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REPORT ON THE 1995-1996 GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL EXPLORATION AT DOON PROPERTY (PROJECT 4057) MATACHEWAN AREA

(NTS 41P/15)

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April 4, 1997.

SUMMARY

This report documents the integrated exploration program conducted by WMC International Limited on the Doon Property between 1995 and 1997. The property lies within the southern Abitibi greenstone belt, a subprovince of the Archean Superior Province of the Canadian Shield. The centre of the property is located approximately 20 kilometres west-southwest of the Matachewan gold camp in Ontario.

Since most of the property is covered with a mantle of Proterozoic and Pleistocene deposits, a combination of geological, geochemical and geophysical techniques were used to target potential gold-bearing structures. The Doon Property area has been demonstrated to contain a virtually unexplored section of the Cadillac Larder Lake Break. This major 080^0-striking deformation zone in Doon Township has many features in common with the CLLB in the Larder Lake area.

Surface exploration in the Archean 'window' area of the property has outlined an altered and mineralized zone of brecciated mafic volcanics, in the Fault Lake area, where gold assays range up to 2.3 g/t. It is recommended that prospecting and mapping be carried out on the Doon Township Grid, at a scale of 1:5 000, to follow up recently delineated geophysical anomalies and to better define carbonate shear zones.

Till was found to be an effective sampling medium over areas of the inferred Archean bedrock. Clast counts of pebbles indicate the till, in general, is locally derived. Gold results in soil and the <63 micron size fraction of till were relatively low and showed poor correlation. Results from 9 RC holes confirmed the presence of the inferred extension of the CLLB. Locally, the till is characterized by large reshaped gold grains suggesting a distal source (>1000m). Additional RC drilling, down-ice from the CLLB and within the Archean window located in Doon Township is recommended.

Geophysical surveys have outlined two anomalous, parallel, complex trends striking E/W in central Doon Township that warrants further investigation. The complex anomalous trends are characterized by spatially related IP and low resistivity anomalies, with the southern trend inferred as the Cadillac-Larder Lake Break.

Additional work, in the Archean window area of Doon Property, in the form of diamond drilling is clearly warranted to test these IP anomalies. Any targets under Proterozoic cover will likely be a lower priority due to the interpreted thickness of the Gowganda Formation.

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1.0 LOCATION

The Doon Property is a gold exploration project located approximately 70 kilometres WSW of Kirkland Lake in the Larder Lake Mining Division, District of Timiskaming. The centre of the property is located approximately 20 kilometres WSW of the town of Matachewan at longitude 80^0 52' and latitude 47^0 53' on NTS map sheet 41 P/15.

2.0 ACCESS

Easy access to the Doon Property is afforded by the all weather United Asbestos Road (UAR) which branches southwest from Highway 566, approximately 2 kilometres west of the town of Matachewan (**Figure 1**). This road passes to the west through northwestern Yarrow township and central Doon and Midlothian townships. In Doon township, Wilson Road branches north from the United Asbestos Road and joins Highway 566 in northern Bannockburn township. An extensive system of bush and logging roads provides local access to the various parts of the property.

3.0 CLAIM STATUS

The Doon Property consists of 68 contiguous claims (886 units) situated in Montrose, Midlothian, Doon, Bannockburn, Powell and Yarrow townships and is owned 100% by WMC International (**Map #1, Table 1**). Four claims on Doon Property are under option from Raven Resources (2), Premier Exploration(1) and Blake, et al (1).; WMC can earn a 100% interest minus a 2% NSR.

4.0 REGIONAL GEOLOGY

The Doon Property lies in the southwestern Abitibi Greenstone Belt of the Superior Province along the northwestern margin of the Cobalt Embayment.

The bedrock geology of the Matachewan area has been most recently described by Lovell (1967), Powell (1991) and Jensen (1995). The stratigraphic nomenclature of the Kirkland Lake area presented by Jensen and Langford, in 1985, is used in this report (**Figure 2**).

The volcanic strata of the Matachewan area have been assigned to the Larder Lake and Kinojevis Groups of rock. The *Larder Lake Group* of volcanic rocks are mainly pillowed and massive basalt flows with less common komatiitic flows. The *Kinojevis Group* of volcanic rocks are pillowed and massive basalts, mafic to intermediate tuffs, and cherty tuffaceous units.

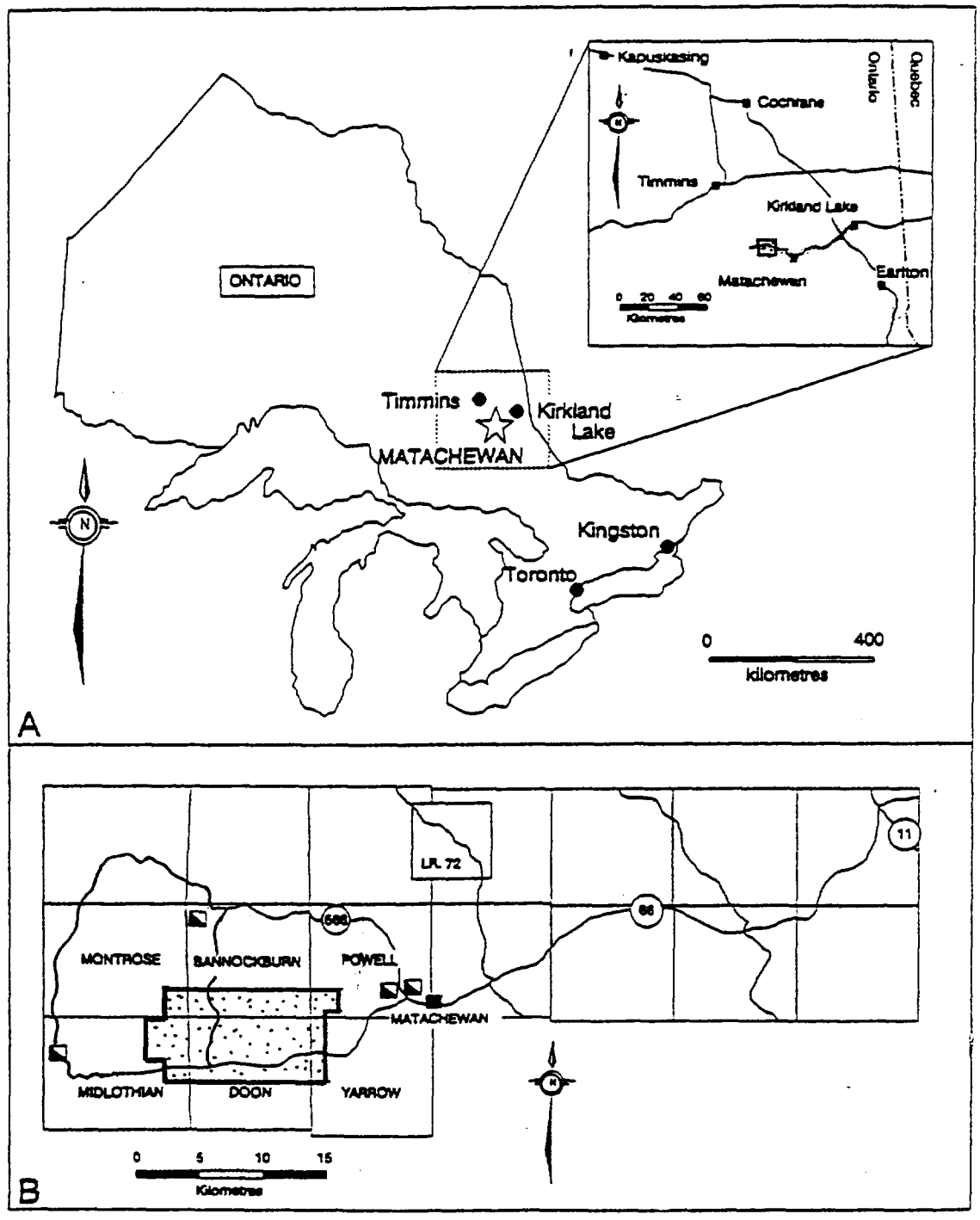


Figure 1. Location of the Doon Project area west of Matachewan, Northeastern Ontario
A) Location of the project area relative to local population centres;
B) Townships included in the project area. **(after Powell,1991)**

TABLE 1: DOON PROPERTY CLAIM LIST

Claim No.	Units	Township	Claim No.	Units	Township
1189298	16	DOON	1207634	16	BANNOCKBURN
1189299	16	MIDLOTHIAN	1207635	16	BANNOCKBURN
1206240	2	MIDLOTHIAN	1207636	8	BANNOCKBURN
1207601	10	MIDLOTHIAN	1207637	16	BANNOCKBURN
1207603	16	DOON	1207638	16	BANNOCKBURN
1207604	16	DOON	1207639	16	BANNOCKBURN
1207605	8	DOON	1207640	16	POWELL
1207606	8	DOON	1207642	8	MONTROSE
1207607	8	DOON	1207643	16	BANNOCKBURN
1207608	16	DOON	1207644	16	BANNOCKBURN
1207609	16	DOON	1207645	16	BANNOCKBURN
1207610	8	DOON	1207646	8	BANNOCKBURN
1207611	16	DOON	1207647	16	BANNOCKBURN
1207612	9	DOON	1207648	16	BANNOCKBURN
1207613	9	DOON	1207649	16	BANNOCKBURN
1207614	10	MIDLOTHIAN	1207650	16	POWELL
1207615	16	MIDLOTHIAN	1207651	12	POWELL
1207616	8	DOON	1207652	16	BANNOCKBURN
1207617	12	DOON	1207653	10	BANNOCKBURN
1207618	16	DOON	1207654	15	BANNOCKBURN
1207619	16	YARROW	1207655	8	BANNOCKBURN
1207620	16	MIDLOTHIAN	1207656	16	BANNOCKBURN
1207621	16	MIDLOTHIAN	1207657	16	BANNOCKBURN
1207622	16	DOON	1207658	16	BANNOCKBURN
1207623	16	DOON	1207659	16	POWELL
1207624	16	DOON	1207660	16	POWELL
1207625	8	DOON	1207661	12	DOON
1207626	16	DOON	1207662	16	DOON
1207627	16	DOON	1207663	16	YARROW
1207628	16	DOON	1207664	8	MIDLOTHIAN
1207629	16	YARROW	1207665	1	MIDLOTHIAN
1207631	16	MONTROSE	1207666	1	MIDLOTHIAN
1207632	16	MONTROSE	1207667	4	MIDLOTHIAN
1207633	16	BANNOCKBURN	1223333	3	DOON

Total Claims: 68
Total Units: 886

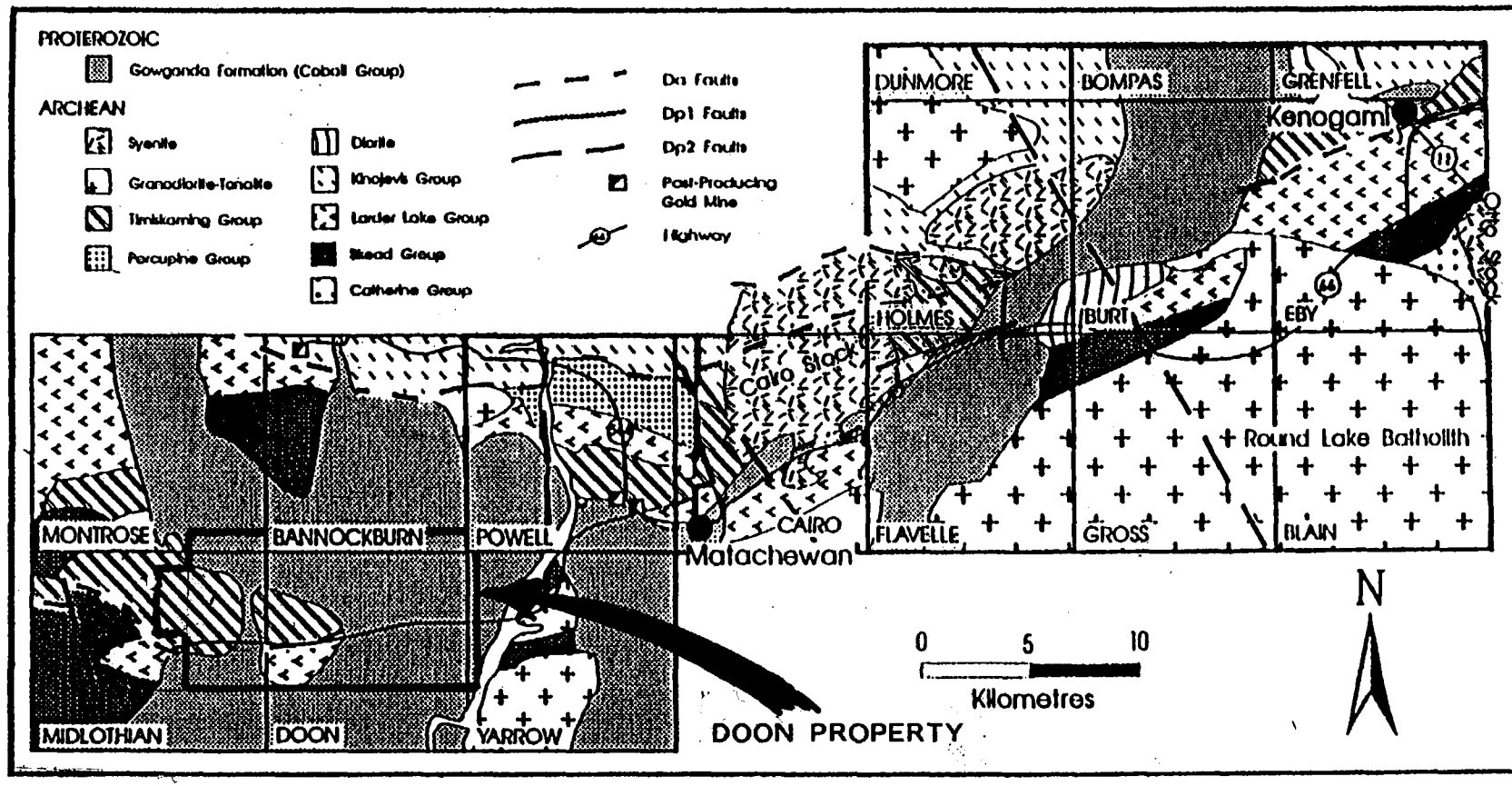


Figure 2. Lithostratigraphic subdivisions of the study area (modified from MERQ-OGS, 1983). The lithostratigraphic units are defined by Jensen and Langford (1985).

The volcanic rocks are unconformably overlain by a belt of alluvial -fluvial clastic sedimentary rocks ('Timiskaming-type'). In the Doon Property area, the Timiskaming rocks fine northward and consist of conglomerates, cross-bedded sandstones and interbedded siltstones. The Timiskaming Group is spatially associated with the CLLB. Timiskaming-type, north-facing, fluviatile conglomerates and sandstones have been recognized in eastern Midlothian and central Doon townships. The supracrustal rocks of the Matachewan area have been intruded by three major acidic plutons which profoundly affected the distribution of the volcanic strata to the south of the CLLB.

The Late Archean rocks and the vertically-dipping diabase dikes of the *Matachewan Swarm* are unconformably overlain by gently-dipping glaciogenic sedimentary rocks of the Early Proterozoic *Gowganda Formation* (Cobalt Group, Huronian Supergroup). Only rocks equivalent to the Coleman Member (**Figure 3**) occur in the project area and consist of a heterogeneous upward-coarsening assemblage of diamictite (polymictic paraconglomerate), sandstone, siltstone, and laminated mudstone with dropstone (Mustard and Donaldson, 1987). Regionally the Proterozoic sedimentary rocks strike north-northeast and dip gently west, usually less than 20 degrees.

4.1 Structural Geology

Regional-scale, east-trending faults, believed to represent the western extension of the Cadillac-Larder Lake Break, transect the Archean terrane and divide the area into lithologically distinct fault blocks. The shear zones separating the fault blocks contain distinctive, schistose, sedimentary units containing a mixture of carbonatized and non-carbonatized komatiitic and calc-alkalic volcanic detritus (Jensen, 1995).

Rocks of the Matachewan area have been affected by a number of tectonic events. The following structural interpretation is taken largely from the work completed by Powell (1991). The oldest (D_0) structures are folds, without an associated cleavage, in volcanic rocks west of Matachewan. Emplacement of the Round Lake Batholith (D_1) produced a strain aureole extending several kilometres away from the margin of the batholith and was probably synchronous with D_0. This deformation event produced the first cleavage-producing event. D_2 and D_3 structures are spatially associated with the CLLB and related faults. The structures are both characterized by an east-northeasterly trending, steeply dipping foliation with well developed steeply plunging mineral and extension lineations. The final Archean deformation event, D_4, produced steeply plunging open folds with north-south axial traces. These late, brittle, normal faults with N-S and NW-SE trends cut all other structures (MERQ-OGS, 1983). In Midlothian township to the west of Doon Property, the Stairs Mine and Laroma Prospect are associated with major, sinistral strike-slip displacements of the metavolcanic/metasediment contact.

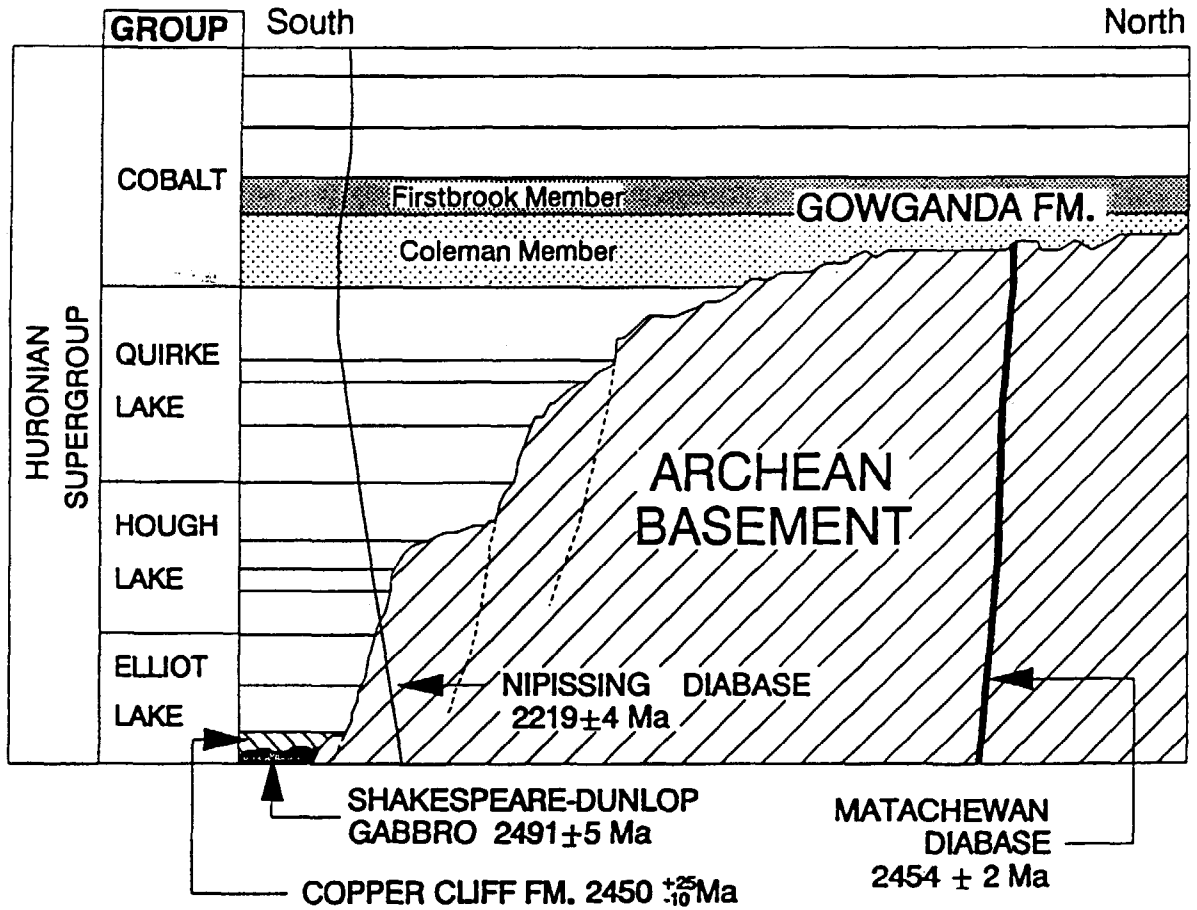


Figure 3. Schematic cross section of the Huronian Supergroup (modified from Mustard and Donaldson 1987, Fig. 1*c*). Age determinations: Gowganda Formation (Fairbairn *et al.* 1969); Shakespeare Gabbro and Copper Cliff Formation (Krogh *et al.* 1984); Nipissing diabase (Corfu and Andrews 1986); Matachewan diabase (Heaman 1988). **(Powell,1991)**

4.2 Regional Quaternary Geology

The regional ice flow history of the Doon Property region is consistent with published reports for northeastern Ontario (McClenaghan et al. 1995, Veillette and McClenaghan 1996, Bajc 1995, Bajc 1996 and Bajc 1995). In general, consistent late glacial ice flow indicators clearly suggest ice flow was directed to the south-southeast. Evidence of an older west-southwest glacial advance is preserved albeit rarely.

5.0 LOCAL GEOLOGY

The surficial Archean gelogy of the Doon Property area is not well understood due to the extensive Pleistocene and Proterozoic deposits covering 70-80% of the map area.

The most detailed geological work in the Doon Property area was completed, in 1987, by the Ontario Geological Survey (R. Junnila, 1990) as part of the *Canada-Ontario Mineral Development Agreement* (COMDA). The emphasis of OGS Report 277 was on rocks of the Huronian Supergroup found in Yarrow and Doon Townships. The inliers of Achean metavolcanic, metasedimentary and plutonic rocks were identified but were not extensively studied.

The main feature of the Archean inlier in Doon Township is an 080^0-trending contact between southern metavolcanics and northern clastic metasediments similar to the contact that marks the CLLB in the Kirkland Lake and Matachewan areas (**Map #2**). The metavolcanic and metasedimentary rocks strike to the northeast and dip steeply to the southeast. Metamorphism of the Archean supracrustal rocks ranges from sub-greenschist to lower amphibolite facies.

Metasedimentary rocks exposed in Doon Township are correlative with a 3 kilometre-thick, north-facing, succession in the far west portion of the claim group in Midlothian Township. The succession consists of diamictite, sandstone and minor siltstone and argillite. The contact with the underlying metavolcanic rocks was not observed in the map area.

Nipissing intrusive rocks intrude both the Late Archean and Early Proterozoic rocks. In the project area, Nipissing intrusive rocks are represented by a few small outcrops of fine to coarse-grained, locally pegmatitic diabase.

The unconformably overlying sediments belong to the 2300 Ma basal Coleman Member of the Gowganda Formation, Cobalt Group, Huronian Supergroup. Evidence for the glacial origin of the Coleman Member includes the presence of diamictite and dropstone. The Coleman Member rocks form hills and ridges with local relief of up to 200m in an area southeast of Elmer Lake.

Northeast- and northwest-trending joint sets that occur in the Coleman Member typically strike northeast and dip gently to the southeast. Significant local deviations from this attitude suggest post-depositional block faulting (Junnila, 1990). Deformation structures in the Gowganda Formation are localized where the northeast-southwest trending CLLB and associated faults are intersected by north-south trending Archean fault.

6.0 TARGET AND RATIONALE

The Archean rocks exposed in 'windows' and beneath the Proterozoic cover rocks are potential hosts to large mesothermal gold deposits given their proximity to the interpreted trace of the CLLB. Reactivation of north-east basement faults resulted in the formation of narrow, linear zones of high strain in the Gowganda metasediments above the older faults (**Figure 4**). The structures found within the Gowganda Formation could be used to explore for Archean, fault-related gold deposits where the Archean rocks are covered by rocks of the Cobalt Group. In areas of relatively thin cover i.e. <100m it was assumed that the Archean rocks could effectively be tested by geophysics and drilling from surface.

The Bear Island Caution had effectively closed the area to exploration since May, 1978. Prior to the legal dispute, the Proterozoic cover had hindered effective exploration of the area. Once the Caution was lifted in April, 1995, WMC International Limited acquired the claims which comprise the Doon Property.

A combination of geological, geochemical and geophysical techniques were used to target potential gold-bearing structures.

7.0 PREVIOUS WORK

A compilation of previous work in the Doon Property area has shown that a very limited amount of gold exploration was undertaken prior to the Land Caution of 1978. The only recorded diamond hole targeting gold in Doon township was drilled in 1964 by Laroma Midlothian Mines west of Duncan Creek. The northern portion of Doon township and the southern part of Bannockburn township was targeted by several companies for base metal and asbestos deposits.

7.1 Previous Work in Doon Township

1964 *Laroma Midlothian Mines Limited (KL1579)*

* airborne geophysical survey of mining claims MR35518-MR35535 in the Duncan Creek area of Doon Township.
* EM and magnetic readings conducted at a nominal 400' line spacing and 150' terrain clearance.

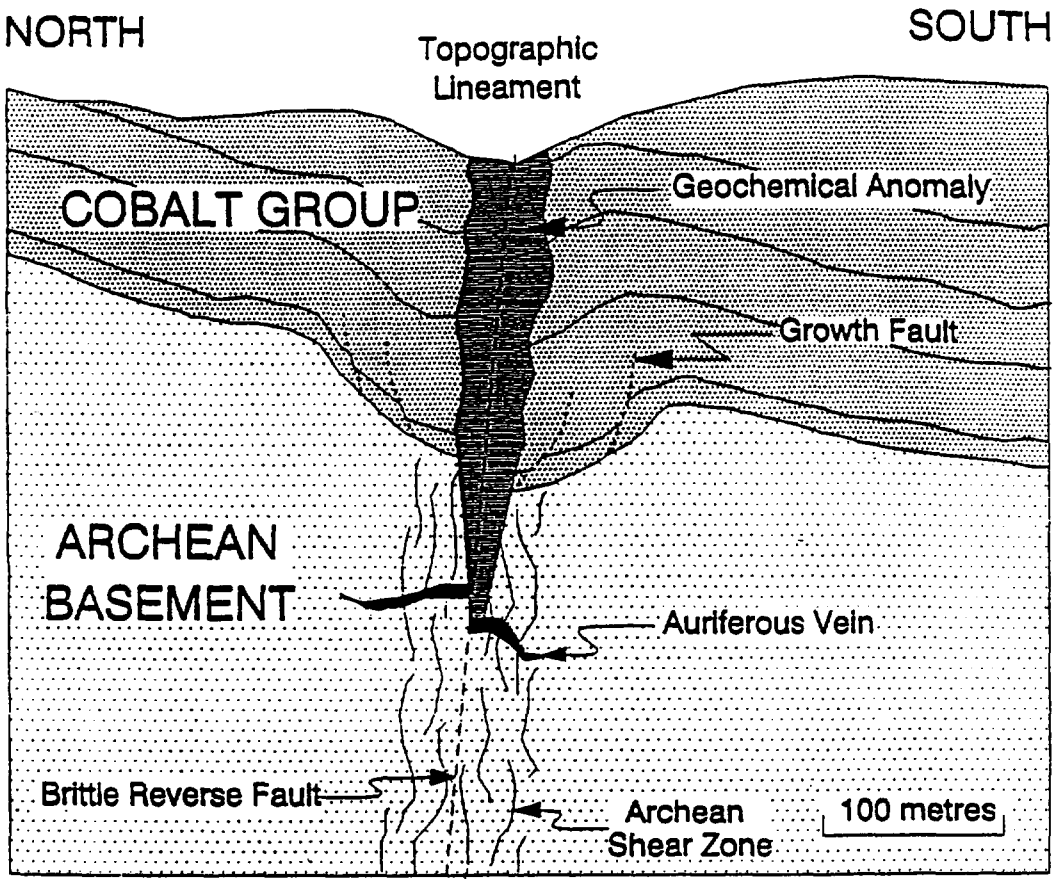


Figure 4. Exploration Within the Gowganda Formation. Structures found within Gowganda Fm can be used to explore the Archean (Powell,1991).

* moderate strength conductor with direct magnetic correlation outlined west of Duncan Creek.
* 401' diamond hole intersected mineralised (Py) graphitic tuff/porphyry rocks.

1979 *Bagdad Exploration Association Inc (KL0175)*

* soil sampling on claim group near east 'nose' of archean window (presently covered by M. Leahy claims in Doon Township).
* north-south trending lines at 400' intervals with soil samples collected every 100' along the lines.
* 500g sample collected just above A2 leached horizon.
* Au assay by FA/AAS; most Au values less than 5ppb.

7.2 Previous Work in Southern Part of Bannockburn Township

1967 *'5436' INC (KL0853)*

* Magnetic (Barringer GH-102) survey over 88 claims to detect serpentine-peridotite masses in southwest part of Bannockburn Township
* diamond drilling outlined extensive amount of serpentine-peridotite with minor asbestos in serpentine.
* diamond hole on claim MR45702 (WMC 1207644) intersected quartzite/argillite rocks under 35' of sand overburden while another hole on WMC 1207653 intersected the same lithologies under 112' of sand.

1972 *Canex Aerial Exploration Limited (KL0141)*

* Vertical Loop EM (Scintrex SE600) and magnetometer (Sharpe MF-1) surveys were completed on grids between Clarke Lake and Zurbrigg Lake.
* EM was completed on 400' spaced lines and magnetics were run at 100' stations.
* EM was found to be flat over both grid areas; only one minor priority hole was planned.

1974 *Hanna Mining Company (KL2970, KL1078)*

* EM and magnetic survey over Charlewood Lake targeted base metals.
airborne anomaly in the vicinity.
* area underlain by north-facing pillowed, fragmental and massive dacites with a trend Azi = 130 degrees and a steep vertical dip.
* since results indicated that INPUT could not penetrate Cobalt Series rocks, no further work was proposed.
* sand cover over most of the west part of Doon Township was reported as varying between 10-30m in thickness.

7.3 Previous Work in Eastern Midlothian Township

1946 *Goodwin, et al. (Marshall, 1946)*

* Goodwin, et al completed stripping and trenching on an outcrop on the creek south of Elizatbeth Lake, in 1945.
* Outcrops of Timiskaming sedimentary rocks with several quartz stringers were noted by Marshall, 1946. Mineralization consisted of scant pyrite and minor visible gold.

1963 *Laroma Midlothian Mines Limited (KL-1579)*

* EM and magnetic surveys were completed by Canadian Aero Surveys over Midlothian Mines Limited property (east of Stairs Mine) in eastern Midlothian and western Doon townships.
* Readings at a nominal 400' line spacing and 150'terrain clearance targeted metasediment/metavolcanic contact south of Midlothian Lake.
* Nine conductors (8 in Midlothian township) were subjected to ground follow-up; the latter included gridding at 400' line-spacing, EM, magnetic and geological surveys.

7.4 Previous Work by WMC International Limited

* no previous work has been done by WMC on this claim group.

8.0 THE 1995-1997 EXPLORATION PROGRAM BY WMC INTERNATIONAL

With the lifting of the Bear Island Caution on April 4th, 1995, WMC International staked 66 continguous claims west of the town of Matachewan in Doon, Midlothian, Yarrow, Bannackburn, Montrose and Powell townships. During the month of July, 1995, mining claims 1189298 and 1189299 were staked by Dan Patrie Exploration (for WMC) and added to the Doon Property. Option agreements were subsequently negotiated with Raven Resources and Premier Exploration of Kirkland Lake and Blake, et al of Temagami to solidify a strategic land position.

The following is a brief outline of all exploration work competed on the property between 1995 and 1997. Field crews were based either at WMC's Kirkland Lake field office or at Camp Matachewan in the town of Matachewan.

1995

In August 1995, reconnaissance mapping, prospecting and sampling by a five-member crew focused primarily on the exposed Archean window in the wes-central portion of Doon township. Traverses were conducted using existing logging roads and lake shores and by

compass and pace lines through the bush. The area is largely covered by new growth forest and glacial outwash from an esker in central Doon township and as such, outcrop exposure is limited.

In tandem with the mapping program, a small program of orientation till sampling was completed in Midlothian and Doon townships over areas not covered by Proterozoic rocks.

In October 1995, stripping of the main 080^0-trending deformation zone through the property (Cadillac Larder Lake Break?) was completed by M. Leahy of Kirkland Lake. Overburden was removed with a backhoe and the exposure was washed off with a high-powered water pump. The cleared 30 metre x 20 metre area was chip sampled.

Nine Reverse Circulation (RC) holes, spaced approximately 500 metres apart, targeted till geochemistry and Archean bedrock west of Duncan Creek in central Doon township. The criteria for chosing drill sites was proximity to the inferred position of the CLLB and ease of accessibility.

1996

In March, 1996, Exploration Services completed 132 kilometres of gridding *(Doon Property Grid)* at a line spacing of 1000 metres over the entire Doon Property. The latter was completed to carry out resistivity soundings and to facilitate the mapping of areas under Proterozoic cover. In April, 1996, Quantec Geophysics was contracted to complete a total of eight *Schlumberger* resistivity soundings east and west of the Achean window. The purpose of the latter was to investigate the possibility that a mappable electrical contrast between the Cobalt Group cover rocks and the Archean basement exists on the Doon Property.

In June, 1996, a four-member crew collected approximately 80 surface tills essentially over the metasediments in eastern Midlothian and central Doon townships.

1997

Approximately 100 kilometres of infill gridding *(Doon Township Grid)*, at a line spacing of 200 metres, were completed, by Shortt Exploration of Englehart, over central Doon township. JVX Geophysics Ltd completed 19.0 kms of IP/resistivity and 78.1kms of ground magnetics surveys over the more detailed grid.

8.1 The 1995-1997 Geological Program by WMC International Limited

In August, 1995, a five-member team performed mapping, prospecting and sampling in the Duncan Creek area of central Doon township and also in eastern Midlothian township. Most of the area was easily accessed with a system of logging roads; more remote areas were traversed using compass and pace. Particular emphasis was placed on the exposed

Archean inlier consisting of metavolcanics and 'Timiskaming-type' metasediments and on the major structural features. Teams of two were sent to areas of interest where rock type and structural measurements were noted. Mapping was completed on acetate overlays over 1: 20 000 air photos and transfered to a base plan at the same scale.

The metavolcanics are tholeiitic to komatiitic basalts, not intermediate to felsic rocks as determined by Junnila, 1990. West of Duncan Creek and south of the United Asbestos Road, pillowed, amygdaloidal and brecciated flows strike to the northeast and younging is towards the northwest. Fine to medium grained mafic volcanics are locally moderately sheared to chlorite schist. S_2 is moderately developed and strikes 070-090 degrees with steep dips to the southeast. On a fresh surface these rocks are medium to dark greenish grey. The pillows are approximately 60 cm long and 25cm wide, with selvages from 1 to 3 cm in width.

Only a relatively few exposures of metasediments were noted during the mapping. These consisted mainly of clast-supported pebble conglomerate, cross-stratified sandstone and minor laminated siltstone (see petrographic analysis for samples *CR104262-CR104264*, **Appendix IV**). Strong evidence for the contact with the underlying mafic metavolcanic rocks, although not uncovered, was located on mining claim 1207606 in Doon township.

The location of rock samples *(CR104001-CR104054)* which were analysed by AAS, after aqua regia digestion, for a suite of nine elements (Au, Ag, As, Cu, Mo, Ni, Pb, Sb and Zn) may be found on **Maps #3A-3C.** All samples are described in the **Appendix III** while all assays are in **Appendix V**. Sample numbers *CR104029* and*CR104045- CR104047*, which are anomalous in gold, should be disregarded as they were collected from outside the Doon Property.

In October, 1995, a small program of stripping was completed on mining claim 1207606 on the east edge of a logging road , approximately 50 metres north of United Asbestos Road. A komatiitic spinifex-textured fragmental, as well talc-chlorite schist and carbonate (mainly ankerite) rocks, diagnostic features of the Cadillac- Larder Lake Break, were exposed and chip sampled *(CR104060-CR104078)*. The rocks in the deformation zone strike northeast and dip steeply to the southeast. These same lithologies had been mapped by R. Junnila (1990) as metasediments. None of the samples, however, returned gold values greater than 100 ppb.

During March, 1996, broadly-spaced gridding was completed over the entire Doon Property as shown on **(Map #1)**. North-south survey lines on the *Doon Property Grid* were picketed at 25m intervals, and at every 100m the top of the picket was painted orange and a metal tag indicated the grid location. The distance between survey lines was 1000 metres.

With the benefit of the aforementioned gridding, a program of mapping, sampling and prospecting was completed by a three-member crew during the months of June and July, 1996 (*CR104055-CR104059, CR104080-CR104100, CR104262-CR104267, CR104401-*

CR104437). The main focus was, again, the areas proximal to the interpreted trace of the CLLB where it traverses the Archean window in Doon township, as well as the surrounding, Proterozoic-covered areas **(Maps 2A to 2H)**.

Approximately 500 metres south of the aforementioned stripped exposure of the CLLB, a spinifex-textured ultramafic rock was submitted for whole rock analysis; rock sample *CR105054* returned an MgO value of 24.81% confirming a komatiite (of the Larder Lake Group of rocks). Another ultramafic rock (CR104088 on the baseline @ 94+50E) returned a gold assay of 773 ppb. Also, sampling of some old trenches on the south shore of Fault Lake, consistently returned anomalous values of several hundred ppb up to a maximum value of 2.2 g/t gold.

While mapping the Gowganda Formation rocks, particular attention was given to the presence of any slump structures or zones of quartz and quart-feldspar filled fractures which may be indicative of the presence of an underlying Temiskaming/Larder Lake Group contact (Powell, 1991). The amount of outcrop was found to be less than 5% in the northeast portion of the property. None of the quartz veins returned anomalous gold values.

8.2 The 1995-1997 Geochemical Work Program by WMC International Limited

Local Quaternary Geology

Locally, only the surficial sediments associated with exposures of Archean outcrop were mapped concurrently with the till sampling program. The surficial geology of the remainder of the property was not mapped or sampled.

Glacial striae (170^0-185^0) measured on the property and stoss/lee outcrops indicate late glacial flow to the south-southeast. However, evidence of an older west-southwest ice flow event was preserved as cross-cutting glacial striae (210^0-235^0) on one outcrop near sample *CS204337*.

Till is the most common glaciogenic material. However, glaciofluvial sediment was also noted in two locations. The first is a north-south trending esker, the crest of which is located immediately east of Duncan Creek. Outwash sands mantle the esker ridge particularly to the west where they are exposed on the north-south Wilson logging road along the eastern edge of Esker Lake. The second area consisted of glaciofluvial sediment located in a topographically depressed area immediately west of Elizabeth Lake. The aerial extent and the nature of the sediment were not determined.

Compositionally, the till is of local origin. Angular boulders and clasts strongly reflect the underlying geology. Till thickness is variable and, based on RC drilling, attains a maximum thickness of 39.5m in the paleo-topographic low associated with the inferred extension of the CLLB. Over most of the property, till is inferred to be approximately 3 to 5 metres thick and

presumably thins towards the esker.

Locally, a loess deposit of unknown size and depth dimensions occurs in the Archean window located within Doon Township.

1995-1996 Till Sampling Program

The 1995-1996 till sampling program was conducted during the months of May 1995 to June 1996. The work consisted of the following :

1) planning/preparation for soil/till/drilling program
2) implementation/completion of soil/till/drilling program
3) interpretation of results
4) related activities

The program was designed to identify anomalous concentrations of Au in till that could ultimately be traced up-ice to its bedrock source. The till sampling program was implemented from WMC's Kirkland Lake field office.

The 1995-1996 till sampling program consisted of three separate phases:

1) limited orientation till sampling from surface pits
2) limited Reverse Circulation (RC) drill program
3) detailed surface till sampling over areas of Archean bedrock exposures

A limited orientation program of 4 soil samples *(CS104601-CS104604)* and 4 till samples *(CS204601-CS104604)* was completed during June, 1995. The program consisted of collecting soil and till samples from each sample site along the north/south logging road west of Elizabeth Lake. Samples were collected by shovel from depths between 0cm to 60cm and placed in large 6ml plastic bags (10kg till samples) or Kraft bags (500g till samples and 500g soil samples). Orange flags were tied at each site. The objective of the survey was to determine if till was present and, if present, determine its effectiveness as a sampling medium.

The <80mesh soil samples were analyzed for Au by FA-DCP and multi-element geochemistry by ICP-AES after an aqua regia digestion at Inchcape Testing Services - Bondar Clegg. Analytical results are presented in **Appendix VI.**

The 10kg till samples were processed at Overburden Drilling Management (ODM) of Nepean, Ontario, by water sluicing the bulk till on a shaker table to remove "light" mineral grains. A methylene iodide separation was used to further separate the heavy minerals (S.G.>3.3) from the "lights" (S.G.<3.3). ODM also recovered, counted, measured and classified gold grains from the processed 10kg till samples. Results for the gold grain counts

are located in **Appendix VII.**

The heavy mineral fraction was further separated by ODM using a magnetic separation and the entire non-magnetic fraction (approximately 30g) referred to as a heavy mineral concentrate (HMC) was analyzed by the non-destructive Instrumental Neutron Activation Analysis (INAA) for gold and multi-element geochemistry by ACTIVATION Laboratories Limited of Ancaster, Ontario. Results for the HMC analysis are located in **Appendix VIII.** Due to high background noise levels for base metals associated with the INAA, a 1g sample of the HMC was also analyzed by ACTIVATION Laboratories for base metals by ICP following an aqua regia digestion **(Appendix VIII)**. The <63 micron size fraction was also analyzed by INAA at ACTIVATION Laboratories on the Kraft size till samples. Results are reported in **Appendix IX.**

The second phase was a nine-hole (DRC-95-01 to DRC-95-09) 213.9m RC drill program designed to test till below glaciofluvial sands. The drill program was completed during November-December, 1995. A detailed report on the Reverse Circulation drilling program is presented in **Appendix X**.

The third phase of the program was essentially an extension of the first phase. The program involved collecting 79 *(CS104313-CS104391)* Kraft soil, 79 *(CS204313-CS201391)* Kraft till and 79 *(CS204313-CS204391)* 10kg till samples over till covered Archean bedrock and was completed during June, 1996. As with the first phase, samples were collected by shovel from depths between 0cm to 60cm and placed in large 6ml plastic bags or Kraft bags. Orange flags were tied at each site. Samples were collected every 250m along cut lines 1km apart. Samples were also collected every 500m along compass and pace lines located approximately half way between the cut lines.

The <80 mesh soils were again prepared and analyzed for gold and multi-element geochemistry by Inchcape using methods described above. Results are present in **Appendix XI**. The <63 micron size fraction of the till was also analyzed by INAA at ACTIVATION Laboratories on the Kraft size till samples. Results are reported in **Appendix XII.**

The 10kg till samples were processed by ODM using the methods described in the Phase 1 program and results for the gold grain counts are presented in **Appendix XIII**. HMC's were again analyzed by INAA for gold and multi-element geochemistry by ACTIVATION Laboratories Limited **(Appendix XIV)**. ODM also completed clast counts on the 8mm to 16mm size of selected samples. Results for the clast counts are presented in **Appendix XV**.

Sample locations for all surface till samples and gold geochemistry are shown on **Maps 4A and 4B**. For the purposes of this report, only the HMC gold results from the 10kg till samples have been plotted. However, data for all media sampled is appended.

Results

Although results for the 4 soil samples returned <5 ppb Au, gold results for the <63 microns ranged from <5ppb to 14 ppb. HMC gold results, however, were considerably higher, 110ppb to 1030ppb. Gold grain counts returned 10 to 16 grains per sample, the majority of which were reshaped suggesting a distal source. However, observations made in the field indicated the presence of good till and this was deemed an excellent sampling medium. Plans were made to test the till by RC drilling near the inferred extension of the CLLB concealed by glaciofluvial sediments in Doon Township.

Eight of the nine holes successfully penetrated the overburden and terminated approximately 1.5m into bedrock. Holes DRC-95-01, DRC-95-03 and DRC-95-05 were drilled in paleotopographic low inferred to be the CLLB. The location of the paleo-low and the strike is consistent with the inferred trace of the CLLB derived from geophysics and airphoto interpretation. Further, bedrock chips recovered from these holes were sheared and altered.

The best till results were obtained in RC hole DRC-95-03 where three consecutive samples *204629, 204630* and *204631* returned HMC gold results of 1320ppb, 5740ppb and 2660ppb, respectively. However, gold grains recovered from each sample indicate only 1 to 9 grains were reported from each sample, a number of grains were relatively large ie. >175 microns x 275 microns. Further, the majority of the grains were reshaped suggesting they may be distal from source (>1000m).

Elevated Ni-Cu-Co was noted in a number of samples and may reflect weakly mineralized komatiite encountered in DRC-95-01.

Soil results for the 79 detailed samples collected over areas of inferred Archean bedrock range from 1ppb to 345ppb with most samples reporting <5ppb . The <63 micron till fraction returned values between <2ppb and 74ppb. The highest gold results in the soil did not correlate with the highest results in the <63 microns size fraction of the till.

HMC gold results were very anomalous with gold values ranging from 7 ppb to 65700 ppb. Ten of the 79 samples reported >2500 ppb. Results for the HMC gold were inconsistent with reported gold grain counts. For example, till samples *CS204318* and *CS204330* reported that no gold grains were observed in the HMC but HMC gold results reported by INAA were extremely anomalous, 23600 ppb and 16300 ppb, respectively.

ODM was subsequently asked to re-pan the HMC from six highly anomalous samples in order to determine the cause of this inconsistency. It was found that gold grains were present where no gold grains had been previously reported. In every sample, large (up to 825 microns x 1350 microns) reshaped gold grains were recovered that were originally not

recognized. The presence of these large reshaped grains were compatible with the high assays **(Appendix XVI)**.

In addition to the geochemistry and gold grain counts, clast counts of the 8mm to 16mm size fraction were performed on select samples. Results indicate the clasts are dominated by angular Proterozoic sediments, Archean mafic volcanics and Archean sediments suggesting the composition of the till strongly reflects the local bedrock lithologies and, therefore, is proximal to source. This is inconsistent with the reshaped morphology of the gold grains which suggests their source is more distal (>1000m). If the grains are local, some form of re-working and deposition close to source would have to have taken place.

8.3 The 1995-1997 Doon Property Grid Geophysics by WMC International Limited

Introduction

During the initial planning stages of the program, a compilation of all available information was completed at a scale of 1:20 000. This included air photo interpretation, lineament analysis and government aeromagnetic surveys **(Map #5)**.

Geophysical surveying over the *Doon Property Grid* consisted three Schlumberger electrical soundings.. The limited survey was completed in an attempt to determine the thickness of Cobalt series cover rocks in the Doon Property area.

The program was completed from April 13 to 21, 1996, by Quantec Consulting Inc. of Porcupine, Ontario. Thawing spring field conditions created difficult access and only three of eight proposed soundings were completed. A description of the Schlumberger electrical sounding method, sounding surver specifications, instrument descriptions, names of survey personnel, and interpreted resistivity layering from measured sounding curves, are documented in a contractor's report in **Appendix GPX-1**.

Geophysical surveying over the *Doon Township Grid* consisted of total field magnetic, and IP/resistivity surveys **(Figure 10)**. The survey was completed to map magnetic stratigraphy, possible fault offsets, and test for disseminated sulphide positions proximal to the inferred trace of the Cadillac- Larder Lake Break.

Both total field magnetic, and IP/res surveys were completed over selected lines of the Doon Township Grid from December 5, 1996, to February 1, 1997, under contract by JVX Limited of Richmond Hill, Ontario. Survey specifications, instrument descriptions, and names of survey personnel are documented in a contractor's report in **Appendix GPX-2.**

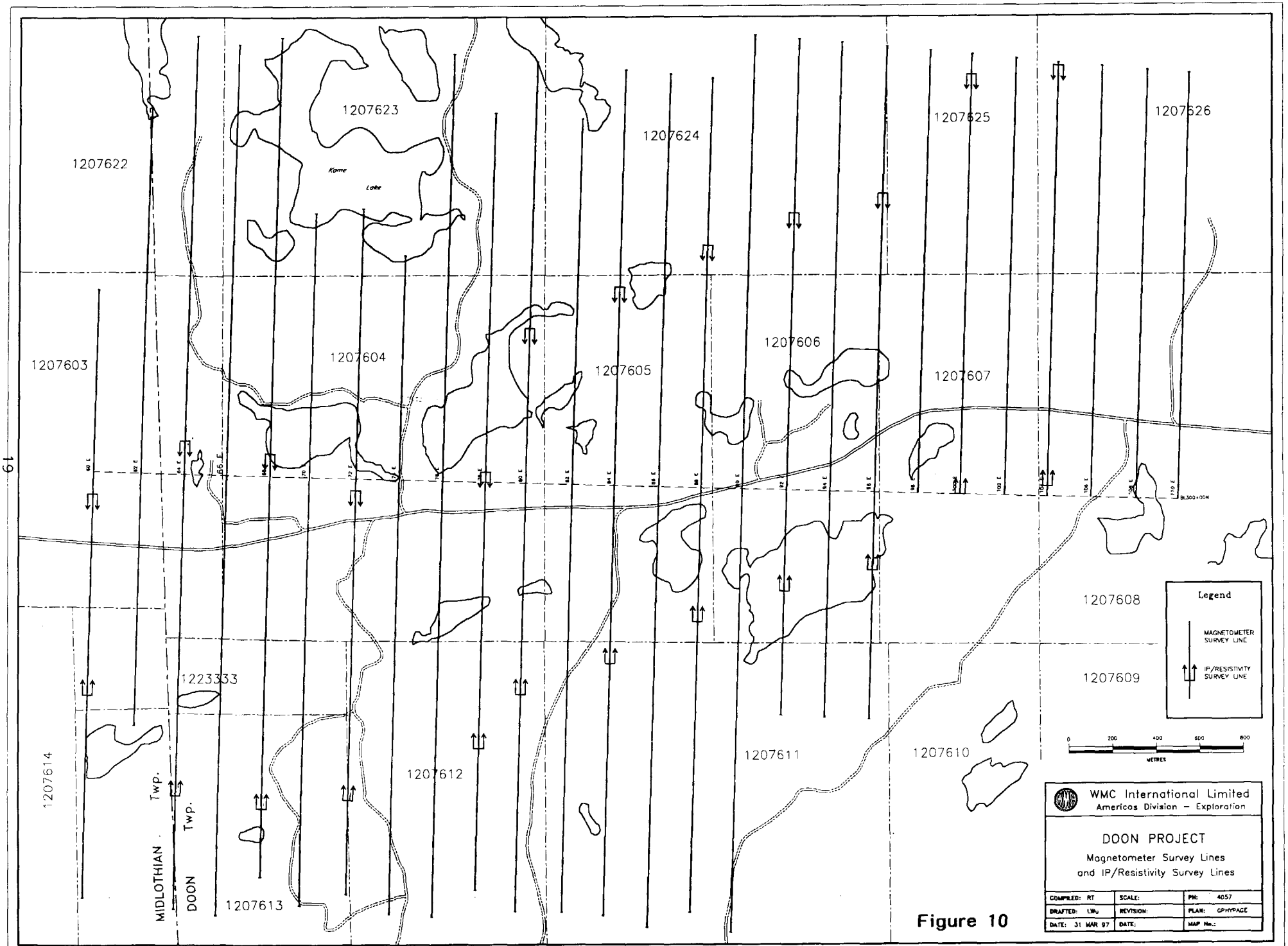

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Americas Division – Exploration
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Figure 10

Schlumberger Sounding Survey

The locations of sounding points are shown on **Map #5.** Computer inversion of measured apparent resistivity sounding curves yielded the following interpretation:

(1) **L050E @ 28N:** -a 7.5m thick overburden of 25,200 ohm-m above a bedrock of 4100 ohm-m. A second, more resistive layer in the bedrock can be resolved at 515m depth. The Cobalt Formation cover rocks are inferred to be the 4100 ohm-m bedrock layer and are 508 m thick.

(2) **L100E@305N:** -a 5m thick overburden of 12,200 ohm-m above a bedrock of 4300 ohm-m. No resistivity layering of the bedrock was resolved. The Cobalt cover is either of great thickness, entirely absent, or, does not contrast in resistivity from the Archean basement rocks in the area.

(3) **L110E@310N**: -a 7m thick overburden consisting of two layers above a bedrock of 10,000 ohm-m. A second, more resistive layer in the bedrock can be resolved at 190m depth. Cobalt Formation cover rocks are inferred to be the 10,000 ohm-m bedrock layer and are 184m thick.

Total Field Magnetic Survey

In total, 78.1km of diurnal drift-corrected total field magnetic surveying was completed. Survey profiles with data values posted are presented at 1:5 000 scale in Plate 5 in **Appendix GPX-2.**

IP/Resistivity Survey

A total of 19km of time domain IP/resistivity surveying was completed over selected lines using the pole-dipole array with a dipole spacing ('a'-spacing) of 50m, and readings at n=1 through 6. A Scintrex TSQ-3, 3kW transmitter and IPR-11 receiver were used for the survey.

Survey results are presented as standard pole-dipole pseudosections of apparent resistivity and chargeability in **Figures 5-9, Appendix GPX-2.** Also appearing on the pseudosections, but not considered in the interpretation below, are computed Cole-Cole spectral parameters M-IP and time constant tau. Contoured chargeability and resistivity at N=2 are presented in **Appendix GPX-2** Plates 1 and 3 respectively at 1:20 000 scale, and in Plates 2 and 4 respectively at 1:5 000 scale.

Geophysical Data Interpretation

Anomalous polarizable (IP) and resistive zones are highlighted with bars on pseudosection plots in **Appendix GPX-2**. The IP anomalies are graded subjectively into definite, probable and possible anomalies based on their amplitude and anomaly form. Definite anomalies have recognizable "pantleg" anomaly form and chargeability amplitudes exceeding 10mV/V. Possible anomalies have poor or absent pantleg anomaly form and low chargeability amplitude.

Magnetic, IP and resistivity anomalies are compiled, and several key anomalies are identified as significant, in a geophysical data interpretation in **Figure GPX-3**. Key anomalies outlined on Figure GPX-3 are summarized as follows:

AA': The AA' trend is characterized by an EW to ENE -striking complex of IP anomalies and spatially related resistivity low anomalies. The trend is more than 200m wide and changes from an EW strike in the west end of the grid, to an ENE in the eastern two thirds of the grid. The strike change occurs around L78E. Trend AA' continues at depth below Cobalt Formation cover rocks at the east end of the grid.

BB': The BB' trend parallels the AA' trend to the south and is characterized by an EW to ENE-striking complex of IP anomalies and resistivity low anomalies. Trend BB' is also defined along a resistivity and magnetic contact. The trend is about 100m wide (narrower than AA') and like AA' changes from an EW strike in the west end of the grid, to an ENE in the eastern two thirds of the grid. The strike change occurs around L78E. Like AA', trend BB' continues at depth below Cobalt Formation cover rocks at the east end of the grid. The CLLB is inferred along the trace of trend BB'.

CC': The trend CC' is inferred to be a magnetic dyke that is slightly offset at two locations by faults paralleling the CLLB. The southern most offset location is along the northern edge of trend AA'. Trend BB', the CLLB, truncates dyke CC'.

11.0 CONCLUSIONS AND RECOMMENDATIONS

Mapping, prospecting and sampling during the field seasons of 1995 and 1996 have outlined an area having good potential for hosting mineralisation in the Larder Lake Group of rocks. A total of 138 rock samples were collected for geochemical analysis during the two phases of mapping. The Fault Lake area, which is coincident with the interpreted position

of the CLLB, returned gold values up to 2.3g/t gold. Also, although no syenite was mapped in outcrop near the metavolcanic/metasediment contact, a 'mineralised' syenite was reported by Laroma Mines(1964) in the only historical diamond drill hole in the Doon Archean inlier. Additional mapping and prospecting are clearly warranted on the recently completed 200 metre-spaced Doon Township Grid.

Till is an effective sampling medium over areas of inferred Archean bedrock on the Doon Property. Clast counts of the 8mm to 16mm size pebbles indicate the till, in general, is locally derived. Gold results in soil and the <63 micron size fraction of till were relatively low and showed poor correlation.

Results from the 9 RC holes confirmed that the presence of the inferred extension of the CLLB exists on the Doon Property. The break is defined as a paleotopographic low characterized by sheared and altered bedrock lithologies. Locally, the till is characterized by large reshaped gold grains suggesting a distal source (>1000m). Elevated Ni-Cu-Co geochemistry suggests the presence of a weakly mineralized komatiite.

Surficial till samples are also characterized by large reshaped gold grains suggesting a distal source (>1000m). Originally, these grains were not observed during the preparation of the HMC but were subsequently identified during re-panning of the concentrates.

Additional RC drilling, down-ice from the CLLB and within the Archean window located in Doon Township is recommended.

Geophysical surveys have defined two anomalous, parallel, complex trends striking EW in the western part of the Doon Township Grid, and changing strike to ENE at L78E. The complex anomalous trends are characterized by spatially related IP and low resistivity anomalies, with the southern trend lying along a resistivity and magnetic contact. The southern trend, BB', is inferred as the Cadillac- Larder Lake Break, while the northern trend, AA', parallels the CLLB. Both trends are considered highly prospective for Archean lode gold deposits and drill testing the trends where they change strike at L78E, is highly recommended.

Any targets under Proterozoic cover will likely be a lower priority due to the interpreted thickness of the Gowganda Formation.

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Appendix 1: Certificates of Qualification

Appendix I: Certificate of Qualification

I, Clement Joseph Baker, of the City of Ottawa, Province of Ontario, hereby certify that:

1. I am a geologist residing at 478 Sandhamn Private, Ottawa, Ontario.

2. I am a graduate of James Cook University (Queensland, Australia) having received a Bachelor of Science (Geology) in 1988.

3. I am a graduate of Queen's University having received a Master of Science in Mineral Exploration (MINEX) in 1993.

4. I have been a practising geologist since graduation in 1988.

5. I am a member of the :
   Australian Institute of Mining and Metallurgy
   The Prospectors and Developers Association of Canada (PDAC)

6. I have been an employee of Western Mining Corporation / WMC International Limited since 1988.

7. The information presented in this document is true and accurate to the best of my knowledge. This information was gathered from such various sources as assessment files, publications and WMC International Limited internal reports.

8. I supervised and performed the geological work covered in this report.

Dated at Ottawa, Ontario this 15th day of March, 1997.

Clement Joseph Baker
Senior Geologist

STATEMENT OF QUALIFICATIONS

I, Terry A. Goodwin, of the City of Nepean, Province of Ontario, do hereby certify that:

1) I am a Geochemist/Quaternary Geologist with WMC International Limited, residing at 506 Chartrand Street, Russell, Ontario.

2) I am a graduate of Acadia University having received a Bachelor of Science degree in Geology (1982).

3) I am a graduate of the Nova Scotia Land Survey Institute (renamed to the College of Geographic Sciences) having received a Diploma in Remote Sensing (1986).

4) I supervised and performed the geochemical work covered by this report.

Dated at the City of Nepean, this 20th day of March, 1997.

Terry A. Goodwin
Geochemist/Quaternary Geologist

Certificate of Qualification

I, Roman Tykajlo, of the City of Nepean, Province of Ontario, do hereby certify that:

1) I am a geophysicist with WMC International Limited, residing at 74 Stonebriar Drive, Nepean, Ontario, K2G 5X9

2) I am a graduate of Lakehead University with an Honours Bachelor of Science degree in Geology / Physics (1978).

3) I have been practicing my profession since graduation.

4) I am a member of:
   Society of Exploration Geophysicists (SEG)
   Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA)

5) I supervised the work relevant to this study from December 1, 1996, to March 30, 1997.

Dated at the City of Nepean, this 30th day of March, 1997.



Roman Tykajlo, HBSc, PGeol.

Appendix II: Description of Project Management

Appendix II: Description of Project Management

PROJECT MANAGERS

Geological

Clement J Baker, WMC International
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K1E 8A2

Reverse Circulation (RC) Drilling Contractors

Grenville Whyte- Heath and Sherwood Drilling (1986) Inc.
P.O. Box 998
34 Duncan Avenue North
Kirkland Lake, Ontario
P2N 3L3

Consulting and Laboratory

Stu Averill- Overburden Drilling Management Limited
107-15 Capella Court
Nepean, Ontario
D2E 7X1

Geophysical Contractor

Blane Webster- JVX Limited
60 West Wilmot St., Unit 22
Richmond Hill, Ontario
L4B 1M6

Appendix III: Doon Property Rock Sample Descriptions

Appendix III: DOON PROPERTY - Rock Sample Descriptions

Sample No.	UTM Coordinates E N	Sample Type	Sample Descriptions
CR 104001	507155, 5303191	Grab	Doon Tp, 100 m W of Duncan Cr, m.g. mafic volc
CR 104002	507075, 5302950	Grab	Doon Tp, hilltop W of Duncan Cr road, diabase, minor Py, weak mag
CR 104003	506827, 5302127	Grab	Doon Tp, f.g. mafic volc , shale fragments?
CR 104004	507075, 5302127	Grab	20 m SSW of CR104002, Fu(?), epid alt in Mv, abundant q/vns
CR 104005	507000, 5302800	Grab	Hill SW of CR 104004, Doon Tp, f.g. Mv, epid vns , 5-10% Py
CR 104006	506872, 5302127	Float?	Doon Tp, 400m W of Duncan Cr, diamict ,aligned clast 116 deg., clast supp.
CR 104007	507008, 5302118	Grab	Doon Tp, f.g. magnetic Mv (diabase), tr epidote
CR 104008	507000, 5301475	Grab	Doon Tp, W of Duncan Cr road, f.g. Mv, qtz/k-spar/chl vns (epidote?)
CR 104009	507153, 5302142	Float	Doon Tp, diamictite, 3-4% diss Py (Gowganda Fm?)
CR 104010	507190, 5302300	Grab	100 m W of Duncan Cr road, Doon Tp, q/vns in mafic volcanic
CR 104011	507200, 5301520	Grab	Tuffaceous, sheared, felsic - intermediate volcanic
CR 104012	507193, 5303825	Grab	80 m S of UAR on Duncan Cr road, conglomerate, ank laminations
CR 104013	507125, 5302880	Grab	Hillside near CR 104004 Doon, laminated mafic volcanic
CR 104014	506860, 5302690	Grab	Doon Tp, felsic volcanic, K-spar alteration
CR 104015			HR-9 STANDARD
CR 104016	507842, 5302671	Grab	Mafic volcanic, 10% Py, qtz epidote veins
CR 104017	507940, 5301896	Grab	Contact between mafic volcanic & Temiskaming sediments
CR 104018	503490, 5303120	Float	Ang boulder, Fu(?), 1% Py, carbonate, Midlothian Tp
CR 104019	506335, 5304473	Float	Road to Jean Lk, Doon Tp, ang qtz boulder, Fu?, 1% Py, carbonate.
CR 104020	506420, 5304630	Grab	Rd to Jean Lk, 100 m S of 104019, Tem seds(?), cong, qtz gashes, tens vns
CR 104021	506050, 5302800	Grab	S side of Piper Lk, Midlothian Tp, felsic volcanic, tr f.g. Py
CR 104022	509000, 5303000	Grab	Doon Tp, stream S of Piper Lk, diabase or magnetic Mv, f.g.
CR 104023	506010, 5302800	Grab	F.g. rhyolite or dacite
CR 104024	506209, 5302964	Grab	F.g. mafic volcanic, 15% Py & cPy. fuchsite(?) and qtz blebs
CR 104025	505990, 5302780	Grab	S of Piper Lk, Midlothian Tp, sheared felsic volcanic
CR 104026	503690, 5303130	Grab	SE of Larry Lake, Midlothian Tp, arkose (red), Cobalt series
CR 104027	503650, 5303330	Grab	N edge of swamp Midlothian Tp, Tem cong, 1% Py, minor Fuchsite
CR 104028	503690, 5303335	Grab	5m N of CR 104027, E of Larry Lk, Mid Tp, Tem cong, 1% Py, fuchsite
CR 104030			HR-9 STANDARD
CR 104031	506100, 5306530	Grab	N of Jean Lake, Doon Tp, qvn in greywacke
CR 104032	506110, 5302890	Grab	S. tip of Lake, Doon Tp, intermediate volc, qvns and green (epidote?) alt
CR 104033	508550, 5303600	Float (?)	S. of Jean Lake, old creek bed, q/vn,1% Py & fuchsite
CR 104034	506291, 5302695	Grab	SE of Piper Lake, greywacke or mafic volcanic?

