder of the ultramafic package, are variably altered and mineralized depending on the intensity of alteration of the ultramafic host.

Green Carbonate Zones- The lower portion of the alteration corridor, which ranges from 300-400 feet in width, is composed mainly of variably altered ultramafic lithologies, the most significant of which are the green carbonate altered horizons. There were four green carbonate zones identified, which, from north to south, were designated as B, C, D and E, beginning at the base of felsitic package.

Zone B starts around 9600E and pinches out against the felsites around 9950E, appearing again in the upper portion (above 9900' elevation) around 10000E and terminated by faulting at 10300E.

Similarly, Zone C begins at the contact with the Timiskaming Group at 9650E and is offset by strike faults around 10000E, picking up again between 10050E and 10150E before it is finally lost due to lack of information beyond 10600E.

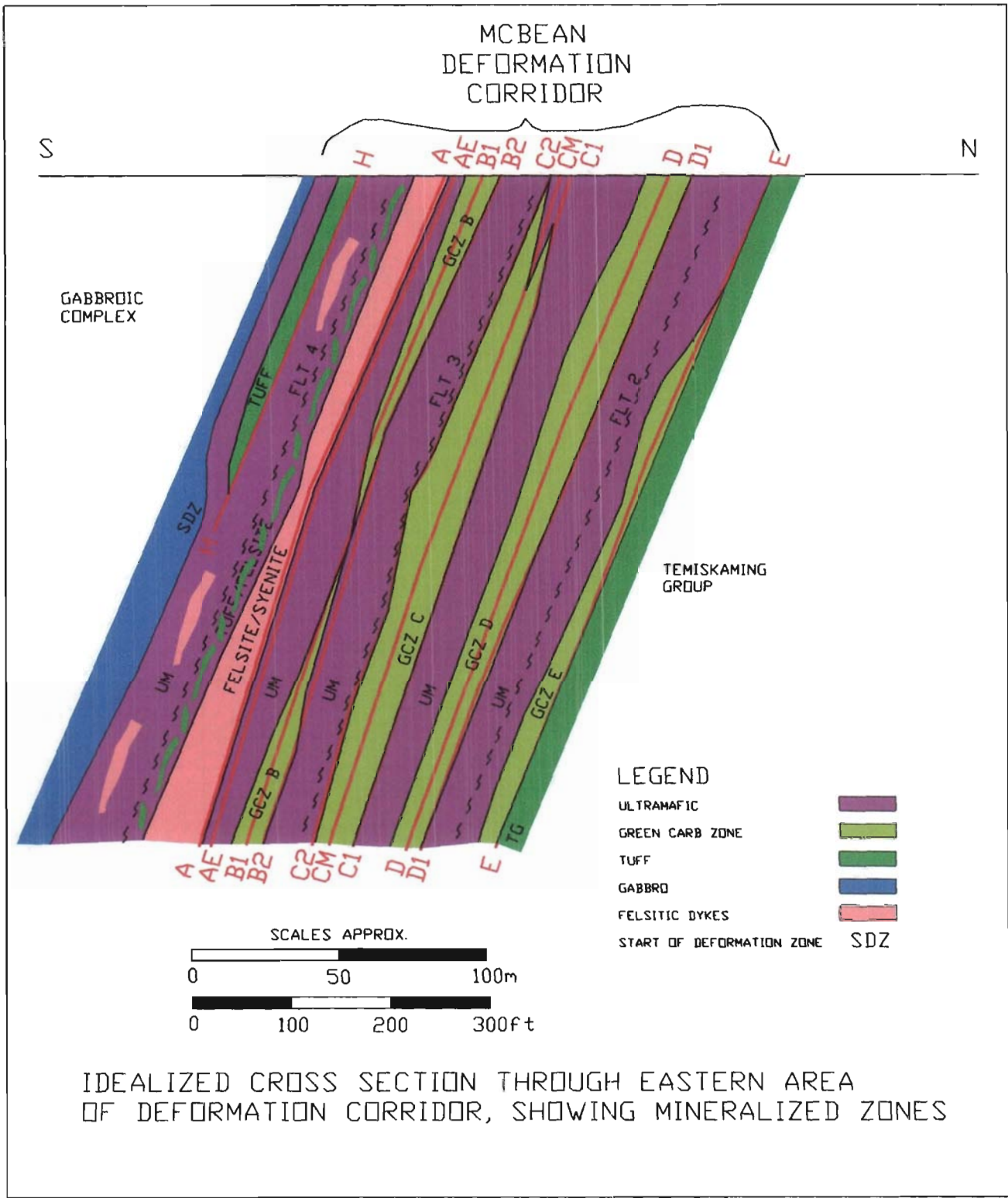


Figure 3b

Green carbonate Zone D forms at the footwall of the ultramafic package in contact with the Timiskaming Group tuffs commencing at 10100E and apparently continuing to 11000 and migrating into the middle of the section.

Zone E picks up at the footwall of the ultramafic sequence at about 10400E as Zone D pulls away into the package, continuing through to 11000E.

Faulting- Four dominant parallel fault structures were identified cutting the felsitic and green carbonate packages. They slice through at shallow angles to the strike as a series of thin thrusts with possible vertical offsets of 400 feet or so as they migrate from footwall to hanging wall going from West to east.

Mineralized Zones:

A total of 13 different mineralized zones, labeled H, A, AE, B, B1, B2, C, C2, CM, C1, D, D1, & E (south to north), were identified within the felsitic and green carbonate packages. Of these, the H/ A/ AE zones are contained within the felsitic intrusive suite, while the remainder, relate to their respective lettered Green Carbonate horizons.

H- Mineralized zone H is confined to a narrow strip between 10400E and 10550E and elevations 10300 and 9500. It is located in a wider segment in the hanging wall of the felsitic dike zone, associated with a mafic tuff horizon.

A- A zone is the most laterally extensive, beginning at section 9600E and extending at least to section 10600E at which point the detailed information ends. It comprises a silicified and pyritic zone that appears to track along, and within, the footwall contact of the felsitic intrusive suite in the upper portion of the deformation corridor.