Appendix III: DOON PROPERTY - Rock Sample Descriptions

Sample No.	UTM Coordinates E N	Sample Type	Sample Descriptions
CR 104035	506291, 5302695	Grab	Intermediate-mafic volcanic, stockwork q/vns, 2-3% diss Py in wallrock
CR 104036	507780, 5303460	Grab	N side of UAR, Location # 6, Temiskaming conglomerate?
CR 104037	509450, 5204330	Grab	Rd N, Location #6, carb, Mv, intense shear zone, CLLB, sericitized
CR 104038	509445, 5304330	Grab	Rd North, Location # 6, sheared mafic volcanic, CLLB
CR 104039	507640, 5403930	Grab	Grey pebbly sandstone?, black carb. material, approx. 1% f.g. Py.
CR 104040	507740, 5306830	Grab	Mudstone 400 m N of lakes 'x' and 'y' Q.M.N.R benchmark.
CR 104041	507940, 5301886	Grab	Angular boulder 10 m S of CR104017, approx. 2% Py.
CR 104042	507680, 5304230	Grab	Ang. boulder- 6" qtz vein with c.g. Py, approx. 1% Py, Archean cong.
CR 104043	509720, 5304290	Grab	S of UAR. qtz/cb vein in ultramafic?, tr. Py.
CR 104044	503570, 5303740	Grab	Matachewan dyke. x-cut qtz vn with green carb., Temiskaming cong.
CR 104048	509447, 5304325	Grab	Leahy cl, v.c.g. 5%Py in tuff (?) rock, w of spinifex (Bx), W of Dome Au show
CR 104049	509590, 5304520	Grab	Leahy cl, BIF, mass Py, 0.5 m wide as per Lovell mapping N of spinifex Kom B
CR 104050	509590, 5304520	Grab	Leahy cl, 50m W of BIF in CR 104049, 5% Py in tuff(?)
CR 104051	509070, 5304000	Grab	Leahy cl, 200 m S of Dome, end of blazed trail, sh, q/cb vn, tr Py, chl alt
CR 104052	509490, 5303990	Grab	Green cb zone? tr Py,foliated, 100 m S of spin komatiite, W of cl line
CR 104053	509490, 5304060	Grab	Rusty weathered tlc-chl-schist? 20 m N of komatiite O/C
CR 104054	509490, 5304050	Grab	M. Leahy claim, spinifex textured komatiite (?)
CR 104055	504252, 5304300	Grab	Eliz Lake ,75 m S of N bound. cl 1206240 narr qvns, To, carb, Fu clasts, <1% P
CR 104056	504250, 5304300	Grab	2 m W of CR104055, minor Fuchsite clasts + narr q/vns
CR 104057	504250, 5304300	Grab	W side of Eliz Ck, qcb vein, 2% cg Py, approx 80 m N of beaver dam
CR 104058	504250, 5304280	Grab	Siliceous metasediment. 1% Py on slip surfaces, tr cPy
CR 104059	504000, 5304300	Grab	Midlothian Tp, UAR @ L25E, m.g., siliceious Sst, tr c.g. Py
CR 104060	502250, 5304560	Chip	M. Leahy zone, 1m wide, str-sh in kom fragmental, carb
CR 104061	509458, 5304310	Chip	M. Leahy zone, 1m wide, str-sh in kom fragmental, carb
CR 104062	509461, 5304310	Chip	M. Leahy zone, 1m wide, carb, st-sh kmo fragmental
CR 104063	509462, 5304310	Chip	M. Leahy zone, 1m wide, carb st-sh kom fragmental
CR 104064	509463, 5304310	Chip	M. Leahy zone, 1m wide, carb, sh-st kom fragmental
CR 104065	509464, 5304310	Chip	M. Leahy zone, 1m wide, st-sh kom fragmental
CR 104066	509465, 5304310	Chip	M. Leahy zone, 1m wide, st-sh kom fragmental
CR 104067	509466, 5304310	Chip	M. Leahy zone, 1m wide st-sh kom fragmental, st carb
CR 104068	509467, 5304310	Chip	M. Leahy zone, 1m wide st-sh kom fragmental, st carb
CR 104069	509468, 5304310	Chip	M. Leahy zone, 1m wide st-sh kom fragmental, st carb
CR 104070	509469, 5304310	Chip	M. Leahy zone, 1m wide st-sh kom fragmental, st carb
CR 104071	509470, 5304310	Chip	M. Leahy zone, 1m wide st-sh kom fragmental, st carb
CR 104072	509471, 5304310	Chip	M. Leahy zone, 1m wide st-sh kom fragmental, st carb
CR 104073	509472, 5304310	Chip	M. Leahy zone, 1m wide st-sh kom fragmental, st carb
CR 104074	509473, 5304310	Chip	M. Leahy zone, 1m wide,st-sh kom fragmental, st carb-spinifex

Appendix III: DOON PROPERTY - Rock Sample Descriptions

Sample No.	UTM Coordinates E N	Sample Type	Sample Descriptions
CR 104075	509475, 5304310	Chip	M. Leahy zone, 1m wide, st-sh kom fragmental st carb
CR 104076	509476, 5304310	Chip	M. Leahy zone, 1m wide, st-sh kom fragmental st carb
CR 104077	509477, 5304310	Chip	M. Leahy zone, 1m wide, st-sh kom fragmental st carb
CR 104078	509478, 5304310	Chip	M. Leahy zone, 1m wide, intense sheared kom fragmental, st-carb
CR 104079	509479, 5304310	Grab	M. Leahy claim, qtz vn near cont. Tem/LL, N. of polyhedral jointing
CR 104080	509680, 5304610	Grab	NE of polyhedral jointing in kom., qtz vn + cPy, @ contact Temisk/LL
CR 104081	509680, 5304610	Float?	E. end of Piper Lake, str. sheared mafic?, talc-rich
CR 104082	506950, 5302350	Grab	S. shore Piper Lake, str. sheared interm.?, siliceous, tr. Py
CR 104083	506875, 5302190	Grab	SE corner Piper Lake, Midlothian Tp, siltstone, tr. Py, cPy, Coleman Fm
CR 104084	506870, 5302140	Grab	L60E 28 + 275N, Midlothian Tp., min, silic. Mv?, 1%f.g. Py
CR 104085	505950, 5302150	Grab	L60E 28+050N, Midlothian Tp, siltstone, tr. Py, Coleman Fm
CR 104086	505950, 5302075	Grab	N of M. Leahy claim, contact, silic. seds, stretched fuchsite clasts, 1%Py
CR 104087	510680, 5304700	Grab	N/S claim line, 1%Py + cPy in Cobalt metasediments
CR 104088	509250, 5304000	Grab	B/L @ 94+50E, ultramafic, 2%Py, x-cut qtz veinlets.
CR 104089	509200, 5303950	Float?	M. Leahy claim, 10 m W of central claim line, rusty qtz/carb, fuchsite
CR 104090	509545, 5304125	Grab	W of diabase dyke on L90E, S of UAR, Doon Tp
CR 104091	508775, 5303850	Grab	L90E S. of B/L, v sil schist (?), porphyry, minor Py
CR 104092	508775, 5303835	Float	M. Leahy claim, ang. float, 5% cg Py in metased/cong, 100 m N of UAR
CR 104093	509005, 5304220	Grab	M. Leahy claim, str foliated argill tr cg Py, 15 m N of end of logging road
CR 104094	508970, 5304470	Grab	10m N of CR104093, 2% cg Py, cong @ contact with argillite
CR 104095	509000, 5304480	Grab	M. Leahy cl, str sheared sediment, slickensides, S shore of Leahy Lake
CR 104096	508770, 5303830	Grab	Pink porphyry, tr Py, 30m W of L 90E @ 29+ 875 W of diabase
CR 104097	509680, 5304620	Grab	Polysutured komatiite, near metased contact, mass carb (ank'd)
CR 104098	509480, 5304500	Grab	Str sheared greywacke + tr Py 1% graphitic(?) clasts
CR 104099	509440, 5304340	Grab	Leahy cl, narr shear (10% py) cg in metased(qtzite?) 20 m W of strip, W of log r
CR 104100			HR-9 STANDARD
CR 104262	509310, 5304480	Grab	Doon Twp Location #6, mapped as Tem conglomerate
CR 104263	507640, 5304920	Grab	Doon Twp, Wilson Lake Rd, SE of Kame Lake -turbidite(?)
CR 104264	506180, 5305690	Grab	Doon Twp, Jean Lake (E), mapped as Temiskaming conglomerate
CR 104265	502970, 5307180	Grab	2m W of L30E 330N, Tem conglomerate(?), minor Py
CR 104266	502930, 5306500	Grab	L30E 850N, Tem cong sandstone, W side of Mid Lk Rd where L30E crosses
CR 104267	506925, 5302030	Grab	L28N 925E, mafic volcanic, tr diss Py & fracture fill qtz
CR 104401	511015, 5305000	Grab	Mass diamictite (Cobalt) w/ pink siltstone beds
CR 104402	510690, 5305280	Grab	Tr diss Py in carbonitized (?) Cobalt
CR 104403	510230, 5304600	Grab	Cobalt Formation, carbonate veinlets
CR 104404	511700, 5305650	Grab	E-W logging road E of Leahys claim qvns within Cobalt siltstone
CR 104405	509550, 5304130	Grab	M. Leahys claim line, breccia, siliceous komatiite(?)

Appendix III: DOON PROPERTY - Rock Sample Descriptions

Sample No.	UTM Coordinates E N	Sample Type	Sample Descriptions
CR 104406	509550, 5304125	Grab	5m N of Leahys claim line, bx sil, carbonitised kom, 1% Py
CR 104407	514660, 5305500	Float	150m W of L150E 31+475 N, brecc.porph, q/vns, feld phenos, Py & cPy
CR 104408	506960, 5302740	Grab	Mafic volcanic, amph phenos in olivine (?) matrix, unalt, tr diss Py
CR 104409	506960, 5302500	Grab	Mafic volcanic, f.g. ,q/vns + minor epid vns & epid alt, tr. diss Py
CR 104410	506960, 5302500	Grab	Altered (serpentine/epidote?), q/vns, minor asbestos (?) fibres
CR 104411	508920, 5304140	Grab	Wacke, ankeritized with tr. Py
CR 104412	508960, 5304220	Grab	Wacke, ankeritized, qtz stringers and mass. bull qtz., shear 2cms wide.
CR 104413	508970, 5304220	Float	15 m E of CR 104412. ank boulders with stringers and bull qtz.
CR 104414	506960, 5302500	Float	Bull qtz, tr sericite, minor rusty stain
CR 104415	509450, 5304000	Chip	Doon Tp, heavily ank. ultramafic , minor q/vns + tr Py and cPy
CR 104416	509450, 5303999	Chip	Doon Tp, heavily ankeritized, qtz stringers & tr Py
CR 104417	509450, 5303998	Float	Doon Tp, float, heavily ank host, abundant q/vns, minor Py & tr cPy
CR 104418	509450, 5303998	Chip	Doon Tp, ankeritized ultramafic, tr diss Py
CR 104419	507940, 5303550	Grab	Doon Tp, sh Mv ,CLLB , W of Leahy cl, minor epid and chl vns
CR 104420	507790, 5302670	Grab	Doon Tp, pillows, minor diss Py, dark green, massive
CR 104421	507790, 5302660	Grab	Doon Tp, q/vns in Mv, epid in vns and minor epid alt, Py (4 mm)
CR 104422	508880, 5306070	Float	Angular (2m) boulders, cPy. in qtz veins, Prot siltstone , tr. Py
CR 104423	509040, 5304850	Float	W of small lake, congl (Archean metased), float with tr Py.
CR104424	507980, 5305675	Grab	Large outcrop with arkose layering - metased. Arkose, Py min.
CR 104425	507300, 5305240	grab	Conglomerate, same as Location #6. tr. Py.
CR 104426	508540, 5303590	grab	Mafic volcanic, 2% Py.
CR 104427	507760, 5303510	Grab	S. shore Fault L, ank kom(?), fu(?) tr c.g. Py ,qtz/cb vns , sim to Leahy cl
CR 104428	507700, 5303480	Grab	S shore Fault Lk, W of 80+00E Mv, carb, Py + cPy, fol, qvn, 5% cg Py, mass cb
CR 104429	507640, 5303440	Grab	Fault Lk 50 m E of #428, approx 10% f.g. Py in str sh Mv, cb alt
CR 104430	507580, 5303380	Grab	S. shore Fault Lk, 5% f.g. Py, chlorite alt, q/vns, mafic volcanic
CR 104431	507690, 5303420	Grab	S. shore Fault L., str. sh cb, qtz/cb vns, 3% f.g. Py, mafic volcanic?
CR 104432	507700, 5303480	Float	S. shore Fault L., maf. Bx, ext. vns, 3% f.g. Py, x-cut cb vns, leucoxene?
CR 104433	507530, 5303390	Grab	S. shore Fault L., intens. sh. Temisk. congl. as per R. Junnila Loc. #6
CR 104434	507680, 5303420	Grab	S. shore Fault L., Trench #1, 80% Ank, Mv? str. deform., 3%Py in carbonate
CR 104435	504000, 5303250	Till Pit	Sheared, ankeritised mafic volcanic?, Midlothian Tp
CR 104436	504000, 5303500	Till Pit	Carbonatised Mafic Volcanic?, Midlothian Tp
CR 104437			HR-9 STANDARD

Appendix IV: Petrographic Description of Thin Sections

Petrographic description of thin section.

Described by: Anett Briggs, Dept. of Earth Sciences, Carleton University

Sample number: CR 104 262 **(LOCATION #6, R.Junnila)**

Rock type: Feldspathic metagreywacke

HAND SPECIMEN:
Colour: Medium grey
Grainsize: <1-3 mm
Texture: Granular

THIN SECTION:
Minerals (with estimated percentages):
Plagioclase (40%), Quartz (25%), Calcite (10%), clay minerals (3%), matrix (25%), opaques (<1%)

Description: A fine-grained matrix of quartz and feldspar, occasionally altered to sericite, surround phenocrysts of quartz and feldspar.
Plagioclase is 0.3-2 mm size and show heavy alteration, which often conceal the lamellar twinning.
Quartz is found either as single crystal, equidimensional and relatively angular particles (0.1-2.2 mm), or approximately 50% of the time in irregularly shaped patches (0.4-1.2 mm) composed of very fine-grained quartz.
Calcite occurs as individual particles 0.01-0.4 mm in size, scattered throughout the section or in veinlets 0.1 mm across and up to 12 mm long.
The clay minerals are found in fibrous patches or in "books" 0.4-0.9 mm across.
The opaques occur as disseminated particles 0.02-0.1 mm.

Petrographic description of thin section.

Described by: Anett Briggs, Dept. of Earth Sciences, Carleton University

Sample number: CR 104 263 **(Wilson Rd., SE of Kame Lake)**

Rock type: Metalitharenite

HAND SPECIMEN:
Colour: Greenish grey
Grainsize: <1-3 mm
Texture: Granular

THIN SECTION:
Minerals (with estimated percentages):
Quartz (40%), Calcite (20%), Plagioclase (20%), Sillimanite (10%), Hornblende (5%), Opaques (3%), Chlorite (2%), Rock fragments (~80%)

Description:

The rock appears to largely consist of rock fragments that have been welded together and show quite a bit of alteration.

Approximately 65% of the quartz occurs in rock fragments, 0.6-5.0 mm, alone or accompanied by calcite, where the grains are of equal size and have 120 degree grain boundaries, in what appears to be fragments of calcite cemented quartzite. Quartz can also be found as single grains distributed relatively evenly throughout the thin section. These are equidimensional and angular measuring 0.2-1.6 mm in size In both cases the quartz show straight extinction. Very fine grained chert fragments, 0.4-1.6 mm were also observed, and approximately 5% of the quartz is found in these.

Calcite occurs either in rock fragments together with quartz mentioned above, were it forms short veins, or calcite is to about 60% found as disseminated individual grains, 0.04-0.3 mm, which occasionally form aggregates.

Plagioclase, 0.2 -1.3 mm, is usually heavily altered and is found in rock fragments with poorly defined outline, 1.0-7.0 mm across, either alone or together with hornblende or sillimanite.

Sillimanite is to 90% found in fibrous masses or aggregates of short prisms and more rarely (10%) as disseminated individual grains. It is clourless, has a maximum interference colour of second order blue and parallel extinction. The fibrous masses or aggregates may occasionally also contain feldspar needles and measure 1.2-4.2 mm across.

Hornblende is pleochroic green to yellowish brown with maximum interference colour in the low second order. The mineral is found mostly together with feldspar and occasionally also with quartz in heavily altered rock fragments with poorly defined outlines, 1.0-7.0 mm in size, where the hornblende itself measures 0.08-0.8 mm.

Chlorite has relatively low relief and brownish green anomalous interference colour, forming very fine grained fibrous masses, which are often irregular in outline and seem to be filling out pore spaces, measuring 0.4-0.8 mm in size.

Opaques are evenly distributed measuring 0.06-0.4 mm, usually <0.2mm.

Petrographic description of thin section.

Described by: Anett Briggs, Dept. of Earth Sciences, Carleton University

Sample number: CR 104 264 (East Shore of Jean Lake)

Rock type: Metlitharenite

HAND SPECIMEN:
Colour: Medium grey
Grain size: <1-3 mm
Texture: Granular
Weathering: Rusty light brown

THIN SECTION:
Minerals (with estimated percentages):
Quartz (30%), Plagioclase (40%), Clinozoisite (10%), Sillimanite (10%), Hornblende (6%), Opaques (3%), Calcite (1%), Chlorite (1%), Epidote (<1%), Allanite (<1%), Rock fragments (~60%).

Description:
This rock contains a substantial amount of altered rock fragments.
Quartz is in 80% of the cases found as single equidimensional and angular grains measuring 0.06-0.8 mm, most commonly 0.4-0.8 mm and distributed relatively evenly throughout the thin section. Approximately 20% of quartz occurs in rock fragments, 0.8-4 mm, alone or accompanied by calcite and/or feldspar, where the quartz grains are of equal size and have 120 degree grain boundaries. In both cases the quartz show straight extinction.
Plagioclase is found as single crystal grains, 0.12-0.5 mm, disseminated throughout the rock, showing a somewhat altered brownish surface. The mineral phase is also found in rock fragments together with sillimanite or hornblende or quartz and calcite, 0.8-3.6 mm. The two modes of occurrence are about equally common.
Clinozoisite occurs as short prismatic crystals, 0.02-0.12 mm, with anomalous blue to greenish yellow interference colour and parallel to near parallel extinction.
Chlorite has relatively low relief and brownish green anomalous interference colour and forms very fine grained fibrous masses , which are irregular in outline and seem to be filling out pore spaces, measuring 0.2-0.5 mm in size.
Hornblende is pleochroic green to brownish yellow with maximum interference colour in the low second order. The mineral is found mostly together with feldspar and occasionally also with quartz in altered rock fragments with poorly defined outlines, 1 mm in size, where the hornblende itself measures 0.06-0.36 mm.
Sillimanite is found in fibrous masses and more rarely as disseminated individual grains, approx. 0.1 mm. The fibrous masses may occasionally also contain feldspar needles and measure 0.3-2.4 mm across.
Opaques measuring 0.04-0.7 mm, usually <0.2 mm, are evenly distributed throughout the section.

With the exception for one vein , calcite occurs exclusively in rock fragments together with quartz in what appears to be fragments of calcite cemented quartzite.
Allanite is found in minute brown well rounded grains approx. 0.1 mm in size.
Epidote is found in a few grains 0,12-0.24 mm, which are slightly yellow and somewhat pleochroic with uneven interference colours in the upper second ~~order~~ to third order.

Appendix V: Doon Property Rock Sample Assay Certificates

Swastika Laboratories

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Established 1928

Assaying - Consulting - Representation

Geochemical Analysis Certificate

5W-3506-RG1

Company: **WMC INTERNATIONAL LIMITED**

Date: SEP-11-95

Project: 4057-G10

Attn: T. Goodwin/ A. Sexton

We hereby certify the following Geochemical Analysis of 38 Rock samples submitted SEP-07-95 by C. Baker.

Sample Number	Au PPB	Au Check PPB	Ag PPM	As PPM	Cu PPM	Mo PPM	Ni PPM	Pb PPM	Sb PPM	Zn PPM
CR104001	Nil	-	0.1	<5	79	1	41	1	<1	149
CR104002	Nil	-	0.1	<5	94	1	38	4	<1	85
CR104003	Nil	-	0.1	<5	92	1	62	2	<1	123
CR104004	Nil	-	0.1	<5	73	1	38	58	<1	72
CR104005	Nil	-	0.2	<5	133	1	31	1	<1	110
CR104006	Nil	-	0.1	<5	69	1	489	1	<1	117
CR104007	Nil	Nil	0.1	<5	101	1	23	1	<1	134
CR104008	2	-	0.1	<5	61	1	24	1	<1	98
CR104009	Nil	-	0.1	20	65	1	359	1	<1	111
CR104010	Nil	-	0.1	<5	66	1	26	1	<1	64
CR104011	Nil	-	0.2	<5	131	1	40	1	<1	115
CR104012	Nil	-	0.1	<5	13	1	25	1	<1	27
CR104013	Nil	-	0.1	<5	141	1	79	1	<1	121
CR104014	322	303	0.1	10	67	1	231	1	<1	107
CR104015 Control	1848	-	0.4	442	11	17	1	55	51	8
CR104016	19	-	0.1	<5	53	1	26	1	<1	51
CR104017	Nil	-	0.1	40	35	1	667	1	<1	66
CR104018	Nil	-	0.1	16	76	1	627	1	<1	120
CR104019	Nil	Nil	0.1	8	23	1	124	1	<1	50
CR104020	Nil	-	0.2	19	61	1	323	1	<1	122
CR104021	5	-	0.1	<5	67	1	147	1	<1	140
CR104022	5	-	0.1	<5	68	1	43	1	<1	266
CR104023	36	-	0.1	10	30	2	101	1	<1	70
CR104024	9	-	0.3	<5	8780	1	12	1	<1	218
CR104025	38	-	0.1	<5	17	1	7	1	<1	28
CR104026	14	-	0.1	<5	21	1	27	1	<1	16
CR104027	48	-	0.2	116	123	1	631	5	10	136
CR104028	34	-	0.2	14	98	1	225	15	<1	115
CR104029	891	938	42.5	451	324	3	163	363	211	577
CR104030 Control	1790	-	0.4	436	11	18	2	54	47	9

One assay ton portion used.

Certified by Denis Chartre

P.O. Box 10, Swastika, Ontario P0K 1T0

Telephone (705) 642-3244 FAX (705) 642-3300

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Geochemical Analysis Certificate

5W-3506-RG1

Company: **WMC INTERNATIONAL LIMITED**

Date: SEP-11-95

Project: 4057-G10

Attn: T. Goodwin/ A. Sexton

We hereby certify the following Geochemical Analysis of 38 Rock samples submitted SEP-07-95 by C. Baker.

Sample Number	Au PPB	Au Check PPB	Ag PPM	As PPM	Cu PPM	Mo PPM	Ni PPM	Pb PPM	Sb PPM	Zn PPM
CR104031	Nil	-	0.1	<5	9	2	22	8	<1	24
CR104032	Nil	-	0.1	<5	46	1	61	1	<1	63
CR104033	Nil	-	0.1	<5	12	1	94	5	<1	30
CR104034	Nil	-	0.1	<5	80	1	27	1	<1	111
CR104035	Nil	-	0.1	<5	18	1	269	1	<1	58
CR104036	10	12	0.1	11	29	1	59	4	<1	52
CR104037	9	-	0.2	<5	111	3	498	1	<1	75
CR104038	3	-	0.3	289	62	2	618	1	<1	121
CR104039 Not Rec'd	-	-	-	-	-	-	-	-	-	-

One assay ton portion used.

Certified by Denis Chartre

P.O. Box 10, Swastika, Ontario P0K 1T0

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Geochemical Analysis Certificate

5W-3618-RG1

Company: **WMC INTERNATIONAL LIMITED** Date: SEP-20-95
Project: 4057-G10
Attn: T. Goodwin/A. Sexton

We hereby certify the following Geochemical Analysis of 6 Rock samples submitted SEP-15-95 by C. Baker.

Sample Number	Au PPB	Au Check PPB	Ag PPM	As PPM	Cu PPM	Mo PPM	Ni PPM	Pb PPM	Sb PPM	Zn PPM
CR104039	34	-	0.1	<5	77	1	227	8	<1	87
CR104040	70	81	0.1	11	53	1	47	23	<1	50
CR104041	39	-	0.1	<5	70	1	75	3	<1	42
CR104042	38	46	0.1	<5	130	1	255	1	<1	78
CR104043	Nil	-	0.1	<5	5	1	89	1	<1	23
CR104044	Nil	-	0.1	<5	25	1	304	1	<1	16

One assay ton portion used.

Certified by _____

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Geochemical Analysis Certificate

5W-3870-RG1

Company: **WMC INTERNATIONAL LIMITED** Date: OCT-12-95
Project: 4057
Attn: C. Baker/T. Goodwin

We hereby certify the following Geochemical Analysis of 10 Rock samples submitted OCT-04-95 by .

Sample Number	Au PPB	Au Check PPB	Ag PPM	As PPM	Cu PPM	Mo PPM	Ni PPM	Pb PPM	Sb PPM	Zn PPM	WRA -
CR104045	1920	1989	5.5	<5	57	22	39	1	<1	33	Results
CR104046	298	288	1.0	14	139	4	36	1	<1	82	to
CR104047	775	-	2.5	<5	18	87	26	1	<1	23	follow
CR104048	41	-	0.3	65	255	5	154	6	<1	931	
CR104049	278	-	1.1	76	77	3	44	86	27	69	
CR104050	2	-	0.1	10	73	2	83	1	<1	83	
CR104051	Nil	-	0.1	<5	11	1	622	1	<1	44	
CR104052	7	-	0.1	720	43	1	960	1	16	63	
CR104053	58	57	0.8	125	117	23	79	47	13	29	
CR104054	Nil	-	0.1	<5	26	1	1010	1	<1	37	

One assay ton portion used.

Certified by _____

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SL/ AYI La atc s
1270 FEWSTER DRIVE, UNIT 3 MISSISSAUGA,ONTARIO L4W-1A4
PHONE #: (905)602-8236 FAX #: (905)206-0513

WMC INTERNATIONAL LIMITED
ATTN: C. BAKER
PROJ: 4057

5W-3870-RG1

I.C.A.P. TOTAL OXIDE ANALYSIS

Lithium MetaBorate Fusion

REPORT No. : M5831
Page No. : 1 of 1
File No. : OC16RA
Date : OCT-16-1995

SAMPLE #	SiO2 %	Al2O3 %	Fe2O3 %	CaO %	MgO %	Na2O %	K2O %	TiO2 %	MnO %	P2O5 %	Ba ppm	Zr ppm	Y ppm	Sc ppm	Nb ppm	Be ppm	Ni ppm	Cr ppm	Cu ppm	V ppm	Co ppm	Zn ppm	Rb %	LOI %	TOTAL %
CR104054	33.22	4.20	7.98	9.60	24.81	0.04	0.08	0.19	0.18	<0.02	20	< 10	< 2	15	< 30	< 1	1405	1810	20	80	80	30	<0.05	18.62	98.94

SIGNED : Raj Saed

TSL/95

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Geochemical Analysis Certificate

6W-1855-RG1

Company: **WMC INTERNATIONAL LIMITED** Date: MAY-29-96
Project: 4057 G-30
Attn: C.Baker/T.Goodwin

We hereby certify the following Geochemical Analysis of 4 Grab samples submitted MAY-27-96 by C.Baker.

Sample Number	Au PPB	Au Check PPB	Ag PPM	As PPM	Cu PPM	Mo PPM	Ni PPM	Pb PPM	Sb PPM	Zn PPM
CR 104055	Nil	-	0.1	<5	10	8	34	2	<1	18
CR 104056	Nil	-	0.1	<5	71	2	251	2	<1	79
CR 104057	Nil	-	0.1	<5	19	6	61	8	<1	26
CR 104058	79	87	0.1	<5	7	6	11	31	<1	22

One assay ton portion used.

Certified by _____

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Geochemical Analysis Certificate

6W-2262-RG1

Company: **WMC INTERNATIONAL LIMITED** Date: JUL-02-96
Project: 4057-G30
Attn: T. Goodwin/C. Baker

We hereby certify the following Geochemical Analysis of 19 Chip samples submitted JUN-26-96 by .

Sample Number	Au PPB	Au Check PPB	Ag PPM	As PPM	Cu PPM	Mo PPM	Ni PPM	Pb PPM	Sb PPM	Zn PPM
CR104060	Nil	-	0.1	15	45	1	970	4	<1	60
CR104061	3	5	0.1	16	47	1	953	4	<1	65
CR104062	5	-	0.1	8	18	1	1040	1	<1	83
CR104063	Nil	-	0.1	54	51	1	982	1	<1	61
CR104064	2	-	0.1	42	27	1	541	1	<1	59
CR104065	Nil	-	0.1	47	41	1	531	1	<1	80
CR104066	2	-	0.1	30	23	1	420	1	<1	38
CR104067	Nil	-	0.1	46	50	1	600	1	<1	75
CR104068	Nil	-	0.1	72	31	1	589	2	<1	46
CR104069	Nil	-	0.1	44	26	1	275	1	<1	24
CR104070	3	-	0.1	42	11	1	300	1	<1	27
CR104071	2	-	0.1	68	18	1	597	1	<1	39
CR104072	3	-	0.1	29	43	1	488	1	<1	40
CR104073	2	-	0.1	67	19	1	481	2	<1	28
CR104074	2	-	0.1	13	39	1	530	1	<1	39
CR104075	3	-	0.1	21	73	1	576	1	<1	47
CR104076	2	-	0.1	32	48	1	594	1	<1	55
CR104077	15	14	0.1	57	27	1	611	1	<1	41
CR104078	2	-	0.1	63	20	1	601	1	<1	39

One assay ton portion used.

Certified by G. Pelletier

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Geochemical Analysis Certificate

6W-2270-RG1

Company: **WMC INTERNATIONAL LIMITED**
Project: PO# 4057-G30
Attn: C. Baker/T. Goodwin

Date: JUL-03-96

We hereby certify the following Geochemical Analysis of 23 Rock samples submitted JUN-27-96 by C. Baker.

Sample Number	Au PPB	Au Check PPB
CR104059	2	-
CR104079	Nil	-
CR104080	Nil	-
CR104081	Nil	-
CR104082	Nil	-
CR104083	5	-
CR104084	Nil	-
CR104085	Nil	-
CR104086	Nil	-
CR104087	7	-
CR104088	773	787
CR104089	2	-
CR104090	Nil	-
CR104091	38	36
CR104265	Nil	-
CR104266	Nil	-
CR104267	Nil	Nil
CR104401	Nil	-
CR104402	Nil	-
CR104403	Nil	-
CR104404	Nil	-
CR104405	Nil	-
CR104406	15	-

One assay ton portion used.

Certified by _____

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Geochemical Analysis Certificate

6W-3074-RG1

Company: **WMC INTERNATIONAL LTD**
Project: 4057 G30
Attn: T. Goodwin/C. Baker

Date: AUG-21-96

We hereby certify the following Geochemical Analysis of 33 Rock samples submitted AUG-18-96 by .

Sample Number	Au PPB	Au Check PPB	Ag PPM	As PPM	Cu PPM	Mo PPM	Ni PPM	Pb PPM	Sb PPM	Zn PPM
CR104092	82	-	0.1	<5	130	1	634	42	<1	633
CR104093	19	-	0.1	<5	68	1	481	1	<1	137
CR104094	14	-	0.2	13	89	1	1840	11	<1	145
CR104095	21	-	0.1	10	80	3	112	1	<1	96
CR104096	319	322	0.1	8	5	1	12	2	<I	23
CR104097	5	-	0.1	69	7	1	103	1	3	18
CR104098	29	-	0.1	13	14	1	28	2	<1	44
CR104099	22	-	0.2	24	261	2	152	30	<I	881
CR104100 PULP	2061	-	0.4	444	11	20	2	52	49	12
CR104407	9	-	0.1	<5	57	1	108	1	<1	50
CR104408	Nil	-	0.1	<5	121	1	62	1	<1	89
CR104409	Nil	Nil	0.1	9	170	1	70	1	<1	115
CR104410	Nil	-	0.1	<5	6	2	14	1	<1	8
CR104411	2	-	0.1	<5	62	1	198	1	<1	74
CR104412	3	-	0.1	19	6	2	25	3	<1	21
CR104413	7	-	0.1	20	55	1	61	1	<1	65
CR104414	10	-	0.1	8	10	2	32	1	<1	5
CR104415	Nil	-	0.2	17	23	2	34	1	<1	56
CR104416	82	51	0.1	55	79	1	61	1	<1	122
CR104417	5	-	0.1	<5	51	2	29	1	<1	36
CR104418	57	-	0.1	49	79	1	69	1	<1	118
CR104419	Nil	-	0.1	<5	64	1	20	1	<1	149
CR104420	Nil	-	0.1	13	77	2	13	1	<1	120
CR104421	Nil	-	0.1	9	12	1	11	1	<1	87
CR104422	Nil	-	0.2	<5	87	2	57	7	<1	47
CR104423	Nil	-	0.2	<5	95	1	269	1	<1	100
CR104424	Nil	-	0.2	<5	90	2	65	38	<1	62
CR104425	Nil	-	0.1	<5	72	1	517	1	<1	101
CR104426	Nil	-	0.2	6	95	1	18	1	<1	80
CR104427	7	7	0.1	665	31	1	1000	1	6	51

One assay ton portion used.

Certified by _____

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Geochemical Analysis Certificate

6W-3074-RG1

Company: **WMC INTERNATIONAL LTD**
Project: 4057 G30
Attn: T. Goodwin/C. Baker

Date: AUG-21-96

We hereby certify the following Geochemical Analysis of 33 Rock samples submitted AUG-18-96 by .

Sample Number	Au PPB	Au Check PPB	Ag PPM	As PPM	Cu PPM	Mo PPM	Ni PPM	Pb PPM	Sb PPM	Zn PPM
CR104428	305	-	0.2	38	73	1	17	3	<1	67
CR104429	617	595	0.3	25	56	1	83	13	<1	106
CR104430	2239	2325	0.2	78	44	2	12	1	<1	77

One assay ton portion used.

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Geochemical Analysis Certificate

6W-3627-RG1

Company: **WMC INTERNATIONAL LIMITED**
Project: 4057 G-30
Attn: C. Baker/T. Goodwin

Date: SEP-20-96

We hereby certify the following Geochemical Analysis of 7 Rock samples submitted SEP-18-96 by .

Sample Number	Au PPB	Au Check PPB
CR104432	89	-
CR104433	10	9
CR104434	439	-
CR104435	5	5
CR104436	12	-
CR104437	1904	-
CR104431	24	-

One assay ton portion used.

Certified by _____

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Appendix VI: 1995 Soil Geochemistry

Bondar Clegg
Inchcape Testing Services

Geochemical Lab Report

REPORT: 095-40517.0 (COMPLETE) REFERENCE:

CLIENT: WMC INTERNATIONAL SUBMITTED BY: T. GOODWIN

PROJECT: 4057 DATE PRINTED: 31-AUG-95

ORDER	ELEMENT		NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	Au30	Gold	4	5 PPB	Fire Assay of 30g	30g Fire Assay - AA
2	Ag	Silver	4	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
3	Cu	Copper	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
4	Pb	Lead	4	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
5	Zn	Zinc	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
6	Mo	Molybdenum	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
7	Ni	Nickel	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
8	Co	Cobalt	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
9	Cd	Cadmium	4	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
10	Bi	Bismuth	4	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
11	As	Arsenic	4	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
12	Sb	Antimony	4	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
13	Fe	Iron	4	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
14	Mn	Manganese	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
15	Te	Tellurium	4	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
16	Ba	Barium	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
17	Cr	Chromium	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
18	V	Vanadium	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
19	Sn	Tin	4	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
20	W	Tungsten	4	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
21	La	Lanthanum	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
22	Al	Aluminum	4	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
23	Mg	Magnesium	4	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
24	Ca	Calcium	4	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
25	Na	Sodium	4	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
26	K	Potassium	4	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
27	Sr	Strontium	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
28	Y	Yttrium	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
29	Ga	Gallium	4	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
30	Li	Lithium	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
31	Nb	Niobium	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
32	Sc	Scandium	4	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
33	Ta	Tantalum	4	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
34	Ti	Titanium	4	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
35	Zr	Zirconium	4	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA

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Bondar Clegg
Inchcape Testing Services

Geochemical Lab Report

REPORT: 095-40517.0 (COMPLETE)

REFERENCE:

CLIENT: WMC INTERNATIONAL

SUBMITTED BY: T. GOODWIN

PROJECT: 4057

DATE PRINTED: 31-AUG-95

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
SOIL	4	-80	4	DRY, SIEVE -80	4

REPORT COPIES TO: MR. TERRY GOODWIN
BY FAX: T. GOODWIN
MR. GLEN BAKER

INVOICE TO: MR. TERRY GOODWIN

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Geochemical Lab Report

DATE PRINTED: 31-AUG-95

REPORT: 095-40517.0 (COMPLETE) PROJECT: 4057 PAGE 1A

AMPLE NUMBER	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM
CS104601		<5	0.2	9	7	38	<1	19	7	<0.2	<5	8	<5
CS104602		<5	0.3	8	6	26	2	19	9	<0.2	<5	14	<5
CS104603		<5	0.3	7	10	53	2	24	9	<0.2	<5	15	<5
CS104604		<5	0.3	5	7	23	1	10	5	<0.2	<5	8	<5

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Geochemical Lab Report

REPORT: 095-40517.0 (COMPLETE)

DATE PRINTED: 31-AUG-95

PROJECT: 4057

SAMPLE NUMBER	ELEMENT UNITS	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT
CS104601		1.33	105	<10	19	26	19	<20	<20	7	1.24	0.22	0.14
CS104602		2.01	123	<10	20	32	26	<20	<20	8	1.37	0.41	0.13
CS104603		3.30	102	<10	13	54	48	<20	<20	5	1.87	0.28	0.10
CS104604		1.95	87	<10	27	26	26	<20	<20	6	1.26	0.15	0.10

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Inchcape Testing Services

Geochemical Lab Report

DATE PRINTED: 31-AUG-95

REPORT: 095-40517.0 (COMPLETE) PROJECT: 4057 PAGE 1C

SAMPLE NUMBER	ELEMENT UNITS	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
CS104601		<0.01	0.02	8	2	<2	8	<1	<5	<10	0.05	1
CS104602		<0.01	0.03	10	2	<2	13	1	<5	<10	0.09	4
CS104603		<0.01	0.02	7	2	5	11	2	<5	<10	0.12	4
CS104604		<0.01	0.02	9	1	3	8	2	<5	<10	0.08	2

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Bondar Clegg
Inchcape Testing Services

Geochemical Lab Report

DATE PRINTED: 31-AUG-95

REPORT: 095-40517.0 (COMPLETE) PROJECT: 4057 PAGE 2A

STANDARD NAME	ELEMENT UNITS	Au30 PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM
ANALYTICAL BLANK		<5	<0.2	<1	<2	<1	<1	<1	<1	<0.2	<5	<5	<5
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		2.5	0.10	0.5	1.0	0.5	0.5	0.5	0.5	0.10	2.5	2.5	2.5
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		5	0.2	1	2	1	1	1	1	1.0	2	5	5
BCC GEOCHEM STD 3		-	5.2	768	199	459	495	507	40	0.7	5	287	38
Number of Analyses		-	1	1	1	1	1	1	1	1	1	1	1
Mean Value		-	5.24	767.8	199.0	459.0	495.1	507.0	39.9	0.70	5.0	286.5	38.0
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	5.0	820	250	500	600	600	40	2.0	4	310	50

Bondar-Clegg & Company Ltd.
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Geochemical Lab Report

DATE PRINTED: 31-AUG-95

REPORT: 095-40517.0 (COMPLETE) PROJECT: 4057 PAGE 2B

STANDARD NAME	ELEMENT UNITS	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT
ANALYTICAL BLANK		<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<0.01	<0.01	<0.01
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		0.005	0.5	5.0	0.5	0.5	0.5	10.0	10.0	0.5	0.005	0.005	0.005
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		0.05	1	<1	<1	1	1	<1	<1	<1	<0.01	<0.01	<0.01
CC GEOCHEM STD 3		4.31	756	<10	199	126	27	<20	<20	11	4.34	2.57	4.20
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		4.310	756.3	5.0	198.9	125.5	27.2	10.0	10.0	11.0	4.341	2.568	4.200
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		5.00	800	1	220	150	34	16	-	6	4.64	4.90	5.13

Bondar-Clegg & Company Ltd.
5420 Canotek Road, Ottawa, Ontario, K1J 9G2, Canada
Tel: (613) 749-2220, Fax: (613) 749-7170

Bondar Clegg
Inchcape Testing Services

Geochemical Lab Report

DATE PRINTED: 31-AUG-95

REPORT: 095-40517.0 (COMPLETE) PROJECT: 4057 PAGE 2C

STANDARD NAME	ELEMENT UNITS	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
ANALYTICAL BLANK		<0.01	<0.01	<1	<1	<2	<1	<1	<5	<10	<0.01	<1
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1
Mean Value		0.005	0.005	0.5	0.5	1.0	0.5	0.5	2.5	5.0	0.005	0.5
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-
Accepted Value		<0.01	<0.01	<1	<1	<1	<1	<1	<1	<1	<0.01	<1
BCC GEOCHEM STD 3		0.32	0.19	77	5	<2	16	<1	<5	<10	0.03	3
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1
Mean Value		0.320	0.188	77.0	4.9	1.0	15.7	0.5	2.5	5.0	0.029	2.8
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-
Accepted Value		0.30	0.20	78	6	2	14	-	12	1	0.03	2

Bondar-Clegg & Company Ltd.
5420 Canotek Road, Ottawa, Ontario, K1J 9G2, Canada
Tel: (613) 749-2220, Fax: (613) 749-7170

Appendix VII: **1995 Till Geochemistry - Gold Grain Counts**

OVERBURDEN DRILLING MANAGEMENT LIMITED
107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1
TELEPHONE: (613) 226-1771/1774
FAX NO: (613) 226-8753

D A T A T R A N S M I T T A L R E P O R T

DATE: 18-Sep-95

ATTENTION: MR. T. GOODWIN

CLIENT: WMC International Limited
Americas Division - Exploration
22 Gurdwara Road
Nepean, Ont.
K2E 8A2

Fax 727-3970

PROJECT: CS-204- 601 to 604

FILE NO: WM571SEP.WR2

NO. OF SAMPLES: 4

NO. OF PANNINGS: 4

H.M.C. ____
3/4 H ____
-63 MICRON ____ SENT TO _____ ANALYTICAL LAB.
-125 MICRON ____
_____ ____

REMARKS: Preliminary Data, with Non-mag = ±50 table feed.

for Kevin Graham
Remy Huneault
Laboratory Manager

OVERBURDEN DRILLING MANAGEMENT LIMITED - LABORATORY SAMPLE LOG

ABBREVIATIONS

DATA LOG

Clast:

Size of Clast:
- G: Granules
- P: Pebbles
- C: Cobbles
- BL: Boulder Chips
- BK: Bedrock Chips

% Clast Composition:
- V/S: Volcanics and Sediments
- GR: Granitics
- LS: Limestone
- OT: Other Lithologies (Refer to Footnotes)
- TR: Only Trace Present
- NA: NOT APPLICABLE
- OX: Oxidized

Class:
- BLD: Boulder Chips
- BDK: Bedrock Chips

Matrix:
- S/U: Sorted or Unsorted
- SD: Sand ---------- | F: Fine
- ST: Silt | M: Medium
- CY: Clay | C: Coarse
- OR: Organics

- Y: Fraction Present
- +: Fraction more abundant than normal
- -: Fraction less abundant than normal
- N: Fraction Not Present
- L: Lumps Present

Colour:

B:	Beige	PP:	Purple
GY:	Grey	PK:	Pink
GB:	Grey Beige	OC:	Ochre
GN:	Green		
GG:	Grey Green	L:	Light
BN:	Brown	M:	Medium
BK:	Black	D:	Dark

GOLD LOG

Number of Grains:
- T: Number Found on Shaking Table
- P: Number Found by Panning

Thickness:
- C: Calculated Thickness of Grain (in microns)
- M: Actual Measured Thickness of Grain (in microns)

Remarks:

%	Percentage of HMC (estimated from panning of table concentrate)
gr.	Grains (estimated number)
uM	Microns (1/1000 mm)
py.	Pyrite
cpy.	Chalcopyrite
aspy.	Arsenopyrite
marc.	Marcasite
L/G.	Limonite/Goethite
sid.	Siderite

OVERBURDEN DRILLING MANAGEMENT LIMITED

GOLD GRAIN SUMMARY SHEET

WM571SEP.WR2

Sample No.	Number of Visible Gold Grains				Non-Mag Weight	Calculated PPB Visible Gold			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
CS-204-									
601	10	7	0	3	13.4	2823	2820	0	3
602	14	12	1	1	17.3	305	282	22	1
603	16	15	0	1	26.6	233	233	0	0
604	14	13	1	0	18.3	472	471	0	0

WM571SEP.WR2 OVERBURDEN DRILLING MANAGEMENT LIMITED

TOTAL # OF SAMPLES IN THIS REPORT = 4

LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET)			WEIGHT (GRAMS DRY)					DESCRIPTION												CLASS
						M. I. CONC			CLAST					MATRIX							
	TABLE SPLIT	+2 mm CHIPS	TABLE FEED	TABLE CONC	M.I. LIGHTS	CONC. TOTAL	NON MAG	MAG	SIZE	% V/S	% GR	% LS	% OT	S/U	SD	ST	CY	COLOUR SD	COLOUR CY	UR	
CS-204-																					
601	11.4	6.7	4.7	13.4		13.4	13.4		P	80	15	0	QTZ	U	Y	Y	Y	GG	BY	N	TILL
602	10.6	4.5	6.1	17.3		17.3	17.3		P	90	10	0	NA	U	Y	Y	Y	GG	GY	N	TILL
603	11.8	2.5	9.3	26.6		26.6	26.6		C	80	20	0	NA	U	Y	Y	Y	GG	GY	N	TILL
604	10.5	4.1	6.4	18.3		18.3	18.3		P	85	15	0	NA	U	Y	Y	Y	GG	GG	N	TILL

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

WM571SEP.WR2

TOTAL # OF PANNINGS 4

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
ZS-204-													
601	Y	15 X 15	3 C					1		1			NO SULPHIDES
		15 X 25	4 C	1				1		2			
		25 X 25	5 C						1	1			
		25 X 50	8 C	3						3			
		50 X 75	13 C	1						1			
		125 X 175	29 C	1						1			
		200 X 375	52 C	1						1			
										10	13.4	2823	
602	Y	15 X 15	3 C	1						1			NO SULPHIDES
		15 X 25	4 C	3						3			
		15 X 50	7 C	1						1			
		25 X 25	5 C					1		1			
		25 X 50	8 C	1	1					2			
		25 X 75	10 C	1						1			
		50 X 75	13 C			1				1			
		50 X 100	15 C	1	1					2			
		75 X 100	18 C		1					1			
		100 X 125	22 C		1					1			
										14	17.3	305	
603	Y	15 X 15	3 C	2				1		3			NO SULPHIDES
		15 X 50	7 C	2						2			
		25 X 25	5 C	3						3			
		25 X 50	8 C	3						3			
		25 X 75	10 C	1						1			
		50 X 100	15 C		1					1			
		75 X 100	18 C	1	1					2			
		75 X 175	25 C		1					1			
										16	26.6	233	
604	Y	15 X 15	3 C	1		1				2			NO SULPHIDES
		25 X 25	5 C	4						4			
		25 X 50	8 C	3						3			
		50 X 50	10 C	1	1					2			
		75 X 75	15 C	1						1			
		75 X 100	18 C		1					1			
		125 X 200	31 C		1					1			
										14	18.3	472	

Appendix VIII: **1995 Till Geochemistry - HMC Results**

ACTLABS

ACTIVATION LABORATORIES LTD

Invoice No.: 8954
Work Order: 9072
Invoice Date: 13-OCT-95
Date Submitted: 04-OCT-95
Your Reference: 4057
Account Number: 627

I IC INTERNATIONAL LIMITED
I CPLORATION DIVISION
22 GURDWARA ROAD
PEPEAN, ONTARIO
(ANADA K2E 8A2
ATTENTION: TERRY A. GOODWIN

CERTIFICATE OF ANALYSIS

: AA package, elements and detection limits:

AU	5.	PPB	AG	5.	PPM	AS	2.	PPM	BA	200.	PPM
BR	5.	PPM	CA	1.	%	CO	5.	PPM	CR	10.	PPM
CS	2.	PPM	FE	0.02	%	HF	1.	PPM	HG	5.	PPM
IR	50.	PPB	MO	20.	PPM	NA	500.	PPM	NI	200.	PPM
RB	50.	PPM	SB	0.2	PPM	SC	0.1	PPM	SE	20.	PPM
SR	0.2	%	TA	1.	PPM	TH	0.5	PPM	U	0.5	PPM
W	4.	PPM	ZN	200.	PPM	LA	1.	PPM	CE	3.	PPM
ND	10.	PPM	SM	0.1	PPM	EU	0.2	PPM	TB	2.	PPM
YB	0.2	PPM	LU	0.1	PPM						

REPORT 8954B - AQUA REGIA - ICP

CERTIFIED BY :

DR. ERIC L. HOFFMAN

Activation Laboratories Ltd. Work Order: 9072 Report: 8954

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SR %	TA PPM	TH PPM	U PPM
CS 204601	891	<6	13	<200	<5	<2	40	1000	<2	16.2	120	<5	<50	<20	3630	<200	<50	<0.2	89	<20	<0.2	<1	98	15
CS 204602	505	<5	5	<200	<5	9	50	860	<2	15.6	88	<5	<50	<20	3280	<200	<50	<0.2	88	<20	<0.2	6	50	7.1
CS 204603	110	<5	6	650	<5	5	32	1200	<2	13.4	110	<5	<50	<20	3150	<200	<50	<0.2	71	<20	<0.2	5	57	8.7
CS 204604	1030	<5	7	580	<5	<2	47	2100	<2	20.4	150	<5	<50	<20	3820	<200	<50	0.7	110	<20	<0.2	8	92	15

Activation Laboratories Ltd. Work Order: 9072 Report: 8954

Sample description	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
CS 204601	<4	<200	250	500	190	31	6.8	<2	21.7	4.2	30.00
CS 204602	<4	<200	140	300	120	20	5.1	<2	18.7	3.5	27.00
CS 204603	<4	328	160	270	96	17	4.7	<2	14.4	2.5	60.00
CS 204604	<4	<200	240	560	200	36	7.3	<2	28.7	5.4	11.00

SAMPLE	Ag	Cu	Ni	Zn	Cd	Mn	Pb
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
CS 204 601	-0.2	24	20	17	-0.5	245	14
CS 204 602	-0.2	33	30	34	-0.5	514	7
CS 204 603	-0.2	20	33	30	-0.5	182	10
CS 204 604	0.2	14	13	16	-0.5	189	6

Negative values indicate less than the detection limit

Appendix IX: **1995 Till Geochemistry - <63 Microns**

ACTLABS

ACTIVATION LABORATORIES LTD

Invoice No.: 8848
Work Order: 8972
Invoice Date: 29-SEP-95
Date Submitted: 18-SEP-95
Your Reference: 4057
Account Number: 627

W C INTERNATIONAL LIMITED
E PLORATION DIVISION
22 GURDWARA ROAD
N PEAN, ONTARIO
C NADA K2E 8A2
ATTENTION: TERRY A. GOODWIN

CERTIFICATE OF ANALYSIS

I AA package, elements and detection limits:

AU	5.	PPB	AG	5.	PPM	AS	2.	PPM	BA	200.	PPM
R	5.	PPM	CA	1.	%	CO	5.	PPM	CR	10.	PPM
S	2.	PPM	FE	0.02	%	HF	1.	PPM	HG	5.	PPM
IR	50.	PPB	MO	20.	PPM	NA	500.	PPM	NI	200.	PPM
B	50.	PPM	SB	0.2	PPM	SC	0.1	PPM	SE	20.	PPM
R	0.2	%	TA	1.	PPM	TH	0.5	PPM	U	0.5	PPM
W	4.	PPM	ZN	200.	PPM	LA	1.	PPM	CE	3.	PPM
ND	10.	PPM	SM	0.1	PPM	EU	0.2	PPM	TB	2.	PPM
B	0.2	PPM	LU	0.1	PPM						

REPORT 8848B - AQUA REGIA - ICP

CERTIFIED BY :

J. Brech

per DR. ERIC L. HOFFMAN

Activation Laboratories Ltd. Work Order: 8972 Report: 8848

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SR %	TA PPM	TH PPM	U PPM
CS 204601	14	<5	14	550	<5	2	19	150	<2	3.03	14	<5	<50	<20	2.05	<200	89	<0.2	13	<20	<0.2	<1	9.8	2.1
CS 204602	<5	<5	3	<200	<5	<1	11	96	<2	2.47	6	<5	<50	<20	2.06	<200	<30	0.3	9.0	<20	<0.2	<1	6.0	<0.5
CS 204603	14	<5	3	390	<5	3	10	110	<2	2.01	9	<5	<50	<20	2.05	<200	<30	<0.2	9.1	<20	0.2	<1	6.3	1.7
CS 204604	<5	<5	4	640	<5	<1	10	88	<2	2.29	5	<5	<50	<20	1.94	<200	<30	<0.2	8.3	<20	<0.2	<1	6.3	<0.5

Activation Laboratories Ltd. Work Order: 8972 Report: 8848

Sample description	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
CS 204601	<4	<200	51	150	37	6.8	1.6	<2	2.7	0.42	24.80
CS 204602	<4	<200	20	73	21	2.9	0.4	<2	1.5	0.23	37.40
CS 204603	<4	<200	19	44	21	3.0	0.7	<2	1.4	0.23	32.10
CS 204604	<4	<200	14	33	15	2.2	0.5	<2	1.2	0.17	31.40

Activation Laboratories Ltd. Work Order: 8972 Report: 8848B

SAMPLE #	Ag PPM	Cu PPM	Ni PPM	Zn PPM	Cd PPM	Mn PPM	Pb PPM
CS 204601	<0.2	72	42	23	<0.5	374	20
CS 204602	<0.2	52	35	23	<0.5	286	6
CS 204603	<0.2	22	53	36	<0.5	150	6
CS 204604	<0.2	26	36	23	<0.5	234	4

Appendix X: **ODM Report on Reverse Circulation Drilling**

WMC INTERNATIONAL LIMITED

DOON PROPERTY (PROJECT 4057)

DOON, MIDLOTHIAN, MONTROSE, BANNOCKBURN, POWELL

AND YARROW TOWNSHIPS, ONTARIO

REVERSE CIRCULATION OVERBURDEN DRILLING

AND HEAVY MINERAL GEOCHEMICAL SAMPLING

PREPARED BY:

S.A. AVERILL

OVERBURDEN DRILLING MANAGEMENT LIMITED

FEBRUARY, 1996

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Appendix 1	Reverse Circulation Drill Hole Logs
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Appendix 4	Bedrock and Heavy Mineral Till Analyses

1. SUMMARY

This report describes a program of reverse circulation drilling/heavy mineral till geochemical sampling performed by WMC International Limited on its Doon Township gold property west of Kirkland Lake and Matachewan, Ontario. The drilling was concentrated on a small Archean inlier in Huronian (Early Proterozoic) sediments of the Cobalt Embayment. The inlier is part of the Abitibi Subprovince and the Huronian cover sediments belong to the Coleman Member of the Gowganda Formation. The main objectives of the drilling were: 1) to establish the extent of the inlier; 2) to determine whether the regionally gold-fertile Cadillac - Larder Lake Fault passes through the inlier, and if so 3) to establish the gold potential of the fault and its environs.

Nine vertical holes totalling 213.9 m were drilled. Eight holes were completed through the overburden and approximately 1.5 m into bedrock; Hole 09 was abandoned in a stony esker ridge. Thirty-nine bulk till samples and eight bedrock chip samples were collected. Total contract drilling and geology costs were $30,025.00 or $3,336.11 per hole.

The main feature of the inlier is an ENE trending contact between southern volcanics and northern clastic sediments similar to the contact that marks the Cadillac - Larder Lake Fault in the Kirkland Lake and Matachewan areas. The three drill intercepts closest to the contact (Holes 01, 03 and 05) are sheared but the intensity of shearing and alteration is much less than at Kirkland Lake and the drill cuttings are not anomalous in gold or arsenic. The volcanics are tholeiitic to komatiitic basalts, not intermediate to felsic rocks as determined in previous mapping. The clastic sediments appear to fine and face southward like the Timiskaming Group sediments north of the Cadillac - Larder Lake Fault at Kirkland Lake and Matachewan, favouring a tectonic contact with the volcanics rather than an unconformity. As in the fluviatile Timiskaming Group, pebble rounding is significant and some resistant chert pebbles are present. The occurrence of sheared komatiites along the presumed fault suggests that a Larder Lake or Harker-Holloway gold model may be applicable.

The drill area is fringed by outcrops but overburden thickness in the drill holes is significant, ranging up to 39.5 metres. The deepest holes define an ENE trending buried valley coincident with the presumed Cadillac - Larder Lake Fault. At the base of the overburden section is a layer of Matheson Till deposited about 9500 years ago during final ice meltdown in glacial Lake Ojibway. The direction of ice flow was due south, parallel to an esker that crosses the inlier and perpendicular to the Cadillac - Larder Lake Fault and associated bedrock valley. The till is overlain by glaciolacustrine and outwash sands that coarsen both upward and toward the esker.

Clast compositions in the till closely reflect the underlying Archean and proximal Huronian rock formations and the till thickens in the buried valley giving extra samples where they are most needed; therefore the heavy mineral geochemistry should closely reflect mineral potential. The visible gold content of the till is generally low, mirroring the low gold assays of the bedrock intersections, and sulphide-encapsulated gold is not present. Pristine to modified gold grains derived directly from the inlier are rare. Three consecutive till samples overlying the most strongly sheared bedrock intercept, in Hole 03, are anomalous in oversized, reshaped gold grains that were probably recycled from preglacial placer gravels in the buried valley. A weak, three-sample-thick Cu-Ni anomaly in Hole 01 is related to low-grade primary mineralization in the underlying komatiites.

A diamond core hole should be drilled under Hole 03 to more accurately determine the nature of the Cadillac - Larder Lake Fault and the extent to which it is mineralized. Geophysical methods should be used to develop other diamond drill targets under the Proterozoic cover rocks east and west of the Archean inlier.

2. INTRODUCTION

2.1 Property Location and Project Background

In November-December, 1995, WMC International Limited ("WMC") performed reverse circulation exploratory drilling for gold on the southwestern part of the Doon property (Project No. 4057) west of Kirkland Lake and Matachewan in northeastern Ontario (Fig. 1). The program involved both heavy mineral geochemical sampling of Quaternary glacigenic overburden, mainly till, and chip sampling of the top 1.5 m of the underlying rock formations.

The Doon property consists of 62 contiguous claims (833 units) in Doon, Midlothian, Montrose, Bannockburn, Powell and Yarrow Townships. Access from Kirkland Lake is southwest via Highways 66 and 566 through Matachewan and thence west along a gravel road leading to the former United Asbestos mine beyond the drill area in Midlothian Township. A second, north-south gravel road from Highway 566 joins the mine road in the middle of the drill area. Drainage is to the southeast via Duncan Creek and other tributaries of the West Montreal River but the Arctic/Atlantic drainage divide is just 6 km to the northwest.

Nine vertical reverse circulation holes totaling 213.9 m were drilled along the two gravel roads and in adjoining clear-cut areas (Fig. 2), and thirty-nine overburden and eight bedrock samples were collected (Table 1). WMC contracted the drilling to Heath & Sherwood Drilling (1986) Limited of Kirkland Lake, Ontario and project management to Overburden Drilling Management Limited ("ODM") of Nepean, Ontario.

2.2 Geological Setting of the Doon Property

The Doon property is near the northern edge of the Cobalt Embayment of the Early Proterozoic-age Southern Province of the Canadian Shield (Fig. 3). The actual drill area, however, is on a small inlier of Archean-age volcanosedimentary rocks of the Abitibi Subprovince (Abitibi Greenstone Belt) of the Superior Province (Fig. 4). This Archean inlier is very poorly exposed (Fig. 5) because: 1) it is at a low elevation (average 340 m; Fig. 6) compared to the Proterozoic cover rocks which form flat-

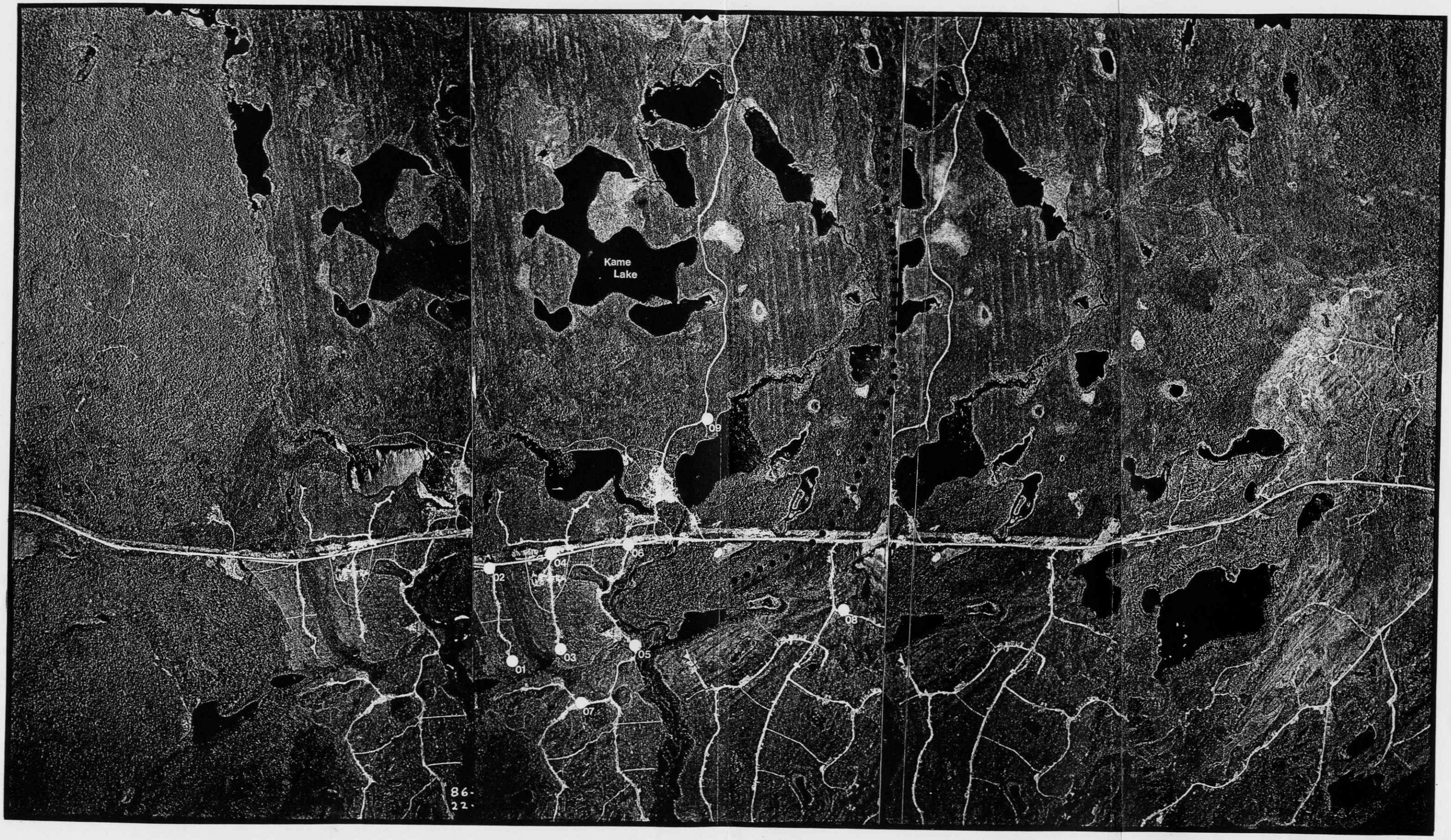


Figure 2 – Stereo Air Photo Mosaic of the Drill Area. Note low-lying setting between hills of Proterozoic cover rocks. Parallel reforestation lines are visible on the outwash sand plain between the esker axis (dotted line) and Kame Lake. Scale = 1:20,000.

Hole Number	Metres Drilled		Hole Depth (m)	Samples Collected				Overburden Samples Processed
				Overburden		Bedrock		
	Overburden	Bedrock		Number of Samples	Sample Numbers	Number of Samples	Sample Numbers	
DRC-95-					204-		104-	
01	34.0	0.0	34.0	9	618-626	0	-	10
01A	35.5	0.0	35.5	2	627-628	0	-	2
01B	35.5	2.0	37.5	0	-	1	107	0
02	29.0	2.0	31.0	3	615-617	1	103	3
03	39.5	1.8	41.3	3	629-631	1	104	3
04	28.7	1.3	30.0	7	608-614	1	102	7
05	37.0	1.8	38.8	10	632-641	1	105	10
06	9.7	2.3	12.0	3	605-607	1	101	3
07	7.0	1.0	8.0	1	642	1	106	1
08	4.0	0.0	4.0	0	-	0	-	0
09	9.8	1.5	11.3	1	643	1	108	1
Totals	269.7	13.7	283.4	39		8		40

Table 1 - Drilling and Sampling Statistics



Figure 3 – Location of the Doon Property Relative to the Cobalt Embayment and Abitibi Subprovince of the Canadian Shield. Source: Thurston, 1991.



Figure 4 – Regional Geological Setting of the Doon Property. Relevant Archean litho-stratigraphic groups: LL = Larder Lake Group komatiitic volcanics, TM = Middle Tisdale Group tholeiitic volcanics, PG = Porcupine Group resedimented volcaniclastics, TG = Timiskaming Group alluvial fan sediments. Proterozoic rocks: HU = Huronian Supergroup, N = Nipissing diabase. Source: MERQ-OGS, 1983. Scale = 1:500,000.

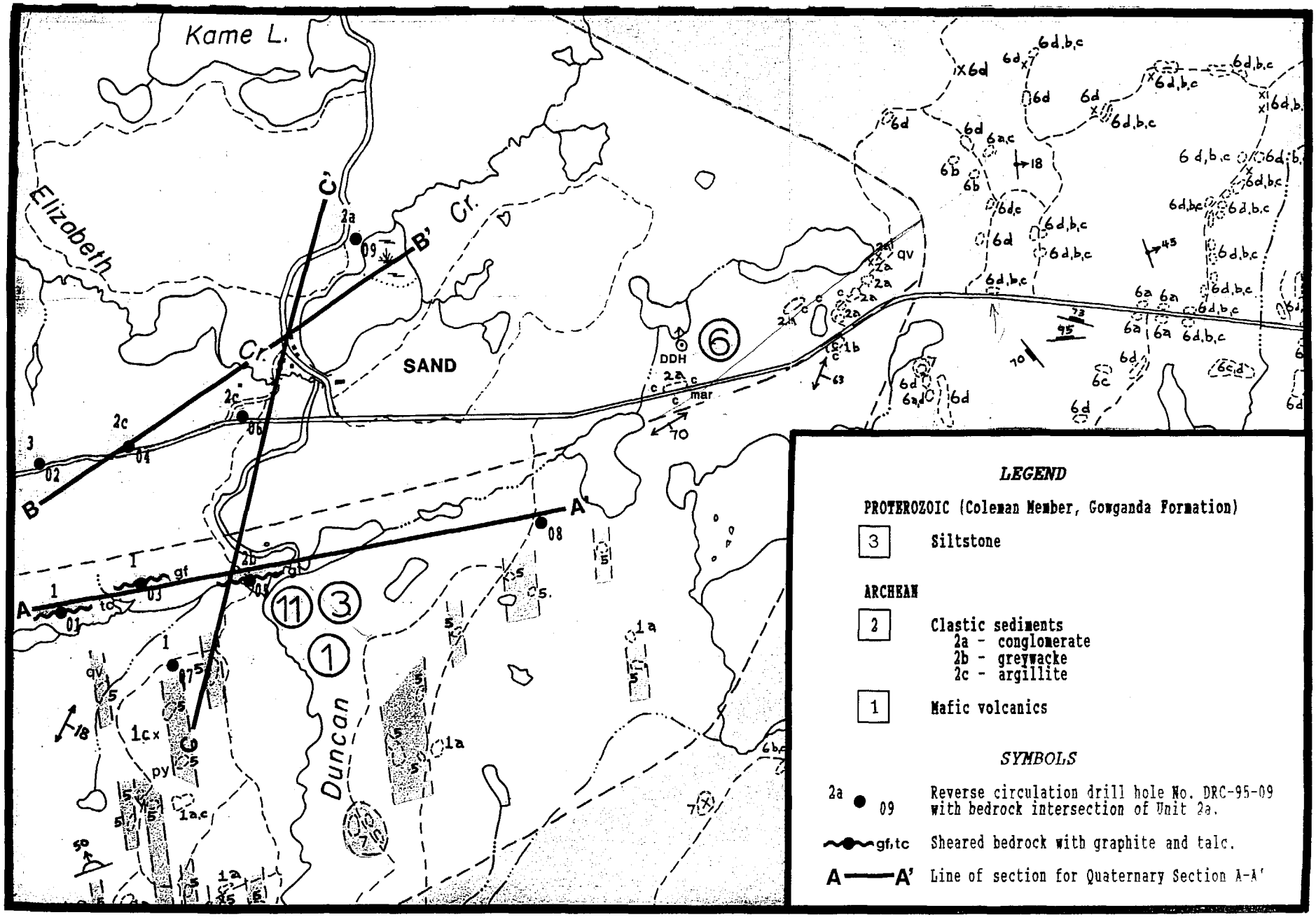


Figure 5 – Bedrock Geology of the Main Part of the Doon Inlier. Mapped Archean lithologies: 1 = intermediate to felsic volcanics, 2 = clastic sediments (mainly conglomerate). Mapped Proterozoic lithologies: 5 = Matachewan diabase, 6 = Gowganda Formation clastic sediments, 7 = Nipissing diabase. Source = Jannila, 1990. Drill hole lithologies are shown in legend. The Hole 02 siltstone intersection reduces the western limit of the inlier. Scale = 1:20,000.

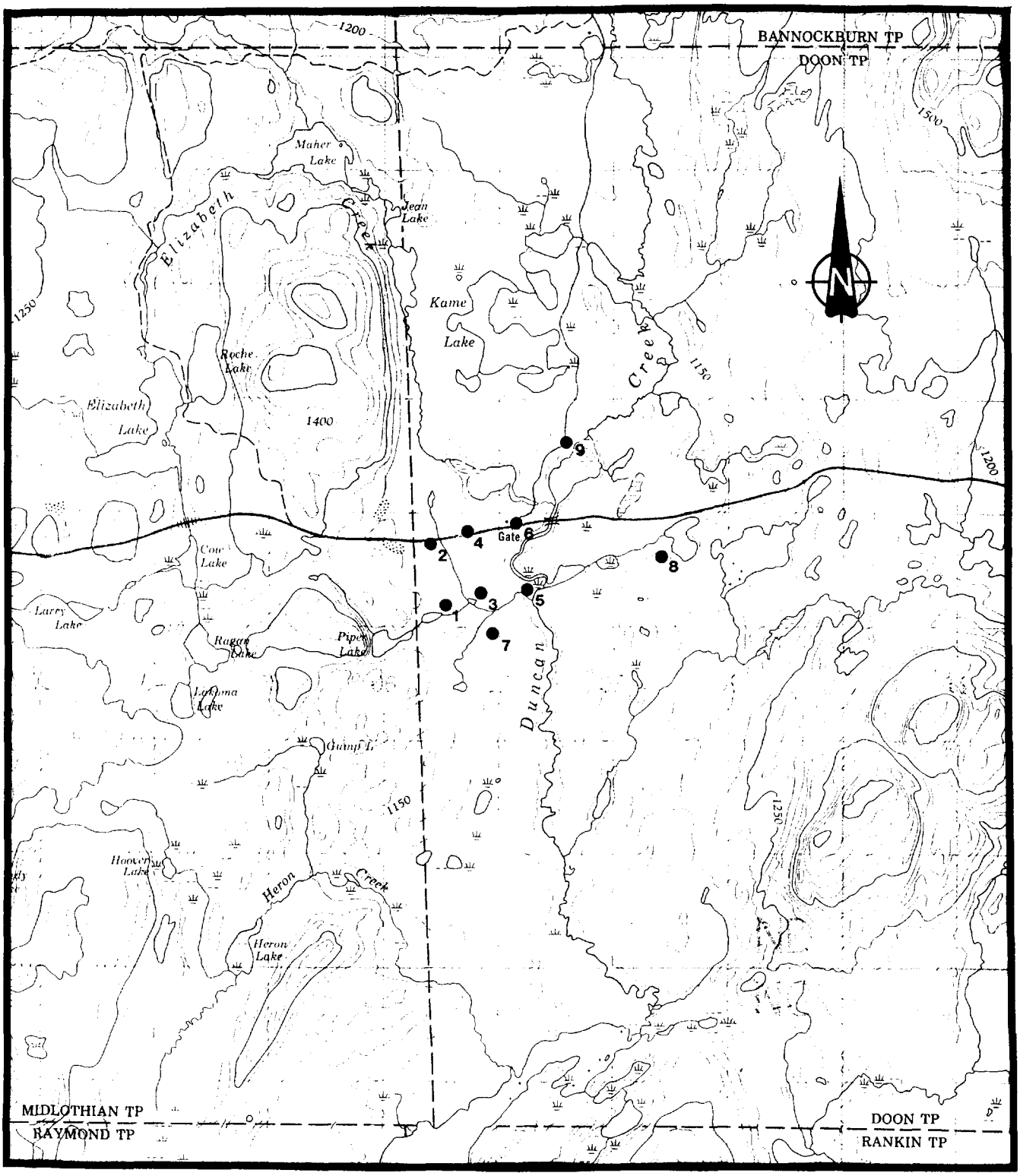


Figure 6 – Surface Topography of the Drill Area. The Archean inlier underlies the low area between the flat-topped hills of Proterozoic cover rocks (Gowganda Formation). Source: NTS Sheet 41 P/15, Matachewan. Scale = 1:50,000.

topped hills reaching to elevations of 450-500 m, and 2) the eastern part of the inlier is traversed by a Quaternary esker with a flanking outwash sand plain that extends westward across Duncan Creek to Kame Lake (Fig. 2). Consequently the inlier is little explored with the most significant work being a 122 m diamond core hole drilled on an electromagnetic anomaly east of Duncan Creek by Laroma Midlothian Mines Ltd. in 1963 (OMNDM File No. KL1579). The only work performed by WMC prior to the reverse circulation drilling was a few outcrop examinations (Baker, 1995 and personal communications).

The most recent mapping of the inlier (Junnila, 1990) indicates a sharp ENE trending (080°) contact between intermediate to felsic volcanics in the south and conglomeratic sediments in the north. This contact is suggestive of the Cadillac - Larder Lake Fault which in the Kirkland Lake district separates northern $\pm$2680 Ma (Jackson and Fyon, 1991) Timiskaming Group alluvial fan sediments from older, southern Larder Lake Group volcanics ($\pm$2705 Ma) and Porcupine Group resedimented volcaniclastics ($\pm$2698 Ma) to the south. However, as shown in Figure 4, the sedimentary rocks in the Doon inlier have been assigned to the Porcupine Group which is similar in age to the Middle Tisdale Group volcanics of the inlier as well as to the Larder Lake Group volcanics at Kirkland Lake. The distinction is critical because the Timiskaming Group sediments occur only in paleovalleys along the Cadillac - Larder Lake and Destor - Porcupine Faults which are the principal gold-controlling structures of the southern Abitibi Subprovince. The assignment of the inlier sediments to the Porcupine Group appears to be based mainly on the observation (Bright, 1970) that similar sediments bordering the Cobalt Embayment 5 to 10 km to the northwest in Midlothian Township face north rather than south like the Timiskaming Group at Kirkland Lake. However, with Timiskaming Group contacts being largely tectonic throughout the Abitibi Subprovince, facing direction may be irrelevant. The Midlothian sediments occur in two distinct bands which appear to correlate with two similar bands on the east side of the Cobalt Embayment near Matachewan. The Matachewan sediments were also once assigned to the Porcupine Group but the southern band is now considered to be part of the Timiskaming Group because the sediments face south and contain sheared and carbonatized volcanic clasts (Jensen, 1995).

The Archean volcanosedimentary rocks are intruded by many narrow (typically 5 to 10 m wide; Baker 1995), N-S trending diabase dykes of the Early Proterozoic (2454 Ma) Matachewan swarm. The unconformably overlying sediments belong to the ±2300 Ma basal Coleman Member of the Gowganda Formation, Cobalt Group, Huronian Supergroup and are locally intruded by 2219 Ma Nipissing diabase sills. The basal part of the Coleman member in most of the Cobalt Embayment consists of glacigenic tillite but in Doon Township it is mainly siltstone (Junnila, 1990). The siltsone beds generally strike NNE and dip gently (10-15°) SE except immediately east of the Doon inlier and further east near Matachewan where the strike is ENE parallel to the subjacent Archean volcanic/sedimentary contact and slump structures are common (Powell, 1990). This deviation suggests that: 1) Coleman sedimentation in the area of the volcanic/ sedimentary contact was influenced by an ENE trending paleovalley; 2) the Archean sediments underlying the paleovalley belong to the Timiskaming Group rather than the Porcupine Group, and 3) the volcanic/sedimentary contact represents the western extension of the Cadillac - Larder Lake Fault. If so the Doon property should be fertile for gold.

The Doon inlier is immediately southwest of a large expanse of the Abitibi Subprovince for which the Late Wisconsinan ice flow history has recently been compiled (Fig. 7; Veillette and McClenaghan, 1995). The esker enters the inlier from the north parallel to final 180° ice flow but bends sharply WSW along the volcanic/sedimentary contact. This lends further support to the contact being a major shear zone, i.e. the Cadillac - Larder Lake Fault, because the Wisconsinan ice sheet was of sufficient thickness (several km) to reactivate old faults and propogate them upward into the ice, inducing permeability that channelized meltwater flow and controlled esker sedimentation.

Final southward ice flow affected all of the Abitibi Subprovince west of the Harricana Moraine (Val d'Or and Joutel). It was the culmination of a gradual counterclockwise shift in the final 2000 years of glaciation (10,500 to 8500 Ka) from earlier westward flow as the influence of the Hudson Bay ice dome outstripped that of the New Quebec dome and Mistassini ice divide (Fig. 8). The till layer deposited during this period is known as Matheson Till. ODM has established that the proportion deposited by southward ice flow increases northwestward from the Harricana Moraine toward the Hudson Bay dome and is essentially 100 percent at Timmins. The Doon drilling was based on southward ice flow and was designed to both intercept any gold dispersal

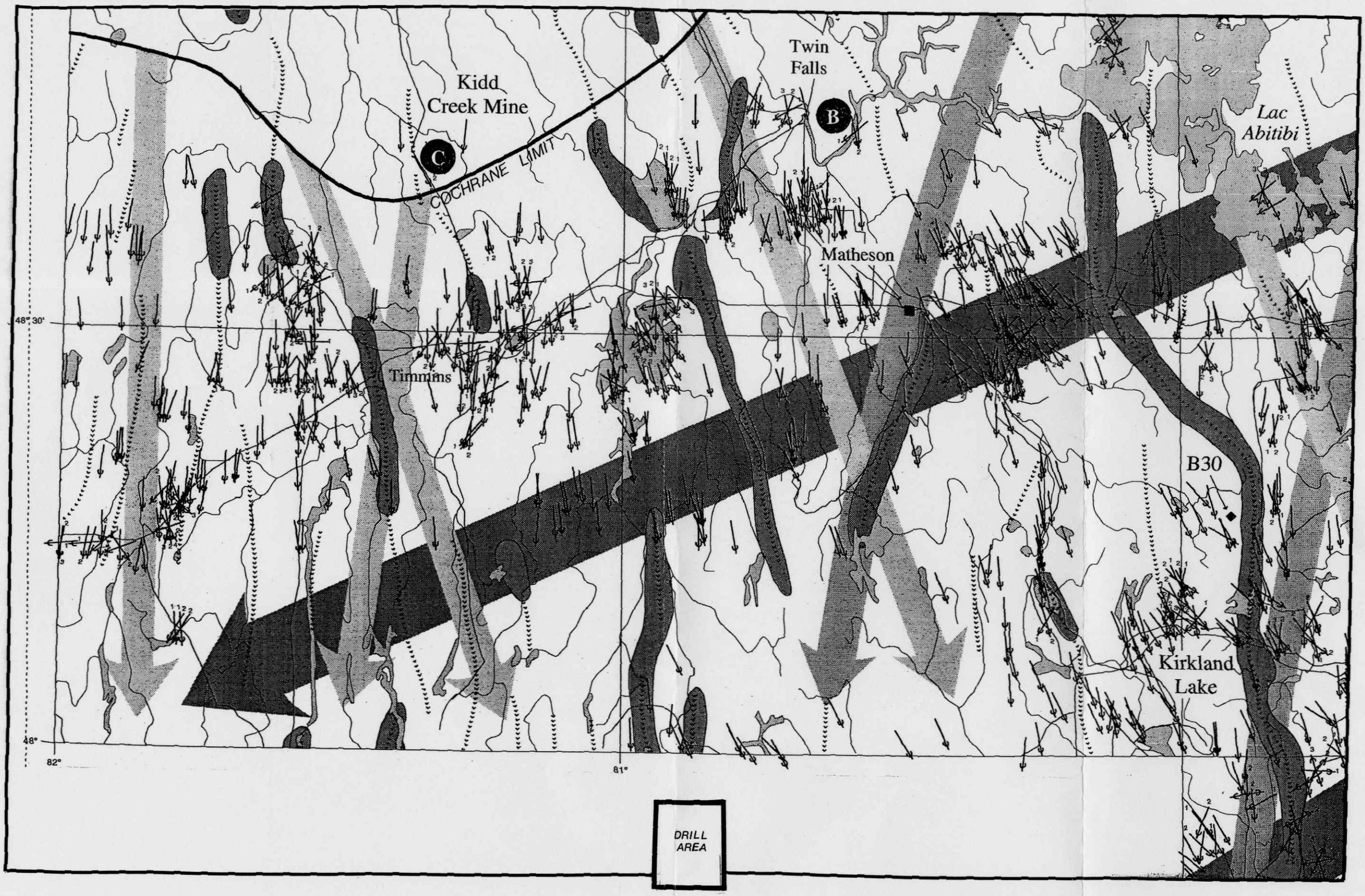


Figure 7 – Late Wisconsinian Ice Flow History of the Western Abitibi Subprovince. Progressively lighter green arrows depict a gradual counterclockwise shift from westward to southward ice flow. Note position of the Doon drill area on one of the eskers (pink) deposited during final southward ice flow. Source: Veillette and McClenaghan, 1995. Scale = 1:500,000.

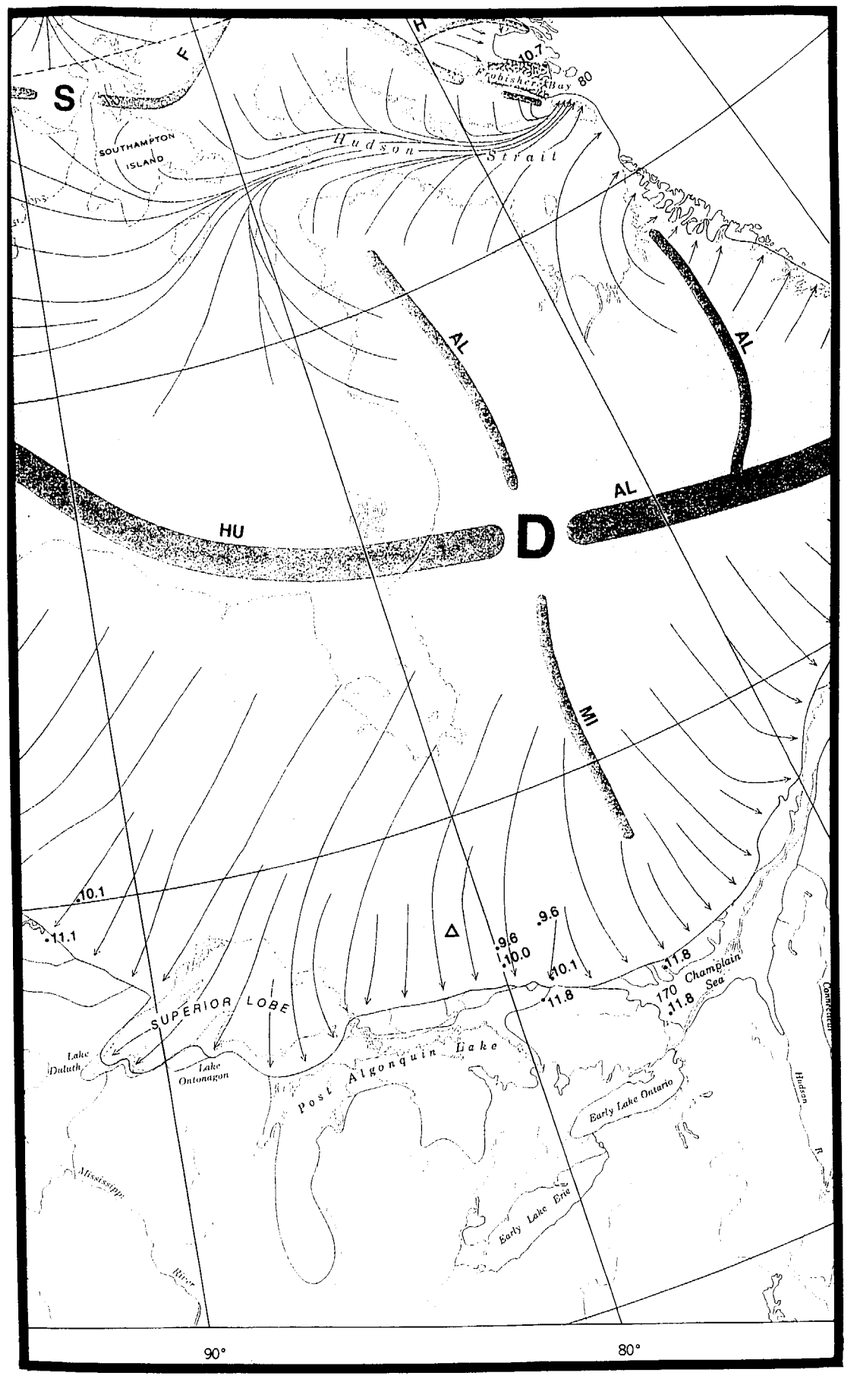


Figure 8a

- Ice
- Alpine glacier
- Ice-free area
- Lake
- Ocean

- Dome ..... D
- Saddle ..... S
- Ice flow ..... →
- Ice stream ..... ⇉
- Radiocarbon date in thousands of years before present related to ice retreat or sea level 9.6
- Position of sea level in metres above or below its present level (dot indicates measured shoreline) 25
- Regional ice divides .....

REGIONAL ICE DIVIDES

- **A** *Amadjuak*
- **AK** *Ancestral Keewatin*
- **AL** *Ancestral Labrador*
- **F** *Foxe*
- **H** *Hall*
- **HU** *Hudson*
- **M** *M'Clintock*
- **MI** *Mistassini*
- **PE** *Penny*

Figure 8 – Paleogeographic Setting of the Doon Area during Late Wisconsinian Ice Meltdown 12,000 (8a) and 10,000 (8b) Years Ago. Note shift from westward to southward ice flow after development of the Hudson ice dome. Dotted line shows future position of Harricana Moraine. Source: Dyke and Prest, 1987. Scale = 1:12.5 million.

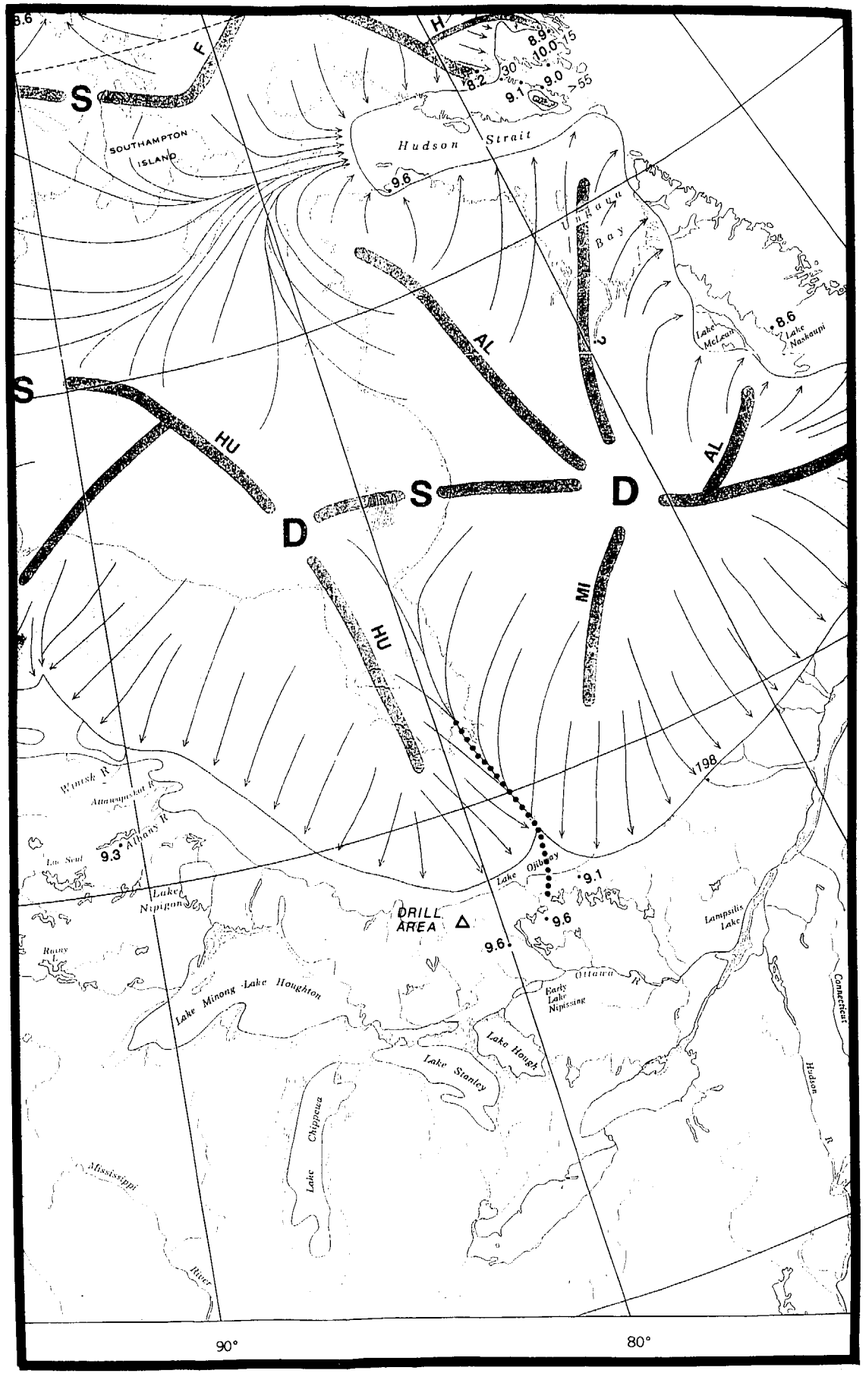


Figure 8b

trains in the till and prove the presence of the Cadillac - Larder Lake Fault in the underlying bedrock. Given the 080° trend of the presumed fault, southward ice flow would tend to produce apron-shaped dispersal trains about 300-400 m wide and 500 m long (Fig. 9). The average drill hole separation was 400 m which should guarantee intersection of any significant trains in one or two drill holes although perhaps only on the low grade fringes of the trains.

2.3 Methods and Costs

A reverse circulation drill obtains samples using two coaxial pipes and a tricone bit (Fig. 10) . Air and water are injected between the pipes to the bit and clay to pebble-sized sediment particles and cm-sized cuttings of boulders and bedrock are flushed instantly through the center pipe to surface where they are logged (Appendix A) and bulk samples weighing 8 to 10 kg are collected. Heath & Sherwood's drill rig was Nodwell-mounted for off-road mobility and fully enclosed for all-weather operation. The driller-foreman was Jim Howg. The drill holes were logged and sampled by ODM geologists Peter Collins and Mike Michaud. The hole sites were prenumbered by WMC and the holes were not drilled in sequence. However the overburden and bedrock samples were numbered in sequence from 204605 to 204643 and 95104101 to 95104108, respectively.

In its Nepean laboratory, ODM relogged the bedrock chip samples in more detail by binocular microscope (Appendix B), prepared heavy mineral concentrates (Table 2) from the 39 bulk till and related overburden samples using shaking table preconcentration followed by heavy liquid sink-float separations (specific gravity 3.3; Fig. 11), counted and measured any observed gold grains and classified them according to degree of wear (pristine, modified, reshaped; Fig. 12; Appendix C), micropanned 13 concentrates showing more than 5 gold grains and calculated rough gold values based on the observed gold grains (Appendix C). The till concentrates and representative subsamples of the bedrock chips were analyzed for gold and other elements by Activation Laboratories Ltd. (Appendix D). Gold, arsenic and a suite of minor elements were determined by the instrumental neutron activation (INA) method which preserves the concentrate for further study as needed. However a 3 g subsample was consumed analyzing Cu, Zn, Pb, Ni, Ag, Mn and Cd by the inductively coupled plasma (ICP) wet chemical method which has a better detection limit than INA for these elements.

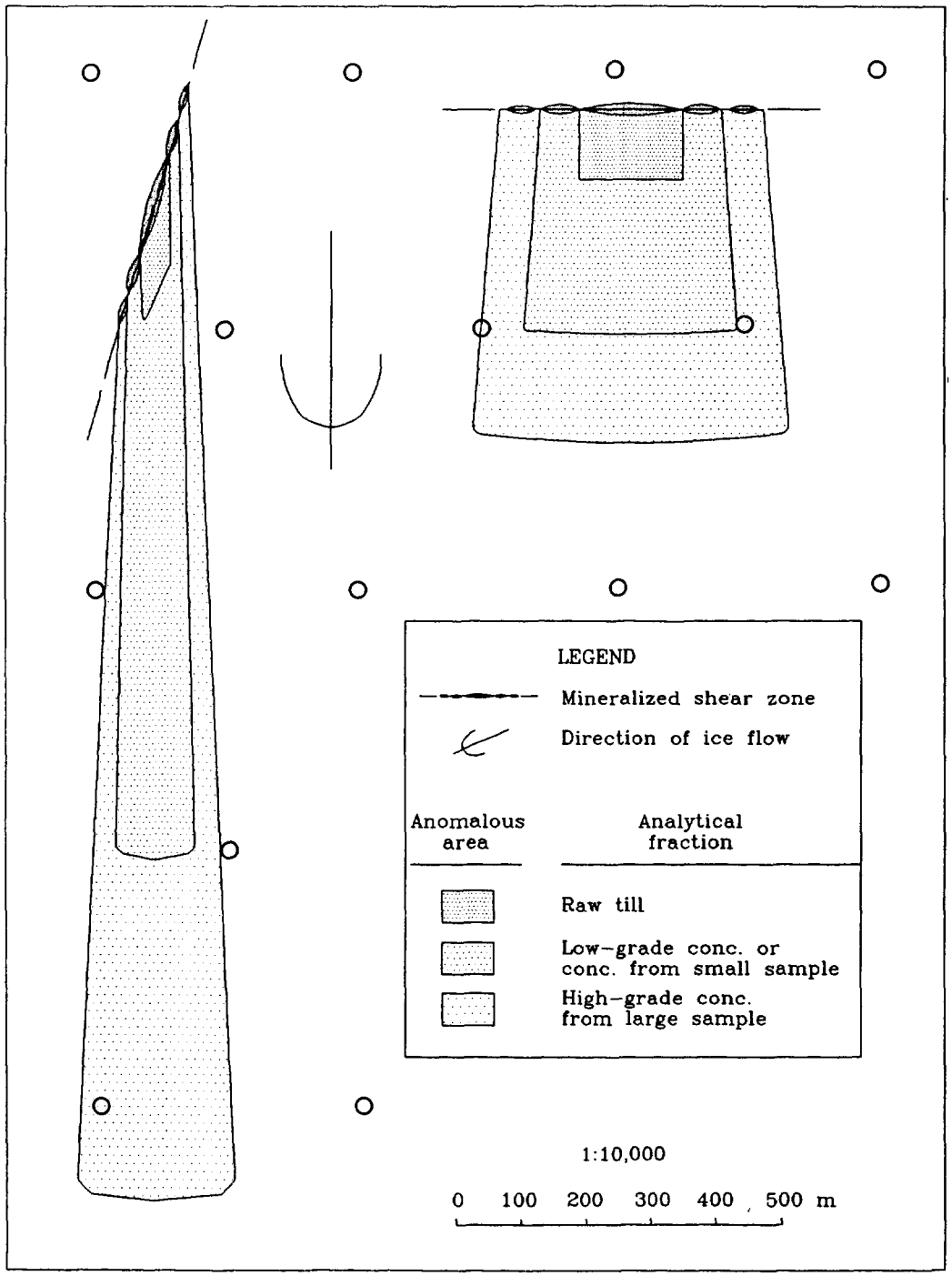


Figure 9 – Typical Sizes and Shapes of Gold Dispersal Trains Using Different Sample Processing Methods. Due to rapid (negative exponential) decay, train has a small, high grade head and large, low grade tail that can only be detected using high grade heavy mineral concemtrates from large till samples. Open circles depict the average 400 m sample spacing used on the Doon Property.

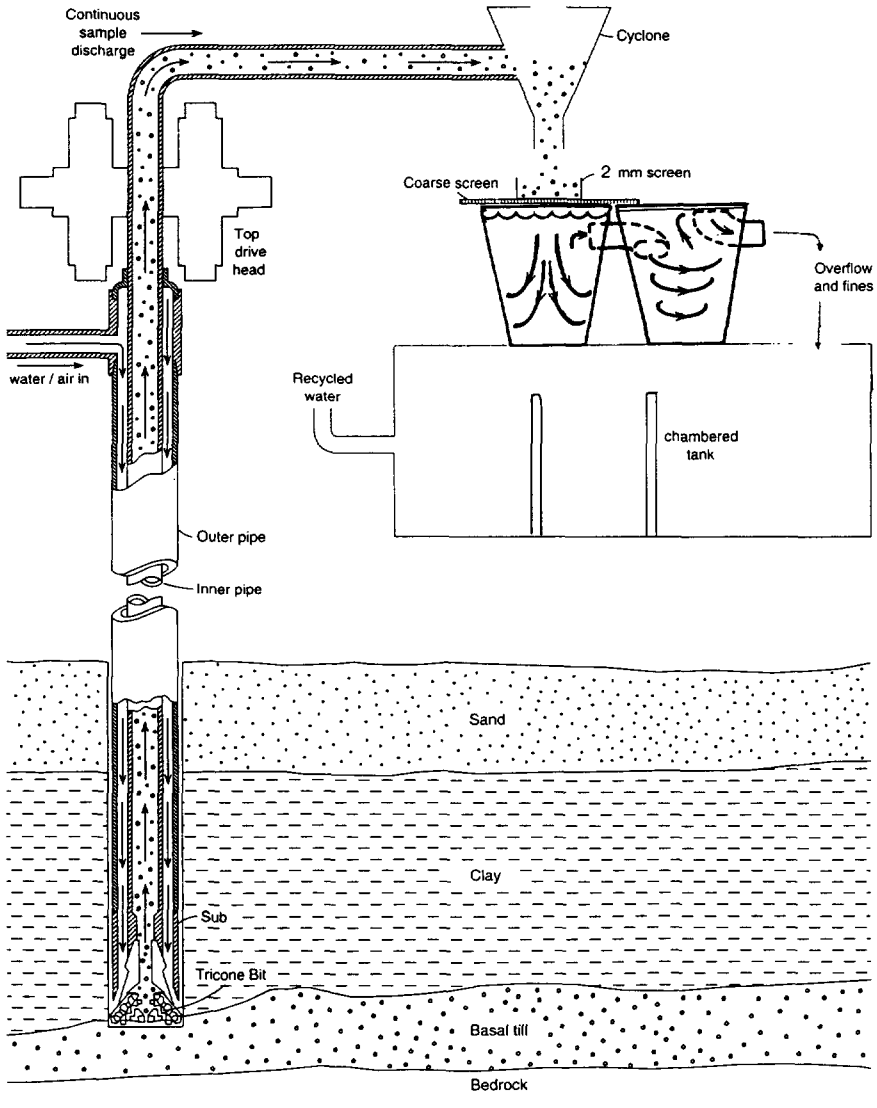


Figure 10 – Schematic Diagram of a Reverse Circulation Drilling System.

SAMPLE NO.	WEIGHT (KG.WET)			WEIGHT (GRAMS DRY)					DESCRIPTION											CLASS
						M. I. CONC			CLAST					MATRIX						
	TABLE+2 mm SPLIT	CHIPS	TABLE FEED	TABLE CONC	M.I. LIGHTS	CONC. TOTAL	NON MAG	MAG	SIZE	% V/S	% GR	% LS	% OT	S/U	SD	ST	CY	COLOUR SD	COLOUR CY	OR
DRC-95																				
204605	7.3	0.5	6.8	577.1	539.3	37.8	30.1	7.7	P	85	15	0	NA	S	M,C	N	N	GB	NA	SAND
204606	8.3	1.6	6.7	156.8	140.6	16.2	12.2	4.0	C	85	15	0	NA	S	F,C	-	N	GB	NA	SAND+GRAV
204607	7.2	0.1	7.1	220.0	198.3	21.7	16.4	5.3	C	100	TR	TR	NA	S	FMC	N	N	GB	NA	SAND
204608	8.6	1.7	6.9	307.3	265.6	41.7	30.5	11.2	P	95	5	0	NA	U	Y	Y	-	GY	GY	TILL
204609	9.7	2.3	7.4	329.6	278.2	51.4	37.3	14.1	C	95	5	TR	NA	U	Y	Y	-	GY	GY	TILL
204610	9.2	2.2	7.0	293.3	247.8	45.5	33.3	12.2	C	95	5	TR	NA	U	Y	Y	-	GY	GY	TILL
204611	10.0	2.5	7.5	369.1	310.6	58.5	43.1	15.4	C	95	5	TR	NA	U	+	Y	-	GY	GY	TILL
204612	10.0	3.9	6.1	260.9	230.7	30.2	22.2	8.0	C	95	5	0	NA	U	Y	Y	Y	GY	GY	TILL
204613	9.2	2.0	7.2	245.7	207.1	38.6	29.0	9.6	C	95	5	TR	NA	U	Y	Y	Y	GY	GY	TILL
204614	10.5	3.5	7.0	233.2	196.0	37.2	27.9	9.3	C	95	5	0	NA	U	Y	Y	-	GY	GY	TILL
204615	9.0	1.6	7.5	229.4	193.3	36.1	28.1	8.0	C	100	TR	TR	NA	U	Y	Y	Y	GY	GY	TILL
204616	9.3	1.3	8.0	306.7	263.2	43.5	32.8	10.7	C	95	5	0	NA	U	FMC	Y	-	GY	GY	TILL
204617	8.9	0.6	8.4	180.6	144.7	35.9	28.4	7.5	C	100	TR	0	NA	U	Y	Y	Y	GY	GY	TILL
204618	8.8	0.3	8.5	279.2	211.0	68.2	55.4	12.8	C	95	5	0	NA	S	F	+	N	GY	NA	SAND
204619	9.1	1.7	7.5	257.3	223.9	33.4	26.4	7.0	C	95	5	0	NA	S	F	Y	-	GY	GY	SAND
204620	9.9	2.6	7.4	276.2	237.3	38.9	32.1	6.8	C	95	5	0	NA	S	F	Y	-	GY	GY	SAND
204621	9.6	3.4	6.2	262.8	234.0	28.8	23.9	4.9	C	95	5	0	NA	S	F	Y	-	GY	GY	SAND
204622	8.3	2.1	6.2	321.7	296.2	25.5	20.2	5.3	C	95	5	0	NA	S	FMC	Y	-	GY	GY	SAND
204623	9.2	1.9	7.3	402.0	369.8	32.2	26.4	5.8	C	90	10	0	NA	S	+	-	-	GY	GY	SAND
204624	8.5	1.6	6.9	438.9	405.0	33.9	28.5	5.4	C	95	5	0	NA	S	FMC	-	-	GY	GY	SAND
204625	7.0	1.2	5.8	221.8	196.2	25.6	21.4	4.2	C	95	5	0	NA	U	+	Y	-	GY	GY	TILL
204626	8.8	1.9	6.9	322.3	293.0	29.3	23.8	5.5	C	100	TR	0	NA	U	+	Y	-	GY	GY	TILL
204627	9.5	1.7	7.9	377.3	356.7	20.6	16.8	3.8	C	100	TR	0	NA	U	Y	Y	-	GY	GY	TILL
204628	8.6	1.4	7.2	313.0	287.1	25.9	21.4	4.5	C	100	TR	0	NA	U	Y	Y	Y	GY	GY	TILL
204629	8.2	1.2	7.0	368.2	348.5	19.7	13.3	6.4	C	95	5	0	NA	U	Y	Y	Y	GY	GY	TILL
204630	8.6	1.6	7.0	289.8	257.3	32.5	23.2	9.3	C	95	5	0	NA	U	Y	Y	Y	GY	GY	TILL
204631	8.2	0.9	7.4	220.9	194.4	26.5	20.6	5.9	C	95	5	0	NA	U	Y	Y	Y	GY	GY	TILL
204632	9.2	1.9	7.3	277.8	237.2	40.6	30.1	10.5	C	95	5	0	NA	U	Y	Y	-	GY	GY	TILL
204633	10.0	2.3	7.7	427.5	381.4	46.1	33.1	13.0	C	95	5	TR	NA	U	Y	Y	-	GY	GY	TILL
204634	9.0	2.0	7.0	434.8	386.4	48.4	36.1	12.3	C	95	5	0	NA	U	Y	Y	-	GY	GY	TILL
204635	9.5	1.9	7.6	270.2	233.4	36.8	26.2	10.6	C	90	10	0	NA	U	Y	Y	Y	GY	GY	TILL
204636	10.4	1.8	8.6	483.5	413.6	69.9	55.4	14.5	C	90	10	TR	NA	U	Y	Y	-	GY	GY	TILL
204637	10.0	3.0	7.0	279.1	250.7	28.4	22.1	6.3	C	90	10	0	NA	U	Y	Y	-	GY	GY	TILL
204638	8.6	1.9	6.7	277.4	245.9	31.5	23.9	7.6	C	90	10	0	NA	U	Y	Y	-	GY	GY	TILL
204639	9.7	2.9	6.8	329.1	309.9	19.2	13.8	5.4	C	95	5	0	NA	U	Y	Y	-	GY	GY	TILL
204640	10.2	1.8	8.4	354.6	339.9	14.7	10.5	4.2	C	90	10	TR	NA	U	Y	Y	Y	GY	GY	TILL
204641	9.7	1.0	8.7	267.2	248.7	18.5	14.4	4.1	C	95	5	TR	NA	U	+	Y	Y	GY	GY	TILL
204642	9.4	1.0	8.4	395.9	314.3	81.6	60.0	21.6	C	90	10	0	NA	U	Y	Y	Y	GY	GY	TILL
204643	6.7	1.8	4.9	175.6	159.5	16.1	11.1	5.0	C	98	2	0	NA	U	Y	Y	-	GY	GY	TILL

Table 2 – Heavy Mineral Concentrate Weights and Sample Descriptions

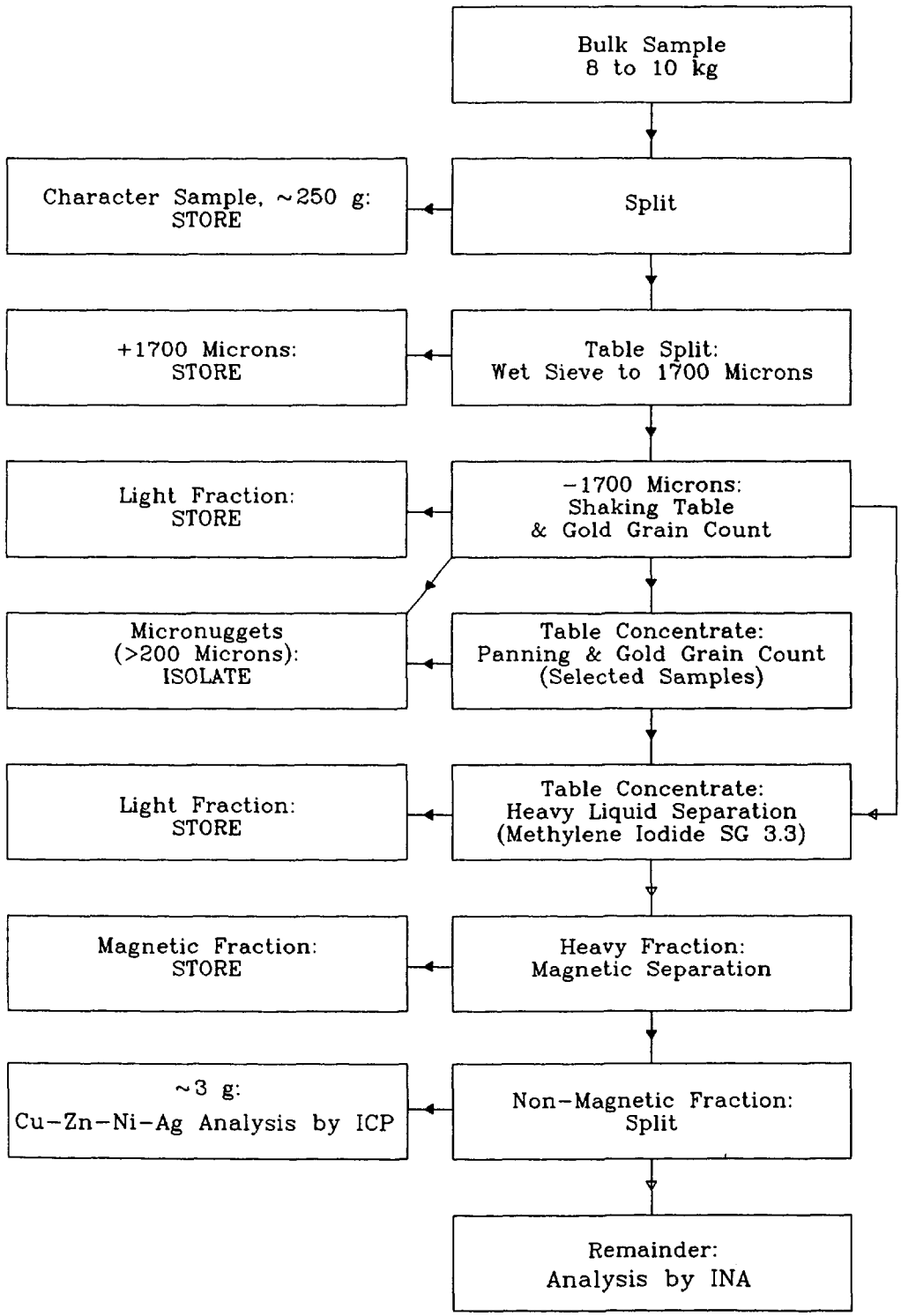


Figure 11 – Sample Processing Flow Sheet for Till.

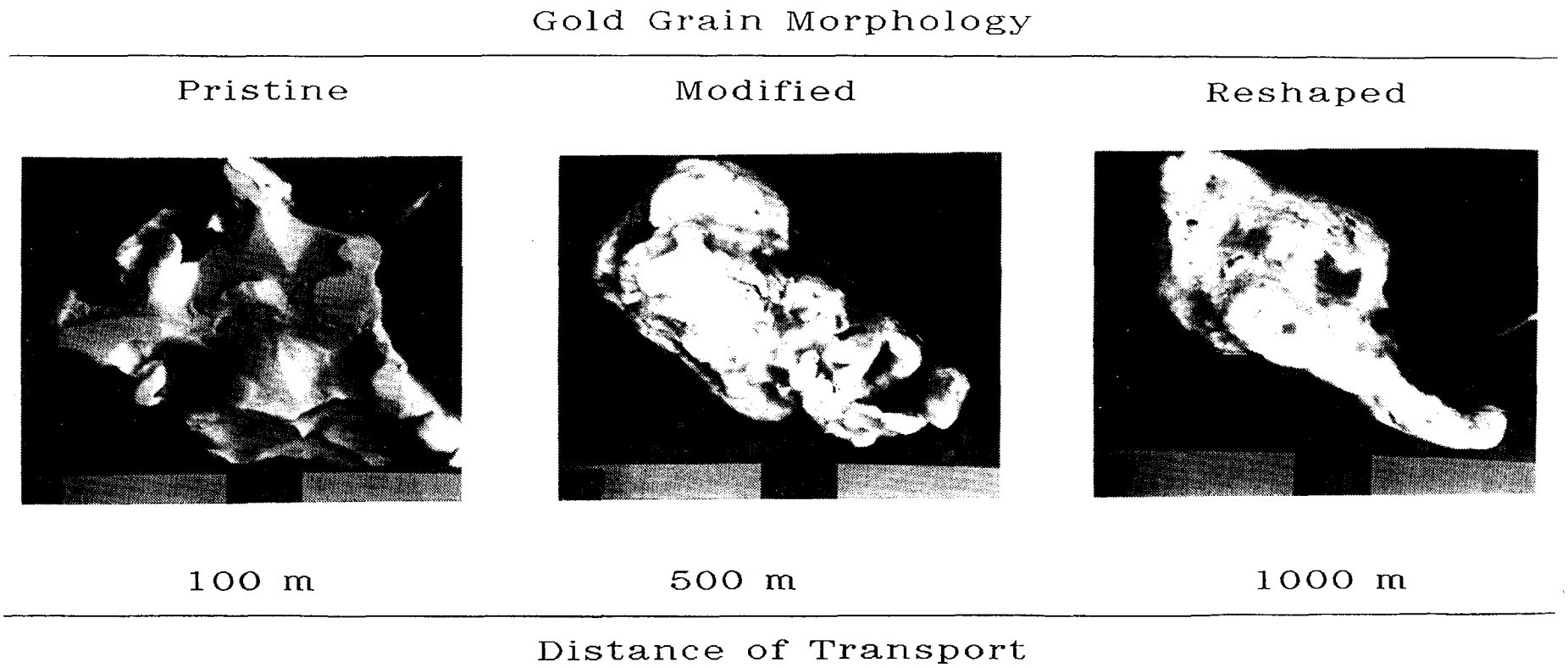


Figure 12 – **Effects of Glacial Transport on Gold Grain Size and Shape.**
Developed by Overburden Drilling Management Limited.

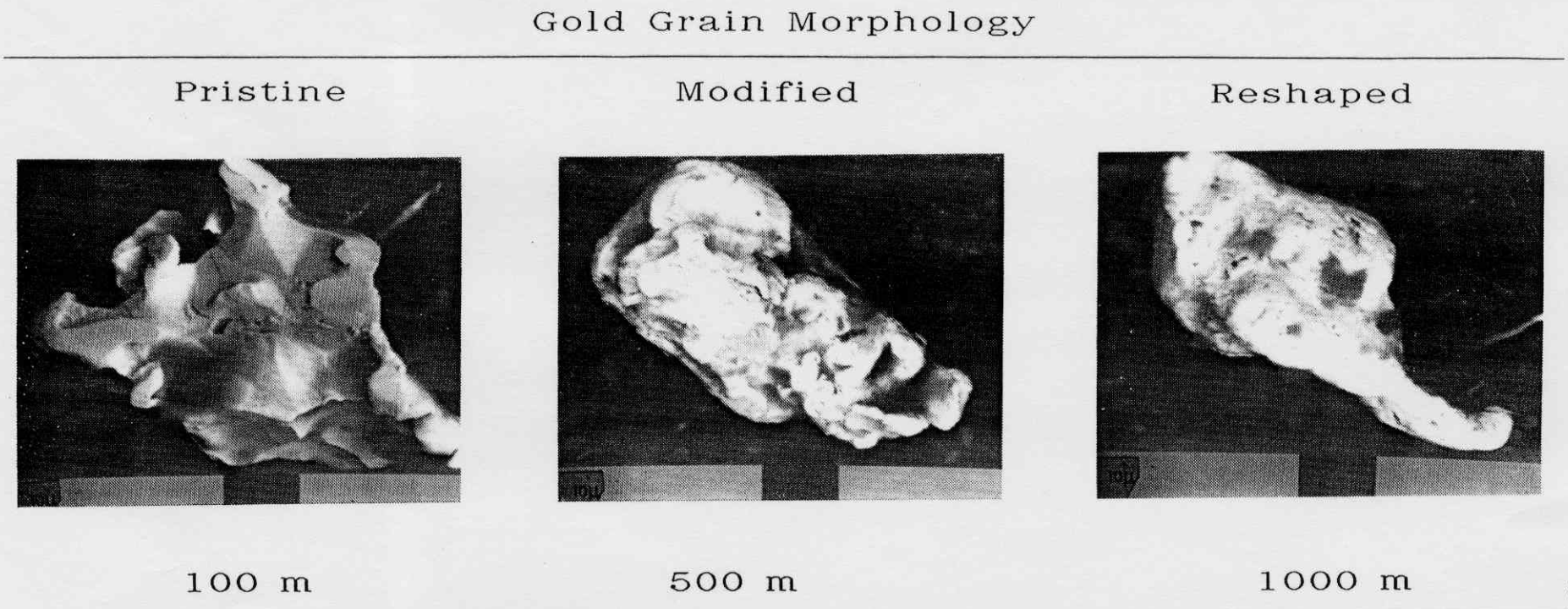


Figure 12 – **Effects of Glacial Transport on Gold Grain Size and Shape.**
Developed by Overburden Drilling Management Limited.

	Service	Company	Actual $ Total		$/Metre	$/Foot
1.	Drilling operations	Heath & Sherwood	18,153.00		84.87	25.87
2.	Field supervision, logging and sampling	ODM	4,662.74		21.80	6.65
3.	Sample processing	ODM	1,752.00		8.19	2.50
4.	Analytical	Actlabs	699.97		3.27	1.00
5.	Report	ODM	4,757.29	est.	22.24	6.78
		TOTALS	30,025.00		140.37	42.80
		GST	2,230.15			
		GRAND TOTAL	32,255.15			

Table 3 - Invoiced Costs of the Reverse Circulation Drilling Program

subgreenschist facies metamorphism. The Hole 01 intersection is a weakly sheared talc-chlorite schist and the Hole 03 intersection is strongly sheared with pervasive brittle microfractures, 3 percent black graphitic seams and 5 percent quartz-calcite veinlets having 0.05 percent coarse crystalline pyrite concentrated along their margins. The only iron or titanium oxide observed in the basalt is 2 percent leucoxene in the Hole 07.

The intersections of Archean sediments include conglomerate in Hole 09, greywacke in Hole 05 and argillite with minor greywacke interbeds in Holes 04 and 06. The conglomerate intersection is furthest from the volcanic contact, suggesting that the sediments face south and supporting the hypothesis that their contact with the volcanics is tectonic rather than an unconformity. Moreover, sheared sediments (greywacke) were observed only in the drill hole closest to the contact (Hole 05).

The Hole 09 conglomerate is a pale to medium grey-green rock with 20 percent pebble-sized clasts (>4 mm) and 10-20 percent coarse sandy to granular grit (0.5-4 mm) in a well-sorted medium sand (0.3-0.5 mm) matrix. The pebbles show significant rounding. Andesite and/or quenched leucocratic basalt pebbles are more plentiful than coarse-grained basalt pebbles, and granitic and sheared volcanosedimentary pebbles are absent. This could be interpreted as evidence of a resedimented volcaniclastic origin compatible with the synvolcanic Porcupine Group. However, some resistant chert pebbles are also present which in combination with the obvious rounding of the pebbles and sorting of the sediment favours the Timiskaming Group. The lack of granitic clasts may simply reflect the lack of unroofed granitic plutons in the immediate vicinity (Fig. 4). Similarly, the lack of sheared volcanic clasts may reflect the relative weakness of the shearing along the volcanic/sedimentary contact and the 1 km separation of the conglomerate unit from this contact. Most of the sand grains in the conglomerate matrix are lithic grains similar to the pebbles; only 5 percent are quartz. The sand fraction hosts 2 percent pyrrhotite, most of which is amorphous suggesting it has replaced primary diagenetic sulphate minerals or marcasite.

The sheared greywacke of Hole 05 is similar to the conglomerate of Hole 09 except that the pebble fraction is lacking. It is also a darker grey colour because 40 percent of the lithic sand grains and granules are black argillite rip-ups. The degree of shearing is weak; only a few graphitic slips are present and primary diagenetic pyrite has not been remobilized.

Sample Designation			PPM					
Hole No.	Sample No.	PPB Au	As	Cu	Zn	Ag	Pb	Ni
DRC-95								
01	104107	<2	2.2	45	30	0.2	-2	251
02	104103	<2	2.7	46	55	0.4	-2	42
03	104104	<2	3.1	58	91	0.5	-2	364
04	104102	6	120.0	82	138	0.3	2	351
05	104105	3	16.0	36	99	0.2	4	34
06	104101	<2	37.0	49	47	0.3	3	61
07	104106	<2	12.0	98	102	0.5	-2	20
09	104108	<2	8.7	81	50	0.3	-2	239

Table 4 – Summary of Bedrock Assays

buried valley. Hole 01 in the valley intersected two layers of till but both layers must have been deposited during final meltdown of the Late Wisconsinan ice sheet because both are overlain by silty sand layers which coalesce eastward to form a single sand unit in Hole 03. This silty sand is a glaciolacustrine sediment. It was probably deposited in glacial Lake Ojibway since the Hudson Bay/St. Lawrence River drainage divide which formed the south shore of the lake now lies just 6 km northwest of the drill area and has migrated many kilometres northward through isostatic rebound since deglaciation. Normally the silty sand would fine upward to varved clay/silt as the sediment source (i.e. the ice sheet) became more distal. The Doon sediments, however, coarsen upward to gravelly sand. This reflects thinning of the ice sheet and gradual replacement of the central glaciofluvial meltwater/sediment discharge channel by several distributary channels which allowed the glaciofluvial sediments to spread laterally from the main esker ridge onto the glaciolacustrine sediments. One of the distributary esker ridges is draped along the hillside southeast of the main esker; it contains the clast-supported gravel that resulted in the abandonment of Hole 08 at a depth of just 4 m.

The very close association of the Matheson Till with a south-trending esker suggests that all of the till was deposited by southward-flowing rather than westward-flowing ice. Much of the till is clast supported, and as noted previously it is so stony in Holes 01 and 05 that redrilling with mud was required to reach bedrock. In most sections, 70-80 percent of the clasts are of Archean and Proterozoic sediments and only 20-30 percent are granitoids of distal provenance. Over the southern volcanic terrain, mafic volcanic clasts become prominent. Thus the till is very reflective of the local bedrock geology and well-suited for geochemical sampling. Moreover, the matrix of the till, like that of all till derived from crystalline Precambrian bedrock with no recycling of glaciolacustrine clay, consists mainly of silty to fine sandy rock flour. This is ideal for gold detection because gold particles crystallize mostly at silt size. In contrast, the matrix of the esker gravel consists of medium to coarse sand grains (0.25 to 2.0 mm) that are much larger than typical gold grains and the gravel clasts are mainly of Proterozoic sediments and distal granitoids.

3.3 Heavy Mineral Gold and Other Anomalies

Normally, heavy mineral concentrates are considered anomalous in gold if: 1) more than 10 pristine to modified (locally derived) gold grains are present; or 2) the concentrates assay >1000 ppb gold, basis a 350:1 concentration factor, and the gold is held entirely in pristine to modified grains and/or in sulphides rather than in background-type reshaped gold grains of distal provenance. Ideally the pristine to modified grains are silt-sized, reflecting even gold distribution in the bedrock (i.e. economic mineralization).

The drilled till samples yielded from zero to twenty-two gold grains (Table 5, Appendix C). Most of these grains are of the reshaped background type; the critical pristine to modified population never exceeds six grains. Thus no samples are anomalous in visible gold. Moreover, the gold grains in most samples are so small that the gold values calculated for the concentrates are well below 1000 ppb. In six samples, however, the presence of one or more large grains generated values >1000 ppb. Three of these samples are from the three-sample-thick till section of Hole 03 over the sheared volcanic/sedimentary contact (Fig. 13). Each of the three samples yielded not only a large nuggety grain but also more sand-sized than silt-sized gold. Most of the grains are reshaped precluding a direct connnection to the underlying shear zone but it is equally unlikely that gold would occur purely by accident in three consecutive samples over the shear zone. Westward transport of the gold grains along the shear zone before the late glacial shift to southward ice flow can be discounted because the lower part of the thick till section in Hole 05 east of Hole 03 is not anomalous in gold. The large size and reshaped condition of the gold grains suggest recycling from a preglacial paleoplacer in the valley that coincides with the shear zone. The paleoplacer may have been of significant grade but the paucity of pristine to modified gold grains in the till indicates that the shear zone itself is not well mineralized, as does the lack of gold in the sheared bedrock samples. The other three calculated gold values >1000 ppb are from scattered samples and occur at various levels in the till horizon. They simply appear to reflect the normal occurrence of occasional large grains in the background gold grain population of the till (i.e. a nugget effect).

The INA gold assays (Table 6) show excellent correspondence with the calculated visible gold values (Table 5), indicating that sulphide-encapsulated gold is not present in significant concentrations. In fact, five of the six calculated values >1000 ppb are

Sample Designation			Number of Visible Gold Grains				Non-Mag	Calculated PPB Visible Gold			
Hole No.	Sequence in Hole	Sample No.	Total	Reshaped	Modified	Pristine	Weight	Total	Reshaped	Modified	Pristine
DRC-95											
01	01	204618	7	3	3	1	55.4	40	32	1	7
	02	204619	1	1	0	0	26.4	38	38	0	0
	03	204620	0	0	0	0	32.1	0	0	0	0
	04	204621	0	0	0	0	23.9	0	0	0	0
	05	204622	0	0	0	0	20.2	0	0	0	0
	06	204623	1	1	0	0	26.4	24	24	0	0
	07	204624	0	0	0	0	28.5	0	0	0	0
	08	204625	0	0	0	0	21.4	0	0	0	0
	09	204626	3	2	0	1	23.8	152	31	0	121
	10	204627	1	1	0	0	16.8	22	22	0	0
	11	204628	1	1	0	0	21.4	4	4	0	0
02	01	204615	10	8	1	1	28.1	104	47	53	3
	02	204616	22	16	5	1	32.8	162	135	26	0
	03	204617	1	1	0	0	28.4	13	13	0	0
03	01	204629	1	1	0	0	13.3	1427	1427	0	0
	02	204630	9	4	5	0	23.2	2672	2495	177	0
	03	204631	8	6	2	0	20.6	2539	656	1882	0
04	01	204608	3	3	0	0	30.5	502	502	0	0
	02	204609	2	2	0	0	37.3	37	37	0	0
	03	204610	5	5	0	0	33.3	43	43	0	0
	04	204611	2	2	0	0	43.1	38	38	0	0
	05	204612	4	4	0	0	22.2	563	563	0	0
	06	204613	4	4	0	0	29.0	87	87	0	0
	07	204614	1	1	0	0	27.9	13	13	0	0
05	01	204632	3	3	0	0	30.1	1001	1001	0	0
	02	204633	4	3	1	0	33.1	109	89	19	0
	03	204634	4	3	1	0	36.1	221	49	173	0
	04	204635	9	4	4	1	26.2	182	134	46	2
	05	204636	14	8	5	1	55.4	1121	1048	35	38
	06	204637	4	3	1	0	22.1	97	93	4	0
	07	204638	2	2	0	0	23.9	11	11	0	0
	08	204639	4	0	4	0	13.8	83	0	83	0
	09	204640	1	1	0	0	10.5	8	8	0	0
	10	204641	8	7	1	0	14.4	139	135	4	0
06	01	204605	2	2	0	0	30.1	348	348	0	0
	02	204606	0	0	0	0	12.2	0	0	0	0
	03	204607	0	0	0	0	16.4	0	0	0	0
07	01	204642	1	0	1	0	60.0	1	0	1	0
09	01	204643	1	1	0	0	11.1	2328	2328	0	0

Table 5 – Gold Grain Summary

Sample Designation			No. of Visible		PPM					
Hole No.	Sequence in Hole	Sample No.	Gold Grains	PPB Au	As	Cu	Zn	Ag	Pb	Ni
DRC-95										
01	01	204618	7	64	9	47	21	0.4	10	34
	02	204619	1	25	11	94	19	0.6	20	94
	03	204620	0	5	<2	45	11	0.7	20	26
	04	204621	0	107	<2	59	13	0.6	41	60
	05	204622	0	15	4	72	16	0.6	16	28
	06	204623	1	25	<2	86	13	0.7	15	63
	07	204624	0	7	<2	70	15	0.7	15	29
	08	204625	0	7	<2	62	16	0.7	20	67
	09	204626	3	184	280	571	442	0.8	30	1650
	10	204627	1	78	160	1030	417	1.1	32	2060
	11	204628	1	80	140	519	322	0.9	29	1330
02	01	204615	10	253	14	135	32	0.6	19	75
	02	204616	22	271	16	66	17	0.5	12	42
	03	204617	1	59	7	102	27	0.5	16	72
03	01	204629	1	1320	63	296	113	1.0	34	263
	02	204630	9	5740	68	204	52	0.7	21	127
	03	204631	8	2660	45	162	47	0.7	18	127
04	01	204608	3	215	45	76	19	0.8	16	88
	02	204609	2	147	48	68	21	0.7	17	107
	03	204610	5	1100	31	73	78	0.9	20	76
	04	204611	2	126	24	69	37	0.8	21	90
	05	204612	4	1020	50	107	25	0.8	18	96
	06	204613	4	64	31	78	23	0.7	15	105
	07	204614	1	127	88	111	55	0.8	18	120
05	01	204632	3	1750	190	151	105	0.8	40	205
	02	204633	4	511	160	178	85	0.9	46	168
	03	204634	4	445	38	194	37	0.7	17	87
	04	204635	9	269	36	116	24	0.9	23	116
	05	204636	14	942	21	69	19	0.6	18	88
	06	204637	4	142	33	87	33	0.6	34	118
	07	204638	2	174	36	95	35	0.6	25	124
	08	204639	4	431	31	127	49	1.1	43	228
	09	204640	1	142	35	273	137	0.9	79	204
	10	204641	8	160	79	145	225	1.0	56	211
06	01	204605	2	699	<2	43	16	0.6	24	82
	02	204606	0	170	<2	49	16	0.5	21	85
	03	204607	0	73	10	37	14	0.5	15	67
07	01	204642	1	41	11	39	16	0.6	15	39
09	01	204643	1	2180	200	466	58	0.6	192	599

Table 6 – Summary of Overburden Heavy Mineral Concentrate Assays

matched by INA assays >1000 ppb and the sixth assay is only marginally lower (942 ppb). Only two assays >1000 ppb were obtained from concentrates with calculated gold values <1000 ppb; both are marginal and one is less than twice the calculated value (1020 ppb versus 563 ppb). A two-fold variation between calculated and INA gold values is normal if only a few gold grains are present because a theoretical mid-range thickness is assumed in the calculation; only the lengths and widths of the grains are actually measured. For concentrates with many gold grains, the difference between the calculated and INA gold values is generally less than 25 percent.

Heavy mineral arsenic values (Table 6) do not exceed 280 ppm and do not correlate well with the sheared volcanic/sedimentary contact that is assumed to represent the Cadillac - Larder Lake Fault. Lead and silver values are also very low. A weak Cu-Ni anomaly (typically 600 to 2000 ppm with Ni = 2.5 x Cu) was obtained from three samples spanning the lower of the two till sections in Hole 01 (Fig. 13). The heavy mineral fraction contains sufficient chalcopyrite and pentlandite (identity confirmed by SEM) to explain the Cu-Ni assays. The chalcopyrite and pentlandite are probably derived from primary Ni-Cu mineralization in the underlying komatiite horizon (talc-chlorite schist). However, the mineralization is probably very weak as massive sulphides would be expected to generate heavy mineral Cu-Ni anomalies >10,000 ppm (1 percent). A weak (400 ppm) Zn association is present but it is suspect; Zn is not normally associated with Cu-Ni deposits and the heavy mineral fraction contains no sphalerite.

4. CONCLUSIONS AND RECOMMENDATIONS

The reverse circulation drilling was focussed on the small Archean inlier that interrupts the Huronian sedimentary cover in the central part of the Doon property. The three main objectives of the drilling were: 1) to establish the extent of the inlier; 2) to determine whether the Cadillac - Larder Lake Fault passes through the inlier, and if so, 3) to establish the gold potential of the fault and its environs. The drilling fulfilled all three objectives.

The presumed Cadillac - Larder Lake Fault should be tested by a diamond core hole under Hole 03 to more accurately determine the nature of the fault and the extent to which it is mineralized. Geophysical methods should be used to develop other diamond drill targets under the Proterozoic cover rocks east and west of the Archean inlier.

* * * * * * * * * *

APPENDIX A

REVERSE CIRCULATION DRILL HOLE LOGS

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OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Nov 29 19 95
SHIFT HOURS
____ TO ____
TOTAL HOURS
____
CONTRACT HOURS
____

HOLE NO DLC-95-01 LOCATION site 01 ELEVATION ____
GEOLOGIST P. Collins DRILLER J. Hoag BIT NO. CA20182 BIT FOOTAGE 73.0-95.5m (0.0 -)
MOVE TO HOLE 7:10 - 8:00
DRILL 8:00 - 5:00 (+ warm up)
MECHANICAL DOWN TIME ____
DRILLING PROBLEMS ____
OTHER travel 6:00 - 7:10
MOVE TO NEXT HOLE ____

New bit

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1–20				0.0 - 16.5 Ojibway II Sediments (0.0-6.4) glaciofluvial: oxidized (olive) sorted medium & coarse grained sand beds with granule / pebble (rounded) interbeds clasts mainly proterozoics (6.4 - 16.5) glaciolacustrine: poorly sorted grey beige very fine to fine grained sand. Occasional wood chips, mm gritty clay partings and dropstones. 16.5 Matheson Till initially very sandy (mainly v. fine sand & silt) implying gradational contact w dropstones with lake sediments. below 17.5' more typical unsorted silt to fine sand matrix (slightly sorted inplaces - occasional fine sand bed) Cobble clasts of composition: 80% proterozoic-archean sediments; 20% exotics at 17.4 surge of sample due to water table pressure (hole making water). at 19.5 bit more out. ~~bore~~ replace with used bit (good shape)
17			204618	
18			204619	
19			204620	
20			204621	

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Nov. 29 19 95

SHIFT HOURS
_____ TO _____

TOTAL HOURS
_____

CONTRACT HOURS
_____

HOLE NO ORC-95-01 LOCATION _____ ELEVATION _____

GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____

MOVE TO HOLE _____

DRILL _____

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21			204621	* slow drilling through till unit, very cobbly & compact
22			204622	20.0 - 26.0 till alternates between cobble clast supported and matrix supported; little change in clast composition.
23			204623	
24				26.0 - 26.6 till as above with ~5 to 10% oxidized clasts
25			204624	
26			204625	26.6 - 32.1 glaciolacustrine sediments grey beige very fine sand & silt
27				
28				32.1 - 33.3 till: abrupt change in clast composition: 90% archean metasediments / volcanics cobble clasts.
29				
30				
31				* at 34 m pulled rods due to plugged bit - also bit nearly worn out ∴ change to new bit.
32				
33			204626	
34				← EOH
35				
36				
37				
38				
39				
40				

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Nov 29, Dec 1, 2 19__
SHIFT HOURS
____ TO ____
1/A TOTAL HOURS
____
CONTRACT HOURS
____

HOLE NO ORC-95-01A LOCATION ____ ELEVATION ____
GEOLOGIST P. Collins DRILLER J. Hung BIT NO. CB70 18 BIT FOOTAGE 0.0 -
MOVE TO HOLE move few metres N of 01 (Nov 29th)
DRILL 1:00 - 6:00 pm
MECHANICAL DOWN TIME ½ hr repair to water pump; clean mud tanks
DRILLING PROBLEMS (choggeable)
OTHER ____
MOVE TO NEXT HOLE 6:00 - 6:45 move partway to 03

Note: moved drill as cones broke off in hole 01

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21				For 1 to 20m check log for 01 for sample intervals check 01
22				
23				
24				
25				
26				
27				
28				33.0 - 35.5 Till unsorted grey beige fine sand to silt matrix. Cobble clast supported - locally derived clasts (good sampling medium) up to 90% locals mainly andesite metaseds, 10% proterozoic & exotics - many of the clasts have qtz/ carbonate veins.
29				
30				
31				
32				
33				
34			204627	at 35.5 sampling pass problem; structure pull out of hole to pressure test rods etc.
35			204628	Due to budget restraints; difficult drilling conditions, and other priority targets move drill to site of hole # 03.
36			← E.O.H.	
37				
38				
39				
40				

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Dec 1,2 1995
SHIFT HOURS
_____ TO _____
TOTAL HOURS
_____
CONTRACT HOURS
_____

HOLE NO DRC-95-01B LOCATION _____ ELEVATION _____
GEOLOGIST P.Collins DRILLER SHong BIT NO. ~~ZB~~ 71091 BIT FOOTAGE 0.0 - 37.5
MOVE TO HOLE 1:45 - 3:15 (incl. drive out for logging truck)
DRILL 3:15 - 5:00 (Dec 1) 7:15 - 11:30 (Dec. 2.)
MECHANICAL DOWN TIME _____
DRILLING PROBLEMS _____
OTHER _____
MOVE TO NEXT HOLE _____

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21–40				note: see logs for holes 01 & 01A for descriptions to 35.5 m start hole with new bit and some superpolymud compound to 33 m
				35.5' - 37.5' Bedrock - grey green - fine-medium matrix - lithics up to pebble sized - 5-7% calcite stringers - no visible sulphides.
				Archean Conglomerate 37.5' E.O.H.
35				← begin sampling
37			104 107	

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Nov 28 19 95
SHIFT HOURS
____ TO ____
TOTAL HOURS
____
CONTRACT HOURS
____

HOLE NO ORC-95-02 LOCATION ____ ELEVATION ____
GEOLOGIST P. Collins DRILLER J. Haag BIT NO. CB70182 BIT FOOTAGE 42.0 - 73.0
MOVE TO HOLE 2:30 - 3:00
DRILL 3:00 - 5:00
MECHANICAL DOWN TIME ____
DRILLING PROBLEMS ____
OTHER Travel 5:00 - 6:30
MOVE TO NEXT HOLE ____

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1–20				0.0 - 26.4 Djihouy II Sediments (0.0 - 4.8) glaciofluvial : slightly oxidized coarse grained sand with granule / pebble interbeds (4.8 - 11.5) glaciolacustrine : grey beige poorly sorted (silty) fine grained sand with occasional thin non gritty clay partings. (11.5 - 20.0) sand / silt grey very fine to Fine grained sand with thin non gritty clay beds and rare dropstones.