AE- Similar to the H zone, the AE zone is restricted in strike length, ranging from section 10450E to 10600E. It appears to form a discrete pyritic zone within 10 to 30 feet of the immediate footwall of the A zone, either within the felsite intrusive or the ultramafics.

B- The B zone occurs in a thin lens of green carbonate in the footwall of the felsitic intrusive suite at 9600 and pinches out or merges with the A zone around 9950E. The values appear to be associated with mineralized, silicified tuffs and felsitic lenses within the B zone green carbonate.

B1/ B2- Both zones begin around 9950E where the B green carbonate zone begins to form again after having merged with the A mineralized zone. B1 is situated in the middle of the green carbonate horizon while B2 falls along the footwall contact, the best values in both coinciding with silicified felsitic dikelets and quartz vein zones.

9) QUALITY CONTROL

For quality control purposes, a total of 226 samples, 106 pulps and 120 rejects, of a total of 1900 collected during the 2006 drilling program were submit to " Labo-Expert" from Rouyn-Noranda for a second analysis. This represents 11.7% of the total collected during the 2006 drill campaign.

The criteria for selecting the samples for check assaying was based on the selection of all gold intersections higher than 1 gram gold per ton over a width greater than 5 feet. All check assays were then compared with the original values from the corresponding pulps or rejects obtained from Swastika Laboratory.

B) Comparison of gold values in pulps and rejects (Table 4)

The variations observed in pulp samples intersections ranged from 19.4% to -20.2%. Overall, the Labo Expert Laboratory overstated the Swastika gold values by 1.77%.

The variability observed in rejects ranged from 20.5% to -35.2%. On average, the Labo Expert Laboratory understated the Swastika gold values from the rejects 10.5%.

Combining both reject and pulp reassays the variation ranged between 20.5% and -35.2%. On average, the Labo Expert Laboratory understated the Swastika gold intersections by 4.77%.

B) Category and class comparisons (Table 5)

When grouped by grade categories (>50 ppb, >100 ppb, >500 ppb and >1000 ppb), the reject and pulp samples can be compare as follows:

Labo Expert reject samples display a systematic negative bias of about 9% (independent of the grade categories checked) compared with the previous Swastika results. When the pulps are compared, the sample variability falls into a narrow range of 0.44% and -1.87%.