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Nov 28 19 95 | HOLE NO DRC-95-02 | LOCATION _____ | ELEVATION _____

GEOLOGIST _____ | DRILLER _____ | BIT NO. _____ | BIT FOOTAGE _____

SHIFT HOURS _____ TO _____

TOTAL HOURS _____

CONTRACT HOURS _____

MOVE TO HOLE _____

DRILL _____

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

DRILLING IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21				(20.0 - 26.4) grey very fine sand and silt.
22				wood chips at 25.0m
23				26.4 - 29.0 Matheson Till
24				Matrix supported slightly sorted (sandy) silt to fine sand matrix. Cobble clasts of composition
25				80% sediments (proterozoic ? age)
26				20% exotics.
27	Δ 0 Δ		204615	Till is cobble clast supported below 28.3 metres
28	Δ 0 Δ		204616	
29	Δ 0 Δ		204617	29.0 - 31.0 Bedrock
30			104103	- dark grey green
31				- ~~fissile~~, platy, massive, ~~calcareous~~
32				- sandstone / siltstone
33				- slaty, drilling probably proterozoic.
34				
35				31.0 EOH
36				
37				
38				
39				
40				

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Nov 30 19 95 | HOLE NO ORC-95-03 | LOCATION _____ | ELEVATION _____

GEOLOGIST P. Collins | DRILLER D. Hoag | BIT NO. CA70190 | BIT FOOTAGE 0.0 - 41.0

SHIFT HOURS _____ TO _____

TOTAL HOURS _____

CONTRACT HOURS _____

MOVE TO HOLE 7:30 - 8:00

DRILL 8:30 - 11:45 (+ warm up)

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

New bit.

Pg 1 of 2

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1				0.0 - 36.5 Ojibway II Sediments
2				(0.0 - 4.8) glaciofluvial member (GFM) : oxidized ochre medium to coarse grained sand and occasional pebble / granule interbeds
3				(4.8 - 8.0) glaciolacustrine member : (GLM) poorly sorted grey beige very fine to fine grained sand
4				(8.0 - 10.0) grey beige sorted fine grained sand. (GFM)
5				(10.0 - 11.8) G.L.M : poorly sorted grey very fine to fine grained sand with varvy silty, grey, clay partings in places.
6				(11.8 - 12.5) G.F.M. : oxidized medium to coarse grained sand with pebbly interbeds
7				(12.5 - 15.5) GLM + GFM : mainly poorly sorted v. fine grained sand with occasional sorted fine sand bed
8				(15.5 - 15.8) GFM : sand & gravel similar to 11.8 - 12.5 m
9				(15.8 - 23.0) GLM : sand : poorly sorted v fine grained to fine grained sand with occasional rounded pebble - dropstone.
10				* at 19.5 bit plugged - bypass problem - check note above.
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

* note : due to bypass problem pressure check rods & unable eliminate 3 rod, check sampler & replace head rod. Then pull rods due to plugging. Problem corrected thereafter.

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Nov. 30 1995
SHIFT HOURS
____ TO ____
TOTAL HOURS
____
CONTRACT HOURS
____

HOLE NO DRC-95-03 LOCATION ____ ELEVATION ____
GEOLOGIST ____ DRILLER ____ BIT NO. ____ BIT FOOTAGE ____
MOVE TO HOLE ____
DRILL ____
MECHANICAL DOWN TIME ____
DRILLING PROBLEMS ____
OTHER ____
MOVE TO NEXT HOLE ____

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21				below 23.0 mainly poorly sorted very fine and fine grained sand - wood chips and occasional thin clay partings below 26.0m
22				
23				
24				36.5 - 39.5 Matheson Till unsorted grey beige fine sand and silt matrix. Cobble sized clasts dominate of composition: 75% volcanics (mainly sed); 25% granitoids (exotics)
25				
26				
27				
28				
29				39.5 - 41.3 Bedrock - initially pale grey green (bleached) to dark green - fine grained; main matrix mineral is chlorite - foliated, weakly sheared - ~5% qtz/carbonate veinlets - trace of pyrite as disseminated - trace FeO stain in planes - ~7% disseminated carbonate
30				
31				
32				
33				
34				
35				
36				Mafic Volcanic.
37			204629	41.3 E.O.H.
38			204630	
39			204631	
40			204404	
41				

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Nov 28 19 95 HOLE NO ORC-9504 LOCATION Site 4 ELEVATION _____
GEOLOGIST P. Gelinas DRILLER J. Howg BIT NO. CB70182 BIT FOOTAGE 12.0 - 92.0
SHIFT HOURS _____ TO _____ MOVE TO HOLE 11:30 - 12:00
TOTAL HOURS _____ DRILL 12:00 - 2:30
CONTRACT HOURS _____ MECHANICAL DOWN TIME _____
DRILLING PROBLEMS _____
OTHER _____
MOVE TO NEXT HOLE _____

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1–20			204608 204609	0.0 - 17.8 Ojibway II Sediments (0.0 - 7.0) glaciofluvial : beige, sorted fine and medium grained sand with occasional granule-pebble bed. (7.0 - 12.5) glaciolacustrine : grey beige very fine sand and silt and rare nonglitty clay partings (12.5 - 17.8) sand : beige grey, poorly sorted, fine grained sand. 17.8 - 28.7 - Matheson Till slightly sorted (silt deficient) sandy, fine grained matrix. Pebble and small cobble clasts of composition : 70% sedimentary Proterozoic & Archean ; 30% granitoid exotics.

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE _____ 19__
SHIFT HOURS
_____ TO _____
TOTAL HOURS
_____
CONTRACT HOURS
_____

HOLE NO DRC-95-04 LOCATION _____ ELEVATION _____
GEOLOGIST _____ DRILLER _____ BIT NO. _____ BIT FOOTAGE _____
MOVE TO HOLE _____
DRILL _____
MECHANICAL DOWN TIME _____
DRILLING PROBLEMS _____
OTHER _____
MOVE TO NEXT HOLE _____

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21–30			204600	below 25.0 m till is near dust supported. Mainly cobbles of similar composition to above interval.
			204611	
			204612	28.7 - 30.0 Bed-rock - dark grey to black - fine grained, granular text. - weakly foliated - rare thin qtz stringers - no visible sulphides Meta sediment - greywacke
			204613	
			204614	30.0 E.O.H.

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Nov 30, Dec 1 19 95 — HOLE NO ORC-95-05 — LOCATION _____ — ELEVATION _____

GEOLOGIST P. Collins — DRILLER J. Haug — BIT NO. CA21070 — BIT FOOTAGE 41.3-80.1

SHIFT HOURS _____ TO _____

TOTAL HOURS _____

CONTRACT HOURS _____

MOVE TO HOLE 11:30-1:00 (30 Tn)

DRILL 1:00-5:00 (30 Tn) 7:30-11:00

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

Pg 1

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
0				0.0 - Ojibway II Sediments.
1				(0.0 - 16.0) Glaciofluvial member: oxidized (active) well sorted medium & coarse grained sand with pebbly gravel interbeds (predominantly exotic clasts).
2				- sediments are unoxidized below 4.0 m
3				- below 8.0 m as above with occasional fine sand beds (sorted) and occasional poorly sorted fine sand beds.
4				
5				
6				
7				(16.0 - 21.7) Glaciolacustrine member:
8				dominantly gray poorly sorted very fine to fine grained sand
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Nov 30, Dec 1 19 95 | HOLE NO DRC-95-05 | LOCATION _____ | ELEVATION _____

GEOLOGIST _____ | DRILLER _____ | BIT NO. _____ | BIT FOOTAGE _____

SHIFT HOURS _____ TO _____

TOTAL HOURS _____

CONTRACT HOURS _____

MOVE TO HOLE _____

DRILL _____

MECHANICAL DOWN TIME _____

DRILLING PROBLEMS _____

OTHER _____

MOVE TO NEXT HOLE _____

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
21–40			204632	21.7 – 37.0 Matheson Till unsorted grey beige silt to fine sand matrix. Cobble / pebble clast supported till (very compact) of approx. clast composition: 75% vole / sediments; 25% granitoids - till fairly homogenous throughout alternates between clast supported and matrix supported between 29.0 and 32 m.
			204633	
			204634	
			204635	(31.2 – 31.8) boulder – mafic volcanic.
			204636	Note* at 35.3 pull rods due to excessive torque on rods, (rods jamming during pull). Go back down same hole Dec 1st with super poly drill mud.
			204637	
			204638	(36.0 – 37.0) Till as above only very sandy – matrix supported.
			204639	
			204640	37.0 – 38.8 Bedrock - dark greenish grey - fine to med grained - foliated; weakly sheared - 2-3% qtz/carb stringers - 0.5 to 1% disseminated sulphides (pyrite) - hard to drill probable mafic volcanic.
			204641	
			104105	

38.8 E.O.H.

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Nov 21 19 95 | HOLE NO DRC-95-06 | LOCATION site #6 | ELEVATION ____

GEOLOGIST D. Collin | DRILLER J. Hung | BIT NO. CB70192 | BIT FOOTAGE 0.0 - 12.0

SHIFT HOURS ____ TO ____

TOTAL HOURS ____

CONTRACT HOURS ____

MOVE TO HOLE ____

DRILL 9:30 - 11:30 (+ warm up.)

MECHANICAL DOWN TIME ____

DRILLING PROBLEMS ____

OTHER Set up on site 7:00 - 9:30. + hung in GT. Travel 6:00 - 7:00

MOVE TO NEXT HOLE ____

New bit new subs

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1				0.0 - 9.5 Ojibway II glaciofluvial sediments
2			204605	(0.0 - 5.0) interbeds of beige (slightly oxidized) sorted fine, medium and coarse sand with occasional clast supported pebble gravel bed (dominantly sedimentary clasts).
3				
4				
5				
6			204606	(5.0 - 9.5) glaciolacustrine sediments dominantly poorly sorted beige-grey fine sand. Below ~6.5 m interval mainly silt with occasional thin marginally clay parting.
7				
8				
9				
10			204607	9.5 - 9.7 Matheson Till?
11			104101	appeared to be within boulder of till. Grey beige, unsorted fine sand and silt matrix. Very few clasts dominantly sedimentary. Wash hole over BDK to obtain sample.
12				9.7 - 12.0 Bedrock
13				- charcoal grey
14				- silt to very fine grained
15				- fissile
16				- strong foliation in planes
17				- occasional very thin qtz stringers
18				- no visible sulphide
19				Siltstone
20				12.0 E.O.H.

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Dec 1 19 95
SHIFT HOURS
_____ TO _____
TOTAL HOURS
_____
CONTRACT HOURS
_____

HOLE NO DRC-95-07 LOCATION _____ ELEVATION _____
GEOLOGIST P. Collins DRILLER J. Howe BIT NO. used bit redrilled BIT FOOTAGE _____
MOVE TO HOLE 11:00-12:00 (wait for clearance from logging trucks).
DRILL 12:00 - 2:00
MECHANICAL DOWN TIME _____
DRILLING PROBLEMS _____
OTHER _____
MOVE TO NEXT HOLE _____

~150m north west of diabase knob

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1				0.0 - 6.4 Ojibway II Sediments glacio fluvial members: oxidized (active) sorted medium and coarse grained sand with pebble gravel interbeds
2				
3				
4				
5				
6				6.4 - 7.0 Matheson Till slightly sorted (silt deficient) silt to fine sand matrix. Near cobble clast supported. Clast composition: 60% volcanics & sedints; 40% granitoids.
7			204642	
8			104306	7.0 - 8.0 Bedrock - green - massive - very hard to drill - fine to ½ coarse grained (black hornblende) - epidotized - brecciated - Trace of sulphides - 1% calcite stringers Mafic Volc. near contact with diabase 8.0 E.O.H.
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Dec 2 19 95
SHIFT HOURS
_____ TO _____
TOTAL HOURS
_____
CONTRACT HOURS
_____

HOLE NO ORC-95-08 LOCATION Site #16 ELEVATION _____
GEOLOGIST P. Collins DRILLER J. Hough BIT NO. CB7092 BIT FOOTAGE 0.0 - 4.0
MOVE TO HOLE 11:15 - 1:15
DRILL 1:15 - 2:30
MECHANICAL DOWN TIME _____
DRILLING PROBLEMS _____
OTHER _____
MOVE TO NEXT HOLE _____

elevation ~ 15+ metres above creek level

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1–20				0.0 - 4.0 Ojibway II Sediments glaciofluvial member : cobble clast supported gravel; very little return due to poor seal around rods and losing water rapidly. Cobble composition are mainly Proterozoic seds; very slow uneven drilling. note * : decide with client to move to site #8 hole 9 north of main road due to budget constraints. no samples taken.

OVERBURDEN DRILLING MANAGEMENT LIMITED
REVERSE CIRCULATION DRILL HOLE LOG

DATE Dec 2 1995
SHIFT HOURS ____ TO ____
TOTAL HOURS ____
CONTRACT HOURS ____

HOLE NO BRC-95-09 LOCATION ____ ELEVATION ____
GEOLOGIST PGillis DRILLER J.Hong BIT NO. CA78092 BIT FOOTAGE 4.0-15.3
MOVE TO HOLE 2:30-3:30
DRILL 3:30-5:00 ; move rig to road (end of job) 5:00-5:45
MECHANICAL DOWN TIME ____
DRILLING PROBLEMS ____
OTHER ____
MOVE TO NEXT HOLE ____

DEPTH IN METRES	GRAPHIC LOG	INTERVAL	SAMPLE NO.	DESCRIPTIVE LOG
1–20			104643	0.0 - 8.9 Ojibway I Sediments (6.0-6.2) ochre (oxidized) medium and coarse grained sand with pebbly gravel interbeds, subequal amounts of granitoids & sediments (6.2-8.9) gravel: cobble clast supported very tough to drill clast composition: 80% Sediments (archean + proterozoic) 20% granitoids 8.6-8.9 boulder - granite
			104 108	8.9 - 9.8 Matheson Till clast supported (matrix deficient) grey beige silt to fine sand, Cobbles of composition: 80% sediments; 20% granitoids.
				9.8-11.3 Bedrock: metasediment wacke/conglomerate - grey with green - fine sand to granule/pebble sized lithics - 2% qtz/carb veinlets - Tr. disseminated pyrite 11.3 E.O.H.

APPENDIX B

BINOCULAR LOGS OF BEDROCK CHIP SAMPLES

SAMPLE NUMBER	COLOUR	STRUCTURE	GRAIN SIZE (mm)	TEXTURE	MINERALOGY				NAME
					Silicates	Carbonates	Sulphides	Other	
DRC-95 104107 (Hole 01)	Medium to dark green	Moderately foliated to semi-schistose. Unquenched. 2% qtz-carb. veins Weakly sheared & altered. Soapy.	0.2-0.4 (less where schistose)	Equigranular interlocking	70% chlorite + talc (both present) 30% altered plag. No quartz	5% veinlet + fracture calcite	Tr. (<0.05%) disseminated + fracture py.	No Fe/Ti oxide	KOMATIITIC BASALT
104103 (Hole 02)	Medium grey-green	Massive. Clastic. Bedded. Jointed. Unmetamorphosed.	<0.05 with grit to 0.5	Silty with occasional gritty beds to 1 mm thick, otherwise well sorted.	Moderately hard -- estimate 70% quartz-feld. silt + 30% micaceous silt.	Trace calcite assoc. with the joints	Trace (0.05%) chalcopyrite along chloritic joints	No Fe/Ti oxides	SILTSTONE (Hunonian)
104104 (Hole 03)	Dark green with white veinlets and black shear seams	Unquenched. Moderately foliated to semi-schistose. 5% qtz-carb veinlets 3% black graphitic shear seams. Extensive zones of pervasive micro-fractures. Strongly sheared.	0.2 (where least sheared)	Equigranular interlocking overprinted by shearing	Subequal proportions chlorite + talc altered plag. No qtz.	5% veinlet and 5% disseminated + fracture calcite	0.05% coarse xl line py. assoc. w. qtz. carb. vein borders	No Fe/Ti oxides	BASALT
104102 (Hole 04)	Black	Bedded at mm to cm scale. Fissile. Cumulated. Unsheared.	Argillite & aphanitic. Greywacke 0.1	60% beds muddy. 40% beds sorted fine sandy.	Argillite moderately hard mid-coloring ≤50% micaceous mineral. Greywacke = 70% feld. + grey aphanitic volc. sand grains, 30% black argillite/lithic grains + 1% qtz sand	0-15% (average 2%) disseminated Fe/Mg carb. in greywacke beds only.	0.3% dusty disseminated syngenetic/diagenetic py.	No Fe/Ti oxides	ARGILLITE + GREYWACKE
104105 (Hole 05)	Dark grey-black	Coarse clastic. No visible bedding. Moderately foliated. Few graphitic slips probably reflect shearing accentuated by primary carbon in sediments	Mostly 0.2-0.5, few coarse grains to 3 mm.	Medium sandy with the coarse sand to granular grit.	Sand grains are -40% black argillite autoliths -60% grey aphanitic volc. lithics -1% qtz.	3% fracture calcite	0.5% dusty to coarse cubic to stringer syngenetic/diagenetic py.	No Fe/Ti oxides	GREYWACKE

SAMPLE NUMBER	COLOUR	STRUCTURE	GRAIN SIZE (mm)	TEXTURE	MINERALOGY				NAME
					Silicates	Carbonates	Sulphides	Other	
DRC-95 104101 (Hole 06)	Medium grey to mostly black	Bedded at mm scale. Fissile. Schistose. Crenulated. Unsheared	Argillite is aphanitic. Greywacke 0.1	Argillite is mineralogically to slightly. Greywacke is sorted fine sandy lapilli-tuff with quartz argillite and siltstone/mudstone fragments.	Argillite is moderately soft in bedding ≥ 50% micaceous mineral component. Greywacke is essentially all feldspathic sand.	Trace fracture calcite	Trace (<0.05%) primary dusty disseminated to finely bedding plane pyrite	No Fe/Ti oxides	ARGILLITE + GREYWACKE
104106 (Hole 07)	Very dark green	Unquenched. Moderately foliated. Very slightly amygdaloidal. Unsheared.	Groundmass 0.2-0.4. Chlorite phenos. 0.5-1.5	Weakly chlorite-phyric with equigranular interlocking groundmass	3% chlorite phenocrysts. 97% groundmass = ~50% primary green hornblende, ~20% chlorite, ~30% plag. (saussuritized, epidote altered), no quartz	Trace disseminated + amygdule calcite	Trace amygdule pyrrhotite	2% leucoxene	BASALT
Hole 08	No bedrock sample								
104108 (Hole 09)	Pale to medium grey-green	Coarse clastic. No visible bedding. Weakly foliated. Unsheared.	Matrix 0.3-0.5. Grit 0.5-4. Pebbles >4	20% pebbles and 10-20% coarse sandy to granular grit in sandy medium sand matrix. Pebbles show some rounding.	Pebbles + granules: Andesitic to quenched feldspar porphyritic basalt > coarse-grained basalt > chert. No granite or sheared volcanics. Matrix (sand) is mainly feldspar + volc. lithics with 5%	2% disseminated fracture calcite	Sand matrix hosts 2% disseminated primary diagenetic pyrrhotite + trace py.	No Fe/Ti oxides. fdg. grains + 5% chlorite	CONGLOMERATE

APPENDIX C

DETAILED GOLD GRAIN COUNTS AND CALCULATED VISIBLE GOLD ASSAYS

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

TOTAL # OF PANNINGS 13

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
DRC-95													
204605	N	50 X 125	18 C	1						1			
		175 X 200	36 C	1						1			
										2	30.1	348	
204606	N	NO VISIBLE GOLD											
204607	N	NO VISIBLE GOLD											
204608	N	75 X 100	18 C	1						1			
		125 X 125	25 C	1						1			
		125 X 275	38 C	1						1			
										3	30.5	502	
204609	N	50 X 75	13 C	1						1			
		75 X 100	18 C	1						1			
										2	37.3	37	
204610	Y	25 X 25	5 C	1						1			1% pyrite
		25 X 75	10 C	1						1			
		25 X 125	15 C	1						1			
		50 X 50	10 C	1						1			
		50 X 75	13 C	1						1			
										5	33.3	43	
204611	N	50 X 100	15 C	1						1			
		75 X 100	18 C	1						1			
										2	43.1	38	
204612	Y	25 X 50	8 C	1						1			0.5% pyrite
		50 X 75	13 C	1						1			
		50 X 100	15 C	1						1			
		200 X 200	38 C		1					1			
										4	22.2	563	
204613	N	25 X 25	5 C	1						1			
		25 X 75	10 C	1						1			
		50 X 50	10 C	1						1			
		100 X 125	22 C	1						1			

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

TOTAL # OF PANNINGS 13

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
DRC-95													
										4	29.0	87	
204614	Y	50 X 75	13 C	1						1			1% pyrite
										1	27.9	13	
204615	Y	25 X 25	5 C	1						1			0.1% pyrite
		25 X 50	8 C	2				1		3			
		25 X 75	10 C	2						2			
		50 X 50	10 C		2					2			
		50 X 75	13 C	1						1			
		75 X 125	20 C			1				1			
										10	28.1	104	
204616	Y	15 X 15	3 C	1						1			No sulphides.
		15 X 25	4 C					1		1			
		25 X 25	5 C		3	1	1			5			
		25 X 50	8 C	4	2	1	1			8			
		25 X 125	15 C	1						1			
		50 X 50	10 C	1						1			
		50 X 75	13 C	1						1			
		50 X 100	15 C				1			1			
		75 X 75	15 C	1						1			
		75 X 100	18 C	1	1					2			
										22	32.8	162	
204617	Y	50 X 75	13 C	1						1			<0.1% pyrite
										1	28.4	13	
204618	N	15 X 15	3 C				1			1			
		25 X 25	5 C			1	1			2			
		25 X 50	8 C	1						1			
		25 X 100	13 C					1		1			
		50 X 50	10 C	1						1			
		75 X 125	20 C	1						1			
										7	55.4	40	
204619	N	75 X 100	18 C	1						1			
										1	26.4	38	

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

TOTAL # OF PANNINGS 13

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
DRC-95													
204620	N	NO VISIBLE GOLD											
204621	N	NO VISIBLE GOLD											
204622	N	NO VISIBLE GOLD											
204623	N	50 X 100	15 C	1						1			
										1	26.4	24	
204624	N	NO VISIBLE GOLD											
204625	N	NO VISIBLE GOLD											
204626	Y	50 X 75	13 C	2						2			2% pyrite
		75 X 100	50 M					1		1			
										3	23.8	152	
204627	N	50 X 75	13 C	1						1			
										1	16.8	22	
204628	N	25 X 50	8 C	1						1			
										1	21.4	4	
204629	N	175 X 275	50 M	1						1			
										1	13.3	1427	
204630	Y	25 X 25	5 C				1			1			2% pyrite
		25 X 50	8 C			2	1			3			
		25 X 75	10 C	1						1			
		50 X 75	13 C	1						1			
		75 X 100	18 C	1						1			
		100 X 175	27 C			1				1			
		350 X 425	50 M	1						1			
										9	23.2	2672	
204631	Y	15 X 25	4 C			1				1			0.5% pyrite
		15 X 50	7 C	1						1			
		25 X 100	13 C	1						1			
		50 X 100	15 C	1						1			

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

TOTAL # OF PANNINGS 13

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
DRC-95													
		50 X 150	20 C		1					1			
		75 X 125	20 C		1					1			
		125 X 250	36 C	1						1			
		250 X 275	75 M			1				1			
										8	20.6	2539	
204632	N	50 X 100	15 C	1						1			
		50 X 125	18 C	1						1			
		150 X 300	75 M	1						1			
										3	30.1	1001	
204633	N	25 X 75	10 C	1						1			
		50 X 100	15 C	1		1				2			
		100 X 125	22 C	1						1			
										4	33.1	109	
204634	N	50 X 75	13 C	2						2			
		75 X 100	18 C	1						1			
		125 X 200	31 C			1				1			
										4	36.1	221	
204635	Y	15 X 50	7 C					1		1			4% pyrite
		25 X 100	13 C	1						1			
		25 X 125	15 C	1						1			
		50 X 50	10 C			3				3			
		50 X 75	13 C	1						1			
		50 X 100	15 C			1				1			
		75 X 150	22 C	1						1			
										9	26.2	182	
204636	Y	15 X 15	3 C			1				1			0.5% pyrite
		25 X 50	8 C	1	1					2			
		25 X 75	10 C	1		1				2			
		25 X 100	13 C			1				1			
		50 X 50	10 C	1						1			
		50 X 75	13 C			1				1			
		75 X 100	18 C			1				1			
		75 X 125	20 C	1						1			
		75 X 150	22 C						1	1			
		75 X 175	25 C	1						1			

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

TOTAL # OF PANNINGS 13

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
DRC-95													
		100 X 175	27 C	1						1			
		300 X 425	50 M	1						1			
										14	55.4	1121	
204637	N	25 X 50	8 C			1				1			
		50 X 50	10 C	1						1			
		50 X 75	13 C	1						1			
		75 X 125	20 C	1						1			
										4	22.1	97	
204638	N	25 X 50	8 C	1						1			
		50 X 50	10 C	1						1			
										2	23.9	11	
204639	N	15 X 50	7 C			1				1			
		25 X 50	8 C			1				1			
		50 X 75	13 C			1				1			
		75 X 75	15 C			1				1			
										4	13.8	83	
204640	N	25 X 50	8 C	1						1			
										1	10.5	8	
204641	Y	15 X 50	7 C			1				1			1% pyrite
		25 X 25	5 C	2						2			
		25 X 50	8 C	1						1			
		25 X 75	10 C	1						1			
		50 X 50	10 C		1					1			
		50 X 75	13 C		1					1			
		75 X 75	25 M	1						1			
										8	14.4	139	
204642	Y	25 X 50	8 C			1				1			0.1% pyrite
										1	60.0	1	
204643	N	225 X 300	50 M	1						1			
										1	11.1	2328	

APPENDIX D

BEDROCK AND HEAVY MINERAL TILL ANALYSES

BEDROCK ANALYSES

Activation Laboratories Ltd. Work Order: 9705 Report: 9576

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN PPM	SR PPM	TA PPM	TH PPM
DRC-95104101	<2	<5	37	520	<0.5	4	24	200	4	3.51	4	<1	<5	2	1.60	210	43	2.7	19	<3	<100	<500	<0.5	5.7
DRC-95104102	6	<5	120	540	<0.5	3	61	1300	4	4.99	2	<1	<5	<1	1.07	790	48	6.6	28	<3	<100	640	<0.5	1.3
DRC-95104103	<2	<5	2.7	630	<0.5	<1	21	150	4	5.09	3	<1	<5	<1	2.34	<22	140	0.6	16	<3	<100	720	1.6	13
DRC-95104104	<2	<5	3.1	<50	<0.5	10	65	2100	<1	8.59	<1	<1	<5	<1	0.11	590	<15	1.0	28	<3	<100	<500	<0.5	<0.2
DRC-95104105	3	<5	16	170	0.9	2	16	67	2	2.82	3	<1	<5	2	3.61	<21	35	1.4	9.9	<3	<100	<500	<0.5	2.4
DRC-95104106	<2	<5	12	310	<0.5	6	43	48	4	11.0	3	<1	<5	<1	2.14	<29	<15	0.7	45	<3	<100	<500	<0.5	1.4
DRC-95104107	<2	<5	2.2	<50	<0.5	5	81	2500	2	7.94	<1	<1	<5	<1	0.64	1100	<15	<0.1	30	<3	<100	<500	<0.5	<0.2
DRC-95104108	<2	<5	8.7	270	<0.5	5	54	1100	3	7.30	2	<1	<5	3	1.80	290	<15	2.0	34	<3	<100	<500	<0.5	0.5

Activation Laboratories Ltd. Work Order: 9705 Report: 9576

Sample description	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
DRC-95104101	1.0	2	105	33	64	24	4.3	1.3	<0.5	1.4	0.22	26.12
DRC-95104102	<0.5	<1	228	8.4	19	7	1.9	0.8	<0.5	1.7	0.27	24.33
DRC-95104103	5.1	<1	<50	29	53	19	3.4	1.0	0.6	1.6	0.24	33.53
DRC-95104104	<0.5	<1	144	1.9	6	<5	0.9	0.6	<0.5	1.4	0.22	27.63
DRC-95104105	1.1	<1	168	13	23	9	2.0	0.7	<0.5	1.1	0.16	33.93
DRC-95104106	<0.5	<1	128	7.3	19	9	3.0	1.2	0.9	4.3	0.63	35.85
DRC-95104107	<0.5	<1	90	0.9	<3	<5	0.8	0.3	<0.5	1.3	0.22	24.44
DRC-95104108	<0.5	<1	146	4.6	10	9	1.6	0.7	<0.5	2.0	0.29	33.29

Activation Laboratories Ltd. Work Order No. 9705 Report No. 9576B

SAMPLE	Ag	Cu	Ni	Zn	Cd	Mn	Pb
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DRC-95104101	0.3	49	61	47	0.5	645	3
DRC-95-104102	0.3	82	351	138	1.2	704	2
DRC-95-104103	0.4	46	42	55	-0.5	478	-2
DRC-95-104104	0.5	58	364	91	-0.5	2570	-2
DRC-95-104105	0.2	36	34	99	0.6	427	4
DRC-95-104106	0.5	98	20	102	-0.5	1270	-2
DRC-95-104107	0.2	45	251	30	0.5	668	-2
DRC-95-104108	0.3	81	239	50	-0.5	742	-2

Negative values indicate less than the detection limit

HEAVY MINERAL TILL ANALYSES

Activation Laboratories Ltd. Work Order: 9834 Report: 9610

Sample description	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
DRC-95 204605	<4	279	260	570	180	37	9.0	8	35.2	5.5	27.30
DRC-95 204606	<4	<200	480	860	320	53	9.1	5	31.5	4.6	11.20
DRC-95 204607	<4	210	370	670	260	43	7.9	<2	26.8	4.1	13.30
DRC-95 204608	<4	<200	280	580	230	36	7.9	8	34.6	5.8	27.40
DRC-95 204609	<4	<200	280	560	170	33	7.4	8	31.4	5.3	33.90
DRC-95 204610	<4	<200	280	550	190	35	7.9	7	32.7	5.5	30.40
DRC-95 204611	<4	<200	300	580	190	36	8.3	<2	31.0	5.4	39.70
DRC-95 204612	<4	<200	390	850	280	50	10.9	9	39.9	7.2	18.80
DRC-95 204613	<4	338	320	670	230	41	10.1	<2	30.0	5.6	26.00
DRC-95 204614	<4	<200	350	720	250	44	10.6	<2	33.5	6.3	24.50
DRC-95 204615	<4	<200	440	870	330	52	11.1	10	38.7	6.3	24.70
DRC-95 204616	<4	<200	360	750	250	45	11.1	<2	34.6	5.7	29.70
DRC-95 204617	<4	<200	400	820	290	49	13.0	<2	36.0	6.0	25.00
DRC-95 204618	<4	<200	360	680	230	39	10.0	9	29.3	5.0	52.00
DRC-95 204619	<4	<200	400	820	250	49	12.5	7	35.3	5.9	23.10
DRC-95 204620	<4	<200	280	590	210	38	9.7	6	29.6	4.9	28.70
DRC-95 204621	<4	<200	300	620	250	41	10.8	7	30.5	5.2	20.90
DRC-95 204622	<4	<200	240	440	180	31	7.1	5	21.5	2.9	17.00
DRC-95 204623	380	<200	270	570	180	36	9.8	7	23.3	1.8	23.40
DRC-95 204624	300	<200	310	650	240	41	10.2	6	29.8	4.7	25.40
DRC-95 204625	110	<200	320	680	250	43	10.9	7	31.7	5.5	18.00
DRC-95 204626	<4	629	230	490	170	30	8.4	<2	24.6	4.1	20.50
DRC-95 204627	<4	560	210	410	190	28	7.3	<2	21.3	3.1	13.50
DRC-95 204628	12	420	200	370	150	26	6.3	<2	18.9	2.7	18.00
DRC-95 204629	<4	<200	260	480	170	30	6.1	<2	24.3	3.6	12.30
DRC-95 204630	<4	302	370	760	270	44	9.7	<2	35.2	6.2	20.40
DRC-95 204631	<4	435	400	830	340	49	11.9	<2	36.6	6.2	17.20
DRC-95 204632	<4	432	220	490	150	29	7.0	<2	25.2	4.4	26.80
DRC-95 204633	<4	327	220	480	140	30	7.8	6	30.7	5.3	29.70
DRC-95 204634	<4	<200	290	560	210	35	8.7	6	30.0	5.2	32.70
DRC-95 204635	<4	<200	380	760	280	44	10.2	10	36.0	6.4	22.80
DRC-95 204636	<4	<200	220	410	130	25	6.3	7	22.2	3.9	52.30
DRC-95 204637	<4	<200	350	730	260	44	10.4	<2	32.1	5.7	19.00
DRC-95 204638	<4	<200	320	670	250	41	9.4	7	33.1	5.9	20.70
DRC-95 204639	<4	<200	250	480	170	31	7.0	<2	24.6	3.3	12.60
DRC-95 204640	<4	<200	290	530	200	35	7.7	<2	25.0	3.0	9.400
DRC-95 204641	20	270	300	540	220	37	8.3	<2	23.9	3.6	13.40
DRC-95 204642	<4	<200	220	420	140	26	5.6	6	31.1	5.1	57.00
DRC-95 204643	<4	<200	58	130	69	11	3.0	<2	10.8	1.4	10.00

SAMPLE		Ag	Cu	Ni	Zn	Cd	Mn	Pb
		ppm	ppm	ppm	ppm	ppm	ppm	ppm
DRC-95	204605	0.6	43	82	16	-0.5	706	24
DRC-95	204606	0.5	49	85	16	-0.5	768	21
DRC-95	204607	0.5	37	67	14	-0.5	619	15
DRC-95	204608	0.8	76	88	19	-0.5	676	16
DRC-95	204609	0.7	68	107	21	-0.5	787	17
DRC-95	204610	0.9	73	76	78	-0.5	799	20
DRC-95	204611	0.8	69	90	37	-0.5	779	21
DRC-95	204612	0.8	107	96	25	-0.5	624	18
DRC-95	204613	0.7	78	105	23	-0.5	628	15
DRC-95	204614	0.8	111	120	55	-0.5	521	18
DRC-95	204615	0.6	135	75	32	-0.5	516	19
DRC-95	204616	0.5	66	42	17	-0.5	496	12
DRC-95	204617	0.5	102	72	27	-0.5	477	16
DRC-95	204618	0.4	47	34	21	-0.5	495	10
DRC-95	204619	0.6	94	94	19	-0.5	617	20
DRC-95	204620	0.7	45	26	11	-0.5	688	20
DRC-95	204621	0.6	59	60	13	-0.5	659	41
DRC-95	204622	0.6	72	28	16	-0.5	574	16
DRC-95	204623	0.7	86	63	13	-0.5	739	15
DRC-95	204624	0.7	70	29	15	-0.5	611	15
DRC-95	204625	0.7	62	67	16	-0.5	677	20
DRC-95	204626	0.8	571	1650	442	1.8	409	30
DRC-95	204627	1.1	1030	2060	417	1.5	522	32
DRC-95	204628	0.9	519	1330	322	1.5	380	29
DRC-95	204629	1.0	296	263	113	-0.5	1010	34
DRC-95	204630	0.7	204	127	52	0.5	506	21
DRC-95	204631	0.7	162	127	47	-0.5	847	18
DRC-95	204632	0.8	151	205	105	0.8	572	40
DRC-95	204633	0.9	178	168	85	-0.5	786	46
DRC-95	204634	0.7	194	87	37	0.5	713	17
DRC-95	204635	0.9	116	116	24	-0.5	742	23
DRC-95	204636	0.6	69	88	19	-0.5	559	18
DRC-95	204637	0.6	87	118	33	-0.5	595	34
DRC-95	204638	0.6	95	124	35	-0.5	516	25
DRC-95	204639	1.1	127	228	49	-0.5	955	43
DRC-95	204640	0.9	273	204	137	1.6	750	79
DRC-95	204641	1.0	145	211	225	-0.5	885	56
DRC-95	204642	0.6	39	39	16	-0.5	889	15
DRC-95	204643	0.6	466	599	58	-0.5	649	192

Negative values indicate less than the detection limit

Appendix XI: **1996 Soil Geochemistry**

Inchcape Testing Services
Bondar Clegg

Certificate of Analysis

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NEPEAN, ONTARIO
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Lab Supervisor

Inchcape Testing Services
Bondar Clegg

Certificate of Analysis

REPORT: 096-40403.0 (COMPLETE) REFERENCE:

CLIENT: WMC INTERNATIONAL SUBMITTED BY: T.G
PROJECT: 4057G10 DATE PRINTED: 5-JUL-96

ORDER		ELEMENT	NUMBER OF ANALYSES	LOWER DETECTION LIMIT	EXTRACTION	METHOD
1	AU	GOLD FIRE ASSAY	79	1 PPB	FIRE ASSAY	FIRE ASSAY-DCP
2	Ag	Silver	79	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
3	Cu	Copper	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
4	Pb	Lead	79	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
5	Zn	Zinc	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
6	Mo	Molybdenum	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
7	Ni	Nickel	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
8	Co	Cobalt	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
9	Cd	Cadmium	79	0.2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
10	Bi	Bismuth	79	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
11	As	Arsenic	79	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
12	Sb	Antimony	79	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
13	Fe	Iron	79	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
14	Mn	Manganese	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
15	Te	Tellurium	79	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
16	Ba	Barium	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
17	Cr	Chromium	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
18	V	Vanadium	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
19	Sn	Tin	79	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
20	W	Tungsten	79	20 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
21	La	Lanthanum	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
22	Al	Aluminum	79	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
23	Mg	Magnesium	79	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
24	Ca	Calcium	79	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
25	Na	Sodium	79	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
26	K	Potassium	79	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
27	Sr	Strontium	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
28	Y	Yttrium	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
29	Ga	Gallium	79	2 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
30	Li	Lithium	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
31	Nb	Niobium	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
32	Sc	Scandium	79	5 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
33	Ta	Tantalum	79	10 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
34	Ti	Titanium	79	0.01 PCT	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA
35	Zr	Zirconium	79	1 PPM	HCL:HNO3 (3:1)	INDUC. COUP. PLASMA

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Lab Supervisor

Inchcape Testing Services
Bondar Clegg

Certificate of Analysis

REPORT: 096-40403.0 (COMPLETE) REFERENCE:

CLIENT: WMC INTERNATIONAL
PROJECT: 4057G10

SUBMITTED BY: T.G
DATE PRINTED: 5-JUL-96

SAMPLE TYPES	NUMBER	SIZE FRACTIONS	NUMBER	SAMPLE PREPARATIONS	NUMBER
SOIL	79	-80	79	DRY, SIEVE -80	79

REPORT COPIES TO: MR. TERRY GOODWIN
TERRY GOODWIN
TERRY GOODWIN
C.J. BAKER
BY FAX: 613-727-3970

INVOICE TO: MS. DIANA CAMPBELL

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REPORT: 096-40403.0 (COMPLETE) PROJECT: 4057G10 PAGE 1A

SAMPLE NUMBER	ELEMENT UNITS	AU PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM
CS104313		1	<0.2	5	11	13	<1	20	5	<0.2	<5	<5	<5
CS104314		<1	<0.2	2	9	12	<1	8	3	<0.2	<5	<5	<5
CS104315		6	<0.2	9	7	18	<1	21	7	<0.2	<5	<5	<5
CS104316		1	0.2	5	8	14	<1	21	7	<0.2	<5	<5	<5
CS104317		2	<0.2	2	10	14	<1	20	6	<0.2	<5	<5	<5
CS104318		1	0.4	4	11	36	1	13	3	<0.2	<5	<5	<5
CS104319		<1	<0.2	3	9	17	<1	19	6	<0.2	<5	<5	<5
CS104320		2	<0.2	9	10	20	<1	33	6	<0.2	<5	<5	<5
CS104321		1	<0.2	10	8	12	<1	27	8	<0.2	<5	<5	<5
CS104322		3	<0.2	6	10	24	<1	28	6	<0.2	<5	<5	<5
CS104323		1	0.2	5	8	17	<1	17	4	<0.2	<5	<5	<5
CS104324		1	<0.2	23	8	15	<1	31	9	<0.2	<5	<5	<5
CS104325		345	<0.2	12	9	22	<1	25	8	<0.2	<5	<5	<5
CS104326		1	<0.2	9	12	26	1	16	3	<0.2	<5	<5	<5
CS104327		1	0.2	6	10	23	1	18	6	<0.2	<5	<5	<5
CS104328		<1	<0.2	5	8	22	<1	21	5	<0.2	<5	<5	<5
CS104329		3	<0.2	3	7	21	<1	16	4	<0.2	<5	<5	<5
CS104330		1	0.3	3	11	23	<1	13	4	<0.2	<5	<5	<5
CS104331		<1	<0.2	11	8	23	<1	27	7	<0.2	<5	<5	<5
CS104332		1	<0.2	4	10	28	2	15	3	<0.2	<5	<5	<5
CS104333		1	<0.2	12	7	12	<1	17	4	<0.2	<5	<5	<5
CS104334		22	0.2	16	11	32	2	51	9	<0.2	<5	<5	<5
CS104335		2	0.2	2	7	11	<1	8	2	<0.2	<5	<5	<5
CS104336		2	<0.2	16	7	19	<1	22	7	<0.2	<5	<5	<5
CS104337		1	0.2	8	9	24	<1	23	6	<0.2	<5	<5	<5
CS104338		3	<0.2	7	7	19	<1	15	5	<0.2	<5	<5	<5
CS104339		<1	<0.2	9	8	19	1	16	4	<0.2	<5	<5	<5
CS104340		7	<0.2	4	11	19	<1	19	4	<0.2	<5	<5	<5
CS104341		2	<0.2	31	6	28	<1	179	24	<0.2	<5	<5	<5
CS104342		2	<0.2	4	7	25	<1	24	6	<0.2	<5	<5	<5
CS104343		3	<0.2	13	6	19	<1	97	14	<0.2	<5	<5	<5
CS104344		2	<0.2	6	6	15	<1	16	4	<0.2	<5	<5	<5
CS104345		<1	<0.2	5	4	15	<1	16	5	<0.2	<5	<5	<5
CS104346		1	<0.2	5	8	20	<1	14	4	<0.2	<5	<5	<5
CS104347		<1	<0.2	5	8	15	<1	25	7	<0.2	<5	<5	<5
CS104348		<1	<0.2	6	6	19	<1	18	5	<0.2	<5	<5	<5
CS104349		<1	<0.2	3	9	7	<1	9	2	<0.2	<5	<5	<5
CS104350		2	0.2	10	7	17	<1	24	7	<0.2	<5	<5	<5
CS104351		1	<0.2	6	6	14	<1	15	3	<0.2	<5	<5	<5
CS104352		<1	<0.2	6	8	13	<1	21	4	<0.2	<5	<5	<5

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REPORT: 096-40403.0 (COMPLETE) PROJECT: 4057G10 PAGE 1B

SAMPLE NUMBER	ELEMENT UNITS	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT
CS104313		1.58	88	<10	16	36	27	<20	<20	9	2.01	0.26	0.13
CS104314		0.99	85	<10	16	19	21	<20	<20	10	1.10	0.12	0.12
CS104315		1.34	151	<10	20	34	24	<20	<20	10	1.42	0.42	0.17
CS104316		1.34	101	<10	22	35	24	<20	<20	10	2.15	0.29	0.13
CS104317		1.45	102	<10	21	32	23	<20	<20	9	2.08	0.26	0.16
CS104318		2.09	97	<10	31	33	26	<20	<20	8	2.29	0.15	0.14
CS104319		1.73	88	<10	19	38	23	<20	<20	7	2.44	0.20	0.13
CS104320		1.47	111	<10	16	48	25	<20	<20	10	1.61	0.35	0.18
CS104321		1.07	112	<10	15	34	22	<20	<20	9	1.32	0.32	0.15
CS104322		1.65	110	<10	15	46	26	<20	<20	8	1.80	0.30	0.15
CS104323		1.44	138	<10	16	31	23	<20	<20	8	1.50	0.24	0.14
CS104324		1.21	155	<10	12	28	24	<20	<20	12	1.05	0.34	0.19
CS104325		1.42	158	<10	11	40	29	<20	<20	10	1.31	0.41	0.19
CS104326		2.79	175	<10	29	41	58	<20	<20	8	1.23	0.18	0.18
CS104327		2.87	171	<10	29	44	43	<20	<20	8	2.03	0.26	0.14
CS104328		1.49	128	<10	21	45	31	<20	<20	9	1.29	0.26	0.15
CS104329		1.88	103	<10	18	46	32	<20	<20	7	1.85	0.11	0.13
CS104330		1.49	94	<10	16	28	30	<20	<20	8	2.08	0.13	0.10
CS104331		1.66	155	<10	13	39	25	<20	<20	7	1.46	0.25	0.15
CS104332		2.68	76	<10	23	37	41	<20	<20	7	1.45	0.15	0.14
CS104333		1.09	90	<10	12	29	23	<20	<20	12	1.30	0.25	0.14
CS104334		3.32	204	<10	13	80	42	<20	<20	8	1.65	0.59	0.12
CS104335		1.08	52	<10	12	22	24	<20	<20	9	1.34	0.08	0.09
CS104336		1.21	191	<10	13	32	26	<20	<20	10	0.92	0.40	0.27
CS104337		1.55	132	<10	16	34	30	<20	<20	9	1.57	0.34	0.16
CS104338		1.17	114	<10	19	31	25	<20	<20	12	1.31	0.26	0.14
CS104339		1.76	81	<10	19	31	29	<20	<20	13	1.74	0.18	0.16
CS104340		1.83	88	<10	20	34	28	<20	<20	9	2.29	0.17	0.12
CS104341		2.76	346	<10	26	128	31	<20	<20	6	1.46	0.69	0.17
CS104342		1.05	106	<10	26	31	20	<20	<20	10	1.41	0.15	0.14
CS104343		2.82	176	<10	18	66	29	<20	<20	7	1.48	0.44	0.21
CS104344		1.30	97	<10	12	31	22	<20	<20	11	1.64	0.27	0.20
CS104345		0.88	146	<10	17	27	21	<20	<20	7	0.84	0.40	0.22
CS104346		1.78	97	<10	21	35	31	<20	<20	9	1.91	0.24	0.13
CS104347		1.45	118	<10	29	36	27	<20	<20	9	1.69	0.39	0.18
CS104348		1.85	132	<10	16	34	30	<20	<20	8	1.74	0.24	0.15
CS104349		1.46	55	<10	12	26	30	<20	<20	8	1.69	0.09	0.11
CS104350		1.60	140	<10	18	36	28	<20	<20	8	1.33	0.34	0.20
CS104351		0.91	95	<10	11	28	18	<20	<20	9	1.66	0.27	0.19
CS104352		2.65	92	<10	20	54	35	<20	<20	8	1.22	0.20	0.11

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SAMPLE NUMBER	ELEMENT UNITS	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
CS104313		0.01	0.03	10	2	4	9	3	<5	<10	0.08	4
CS104314		<0.01	0.03	11	2	5	5	2	<5	<10	0.07	2
CS104315		0.01	0.04	14	3	4	10	2	<5	<10	0.09	3
CS104316		0.01	0.04	11	3	4	10	2	<5	<10	0.08	3
CS104317		0.01	0.03	12	2	3	8	2	<5	<10	0.07	3
CS104318		<0.01	0.03	11	2	5	10	3	<5	<10	0.07	2
CS104319		0.01	0.03	10	2	3	11	2	<5	<10	0.08	3
CS104320		0.01	0.03	12	3	3	9	2	<5	<10	0.07	2
CS104321		0.01	0.03	12	2	3	7	2	<5	<10	0.08	3
CS104322		0.01	0.03	12	2	4	9	2	<5	<10	0.08	3
CS104323		<0.01	0.03	10	2	4	6	2	<5	<10	0.06	1
CS104324		0.01	0.02	11	3	2	7	1	<5	<10	0.07	3
CS104325		0.01	0.03	11	3	3	7	1	<5	<10	0.07	2
CS104326		<0.01	0.03	14	1	6	9	3	<5	<10	0.12	3
CS104327		0.01	0.03	12	2	7	8	3	<5	<10	0.12	3
CS104328		0.01	0.03	17	2	5	8	2	<5	<10	0.10	3
CS104329		0.01	0.03	12	2	5	7	2	<5	<10	0.10	2
CS104330		<0.01	0.03	9	2	5	7	2	<5	<10	0.07	2
CS104331		0.01	0.02	11	2	3	10	2	<5	<10	0.08	3
CS104332		<0.01	0.03	11	2	6	8	3	<5	<10	0.10	2
CS104333		0.01	0.03	11	3	3	7	2	<5	<10	0.08	3
CS104334		<0.01	0.02	10	3	5	11	3	<5	<10	0.13	3
CS104335		<0.01	0.03	9	2	5	6	2	<5	<10	0.07	2
CS104336		0.02	0.04	17	3	3	7	1	<5	<10	0.08	3
CS104337		0.01	0.03	13	2	5	7	2	<5	<10	0.09	3
CS104338		0.01	0.04	12	3	4	8	1	<5	<10	0.08	3
CS104339		0.01	0.03	11	3	4	8	2	<5	<10	0.07	2
CS104340		0.01	0.03	9	2	5	9	2	<5	<10	0.07	2
CS104341		0.01	0.03	14	3	3	17	1	<5	<10	0.05	1
CS104342		<0.01	0.03	13	2	4	7	1	<5	<10	0.06	2
CS104343		<0.01	0.02	14	3	4	14	2	<5	<10	0.08	2
CS104344		0.01	0.03	13	3	3	7	2	<5	<10	0.06	1
CS104345		0.01	0.04	17	2	3	9	1	<5	<10	0.09	3
CS104346		0.01	0.03	11	2	4	9	2	<5	<10	0.08	2
CS104347		0.01	0.04	15	2	5	11	2	<5	<10	0.09	3
CS104348		0.01	0.03	10	2	4	7	2	<5	<10	0.08	2
CS104349		<0.01	0.02	9	2	5	6	2	<5	<10	0.08	3
CS104350		0.01	0.03	15	3	3	8	2	<5	<10	0.09	3
CS104351		0.01	0.02	12	3	2	5	1	<5	<10	0.07	2
CS104352		<0.01	0.02	10	2	4	9	2	<5	<10	0.09	3

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SAMPLE NUMBER	ELEMENT UNITS	AU PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM
CS104353		<1	<0.2	6	9	24	<1	12	3	<0.2	<5	<5	<5
CS104354		1	<0.2	8	10	38	<1	67	9	<0.2	<5	<5	<5
CS104355		7	<0.2	5	6	15	<1	23	4	<0.2	<5	<5	<5
CS104356		5	<0.2	3	9	18	1	18	5	<0.2	<5	<5	<5
CS104357		<1	<0.2	2	6	13	<1	12	4	<0.2	<5	<5	<5
CS104358		<1	<0.2	5	8	7	<1	14	2	<0.2	<5	<5	<5
CS104359		1	<0.2	13	9	20	<1	30	7	<0.2	<5	<5	<5
CS104360		1	<0.2	7	37	74	<1	17	2	0.5	<5	<5	<5
CS104361		1	0.2	4	9	14	<1	20	6	<0.2	<5	<5	<5
CS104362		4	<0.2	11	9	29	<1	34	8	<0.2	<5	<5	<5
CS104363		1	<0.2	2	9	33	<1	13	3	<0.2	<5	<5	<5
CS104364		4	<0.2	7	11	22	<1	25	6	<0.2	<5	<5	<5
CS104365		2	<0.2	5	9	25	<1	29	8	<0.2	<5	<5	<5
CS104366		2	<0.2	6	6	12	<1	17	4	<0.2	<5	<5	<5
CS104367		5	<0.2	7	6	11	<1	14	4	<0.2	<5	<5	<5
CS104368		2	<0.2	8	7	24	2	29	7	<0.2	<5	<5	<5
CS104369		3	<0.2	6	8	16	<1	19	6	<0.2	<5	<5	<5
CS104370		1	0.2	8	11	40	2	25	7	0.2	<5	<5	<5
CS104371		1	<0.2	4	8	32	<1	10	3	<0.2	<5	<5	<5
CS104372		<1	<0.2	5	5	26	<1	18	4	<0.2	<5	<5	<5
CS104373		<1	0.2	10	9	19	<1	28	9	<0.2	<5	<5	<5
CS104374		1	<0.2	4	7	19	<1	17	4	<0.2	<5	<5	<5
CS104375		1	<0.2	4	10	18	<1	12	3	<0.2	<5	<5	<5
CS104376		1	<0.2	4	8	16	1	19	5	<0.2	<5	<5	<5
CS104377		1	<0.2	3	8	18	<1	19	4	<0.2	<5	<5	<5
CS104378		1	<0.2	6	5	15	<1	18	4	<0.2	<5	<5	<5
CS104379		<1	0.2	2	9	16	<1	11	4	<0.2	<5	<5	<5
CS104380		4	<0.2	24	11	38	<1	83	15	<0.2	<5	<5	<5
CS104381		3	0.3	7	7	14	<1	22	5	<0.2	<5	<5	<5
CS104382		3	0.2	7	6	15	<1	33	7	<0.2	<5	<5	<5
CS104383		<1	<0.2	4	8	35	<1	20	6	<0.2	<5	<5	<5
CS104384		<1	<0.2	11	13	22	<1	53	11	<0.2	<5	<5	<5
CS104385		<1	<0.2	10	8	19	<1	31	5	<0.2	<5	<5	<5
CS104386		2	<0.2	18	13	36	<1	83	18	<0.2	<5	<5	<5
CS104387		28	<0.2	11	8	41	<1	68	9	<0.2	<5	<5	<5
CS104388		3	<0.2	3	8	13	<1	10	3	<0.2	<5	<5	<5
CS104389		<1	<0.2	3	7	12	<1	10	3	<0.2	<5	<5	<5
CS104390		<1	<0.2	5	5	19	<1	17	5	<0.2	<5	<5	<5
CS104391		2	<0.2	14	6	30	<1	45	11	<0.2	<5	<5	<5

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SAMPLE NUMBER	ELEMENT UNITS	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT
CS104353		1.97	109	<10	21	34	39	<20	<20	8	1.03	0.16	0.12
CS104354		1.86	224	<10	26	44	25	<20	<20	10	1.46	0.28	0.16
CS104355		1.16	159	<10	18	33	29	<20	<20	9	0.95	0.10	0.12
CS104356		1.51	133	<10	27	30	27	<20	<20	10	1.71	0.21	0.16
CS104357		0.95	147	<10	14	25	20	<20	<20	7	0.90	0.16	0.16
CS104358		1.04	58	<10	18	28	33	<20	<20	11	0.81	0.07	0.08
CS104359		1.27	186	<10	19	40	26	<20	<20	9	1.33	0.39	0.17
CS104360		1.46	53	<10	15	26	35	<20	<20	10	1.35	0.05	0.09
CS104361		1.21	98	<10	21	33	23	<20	<20	11	1.81	0.27	0.15
CS104362		1.79	181	<10	14	65	36	<20	<20	9	1.45	0.46	0.21
CS104363		1.29	79	<10	26	28	27	<20	<20	9	1.91	0.11	0.11
CS104364		1.56	146	<10	25	45	32	<20	<20	10	1.41	0.29	0.17
CS104365		1.15	104	<10	15	41	23	<20	<20	12	1.62	0.30	0.18
CS104366		1.51	91	<10	13	35	23	<20	<20	12	1.97	0.27	0.21
CS104367		1.01	114	<10	15	27	22	<20	<20	11	1.29	0.20	0.15
CS104368		1.17	124	<10	16	39	23	<20	<20	8	1.57	0.35	0.17
CS104369		1.79	239	<10	25	38	34	<20	<20	8	1.45	0.27	0.15
CS104370		2.88	149	<10	31	43	33	<20	<20	9	3.54	0.38	0.18
CS104371		0.66	93	<10	17	22	23	<20	<20	11	0.91	0.20	0.27
CS104372		1.21	141	<10	16	28	23	<20	<20	9	1.31	0.24	0.17
CS104373		1.79	186	<10	19	41	26	<20	<20	8	2.10	0.56	0.17
CS104374		1.51	126	<10	24	31	24	<20	<20	7	1.71	0.21	0.17
CS104375		0.90	120	<10	27	19	21	<20	<20	10	0.90	0.08	0.18
CS104376		1.62	111	<10	17	41	26	<20	<20	8	1.59	0.15	0.11
CS104377		0.97	76	<10	26	29	21	<20	<20	10	1.45	0.12	0.12
CS104378		1.44	140	<10	20	30	22	<20	<20	9	1.03	0.31	0.21
CS104379		1.47	80	<10	19	26	27	<20	<20	10	1.82	0.11	0.11
CS104380		1.87	374	<10	21	121	29	<20	<20	13	1.33	0.95	0.24
CS104381		1.58	106	<10	16	35	22	<20	<20	12	1.47	0.29	0.19
CS104382		1.05	97	<10	15	38	20	<20	<20	9	1.35	0.26	0.18
CS104383		1.72	92	<10	29	34	33	<20	<20	10	1.73	0.17	0.15
CS104384		1.38	255	<10	17	80	24	<20	<20	9	1.11	0.68	0.19
CS104385		2.33	113	<10	28	55	32	<20	<20	7	1.16	0.34	0.15
CS104386		1.93	347	<10	18	114	30	<20	<20	12	1.54	0.82	0.21
CS104387		1.74	283	<10	34	110	32	<20	<20	10	1.68	0.63	0.15
CS104388		1.12	62	<10	13	24	23	<20	<20	9	1.57	0.10	0.10
CS104389		1.09	100	<10	13	21	18	<20	<20	10	1.17	0.12	0.13
CS104390		1.04	133	<10	9	27	21	<20	<20	8	1.37	0.36	0.15
CS104391		1.82	178	<10	28	59	27	<20	<20	9	1.61	0.35	0.15

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SAMPLE NUMBER	ELEMENT UNITS	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
CS104353		<0.01	0.03	11	2	6	8	2	<5	<10	0.09	3
CS104354		0.01	0.04	12	2	4	11	2	<5	<10	0.08	3
CS104355		<0.01	0.03	12	2	4	7	1	<5	<10	0.07	2
CS104356		0.01	0.04	13	3	5	8	2	<5	<10	0.08	2
CS104357		0.01	0.03	12	2	3	5	1	<5	<10	0.07	2
CS104358		<0.01	0.02	12	2	4	3	2	<5	<10	0.07	2
CS104359		0.01	0.04	14	2	4	8	1	<5	<10	0.08	2
CS104360		<0.01	0.02	9	2	8	8	2	<5	<10	0.07	2
CS104361		0.01	0.03	12	3	4	10	2	<5	<10	0.08	3
CS104362		0.01	0.03	21	3	5	10	2	<5	<10	0.12	3
CS104363		0.01	0.04	11	2	5	8	2	<5	<10	0.07	2
CS104364		0.01	0.03	16	2	4	8	2	<5	<10	0.09	3
CS104365		0.01	0.04	14	3	3	10	1	<5	<10	0.07	2
CS104366		0.01	0.03	12	3	3	7	2	<5	<10	0.06	2
CS104367		0.01	0.03	14	3	4	6	1	<5	<10	0.07	3
CS104368		0.01	0.03	14	2	3	8	1	<5	<10	0.07	2
CS104369		0.01	0.03	12	2	4	7	2	<5	<10	0.10	3
CS104370		0.02	0.04	12	3	6	12	3	<5	<10	0.09	3
CS104371		0.01	0.04	15	2	5	14	1	<5	<10	0.07	1
CS104372		0.01	0.03	13	3	4	8	1	<5	<10	0.07	2
CS104373		0.01	0.04	12	3	4	12	2	<5	<10	0.09	4
CS104374		0.01	0.02	12	2	4	7	2	<5	<10	0.06	1
CS104375		<0.01	0.03	15	2	4	5	1	<5	<10	0.06	1
CS104376		<0.01	0.02	10	2	4	9	2	<5	<10	0.07	2
CS104377		0.01	0.03	12	2	4	7	1	<5	<10	0.07	2
CS104378		0.01	0.03	15	3	4	7	1	<5	<10	0.07	2
CS104379		<0.01	0.03	10	2	5	9	2	<5	<10	0.07	2
CS104380		0.01	0.03	23	3	4	12	<1	<5	<10	0.09	6
CS104381		0.01	0.03	14	3	3	9	2	<5	<10	0.06	2
CS104382		0.01	0.02	13	2	3	7	1	<5	<10	0.06	2
CS104383		0.01	0.03	12	2	6	10	2	<5	<10	0.08	1
CS104384		0.01	0.03	18	2	4	10	<1	<5	<10	0.07	4
CS104385		0.01	0.03	15	2	5	10	2	<5	<10	0.09	3
CS104386		0.01	0.03	19	3	4	15	1	<5	<10	0.07	2
CS104387		0.01	0.03	13	2	5	13	1	<5	<10	0.07	1
CS104388		<0.01	0.03	9	2	4	7	2	<5	<10	0.06	2
CS104389		0.01	0.02	9	2	3	6	2	<5	<10	0.05	1
CS104390		0.01	0.03	15	2	4	9	1	<5	<10	0.08	3
CS104391		0.01	0.04	14	2	5	20	2	<5	<10	0.08	2

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REPORT: 096-40403.0 (COMPLETE) PROJECT: 4057G10 PAGE 3A

STANDARD NAME / ELEMENT / UNITS	AU PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM
UMT-1 CANMET STD	56	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	1	-	-	-	-	-	-	-	-	-	-	-
Mean Value	56.3	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	48	-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 4	-	0.8	275	32	231	3	40	8	0.8	<5	20	<5
Number of Analyses	-	1	1	1	1	1	1	1	1	1	1	1
Mean Value	-	0.82	275.0	32.5	231.0	3.2	40.3	8.1	0.76	2.5	20.0	2.5
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	0.5	290	33	255	4	42	9	0.8	1	30	1
MAFIC ROCK STANDARD	107	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	1	-	-	-	-	-	-	-	-	-	-	-
Mean Value	107.4	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	-	-	-	-	-	-	-	-	-	-	-
ANALYTICAL BLANK	<1	<0.2	<1	<2	<1	<1	<1	<1	<0.2	<5	<5	<5
ANALYTICAL BLANK	-	<0.2	<1	<2	<1	<1	<1	<1	<0.2	<5	<5	<5
ANALYTICAL BLANK	-	<0.2	<1	<2	<1	<1	<1	<1	<0.2	<5	<5	<5
Number of Analyses	1	3	3	3	3	3	3	3	3	3	3	3
Mean Value	0.5	0.10	0.5	1.0	0.5	0.5	0.5	0.5	0.10	2.5	2.5	2.5
Standard Deviation	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.01	<0.01	<0.01
Accepted Value	1	0.2	1	2	1	1	1	1	1.0	2	5	5
BCC GEOCHEM STD 3	-	8.4	829	212	468	463	444	34	2.5	12	259	29
Number of Analyses	-	1	1	1	1	1	1	1	1	1	1	1
Mean Value	-	8.38	829.2	211.9	467.8	463.0	444.4	33.8	2.54	12.3	259.2	28.5
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	5.0	820	250	500	600	600	40	2.0	4	310	50
PP89-2	139	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses	1	-	-	-	-	-	-	-	-	-	-	-
Mean Value	138.9	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	170	-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 5	-	0.8	90	11	73	1	32	15	<0.2	<5	<5	<5
Number of Analyses	-	1	1	1	1	1	1	1	1	1	1	1
Mean Value	-	0.76	89.8	11.4	72.9	1.4	31.9	14.6	0.10	2.5	2.5	2.5
Standard Deviation	-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value	-	0.7	90	11	80	2	40	18	0.1	1	8	1

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STANDARD NAME	ELEMENT UNITS	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT
UMT-1 CANMET STD		-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 4		2.40	591	<10	55	76	8	<20	<20	5	0.84	1.38	1.30
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		2.399	591.2	5.0	54.8	75.9	7.7	10.0	10.0	5.1	0.842	1.379	1.299
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		2.40	600	<1	55	80	9	1	1	4	0.77	1.34	1.43
MAFIC ROCK STANDARD		-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-
ANALYTICAL BLANK		<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<0.01	<0.01	<0.01
ANALYTICAL BLANK		<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<0.01	<0.01	<0.01
ANALYTICAL BLANK		<0.01	<1	<10	<1	<1	<1	<20	<20	<1	<0.01	<0.01	<0.01
Number of Analyses		3	3	3	3	3	3	3	3	3	3	3	3
Mean Value		0.005	0.5	5.0	0.5	0.5	0.5	10.0	10.0	0.5	0.005	0.005	0.005
Standard Deviation		<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0001	<0.0001	<0.0001
Accepted Value		0.05	1	<1	<1	1	1	<1	<1	<1	<0.01	<0.01	<0.01
BCC GEOCHEM STD 3		4.04	779	<10	175	131	29	<20	<20	11	4.78	3.01	3.71
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		4.041	778.5	5.0	175.3	131.4	29.4	10.0	10.0	11.2	4.784	3.014	3.705
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		5.00	850	1	220	150	34	16	8	6	5.10	4.90	5.13
PP89-2		-	-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 5		3.96	714	<10	169	44	108	<20	<20	10	3.14	1.71	0.92
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1	1
Mean Value		3.958	714.3	5.0	168.8	43.7	108.4	10.0	10.0	10.0	3.140	1.708	0.917
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-	-
Accepted Value		4.74	720	<1	200	54	133	4	1	5	3.09	1.83	1.08

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REPORT: 096-40403.0 (COMPLETE) PROJECT: 4057G10 PAGE 3C

STANDARD NAME	ELEMENT UNITS	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
UMT-1 CANMET STD		-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 4		0.06	0.17	38	2	3	6	<1	<5	<10	<0.01	9
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1
Mean Value		0.056	0.175	38.2	2.5	3.5	5.8	0.5	2.5	5.0	0.005	8.5
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-
Accepted Value		0.04	0.14	39	4	2	7	1	12	1	0.01	8
MAFIC ROCK STANDARD		-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-
ANALYTICAL BLANK		<0.01	<0.01	<1	<1	<2	<1	<1	<5	<10	<0.01	<1
ANALYTICAL BLANK		<0.01	<0.01	<1	<1	<2	<1	<1	<5	<10	<0.01	<1
ANALYTICAL BLANK		<0.01	<0.01	<1	<1	<2	<1	<1	<5	<10	<0.01	<1
Number of Analyses		3	3	3	3	3	3	3	3	3	3	3
Mean Value		0.005	0.005	0.5	0.5	1.0	0.5	0.5	2.5	5.0	0.005	0.5
Standard Deviation		<0.0001	<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0001	<0.01
Accepted Value		<0.01	<0.01	<1	<1	<1	<1	<1	<1	<1	<0.01	<1
BCC GEOCHEM STD 3		0.29	0.21	71	3	8	13	<1	<5	<10	0.03	1
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1
Mean Value		0.292	0.212	71.4	3.0	8.2	13.2	0.5	2.5	5.0	0.026	1.5
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-
Accepted Value		0.30	0.20	78	6	2	14	11	12	1	0.03	2
PP89-2		-	-	-	-	-	-	-	-	-	-	-
Number of Analyses		-	-	-	-	-	-	-	-	-	-	-
Mean Value		-	-	-	-	-	-	-	-	-	-	-
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-
Accepted Value		-	-	-	-	-	-	-	-	-	-	-
BCC GEOCHEM STD 5		0.06	0.36	39	5	9	24	<1	8	<10	0.19	8
Number of Analyses		1	1	1	1	1	1	1	1	1	1	1
Mean Value		0.059	0.356	39.1	5.0	8.9	24.0	0.5	7.7	5.0	0.188	8.1
Standard Deviation		-	-	-	-	-	-	-	-	-	-	-
Accepted Value		0.06	0.32	39	9	-	-	1	18	1	-	9

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SAMPLE NUMBER	ELEMENT UNITS	AU PPB	Ag PPM	Cu PPM	Pb PPM	Zn PPM	Mo PPM	Ni PPM	Co PPM	Cd PPM	Bi PPM	As PPM	Sb PPM
CS104316		1	0.2	5	8	14	<1	21	7	<0.2	<5	<5	<5
Duplicate		3	0.2	5	10	14	<1	20	7	<0.2	<5	<5	<5
CS104333		1	<0.2	12	7	12	<1	17	4	<0.2	<5	<5	<5
Duplicate			<0.2	12	7	13	<1	17	5	<0.2	<5	<5	<5
CS104339		<1	<0.2	9	8	19	1	16	4	<0.2	<5	<5	<5
Duplicate		<1											
CS104353		<1	<0.2	6	9	24	<1	12	3	<0.2	<5	<5	<5
Duplicate			<0.2	6	8	24	<1	12	3	<0.2	<5	<5	<5
CS104362		4	<0.2	11	9	29	<1	34	8	<0.2	<5	<5	<5
Duplicate		1											
CS104370		1	0.2	8	11	40	2	25	7	0.2	<5	<5	<5
Duplicate			0.3	8	14	41	2	27	8	0.3	<5	<5	<5
CS104385		<1	<0.2	10	8	19	<1	31	5	<0.2	<5	<5	<5
Duplicate		3											
CS104390		<1	<0.2	5	5	19	<1	17	5	<0.2	<5	<5	<5
Duplicate			<0.2	6	6	20	<1	19	6	<0.2	<5	<5	<5

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REPORT: 096-40403.0 (COMPLETE)

DATE PRINTED: 5-JUL-96
PROJECT: 4057G10

SAMPLE NUMBER	ELEMENT UNITS	Fe PCT	Mn PPM	Te PPM	Ba PPM	Cr PPM	V PPM	Sn PPM	W PPM	La PPM	Al PCT	Mg PCT	Ca PCT
CS104316		1.34	101	<10	22	35	24	<20	<20	10	2.15	0.29	0.13
Duplicate		1.37	104	<10	23	35	24	<20	<20	10	2.21	0.30	0.13
CS104333		1.09	90	<10	12	29	23	<20	<20	12	1.30	0.25	0.14
Duplicate		1.13	95	<10	12	29	24	<20	<20	12	1.35	0.27	0.15
CS104339		1.76	81	<10	19	31	29	<20	<20	13	1.74	0.18	0.16
Duplicate													
CS104353		1.97	109	<10	21	34	39	<20	<20	8	1.03	0.16	0.12
Duplicate		1.99	111	<10	22	34	39	<20	<20	9	1.04	0.16	0.12
CS104362		1.79	181	<10	14	65	36	<20	<20	9	1.45	0.46	0.21
Duplicate													
CS104370		2.88	149	<10	31	43	33	<20	<20	9	3.54	0.38	0.18
Duplicate		3.01	153	<10	31	44	32	<20	<20	8	3.59	0.41	0.18
CS104385		2.33	113	<10	28	55	32	<20	<20	7	1.16	0.34	0.15
Duplicate													
CS104390		1.04	133	<10	9	27	21	<20	<20	8	1.37	0.36	0.15
Duplicate		1.14	141	<10	9	29	23	<20	<20	9	1.45	0.38	0.17

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SAMPLE NUMBER	ELEMENT UNITS	Na PCT	K PCT	Sr PPM	Y PPM	Ga PPM	Li PPM	Nb PPM	Sc PPM	Ta PPM	Ti PCT	Zr PPM
CS104316		0.01	0.04	11	3	4	10	2	<5	<10	0.08	3
Duplicate		0.01	0.04	11	3	4	10	2	<5	<10	0.08	3
CS104333		0.01	0.03	11	3	3	7	2	<5	<10	0.08	3
Duplicate		0.01	0.03	12	3	3	8	2	<5	<10	0.08	3
CS104339		0.01	0.03	11	3	4	8	2	<5	<10	0.07	2
Duplicate												
CS104353		<0.01	0.03	11	2	6	8	2	<5	<10	0.09	3
Duplicate		<0.01	0.03	11	2	7	8	2	<5	<10	0.09	3
CS104362		0.01	0.03	21	3	5	10	2	<5	<10	0.12	3
Duplicate												
CS104370		0.02	0.04	12	3	6	12	3	<5	<10	0.09	3
Duplicate		0.01	0.04	12	2	6	10	3	<5	<10	0.09	3
CS104385		0.01	0.03	15	2	5	10	2	<5	<10	0.09	3
Duplicate												
CS104390		0.01	0.03	15	2	4	9	1	<5	<10	0.08	3
Duplicate		0.01	0.03	16	2	4	9	2	<5	<10	0.08	3

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Appendix XII: **1996 Till Geochemistry - <63 Microns**

ACTLABS

ACTIVATION LABORATORIES LTD

Invoice No.: 10907
Work Order: 11009
Invoice Date: 31-JUL-96
Date Submitted: 15-JUL-96
Your Reference: 4057
Account Number: 621

W C INTERNATIONAL LIMITED
E.PLORATION DIVISION
22 GURDWARA ROAD
N PEAN, ONTARIO
C NADA K2E 8A2
ATTENTION: TERRY A. GOODWIN

CERTIFICATE OF ANALYSIS

I AA package, elements and detection limits:

AU	2.	PPB	AG	5.	PPM	AS	0.5	PPM	BA	50.	PPM
R	0.5	PPM	CA	1.	%	CO	1.	PPM	CR	5.	PPM
S	1.	PPM	FE	0.01	%	HF	1.	PPM	HG	1.	PPM
IR	5.	PPB	MO	1.	PPM	NA	0.01	%	NI	20.	PPM
B	15.	PPM	SB	0.1	PPM	SC	0.1	PPM	SE	3.	PPM
N	0.01	%	SR	0.05	%	TA	0.5	PPM	TH	0.2	PPM
U	0.5	PPM	W	1.	PPM	ZN	50.	PPM	LA	0.5	PPM
E	3.	PPM	ND	5.	PPM	SM	0.1	PPM	EU	0.2	PPM
B	0.5	PPM	YB	0.2	PPM	LU	0.05	PPM			

CERTIFIED BY :

per Judy Young
DR. ERIC L. HOFFMAN

1336 SANDHILL DRIVE, ANCASTER, ONTARIO, CANADA L9G 4V5 • TEL: 905-648-9611 • FAX: 905-648-9613

Activation Laboratories Ltd. Work Order: 11009 Report: 10907

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM
CS 204313-63U	2	<5	5.5	840	14	<1	14	140	3	3.93	14	<1	<5	<2	2.65	<91	<19	<0.1	11	<3	<0.03	<0.05	<1.0	9.6
CS 204314-63U	<2	<5	2.6	540	5.1	<1	12	100	2	2.17	6	<1	<5	<1	2.46	<40	86	<0.1	9.0	<3	<0.02	<0.05	<0.5	6.0
CS 204315-63U	<2	<5	3.4	560	4.3	2	13	100	<1	2.35	7	<1	<5	<1	2.53	<50	<15	<0.1	9.4	<3	<0.02	<0.05	<0.5	6.4
CS 204316-63U	<2	<5	2.8	650	7.3	2	11	96	2	2.40	6	<1	<5	6	2.21	<44	<15	<0.1	8.9	<3	<0.02	<0.05	2.3	7.4
CS 204317-63U	2	<5	4.9	790	14	<1	16	160	7	4.21	7	<1	<5	<1	3.06	<88	98	<0.1	14	<3	<0.03	<0.05	<0.9	11
CS 204318-63U	<2	<5	4.0	460	7.7	2	14	100	3	2.71	7	<1	<5	<1	2.32	<48	58	<0.1	9.4	<3	<0.02	<0.05	<0.5	8.6
CS 204319-63U	4	<5	2.5	460	3.7	2	14	110	<1	2.32	7	<1	<5	6	2.37	<48	<15	<0.1	8.9	<3	<0.01	<0.05	<0.5	7.8
CS 204320-63U	<2	<5	4.8	380	3.1	<1	14	180	2	2.55	6	<1	<5	<1	1.99	<43	<15	0.3	10	<3	<0.01	<0.05	<0.5	5.7
CS 204321-63U	21	<5	1.8	390	3.6	2	9	100	<1	1.84	8	<1	<5	6	2.33	<42	48	<0.1	8.1	<3	<0.01	<0.05	<0.5	6.2
CS 204322-63U	<2	<5	2.8	480	4.6	<1	12	120	1	2.07	8	<1	<5	<1	2.14	<41	<15	<0.1	8.9	<3	<0.01	<0.05	<0.5	5.2
CS 204323-63U	51	<5	3.1	850	7.3	<1	17	150	<1	3.02	11	<1	<5	<2	3.20	<85	<15	<0.1	12	<3	<0.03	<0.05	<0.9	7.1
CS 204324-63U	<2	<5	3.8	450	3.9	3	11	93	2	1.94	7	<1	<5	4	2.41	<37	65	<0.1	8.6	<3	<0.01	<0.05	<0.5	5.0
CS 204325-63U	<2	<5	3.6	470	5.1	<1	8	99	1	1.93	9	<1	<5	<1	2.24	<33	<15	<0.1	8.7	<3	<0.01	<0.05	<0.5	7.0
CS 204326-63U	3	<5	17	240	14	<1	18	150	3	4.53	7	<1	<5	12	2.19	<63	<15	0.6	11	<3	<0.02	<0.05	<0.7	8.5
CS 204327-63U	2	<5	4.5	520	11	3	15	150	<1	3.12	11	<1	<5	<1	2.62	<62	<15	<0.1	11	<3	<0.02	<0.05	<0.7	8.8
CS 204328-63U	<2	<5	2.0	500	3.1	<1	11	140	2	2.26	8	<1	<5	<1	2.39	<37	<15	0.1	10	<3	<0.01	<0.05	<0.5	4.9
CS 204329-63U	<2	<5	1.5	430	1.9	<1	9	110	<1	2.10	8	<1	<5	<1	2.17	<35	41	0.1	9.2	<3	<0.01	<0.05	<0.5	6.4
CS 204330-63U	<2	<5	2.7	400	5.4	<1	8	88	<1	2.05	8	<1	<5	<1	2.14	<35	46	<0.1	8.1	<3	<0.01	<0.05	<0.5	6.1
CS 204331-63U	3	<5	2.7	600	4.2	<1	15	130	<1	2.56	11	<1	<5	6	2.99	<62	88	<0.1	11	<3	<0.02	<0.05	<0.7	8.1
CS 204332-63U	<2	<5	3.7	360	9.2	<1	10	100	2	2.29	7	<1	<5	<1	2.05	<34	51	0.2	8.6	<3	<0.01	<0.05	1.8	5.2
CS 204333-63U	<2	<5	3.1	620	8.3	<1	9	100	2	2.14	7	<1	<5	<1	2.36	<36	46	<0.1	9.5	<3	<0.01	<0.05	<0.5	6.1
CS 204334-63U	6	<5	8.7	700	10	3	23	200	<1	3.77	14	<1	<5	<1	3.08	<72	110	0.3	13	<3	<0.03	<0.05	<0.8	10
CS 204335-63U	<2	<5	1.7	510	4.5	<1	9	85	<1	1.76	7	<1	<5	<1	2.21	<30	62	<0.1	8.0	<3	<0.01	<0.05	<0.5	5.0
CS 204336-63U	5	<5	1.9	430	<0.5	<1	9	99	1	2.00	7	<1	<5	<1	2.64	<32	41	0.2	9.2	<3	<0.01	<0.05	<0.5	5.6
CS 204337-63U	4	<5	2.2	490	2.0	<1	11	110	<1	2.17	9	<1	<5	<1	2.51	<31	42	<0.1	9.0	<3	<0.01	<0.05	1.6	5.6
CS 204338-63U	2	<5	2.4	590	5.2	<1	15	130	3	2.72	11	<1	<5	<1	3.16	<59	73	<0.1	11	<3	<0.02	<0.05	<0.6	9.9
CS 204339-63U	13	<5	4.2	600	8.0	<1	12	120	<1	2.44	14	<1	<5	<2	3.07	<61	<15	<0.1	12	<3	<0.02	<0.05	<0.7	10
CS 204340-63U	<2	<5	3.4	440	2.9	<1	11	140	1	1.85	7	<1	<5	<1	2.16	140	42	0.4	7.9	<3	<0.01	<0.05	<0.5	5.1
CS 204341-63U	<2	<5	10	500	2.2	2	16	270	2	2.58	7	<1	<5	<1	2.17	<31	51	1.2	13	<3	<0.01	<0.05	<0.5	4.8
CS 204342-63U	2	<5	13	680	5.3	3	29	220	2	4.09	6	<1	<5	<1	2.57	<57	<15	0.7	13	<3	<0.02	<0.05	<0.6	10
CS 204343-63U	5	<5	13	410	7.7	1	20	250	2	3.26	7	<1	<5	<1	1.99	<29	51	0.5	11	<3	<0.01	0.07	<0.5	4.2
CS 204344-63U	<2	<5	2.8	280	5.5	2	12	89	2	2.13	6	<1	<5	<1	2.30	<30	67	0.2	8.5	<3	<0.01	<0.05	1.7	6.6
CS 204345-63U	13	<5	1.3	470	3.2	1	8	85	2	1.73	7	<1	<5	<1	2.32	<29	54	<0.1	8.3	<3	<0.01	<0.05	<0.5	4.6
CS 204346-63U	35	<5	1.6	510	5.5	1	10	94	1	1.86	8	<1	<5	3	2.46	<27	50	<0.1	8.4	<3	<0.01	<0.05	<0.5	5.5
CS 204347-63U	<2	<5	1.5	460	1.3	2	9	92	<1	1.92	5	<1	<5	<1	2.28	<27	47	<0.1	9.1	<3	<0.01	<0.05	1.9	5.5
CS 204348-63U	2	<5	15	700	5.4	4	21	99	<1	3.02	8	<1	<5	<1	2.14	<54	<15	0.5	11	<3	<0.02	<0.05	<0.5	6.2
CS 204349-63U	<2	<5	1.3	440	1.5	2	8	84	<1	1.74	8	<1	<5	<1	2.47	<27	54	<0.1	8.3	<3	<0.01	<0.05	<0.5	5.2
CS 204350-63U	14	<5	1.8	430	2.3	1	8	88	<1	1.77	8	<1	<5	<1	2.44	<26	49	0.1	8.2	<3	<0.01	<0.05	<0.5	5.2
CS 204351-63U	4	<5	2.0	450	4.9	2	7	99	<1	1.76	9	<1	<5	1	2.39	<27	<15	<0.1	8.6	<3	<0.01	<0.05	<0.5	5.5
CS 204352-63U	<2	<5	2.0	510	3.7	<1	18	240	1	2.47	7	<1	<5	<1	2.24	<26	<15	0.2	10	<3	<0.01	<0.05	<0.5	4.8
CS 204353-63U	<2	<5	11	500	13	<1	24	240	3	3.38	9	<1	<5	<1	2.24	<47	<15	0.8	11	<3	<0.02	<0.05	<0.5	6.8
CS 204354-63U	<2	<5	12	430	3.7	2	17	250	2	2.64	8	<1	<5	<1	2.11	180	40	0.9	11	<3	<0.01	<0.05	<0.5	5.3
CS 204355-63U	<2	<5	30	430	8.0	2	33	440	2	3.24	7	<1	<5	2	1.96	<27	46	1.2	14	<3	<0.01	<0.05	<0.5	5.6
CS 204356-63U	3	<5	1.3	390	3.5	2	10	100	<1	1.90	8	<1	<5	<1	2.30	<26	34	0.2	8.7	<3	<0.01	<0.05	<0.5	5.4
CS 204357-63U	74	<5	1.7	470	3.7	2	9	100	<1	2.00	9	<1	<5	<1	2.28	<26	59	<0.1	8.7	<3	<0.01	<0.05	<0.5	5.8

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Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA %	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SN %	SR %	TA PPM	TH PPM
CS 204358-630	<2	<5	3.0	570	8.8	3	18	150	3	3.07	11	<1	<5	<1	2.62	<45	87	<0.1	11	<3	<0.02	<0.05	<0.5	8.2
CS 204359-630	13	<5	1.7	580	2.2	2	11	120	<1	2.27	8	<1	<5	<1	2.47	<25	42	<0.1	9.7	<3	<0.01	0.09	<0.5	5.7
CS 204360-630	5	<5	3.5	380	7.8	2	18	150	1	2.51	6	<1	<5	<1	2.07	180	49	0.2	9.9	<3	<0.01	<0.05	<0.5	5.0
CS 204361-630	37	<5	1.8	480	2.8	1	8	83	<1	1.70	8	<1	<5	1	2.35	<24	49	0.2	8.0	<3	<0.01	<0.05	<0.5	6.1
CS 204362-630	18	<5	4.7	470	2.0	2	22	180	1	2.63	9	<1	<5	2	2.29	<25	58	0.3	11	<3	<0.01	<0.05	<0.5	5.9
CS 204363-630	4	<5	2.5	520	5.8	2	10	110	2	2.12	9	<1	<5	<1	2.36	<25	41	<0.1	9.5	<3	<0.01	<0.05	<0.5	6.5
CS 204364-630	3	<5	1.6	380	1.5	2	11	110	2	1.96	9	<1	<5	<1	2.37	<25	68	0.1	9.2	<3	<0.01	<0.05	1.5	5.3
CS 204365-630	<2	<5	0.8	470	3.9	1	10	85	<1	1.57	8	<1	<5	<1	2.02	<22	61	<0.1	7.5	<3	<0.01	<0.05	<0.5	4.8
CS 204366-630	4	<5	<0.5	430	<0.5	2	11	140	<1	2.06	7	<1	<5	<1	2.29	<24	51	<0.1	9.9	<3	<0.01	<0.05	<0.5	4.7
CS 204367-630	4	<5	1.5	490	3.2	2	8	85	1	1.73	10	<1	<5	<1	2.46	<24	55	<0.1	8.0	<3	<0.01	<0.05	<0.5	6.3
CS 204368-630	50	<5	2.0	450	4.5	2	10	100	<1	2.01	9	<1	<5	<1	2.25	<23	36	0.2	8.7	<3	<0.01	<0.05	<0.5	5.6
CS 204369-630	27	<5	2.7	520	5.9	1	15	120	<1	2.44	7	<1	<5	<1	2.26	<23	43	0.1	10	<3	<0.01	<0.05	<0.5	5.6
CS 204370-630	18	<5	3.0	480	3.7	2	13	110	1	2.08	9	<1	<5	<1	2.32	<23	65	<0.1	9.2	<3	<0.01	<0.05	<0.5	5.9
CS 204371-630	<2	<5	1.1	480	1.3	<1	4	54	1	1.10	9	<1	<5	<1	1.87	<20	48	0.2	6.1	<3	<0.01	<0.05	0.6	4.8
CS 204372-630	26	<5	1.4	430	4.1	2	8	84	<1	1.75	8	<1	<5	3	2.24	<22	54	<0.1	7.9	<3	<0.01	<0.05	<0.5	5.2
CS 204373-630	7	<5	1.9	450	2.8	1	12	98	2	2.30	8	<1	<5	<1	2.50	<24	55	<0.1	9.1	<3	<0.01	<0.05	1.1	7.3
CS 204374-630	<2	<5	0.7	400	5.1	1	8	90	1	1.86	9	<1	<5	<1	2.20	<22	34	<0.1	8.3	<3	<0.01	<0.05	<0.5	5.5
CS 204375-630	<2	<5	3.3	420	7.8	2	13	120	<1	2.12	8	<1	<5	<1	1.94	<22	23	<0.1	8.2	<3	<0.01	<0.05	<0.5	5.1
CS 204376-630	6	<5	2.4	400	5.5	2	6	110	1	2.64	7	<1	<5	<1	1.87	<20	35	<0.1	7.0	<3	<0.01	<0.05	<0.5	4.4
CS 204377-630	<2	<5	2.3	490	4.1	2	12	150	<1	2.31	7	<1	<5	<1	2.35	<23	22	<0.1	9.9	<3	<0.01	<0.05	<0.5	5.2
CS 204378-630	8	<5	1.5	410	6.0	3	9	89	<1	1.95	8	<1	<5	<1	2.20	<22	52	0.1	8.1	<3	<0.01	<0.05	<0.5	4.7
CS 204379-630	4	<5	1.7	440	5.4	1	10	81	2	1.95	8	<1	<5	<1	2.27	<22	59	<0.1	7.8	<3	<0.01	<0.05	<0.5	6.2
CS 204380-630	<2	<5	7.1	510	2.3	3	16	200	<1	2.50	9	<1	<5	3	2.42	150	81	0.6	11	<3	<0.01	<0.05	1.9	6.4
CS 204381-630	24	<5	7.3	510	8.1	2	15	130	2	2.39	7	<1	<5	<1	2.18	<33	51	0.3	9.0	<3	<0.01	<0.05	<0.5	5.8
CS 204382-630	16	<5	5.4	500	4.4	2	10	160	<1	2.13	9	<1	<5	<1	2.31	<33	35	0.4	9.1	<3	<0.01	<0.05	<0.5	5.7
CS 204383-630	<2	<5	13	540	5.6	<1	19	210	2	2.20	6	<1	<5	<1	2.00	<31	45	0.4	7.6	<3	<0.01	<0.05	<0.5	4.7
CS 204384-630	<2	<5	8.0	570	<0.5	<1	13	130	<1	2.02	7	<1	<5	<1	2.60	<35	49	0.6	8.4	<3	<0.01	<0.05	<0.5	4.8
CS 204385-630	<2	<5	15	470	2.3	<1	21	240	1	2.56	8	<1	<5	5	2.13	180	47	0.9	11	<3	<0.01	<0.05	<0.5	4.7
CS 204386-630	2	<5	10	720	4.2	<1	30	290	<1	3.71	11	<1	<5	<1	3.20	340	63	1.3	15	<3	<0.02	<0.05	<0.7	9.1
CS 204387-630	<2	<5	11	420	4.9	<1	32	540	2	3.99	5	<1	<5	5	1.64	420	40	0.6	16	<3	<0.01	<0.05	<0.5	4.0
CS 204388-630	<2	<5	3.1	510	4.5	<1	12	92	2	2.22	6	<1	<5	<1	2.62	<34	64	<0.1	8.7	<3	<0.01	<0.05	<0.5	7.6
CS 204389-630	<2	<5	1.5	460	6.0	<1	8	81	1	1.83	8	<1	<5	<1	2.35	<33	40	<0.1	7.6	<3	<0.01	0.08	<0.5	5.9
CS 204390-630	<2	<5	3.1	460	7.0	<1	12	92	2	2.35	6	<1	<5	4	2.46	<34	52	0.2	8.6	<3	<0.01	<0.05	<0.5	8.2
CS 204391-630	<2	<5	4.2	620	5.0	<1	13	98	2	2.13	8	<1	<5	<1	2.39	<42	<15	<0.1	8.5	<3	<0.01	<0.05	<0.5	6.3

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Sample description	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
CS 204313-63U	<0.5	<1	<50	25	52	23	3.5	0.6	<0.5	2.3	0.30	10.30
CS 204314-63U	<0.5	<1	116	16	46	9	2.5	0.7	<0.5	1.3	0.19	31.20
CS 204315-63U	2.2	<1	<50	16	41	20	2.4	0.8	<0.5	1.3	0.22	30.60
CS 204316-63U	<0.5	2	<50	15	49	24	2.2	0.5	<0.5	1.3	0.21	33.80
CS 204317-63U	4.6	<1	<50	19	54	17	3.0	0.9	<0.5	1.5	0.29	12.20
CS 204318-63U	1.8	<1	<50	15	51	25	2.1	0.9	1.2	1.1	0.20	30.20
CS 204319-63U	<0.5	<1	<50	14	55	11	2.2	0.7	<0.5	1.1	0.21	30.50
CS 204320-63U	<0.5	<1	<50	18	45	17	2.6	0.8	<0.5	1.4	0.21	36.10
CS 204321-63U	1.0	<1	<50	17	48	20	2.4	0.8	<0.5	1.3	0.20	37.60
CS 204322-63U	<0.5	<1	<50	16	38	13	2.3	0.8	<0.5	1.2	0.22	37.70
CS 204323-63U	<0.5	<1	<50	22	56	<5	3.6	1.0	<0.5	1.8	0.20	13.00
CS 204324-63U	1.1	<1	<50	17	54	12	2.5	0.9	<0.5	1.5	0.23	30.30
CS 204325-63U	1.6	<1	67	23	84	18	3.2	0.9	<0.5	1.5	0.22	35.60
CS 204326-63U	<0.5	<1	226	19	48	30	3.2	1.1	<0.5	1.5	0.25	10.30
CS 204327-63U	2.0	<1	<50	24	60	22	3.8	0.9	<0.5	1.8	0.32	12.40
CS 204328-63U	1.1	<1	<50	17	35	17	2.7	0.9	<0.5	1.4	0.19	30.30
CS 204329-63U	<0.5	<1	<50	20	41	15	2.7	0.8	<0.5	1.4	0.22	30.80
CS 204330-63U	1.7	<1	<50	18	40	15	2.6	0.8	<0.5	1.4	0.22	30.40
CS 204331-63U	1.8	<1	<50	21	72	17	3.5	1.0	<0.5	1.8	0.27	13.30
CS 204332-63U	1.5	<1	68	15	30	12	2.2	0.7	<0.5	1.4	0.19	30.40
CS 204333-63U	1.9	<1	<50	18	50	14	2.6	0.8	<0.5	1.2	0.20	31.00
CS 204334-63U	1.7	<1	<50	26	58	24	4.2	1.2	<0.5	2.2	0.36	10.00
CS 204335-63U	1.4	<1	<50	17	45	9	2.3	0.7	<0.5	1.1	0.22	30.00
CS 204336-63U	<0.5	<1	<50	19	45	11	2.7	0.8	<0.5	1.3	0.18	30.30
CS 204337-63U	<0.5	<1	<50	19	44	14	2.9	1.0	<0.5	1.3	0.21	30.20
CS 204338-63U	2.1	<1	<50	24	65	24	3.4	1.0	0.6	1.6	0.24	10.40
CS 204339-63U	<0.5	<1	<50	50	290	32	7.3	1.9	<0.5	2.6	0.44	10.20
CS 204340-63U	1.1	<1	<50	14	41	11	2.1	0.6	<0.5	1.1	0.17	30.80
CS 204341-63U	<0.5	<1	<50	19	37	15	3.0	0.9	<0.5	1.7	0.25	30.00
CS 204342-63U	1.6	<1	<50	23	81	18	3.1	0.9	<0.5	1.6	0.26	10.00
CS 204343-63U	0.8	<1	<50	13	38	10	2.3	0.8	<0.5	1.3	0.23	30.20
CS 204344-63U	1.9	<1	<50	16	41	9	2.3	0.7	<0.5	1.0	0.18	30.50
CS 204345-63U	1.3	<1	<50	18	34	14	2.6	0.9	<0.5	1.1	0.19	30.30
CS 204346-63U	1.3	<1	<50	16	36	14	2.4	0.7	<0.5	1.3	0.22	30.00
CS 204347-63U	<0.5	<1	<50	22	50	15	2.8	0.7	<0.5	1.3	0.22	30.00
CS 204348-63U	<0.5	<1	<50	21	56	21	3.1	1.0	<0.5	1.5	0.30	6.199
CS 204349-63U	1.8	<1	<50	17	36	13	2.4	0.8	<0.5	1.4	0.23	30.00
CS 204350-63U	<0.5	<1	<50	16	56	11	2.5	0.8	<0.5	1.3	0.21	30.30
CS 204351-63U	1.1	<1	<50	18	36	16	2.6	0.9	<0.5	1.3	0.22	30.50
CS 204352-63U	<0.5	<1	<50	15	46	12	2.4	0.8	<0.5	1.2	0.23	30.30
CS 204353-63U	<0.5	<1	<50	20	73	15	3.3	0.9	<0.5	1.8	0.22	10.10
CS 204354-63U	1.6	<1	67	17	52	15	2.7	0.9	<0.5	1.5	0.23	30.00
CS 204355-63U	1.2	<1	<50	21	73	18	3.7	1.1	0.6	1.8	0.28	30.00
CS 204356-63U	1.4	<1	<50	17	41	12	2.4	0.8	<0.5	1.4	0.21	30.80
CS 204357-63U	1.4	<1	<50	19	39	14	2.8	0.8	<0.5	1.4	0.23	30.10

Activation Laboratories Ltd. Work Order: 11009 Report: 10907

Sample description	U PPM	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
CS 204358-63U	2.3	<1	<50	25	79	22	4.0	1.2	<0.5	1.8	0.31	10.30
CS 204359-63U	1.4	<1	60	18	45	<5	2.6	0.8	1.1	1.3	0.19	30.10
CS 204360-63U	1.1	<1	250	17	82	13	2.7	0.9	<0.5	1.4	0.22	30.00
CS 204361-63U	1.2	<1	<50	17	54	14	2.5	0.7	<0.5	1.3	0.22	30.00
CS 204362-63U	1.7	<1	<50	22	52	21	3.1	0.9	<0.5	1.4	0.23	30.10
CS 204363-63U	1.1	<1	<50	18	40	13	2.5	0.9	<0.5	1.3	0.22	30.00
CS 204364-63U	1.1	<1	<50	19	44	17	2.8	0.8	<0.5	1.3	0.24	30.20
CS 204365-63U	1.6	<1	<50	18	34	14	2.6	0.8	<0.5	1.2	0.22	30.40
CS 204366-63U	<0.5	<1	<50	22	38	17	3.0	0.8	<0.5	1.4	0.23	30.20
CS 204367-63U	1.4	<1	<50	19	44	11	2.5	0.9	<0.5	1.3	0.23	30.10
CS 204368-63U	<0.5	<1	<50	17	35	11	2.4	0.8	<0.5	1.3	0.21	30.10
CS 204369-63U	1.5	<1	<50	18	51	13	2.6	0.8	<0.5	1.4	0.21	30.00
CS 204370-63U	1.1	<1	<50	19	55	17	2.8	0.8	0.8	1.5	0.22	30.00
CS 204371-63U	1.2	<1	<50	17	28	11	2.0	0.5	<0.5	1.4	0.22	30.20
CS 204372-63U	<0.5	<1	<50	17	49	13	2.5	0.7	<0.5	1.3	0.20	30.30
CS 204373-63U	1.6	<1	<50	19	62	11	2.6	0.7	<0.5	1.3	0.22	30.10
CS 204374-63U	1.2	<1	<50	17	43	10	2.4	0.8	<0.5	1.3	0.23	30.40
CS 204375-63U	<0.5	<1	<50	16	39	11	2.4	0.7	<0.5	1.3	0.21	30.20
CS 204376-63U	1.0	<1	<50	13	29	9	1.9	0.5	<0.5	1.0	0.19	30.40
CS 204377-63U	0.8	<1	<50	14	36	11	2.2	0.6	<0.5	1.2	0.22	30.20
CS 204378-63U	<0.5	<1	<50	16	37	11	2.3	0.7	<0.5	1.3	0.21	30.40
CS 204379-63U	1.7	<1	<50	16	38	12	2.2	0.7	<0.5	1.1	0.19	30.10
CS 204380-63U	1.3	<1	108	22	53	15	3.3	1.0	<0.5	1.4	0.25	30.20
CS 204381-63U	<0.5	<1	<50	18	47	15	2.9	0.9	<0.5	1.3	0.23	30.10
CS 204382-63U	<0.5	<1	<50	17	49	15	2.8	1.0	<0.5	1.4	0.20	30.10
CS 204383-63U	<0.5	<1	89	13	47	14	2.1	0.7	<0.5	1.1	0.18	30.00
CS 204384-63U	<0.5	<1	<50	17	46	15	2.7	0.9	<0.5	1.2	0.17	30.10
CS 204385-63U	<0.5	<1	<50	19	41	16	3.0	0.9	<0.5	1.6	0.29	30.10
CS 204386-63U	3.6	<1	<50	29	64	19	4.8	1.4	<0.5	2.0	0.27	10.30
CS 204387-63U	<0.5	1	<50	15	55	15	2.6	0.9	<0.5	1.2	0.20	30.10
CS 204388-63U	<0.5	<1	<50	16	39	11	2.4	0.8	<0.5	1.1	0.17	30.00
CS 204389-63U	1.9	<1	<50	16	40	17	2.2	0.8	<0.5	1.2	0.17	30.10
CS 204390-63U	<0.5	<1	<50	15	46	12	2.3	0.7	<0.5	1.0	0.16	30.10
CS 204391-63U	<0.5	<1	<50	16	48	15	2.5	0.7	<0.5	1.2	0.19	30.00

Appendix XIII: **1996 Till Geochemistry - Gold Grain Counts**

OVERBURDEN DRILLING MANAGEMENT LIMITED
107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1
TELEPHONE: (613) 226-1771/1774
FAX NO: (613) 226-8753

D A T A T R A N S M I T T A L R E P O R T

DATE: 04-Jul-96

ATTENTION: Mr. C.J. Baker

CLIENT: WMC International Limited
Americas Division - Exploration
22 Gurdwara Road
Nepean, Ont.
K2E 8A2

Fax 727-3970

NO. OF PAGES: _____

PROJECT: CS204 313 to 352

FILE NO: WMC\WMCB1JUN.WR2

NO. OF SAMPLES: 40

NO. OF PANNINGS: 17

H.M.C.	✓
3/4 H	
-63 MICRON	✓
-125 MICRON	

SENT TO Activation ANALYTICAL LAB.

REMARKS: Pebbles screened to 8 and 16 mm. Samples # ending with 2 and 7 (every fifth sample) will have pebble fraction logged.

Rémy Huneault
Laboratory Manager

OVERBURDEN DRILLING MANAGEMENT LIMITED - LABORATORY SAMPLE LOG

ABBREVIATIONS

DATA LOG

Clast:

Size of Clast:
- G: Granules
- P: Pebbles
- C: Cobbles
- BL: Boulder Chips
- BK: Bedrock Chips

% Clast Composition:
- V/S: Volcanics and Sediments
- GR: Granitics
- LS: Limestone
- OT: Other Lithologies (Refer to Footnotes)
- TR: Only Trace Present
- NA: NOT APPLICABLE
- OX: Oxidized

Class:

- BLD: Boulder Chips
- BDK: Bedrock Chips

Matrix:

- S/U: Sorted or Unsorted
- SD: Sand ---------- F: Fine, M: Medium, C: Coarse
- ST: Silt
- CY: Clay
- OR: Organics

- Y: Fraction Present
- +: Fraction more abundant than normal
- -: Fraction less abundant than normal
- N: Fraction Not Present
- L: Lumps Present

Colour:

B:	Beige	PP:	Purple
GY:	Grey	PK:	Pink
GB:	Grey Beige	OC:	Ochre
GN:	Green		
GG:	Grey Green	L:	Light
BN:	Brown	M:	Medium
BK:	Black	D:	Dark

GOLD LOG

Number of Grains:
- T: Number Found on Shaking Table
- P: Number Found by Panning

Thickness:
- C: Calculated Thickness of Grain (in microns)
- M: Actual Measured Thickness of Grain (in microns)

Remarks:

%	Percentage of HMC (estimated from panning of table concentrate)
gr.	Grains (estimated number)
uM	Microns (1/1000 mm)
py.	Pyrite
cpy.	Chalcopyrite
aspy.	Arsenopyrite
marc.	Marcasite
L/G.	Limonite/Goethite
sid.	Siderite

OVERBURDEN DRILLING MANAGEMENT LIMITED

GOLD GRAIN SUMMARY SHEET

WMC\WMCB1JUN.WR2

Sample No.	Number of Visible Gold Grains				Non-Mag Weight	Calculated PPB Visible Gold			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
CS204									
313	2	2	0	0	11.3	140	140	0	0
314	0	0	0	0	12.6	0	0	0	0
315	6	6	0	0	11.2	486	486	0	0
316	0	0	0	0	11.5	0	0	0	0
317	3	3	0	0	2.6	137	137	0	0
318	0	0	0	0	4.8	0	0	0	0
319	13	13	0	0	19.9	528	528	0	0
320	9	8	1	0	27.4	234	233	1	0
321	3	3	0	0	35.9	11	11	0	0
322	17	17	0	0	13.8	1933	1933	0	0
323	3	3	0	0	14.1	710	710	0	0
324	2	2	0	0	12.4	32	32	0	0
325	22	19	3	0	17.5	236	205	31	0
326	0	0	0	0	8.9	0	0	0	0
327	7	7	0	0	19.5	420	420	0	0
328	11	11	0	0	17.7	665	665	0	0
329	5	3	2	0	18.2	538	535	3	0
330	0	0	0	0	11.2	0	0	0	0
331	12	7	3	2	25.0	372	363	4	4
332	2	2	0	0	11.5	680	680	0	0
333	9	7	1	1	32.1	196	193	1	3
334	7	6	1	0	18.2	768	736	32	0
335	1	1	0	0	19.3	4	4	0	0
336	7	7	0	0	31.8	1481	1481	0	0
337	4	4	0	0	49.4	8	8	0	0
338	1	1	0	0	16.4	23	23	0	0
339	10	10	0	0	28.3	64	64	0	0
340	3	3	0	0	21.3	74	74	0	0
341	9	9	0	0	17.7	731	731	0	0
342	4	4	0	0	11.9	302	302	0	0
343	2	2	0	0	7.4	253	253	0	0
344	9	9	0	0	15.4	1011	1011	0	0
345	4	4	0	0	16.7	40	40	0	0
346	4	4	0	0	23.0	86	86	0	0
347	2	2	0	0	11.3	34	34	0	0
348	0	0	0	0	8.1	0	0	0	0
349	10	9	0	1	16.5	132	130	0	1
350	4	3	1	0	19.5	993	989	4	0
351	7	7	0	0	29.5	31	31	0	0
352	5	5	0	0	15.9	3370	3370	0	0

WMC\WMCB1JUN.WR2 OVERBURDEN DRILLING MANAGEMENT LIMITED
TOTAL # OF SAMPLES IN THIS REPORT = 40

LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET) TABLE SPLIT	+2 mm CHIPS	TABLE FEED	WEIGHT (GRAMS DRY) TABLE CONC	M.I. LIGHTS	M. I. CONC CONC. TOTAL	NON MAG	MAG	CLAST SIZE	CLAST % V/S	GR	LS	OT	MATRIX S/U	SD	ST	CY	COLOUR SD	COLOUR CY	OR	CLASS
CS204																					
313	6.0	3.1	2.9	285.8	267.8	18.0	11.3	6.7	P	90	10	0	NA	U	Y	Y	-	OC	OC		TILL
314	9.3	2.9	6.4	383.9	366.1	17.8	12.6	5.2	P	100	0	0	NA	U	Y	Y	Y	LOC	LOC		TILL
315	9.2	3.1	6.1	275.3	259.8	15.5	11.2	4.3	C	100	TR	0	NA	U	Y	Y	Y	OC	LOC		TILL
316	11.3	4.6	6.7	401.4	386.4	15.0	11.5	3.5	C	100	TR	0	NA	U	Y	Y	Y	LOC	MOC		TILL
317	8.2	3.7	4.6	221.7	217.6	4.1	2.6	1.5	C	100	0	0	NA	U	+	Y	-	LOC	LOC		TILL
318	9.5	4.0	5.5	221.8	215.0	6.8	4.8	2.0	C	100	0	0	NA	U	+	Y	Y	LOC	MOC		TILL
319	8.0	2.8	5.3	226.0	199.1	26.9	19.9	7.0	C	100	0	0	NA	U	Y	Y	Y	LOC	LOC		TILL
320	12.0	4.2	7.8	348.3	314.6	33.7	27.4	6.3	C	100	TR	0	NA	U	Y	Y	Y	LOC	LOC		TILL
321	10.6	2.4	8.3	336.7	290.5	46.2	35.9	10.3	C	100	TR	0	NA	U	Y	Y	Y	LOC	LOC		TILL
322	8.7	2.1	6.6	226.8	208.2	18.6	13.8	4.8	P	95	5	0	NA	U	Y	Y	Y	MOC	MOC		TILL
323	6.7	2.0	4.8	208.0	189.4	18.6	14.1	4.5	P	80	20	0	NA	U	Y	Y	Y	MOC	MOC		TILL
324	10.0	3.9	6.1	303.9	287.3	16.6	12.4	4.2	P	90	10	0	NA	U	Y	Y	Y	MOC	MOC		TILL
325	7.5	2.1	5.5	273.3	251.4	21.9	17.5	4.4	P	95	5	0	NA	U	Y	Y	Y	MOC	MOC		TILL
326	10.4	6.6	3.8	197.6	183.1	14.5	8.9	5.6	P	95	5	0	NA	S	M,C	-	Y	DOC	DOC		SAND
327	9.3	3.9	5.4	318.1	289.8	28.3	19.5	8.8	P	95	5	0	NA	U	+	Y	Y	MOC	MOC		TILL
328	9.1	3.3	5.8	260.7	236.8	23.9	17.7	6.2	C	98	2	0	NA	U	Y	Y	Y	MOC	MOC		TILL
329	8.5	1.7	6.8	215.8	192.2	23.6	18.2	5.4	P	95	5	0	NA	U	Y	Y	Y	LOC	LOC		TILL
330	10.1	5.4	4.8	379.1	361.9	17.2	11.2	6.0	P	95	5	0	NA	U	Y	Y	Y	MOC	MOC		TILL
331	9.1	2.3	6.9	274.5	240.7	33.8	25.0	8.8	P	90	10	0	NA	U	Y	Y	Y	LOC	LOC		TILL
332	10.0	4.4	5.6	357.9	340.5	17.4	11.5	5.9	C	100	TR	0	NA	U	Y	Y	Y	MOC	MOC		TILL
333	12.3	3.3	9.0	186.3	143.5	42.8	32.1	10.7	C	100	0	0	NA	U	Y	Y	Y	LOC	LOC		TILL
334	9.0	2.9	6.1	347.4	322.7	24.7	18.2	6.5	C	95	5	0	NA	U	Y	Y	Y	DOC	DOC		TILL
335	10.0	1.4	8.6	293.5	268.9	24.6	19.3	5.3	C	80	20	0	NA	U	Y	Y	+	LOC	LOC		TILL
336	11.5	3.5	8.0	189.8	146.5	43.3	31.8	11.5	C	80	20	0	NA	U	Y	Y	Y	LOC	LOC		TILL
337	8.5	3.0	5.5	338.7	273.2	65.5	49.4	16.1	P	95	5	0	NA	U	Y	Y	Y	GB	LOC		TILL
338	10.0	5.0	5.1	297.8	275.9	21.9	16.4	5.5	C	100	TR	0	NA	U	+	Y	Y	LOC	LOC		SANDY TILL
339	10.7	4.8	5.9	215.9	178.3	37.6	28.3	9.3	C	95	5	0	NA	U	+	Y	Y	LOC	LOC		SANDY TILL
340	7.4	1.9	5.5	215.7	188.4	27.3	21.3	6.0	C	50	50	0	NA	U	Y	Y	Y	MOC	MOC		TILL
341	7.0	2.0	5.1	257.0	233.4	23.6	17.7	5.9	C	50	50	0	NA	U	Y	Y	Y	MOC	MOC		TILL
342	8.0	3.3	4.7	189.4	171.9	17.5	11.9	5.6	C	70	30	0	NA	S	M,C	N	-	MOC	MOC		SAND+GRAV
343	6.9	2.7	4.2	205.3	195.2	10.1	7.4	2.7	C	100	TR	0	NA	U	-	Y	Y	DOC	DOC		TILL
344	10.8	3.3	7.5	239.6	220.4	19.2	15.4	3.8	C	90	10	0	NA	U	Y	Y	Y	LOC	LOC		TILL
345	9.4	2.5	6.9	348.0	330.8	17.2	16.7	0.5	C	85	15	0	NA	U	Y	Y	Y	LOC	LOC		TILL
346	10.0	2.8	7.2	229.3	199.9	29.4	23.0	6.4	C	85	15	0	NA	U	Y	Y	Y	LOC	LOC		TILL
347	8.6	0.9	7.7	174.2	161.8	12.4	11.3	1.1	C	75	25	0	NA	U	Y	Y	+	LOC	LOC		TILL
348	7.5	3.3	4.2	252.9	241.5	11.4	8.1	3.3	C	70	30	0	NA	S	M,C	N	-	LOC	DOC		GRAV+SOIL
349	4.8	1.7	3.1	195.0	173.1	21.9	16.5	5.4	C	75	25	0	NA	U	Y	Y	Y	LOC	LOC		TILL
350	6.3	1.3	5.0	301.5	276.2	25.3	19.5	5.8	P	50	50	0	NA	U	Y	Y	Y	LOC	LOC		TILL
351	11.2	2.8	8.4	187.5	155.3	32.2	29.5	2.7	C	65	35	0	NA	U	Y	Y	Y	LOC	LOC		TILL
352	8.3	2.8	5.5	190.3	169.2	21.1	15.9	5.2	C	80	20	0	NA	U	Y	Y	Y	LOC	LOC		TILL

OLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

..MC\WMCB1JUN.WR2 NUMBER OF GRAINS

TOTAL # OF PANNINGS 17

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
S204													
313	N	25 X 50	8 C	1						1			
		50 X 150	20 C	1						1			
										2	11.3	140	
314	N	NO VISIBLE GOLD											
315	Y	15 X 25	4 C		1					1			No sulphides.
		25 X 25	5 C	1						1			
		25 X 50	8 C	1						1			
		25 X 75	10 C	2						2			
		75 X 225	29 C	1						1			
										6	11.2	486	
316	N	NO VISIBLE GOLD											
317	N	25 X 50	8 C	2						2			
		50 X 50	10 C	1						1			
										3	2.6	137	
318	N	NO VISIBLE GOLD											
319	Y	25 X 25	5 C	3	2					5			No sulphides.
		25 X 50	8 C	2						2			
		25 X 125	15 C	1						1			
		50 X 50	10 C	1						1			
		50 X 100	15 C		1					1			
		75 X 100	18 C	1						1			
		75 X 125	20 C	1						1			
		125 X 200	31 C		1					1			
										13	19.9	528	
320	Y	15 X 25	4 C		1					1			No sulphides.
		25 X 25	5 C			1				1			
		25 X 75	10 C		1					1			
		50 X 75	13 C	1						1			
		75 X 75	15 C	1						1			
		75 X 100	18 C	2	1					3			
		75 X 150	22 C	1						1			
										9	27.4	234	

OLD CLASSIFICATION
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VISIBLE GOLD FROM SHAKING TABLE AND PANNING

JMC\WMCB1JUN.WR2 NUMBER OF GRAINS
TOTAL # OF PANNINGS 17

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
CS204													
321	N	15 X 15	3 C	1						1			
		25 X 25	5 C	1						1			
		50 X 75	13 C	1						1			
										3	35.9	11	
322	Y	15 X 15	3 C	1	2					3			No sulphides.
		15 X 25	4 C	1						1			
		25 X 25	5 C	3						3			
		25 X 50	8 C	3	1					4			
		50 X 50	10 C	2	1					3			
		50 X 75	13 C	1	1					2			
		200 X 325	48 C	1						1			
										17	13.8	1933	
323	N	25 X 25	5 C	1						1			
		25 X 50	8 C	1						1			
		150 X 175	50 M	1						1			
										3	14.1	710	
324	N	25 X 25	5 C	1						1			
		50 X 75	13 C	1						1			
										2	12.4	32	
325	Y	15 X 15	3 C	2	2					4			No sulphides.
		25 X 25	5 C	3	3					6			
		25 X 50	8 C	4			2			6			
		25 X 75	10 C	2						2			
		50 X 50	10 C	1						1			
		50 X 75	13 C			1				1			
		50 X 100	15 C	1						1			
		75 X 125	25 M	1						1			
										22	17.5	236	
326	N	NO VISIBLE GOLD											
327	Y	25 X 25	5 C	1						1			No sulphides.
		25 X 50	8 C	3						3			
		25 X 75	10 C		1					1			
		100 X 100	20 C	1						1			
		100 X 225	31 C		1					1			

OLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

..\C\WMCB1JUN.WR2 NUMBER OF GRAINS

TOTAL # OF PANNINGS 17

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
3204													
										7	19.5	420	
328	Y	15 X 25	4 C	1						1			No sulphides.
		25 X 25	5 C	2	1					3			
		25 X 50	8 C	1						1			
		50 X 50	10 C	2						2			
		50 X 75	13 C	2						2			
		75 X 100	18 C	1						1			
		150 X 225	36 C	1						1			
										11	17.7	665	
329	Y	15 X 15	3 C			1				1			No sulphides.
		15 X 50	7 C			1				1			
		25 X 50	8 C	1						1			
		50 X 50	10 C	1						1			
		125 X 250	36 C	1						1			
										5	18.2	538	
330	N	NO VISIBLE GOLD											
331	Y	15 X 15	3 C			1				1			No sulphides.
		15 X 25	4 C	2						2			
		15 X 50	7 C					2		2			
		25 X 25	5 C	1		1				2			
		25 X 50	8 C	1		1				2			
		50 X 50	10 C	1						1			
		50 X 125	18 C	1						1			
		150 X 200	34 C	1						1			
										12	25.0	372	
332	N	25 X 50	8 C	1						1			
		125 X 225	34 C	1						1			
										2	11.5	680	
333	Y	25 X 25	5 C	1		1				2			No sulphides.
		25 X 50	8 C					1		1			
		25 X 75	10 C	1						1			
		50 X 50	10 C	1						1			
		50 X 75	13 C		1					1			
		75 X 100	18 C	1						1			

OLD CLASSIFICATION

ISIBLE GOLD FROM SHAKING TABLE AND PANNING

MC\WMCB1JUN.WR2

TOTAL # OF PANNINGS 17

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
CS204													
		75 X 175	25 C	1						1			
		100 X 100	20 C		1					1			
										9	32.1	196	
334	Y	25 X 25	5 C			1				1			No sulphides.
		25 X 50	8 C	1						1			
		25 X 75	10 C	1						1			
		50 X 50	10 C	1						1			
		75 X 100	18 C	1						1			
		125 X 200	31 C	2						2			
										7	18.2	768	
335	N	25 X 50	8 C	1						1			
										1	19.3	4	
336	Y	15 X 25	4 C	1						1			No sulphides.
		25 X 50	8 C	1						1			
		25 X 100	13 C	1						1			
		50 X 50	10 C	1						1			
		50 X 75	13 C	2						2			
		200 X 450	58 C	1						1			
										7	31.8	1481	
337	N	25 X 25	5 C	1						1			
		25 X 50	8 C	2						2			
		50 X 50	10 C	1						1			
										4	49.4	8	
338	N	50 X 75	13 C	1						1			
										1	16.4	23	
339	Y	25 X 50	8 C	6						6			No sulphides.
		50 X 50	10 C	1						1			
		50 X 75	13 C	3						3			
										10	28.3	64	
340	N	50 X 50	10 C	1						1			
		50 X 75	13 C	1						1			

LD CLASSIFICATION

ISIBLE GOLD FROM SHAKING TABLE AND PANNING

...AC\WMCB1JUN.WR2 NUMBER OF GRAINS

TOTAL # OF PANNINGS 17

AMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
S204													
		75 X 100	18 C	1						1			
										3	21.3	74	
341	Y	15 X 15	3 C	1						1			No sulphides.
		25 X 25	5 C	2						2			
		25 X 50	8 C	1						1			
		25 X 75	10 C	1	1					2			
		50 X 75	13 C		1					1			
		50 X 100	15 C	1						1			
		150 X 250	38 C	1						1			
										9	17.7	731	
342	N	25 X 50	8 C	1						1			
		50 X 75	13 C	1						1			
		75 X 100	18 C	1						1			
		75 X 150	22 C	1						1			
										4	11.9	302	
343	N	50 X 75	13 C	1						1			
		75 X 125	20 C	1						1			
										2	7.4	253	
344	Y	15 X 15	3 C	1						1			No sulphides.
		15 X 25	4 C	2						2			
		25 X 25	5 C	2						2			
		25 X 50	8 C		1					1			
		75 X 100	18 C	1						1			
		125 X 150	27 C		1					1			
		200 X 275	25 M		1					1			
										9	15.4	1011	
345	N	25 X 25	5 C	1						1			
		25 X 50	8 C	1						1			
		25 X 75	10 C	1						1			
		25 X 100	13 C	1						1			
										4	16.7	40	
346	N	25 X 25	5 C	1						1			
		25 X 50	8 C	1						1			

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

JMC\WMCB1JUN.WR2

TOTAL # OF PANNINGS 17

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
CS204													
		50 X 75	13 C	1						1			
		75 X 125	20 C	1						1			
										4	23.0	86	
347	N	50 X 50	10 C	2						2			
										2	11.3	34	
348	N	NO VISIBLE GOLD											
349	Y	25 X 25	5 C	1				1		2			No sulphides.
		25 X 50	8 C	2						2			
		25 X 75	10 C	3						3			
		50 X 75	13 C	1	1					2			
		50 X 100	15 C	1						1			
										10	16.5	132	
350	N	25 X 50	8 C			1				1			
		25 X 75	10 C	1						1			
		50 X 75	13 C	1						1			
		175 X 300	44 C	1						1			
										4	19.5	993	
351	Y	25 X 25	5 C	4						4			No sulphides.
		25 X 50	8 C	2						2			
		50 X 100	15 C	1						1			
										7	29.5	31	
352	N	25 X 25	5 C	1						1			
		25 X 50	8 C	2						2			
		200 X 325	48 C	1						1			
		275 X 275	50 C	1						1			
										5	15.9	3370	

OVERBURDEN DRILLING MANAGEMENT LIMITED
107-15 CAPELLA COURT, NEPEAN, ONTARIO, K2E 7X1
TELEPHONE: (613) 226-1771/1774
FAX NO: (613) 226-8753

D A T A T R A N S M I T T A L R E P O R T

DATE: 04-Jul-96

ATTENTION: MR. C.J. BAKER

CLIENT: WMC International Limited
Americas Division - Exploration
22 Gurdwara Road
Nepean, Ont.
K2E 8A2

Fax 727-3970

NO. OF PAGES: _____

PROJECT: CS204 353 to 391

FILE NO: WMC\WMCB2JUN.WR2

NO. OF SAMPLES: 39

NO. OF PANNINGS: 15

H.M.C.	✓
3/4 H	
-63 MICRON	✓
-125 MICRON	

SENT TO Activation ANALYTICAL LAB.

REMARKS: This completes the samples from "DOON" project. The 8 to 16 mm pebbles prepared for each sample and every fifth one logged.

Remy Huneault
Laboratory Manager

OVERBURDEN DRILLING MANAGEMENT LIMITED - LABORATORY SAMPLE LOG

ABBREVIATIONS

DATA LOG

Clast:

Size of Clast:
- G: Granules
- P: Pebbles
- C: Cobbles
- BL: Boulder Chips
- BK: Bedrock Chips

% Clast Composition:
- V/S: Volcanics and Sediments
- GR: Granitics
- LS: Limestone
- OT: Other Lithologies (Refer to Footnotes)
- TR: Only Trace Present
- NA: NOT APPLICABLE
- OX: Oxidized

Class:

- BLD: Boulder Chips
- BDK: Bedrock Chips

Matrix:

- S/U: Sorted or Unsorted
- SD: Sand
- ST: Silt
- CY: Clay
- OR: Organics

(SD: F: Fine, M: Medium, C: Coarse)

- Y: Fraction Present
- +: Fraction more abundant than normal
- -: Fraction less abundant than normal
- N: Fraction Not Present
- L: Lumps Present

Colour:

- B: Beige
- GY: Grey
- GB: Grey Beige
- GN: Green
- GG: Grey Green
- BN: Brown
- BK: Black
- PP: Purple
- PK: Pink
- OC: Ochre
- L: Light
- M: Medium
- D: Dark

GOLD LOG

Number of Grains:
- T: Number Found on Shaking Table
- P: Number Found by Panning

Thickness:
- C: Calculated Thickness of Grain (in microns)
- M: Actual Measured Thickness of Grain (in microns)

Remarks:

- % Percentage of HMC (estimated from panning of table concentrate)
- gr. Grains (estimated number)
- uM Microns (1/1000 mm)

- py. Pyrite
- cpy. Chalcopyrite
- aspy. Arsenopyrite
- marc. Marcasite
- L/G. Limonite/Goethite
- sid. Siderite

OVERBURDEN DRILLING MANAGEMENT LIMITED

GOLD GRAIN SUMMARY SHEET

WMC\WMCB2JUN.WR2

Sample No.	Number of Visible Gold Grains				Non-Mag Weight	Calculated PPB Visible Gold			
	Total	Reshaped	Modified	Pristine		Total	Reshaped	Modified	Pristine
CS204									
353	1	1	0	0	2.3	84	84	0	0
354	1	1	0	0	17.5	37	37	0	0
355	5	5	0	0	9.9	133	133	0	0
356	8	5	3	0	19.9	16	8	7	0
357	16	10	3	3	23.7	119	46	69	4
358	7	7	0	0	15.5	188	188	0	0
359	15	12	2	1	21.9	176	174	2	1
360	3	3	0	0	10.8	130	130	0	0
361	12	12	0	0	23.2	1123	1123	0	0
362	6	4	2	0	19.7	47	43	4	0
363	4	4	0	0	18.4	362	362	0	0
364	10	8	2	0	28.2	88	85	4	0
365	3	2	1	0	12.8	42	36	6	0
366	17	12	5	0	25.9	3216	3214	2	0
367	3	3	0	0	18.1	4	4	0	0
368	4	4	0	0	23.1	8	8	0	0
369	7	6	1	0	20.8	49	40	9	0
370	12	10	2	0	19.0	2913	2909	4	0
371	0	0	0	0	0.9	0	0	0	0
372	4	4	0	0	24.9	44	44	0	0
373	11	9	2	0	18.1	132	131	2	0
374	10	10	0	0	22.4	30	30	0	0
375	2	2	0	0	16.3	115	115	0	0
376	1	1	0	0	5.9	14	14	0	0
377	1	0	1	0	20.6	4	0	4	0
378	5	5	0	0	13.1	34	34	0	0
379	2	2	0	0	7.5	3	3	0	0
380	20	16	4	0	25.7	215	204	10	0
381	4	4	0	0	12.6	24	24	0	0
382	3	3	0	0	33.6	18	18	0	0
383	2	2	0	0	4.4	49	49	0	0
384	8	5	3	0	11.6	11	7	4	0
385	3	3	0	0	11.1	126	126	0	0
386	3	3	0	0	17.3	14	14	0	0
387	1	1	0	0	4.7	17	17	0	0
388	2	2	0	0	2.7	209	209	0	0
389	0	0	0	0	6.1	0	0	0	0
390	2	2	0	0	3.0	1045	1045	0	0
391	5	5	0	0	3.4	136	136	0	0

WMC\WMCB2JUN.WR2 OVERBURDEN DRILLING MANAGEMENT LIMITED
TOTAL # OF SAMPLES IN THIS REPORT = 39

LABORATORY SAMPLE LOG

SAMPLE NO.	WEIGHT (KG.WET) TABLE SPLIT	+2 mm CHIPS	TABLE FEED	WEIGHT (GRAMS DRY) TABLE CONC	M.I. LIGHTS	M. I. CONC CONC. TOTAL	NON MAG	MAG	DESCRIPTION CLAST SIZE	CLAST % V/S	GR	LS	OT	MATRIX S/U	SD	ST	CY	COLOUR SD	COLOUR CY	OR	CLASS
CS204																					
353	8.0	4.3	3.7	159.1	155.3	3.8	2.3	1.5	C	50	50	0	NA	S	M,C	-	Y	DOC	DOC		SAND+GRAV
354	7.0	2.5	4.6	145.8	123.0	22.8	17.5	5.3	C	100	TR	0	NA	S	M	-	Y	MOC	MOC		SAND
355	7.3	2.8	4.5	215.4	200.7	14.7	9.9	4.8	C	100	TR	0	NA	U	Y	Y	Y	DOC	DOC		TILL
356	8.1	1.7	6.4	234.2	207.8	26.4	19.9	6.5	C	75	25	0	NA	U	Y	Y	Y	LOC	LOC		TILL
357	8.2	1.6	6.7	264.9	232.8	32.1	23.7	8.4	C	50	50	0	NA	U	Y	Y	Y	LOC	LOC		TILL
358	7.6	2.9	4.7	256.0	232.6	23.4	15.5	7.9	C	90	10	0	NA	U	Y	Y	Y	MOC	MOC		TILL
359	7.9	2.3	5.6	256.1	227.1	29.0	21.9	7.1	P	70	30	0	NA	U	Y	Y	Y	LOC	LOC		TILL
360	8.1	2.7	5.4	243.6	227.9	15.7	10.8	4.9	C	70	30	0	NA	U	Y	Y	Y	LOC	LOC		TILL
361	9.6	2.5	7.1	329.6	298.9	30.7	23.2	7.5	C	70	30	0	NA	U	Y	Y	Y	LOC	LOC		TILL
362	9.8	4.1	5.7	430.8	405.2	25.6	19.7	5.9	C	70	30	0	NA	U	Y	Y	Y	LOC	LOC		TILL
363	7.5	2.3	5.3	269.6	245.4	24.2	18.4	5.8	C	70	30	0	NA	U	Y	Y	Y	LOC	LOC		TILL
364	11.1	3.9	7.3	301.4	264.5	36.9	28.2	8.7	C	60	40	0	NA	U	Y	Y	Y	LOC	LOC		TILL
365	6.7	1.2	5.6	209.6	196.3	13.3	12.8	0.5	C	80	20	0	NA	U	Y	Y	Y	LOC	LOC		TILL
366	9.7	1.8	7.9	260.2	226.7	33.5	25.9	7.6	C	80	20	0	NA	U	Y	Y	Y	B	LOC		TILL
367	6.8	1.9	4.9	236.6	214.0	22.6	18.1	4.5	C	80	20	0	NA	U	Y	Y	Y	LOC	LOC		TILL
368	7.6	1.9	5.7	193.9	164.4	29.5	23.1	6.4	C	80	20	0	NA	U	Y	Y	Y	LOC	LOC		TILL
369	10.2	3.5	6.7	369.5	341.3	28.2	20.8	7.4	C	60	40	0	NA	U	Y	Y	Y	LOC	LOC		TILL
370	9.3	3.0	6.3	291.5	265.9	25.6	19.0	6.6	C	60	40	0	NA	U	Y	Y	Y	LOC	LOC		TILL
371	3.7	0.8	2.9	28.4	27.3	1.1	0.9	0.2	C	100	0	0	NA	U	-	+	+	BN	BN		SILT+CLAY
372	7.7	1.5	6.2	353.0	321.6	31.4	24.9	6.5	C	85	15	0	NA	U	Y	Y	Y	LOC	LOC		TILL
373	8.3	3.4	4.9	293.5	270.3	23.2	18.1	5.1	C	95	5	0	NA	U	+	-	-	LOC	LOC		SANDY TILL
374	7.7	1.2	6.5	303.3	274.1	29.2	22.4	6.8	C	95	5	0	NA	U	Y	Y	Y	LOC	LOC		TILL
375	8.4	3.5	5.0	223.8	201.4	22.4	16.3	6.1	C	70	30	0	NA	U	Y	Y	Y	MOC	MOC		TILL
376	5.9	1.4	4.6	182.0	173.9	8.1	5.9	2.2	C	95	5	0	NA	U	Y	Y	Y	DOC	DOC		TILL
377	9.3	3.2	6.1	332.4	304.7	27.7	20.6	7.1	C	80	20	0	NA	U	Y	Y	Y	LOC	LOC		TILL
378	7.6	1.4	6.2	141.3	124.9	16.4	13.1	3.3	C	90	10	0	NA	U	Y	Y	Y	MOC	MOC		TILL
379	6.8	2.6	4.3	318.5	308.9	9.6	7.5	2.1	C	90	10	0	NA	U	Y	Y	Y	LOC	LOC		TILL
380	8.3	2.7	5.7	276.4	243.5	32.9	25.7	7.2	C	85	15	0	NA	U	Y	Y	Y	LOC	LOC		TILL
381	9.1	3.3	5.8	268.0	251.9	16.1	12.6	3.5	C	95	5	0	NA	U	Y	Y	Y	LOC	LOC		TILL
382	7.6	1.2	6.4	321.0	279.7	41.3	33.6	7.7	C	90	10	0	NA	U	Y	Y	Y	MOC	MOC		TILL
383	6.8	2.6	4.2	136.6	130.5	6.1	4.4	1.7	C	80	20	0	NA	U	Y	Y	Y	MOC	MOC		TILL
384	6.9	1.9	5.0	226.0	211.0	15.0	11.6	3.4	C	50	50	0	NA	U	Y	Y	Y	LOC	LOC		TILL
385	8.4	2.9	5.5	194.9	181.0	13.9	11.1	2.8	C	60	40	0	NA	U	Y	Y	Y	LOC	LOC		TILL
386	7.5	3.1	4.4	285.6	263.2	22.4	17.3	5.1	C	75	25	0	NA	U	+	-	Y	GB	B		SANDY TILL
387	7.9	3.9	4.0	125.5	119.4	6.1	4.7	1.4	C	100	TR	0	NA	U	Y	Y	Y	LOC	LOC		TILL
388	7.4	3.1	4.4	245.5	241.7	3.8	2.7	1.1	C	90	10	0	NA	U	+	-	Y	GB	B		SANDY TILL
389	5.7	2.1	3.6	193.0	185.2	7.8	6.1	1.7	C	90	10	0	NA	U	+	Y	Y	MOC	MOC		TILL
390	7.6	3.6	4.0	212.3	208.1	4.2	3.0	1.2	C	95	5	0	NA	U	Y	Y	Y	LOC	LOC		TILL
391	8.0	3.6	4.4	180.6	175.9	4.7	3.4	1.3	C	95	5	0	NA	U	Y	Y	Y	LOC	LOC		TILL