McBean 2006, Intersection variability							
Hole no	from (m)	to (m)	Width (m)	Swastika (ppb)	LabExpert (ppb)	Type	Variation (%)
MB06-36	1306.5	1316	9.5	1.55	1.438	Pulp	-7.226
MB06-37	1256	1262	6	1.26	1.172	Reject	-6.984
MB06-37	1310.2	1361.5	51.3	2.61	2.505	Pulp	-4.023
MB06-37	1460	1467.2	7.6	7.62	9.183	Reject	20.512
MB06-37	1494	1505	11	2.49	2.622	Reject	5.301
MB06-40	1129.5	1151.6	22.1	4.55	4.257	Reject	-6.440
MB06-40	1319	1329.9	10.9	7.44	8.341	Pulp	12.110
MB06-40	1335	1344	9	3.3	3.32	Pulp	0.606
MB06-41	1102	1111	9	4.51	4.462	Reject	-1.064
MB06-41	1126	1157.6	31.6	1.84	1.714	Reject	-6.848
MB06-41	1242	1248.5	6.5	5.05	4.622	Pulp	-8.475
MB06-41	1269.7	1282	12.3	1.8	1.708	Reject	-5.111
MB06-41	1292.6	1317	24.4	1.34	1.279	Reject	-4.552
MB06-41	1353	1366	13	3.98	3.897	Pulp	-2.085
MB06-42	1425.7	1443.2	17.5	3.14	2.311	Reject	-26.401
MB06-42	1463.3	1477.3	14	2.14	1.45	Reject	-32.243
MB06-42	1526.2	1531.4	5.2	5.78	4.673	Reject	-19.152
MB06-43	1230.3	1238.8	8.5	1.66	1.964	Pulp	18.313
MB06-43	1244	1253	9	3.05	3.642	Pulp	19.410
MB06-43	1281	1287	6	1.34	1.207	Reject	-9.925
MB06-43	1328	1340	12	9.27	8.38	Pulp	-9.601
MB06-44	964	969.7	5.7	3.18	2.997	Reject	-5.755
MB06-44	1074.2	1095.3	21.1	1.32	1.053	Pulp	-20.227
MB06-44	1274	1280	6	1.1	1.062	Reject	-3.455
MB06-45	993.5	998	4.5	3	3.416	Pulp	13.867
MB06-46	1556	1560.5	4.5	1.97	1.364	Reject	-30.761
MB06-46	1590	1601.8	11.8	1.08	1.284	Pulp	18.889
MB06-46	1611	1617	6	3.04	3.141	Pulp	3.322
MB06-46	1644	1654.5	10.5	1.61	1.043	Reject	-35.217
MB06-46	1669.5	1691	21.5	1.88	1.69	Pulp	-10.106
Average							-4.777
PULP							
Hole no	from (m)	to (m)	Width (m)	Swastika (ppb)	LabExpert (ppb)	Type	Variation (%)
MB06-36	1306.5	1316	9.5	1.55	1.438	Pulp	-7.226
MB06-37	1310.2	1361.5	51.3	2.61	2.505	Pulp	-4.023
MB06-40	1319	1329.9	10.9	7.44	8.341	Pulp	12.110
MB06-40	1335	1344	9	3.3	3.32	Pulp	0.606
MB06-41	1242	1248.5	6.5	5.05	4.622	Pulp	-8.475
MB06-41	1353	1366	13	3.98	3.897	Pulp	-2.085
MB06-43	1230.3	1238.8	8.5	1.66	1.964	Pulp	18.313
MB06-43	1244	1253	9	3.05	3.642	Pulp	19.410
MB06-43	1328	1340	12	9.27	8.38	Pulp	-9.601
MB06-44	1074.2	1095.3	21.1	1.32	1.053	Pulp	-20.227
MB06-45	993.5	998	4.5	3	3.416	Pulp	13.867
MB06-46	1590	1601.8	11.8	1.08	1.284	Pulp	18.889
MB06-46	1611	1617	6	3.04	3.141	Pulp	3.322
MB06-46	1669.5	1691	21.5	1.88	1.69	Pulp	-10.106
Average							1.770
REJECT							
Hole no	from (m)	to (m)	Width (m)	Swastika (ppb)	LabExpert (ppb)	Type	Variation (%)
MB06-37	1256	1262	6	1.26	1.172	Reject	-6.984
MB06-37	1460	1467.2	7.6	7.62	9.183	Reject	20.512
MB06-37	1494	1505	11	2.49	2.622	Reject	5.301
MB06-40	1129.5	1151.6	22.1	4.55	4.257	Reject	-6.440
MB06-41	1102	1111	9	4.51	4.462	Reject	-1.064
MB06-41	1126	1157.6	31.6	1.84	1.714	Reject	-6.848
MB06-41	1269.7	1282	12.3	1.8	1.708	Reject	-5.111
MB06-41	1292.6	1317	24.4	1.34	1.279	Reject	-4.552
MB06-42	1425.7	1443.2	17.5	3.14	2.311	Reject	-26.401
MB06-42	1463.3	1477.3	14	2.14	1.45	Reject	-32.243
MB06-42	1526.2	1531.4	5.2	5.78	4.673	Reject	-19.152
MB06-43	1281	1287	6	1.34	1.207	Reject	-9.925
MB06-44	964	969.7	5.7	3.18	2.997	Reject	-5.755
MB06-44	1274	1280	6	1.1	1.062	Reject	-3.455
MB06-46	1556	1560.5	4.5	1.97	1.364	Reject	-30.761
MB06-46	1644	1654.5	10.5	1.61	1.043	Reject	-35.217
Average							-10.506

Table 4

Average -10.506

Comparison Swastika to Labo Expert			
REJECT		PULP	
Grade	Variation	Grade	Variation
(PPB)	(%)	(PPB)	(%)
>50	-9.00	>50	-1.87
>100	-9.02	>100	-1.82
>500	-9.08	>500	-1.41
>1000	-9.09	>1000	0.44
CLASS		CLASS	
50-100	57.50	50-100	-43.5
101-500	-2.09	101-500	-17.4
501-1000	-13.70	501-1000	-17.43
1001-5000	-12.11	1001-5000	-1.23
>5001	-5.67	>5001	0

Table 5

When grouped by class (50-100 ppb, 101-500 ppb, 501-1000 ppb, 1001-5000 ppb and >5000 ppb), the reassays of the reject and pulp samples reveal the following:

The widest variability in both reject and pulp occurred in the weakly anomalous fractions (class 50-100 ppb) with respective values of 57.6% and -43.5%. Due to the proximity of the detection limit, a poorer correlation was expected from the weakly anomalous samples.

Overall, for both reject and pulp classes, the strongest variability was observed in the 501-1000 ppb population where the Labo Expert checks understated the Swastika results by 13.7% for the reject and 17.43% for the pulp class. The high-grade class (>5000 ppb) displays a relatively low variability of -5.67% in the reject and 0% for the pulp.

In summary, Labo Expert laboratory understated the original Swastika assays in most of the categories examined except for the pulp gold intersections which correlated well with an average variation of +1.77%. The reject categories and classes display stronger variabilities that probably result from nugget effects when compared to the pulp samples which are more homogenous.

When comparing the assays procedures of both labs, it was noted that Swastika uses a -100 mesh size for the pulp fraction whereas Expert screens to -200 mesh. Therefore when processing the rejects, some of the coarser gold would be screened out by Expert, resulting in the lower overall comparative values.

10) CONCLUSIONS

The 2006 drilling program and new geological interpretation revealed a more complex geology and gold distribution than previously recognized. Within the McBean deposit, the gold mineralization seems to be associated with a number of altered felsitic intrusives and green carbonate horizons in which the intensity of the alteration varies both vertically and laterally. Not all of the holes were intersected in every drill hole, some are better defined in the western portion of the deposit while others were better developed in the eastern sections of the McBean deposit. The gold distribution along these structures appears to be discontinuous in both grade and thickness aspects. The presence of at least four late strike faults add to the geological complexity, dislocating several of the gold zones. It was observed that the gold distribution of in a number of the zones, particularly those mined in the open pit, appear to be oriented with a shallow to horizontal plunge.