GOLD CLASSIFICATION

ISIBLE GOLD FROM SHAKING TABLE AND PANNING

WMC\WMCB2JUN.WR2

TOTAL # OF PANNINGS 15

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
S204													
353	N	25 X 75	10 C	1						1			
										1	2.3	84	
354	N	50 X 100	15 C	1						1			
										1	17.5	37	
355	N	25 X 25	5 C	1						1			
		25 X 50	8 C	1						1			
		50 X 50	10 C	1						1			
		50 X 75	13 C	1						1			
		50 X 100	15 C	1						1			
										5	9.9	133	
356	Y	15 X 25	4 C		1	1				2			No sulphides.
		15 X 50	7 C			1				1			
		25 X 25	5 C	2	1					3			
		25 X 50	8 C	1		1				2			
										8	19.9	16	
357	Y	15 X 25	4 C	1				2		3			No sulphides.
		15 X 50	7 C			1				1			
		25 X 25	5 C	4	1					5			
		25 X 50	8 C			1		1		2			
		25 X 75	10 C	3						3			
		50 X 75	13 C	1						1			
		75 X 125	20 C			1				1			
										16	23.7	119	
358	Y	25 X 25	5 C		2					2			No sulphides.
		25 X 50	8 C		2					2			
		50 X 50	10 C		1					1			
		50 X 125	18 C	1						1			
		75 X 125	20 C	1						1			
										7	15.5	188	
359	Y	15 X 15	3 C	1						1			No sulphides.
		15 X 25	4 C			1		1		2			
		25 X 25	5 C	3		1				4			
		25 X 50	8 C	1						1			

GOLD CLASSIFICATION

ISIBLE GOLD FROM SHAKING TABLE AND PANNING

WMC\WMCB2JUN.WR2

TOTAL # OF PANNINGS 15

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
S204													
		25 X 75	10 C	1						1			
		50 X 50	10 C	1						1			
		50 X 75	13 C	1	2					3			
		50 X 100	15 C	1						1			
		100 X 100	20 C		1					1			
										15	21.9	176	
	360 Y	25 X 25	5 C		1					1			No sulphides.
		50 X 75	13 C		1					1			
		50 X 125	18 C	1						1			
										3	10.8	130	
	361 Y	25 X 25	5 C		1					1			No sulphides.
		25 X 50	8 C	2						2			
		25 X 100	13 C	1						1			
		50 X 75	13 C	2						2			
		50 X 100	15 C	2						2			
		75 X 100	18 C		1					1			
		75 X 125	20 C	1						1			
		125 X 175	29 C	1						1			
		125 X 325	42 C	1						1			
										12	23.2	1123	
	362 Y	15 X 25	4 C	1						1			No sulphides.
		15 X 50	7 C			1				1			
		25 X 25	5 C			1				1			
		25 X 50	8 C	1						1			
		50 X 75	13 C	2						2			
										6	19.7	47	
	363 N	25 X 25	5 C	2						2			
		25 X 100	13 C	1						1			
		125 X 200	31 C	1						1			
										4	18.4	362	
	364 Y	15 X 15	3 C	2						2			No sulphides.
		25 X 25	5 C	2		1				3			
		25 X 50	8 C	1		1				2			
		25 X 100	13 C	1						1			
		50 X 75	13 C	1						1			

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

WMC\WMCB2JUN.WR2 NUMBER OF GRAINS

TOTAL # OF PANNINGS 15

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
S204													
		75 X 125	20 C	1						1			
										10	28.2	88	
365	N	25 X 50	8 C	1		1				2			
		50 X 75	13 C	1						1			
										3	12.8	42	
366	Y	15 X 15	3 C	1		2				3			No sulphides.
		15 X 25	4 C			2				2			
		15 X 50	7 C	1						1			
		25 X 25	5 C	2		1				3			
		25 X 50	8 C		2					2			
		25 X 75	10 C	1						1			
		50 X 100	15 C		1					1			
		75 X 125	20 C		1					1			
		75 X 175	25 C		1					1			
		125 X 150	27 C		1					1			
		275 X 450	75 M		1					1			
										17	25.9	3216	
367	N	25 X 25	5 C	3						3			
										3	18.1	4	
368	N	15 X 25	4 C	2						2			
		25 X 50	8 C	2						2			
										4	23.1	8	
369	Y	25 X 25	5 C	1						1			No sulphides.
		25 X 50	8 C	3						3			
		50 X 50	10 C	1		1				2			
		50 X 75	13 C	1						1			
										7	20.8	49	
370	Y	15 X 50	7 C	1		1				2			No sulphides.
		25 X 25	5 C	1	1	1				3			
		25 X 50	8 C	2						2			
		50 X 50	10 C	1						1			
		50 X 75	13 C	1						1			
		50 X 150	20 C		1					1			

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

WMC\WMCB2JUN.WR2

TOTAL # OF PANNINGS 15

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
JS204													
		100 X 125	22 C		1					1			
		250 X 425	59 C	1						1			
										12	19.0	2913	
371	N	NO VISIBLE GOLD											
372	N	25 X 50	8 C	1						1			
		50 X 50	10 C	2						2			
		50 X 100	15 C	1						1			
										4	24.9	44	
373	Y	15 X 15	3 C	2		1				3			No sulphides.
		25 X 25	5 C	2		1				3			
		25 X 75	10 C	2						2			
		50 X 100	15 C	1	1					2			
		75 X 75	15 C	1						1			
										11	18.1	132	
374	Y	15 X 15	3 C	1						1			No sulphides.
		25 X 25	5 C	4	1					5			
		25 X 50	8 C	2						2			
		50 X 50	10 C	2						2			
										10	22.4	30	
375	N	50 X 75	13 C	1						1			
		50 X 150	20 C	1						1			
										2	16.3	115	
376	N	25 X 50	8 C	1						1			
										1	5.9	14	
377	N	25 X 50	8 C			1				1			
										1	20.6	4	
378	N	15 X 25	4 C	1						1			
		25 X 50	8 C	3						3			
		50 X 50	10 C	1						1			

GOLD CLASSIFICATION

VISIBLE GOLD FROM SHAKING TABLE AND PANNING

WMC\WMCB2JUN.WR2

TOTAL # OF PANNINGS 15

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
GS204													
										5	13.1	34	
379	N	15 X 25	4 C	2						2			
										2	7.5	3	
380	Y	25 X 25	5 C	2	1	1				4			No sulphides.
		25 X 50	8 C	3	1	2	1			7			
		25 X 75	10 C	3						3			
		50 X 50	10 C	2						2			
		50 X 75	13 C	1						1			
		50 X 125	18 C	1						1			
		75 X 100	18 C	1						1			
		75 X 125	20 C	1						1			
										20	25.7	215	
381	N	15 X 15	3 C	1						1			
		25 X 25	5 C	1						1			
		25 X 50	8 C	1						1			
		25 X 75	10 C	1						1			
										4	12.6	24	
382	N	25 X 25	5 C	1						1			
		50 X 50	10 C	1						1			
		50 X 75	13 C	1						1			
										3	33.6	18	
383	N	25 X 25	5 C	1						1			
		25 X 75	10 C	1						1			
										2	4.4	49	
384	Y	10 X 10	2 C	1						1			No sulphides.
		15 X 15	3 C	1		1				2			
		15 X 25	4 C			1				1			
		25 X 25	5 C	3		1				4			
										8	11.6	11	
385	N	25 X 75	10 C	1						1			
		50 X 50	10 C	1						1			
		75 X 100	18 C	1						1			

GOLD CLASSIFICATION

ISIBLE GOLD FROM SHAKING TABLE AND PANNING

WMC\WMCB2JUN.WR2 NUMBER OF GRAINS

TOTAL # OF PANNINGS 15

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
S204													
										3	11.1	126	
386	N	25 X 25	5 C	2						2			
		50 X 50	10 C	1						1			
										3	17.3	14	
387	N	25 X 50	8 C	1						1			
										1	4.7	17	
388	N	50 X 50	10 C	1						1			
		50 X 75	13 C	1						1			
										2	2.7	209	
389	N	NO VISIBLE GOLD											
390	N	75 X 100	18 C	1						1			
		75 X 150	22 C	1						1			
										2	3.0	1045	
391	N	25 X 25	5 C	1						1			
		25 X 50	8 C	3						3			
		25 X 75	10 C	1						1			
										5	3.4	136	

Appendix XIV: **1996 Till Geochemistry - HMC Results**

ACTLABS

ACTIVATION LABORATORIES LTD

Invoice No.: 10862
Work Order: 10958
Invoice Date: 29-JUL-96
Date Submitted: 08-JUL-96
Your Reference: 4057
Account Number: 621

W[illegible] INTERNATIONAL LIMITED
E[illegible]PLORATION DIVISION
22[illegible] GURDWARA ROAD
N[illegible]EAN, ONTARIO
C[illegible]NADA K2E 8A2
ATTENTION: TERRY A. GOODWIN

CERTIFICATE OF ANALYSIS

I [illegible]AA package, elements and detection limits:

[illegible]AU	5.	PPB	AG	5.	PPM	AS	2.	PPM	BA	200.	PPM
[illegible]R	5.	PPM	CA	1.	%	CO	5.	PPM	CR	10.	PPM
[illegible]S	2.	PPM	FE	0.02	%	HF	1.	PPM	HG	5.	PPM
IR	50.	PPB	MO	20.	PPM	NA	500.	PPM	NI	200.	PPM
[illegible]B	50.	PPM	SB	0.2	PPM	SC	0.1	PPM	SE	20.	PPM
[illegible]R	0.2	%	TA	1.	PPM	TH	0.5	PPM	U	0.5	PPM
W	4.	PPM	ZN	200.	PPM	LA	1.	PPM	CE	3.	PPM
[illegible]D	10.	PPM	SM	0.1	PPM	EU	0.2	PPM	TB	2.	PPM
[illegible]B	0.2	PPM	LU	0.1	PPM						

CERTIFIED BY :

pp Judy Yang
DR. ERIC L. HOFFMAN

1336 SANDHILL DRIVE, ANCASTER, ONTARIO, CANADA L9G 4V5 • TEL: 905-648-9611 • FAX: 905-648-9613

Activation Laboratories Ltd. Work Order: 10958 Report: 10862

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SR %	TA PPM	TH PPM	U PPM
CS 204313	2100	<5	18	<200	<5	<3	71	2900	7	22.9	170	<5	<50	<20	1760	870	<50	<0.2	100	<20	<0.2	10	140	8.9
CS 204314	33	<5	<2	<200	<5	6	48	1500	<2	15.8	160	<5	<50	<20	2630	540	<50	<0.2	86	<20	<0.2	5	67	5.4
CS 204315	479	<5	<2	<200	<5	<2	43	1600	<2	15.2	190	<5	<50	<20	2550	<200	<50	0.7	86	33	<0.2	4	74	7.1
CS 204316	87	<5	<2	<200	<5	7	38	2300	<2	16.4	220	<5	<50	<20	2150	<200	<50	<0.2	85	<20	<0.2	7	110	13
CS 204317	121	<5	4	<200	<5	7	44	1600	<2	14.9	160	<5	<50	<20	2080	940	<50	0.5	73	<20	<0.2	5	85	13
CS 204318	23600	<5	10	<200	<5	<3	53	2100	<2	19.8	260	<5	<50	20	3030	<200	<50	<0.2	100	23	<0.2	7	130	14
CS 204319	784	<5	11	<200	<5	<3	51	2400	<2	26.0	170	<5	<50	<20	2660	<200	<50	<0.2	110	<20	<0.2	8	110	10
CS 204320	288	<5	31	<200	<5	13	62	1700	<2	17.9	130	<5	<50	<20	2230	<200	<50	2.7	84	<20	<0.2	9	82	11
CS 204321	396	<5	6	<200	<5	8	35	1600	<2	16.8	160	<5	<50	<20	2430	<200	<50	<0.2	93	<20	0.4	<1	99	12
CS 204322	4120	<5	<2	<200	<5	<3	43	2100	<2	19.3	240	<5	<50	<20	2420	<200	<50	<0.2	100	<20	<0.2	12	160	26
CS 204323	1040	<5	10	<200	<5	<3	45	2000	<2	21.1	170	<5	<50	<20	3020	<200	<50	1.0	110	<20	<0.2	12	130	18
CS 204324	65700	<5	9	<200	<5	<2	40	1400	<2	16.6	140	<5	<50	<20	2360	<200	<50	<0.2	90	<20	0.2	5	100	12.1
CS 204325	700	<5	9	<200	<5	<3	44	2200	<2	21.0	270	<5	<50	<20	3140	<200	<50	1.2	100	<20	<0.2	13	210	30
CS 204326	1720	<5	30	<200	<5	6	75	2300	<2	22.0	110	<5	<50	<20	1710	<200	<50	<0.2	83	23	<0.2	6	120	7.3
CS 204327	5380	<5	<2	<200	<5	10	39	3200	<2	21.4	140	<5	<50	<20	2260	<200	<50	<0.2	98	<20	<0.2	14	140	15
CS 204328	885	<5	30	590	7	<3	87	3500	<2	21.3	160	<5	<50	<20	2470	<200	<50	<0.2	86	<20	<0.2	7	110	16
CS 204329	814	<5	13	<200	<5	<3	55	2400	<2	22.5	190	<5	<50	<20	2680	<200	<50	<0.2	100	<20	<0.2	14	170	22
CS 204330	16300	<5	8	<200	<5	4	65	2200	<2	18.6	110	<5	<50	<20	1740	<200	<50	<0.2	77	21	<0.2	6	74	9.2
CS 204331	1040	<5	6	<200	<5	8	44	2100	8	21.9	140	<5	<50	<20	2790	<200	<50	<0.2	99	<20	<0.2	9	120	13
CS 204332	3050	<5	9	<200	<5	9	45	2800	<2	20.5	200	<5	<50	<20	2230	<200	<50	<0.2	99	66	<0.2	7	110	13
CS 204333	334	<5	<2	<200	<5	6	39	2400	<2	18.7	150	<5	<50	<20	2280	<200	<50	0.8	91	<20	<0.2	12	110	13
CS 204334	1420	<5	24	<200	<5	7	53	1900	<2	20.2	170	<5	<50	<20	2060	<200	<50	1.4	97	<20	<0.2	9	120	17
CS 204335	2740	<5	<2	<200	<5	17	36	1500	<2	17.6	220	<5	<50	<20	2930	<200	<50	<0.2	91	<20	<0.2	10	160	21
CS 204336	1880	<5	5	<200	<5	9	42	1500	<2	17.1	110	<5	<50	<20	2040	<200	<50	<0.2	79	<20	0.3	5	82	11
CS 204337	56	<5	<2	<200	<5	<2	63	820	4	17.2	65	<5	<50	<20	1990	<200	<50	0.6	55	<20	<0.2	5	47	4.7
CS 204338	22	<5	9	<200	<5	12	44	1600	7	18.0	160	<5	<50	<20	2430	<200	<50	0.9	92	<20	<0.2	12	100	15
CS 204339	125	<5	<2	<200	<5	<3	32	1400	<2	17.6	180	<5	<50	<20	1940	<200	<50	<0.2	91	<20	<0.2	13	150	18
CS 204340	149	<5	<2	<200	<5	8	36	2000	<2	16.8	170	<5	<50	<20	2400	<200	<50	0.8	86	<20	<0.2	6	120	13
CS 204341	714	<5	18	<200	<5	<3	46	5100	<2	18.1	190	<5	<50	<20	2580	<200	<50	4.6	87	<20	<0.2	10	140	19
CS 204342	460	<5	26	<200	<5	8	65	2700	<2	19.2	49	<5	<50	<20	1850	<200	<50	1.3	90	<20	<0.2	8	71	3.3
CS 204343	306	<5	52	<200	<5	<2	86	12000	<2	19.1	210	<5	<50	<20	2050	750	<50	5.4	91	33	<0.2	6	93	10
CS 204344	1300	<5	5	<200	<5	8	43	2400	<2	19.5	200	<5	<50	<20	2880	<200	<50	<0.2	95	<20	<0.2	14	130	14
CS 204345	266	<5	<2	310	<5	<3	33	2600	6	17.9	180	<5	<50	<20	2390	<200	<50	<0.2	100	<20	<0.2	9	120	17
CS 204346	1200	<5	<2	<200	<5	12	37	1800	<2	17.1	190	<5	<50	<20	3230	<200	<50	<0.2	88	<20	<0.2	9	130	19
CS 204347	59	<5	<2	<200	<5	7	31	1000	<2	13.5	190	<5	<50	<20	1670	590	<50	<0.2	83	<20	<0.2	5	82	9.0
CS 204348	15	<5	17	<200	<5	8	49	1800	<2	18.3	52	<5	<50	<20	1630	460	<50	1.0	92	<20	<0.2	8	79	6.9
CS 204349	129	<5	<2	<200	<5	<3	36	1800	<2	19.9	210	<5	<50	<20	2890	<200	<50	<0.2	100	<20	<0.2	12	160	19
CS 204350	847	<5	<2	<200	<5	<2	36	1600	<2	17.4	150	<5	<50	<20	2250	<200	<50	<0.2	93	31	<0.2	10	110	16
CS 204351	169	<5	5	<200	<5	<2	34	2200	<2	17.2	180	<5	<50	<20	2080	<200	<50	<0.2	93	<20	<0.2	9	120	12
CS 204352	2040	<5	28	<200	<5	<2	80	2100	<2	18.8	160	<5	<50	<20	2290	460	<50	5.4	92	<20	<0.2	8	110	13
CS 204353	7	<5	28	<200	<5	6	88	6900	<2	17.9	120	<5	<50	<20	1820	<200	<50	2.8	76	<20	<0.2	6	73	6.6
CS 204354	59	<5	15	<200	<5	14	48	4900	<2	17.4	230	<5	<50	<20	2060	450	<50	1.6	89	<20	<0.2	13	140	18
CS 204355	155	<5	32	<200	<5	7	83	8100	<2	17.9	140	<5	<50	<20	1890	<200	<50	3.8	81	24	<0.2	4	73	7.5
CS 204356	39	<5	4	<200	<5	<2	33	1900	<2	17.7	180	<5	<50	<20	2780	<200	<50	1.1	90	<20	<0.2	8	130	16
CS 204357	127	<5	6	<200	<5	9	29	1700	<2	17.7	170	<5	<50	<20	2200	<200	<50	<0.2	88	<20	<0.2	11	140	16

Activation Laboratories Ltd. Work Order: 10958 Report: 10862

Sample description	AU PPB	AG PPM	AS PPM	BA PPM	BR PPM	CA %	CO PPM	CR PPM	CS PPM	FE %	HF PPM	HG PPM	IR PPB	MO PPM	NA PPM	NI PPM	RB PPM	SB PPM	SC PPM	SE PPM	SR %	TA PPM	TH PPM	U PPM
CS 204358	756	<5	<2	<200	<5	6	49	2500	<2	19.3	160	<5	<50	<20	2090	<200	<50	<0.2	91	26	<0.2	6	120	13
CS 204359	243	<5	<2	<200	<5	12	40	1700	<2	16.3	130	<5	<50	<20	2460	<200	<50	0.6	84	<20	<0.2	<1	100	12
CS 204360	99	<5	8	<200	<5	8	46	2500	<2	19.1	170	<5	<50	<20	1860	480	<50	0.6	96	<20	<0.2	10	94	7.6
CS 204361	1060	<5	<2	<200	<5	<3	38	1700	<2	18.1	190	<5	<50	<20	2920	<200	<50	<0.2	91	<20	<0.2	15	140	16
CS 204362	266	<5	<2	<200	<5	14	36	3600	<2	17.7	150	<5	<50	<20	2570	<200	<50	0.7	89	<20	<0.2	7	110	20
CS 204363	236	<5	6	<200	<5	<2	36	2200	<2	17.9	190	<5	<50	<20	2550	<200	<50	1.1	92	<20	<0.2	14	130	17
CS 204364	244	<5	<2	<200	<5	<2	34	2200	<2	16.3	160	<5	<50	<20	2700	<200	<50	<0.2	89	28	<0.2	18	120	9.8
CS 204365	1180	<5	5	1000	<5	10	30	2000	5	14.5	250	<5	<50	20	2160	<200	<50	<0.2	86	<20	<0.2	<1	120	13
CS 204366	4900	<5	<2	<200	<5	13	35	1300	<2	17.4	160	<5	<50	<20	2810	<200	<50	<0.2	87	<20	<0.2	6	130	17
CS 204367	49	<5	<2	<200	<5	<2	37	1200	<2	16.8	200	<5	<50	<20	2810	<200	<50	1.3	92	<20	<0.2	9	140	19
CS 204368	125	<5	<2	270	<5	9	33	1600	<2	15.9	190	<5	<50	<20	2520	<200	<50	<0.2	85	<20	<0.2	<1	140	16
CS 204369	114	<5	<2	<200	<5	<2	41	2000	<2	17.6	120	<5	<50	<20	2640	<200	<50	0.9	87	<20	<0.2	10	110	<0.9
CS 204370	3520	<5	11	<200	<5	11	35	2000	<2	19.7	190	<5	<50	<20	2260	<200	<50	<0.2	93	<20	<0.2	12	160	19
CS 204371	12	<5	22	<200	<5	9	43	1200	<2	14.2	360	<5	<50	<20	2650	<270	<50	1.3	77	<20	<0.2	<1	150	31
CS 204372	59	<5	<2	<200	<5	10	29	1200	5	14.9	150	<5	<50	20	2510	<200	<50	0.6	81	<20	<0.2	7	110	13
CS 204373	169	<5	<2	<200	<5	11	39	1400	<2	16.4	150	<5	<50	<20	2530	<200	<50	0.9	92	<20	<0.2	<1	91	14
CS 204374	178	<5	<2	<200	<5	<3	30	1500	<2	18.3	220	<5	<50	<20	3010	<200	<50	<0.2	95	<20	<0.2	6	160	24
CS 204375	171	<5	14	<200	<5	10	43	2900	5	20.8	160	<5	<50	<20	2190	<200	<50	<0.2	100	<20	<0.2	11	140	14
CS 204376	244	<5	<2	<200	<5	<2	46	4000	<2	19.8	270	<5	<50	<20	2220	<200	<50	1.2	96	57	<0.2	6	120	13
CS 204377	940	<5	<2	<200	<5	<2	46	2200	6	19.0	160	<5	<50	<20	2880	<200	<50	<0.2	95	<20	<0.2	10	110	10
CS 204378	315	<5	<2	<200	<5	9	30	1300	<2	14.5	180	<5	<50	<20	2630	<200	<50	<0.2	83	20	<0.2	5	95	11
CS 204379	100	<5	<2	<200	<5	<2	38	1300	<2	16.6	270	<5	<50	<20	2480	560	<50	<0.2	88	<20	<0.2	7	110	16
CS 204380	441	<5	30	<200	<5	13	66	2200	<2	15.7	160	<5	<50	<20	2650	<200	<50	4.6	82	<20	<0.2	8	94	13
CS 204381	159	<5	61	<200	<5	9	66	1800	<2	16.6	220	<5	<50	<20	2260	<200	<50	2.8	86	<20	<0.2	6	93	16
CS 204382	815	<5	13	<200	<5	<2	44	1800	<2	14.5	140	<5	<50	<20	2270	<200	<50	1.6	80	<20	<0.2	7	81	13
CS 204383	1270	<5	92	<200	<5	13	110	3900	<2	23.6	360	<5	<50	<20	2930	<200	<50	6.1	110	<20	<0.2	7	150	26
CS 204384	5630	<5	61	<200	<5	10	62	1500	<2	12.4	150	<5	<50	<20	1900	<200	<50	6.8	61	<20	<0.2	5	55	9.1
CS 204385	131	<5	86	<200	<5	9	93	1800	<2	17.5	230	<5	<50	22	2350	<200	<50	9.3	87	<20	<0.2	6	89	13
CS 204386	33	<5	34	<200	<5	<2	64	2000	<2	18.0	140	<5	<50	<20	2650	<200	<50	3.2	89	<20	<0.2	9	89	14
CS 204387	31	<5	300	<200	<5	<2	370	6900	<2	26.6	170	<5	<50	<20	2200	770	<50	21	79	<20	<0.2	7	96	11
CS 204388	413	<5	5	<200	<5	8	40	1200	<2	14.7	160	<5	<50	<20	2160	1300	<50	<0.2	80	<20	<0.2	9	76	13
CS 204389	57	<5	5	<200	<5	<2	37	1300	<2	16.4	250	<5	<50	<20	2100	<200	<50	<0.2	89	24	<0.2	6	120	18
CS 204390	584	<5	<2	<200	<5	7	37	1300	<2	15.0	160	<5	<50	<20	1970	<200	<50	0.4	80	<20	<0.2	8	70	11
CS 204391	350	<5	11	<200	<5	<2	50	1800	<2	20.4	300	<5	<50	<20	2620	<200	<50	1.4	110	28	<0.2	7	120	18

Sample description	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
CS 204313	<4	<200	350	620	210	32	5.8	<2	33.8	5.1	11.30
CS 204314	<4	330	190	370	140	23	5.9	4	21.4	3.1	12.60
CS 204315	<4	280	220	430	190	27	6.8	4	23.8	3.5	11.20
CS 204316	<4	260	300	550	220	33	6.9	6	25.2	3.8	11.50
CS 204317	<4	330	210	410	166	26	6.5	<2	20.2	3.6	2.600
CS 204318	<4	220	340	670	290	41	9.7	7	32.1	4.6	4.800
CS 204319	<4	<200	270	580	200	35	7.3	3	30.6	4.8	19.90
CS 204320	<4	205	210	440	130	27	6.3	5	22.7	3.6	27.40
CS 204321	23	<200	260	500	180	31	7.2	4	24.3	4.3	35.90
CS 204322	<4	268	360	720	270	43	8.6	5	32.7	5.5	13.80
CS 204323	<4	<200	300	640	230	42	9.5	5	33.4	5.8	14.10
CS 204324	<4	320	250	430	180	29	8.1	4	23.4	3.5	12.40
CS 204325	<4	432	510	990	320	55	9.7	6	32.5	6.1	17.50
CS 204326	<4	<200	270	490	170	26	4.1	4	25.5	3.8	8.900
CS 204327	<4	339	320	640	210	38	6.5	4	32.4	5.6	19.50
CS 204328	<4	<200	270	540	190	33	8.0	7	25.3	4.4	17.70
CS 204329	<4	<200	400	810	310	44	8.9	9	30.2	5.0	18.20
CS 204330	<4	<200	190	360	130	21	4.7	<2	21.7	3.2	11.20
CS 204331	<4	451	290	600	220	37	6.9	8	31.7	4.8	25.00
CS 204332	<4	290	300	500	180	29	6.3	<2	31.6	4.9	11.50
CS 204333	<4	<200	240	470	160	28	5.6	5	27.4	4.6	32.10
CS 204334	<4	251	290	610	220	37	7.9	5	29.5	5.1	18.20
CS 204335	<4	252	390	780	270	47	8.5	7	27.1	5.0	19.30
CS 204336	<4	341	210	410	140	25	5.4	4	21.8	3.8	31.80
CS 204337	<4	290	130	250	110	16	3.8	<2	12.3	2.2	49.40
CS 204338	<4	<200	260	540	190	34	7.9	5	26.5	4.5	16.40
CS 204339	<4	<200	350	690	260	40	7.2	5	29.2	5.2	28.30
CS 204340	<4	<200	290	590	230	37	7.2	5	26.4	4.5	21.30
CS 204341	<4	352	310	640	220	38	7.6	6	28.0	4.9	17.70
CS 204342	<4	<200	190	360	140	23	4.7	4	24.1	3.3	11.90
CS 204343	<4	470	250	500	230	30	6.7	5	29.8	4.3	7.400
CS 204344	<4	<200	310	670	240	41	8.4	<2	31.3	5.2	15.40
CS 204345	<4	<200	290	610	220	39	9.2	6	31.3	5.2	16.70
CS 204346	<4	<200	300	610	200	37	8.6	5	27.0	4.6	23.00
CS 204347	<4	<200	250	470	170	30	7.6	5	22.3	3.3	11.30
CS 204348	<4	380	200	400	170	25	5.5	5	26.8	3.7	8.100
CS 204349	<4	<200	370	740	270	46	8.1	6	33.2	6.0	16.50
CS 204350	<4	352	260	560	210	34	7.7	5	26.4	4.4	19.50
CS 204351	<4	<200	290	570	160	34	6.5	6	28.3	5.0	29.50
CS 204352	<4	<200	250	540	180	34	7.9	6	30.2	4.9	15.90
CS 204353	43	310	190	389	146	24	5.7	<2	20.9	3.7	2.300
CS 204354	<4	262	370	770	270	45	8.5	12	30.8	5.1	17.50
CS 204355	<4	330	200	390	170	25	5.9	4	24.5	3.6	9.900
CS 204356	<4	<200	300	590	200	38	7.3	7	28.0	5.1	19.90
CS 204357	<4	<200	330	620	210	38	7.6	<2	29.0	5.3	23.70

Sample description	W PPM	ZN PPM	LA PPM	CE PPM	ND PPM	SM PPM	EU PPM	TB PPM	YB PPM	LU PPM	Mass g
CS 204358	<4	<200	290	510	180	28	5.8	5	26.3	3.8	15.50
CS 204359	<4	247	240	490	160	31	7.0	5	25.1	4.2	21.90
CS 204360	<4	340	260	490	160	29	6.3	4	28.9	4.2	10.80
CS 204361	<4	<200	320	670	210	37	6.8	5	29.5	5.1	23.20
CS 204362	<4	<200	290	590	220	36	7.8	<2	24.4	4.2	19.70
CS 204363	<4	<200	320	650	220	38	7.4	6	29.2	4.9	18.40
CS 204364	<4	541	310	600	230	37	8.3	7	26.4	4.8	28.20
CS 204365	<4	<200	330	590	210	33	8.4	6	26.1	3.8	12.80
CS 204366	<4	530	320	640	220	37	8.1	7	24.2	4.7	25.90
CS 204367	<4	<200	330	680	250	41	8.5	8	28.7	4.9	18.10
CS 204368	<4	217	320	630	210	36	7.2	<2	25.3	4.8	23.10
CS 204369	<4	297	250	520	150	32	6.8	<2	24.9	4.6	20.80
CS 204370	<4	257	370	750	230	43	7.5	6	29.6	4.9	19.00
CS 204371	<4	340	398	789	308	45	10.3	6	25.4	4.6	0.9000
CS 204372	<4	<200	270	520	190	33	7.3	5	22.3	4.2	24.90
CS 204373	<4	<200	220	500	170	33	7.4	5	25.1	4.0	18.10
CS 204374	<5	<200	360	730	260	43	9.1	7	30.2	5.4	22.40
CS 204375	<4	<200	290	590	190	35	6.9	<2	33.8	5.4	16.30
CS 204376	<4	<200	300	570	220	31	6.3	4	33.4	5.1	5.900
CS 204377	<4	<200	250	530	180	32	6.0	6	29.8	5.0	20.60
CS 204378	<4	<200	260	470	170	30	6.3	5	24.6	3.6	13.10
CS 204379	<4	350	300	580	260	35	7.9	6	28.5	4.2	7.500
CS 204380	<4	<200	270	540	200	35	7.8	6	22.9	3.8	25.70
CS 204381	<4	<200	290	500	220	30	8.6	8	27.1	3.9	12.60
CS 204382	<4	<200	220	450	130	29	6.7	5	22.8	3.7	33.60
CS 204383	<5	<200	420	850	370	48	11.5	7	40.8	6.0	4.400
CS 204384	<4	<200	180	340	150	21	6.6	4	17.1	2.6	16.60
CS 204385	<4	450	290	550	210	33	8.9	<2	27.0	4.0	11.10
CS 204386	<4	<200	240	530	200	35	8.2	5	24.9	4.2	17.30
CS 204387	<4	480	290	590	240	35	8.1	6	26.1	3.7	4.700
CS 204388	<4	<200	223	444	157	30	7.4	6	19.6	3.5	2.700
CS 204389	<4	400	300	610	250	38	8.0	7	27.8	4.3	6.100
CS 204390	<4	270	211	410	158	28	6.9	6	20.3	3.5	3.000
CS 204391	<4	400	330	710	270	42	9.5	6	38.3	5.5	3.400

Appendix XV: **1996 Clast Counts**

Lithology	Percent Per Sample														
Abitibi Subprovince	204317	204322	204327	204332	204337	204342	204347	204352	204357	204362	204367	204372	204377	204382	204387
Ultramafic volcanic				2					2			2			
Mafic volcanic	4	10	28	2	20	16	38	30	30	10	16	18	30	22	10*
Intermediate volcanic and tuff	2	6	12	6	6	2	6	2	14		2	4		4	
Felsic volcanic and tuff			2		2								2		
Porphyry												2			
Gabbro											2				
Greywacke, siltstone			4	52	2	22	16	52	4	50		8	30	14	78
Iron formation, chert							2								
Granitic rocks	2	6	4			4	2		4	8	2	10	8	2	
Syenite															
Shear zone					2				4	2				10	
Quartz vein									2			2			
Metamorphic Rocks															
Granitic and sedimentary gneiss									6						
Amphibolite	2		2						2						
Proterozoic Rocks															
Diabase	2	2	4	4			2		8						
Huronian siltstone, sandstone	86	74	42	34	66	56	34	16	22	30	78	54	24	48	10
Huronian tillite	2	2													2
Omar			2		2				2				6		

Appendix XVI: **1996 Gold Grain Counts - Results of Re-panning**

GOLD CLASSIFICATION

VISIBLE GOLD FROM CHECK PANNING OF IRRADIATED HMC

WMC\CHEK1SEP.WR2 — TOTAL # OF PANNINGS 6

SAMPLE #	PANNED Y/N	MEASUREMENT (MICRONS) DIAMETER	THICKNESS	NUMBER OF GRAINS RESHAPED T	RESHAPED P	MODIFIED T	MODIFIED P	PRISTINE T	PRISTINE P	TOTAL	NON MAG GMS	CALC V.G. ASSAY PPB	REMARKS
CS													
204318	Y	325 X 425	100 M		1					1			Actlabs assay = 23600 ppb Au.
										1	4.8	21973	
204324	Y	25 X 25	5 C		1					1			Nuggets removed.
		225 X 450	50 C		1					1			Actlabs assay = 65700 ppb Au.
		825 X 1350	75 C		1					1			
										3	12.4	57095	
204327	Y	75 X 125	20 C		1					1			Two largest grains removed.
		100 X 100	20 C		1					1			Actlabs assay = 5380 ppb Au.
		175 X 175	34 C		1					1			
		325 X 400	75 M		1					1			
										4	19.5	4341	
204330	Y	175 X 400	100 M		1					1			Nuggets removed.
		400 X 425	150 M		1					1			Actlabs assay = 16300 ppb Au.
										2	11.2	22627	
204335	Y	25 X 50	8 C						1	1			Nuggets removed.
		50 X 75	13 C		1					1			Actlabs assay = 2740 ppb Au.
		200 X 325	75 M		1					1			
										3	19.3	2032	
204384	Y	25 X 25	5 C		2					2			Nuggets removed.
		50 X 50	10 C		1					1			Actlabs assay = 5630 ppb Au.
		300 X 675	50 M		1					1			
										4	11.6	7704	

Table 1 - Check Panning.

Appendix GPX-1: **Logistics Report concerning Schlumberger DC-Resistivity Sounding Surveys over the Doon Township Grid in Doon Township, Ontario, Quantec Consulting Inc.**

LOGISTICS REPORT

concerning
SCHLUMBERGER DC-RESISTIVITY SOUNDING SURVEYS

over the
DOON TOWNSHIP PROPERTY

in
DOON TOWNSHIP, ON

on behalf of
WMC INTERNATIONAL LIMITED

NEPEAN, ON

Porcupine, Canada
June 1996
QCI Project: C333

JM Legault
C Williston
Quantec Consulting Inc.

Quantec

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1. INTRODUCTION

At the request of **WMC International Limited** of Nepean, Ontario, Quantec Consulting Inc. (Porcupine, Ontario) conducted and electric geophysical surveys over the **Doon Property**, situated in Doon Township, west of Matachewan in the northeastern Ontario (Figure 1). The surveys consisted of shallow Schlumberger DC Resistivity/vertical electrical soundings (VES), surveyed between April 13TH to the 21ST.

The field surveys were performed under the direction of Roman Tykajlo of WMC International Limited. The survey objective was to map the depths to the Archean basement , below younger Cobalt Group/ Temiskaming Sediments, across the property.

This report outlines the survey technique, the geophysical work undertaken, and presents the survey and modeling results - along with their explanation.

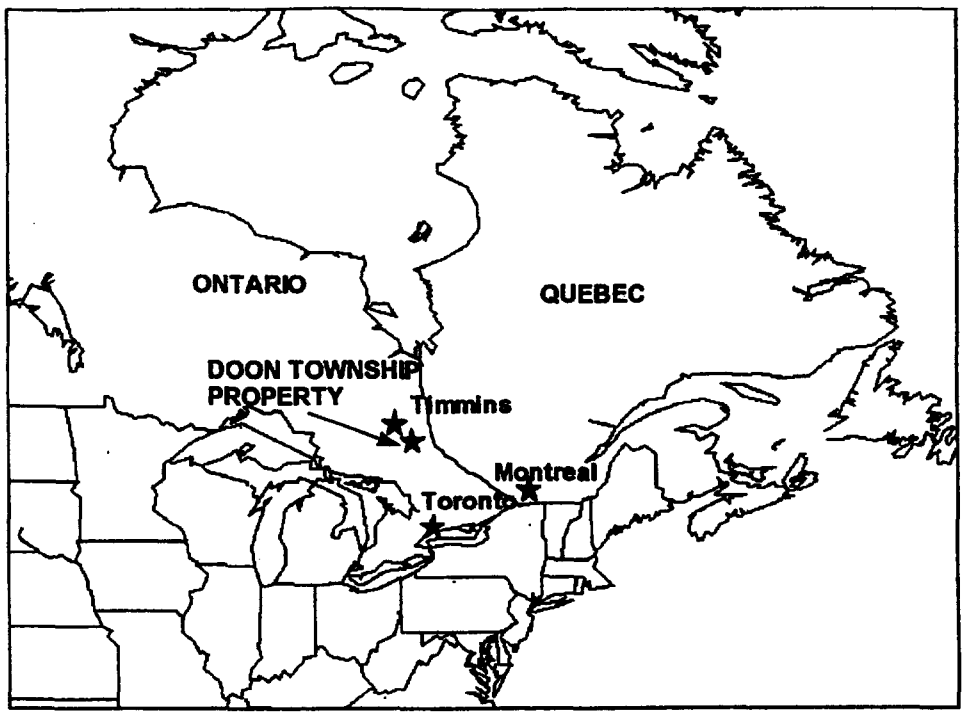


Figure 1: General Location of the Doon Township Property

2. GENERAL SURVEY DETAILS

2.1 Location and Access

The **Doon Township Property** is located approximately 15 kilometers due west of the town of Matachewan, Ontario. The property occupies the northern half of Doon Township and extends into the eastern section of Midlothian Township, District of Timiskaming. (UTM 512,000mE 5,306,000mN). The property is situated west off of highway 566, and encompasses Kame Lake and Elizabeth Lake.

The property is easily accessible by vehicle, from highway 566, and was reached on a daily basis by traveling approximately 15km west from Matachewan, where the survey crew was based. The survey area was accessed from the road by snowshoe and, later on foot.

2.2 Survey Lines

The **Doon Township Property** survey area consisted of a large rectangular-shape metric reconnaissance grid area (approximately 14km x 6km) cut and chained at 25m intervals along 1km-spaced, N-002°E azimuth lines prior to the survey by **WMC International Limited.** The current survey coverage is limited to soundings in two areas: 2 X 1km-spaced NS profiles in the grid center, (near 105+00E/310+00N) and, a single NS profile 5km further to the extreme grid south-west (near 500+00E/280+00N). The NS and EW positions for all survey lines and stations shown in this report are named according to the existing grid coordinate system, which is UTM referenced.

3. SURVEY WORK UNDERTAKEN

3.1 Generalities

The geophysical program on the **Doon Township Property** was undertaken between April 13TH to 21ST, 1996, and consisted of 3 geoelectric soundings using the method of vertical electrical drilling, with the VES/Schlumberger array (Table I).

The VES Schlumberger soundings employed a transmitter current electrode (AB) pair, whose spacing varied between 2m to 1000m and which expanded about a fixed receiver electrode pair (MN), which varied between 0.5-100 metres. Measurements of the primary voltage (no IP effects recorded) were acquired in the time-domain, using a square waveform transmitted at a frequency of 0.125 Hz at 50% duty cycle (2-seconds ON, 2 seconds OFF).

SOUNDING POINT	LINE	STATION	# OF SOUNDINGS	MN	AB	TOTAL AB SEPARATIONS
1	50+00E	280+00N	20	1m-100m	4m-2000m	6780m
2	100+00E	305+00N	20	1m-50m	4m-2000m	6780m
3	110+00E	310+00N	21	1m-50m	4m-2000m	6810m
	TOTAL					20370m

Table I: Sounding Details for Geophysical Surveys at Doon Township Property.

3.2 Survey Personnel

Paul Plazek Renfrew, Ontario	Crew Leader/Geophysicist
Dean Presseault Notre Dame du Nord, Quebec	Field Assistant
Brad Poulson Notre Dame du Nord, Quebec	Geophysical technician

3.3 Equipment and Survey Procedure

The survey was conducted with an **IPR-10A** time-domain induced polarization/resistivity receiver manufactured by Scintrex Instruments, of Scarborough, Ontario. The unit is a portable, analog time-domain IP/Resistivity acquisition system, capable of measuring the self-potential (Sp - mV), primary voltage (Vp - mV), and the secondary voltage decay over one to six (selectable) time-slices, over 4 switch-selectable transmitter timings (1, 2, 4 and 8 seconds ON/OFF). The system does not feature an internal memory and all measurements are noted in field books (see Appendix D). Its approximate weight, including rechargeable batteries, is 3 lb.

The **IPT-1** variable frequency, back-pack portable transmitter was employed (maximum output voltage 1200 volts, weight 40 lb.) in conjunction with a portable **MG-2** generator and power-plant, consisting of a 2 kVA, 3-phase, 400 Hz. alternator coupled to a 5 H.P. Honda motor-generator (80 lb.). Both units are manufactured by Phoenix Geophysics Ltd., of Unionville, ON

Canada. The system is capable of providing a stable, regulated current (10 amps maximum) at either a variety of periods (0.125 to 16 seconds), at either the 50 percent (time domain pulse) or 100 percent (frequency or phase) duty cycles.

The E-field signal ($\Delta V=E.dl$) was collected using end-on dipoles, consisting of 18-gauge copper wire connected to grounded stainless steel electrodes. Stainless steel electrodes connected via 16 gauge copper wire were used for current injection contacts. Electrode contacts are watered with saturated NaCl solution in order to improve the contact resistances. All measured values were routinely stored in field note-books, and at the end of each survey day, the data were transferred to micro-computer and disk for storage and post-processing. The post-processing consisted of apparent resistivity calculation and 1D model-inversion, using the DCRESI and RESIX resistivity modeling packages, and these were used to present the survey results and to provide an immediate interpretation capability.

The DC resistivity sounding survey implemented the Schlumberger electrode configuration (Figure 2). At each sounding point, while the receiver/potential dipole (MN) measuring the potential remained fixed , the current electrode spacing (AB) was expanded symmetrically about the center of the spread - enabling the geometric depth-sounding. The receiver dipole spacing (MN) was adjusted periodically to maintain an adequate signal-to-noise, and varied between 0.5 to 100 metres. At each MN change, the measurements were repeated, to monitor the repeatability and accuracy of the readings. The expanding current dipole spacing (AB) ranged from 4 to 2000 metres. Transmitted currents between 800 to 1350 milli-amperes were achieved.

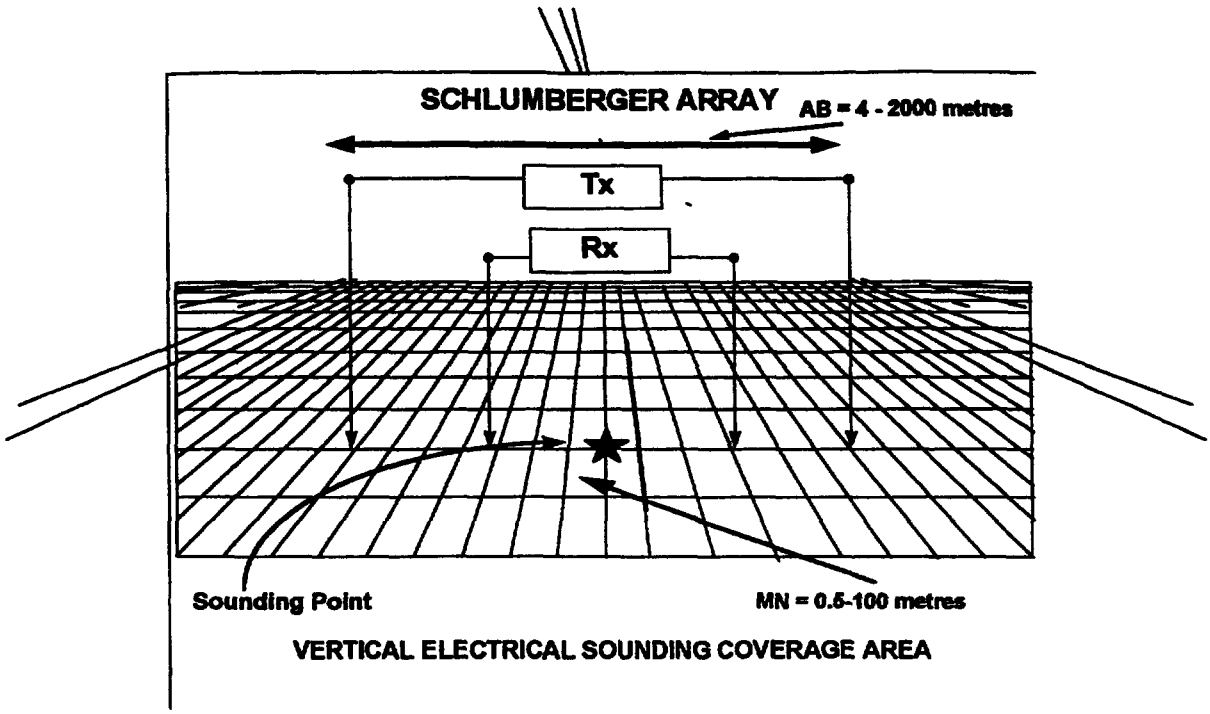


Figure 2: Schlumberger Array Used on the Doon Township Property.

3.4 Difficulties encountered and accuracy of measurements

The quality of measurements in the field was closely monitored throughout the course of the survey in order to detect any weaknesses, either technical or natural, which could have affected the quality of the data collected. To ensure optimum data quality, readings were repeated several times to verify the repeatability of decays and the extent of any external noise.

The major difficulty involved the survey execution under the late Spring thaw condition specifically: a) heavy rain caused the loss of 1.5 days; b) snow melt prevented/slowed access to the survey points either by snowmobile or on foot (≈2 days). These circumstances reduced the total productivity to 50% (1.5 weather+2 non-productive days) over the 7 day survey period.

Another difficulty involved the current injections, as poor ground contacts, due to the thin, sandy and rocky soil cover, combined with the frozen ground significantly limited the injected currents frequently to <100 milli-ampere levels - decreasing the signal-to-noise obtained at the larger AB's, despite the high background resistivities. As a result, measurements at AB-spacings greater than 2000m were highly affected by telluric noise - reducing the penetration effectiveness of the survey. Furthermore, the increased time required to establish contacts also reduced the survey efficiency, for example: on April 17th and 18th multiple rods were needed to overcome the rocky ground and reduce contact resistances on sounding points #1 and #2. To compensate for these errors, additional redundant AB-spacings were added to the 3pts/decade specifications during the acquisition (6pts/decade).

Overall, the quality of the data and their repeatability are moderate - in the order of ±10% (the accuracy of the ampere-metre) at small AB's. At the larger AB's however, a higher degree of scatter is present (±20%), due to the lower current/measured voltages (<50±15mV). As a result, the confidence level of the deeper resistivity structure is reduced. Nevertheless, the sounding curves were relatively easily modeled (34% avg. RMS error), with few data points removed, and reasonable layered earth estimates were obtained (R. Tykajlo pers. comm, 05/96).

3.5 Data Reduction and Presentation of Results

Once the measurements have been collected in the field, the raw field data is transferred onto microcomputer and diskette for further reduction, using Interpex's 1D Geoelectric inverse-modeling programs **DCRESI**™ and RESIX™ . The programs feature both manual and digital data entry - requiring the AB/2 current dipole spacing, the normalized voltage (Volts per Ampere), and MN potential dipole spacing - then automatically calculating the apparent resistivity, as explained in the following figures and equations:

Using the following diagram (Figure 3) for the Schlumberger array electrode configuration and nomenclature:[1]

[1] From Terraplus\BRGM, IP-6 Operating Manual, Toronto, 1987.

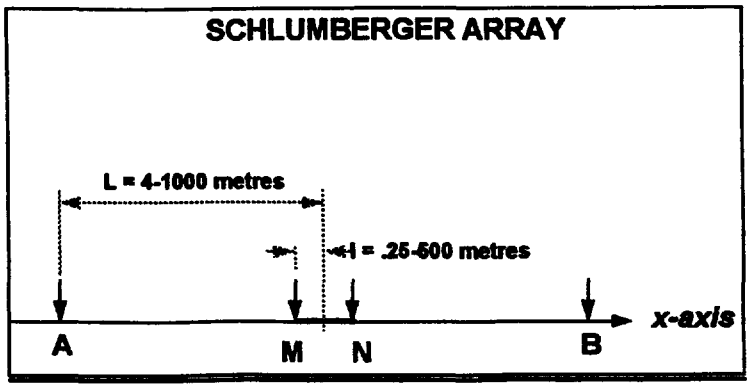


Figure 3: Schlumberger Array Configuration.

where: the half-width of the receiver dipole, l = MN/2
the half width of the transmitter dipole, L = AB/2
the receiver dipole is centered within the transmitter dipole

gives the Schlumberger array apparent resistivity:

Schlumberger Array Apparent Resistivity[2]*:*

$$\rho_a = \pi \frac{L^2}{2l} \times \frac{V_P}{I} \quad ohm\text{-}metres$$

The DCRESI and RESIX programs then ready the data for on-screen plotting, in log-log sounding format, and model-inversion using the method of automatic ridge-regression - producing stratified layered-earth models and synthetic, best-fit model curves. A corresponding layered-earth model represents the best-fit inversion curve through the data points (see Figure 7). A parameter resolution matrix provides information on the relative significance of layers. The program I/O presents all apparent resistivities in Ω-metres, and layer-thicknesses in both feet and metres. ASCII model-dumps and screen-captured plots of the raw-data, synthetic model curve and discretized model are the standard output (Appendix C).

The ASCII model-dumps and DCRESI and RESIX binary data files are stored in digital format on 1.2Mbyte diskettes, in the following format:

a) ASCII Inversion DMP file

File:	with filename according to project (C333doon.dmp)
Description	
Sounding:	
Description:	Number of layers modeled
Column 1:	Layer resistivity (ohm-metres)
Column 2:	Layer thickness (metres)
Column 3:	Layer thickness (feet)
Column 4:	Depth to layer-interface (metres)

[2] From Telford, et al., Applied Geophysics, Cambridge U Press, New York, 1983..

Column 5: Depth to layer-interface (feet)
Column 6: Apparent Resistivity (ohm-metres)

Model Fits
Column 1: AB/2 Spacing (metres)
Column 2: Observed apparent resistivity (ohm-metres)
Column 3: Calculated apparent resistivity (ohm-metres))
Column 4: Standard deviation between observed & calculated (%)

Model Summary
Line 1: Array, Number of Data, Name
Line 2: Location
Line 3: Project
Line 4: RMS error

Model Parameter Resolution Matrix
see DCRESI User's Manual (C.H. Stoyer, 1986) for explanation of parameter resolution

RESPECTFULLY SUBMITTED,

JM Legault
Senior Geophysicist

Christine Williston
Junior Geophysicist

Quantec Consulting Inc.
Porcupine, Ontario
June 1996

APPENDIX A

STATEMENT OF QUALIFICATIONS

I, Jean M Legault, hereby declare that:

1. I am a consulting geophysicist with residence in Porcupine, Ontario and am presently employed in this capacity with Quantec Consulting Inc. of Porcupine, Ontario.

2. I am a graduate of Queen's University, at Kingston, Ontario, with the degree of Honour's Bachelor's of Applied Science, in Geological Engineering (Geophysics Option) in 1982.

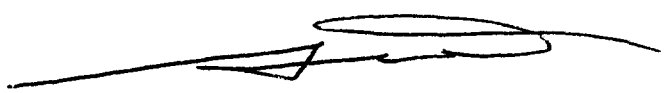
3. I have practiced my profession in North and South America, and Africa, continuously since graduation.

4. I am a member of the Canadian Society of Exploration Geophysicists ,the Prospectors and Developers Association, and the Association of Professional Engineers of Quebec (OIQ# 043732).

5. I have no interest nor do I expect to receive any interest, direct or indirect, in the properties or securities of **WMC International Limited.**

6. The statements made by me in this report represent my best opinion and judgment based on the information available to me at the time of the writing of this report.

May, 1996



Jean M Legault, P.Eng. (QC)
Chief Geophysicist
Quantec Consulting Inc.

APPENDIX A

STATEMENT OF QUALIFICATIONS

I, Christine Williston, hereby declare that:

1. I am a processing geophysicist with residence in South Porcupine, Ontario and am presently employed in this capacity with Quantec Consulting Inc. of Porcupine, Ontario.

2. I am a graduate of York University, North York, ON, in 1994, with a Bachelors of Science in Earth and Atmospheric Science.

3. I have practiced my profession in Canada since graduation.

4. I have no interest nor do I expect to receive any interest, direct or indirect, in the properties or securities of **WMC International Limited.**

Porcupine, Ontario
May, 1996.



Christine Williston, B.Sc.
Junior Geophysicist
Quantec Consulting Inc.

APPENDIX B

DAILY PRODUCTION LOG

DOON TOWNSHIP PROPERTY PROJECT
Doon Township, Ontario
on behalf of
WMC INTERNATIONAL LIMITED, NEPEAN, ON

DATE	DESCRIPTION	LINE	STATION	AB/2 MAX.
13-Apr	MOB - Timmins to Matachewan			
14-Apr	#2 station located and surveyed	1+00E	305+00N	1000m
15-Apr	Equipment brought to #1 station via skidoo and foot (4km). Sounding set up and 5 AB/2 readings taken. Finished at 7:30 pm.	0+50E	280+00N	20m
16-Apr	Weather day - rain all night and wet snow during the day - skidoo travel impossible			
17-Apr	Sounding completed on station #1 and some equipment moved to station #2	0+50E	28+00N	700m
18-Apr	AM: Remaining equipment moved to station #2			
	PM: AB/2 of 2m - 50m resurveyed on station #2	1+00E	305+00N	50m
19-Apr	AM: Equipment brought to station #3 and surveying started	1+10E	310+00N	2m
	PM: Surveying stopped due to heavy rain			
20-Apr	#3 sounding completed and equipment brought out to truck	1+10E	310+00N	1000m
21-Apr	DEMOB - Matachewan to Timmins			

APPENDIX C

DCRESI 1D-MODELS

100E305N
MODEL: 3 LAYERS

RESISTIVITY (OHM-M)	THICKNESS (M)	THICKNESS (FEET)	ELEVATION (M)	ELEVATION (FEET)
			0.00	0.00
12477.11	4.48	14.69	-4.48	-14.69
4360.87	799.23	2622.13	-803.70	-2636.82
		15499.53		

SPACING	DATA (M)	CALC (OHM-M)	% ERROR (OHM-M)	STD ERR
1	2.0000	7121.00	12344.25	53.667
2	3.0000	12497.00	12104.46	-3.191
3	5.0000	11852.00	11191.06	-5.737
4	5.0000	17999.00	11191.06	-46.646
5	10.0000	6283.00	8071.75	24.922
6	10.0000	10865.00	8071.75	-29.501
7	20.0000	6362.00	5263.54	-18.897
8	30.0000	1414.00	4677.69	107.152
9	30.0000	4466.95	4677.69	4.609
10	50.0000	6280.67	4473.39	-33.611
11	50.0000	4665.27	4473.39	-4.199
12	75.0000	4750.09	4421.97	-7.155
13	100.0000	4794.62	4405.78	-8.453
14	100.0000	4294.16	4405.78	2.566
15	200.0000	4772.24	4405.34	-7.995
16	200.0000	4948.01	4405.34	-11.604
17	300.0000	6008.69	4428.99	-30.269
18	500.0000	4120.87	4533.41	9.534
19	700.0000	4612.25	4729.77	2.516
20	1000.0000	5023.41	5194.67	3.352

SCHL ARRAY, 20 DATA POINTS, DATA: 100E305N
WMC INTERNATIONAL - DOON TWP PROJECT - C333
SCHLUMBERGER SOUNDING - L100E / 305+00N

RMS LOG ERROR: 1.51E-01, ANTILOG YIELDS 41.4685 %
IGS: DCRESI
PARAMETER RESOLUTION MATRIX:
"F" MEANS FIXED PARAMETER

P 1	1.00				
P 2	0.00	1.00			
P 3	0.00	0.00	0.32		
T 1	0.00	0.00	0.00	1.00	
T 2	0.00	0.00	-0.35	0.00	0.79
	P 1	P 2	P 3	T 1	T 2

110E310N

MODEL: 4 LAYERS

RESISTIVITY (OHM-M)	THICKNESS (M)	(FEET)	ELEVATION (M)	(FEET)
			0.00	0.00
23714.23	6.65	21.82	-6.65	-21.82
57.99	1.13	3.71	-7.78	-25.54
10000.00	285.34	936.15	-293.12	-961.69
		46302.58		

SPACING	DATA (M)	CALC (OHM-M)	% ERROR (OHM-M)	STD ERR
1	2.0000	13660.00	23565.93	53.221
2	3.0000	18025.00	23229.42	25.231
3	5.0000	30988.00	21939.38	-34.193
4	5.0000	18762.00	21939.38	15.613
5	10.0000	28600.00	15238.34	-60.959
6	10.0000	16420.00	15238.34	-7.465
7	15.0000	6425.00	8556.78	28.458
8	20.0000	7535.00	4622.98	-47.903
9	30.0000	1678.00	1988.53	16.939
10	30.0000	1219.00	1988.53	47.983
11	50.0000	2356.00	2120.43	-10.525
12	50.0000	1821.00	2120.43	15.194
13	75.0000	2740.00	2957.67	7.641
14	100.0000	4083.00	3626.84	-11.833
15	100.0000	4082.00	3626.84	-11.809
16	200.0000	7277.00	5670.15	-24.822
17	200.0000	6846.00	5670.15	-18.789
18	300.0000	7980.00	7189.25	-10.426
19	500.0000	10239.00	9744.20	-4.952
20	700.0000	12790.00	12143.49	-5.186
21	1000.0000	13820.00	15477.08	11.312

SCHL ARRAY, 21 DATA POINTS, DATA: 110E310N
WMC INTERNATIONAL - DOON TWP PROJECT - C333
LINE 110E - 31+000N - SCLUMBERGER SOUNDING

RMS LOG ERROR: 1.23E-01, ANTILOG YIELDS 32.8148 %
IGS: DCRESI
PARAMETER RESOLUTION MATRIX:
"F" MEANS FIXED PARAMETER

P 1	1.00						
P 2	0.00	0.50					
F 3	0.00	0.00	0.00				
P 4	0.00	0.00	0.00	0.23			
T 1	0.00	0.01	0.00	0.00	1.00		
T 2	0.00	-0.49	0.00	-0.01	0.00	0.52	
T 3	0.00	0.02	0.00	-0.32	0.00	0.02	0.81
	P 1	P 2	F 3	P 4	T 1	T 2	T 3

50E28N

MODEL: 3 LAYERS

RESISTIVITY (OHM-M)	THICKNESS (M)	(FEET)	ELEVATION (M)	(FEET)
			0.00	0.00
25226.39	7.54	24.75	-7.54	-24.75
4095.70	508.32	1667.72	-515.86	-1692.47
		8571.81		

SPACING	DATA (M)	CALC (OHM-M)	% ERROR (OHM-M)	STD ERR
1	2.0000	18850.00	25126.41	28.544
2	3.0000	15420.00	24943.89	47.190
3	5.0000	31420.00	24163.11	-26.112
4	5.0000	22440.00	24163.11	7.395
5	10.0000	35990.00	19775.34	-58.153
6	10.0000	22280.00	19775.34	-11.911
7	20.0000	10150.00	10223.11	0.718
8	30.0000	4570.00	6197.57	30.231
9	30.0000	5960.00	6197.57	3.908
10	50.0000	3613.00	4477.50	21.371
11	75.0000	6360.00	4265.81	-39.417
12	100.0000	5080.00	4208.70	-18.760
13	100.0000	4640.00	4208.70	-9.748
14	200.0000	3560.00	4149.42	15.291
15	300.0000	3534.00	4195.61	17.119
16	500.0000	4712.00	4387.63	-7.129
17	700.0000	4704.00	4687.41	-0.353

SCHL ARRAY, 17 DATA POINTS, DATA: 50E28N
WMC INTERNATIONAL - DOON TWP PROJECT - C333
LINE 5000E - STATION 2800N - SCHLUMBERGER SOUNDING

RMS LOG ERROR: 1.14E-01, ANTILOG YIELDS 29.9100 %

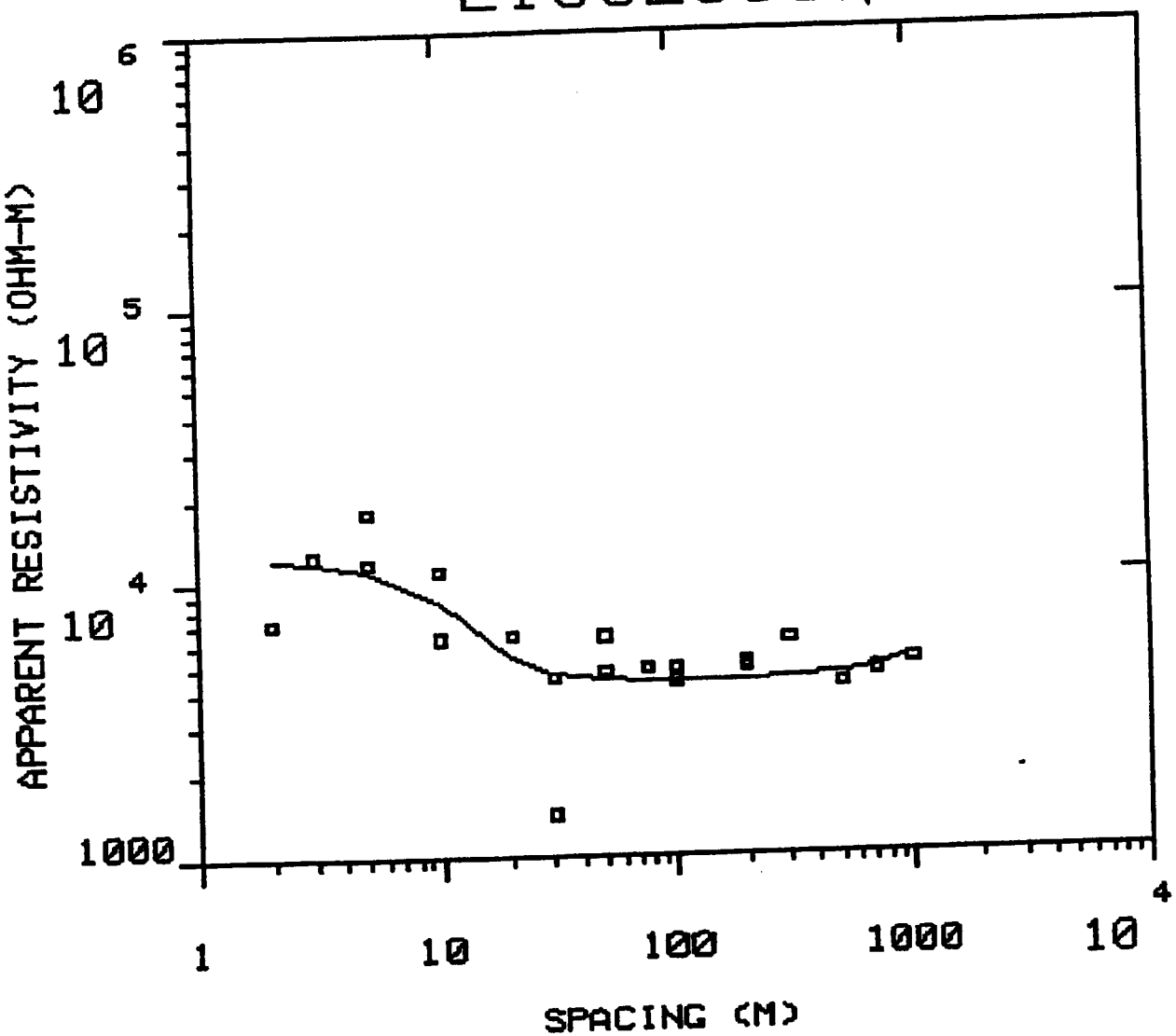
IGS: DCRESI

PARAMETER RESOLUTION MATRIX:
"F" MEANS FIXED PARAMETER

P 1	1.00				
P 2	0.00	1.00			
P 3	0.00	0.00	0.46		
T 1	0.00	0.00	0.00	1.00	
T 2	0.00	0.00	-0.35	0.00	0.77
	P 1	P 2	P 3	T 1	T 2

SCHLUMBERGER SOUNDING - L100E / 305+00N

L100E305N



MODEL:

12173. OHM-M 4.87 M

4281. OHM-M 1182. M

87860904. OHM-M

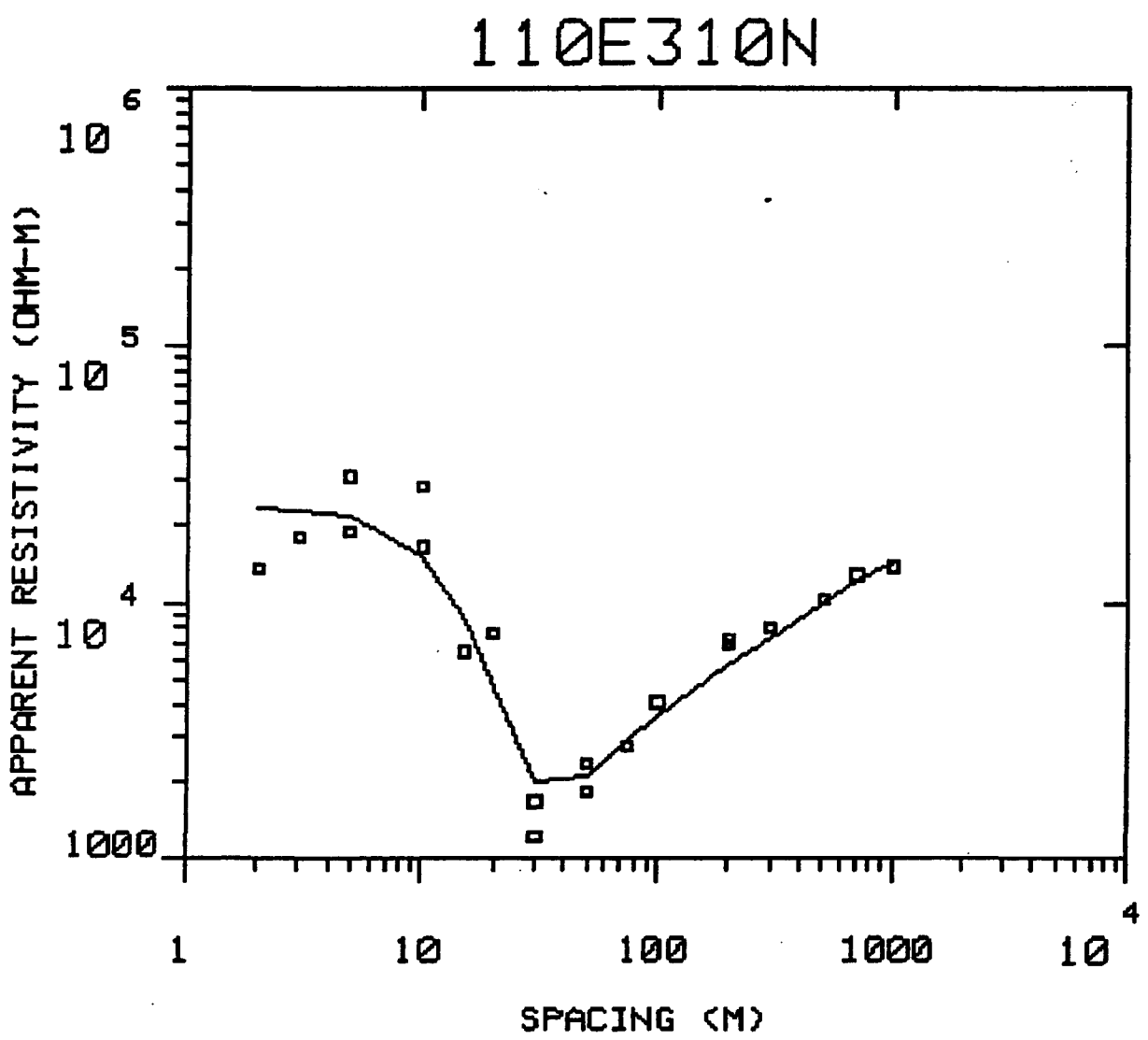
% ERROR: 41.4

Quantec Consulting

Quantec

WMC INTERNATIONAL - DOON TWP PROJECT - C333

LINE 110E - 31+000N - SCLUMBERGER SOUNDING



MODEL:

23660. OHM-M — 6.68 M

6.21 OHM-M — 0.123 M

10000 OHM-M — 184. M

25667. OHM-M

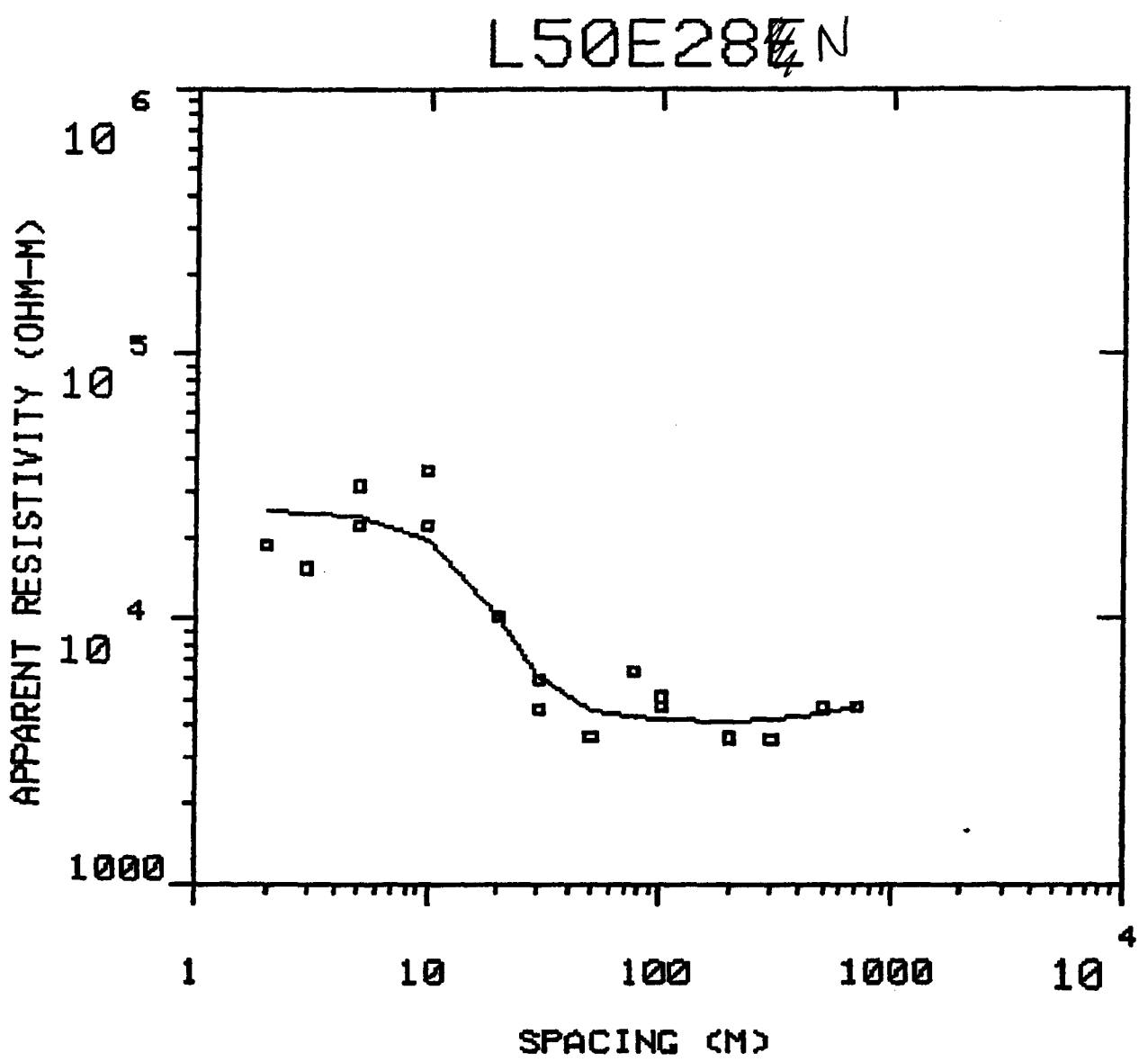
% ERROR: 32.6

Quantec Consulting

Quantec

WMC INTERNATIONAL - DOON TWP PROJECT - C333

LINE 5000E - STATION 2800N - SCHLUMBERGER SOUNDING



MODEL:

25226. OHM-M 7.54 M

4096. OHM-M 508. M

8572. OHM-M

% ERROR: 29.9

Quantec Consulting

Quantec

WMC INTERNATIONAL - DOON TWP PROJECT - C333

APPENDIX D

OPERATOR FIELD NOTES

17/04/96

Doon Twp. Project
WMC Int. Ltd #C333 VES-Schlumberger
Station - ~~50E~~ L50E, 28+00N

AB/2(m)	MN(m)	Vp(v)	I(A)	Sp	Pa
2	1	30	0.02	67	18850
3	0.5	30	0.11	68	15420
5	0.5	26	0.13	67	31420
5	2	40	0.07	71	22440
10	0.5	6.3	0.11	68	35440
10	2	15.6	0.11	68	22280
20	2	2.1	0.13	69	~~4570~~ 10150
30	2	0.42	0.13	72	~~596~~ 4570
30	10	2.74	0.13	71	5960
50	2				
50	10	0.23	0.05	73	3613
75	10	0.36	0.1	77	6360
100	10	0.21	0.13	73	5080
100	50	0.96	0.13	75	4640
200	10				
200	100	0.51	0.18	82	3560
300	100	0.~~28~~35	0.28	~~85~~92	3534
500	100	0.15	0.25	87	4712
700	100	0.11	0.36	could not buck out	4704
1000	100		0.25	could not buck out	

MN contact ~~rest~~ resistances: 4-9 Kohm

AB contact resistances: 7-10 Kohm

- Vp in high range ~~checked w~~ verified with my volt meter

↓

Doon Twp. Project C333-VES
Station L50E - 28+00N 17/04/96

Station Info - on the side of a hill/slope
- a lot of topography within area (hills)
- rocky ground - contact resistace high unless multiple rods used
- heavily forested
- no culture
- claim post #1 - 1207615 at L50E - 29+050N

18/04/96

Doon Twp Project
WMC Int. Ltd. #C333 VES-Schlumberger
- resurvey of 2-50 AB/2 Station: L100E 30+500N

AB/2(m)	MN(m)	Vp(V)	I(A)	Sp	ρa
2	1	17.0	0.03	580	7121
3	1	22.1	0.05	576	12497
5	1	16.6	0.11	576	11852
5	2	27.5	0.06	519	17999
10	1	2.4	0.12	109	6283
10	2	8.3	0.12	111	10865
20	2	1.2	0.12	110	6283
30	2	0.12	0.12	110	1414 *
30	10	2.36	0.12	~~109~~ 110	5561
50	2	0.13	0.085	109	6006
50	10	0.51	0.085	105	4712

MN contact resistances all 6-9 Kohm

* AB/2, MN=2 of ρa = 1414 - everything checked ~~thouroghly~~ thoroughly
=30
- anomalous reading could not be rectified.

Station Info - on the side of a gradual sloping South facing hill
- rocky ground near st'n (multiple rods needed)
- burned area - heavy regrowth
- gravel road is at 30+400 N

Doon Twp. Project
WMC International Ltd
#C333 VES - Schlumberger Array
Station #2 - L100E, 30+500'N

AB/2(m)	MN(m)	Vp(V)	I(A)	Sp	Pa
2	1	0.025	0.05	59	6.3
3	1	0.015	0.06	62	7.1
5	1	0.025	0.07	60	28.1
5	2	0.02	0.04	57	19.6
10	1	0.004	0.07	32	18.0
10	2	0.006	0.08	34	11.8
20	2	0.81	0.08	19	6362
30	2	0.03	0.04	16	1062
30	10	0.65	0.04	150	4595
50	2	0.08	0.05		6283
~~75~~ 50	10	0.36	0.06	137	4712
~~100~~ 75	10	0.27	0.1	137	4771
~~100~~ 100	10	0.23	0.15	137	4817
~~200~~ 100	50	1.24	0.17	139	4583
~~200~~ 200	10	0.1	0.26	133	4833
~~300~~ 200	50	0.52	0.26	135	5027
~~500~~ 300	50	0.16	0.15	137	6032
~~700~~ 500	50	0.071	0.27	139	4131
~~1000~~ 700	50	0.018	0.12	153	4619
1000	50	0.044	0.55	141	5027

Appendix GPX-2: **Logistical Report on Spectral IP/Resistivity and Magnetometer Survey conducted on Doon Township Grid, JVX Ltd.**

LOGISTICAL REPORT

ON

SPECTRAL IP/RESISTIVITY AND MAGNETOMETER SURVEY

CONDUCTED ON

DOON TWP. GRID

DOON TOWNSHIP, MATACHEWAN AREA

ONTARIO

For:

WMC INTERNATIONAL LIMITED
Americas Division - Exploration
22 Gurdwara Road
Nepean, Ontario K2E 8A2
Tel.: (613) 727-3937
Fax: (613) 727-3970
Attention: Roman Tykajlo

By:

JVX Ltd.
60 West Wilmot Street, Unit #22
Richmond Hill, Ontario
L4B 1M6
Tel: (905) 731-0972
Fax: (905) 731-9312

Contact: Blaine Webster

JVX Ref: 9682
March 1997

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Appendix A: Instrument Specification Sheets and Pole-Dipole Array Geometry
Appendix B: List of Plates

1. INTRODUCTION

JVX Ltd. conducted a time-domain Spectral Induced Polarization (IP) and Resistivity, and Magnetometer survey during the period of December 5, 1996 through February 1, 1997 on behalf of WMC International Limited. The survey area was located in Doon Township, Matachewan Area, Ontario, NTS: 41 P/15 (cf: the Location Map in Figure 1, as well as the Survey Grid Map in Figure 2), bordering on Midlothian Township to the west.

The purpose of this survey was to locate zones of sulphide mineralization associated with gold-bearing quartz veins which may be present in the area.

The Doon Township Grid covered the following Claim Numbers:

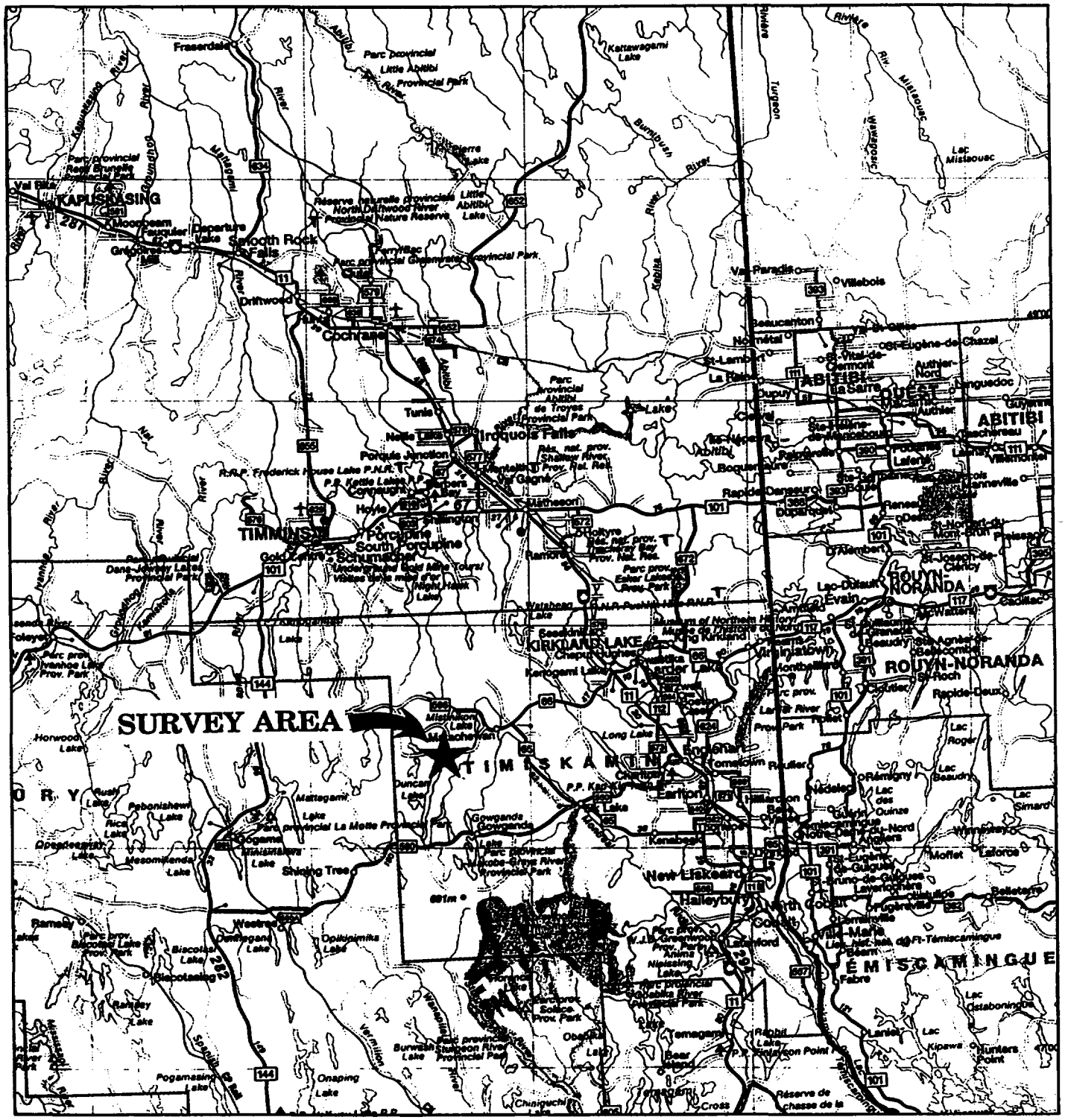
1207622	1207604	1207610
1207623	1207605	1207611
1207624	1207606	1207612
1207625	1207607	1207613
1207626	1207608	1207614
1207603	1207609	1223333

2. SURVEY SPECIFICATIONS and PRODUCTION SUMMARY

Instrumentation and survey specifications for the Doon Grid are outlined in the following tables:

Table 1: Specifications for the IP/Resistivity Survey

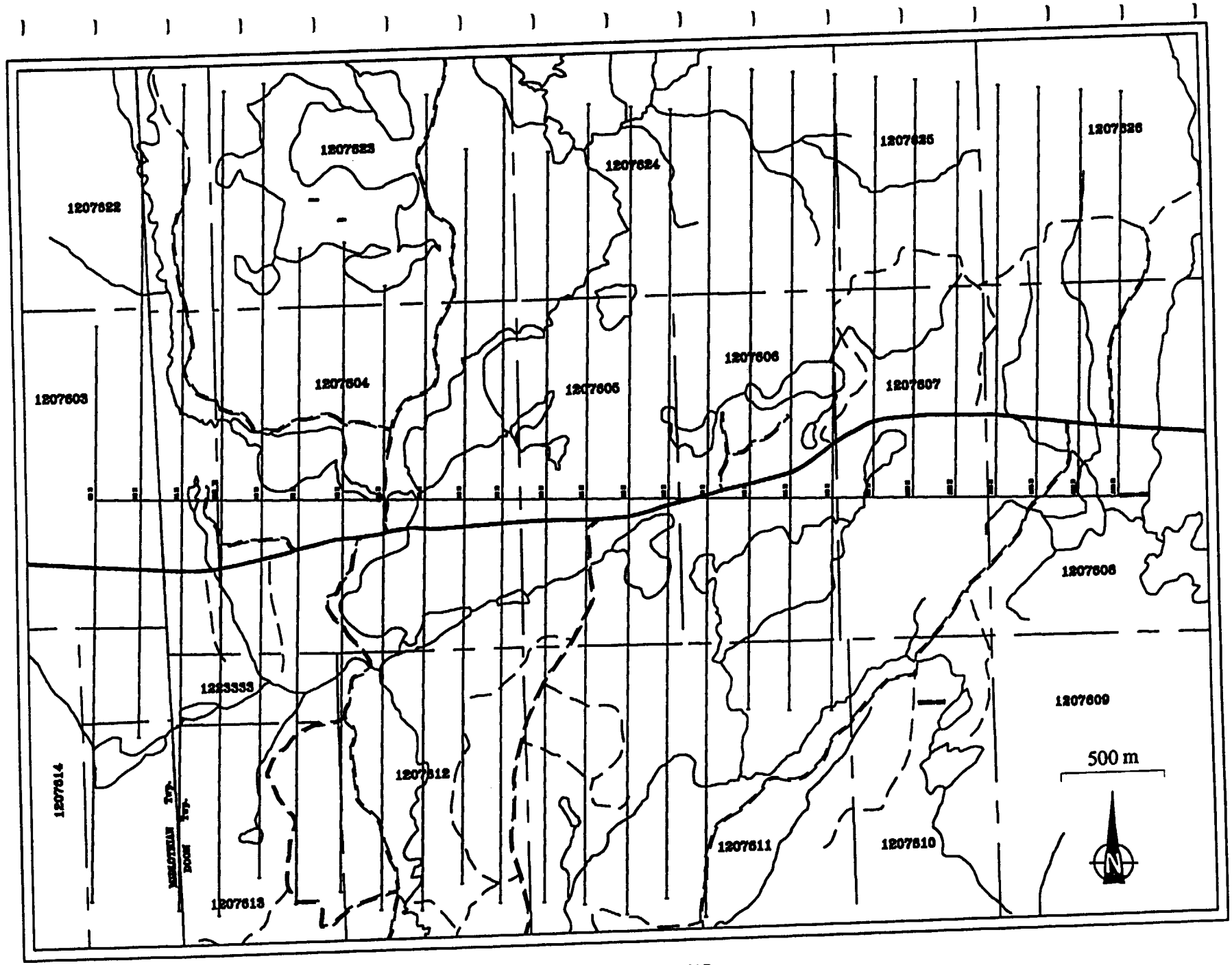
Transmitter	Scintrex TSQ-3/3.0 kW
Receiver	Scintrex IPR-11
Array Type	Pole-Dipole
Transmit Cycle Time	2 sec
Receive Cycle Time	2 sec
Number of Potential Electrode Pairs	6
Electrode Spacing	50 metres (= a-spacing)
Number of Lines Surveyed	12
Survey Coverage	19,000 metres



LOCATION MAP
WMC INTERNATIONAL LIMITED
DOON TWP. GRID
Doon Twp., Matachewan area, Ontario
N.T.S. 41 P/15
GROUND GEOPHYSICAL SURVEY
Scale: 1 : 1,725,000

Survey by JVX Ltd.
Dec., 1996 - Feb., 1997

Figure 1



GRID / CLAIM MAP
WMC INTERNATIONAL LIMITED
DOON TWP. GRID
Doon Twp., Matachewan area, Ontario
N.T.S. 41 P/15
GROUND GEOPHYSICAL SURVEY

Survey by JVX Ltd.
Dec., 1996 - Feb., 1997

Figure 2

Table 2: Specifications for the Magnetometer Survey

TOTAL FIELD MAGNETICS	
Instrument	Scintrex IGS-2 / GEM GSM-19
Sensor Type	Proton Precession
Reading Mode	Continuous, 2 sec. Sampling intvl.
No. of Lines surveyed	26
Survey Coverage	75,914 m

Production summaries are listed in the following tables:

Table 3: Line Summary for IP/Resistivity Survey

Line	From Station	To Station	Distance (m)	No. of Readings
6000E	29000N	29900N	900	19
6400E	28550N	30150N	1600	33
6800E	28500N	30100N	1600	33
7200E	28550N	29950N	1400	29
7800E	28800N	30050N	1250	26
8000E	29050N	30700N	1650	34
8400E	29200N	30900N	1700	35
8800E	29400N	31100N	1700	35
9200E	29550N	31250N	1700	35
9600E	29650N	31350N	1700	35
10000E	30000N	31900N	1900	39
10400E	30050N	31950N	1900	39
TOTAL			19000	392

Table 4: Line Summary for Magnetometer Survey

Line	From Station	To Station	Distance (m)
6000E	28000N	32012N	4012
6200E	28812N	31025N	2213
6400E	28000N	31100N	3100
6600E	28000N	32000N	4000
6800E	28125N	31587N	3452
7000E	28000N	31162N	3162
7200E	28012N	31237N	3225
7400E	29750N	31012N	1262
7600E	29462N	31850N	2388
7800E	28087N	31900N	3813
8000E	27987N	31900N	3913
8200E	28100N	31975N	3875
8400E	28037N	32000N	3963
8600E	28025N	32000N	3975
8800E	27962N	31662N	3700
9000E	28000N	32000N	4000
9200E	29000N	32000N	3000
9400E	28912N	31525N	2613
9600E	29000N	31500N	2500
9800E	29000N	32000N	3000
10000E	28975N	32000N	3025
10200E	30000N	32025N	2025
10400E	30000N	32012N	2012
10600E	30000N	32000N	2000
10800E	30000N	32000N	2000
11000E	30150N	32037N	1887
Total			**78115**

3. PERSONNEL

Claudia Wilck (Geophysicist):
Ms. Wilck carried out the magnetometer survey, and was responsible for the quality of the magnetics field data.

Graham Stone (Geophysical Operator):
Mr. Stone operated the IPR-11 receiver, and was responsible for the data quality and preliminary processing of the IP data in the field.

David Brown (Operator):
Mr. Brown carried out part of the magnetometer survey, and operated the IP transmitter on certain occasions.

Ivan Bizev (Geophysicist):
Mr. Bizev carried out part of the magnetometer survey.

Mike Fecteau (Operator):
Mr. Fecteau operated the IPR-11 receiver.

Larry Robidoux:
Mr. Robidoux operated the IP transmitter.

Several field assistants were also engaged by JVX for the IP/Resistivity survey and magnetometer survey.

Andrew Hwang (Geophysicist):
Mr. Hwang assisted in processing the data and prepared this report.

Irina Dorodnova (Technologist):
Ms. Dorodnova processed and plotted the data.

Dagmar Piska (Draftsperson):
Ms. Piska carried out the manual and AutoCAD drafting on the figures/plates and assembled this report.

Blaine Webster (President, JVX Ltd.):
Mr. Webster provided overall supervision of the survey.

4. FIELD INSTRUMENTATION and POLE-DIPOLE ARRAY

JVX supplied the geophysical instruments specified in Appendix A.

4.1 IP TRANSMITTER

The **Scintrex TSQ-3/3.0 kW** Time Domain Transmitter powered by a ten-horsepower motor generator was employed. The transmitter generates a square-wave current output with a period of 4, 8, or 16 seconds. A digital multimeter in series with the transmitter was used to measure the magnitude of the current output.

4.2 IP RECEIVER

The **Scintrex IPR-11** Time Domain Receiver was utilized. This unit samples the voltage decay curve as measured by the potential electrodes at ten time-slices. The readings were repeated until they converged to within an acceptable tolerance level, and the data were stored in solid-state memory.

4.3 POLE-DIPOLE ARRAY

The "pole-dipole" survey configuration was used. Typically, it is made up of 8 mobile electrodes: one current electrode C_1 and seven potential electrodes (P_1 to P_7 connected to the receiver by means of the "snake"). The infinity current electrode location C_2 is maintained at a large distance from the grid. This distance is typically about 10 times the potential electrode spacing "a" times 6 (the maximum number of "n" used in the pole-dipole survey). In this pole-dipole survey, a=50 m, and n=1 to 6.

4.4 MAGNETOMETER

A **GEM GSM-19 Magnetometer System** was employed to measure the Total Magnetic Field intensity over the grid. To provide for corrections to both the diurnal variation and the reference field intensity values, a **Scintrex IGS-2** Magnetometer was used as the Base Station monitor

5. DATA PROCESSING

The data processing tasks consisted of (a) the application of standard magnetic data corrections to remove diurnal variations where appropriate, and (b) specialized treatment in the processing of the IPR-11 data, the latter being detailed as follows:

5.1 IPR-11 DATA PROCESSING / COMPILATION

JVX has recently developed specialized and proprietory software that not only converts IPR-11 field data to the better standard IPR-12 data format (to facilitate the utilization of Geosoft for convenient subsequent data display purposes), but also computes the Spectral-M and time-constant TAU values based on the time-decay characteristics of the ten chargeability slices contained in the IPR-11 data. As per Scintrex' treatment of IPR-12 data, the frequency exponent factor, c, has been kept fixed at c=0.25. The program checks for reasonably monotonic decay of the chargeabiliy with time, etc., and if acceptable, would search the database for the best-fit curve, from which the appropriate spectral values can be derived.

Numerous IPR-11 field-datasets have been processed via the above algorithm, and the results have been found to compare well with similarly surveyed IPR-12 results.

6. CLOSING COMMENTS

The colour plots of the Chargeability and Resistivity (n=2) plan maps (cf. Plates 1 and 3) showed interesting zones of relatively high chargeabilities in the central region of the survey grid, occurring mostly coincident with resistivity lows. It is recommended that IP Lines 7200E and 7800E be extended some 500 m further to the north, to provide for adequate coverage of the observed IP-anomaly, if field conditions permit.

One set of Stacked Pseudosections of both the Chargeability as well as the Resistivity are included in this report. Note the importance of the interpretative value of these stacked pseudosections in that they have a universal (ie. common) colouring-scheme applied to each of the two maps plotted. This contrasts with the standard individual color pseudosections (also enclosed); the latter colouring-scheme emphasises the *relative* magnitude of the values posted, on a line-by-line basis.

Since the client does not require an interpretative report, only a logistical report has been written.

If there are questions with regard to the survey, kindly contact the undersigned.

Respectfully submitted,

JVX LIMITED

Andrew G. Hwang, Ph.D.
Geophysicist

for Blaine Webster, B.Sc.
President, JVX Ltd.

March, 1997
(JVX Ref. 9682)

APPENDIX A

SCINTREX IPR-11 Broadband Time Domain IP Receiver



Operator using the IPR-11

The microprocessor-based IPR-11 is the heart of a highly efficient system for measuring, recording and processing spectral IP data. More features than any remotely similar instrument will help you enhance signal/noise, reduce errors and improve data interpretation. On top of all this, tests have shown that survey time may be cut in half, compared with the instrument you may now be using.

The IPR-11 Broadband Time Domain IP Receiver is principally used in electrical (EIP) and magnetic (MIP) induced polarization surveys for disseminated base metal occurrences such as porphyry copper in acidic intrusives and lead-zinc deposits in carbonate rocks. In addition, this receiver is used in geoelectrical surveying for deep groundwater or geothermal resources. For these latter targets, the induced polarization measurements may be as useful as the high accuracy resistivity results since it often happens that geological materials have IP contrasts when resistivity contrasts are absent. A third application of the IPR-11 is in induced polarization research projects such as the study of physical properties of rocks.

Due to its integrated, microprocessor-based design, the IPR-11 provides a large amount of induced polarization transient curve shape information from a remarkably compact, reliable and flexible format. Data from up to six potential dipoles can be measured simultaneously and recorded in solid-state memory. Then, the IPR-11 outputs data as: 1) visual digital display, 2) digital printer profile or pseudo-section plots, 3) digital printer listing, 4) a cassette tape or floppy disk record, 5) to a microcomputer or 6) to a modem unit for transmission by telephone. Using software available from Scintrex, all spectral IP and EM coupling parameters can be calculated on a microcomputer.

The IPR-11 is designed for use with the Scintrex line of transmitters, primarily the TSQ series of current and waveform stabilized models. Scintrex has been active in induced polarization research, development, manufacture, consulting and surveying for over thirty years and offers a full range of time and frequency domain instrumentation as well as all accessories necessary for IP surveying.

Technical Description of the IPR-11 Broadband Time Domain IP Receiver

Digital Display	Two, 4 digit LCD displays. One presents data, either measured or manually entered by the operator. The second display: 1) indicates codes identifying the data shown on the first display, and 2) shows alarm codes indicating errors.
Analog Meters	Six meters for: 1) checking external circuit resistance, and 2) monitoring input signals.
Digital Data Output	RS-232C compatible, 7 bit ASCII, no parity, serial data output for communication with a computer, digital printer, digital storage device or modem.
Standard Rechargeable Power Supply	Eight rechargeable NiCad D cells provide approximately 15 hours of continuous operation at 25°C. Supplied with a battery charger, suitable for 110/230V, 50 to 400 Hz, 10W.
Disposable Battery Power Supply	At 25°C, about 40 hours of continuous operation are obtained from 8 Eveready E95 or equivalent alkaline D cells. At 25°C, about 16 hours of continuous operation are obtained from 8 Eveready 1150 or equivalent carbon-zinc D cells.
Dimensions	345 mm x 250 mm x 300 mm, including lid.
Weight	10.5 kg, including batteries.
Operating Temperature Range	-20 to +55°C, limited by display.
Storage Temperature Range	-40 to +60°C.
Standard Items	Console with lid and set of rechargeable batteries, RS-232C cable and adapter, 2 copies of manual, battery charger.
Optional Items	Multidipole Potential Cables, Data Memory Expansion Blocks, Crystal Clock, SOFT II Programs, Printer, Cassette Tape Recorder, Disk Drive or Modem.
Shipping Weight	25 kg includes reusable wooden shipping case.

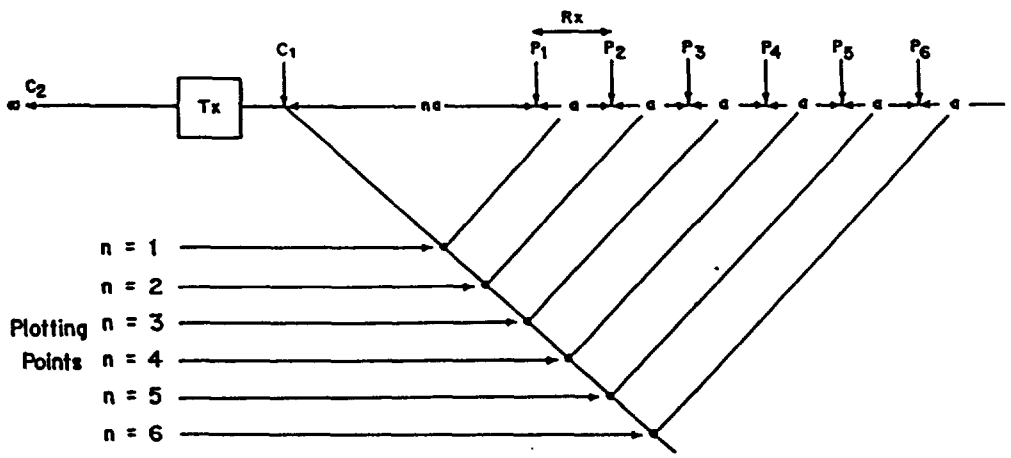
At Scintrex we are continually working to improve our line of products and beneficial innovations may result in changes to our specifications without prior notice.

SCINTREX

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Geophysical and Geochemical
Instrumentation and Services



ARRAY GEOMETRY

Apparent Resistivity:

$$\rho_a = 2\pi\ na(n+1)\ Vp/I$$

where
- ρ_a = apparent resitivity (ohm.m)
- n = dipole number (dimensionless)
- a = dipole spacing (m)
- Vp = primary voltage (mV)
- I = primary current (mA)

Pole-Dipole Array
Array Geometry and Formula for Apparent Resistivity

SCINTREX TSQ-3 3000 W

Time and Frequency Domain IP and Resistivity Transmitter

Function

The TSQ-3 is a multi-frequency, square wave transmitter suitable for induced polarization and resistivity measurements in either the time or frequency domain. The unit is powered by a separate motor-generator.

The favourable power/weight ratio and compact design of this system make it portable and highly versatile for use with a wide variety of electrode arrays. The medium range power rating is sufficient for use under most geophysical conditions.

The TSQ-3 has been designed primarily for use with the Scintrex Time Domain and Frequency Domain Receivers, for combined induced polarization and resistivity measurements, although it is compatible with most standard time domain and frequency domain receivers. It is also compatible with the Scintrex Commutated DC Resistivity Receivers for resistivity surveying. The TSQ-3 may also be used as a very low frequency electromagnetic transmitter.

Basically the transmitter functions as follows. The motor turns the generator (alternator) which produces 800 Hz, three phase, 230 V AC. This energy is transformed upwards according to a front panel voltage setting by a large transformer housed in the TSQ-3. The resulting AC is then rectified in a rectifier bridge. Commutator switches then control the DC voltage output according to the waveform and frequency selected. Excellent output current stability is ensured by a unique, highly efficient technique based on control of the phase angle of the three phase input power.

Features

Current outputs up to 10 amperes, voltage outputs up to 1500 volts, maximum power 3000 VA.

Solid state design for both power switching and electronic timing control circuits.

Circuit boards are removable for easy servicing.

Switch selectable wave forms: square wave continuous for frequency domain and square wave interrupted with automatic polarity change for time domain.

Switch selectable frequencies and pulse times.

Overload, underload and thermal protection for maximum safety.

Digital readout of output current.

Programmer is crystal controlled for very high stability.

Low loss, solid state output current regulation over broad range of load and input voltage variations.

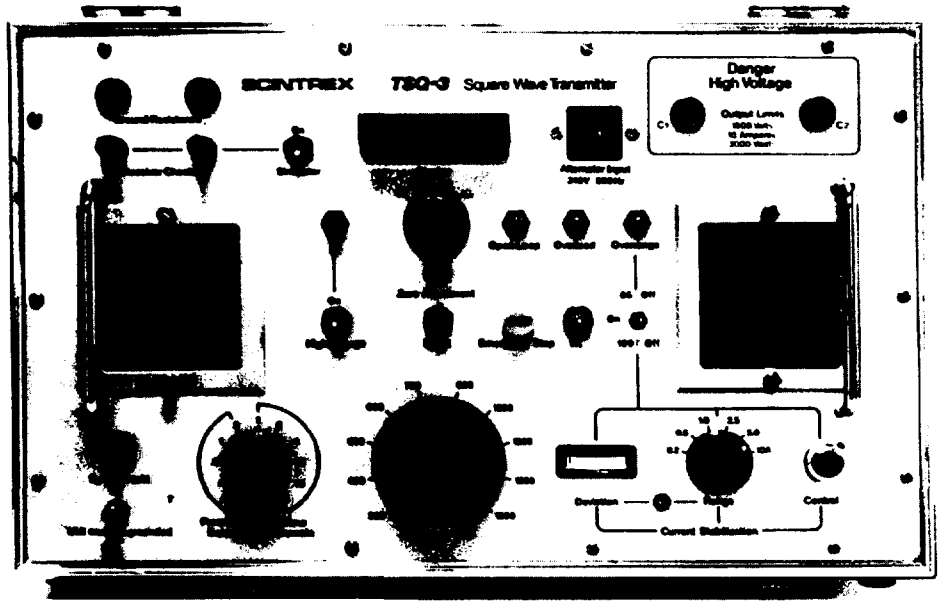
Rectifier circuit is protected against transients.

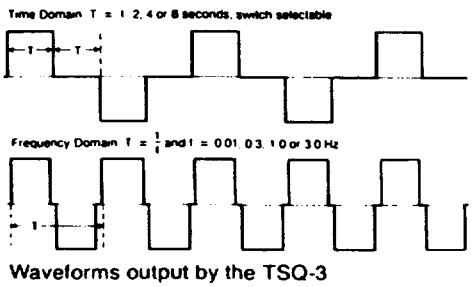
Excellent power/weight ratio and efficiency.

Designed for field portability; motor-generator is installed on a convenient frame and is easily man-portable. The transmitter is housed in an aluminum case.

The motor-generator consists of a reliable Briggs and Stratton four stroke engine coupled to a brushless permanent magnet alternator.

New motor-generator design eliminates need for time domain dummy load.





Waveforms output by the TSQ-3

Technical Description of TSQ-3/3000W Time and Frequency Domain IP and Resistivity Transmitter



TSQ-3 transmitter with portable motor generator unit

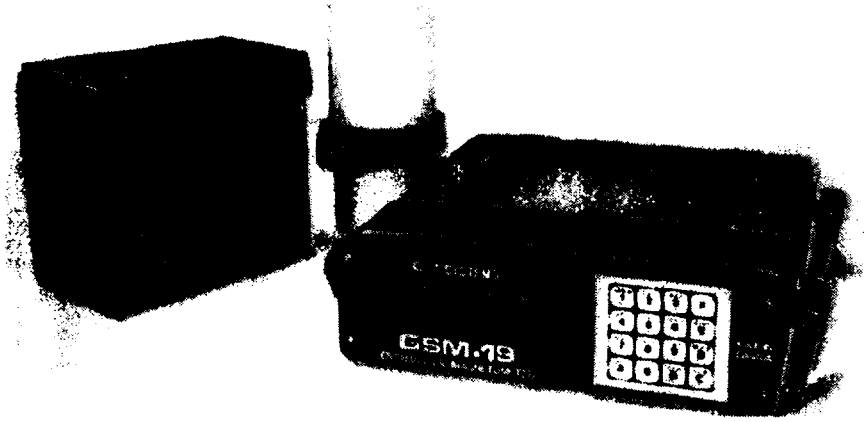
Transmitter Console	
Output Power	3000 VA maximum
Output Voltages	300, 400, 500, 600, 750, 900, 1050, 1200, 1350 and 1500 volts, switch selectable
Output Current	10 amperes maximum
Output Current Stability	Automatically controlled to within ±0.1% for up to 50% external load variation or up to ±10% input voltage variation
Digital Display	Light emitting diodes permit display up to 1999 with variable decimal point; switch selectable to read input voltage, output current, external circuit resistance. Dual current range, switch selectable
Absolute Accuracy	± 3% of full range
Current Reading Resolution	10 mA on coarse range (0-10A) 1 mA on fine range (0-2A)
Frequency Domain Waveform	Square wave, continuous with approximately 6% off time at polarity change
Frequency Domain Frequencies	Standard: 0.033, 0.1, 0.3, 1.0 and 3.0 Hz, switch selectable Optional: any number of frequencies in range 0 to 5 Hz.
Time Domain Cycle Timing	t:t:t:t,on:off:on:off;automatic
Time Domain Polarity Change	each 2t; automatic
Time Domain Pulse Durations	Standard: t = 1, 2, 4, 8, 16 or 32 seconds Optional: any other timings
Period Time Stability	Crystal controlled to better than .01%. An optional high stability clock provides stabilization to better than 1 ppm over -20/ + 50° C.
Efficiency	.78
Operating Temperature Range	-30° C to + 50° C
Overload Protection	Automatic shut-off at 3300 VA
Underload Protection	Automatic shut-off at current below 100 mA
Thermal Protection	Automatic shut-off at internal temperature of + 85° C
Dimensions	350 mm x 530 mm x 320 mm
Weight	25.0 kg.
Power Source	
Type	Motor flexibly coupled to alternator and installed on a frame with carrying handles.
Motor	Briggs and Stratton, four stroke, 8 H.P.
Alternator	Permanent magnet type, 800 Hz, three phase 230 V AC.
Output Power	3500 VA maximum
Dimensions	520 mm x 715 mm x 560 mm
Weight	72.5 kg.
Total System	
Shipping Weight	150 kg includes transmitter console, motor generator, connecting cables and re-usable wooden crates.

SCINTREX

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FAX: (416) 669-5132
Cable: Geoscint Toronto

Geophysical and Geochemical
Instrumentation and Services



GSM-19

Proton Magnetometer/VLF System

GSM-19 PROTON MAGNETOMETER/VLF

Proton Magnetometer/VLF System

Features:

- Omnidirectional Magnetometer with VLF.
- Remote control for observatory and airborne base station applications.
- Streamlined grid coordinate system with "end of line" quick change capability.
- 128kb basic memory, expandable to 2MB.
- Programmable RS-232 high-speed data transfer to 19.2kb.
- 50 and 60Hz filter, user selectable.
- Automatic tuning and base station synchronization.

General

The GSM-19 is a state-of-the-art magnetometer/VLF system that delivers quality data and the extensive capabilities required to perform a broad spectrum of applications. Whether the application calls for detailed ground surveys, or remotely controlled magnetic observatory measurements, you can count on the GSM-19 system to meet your goals.

The proton magnetometer can be equipped with gradiometer or VLF options, and is upgradable to an Overhauser Magnetometer.

Simultaneous Gradiometer

Many mining, environmental, and archaeological applications call for high-sensitivity gradiometer surveys. The GSM-19 meets these needs in several ways. For example, simultaneous measurement of the magnetic field at both sensors eliminates diurnal magnetic effects.

"Walking" Magnetometer/Gradiometer

The "Walking" option enables acquisition of nearly continuous data on survey lines. Data is recorded at discrete time intervals (up to 2 readings-per-second) as the instrument travels along the line.

Omnidirectional VLF

With the omnidirectional VLF option, up to three stations of VLF data can be acquired without orienting. Moreover, the operator can record both magnetic and VLF data with a single stroke on the keypad.

Remote Control Operation

When used during observatory, marine, and airborne base station applications, this option allows users to set parameters and initiate measurements from a computer terminal using standard RS-232 commands. A real-time transmission capability is provided to allow data quality monitoring while marine or vehicle borne surveys are in progress.

Automatic Tuning

Tuning is automatic in all modes of operation with initial preset. An override option is also provided for manual and remote modes. Tuning steps are 1,000 gammas wide.

Adaptability to High Gradients

In standard instruments, a gradient in the magnetic field across the sensor volume can shorten the decay time of the proton precession signal. However, the GSM-19 monitors the signal decay, and calculates the optimal time interval for measurement. Warning messages appear on the display when the measuring interval becomes too short.

Specifications

Performance

Resolution: 0.01nT

Relative Sensitivity: 0.2nT

Absolute Accuracy: 1nT

Range: 20,000 to 120,000nT

Gradient Tolerance: Over 7,000nT/m

Operating Temperature: -40°C to +60°C

Operating Modes

Manual: Coordinates, time, date and reading stored automatically at min. 3 second interval.

Base Station: Time, date and reading stored at 3 to 60 second intervals.

Mobile: Time, date and reading stored at coordinates of fiducial.

Remote Control: Optional remote control using RS-232 interface.

Input/Output: RS-232 or analog (optional) output using 6-pin weatherproof connector.

Storage Capacity

Manual Operation: 8,000 readings standard. 131,000 optional.

Base Station: 43,000 readings standard, 700,000 optional.

Gradiometer: 6,800 readings standard, 110,000 optional.

Dimensions and Weights

Dimensions: Console: 223 x 69 x 240mm. Sensor: 170 x 71mm diameter cylinder.

Weight: Console: 2.1kg. Sensor and Staff Assembly: 2.2kg

Standard Components

GSM-19 console, batteries, harness, charger, case, sensor with cable, connector, staff, and instruction manual.

Ordering Information

Description	Order Number
GSM-19 Proton Mag	350-170-0039
Gradiometer Option	350-170-0042
VLF Option	350-170-0069
Memory Upgrade, 128kb	350-170-0063
Analog Output	350-170-0040
Remote Option	350-170-0043

SCINTREX IGS

Integrated Portable Geophysical System

Scintrex has used low power consumption microprocessors and high density memory chips to create the IGS Integrated Portable Geophysical System; instrumentation which will change the way you do ground geophysics.

Here are the main benefits which you will derive from the IGS family of instrumentation:

1. Depending on your choice of optional sensors you can make one, two or all of: magnetic, VLF and electromagnetic measurements. Thus, you may optimize the IGS system for different geophysical conditions and production requirements.

2. You will save time and money in the acquisition, processing and presentation of ground geophysical survey data.

3. You will achieve an improvement in the quality of data through enhanced reading resolution, an increase in the number of different parameters measured and/or a higher density of observations. Further, errors which occur in manual transcription and calculation will be eliminated.

4. Your operator will appreciate the simplicity of operation achieved through automation.

5. Since add-on sensors are relatively less expensive, your investment in a range of IGS instrumentation may be much less than it would be with a number of different instruments, each dedicated to a different measurement.



The Scintrex IGS-2/MP-4/VLF-4/EM-4 permits one operator to efficiently measure magnetic, VLF and EM fields and to record data in computer compatible solid-state memory.

System Options and Accessories

SCINTREX

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A. **Console and Power Supply**

A-1 IGS-2 System Control Console with 16K RAM memory and manual. Note that no battery pack is included so that one of items A-2, A-3 or A-4 should be selected unless the IGS is to be run from an external 12 V DC power source. The battery packs are interchangeable by the user.

A-2 Non-rechargeable Battery Pack includes battery holder and 10 disposable 'C' cell batteries. Used in normal portable operation unless temperatures are below -20°C in which case the Rechargeable Battery Pack and Charger should be chosen.

A-3 Rechargeable Battery Pack and Charger includes battery holder, 6 rechargeable non-magnetic batteries, charger and one spare cap for the battery charging plug. This is the best battery pack for portable total field and gradiometer magnetics since the non-magnetic property of these batteries ensures a minimum of noise. Also used for light duty (slow cycling) magnetic base station applications and in cold weather where disposable batteries lose power.

A-4 Heavy Duty Rechargeable Battery Pack includes heavy duty rechargeable batteries installed in a console with a built-in charger. Useful for rapid cycling base station or mobile applications.

A-5 Low Temperature Battery Extender Kit designed so that battery pack can be worn inside coat in cold weather conditions. Kit includes bottom cover for console, console to battery pack interconnecting cable, cover for battery pack and waist belt.

B. **Memory Expansion Options**

B-1 IGS Memory Expansion I. An additional 16K RAM is added to the existing memory board for a system total of 32K RAM.

B-2 IGS Memory Expansion II. A further 16K RAM is added to the existing memory board for a system total of 48K RAM.

B-3 IGS Memory Expansion III. An additional board is required on which memory can be added in up to six 16K RAM groups. Not available with all sensor options.

B-4 Further Memory Expansion. Memory expansion to a system total of 192K RAM is feasible for some applications.

C. **Accessories**

C-1 RS-232 Cable and Adaptors. Includes a special RS-232 data transfer cable and two IGS-2 to RS-232 cable adaptors. Used for communicating between the IGS-2 and peripheral devices such as a digital printer, microcomputer, cassette recorder, modem or a second IGS-2 (or MP-3 Proton Magnetometer) for diurnal corrections.

C-2 Minor Spare Parts Kit consisting of two keyboard diaphragms and two 2A quick acting fuses.

C-3 Display Heater Option. Required to heat the LCD display on the IGS-2 Console for operation at temperatures below -20°C.

C-4 Digital Printer for use with 110 V AC power supply and with X-on/X-off interfacing for use with IGS-2, MP-3 or VLF-3 instruments, one box of paper, ribbon and manual. Note that the RS-232 Cable and Adaptor are required.

C-5 Conversion of Digital Printer for use with 220 V AC power supply.

D. **MP-4 Proton Magnetometer Sensor Option**

D-1 MP-4 Magnetometer Signal Processing Board and Magnetometer Program EPROM for mounting in IGS-2 Control Console, manual.

D-2 Portable Total Field Sensor Option including sensor for total field measurements, sensor staff, two sensor cable assemblies, backpack sensor harness, spare non-magnetic sensor clamp screw.

D-3 Base Station Sensor Option, including 50 m sensor cable assembly, sensor for total field measurements, sensor tripod, external power cable, analog chart recorder cable and spare non-magnetic sensor clamp screw.

D-4 Gradiometer Sensor Option including second sensor cables, two 0.5 m staff extenders to complement Portable Sensor Option and spare non-magnetic sensor clamp screw.

D-5 Spare section for Portable Total Field Sensor Staff (0.5 m length).

E. **VLF-4 VLF Electromagnetic Sensor Option**

E-1 Two VLF-4 Signal Processing Boards and VLF program EPROM for mounting inside IGS-2 System Control Console, dual coil VLF-magnetic field sensor with level compensator, sensor-console interconnecting cable, harness and support for back mounting of sensor, manual.

E-2 VLF EM Primary Field Drift Correction Option consisting of two program EPROMS which replace the standard VLF program EPROMS in each of the portable and base station VLF units.

E-3 VLF Electric Field Sensor Option for VLF resistivity measurements. Includes two capacitive electrodes with integral preamplifiers and 5 m of cable. Longer cable lengths on request.

F. **EM-4 Genie/Horizontal Loop Electromagnetic Sensor Option**

F-1 Two EM-4 Signal Processing Boards for mounting either inside IGS-2 System Control Console or the EM-4 Genie/Horizontal Loop Expansion Module, one program EPROM for mounting inside IGS-2, one receive coil, one interconnecting cable, manual.

F-2 EM-4 Tiltmeter/Intercom Module. Permits Horizontal Loop measurements to be made with magnetics but without VLF.

F-3 EM-4 Genie/Horizontal Loop Expansion Module. Permits Horizontal Loop measurements to be made with both magnetics and VLF.

F-4 Genie/Horizontal Loop Portable Electromagnetic Transmitter complete with heavy duty battery pack, battery charger, manual.

F-5 TM-2 Tiltmeter/Intercom Module used with TM-2 when Horizontal Loop measurements are to be made.

F-6 Transmitter-Receiver Interconnecting Cables for Horizontal Loop measurements are made to order, in any lengths up to 300m.

G. Carrying Cases

A variety of carrying cases are available to suit different combinations of console and sensor options.

APPENDIX B

LIST OF PLATES

Plate 1:	Resistivity (n=2) Colour Contour Map; Scale 1:20000; 3 sets enclosed.
Plate 2:	Resistivity (n=2) B/W Contour Map; Scale: 1:5000; overlaid onto Base Map supplied by client.
Plate 3:	Chargeability (M7, n=2) Colour Contour Map; Scale 1:20000; 3 sets enclosed.
Plate 4:	Chargeability (M7, n=2) B/W Contour Map; Scale: 1:5000; overlaid onto Base Map supplied by client.
Plate 5:	Total Field Magnetic Profiles with Posted values overlaid on top of Base Map; Scale 1:5000.

In addition, the Standard Pseudosection plots, at a scale of 1:5000 (3 sets in colour, and 1 set in B/W) for each of the IP lines (6000E, 6400E, 6800E, 7200E, 7800E, 8000E, 8400E, 8800E, 9200E, 9600E, 10000E, and 10400E) are attached to this report. These plots include the four IP parameters: Chargeability, Resistivity, Spectral-MIP, and TAU (the Time Constant). They are plotted together as a combined plot, for each of the lines surveyed.

Appendix XVII : **LIST OF WMC PERSONNEL & SALARIES (1995-1997)**

NAME	POSITION	DAILY RATE	TOTAL DAYS*	SALARIES
CJ Baker	Senior Geologist	$250.00	61	$15,250.00
Terry Goodwin	Geochemist	$250.00	20	$5,000.00
Steve McGlade	Junior Assistant	$100.00	7	$700.00
Manfred Hebel	Junior Assistant	$100.00	7	$700.00
Tyler McKinnon	Junior Assistant	$100.00	7	$700.00
Craig Finnigan	Junior Assistant	$100.00	9	$900.00
Charles Baker	Junior Assistant	$100.00	23	$2,300.00
Roman Tykajlo	Senior Geophysicist	$250.00	8	$2,000.00
Anthony Christensen	Geophysicist	$250.00	3	$750.00
Ann Collins	Database Geologist	$200.00	4	$800.00
Lo Wu	Senior Draftsman	$200.00	5	$1,000.00
Pam Chiles	Land Manager	$250.00	2	$500.00
TOTAL SALARIES for Doon Property 1995-1997				**$30,600.00**

*man-days actually worked on Doon Property and in the compilation of this report

Appendix XVIII : **ESTIMATE OF EXPENDITURES - DOON PROPERTY 1995-1997**

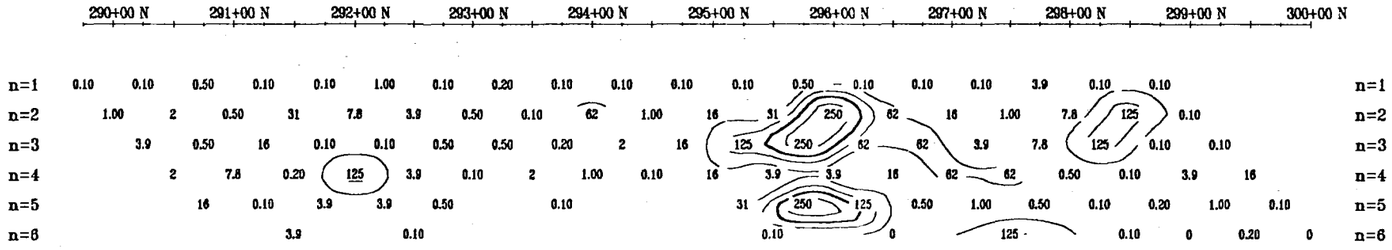
TYPE OF WORK	EXPENDITURE	COMPANY
Salaries (for mapping, sampling, report writing and drafting from Appendix 'x'	$30,600.00	WMC International
Linecutting 1000m- spaced lines 200m-spaced lines	 $46,940.00 $30,900.00	 Services Exploration Shortt Exploration
Reverse Circulation Drilling: -Drilling operations -Consulting services, logging, sampling and report	 $11,256.35 $16,292.54	 Heath & Sherwood (1986) Overburden Drilling Management (ODM)
Laboratory Costs: -Rock assaying -Till sample processing -Thin sections descriptions	 $1,265.00 $7,409.41 $230.00	 Swastika Assay Laboratories ODM Carlton University
Geophysical Surveys: -Resistivity soundings -IP/res, ground magnetics	 $11,168.22 $59,964.80	 Quantec Geophysics JVX Geophysics
Trenching Operations	$947.50	M. Leahy
Radio Rental	$561.60	Ottawa Communications
Transportation - Gas, maintenance on vehicle	$5,670.16	Esso
Accommodation (food, rent, motel, telephone)	$5,605.29	Guimond Real Estate, Bonair Motel, NorTel
Postage, stationery, printing	$1,558.27	Don's Office Supply, Purolator, Gilmore Graphics
Geological Consultant	$590.80	Howard Lovell
TOTAL	**$230,959.94**	

2.

17239

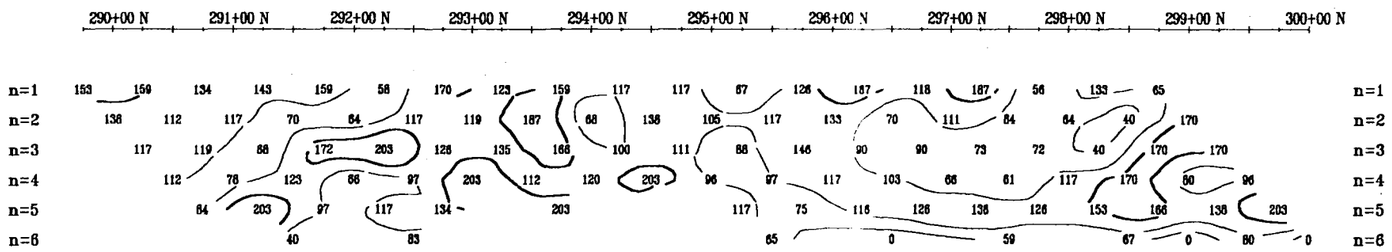
Line 6000 E

TAU (msec)



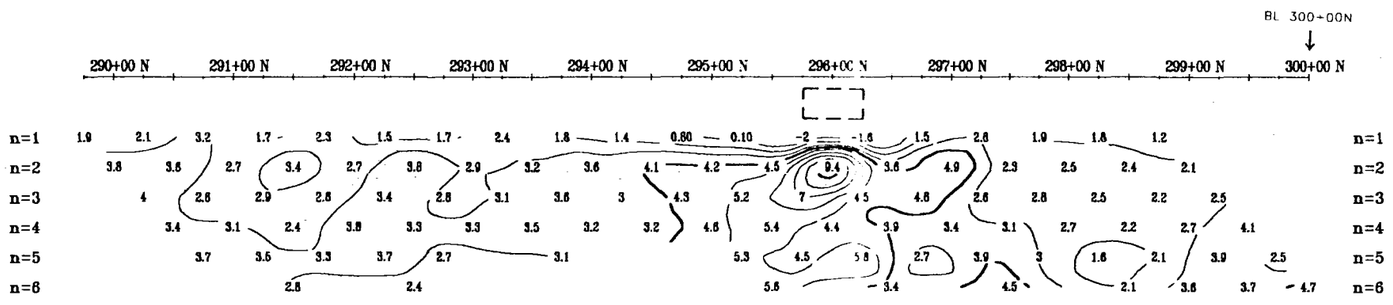
TAU (msec)

Spectral–M (mV/V)



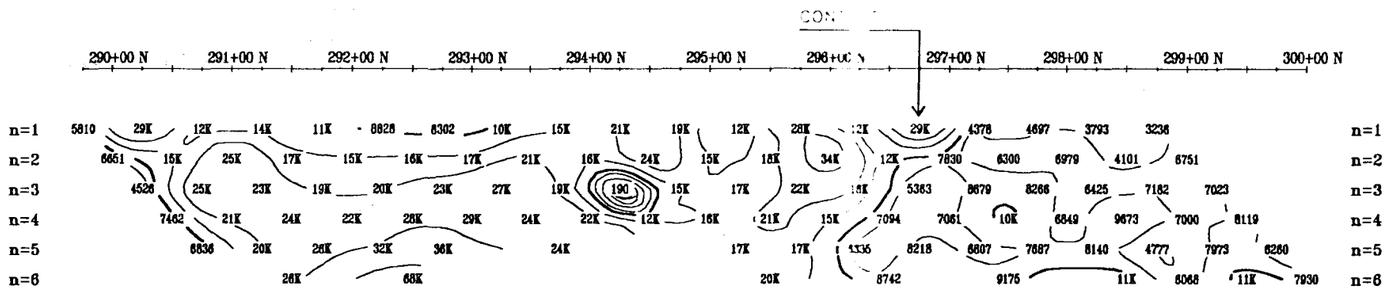
Spectral–M (mV/V)

Chargeability (mV/V)

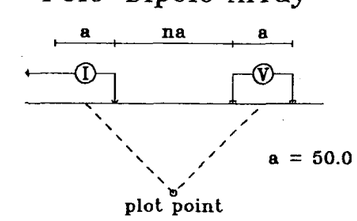


Chargeability (mV/V)

Resistivity (Ohm.m)



Resistivity (Ohm.m)



IP/Apparent Resistivity Anomaly

Definite

Probable

Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

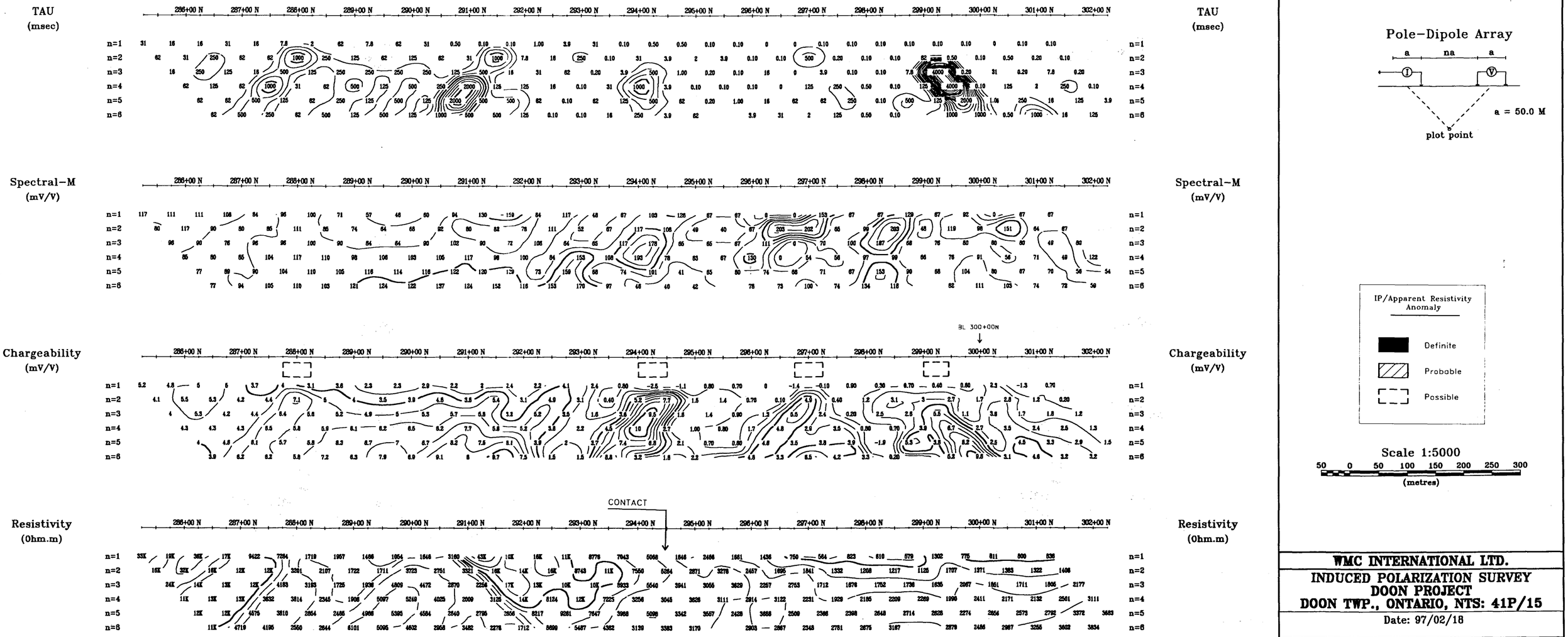
WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/17

JVX LTD. (Ref. 9682, Feb 1997)

Figure 11



Line 6400 E

Pole–Dipole Array

IP/Apparent Resistivity Anomaly

- Definite
- Probable
- Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

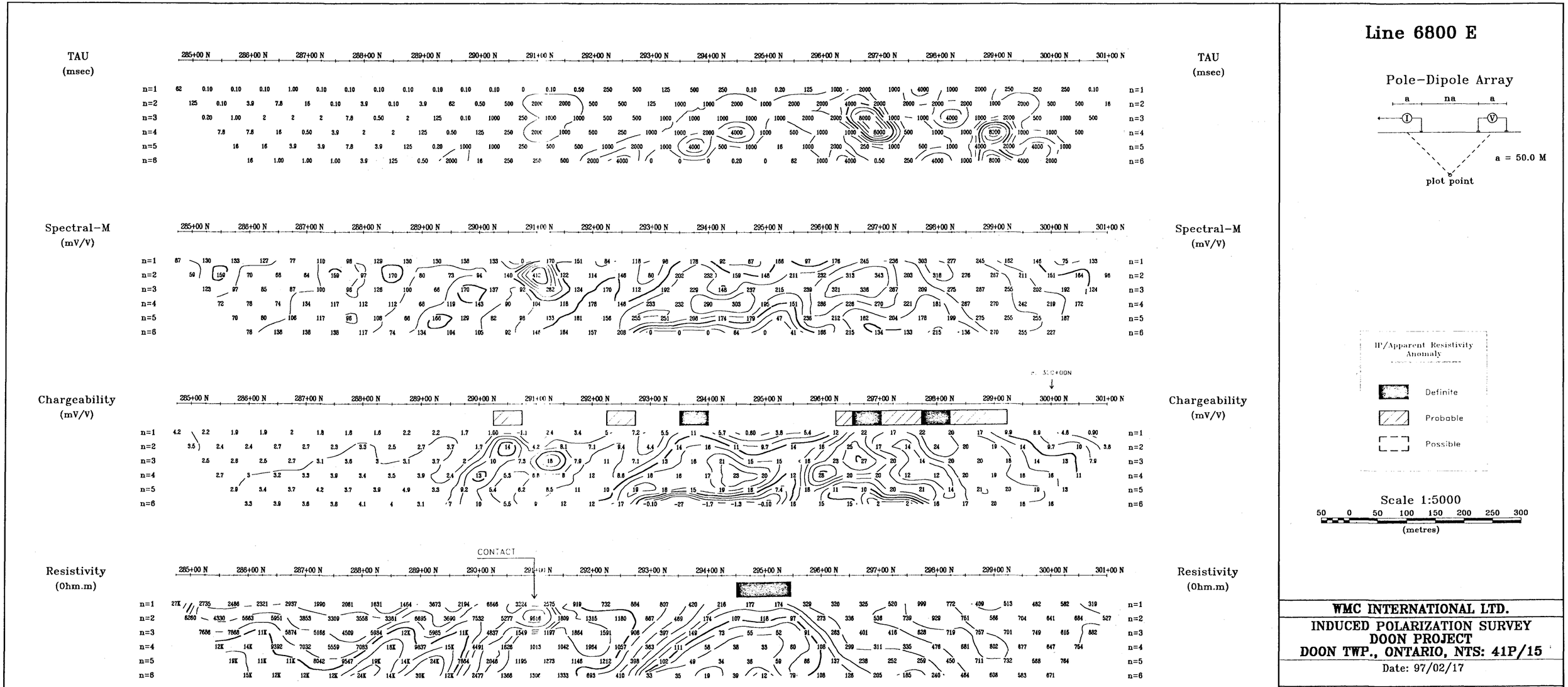
WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/18

JVX LTD. (Ref. 9682, Feb 1997)