Mcbean 2007 - DDH Proposal									
Hole ID	Grid	East	North	Elev.	AZ	Dip	Depth	Target	Remark
A	MB	91+00	192+00	11000	17	-61	1000	Testing 100 feet east of Q5_0 (3.41/36 ft)	
B	MB	95+50 ou 96+00	190+00	11000	17	-55	1400	Extend new info to west of working to intercept 200 feet below the working. It will also help to tie the under ground and surface drilling together.	
C	MB	98+75	191+00	11000	17	-66	1500	Filling gap along plunge between historical values.	
D	MB	99+50	191+50	11000	17	-60	1400	Fill the gap in data and help interpret continuity of units.	
E (43W)	MB	100+50	191+00	11000	17		750	Wedge of MB06-43 at 800 feet. Gain offset of 30 feet.	Wedge inside MB06-43
F (44W)	MB	100+50	192+00	11000	17		700	Wedge of MB06-44 at 700 feet. Gain offset of 70 feet.	Wedge inside MB06-44
G	MB	101+25	187+75	11000	17	-67	1900	Test the bottom of the plunge of the mineralized zones. If this run, fan a hole 200-300 feet below.	
H	MB	102+25	191+00	11000	17	-67	1600	To fill gap and aid in interpretation	
I (2W)	MB	103+00	187+00	11000	17		1100	Wedge of MB96-02 at 1000 feet. Gain offset of 40 feet.	Wedge inside MB96-02. Casing???
J (40W)	MB	104+50	190+00	11000	17		850	Wedge of MB06-40 at 800 feet. Gain offset of 55 feet.	Wedge inside MB06-40
K	MB	106+50	181+50	11000	17	-68	3000	Drill below and east of MB96-05 testing that area down plunge on 106+50E	Optional
L	MB	107+00	188+00	11000	17	-70	2200	Testing 250 feet west of MB97-19. Optional to O	
M	MB	108+00	190+00	11000	17	-65	2000	Exploration hole.	On DDH 57395 site
N	MB	109+00	189+50	11000	17	-68	2100	Follow up of values in MB97-19 updip and east	
O	MB	109+00	188+00	11000	17	-70	2400	Follow up of values in MB97-19 to the east	
P	MB	112+00	188+00	11000	17	-70	2400	Testing 200-250 ft east of Mb97-19	
Q	MB	103+50 ou 103+00	184+20	11000	17	-67	2500	Testing west of DDH MB96-02 zones CDE.	
R	MB	105+50	180+30	11000	17	-69	2300	Test CDE zone east of MB96-02	
S	MB	95+00	190+00	11000	17	-61	1800		
T	MB	95+00	190+00	11000	17	-70	2000	Checking extension of zone A to west.	
U	MB	103+50	192+00	11000	17	-60	1400	Check C zone values below pit	
V	MB	105+00	192+00	11000	17	-63	1500	Check C zone values below pit east of MB06-38	
W	MB	105+00	192+00	11000	17	-53	1600	Check C zone values above and east of MB06-38.	

Table 6

39400 feet
12009.1 meters

11) RECOMMENDATIONS

It is recommended that follow up diamond drilling be focused on better defining the more consistent zones (A & C2) and attempting to extend some of the newer, higher grade ones within the framework of the possible flat pluge model of the mineralized horizons. More specifically (Table 6)

- 1) the potential for extending the zone around hole UB97- 19 should be investigated;
- 2) a series of holes between sections 106+00 and 110+00 would infill a blank area in the longitudinal section and allow correlation of the geology to the values around hole UB97-19 to the east;
- 3) a few holes should be drilled between the lower levels of the Murphy shaft to allow for better geological correlation between the old underground logs and the Queenston drilling;
- 4) the holes drilled in 2006 should be surveyed by gyro to accurately determine their location.

A handwritten signature in black ink, consisting of a large, stylized initial 'A' followed by a long horizontal line, and a smaller signature below it.

12) SELECTED BIBLIOGRAPHY

Bubar, D.S.- 1995-Kirkland Lake-Larder lake Area, Regional Compilation project.

Robertson, D. S.-1983-Report on McBean Mine Project; 78 p.

Roescoe Postle Associate Inc.-1996-Report on the Kirkland Lake Project; 92 p.

Todd, E.W.-1928-Kirkland Lake gold Area; ODM Vol 37 pt 2; 176 p.

Thomson, J.E. and Griffis, A.T.-1941-Geology of Gauthier Township, East Kirkland Lake Qrea; ODM Vol 50pt8; 29 p.

Queenston Mining Inc.-1998-Queenston Franco-Nevada Kirkland Lake Joint Venture, Anoki Project, Diamond Drilling Report (Phase I and II) October, 1996-April 1998; 4 vols incl. appendicies.

Queenston Mining Inc.-1998-Queenston Franco-Nevada Kirkland Lake Joint Venture, McBean Project, Diamond Drilling Report (Phase I and II) August, 1996-december 1997 1998; 4 vols incl. appendicies.

APPENDIX 1

SECTIONS

AND

PLAN MAP

APPENDIX 2

ASSAY PREPARATION PROTOCOLE

CCRMP

ISO 9001:2000
Registered



PTP-MAL

Accredited by
Standards Council of Canada :
proficiency testing provider for
specific mineral analysis parameters

Proficiency Testing Program for Mineral Analysis Laboratories

Certificate of Laboratory Proficiency

Swastika Laboratories, Custom Assay Laboratory

Swastika, Ontario, Canada

has been assessed "Satisfactory" in both cycles of test samples in

Program Year 2005-06

for*: Gold¹ Platinum¹ Palladium¹

 Silver² Copper²

 Lead² Nickel² Cobalt²

by PTP-MAL using criteria for laboratory proficiency established by
the Task Accreditation Sub-Committee Working Group for Mineral
Analysis Laboratories of the Standards Council of Canada.

*General description of analytical methods submitted.

1. Lead-collection fire assay with atomic absorption measurement. (Gravimetric
measurement for some samples)

2. Three acid digestion with atomic absorption measurement.

Clinton W. Smith
PTP-MAL Coordinator

Maureen E. Leaver
CCRMP Coordinator

July 14, 2006

Date



Established 1928

Swastika Laboratories

Assaying - Consulting - Representation

GOLD BY FIRE ASSAY (General Description)

Both gold assay and geochemical gold analysis begin with a fusion using a flux mixture of litharge (PbO_2), sodium carbonate, borax, silica, fluorspar with further oxidants (nitre) or reductants (flour) added as required. The relative concentrations of the fluxing materials are adjusted to suit the type of sample being analyzed. An aliquot of silver is added as a final collection agent. The resultant lead button containing the precious metals is reduced to PbO_2 and absorbed into a cupel in a cupellation furnace. The precious metals collected in the silver aliquot are now ready for either geochemical analysis using an atomic absorption spectrometer or a gravimetric assay finish. The geochemical method involves dissolving the precious metal and analyzing by atomic absorption. Gravimetric assays are completed by dissolving the silver of the dore bead in nitric acid and leaving the gold to be weighed on a micro balance.

When geochemical beads are visually estimated to be 1500 ppb or more, we have the option of retrieving and weighing them. This option has been quite useful in getting the best of both methods.

Quality control consists of using inhouse or Canmet standards, blanks and by reassaying at least 10% of all samples. The supervisor may also have additional pulps prepared from stored reject and assayed. All data is evaluated by the fire assay supervisor and additional checks may be run on anomalous values. All values obtained are reported.



Established 1928

Swastika Laboratories

Assaying - Consulting - Representation

ROUTINE SAMPLE PREPARATION

- 1) Dry samples if required.
- 2) Crush total sample to 1/2 inch (Jaw Crusher)
- 3) Crush total sample to 10 mesh (Rolls Crusher)
- 4) Split Approximately 350 grams using a Jones riffle.
- 5) The remaining reject is placed in a plastic bag, and packed in cartons with sample numbers listed on the outside.
- 6) Pulverize the 350g sample (RING & PUCK) 100 mesh.
- 7) Homogenize the pulp, it is then ready for assay.

Sample preparation quality is assured by regular inspection, maintenance of crushing equipment, training and supervision of our staff to ensure that proper technique is utilized.

We prepare and analyze second pulps from stored rejects. The resulting data is compared with original results to verify sample sequence and also that repeatability is within acceptable limits.

To ensure that there is no dilution or concentration of various minerals, dust loss is kept at a minimum. For the critical pulverizing step, we have equipped our pulverizers with automatic draft shut off damper to eliminate sample pulp loss.

To prevent cross contamination, we use compressed air jets to clean the equipment between samples. The rolls crusher is cleaned using a wire brush combined with air jets. this system does a thorough cleaning. Also barren abrasive material is crushed between batches as an extra precaution.



Established 1928

Swastika Laboratories

A Division of TSL/Assayers Inc.

Assaying - Consulting - Representation

BASE METAL PROCEDURES

Geochem

Ag, Cu, Zn, Ni, Pb, Co, As (PPM)

A 0.5 gram is digested with aqua regia in a hot water bath for 2 hours. After dissolution, the mixture is diluted with water. After mixing, the analysis is completed using an atomic absorption spectrometer. Background correction is applied for Ag, Co, Ni and Pb.

<u>Element</u>	<u>Detection Limit</u>	<u>Threshold</u>
Cu	1 PPM	10 000 PPM
Zn	1 PPM	10 000 PPM
Pb	1 PPM	10 000 PPM
Ag	0,1 PPM	60 PPM
Ni	1 PPM	10 000 PPM
Co	1 PPM	10 000 PPM
As	5 PPM	10 000 PPM
Sb	3 PPM	10 000 PPM
Mo	2 PPM	10 000 PPM

An analytical run consists of 30 samples, 3 repeats, a blank and a control (standard).

Assay

Silver (oz/ton, grams/tonne)

A 1.00 gram sample is digested with 5 ml HNO₃ plus 10 ml HCl for 1 hour in a covered beaker; diluted to 50 ml with 30% aqua regia. The solution is analyzed by Atomic Absorption Spectrophotometry using background correction.

Cu, Zn, Ni, Pb, Co, As (%)

A 0.5 gram sample is dissolved in a beaker with 5 ml HNO₃ plus 10 ml HCl, diluted to 100 ml with distilled water. The solution is analyzed by Atomic Absorption Spectrophotometry.

<u>Element</u>	<u>Detection Limit</u>	<u>Threshold</u>
Cu	0.001 % *	100 %
Zn	0.001 % *	100 %
Pb	0.001 % *	100 %
Ag	0.2 g/t	100 %
Ni	0.001 % *	100 %
Co	0.001 % *	100 %
As	0.001 % *	100 %

* a detection of 0.001% up to 0.50% then reported to 0.01%

An analytical run consists of 30 samples, 3 repeats, a blank and a control (standard).

Anomalous values are repeated for both Geochem and Assay methods.

PRÉPARATION DES ÉCHANTILLONS

1- Réception des échantillons

Lors de la réception, les échantillons sont placés en ordre numérique pour ensuite être comparé avec la feuille d'envoi du client afin de s'assurer que tout concorde. Si les échantillons reçus ne correspondent pas à la liste du client, celui-ci en sera informé. Si le client n'inclut aucune feuille d'envoi, la personne en charge de la réception des échantillons en préparera une.

2- Préparation des échantillons

L'échantillon est séché si nécessaire pour être ensuite réduit à ¼ de pouce dans un concasseur à mâchoire. Le concasseur est nettoyé entre chaque échantillon à l'aide d'un compresseur à air et de plus, il est nettoyé avec du matériel stérile entre chaque lot. L'échantillon est ensuite concassé à 90% - 10 mailles dans un concasseur à rouleaux. Ce même concasseur est nettoyé entre chaque échantillon à l'aide d'un compresseur à air et d'une brosse métallique et de plus, il est nettoyé avec du matériel stérile entre chaque lot. Le premier échantillon de chaque lot est tamisé à 10 mailles afin de déterminer si 90% passe à 10 mailles. En cas contraire, le concasseur à rouleaux est ajusté et un autre test est effectué. Les résultats de ces tests sont notés sur un registre prévu à cette fin. Une portion de 300 grammes est ensuite séparée dans un séparateur Jones et cette portion est pulvérisée à 90% - 200 mailles dans un pulvérisateur à anneaux. Le pulvérisateur est nettoyé entre chaque échantillon à l'aide d'un compresseur à air et de plus, il est nettoyé avec de la silice entre chaque lot. Le premier échantillon de chaque lot est tamisé à 200 mailles. Si 90% ne passe pas, le temps de pulvérisation est alors augmenté et un autre test est effectué. Les résultats de ces tests sont notés sur un registre prévu à cette fin. Le matériel en surplus (le rejet) est entreposé pour le client.

OR PAR GÉOCHIMIE (PYROANALYSE)

Un échantillon de 29.166 grammes est pesé et versé dans un creuset dans lequel on a, au préalable, déposé environ 130 grammes de fondant. L'échantillon est ensuite mélangé et 1 mg de nitrate d'argent y est ajouté. L'échantillon est alors mis en fusion à 1800 ° Fahrenheit pour environ 45 minutes. Celui-ci est versé dans un moule conique et on le laisse refroidir. Après refroidissement, la scorie est cassée et un bouton de plomb pesant de 25 à 30 grammes est récupéré. Ce bouton est alors coupé à 1600 ° Fahrenheit et ce, jusqu'à ce que le plomb soit oxydé. Après refroidissement, la bille est placée dans une éprouvette de 12 X 75 mm. Une portion de 0.2 ml d'acide nitrique 1 :1 est ajoutée pour permettre une réaction. L'éprouvette est déposée dans un bain d'eau pour environ 30 minutes. Ensuite, 0.3 ml d'acide hydrochlorique concentré est ajouté pour permettre une seconde réaction, toujours dans un bain d'eau pour un autre 30 minutes. L'éprouvette est ensuite retirée du bain d'eau et 4.5 ml d'eau distillée y est ajoutée. L'échantillon est alors mélangé vigoureusement pour ensuite le laisser reposer et la concentration d'or est déterminée par absorption atomique.

Chaque lot allant au four comprend 28 échantillons incluant un blanc et un standard pour l'or. Les creusets ne sont réutilisés tant et aussi longtemps que nous n'avons pas eu les résultats d'analyse. Les creusets ayant contenus des échantillons ayant une valeur supérieure à 200 PPB sont jetés. La limite de détection minimale est de 2 PPB et les échantillons ayant des valeurs supérieures à 1000 PPB sont réanalysés par gravimétrie.

OR PAR GRAVIMÉTRIE (PYROANALYSE)

Un échantillon de 29.166 grammes est pesé et versé dans un creuset dans lequel on a, au préalable, déposé environ 130 grammes de fondant. L'échantillon est ensuite mélangé et 1 mg de nitrate d'argent y est ajouté. L'échantillon est alors mis en fusion à 1800 ° Fahrenheit pour environ 45 minutes. Celui-ci est versé dans un moule conique et on le laisse refroidir. Après refroidissement, la scorie est cassée et un bouton de plomb pesant de 25 à 30 grammes est récupéré. Ce bouton est alors coupé à 1600 ° Fahrenheit et ce, jusqu'à ce que le plomb soit oxydé. Après refroidissement, la bille est aplatie à l'aide d'un marteau pour ensuite être déposée dans un creuset en porcelaine (parting cup). Ce creuset est rempli avec de l'acide nitrique 1:7 et chauffé jusqu'à dissolution de l'argent. Quand la réaction semble terminée, une goutte d'acide nitrique concentrée est ajoutée et l'échantillon est observé afin de s'assurer qu'il n'y ait aucune autre réaction. La bille d'or est alors rincée plusieurs fois dans de l'eau chaude distillée, séchée, réchauffée, refroidie et ensuite pesée.

Chaque lot allant au four comprend 28 échantillons incluant un blanc et un standard pour l'or. Les creusets ne sont réutilisés tant et aussi longtemps que nous n'avons pas eu les résultats d'analyse. Les creusets ayant contenus des échantillons ayant une valeur supérieure à 3.00 g/t sont jetés. La limite de détection minimale est de 0.03 g/t et il n'y a aucune limite de détection maximale. Tous les échantillons ayant des valeurs supérieures à 3.00 g/t sont réanalysés avant de soumettre le rapport final.