Figure 12



Line 6800 E

Pole–Dipole Array

IP/Apparent Resistivity Anomaly

- Definite
- Probable
- Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

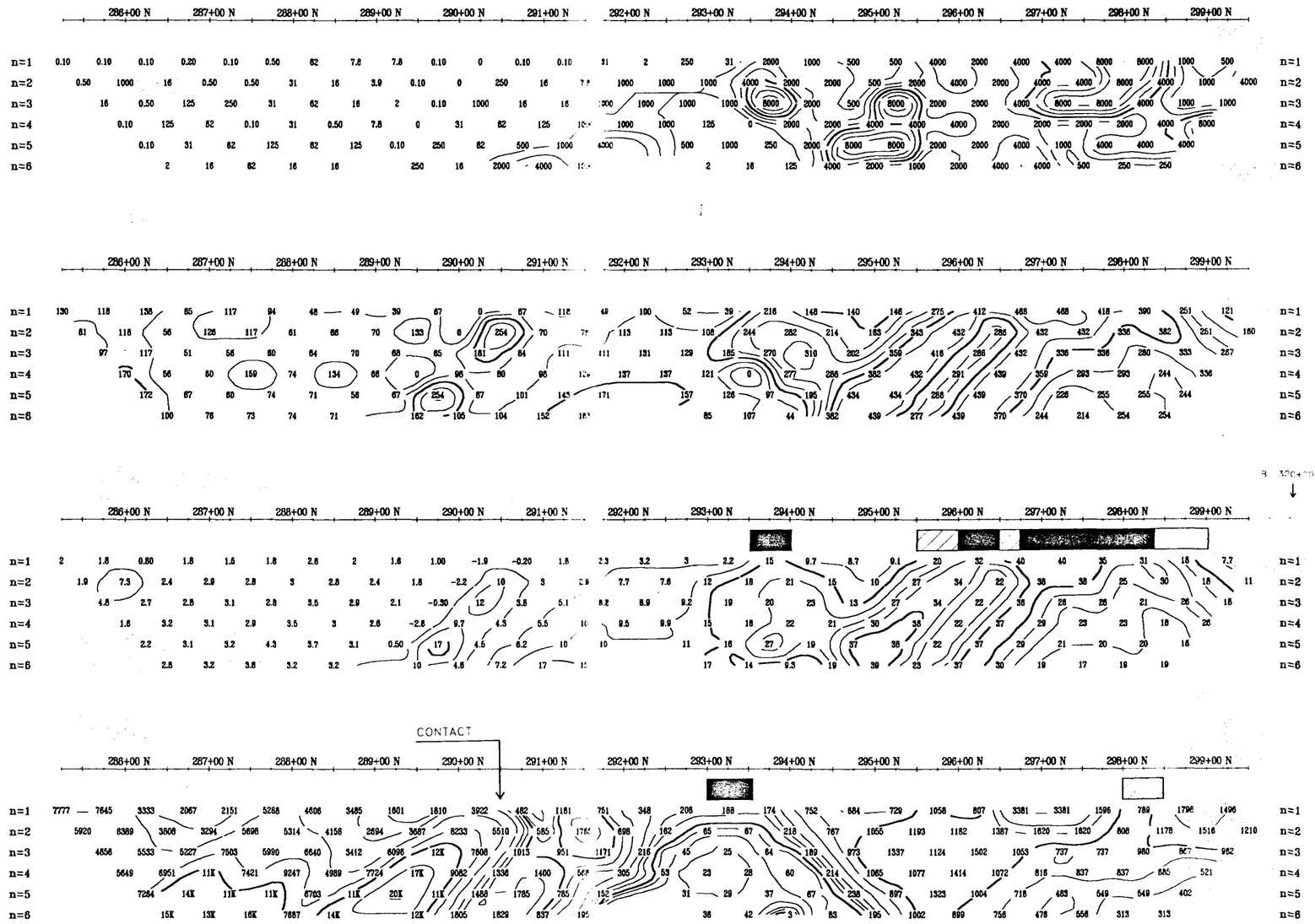
WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/17

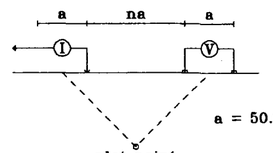
JVX LTD. (Ref. 9682, Feb 1997)

Figure 13



Line 7200 E

Pole-Dipole Array



IP/Apparent Resistivity Anomaly

- Definite
- Probable
- Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

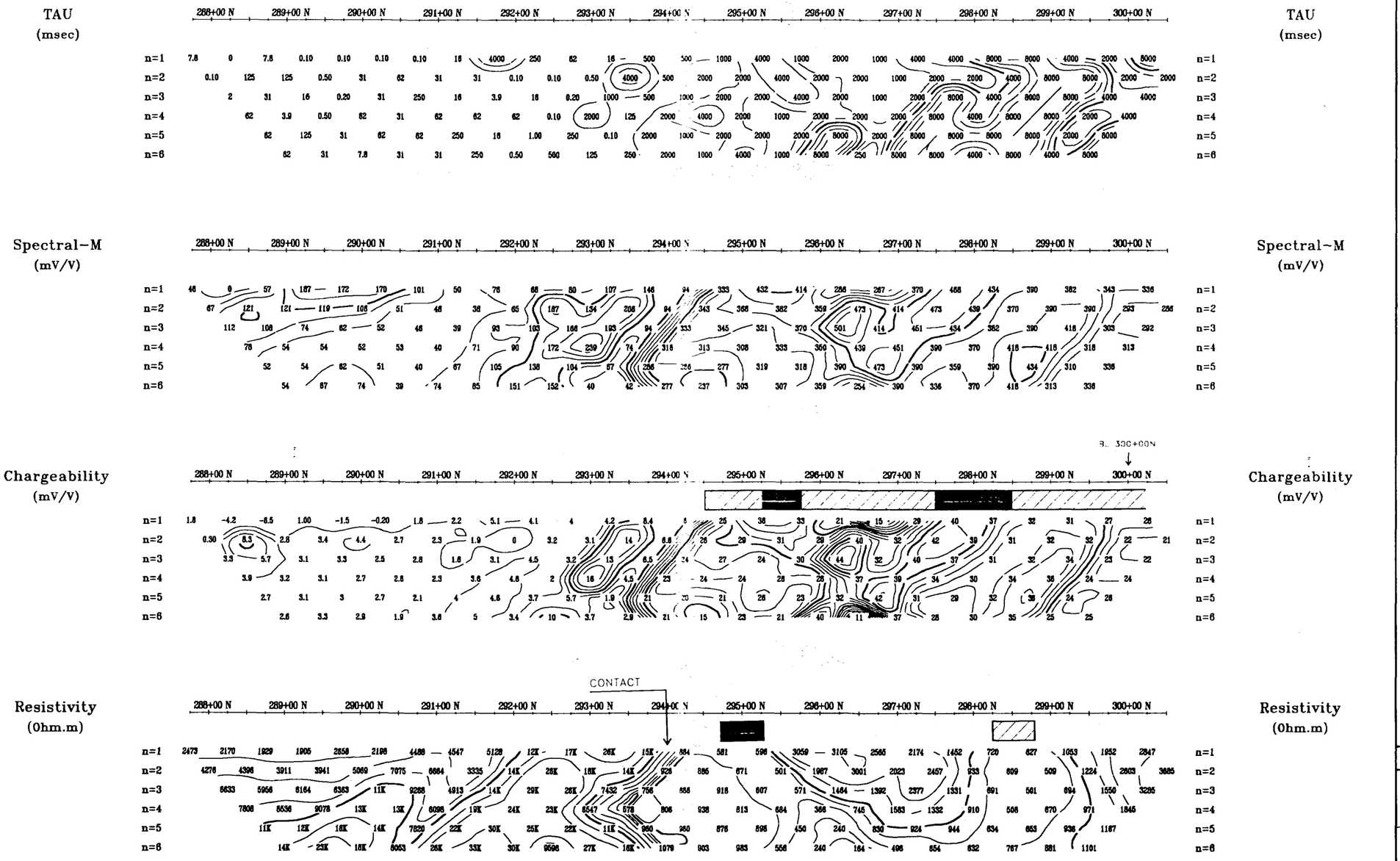
WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/17

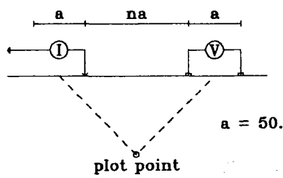
JVX LTD. (Ref. 9682, Feb 1997)

Figure 14



Line 7800 E

Pole-Dipole Array



IP/Apparent Resistivity Anomaly

- Definite
- Probable
- Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

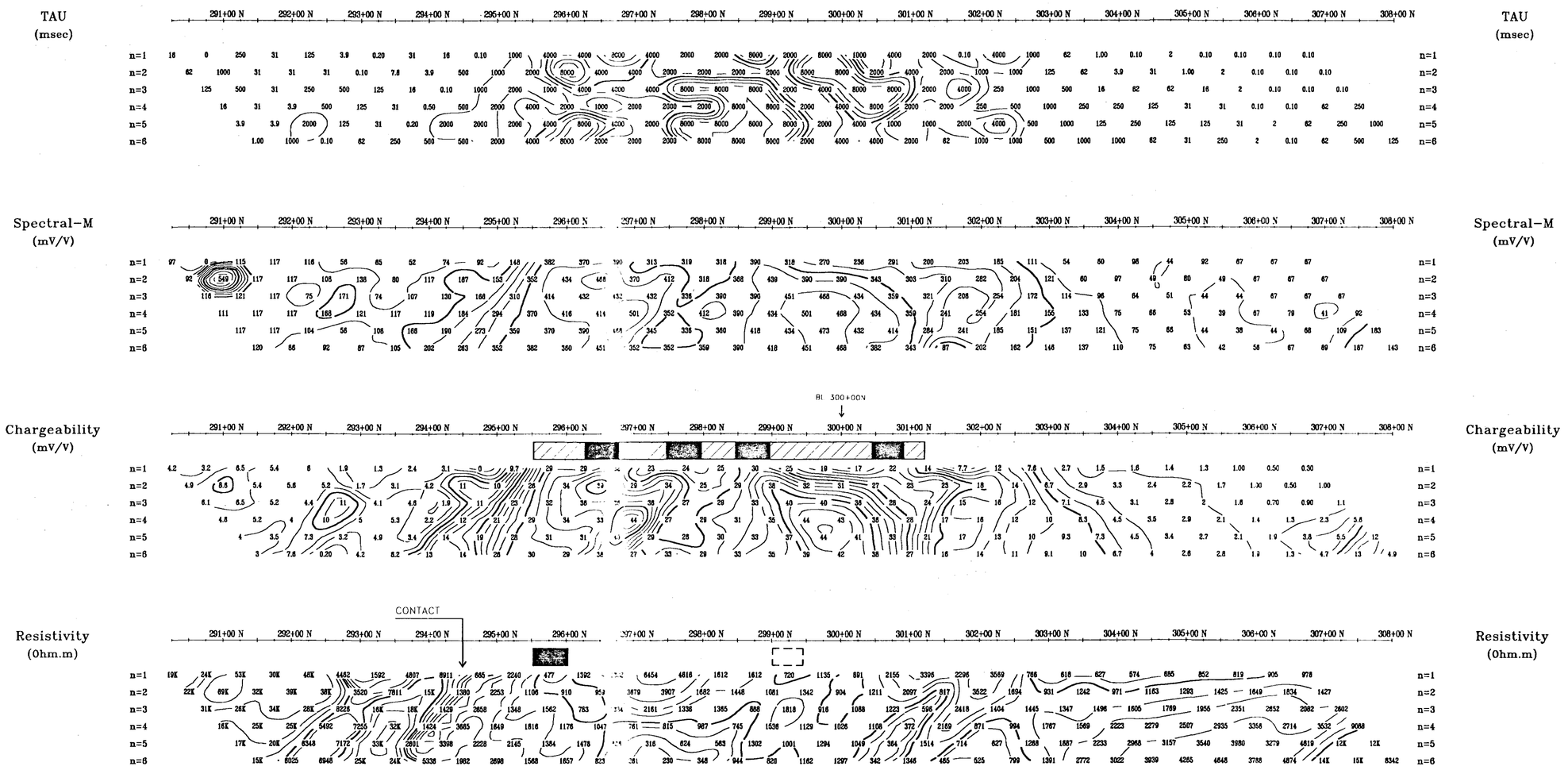
WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/17

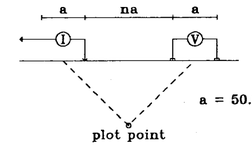
JVX LTD. (Ref. 9682, Feb 1997)

Figure 15



Line 8000 E

Pole–Dipole Array



IP/Apparent Resistivity Anomaly

- Definite
- Probable
- Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

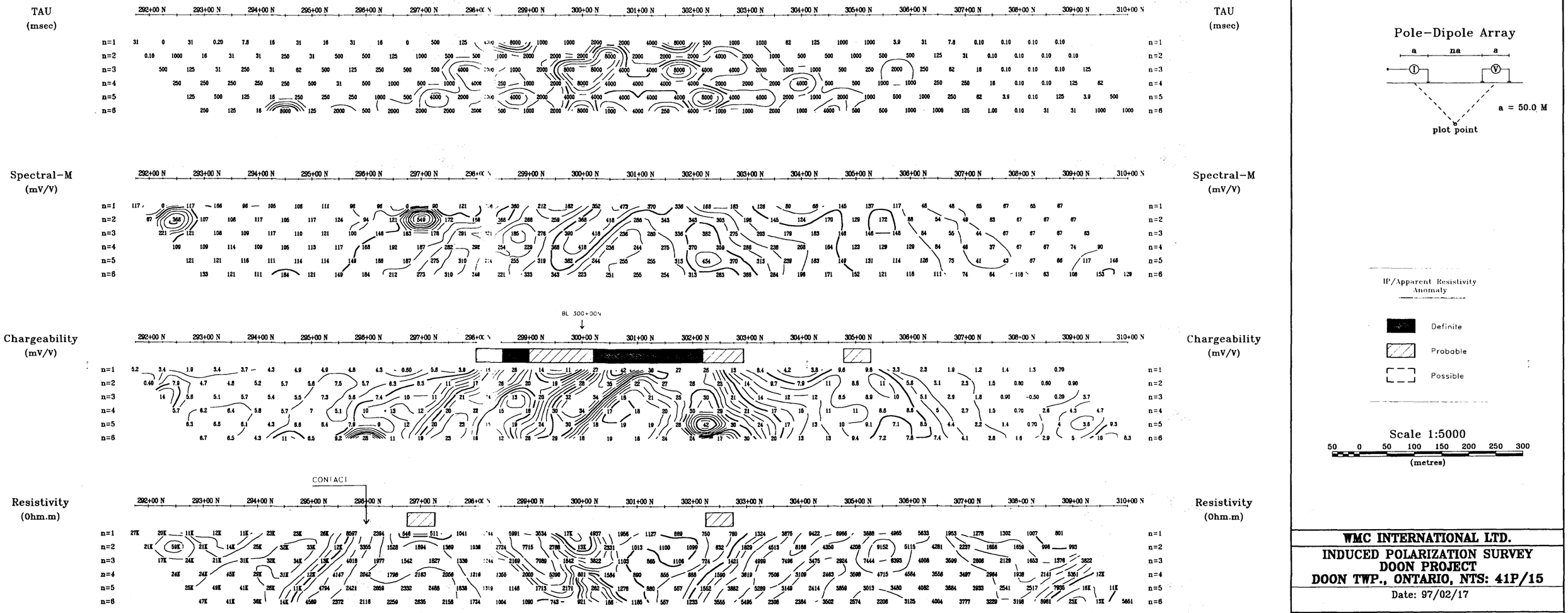
WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/17

JVX LTD. (Ref. 9682, Feb 1997)

Figure 16



Line 8400 E

Pole-Dipole Array

IP/Apparent Resistivity Anomaly

- Definite
- Probable
- Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

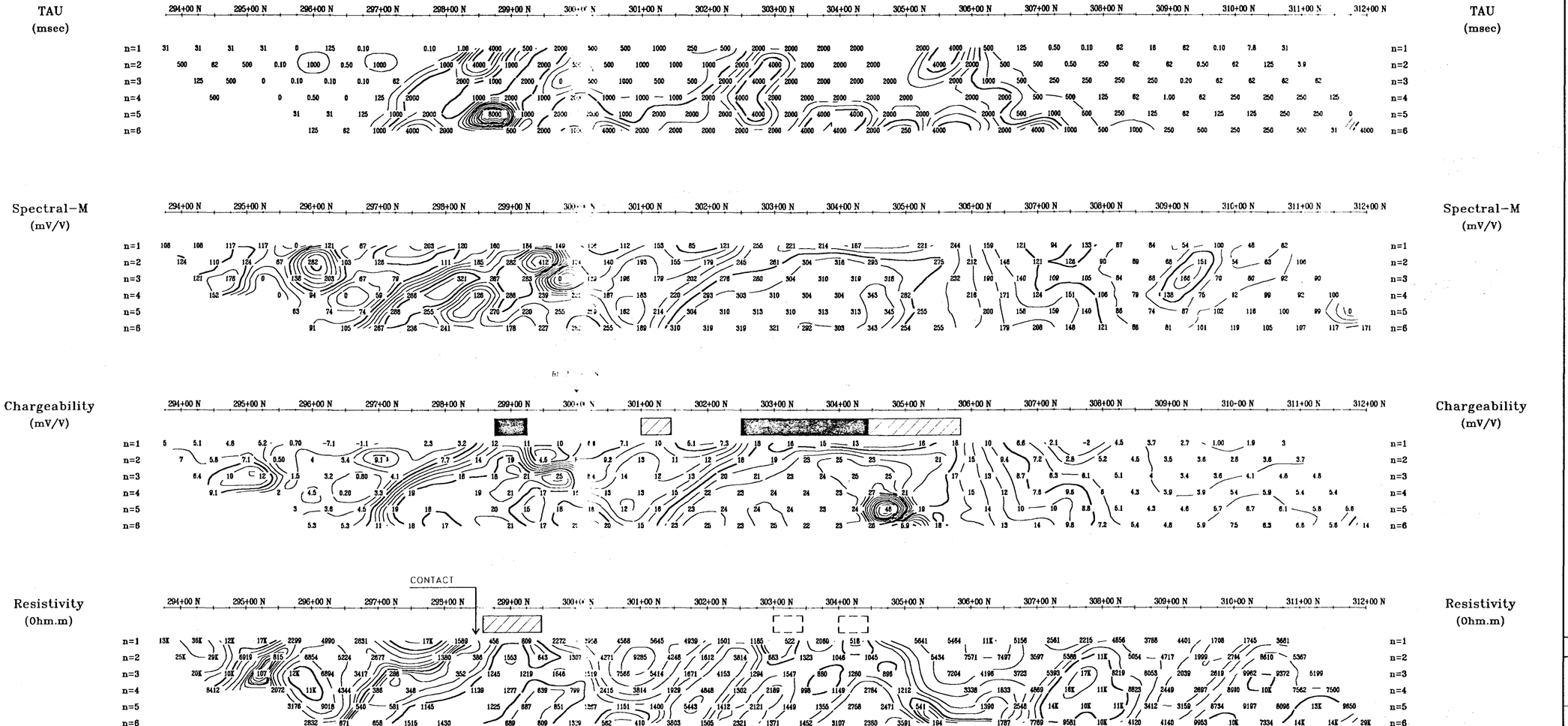
WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/17

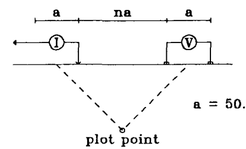
JVX LTD. (Ref. 9682, Feb 1997)

Figure 17



Line 8800 E

Pole–Dipole Array



IP/Apparent Resistivity Anomaly

- Definite
- Probable
- Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

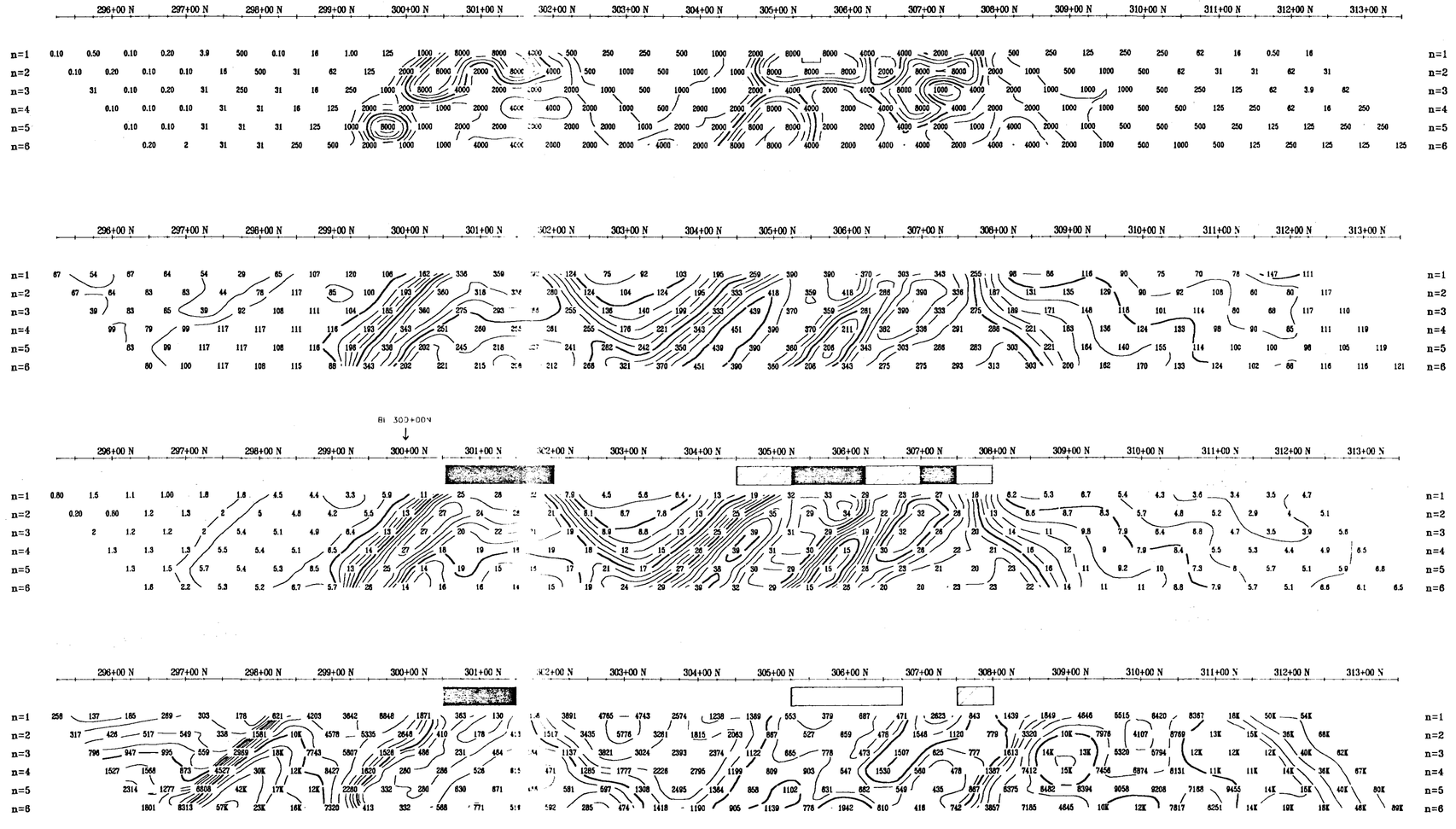
WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/17

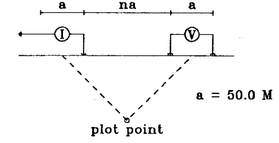
JVX LTD. (Ref. 9682, Feb 1997)

Figure 18



Line 9200 E

Pole-Dipole Array



IP/Apparent Resistivity Anomaly

- Definite
- Probable
- Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

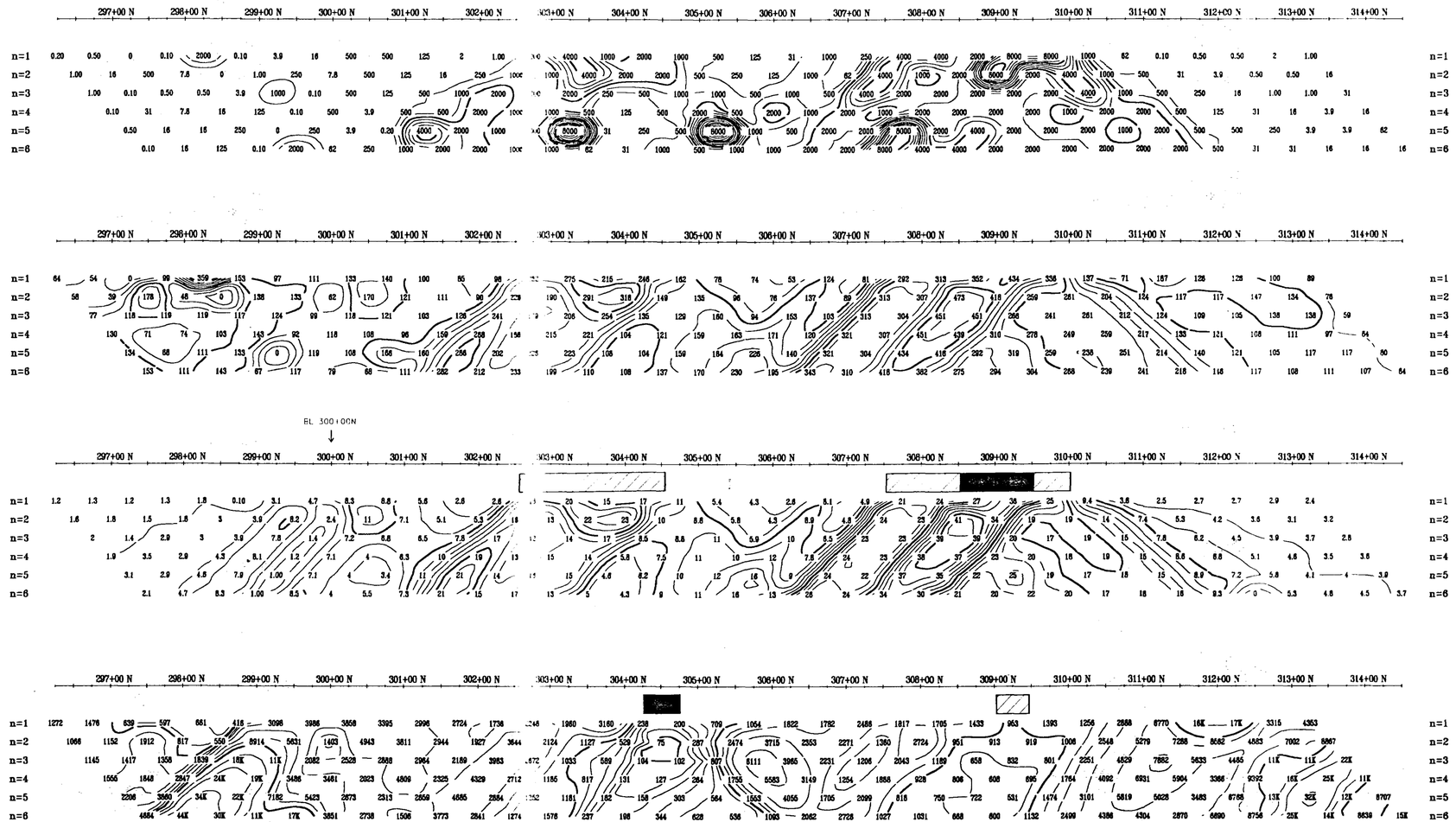
WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/18

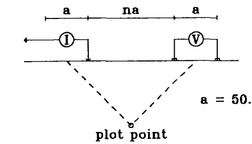
JVX LTD. (Ref. 9682, Feb 1997)

Figure 19



Line 9600 E

Pole-Dipole Array



IP/Apparent Resistivity Anomaly

- Definite
- Probable
- Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

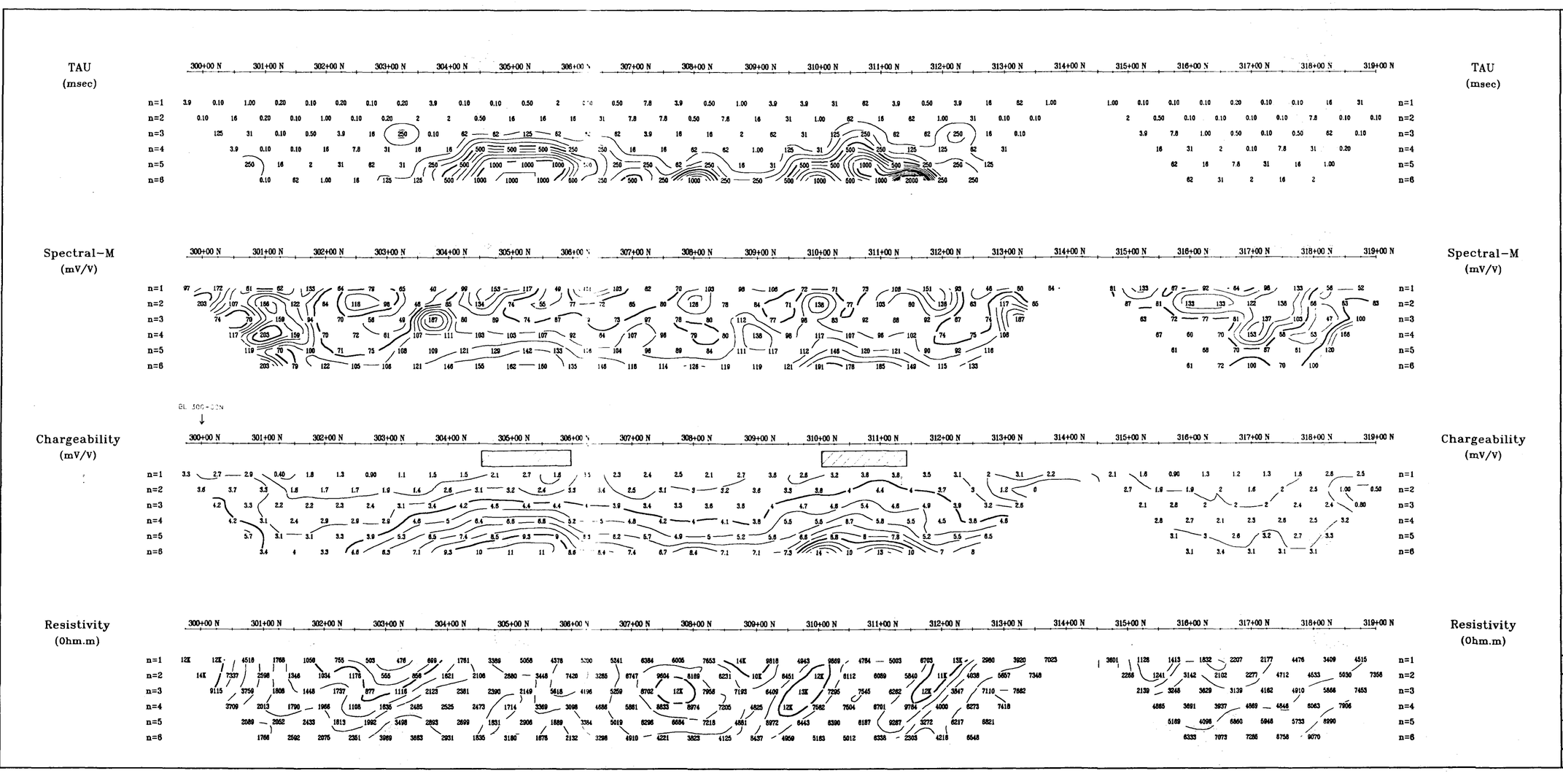
WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/17

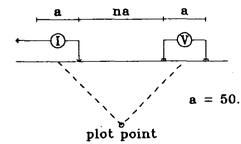
JVX LTD. (Ref. 9682, Feb 1997)

Figure 20



Line 10000 E

Pole-Dipole Array



IP/Apparent Resistivity Anomaly

- Definite
- Probable
- Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

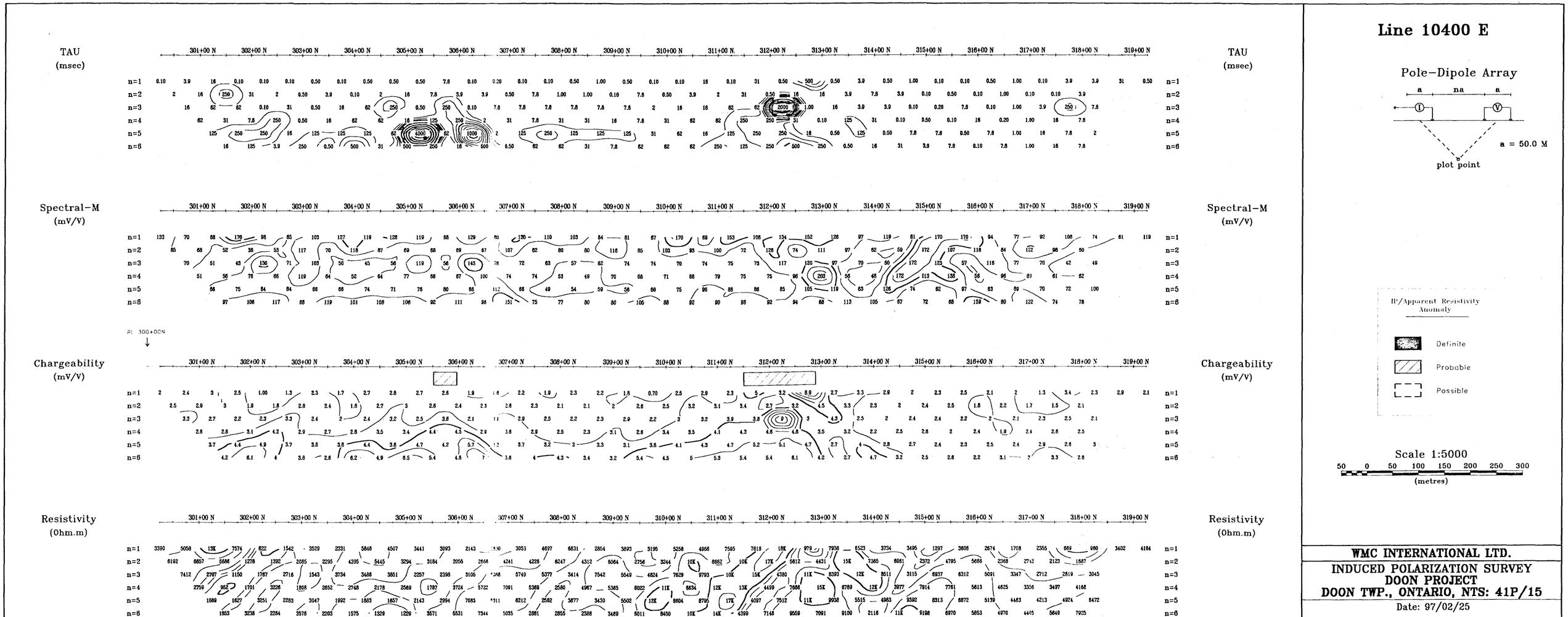
WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/18

JVX LTD. (Ref. 9682, Feb 1997)

Figure 21



Line 10400 E

Pole–Dipole Array

IP/Apparent Resistivity Anomaly

- Definite
- Probable
- Possible

Scale 1:5000

50 0 50 100 150 200 250 300

(metres)

WMC INTERNATIONAL LTD.

INDUCED POLARIZATION SURVEY
DOON PROJECT
DOON TWP., ONTARIO, NTS: 41P/15

Date: 97/02/25

JVX LTD. (Ref. 9682, Feb 1997)

Figure 22

Ontario Ministry of Northern Development and Mines

Declaration of Assessment Work Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use)
W9780.00276
Assessment Files Research Imaging

DOON

Personal Inform
Mining Act, the I
Questions abou
933 Ramsey La

41P15NW0014 2.17239 POWELL

900

2) and 66(3) of the Mining Act. Under section 8 of the
nent work and correspond with the mining land holder.
y of Northern Development and Mines, 6th Floor,

2.17239

claim, use form 0240.

Instructions:
- Please type or print in ink.

1. Recorded holder(s) (Attach a list if necessary)

Name: WMC INTERNATIONAL LIMITED	Client Number: 293367
Address: 22 CORSWARA ROAD	Telephone Number: (613) 727-3937
NEPEAN, ONT K2E 8A2	Fax Number: (613) 727-3970
Name: PREMIER EXPLORATIONS INC.	Client Number: 184029
Address: 70 McCAMUS AVE.	Telephone Number: (705) 567-5415
KIRKLAND LAKE, ONT. P2N2J9	Fax Number: (705) 567-5509

2. Type of work performed: Check (✓) and report on only ONE of the following groups for this declaration.

☑ Geotechnical: prospecting, surveys, assays and work under section 18 (regs) ☐ Physical: drilling, stripping, trenching and associated assays ☐ Rehabilitation

Work Type: GEOLOGY, ASSAYING, SAMPLING, TILL SAMPLING, GEOPHYSICS BChem, MAG, I.P.	Office Use
	Commodity
	Total $ Value of Work Claimed ~~22722~~ 23063
Dates Work Performed From: 01 (Day) 08 (Month) 95 (Year) To: 28 (Day) 03 (Month) 97 (Year)	NTS Reference
Global Positioning System Data (if available) / Township/Area: DOON, etc.	Mining Division: Larder Lake
M or G-Plan Number: G-3628	Resident Geologist District: Kirkland Lake

Please remember to:
- obtain a work permit from the Ministry of Natural Resources as required;
- provide proper notice to surface rights holders before starting work;
- complete and attach a Statement of Costs, form 0212;
- provide a map showing contiguous mining lands that are linked for assigning work;
- include two copies of your technical report.

RECEIVED
MAY - 6 1997
MINING LANDS BRANCH

3. Person or companies who prepared the technical report (Attach a list if necessary)

Name: C.J. BAKER, WMC INTERNATIONAL LIMITED	Telephone Number: as above
Address: as above	Fax Number: as above
Name	Telephone Number
Address	Fax Number
Name	Telephone Number
Address	Fax Number

4. Certification by Recorded Holder or Agent

I, C.J. BAKER (Print Name), do hereby certify that I have personal knowledge of the facts set forth in this Declaration of Assessment Work having caused the work to be performed or witnessed the same during or after its completion and, to the best of my knowledge, the annexed report is true.

Signature of Recorded Holder or Agent: C.J. Baker		Date: APR. 4/97
Agent's Address: as above	Telephone Number: (613) 727-3937	Fax Number: -3970

Approved - Quirke 08/1997 Rec'd Apr 9/97

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous to the mining land where work was performed at the time the work was performed. A map showing the contiguous claims must accompany this form.

Mining Claim Number, or if work was done on other eligible mining land, show in this column the claim number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Column 3	Value of work applied to this claim	Value of work assigned to other mining claims	Bank. Value to be distributed at a future date
eg TB 7827	16 ha	$20,625	N/A	$24,000	$2,625
eg 1234567	2		$24,000	0	0
eg 1234568	2		$ 4,000	0	$4,892
1 1184298	16		6400	0	0
2 1184299	16		6400	0	0
3 4296240	3	2	0	0	209
4 1207601	10	1592	4000	0	0
5 1207602	16	7584	6400	1184	0
6 1207604	16	2553	6400	19181	0
7 1207605	8	1274	3200	9044	0
8 1207606	8	1264	3200	9445	0
9 1207607	8	962	3200	6419	0
10 1207608	16	2	6400	0	0
11 1207609	16	1616	6400	0	0
12 1207610	8	719	3200	0	0
13 1207611	16	2	6400	0	0
14 1207612	9	1	3600	2563517	0
15 1207613	9	2	3600	185	0
	Column Totals	11534	62,400	66685	209

I, PAMELA CHILES (Print Full Name) do hereby certify that the above work credits are eligible under subsection 7.(1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done. See amended copy

Signature of Recorded Holder or Agent Authorized in Writing | Date Apr 4/97

Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show you wish to prioritize the deletion of credits:

- ☑ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☑ 4. Credits are to be cut back as specified on the attached appendix or as follows (describe):

RECEIVED

Note: If you have not indicated how you want credits cut back, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp: RECEIVED LARDER LAKE MINING DIVISION APR 8 1997 10:45

Total Value of Credits Applied

Recorded Holder or Agent Signature

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

amended copy

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.		Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
					2,17239	
eg	TB 7827	16 ha	$26, 825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8, 892	$ 4,000	0	$4,892
1	1189298	16	1676	6400	0	0
2	1189299	16	2547	6400	0	0
→ 3	1206240	2	209	0	0	209
4	1207601	10	1592	4000	0	0
5	1207602	16	~~7584~~ 1042	6400	1184	~~0~~ 259
6	1207604	16	~~25581~~ 2626	6400	19181	~~0~~ 680
7	1207605	8	~~12344~~ 1283	3200	9044	~~0~~ 588
8	1207606	8	~~12645~~ 1359	3200	9445	~~0~~ 514
9	1207607	8	~~9619~~ 9803	3200	6419	~~0~~ 185
10	1207608	16	~~6107~~ 6283	6400	0	~~0~~ 176
11	1207609	16	1676	6400	0	0
12	1207610	8	919	3200	0	0
13	1207611	16	~~4693~~ 4712	6400	0	~~0~~ 19
→ 14	1207612	9	~~10486~~ 1390	3600	~~7356~~ 3517	~~0~~ 273
15	1207613	9	~~21385~~ 915	3600	17785	~~0~~ 139
		Column Totals	~~118426~~ ~~115594~~ 118426	68800	66575	~~209~~ 3042

I, PAMELA CHILES (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
Pamela Chiles	Apr 4/97

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☑ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
- ☐ 2. Credits are to be cut back starting with the claims listed last, working backwards; or
- ☐ 3. Credits are to be cut back equally over all claims listed in this declaration; or
- ☑ 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe):

RECEIVED
MAY - 6 1997
MINING LANDS BRANCH

Note: If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, followed by option number 2 if necessary.

For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

0241 (02/96)

the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

amended copy

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims. 2.17239	Bank. Value of work to be distributed at a future date.
eg	TB 7827	16 ha	$26, 825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8, 892	$ 4,000	0	$4,892
1	1207614 •	10	4770	4000	770	0
2	1207615 •	16	2547	6400	0	0
3	1207616 •	8	838	3200	0	0
4	1207617 •	12	1257	4800	0	0
5	1207618 •	16	1676	6400	0	0
x 6	1207619 •	16	1676	0	1676	0
7	1207620 •	16	2547	6400	0	0
8	1207621 •	16	2547	6400	0	0
9	1207622 •	16	2460	6400	0	0
10	1207623 •	16	6428	6400	28	0
11	1207624 •	16	~~8542~~ 8681	6400	2142	~~2021~~ 0
12	1207625 •	8	~~5460~~ 5627	3200	0 1818	~~2260~~ 60
13	1207626 •	16	~~9557~~ 9730	6400	0	~~3154~~ 333
14	1207627 •	16	1676	6400	0	0
15	1207628 •	16	1676	6400	0	0
		16 Column Totals	~~54136~~ ~~5565~~ 54	79200	6434	~~3596~~ 407

I, AMELIA CHILES (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: Amelia Chiles — Date: Apr 4/97

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

- ☑ 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated.
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MINING LANDS BRANCH

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For Office Use Only

Received Stamp	Deemed Approved Date	Date Notification Sent
	Date Approved	Total Value of Credit Ar
	Approved for Recording by Mining Recorder (Signature)	

0241 (02/96)

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims. 2.17239	Bank. Value of work to be distributed at a future date.
eg	TB 7827	16 ha	$26, 825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8, 892	$ 4,000	0	$4,892
x 1	1207629	16	1676	0	1676	0
2	1207631	16	2547	6400	0	0
3	1207632	16	2547	6400	0	0
4	1207633	16	1676	6400	0	0
5	1207634	16	1676	6400	0	0
6	1207635	16	1676	6400	0	0
7	1207636	8	838	3200	0	0
8	1207637	16	1676	6400	0	0
9	1207638	16	1676	6400	0	0
10	1207639	16	1676	6400	0	0
x 11	1207640	16	1676	0	1676	0
x 12	1207642	8	838	0	838	0
x 13	1207643	16	1676	0	1676	0
x 14	1207644	16	1676	0	1676	0
x 15	1207645	16	1676	0	1676	0
		15 Column Totals	25206	54400	9218	0

I, PAMELA CHILES (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing: Pamela Chiles — Date: Apr. 4/97

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

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For Office Use Only

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	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

	Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.	Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims. 2.17239	Bank. Value of work to be distributed at a future date.
eg	TB 7827	16 ha	$26, 825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8, 892	$ 4,000	0	$4,892
x 1	1207646	8	838	0	838	0
x 2	1207647	16	1676	0	1676	0
x 3	1207648	16	1676	0	1676	0
x 4	1207649	16	1676	0	1676	0
x 5	1207650	16	1676	0	1676	0
x 6	1207651	12	1257	0	1257	0
x 7	1207652	16	1676	0	1676	0
x 8	1207653	10	1047	0	1047	0
x 9	1207654	15	1571	0	1571	0
x 10	1207655	8	838	0	838	0
x 11	1207656	16	1676	0	1676	0
x 12	1207657	16	1676	0	1676	0
x 13	1207658	16	1676	0	1676	0
x 14	1207659	16	1676	0	1676	0
x 15	1207660	16	1676	0	1676	0
		Column Totals	22311	0	22311	0

I, 15 PAMELA CHILES (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
	Apr. 4/97

6. Instructions for cutting back credits that are not approved.

Some of the credits claimed in this declaration may be cut back. Please check (✓) in the boxes below to show how you wish to prioritize the deletion of credits:

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For Office Use Only

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	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

the mining land where work was performed, at the time work was performed. A map showing the contiguous link must accompany this form.

Amended copy

Mining Claim Number. Or if work was done on other eligible mining land, show in this column the location number indicated on the claim map.		Number of Claim Units. For other mining land, list hectares.	Value of work performed on this claim or other mining land.	Value of work applied to this claim.	Value of work assigned to other mining claims.	Bank. Value of work to be distributed at a future date.
eg	TB 7827	16 ha	$26, 825	N/A	$24,000	$2,825
eg	1234567	12	0	$24,000	0	0
eg	1234568	2	$ 8, 892	$ 4,000	0	$4,892
1	1207661 •	12	1257	4800	0	0
2	1207662 •	16	1675	6400	0	0
X 3	1207663 •	16	1675	0	1675	0
4	1207664 •	8	1273	3200	0	0
5	1207665 •	1	159	400	0	0
6	1207666 •	1	159	400	0	0
7	1207667 •	4	636	1600	0	0
8	1223333 •	3	~~3527~~ 3,125 *	1200	0	~~2323~~ 2525 *
9						
10						
11						
12						
13		18 claims				
14						
15						
* to account for rounding		Column Totals	10559 ~~10357~~ ~~22,722~~ PC	18000	1675	~~2323~~ 2525 PC

I, PAMELA CHILES (Print Full Name), do hereby certify that the above work credits are eligible under subsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to the claim where the work was done.

Signature of Recorded Holder or Agent Authorized in Writing	Date
Pamela Chiles	Apr. 4/97

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	Date Approved	Total Value of Credit Approved
	Approved for Recording by Mining Recorder (Signature)	

0241 (02/96)

Ontario Ministry of Northern Development and Mines

Statement of Costs for Assessment Credit

Transaction Number (office use)

SUMMER 1996, WINTER 1997

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

2.17239

Work Type	Units of Work Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit of work	Total Cost
Mapping, Sampling, report writing		varies	15,300
Linecutting 1	132 km	$355.61/km	46,940
Linecutting 2	103 km	$300/km	30,900
Processing/assaying	(till + rock)	varies	4,337
Resistivity soundings	3	$3722.74/sound	11,168
IP	19 km	~~$2847.74/km~~ $2662.68/km	~~54,108~~ 50,591
Mag	78.115 km	$120/km	9374
Associated Costs (e.g. supplies, mobilization and demobilization).			
Radio rental			281
Printing			779
Transportation Costs			
Gas, etc			2835
Food and Lodging Costs			
Food, motel, etc.			2803
		Total Value of Assessment Work	~~175308~~ $178,825

Calculations of Filing Discounts:

1. Work filed within two years of performance is claimed at 100% of the above Total Value of Assessment Work.
2. If work is filed after two years and up to five years after performance, it can only be claimed at 50% of the Total Value of Assessment Work. If this situation applies to your claims, use the calculation below:

TOTAL VALUE OF ASSESSMENT WORK × 0.50 = Total $ value of worked claimed.

Note:
- Work older than 5 years is not eligible for credit.
- A recorded holder may be required to verify expenditures claimed in this statement of costs within 45 days of a request for verification and/or correction/clarification. If verification and/or correction/clarification is not made, the Minister may reject all or part of the assessment work submitted.

RECEIVED
MAY - 6 1997
MINING LANDS BRANCH

Certification verifying costs:

I, C J Baker (please print full name), do hereby certify, that the amounts shown are as accurate as may reasonably be determined and the costs were incurred while conducting assessment work on the lands indicated on the accompanying Declaration of Work form as PROJECT GEOLOGIST (recorded holder, agent, or state company position with signing authority) I am authorized to make this certification.

Signature	Date
C J Baker	Apr. 8/97

0212 (02/96)

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des mines

Ontario

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Transaction No./N° de transaction

Mining Act/Loi sur les mines

summer 1995

2.17239

Personal information collected on this form is obtained under the authority of the **Mining Act**. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la **Loi sur les mines** et serviront à tenir à jour un registre des concessions minières. Adresser toute quesiton sur la collece de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires all programs	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		15,300
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type Geol. consult.	591	
	RC drilling	23710 ~~27544~~	29816
	Lab	4567	
Supplies Used Fournitures utilisées	~~Type~~ Trenching	948	
	Printing	779	
			7667
Equipment Rental Location de matériel	Type Radio	281	
	Total Direct Costs Total des coûts directs		46176

2. Indirect Costs/Coûts indirects

** **Note:** When claiming Rehabilitation work Indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type Gas, etc	2835	
			2835
Food and Lodging Nourriture et hébergement	Food, rent, motel	2803	2803
Mobilization and Demobilization Mobilisation et démobilisation			
	Sub Total of Indirect Costs Total partiel des coûts indirects		
	Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)		
	Total Value of Assessment Credit (Total of Direct and Allowable Indirect costs) / **Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles**		~~55683~~ 51814

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.

2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit		Total Assessment Claimed
	× 0.50 =	

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.

2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation		Évaluation totale demandée
	× 0.50 =	

RECEIVED
MAY - 6 1997
MINING LANDS BRANCH

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as J. Baker (Recorded Holder, Agent, Position in Company) PROJECT GEOLOGIST I am authorized to make this certification

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de _____ (titulaire enregistré, représentant, poste occupé dans la compagnie) je suis autorisé à faire cette attestation.

Signature	Date
J. Baker	Apr. 8/97

0212 (04/91)

Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.

Ministry of
Northern Development
and Mines

Ministère du
Développement du Nord
et des Mines

Ontario

Geoscience Assessment Office
933 Ramsey Lake Road
6th Floor
Sudbury, Ontario
P3E 6B5

Telephone: (705) 670-5853
Fax: (705) 670-5863

July 18, 1997

Roy Spooner
Mining Recorder
4 Government Road East
Kirkland Lake, ON
P2N 1A2

Dear Sir or Madam:

Submission Number: 2.17239

Subject: Transaction Number(s):		**Status**
	W9780.00276	Approval After Notice

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

NOTE: This correspondence may affect the status of your mining lands. Please contact the Mining Recorder to determine the available options and the status of your claims.

If you have any questions regarding this correspondence, please contact Steve Beneteau by e-mail at beneteau_s@torv05.ndm.gov.on.ca or by telephone at (705) 670-5855.

Yours sincerely,

ORIGINAL SIGNED BY
Blair Kite
Supervisor, Geoscience Assessment Office
Mining Lands Section

Correspondence ID: 11071

Copy for: Assessment Library

Work Report Assessment Results

Submission Number: 2.17239

Date Correspondence Sent: July 18, 1997 **Assessor:** Steve Beneteau

Transaction Number	First Claim Number	Township(s) / Area(s)	Status	Approval Date
W9780.00276	1189298	DOON	Approval After Notice	July 17, 1997

Section:
12 Geological GEOL
13 Geochemical GCHEM
14 Geophysical IP
14 Geophysical MAG
10 Physical POVERB

Thank you for the prompt response to the 45 Day Notice dated June 27, 1997. The additional information provided has clarified this submission. Accordingly, assessment credit has been approved as outlined on the Report of Work form accompanying this submission.

Correspondence to:

Mining Recorder
Kirkland Lake, ON

Resident Geologist
Kirkland Lake, ON

Assessment Files Library
Sudbury, ON

Recorded Holder(s) and/or Agent(s):

C.J. Baker
WMC INTERNATIONAL LIMITED
NEPEAN, ONTARIO

PREMIER EXPLORATIONS INC
KIRKLAND LAKE, Ontario

Correspondence ID: 11071

41P15NW0014 2.17239 POWELL

200

Ontario

Ministry of Natural Resources

Ministry of Northern Development and Mines

INDEX TO LAND DISPOSITION

PLAN

G-3218

TOWNSHIP

POWELL

M.N.R. ADMINISTRATIVE DISTRICT

KIRKLAND LAKE

MINING DIVISION

LARDER LAKE

LAND TITLES/REGISTRY DIVISION

TIMISKAMING

Scale 1:20 000

1000 Metres 0 1000 2000 Metres

1000 Feet 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 Feet

Contour Interval 10 Metres

2.17239

SYMBOLS

Boundary
- Township, Meridian, Baseline
- Road allowance; surveyed
- shoreline
- Lot/Concession; surveyed
- unsurveyed
- Parcel; surveyed
- unsurveyed
- Right-of-way; road
- railway
- utility
- Reservation
- Cliff, Pit, Pile
- Contour (20)
- Interpolated
- Approximate
- Depression
- Control point (horizontal)
- Flooded land
- Mine head frame
- Pipeline (above ground)
- Railway; single track
- double track
- abandoned
- Road; highway, county, township
- access
- trail, bush
- Shoreline (original)
- Transmission line
- Wooded area

AREAS WITHDRAWN FROM DISPOSITION

MRO - Mining Rights Only
SRO - Surface Rights Only
M + S - Mining and Surface Rights

Description	Order No.	Date	Disposition	File
(A)	W-L-18/95	MAR. 30/95	M + S	
(B)	W-L-19/95	MAR. 30/95	M + S	
(C)	W-L-20/95	MAR. 30/95	M + S	

NOTES

L.O. 7601 COVERS FLOODING RIGHTS IN THIS TOWNSHIP TO CONTOUR 870 TO ONTARIO HYDRO. FILE 12290 VOL. 2.

DISPOSITION OF CROWN LANDS

Patent
- Surface & Mining Rights
- Surface Rights Only
- Mining Rights Only

Lease
- Surface & Mining Rights
- Surface Rights Only
- Mining Rights Only

Licence of Occupation
Order-in-Council
Cancelled
Reservation
Sand & Gravel

CIRCULATED DEC 14, 1995 KP

Map base and land disposition drafting by Surveys and Mapping Branch, Ministry of Natural Resources.

The disposition of land, location of lot fabric and parcel boundaries on this index was compiled for administrative purposes only.

2.17239
GEOL, GCHEM, MAG, IP
POWERS,

41P15NW0014 2.17239 POWELL

2.17239

ARGYLE TWP. - M.203

MONTROSE TWP. - M.237

POWELL TWP. - M.241

DOON TWP. - M.217

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES. AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES. FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON

2.17239
GEOL, GEOCHEM,
POWERR, MAG, I P

ARCHIVED MARCH 24/9
CIRCULATED JANUARY 27, 1995

THE TOWNSHIP OF

BANNOCKBURN

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

DISPOSITION OF CROWN LANDS

PATENT, SURFACE AND MINING RIGHTS
" , SURFACE RIGHTS ONLY
" , MINING RIGHTS ONLY
LEASE, SURFACE AND MINING RIGHTS
" , SURFACE RIGHTS ONLY
" , MINING RIGHTS ONLY
LICENCE OF OCCUPATION

ROADS
IMPROVED ROADS
KING'S HIGHWAYS
RAILWAYS
POWER LINES
MARSH OR MUSKEG
MINES
CANCELLED C.

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

SAND AND GRAVEL

(G1) M.T.C. GRAVEL PIT 3F-25

(G2) M.T.C. GRAVEL PIT 1374

(R) ~~SURFACE AND MINING RIGHTS WITHDRAWN FROM STAKING, SECTION 36/80 ORDER NO. W 65/83~~

(R1) Mining & Surface Rights Reopened to prospecting, sale or lease. Order O-L-10195, previously withdrawn under Order W-65/83

NOTICE OF FORESTRY ACTIVITY.
THIS TOWNSHIP / AREA FALLS WITHIN THE ELK LAKE MANAGEMENT UNIT

AND MAY BE SUBJECT TO FORESTRY OPERATIONS
THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT P.O. BOX 129
SWASTIKA, ONT.
P0K 1T0
705-642-3222

PLAN NO. M.207

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

41P15NW0014 2.17239 POWELL

AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY

S.R.O. – SURFACE RIGHTS ONLY

M.+ S. – MINING AND SURFACE RIGHTS

Description	Order No.	Date	Disposition	File
(R)	~~NRW 65/83~~	~~18/11/83~~	~~M.+S.~~	
(R)	~~NRW 71/94 NER~~	~~27/06/84~~	~~M.+S.~~	

(R) Mining & Surface Rights Reopened to prospecting, sale or lease. Order C[illegible] previously withdrawn under Order W-65/83.

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

MONTROSE TWP.

HALLIDAY TWP.

DOON TWP.

RAYMOND TWP.

MT. COLLINS 1700'

CLM 256

CLM 223

CLM 259

2.17239
GEOL, GCHEM
RDEMAG, IP

ARCHIVED OCTOBER 4,1996

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES: TOWNSHIPS, BASE LINES, ETC.
- SURVEYED LINES: LOTS, MINING CLAIMS, PARCELS, ETC.
- UNSURVEYED LINES: LOT LINES
- UNSURVEYED LINES: PARCEL BOUNDARY
- UNSURVEYED LINES: MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON-PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
SURFACE RIGHTS ONLY	◒
MINING RIGHTS ONLY	◒
LEASE, SURFACE & MINING RIGHTS	■
SURFACE RIGHTS ONLY	▭
MINING RIGHTS ONLY	▭
LICENCE OF OCCUPATION	▼
ORDER IN COUNCIL	OC
RESERVATION	(R)
CANCELLED	②
SAND & GRAVEL	(S)

SCALE: 1 INCH = 40 CHAINS

1 : 48000
0 1000 2000 4000 6000 8000
0 500 1000 (1 KM) 1500 2000

TOWNSHIP

MIDLOTHIAN

M.N.R. ADMINISTRATIVE DISTRICT

KIRKLAND LAKE

MINING DIVISION

LARDER LAKE

LAND TITLES / REGISTRY DIVISION

TIMISKAMING

2.17239

Ontario Ministry of Natural Resources

Ministry of Northern Development and Mines

Date	Number
AUGUST, 1992	G-3684
CIRCULATED OCTOBER 25, 1994	

REFERENCES

AREAS WITHDRAWN FROM DISPOSITION

(RI) Mining and surface rights withdrawn from prospecting staking out sale or lease Section 36 The Mining Act R.S.O. 1980 Order No. NRW 65/83 Nov 18, 1983 4:35 PM

(FI) Mining & Surface Rights Reopened to prospecting, sale or lease. Order O-L-10/95, previously withdrawn under Order W-65/83.

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

NOTICE OF FORESTRY ACTIVITY

THIS TOWNSHIP / AREA FALLS WITHIN THE ELK LAKE MANAGEMENT UNIT

AND MAY BE SUBJECT TO FORESTRY OPERATIONS. THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT: P.O. BOX 129
SWASTIKA, ONT.
P0K 1T0
705-642-3222

Hincks Twp.

Hutt Twp.

Bannockburn Twp.

Midlothian Twp.

1219108
1219107
1219110
1219111
1219109
1221725
1205623
1213107
207706
120638
1206382
1213437
207748
1218721
1218722
1207652
1207642
1207643
1207631
1207632
1207633
1201535
1201766
1201770
1201769
1219114
1219115
Montrose L.
Midlothian
Junction L.
Melick
Seveninch L.
Ward L.
Mount Sinclair
MT. SINCLAIR 1600
Bannockburn
Road

90M 89M 88M 87M 86M 85M
7M 6M 5M 4M 3M 2M 1M

LEGEND

- HIGHWAY AND ROUTE No.
- OTHER ROADS
- TRAILS
- SURVEYED LINES
  - TOWNSHIPS, BASE LINES ETC.
  - LOTS, MINING CLAIMS, PARCELS ETC.
- UNSURVEYED LINES
  - LOT LINES
  - PARCEL BOUNDARY
  - MINING CLAIMS ETC.
- RAILWAY AND RIGHT OF WAY
- UTILITY LINES
- NON PERENNIAL STREAM
- FLOODING OR FLOODING RIGHTS
- SUBDIVISION OR COMPOSITE PLAN
- RESERVATIONS
- ORIGINAL SHORELINE
- MARSH OR MUSKEG
- MINES
- TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT SURFACE & MINING RIGHTS	●
SURFACE RIGHTS ONLY	◒
MINING RIGHTS ONLY	◒
LEASE SURFACE & MINING RIGHTS	⊕ or ■
SURFACE RIGHTS ONLY	■
MINING RIGHTS ONLY	■
LICENCE OF OCCUPATION	▼
ORDER IN COUNCIL	OC
RESERVATION	✱
CANCELLED	✱
SAND & GRAVEL	◔

NOTE MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6 1913 VESTED IN CROWN PATENTS BY THE P.D. LANDS ACT R.S.O. 1970 MAP 180 SEE 63 S.BSEC.

SCALE 1 INCH 40 CHAINS

FEET 0 1000 2000 4000 6000 8000
METRES 0 200 1000 2000 11 KM 12 KM

TOWNSHIP
MONTROSE

M.N.R. ADMINISTRATIVE DISTRICT
KIRKLAND LAKE

MINING DIVISION
LARDER LAKE

LAND TITLES / REGISTRY DIVISION
TIMISKAMING

2.17239

MINISTRY OF NORTHERN DEVELOPMENT AND MINES

DATE	PLAN NO.
	M-237

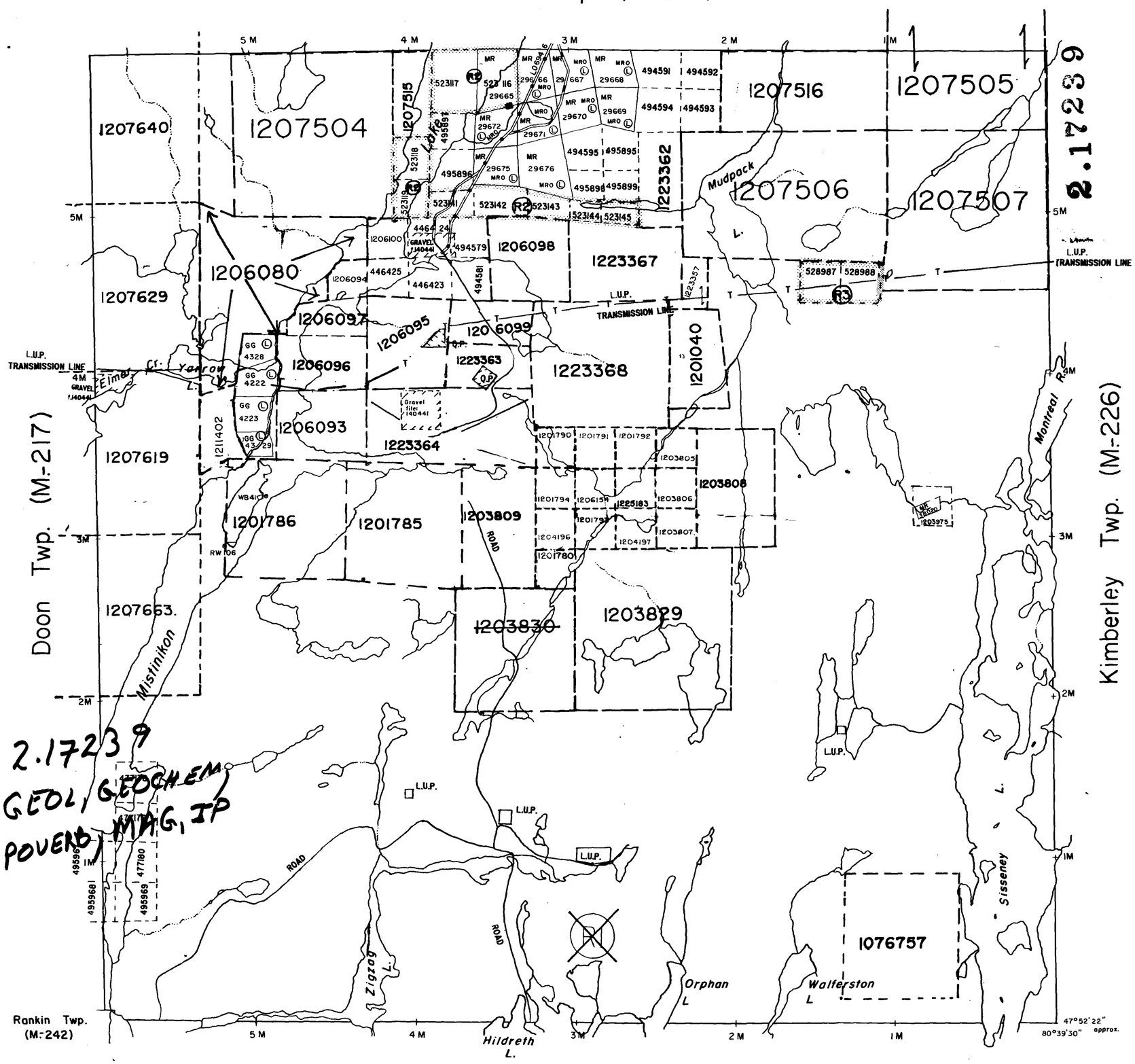
ARCHIVED MARCH 24/97 APRIL 15/97
CIRCULATED JAN. 30, 1995

2.17239
GEOL, GCHEM
POWER, MAG, EP

41P15NW0014 2.17239 POWELL

41P15NW0014 2.17239 POWELL

Powell Twp. (M.-241)



THE TOWNSHIP
OF

YARROW

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

PATENTED LAND	● or (P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.
PATENTED S.R.O.	

NOTES

400' Surface Rights Reservation along the Shores of all Lakes and Rivers.

L.O. 7601 Covers Flooding Rights in this Township to below Contour 870' for Ont. Hydro. File 12290 v.2.

(R1) ~~MINING & SURFACE RIGHTS WITHDRAWN FROM PROSPECTING SALE OR LEASE SECTION 36, MINING ACT R.S.O. 1980, ORDER NO. NRW 65/83 DATED NOV. 18, 1983 AT 4:34 PM.~~

(R2) MINING AND SURFACE RIGHTS WITHDRAWN ORDER NO. W-L-21/95 DATED MARCH30/1995

(R1) MINING & SURFACE RIGHTS REOPENED TO PROSPECTING, SALE OR LEASE. ORDER O-L-10/95. PREVIOUSLY WITHDRAWN UNDER ORDER #W 65/83.

(R3) MINING AND SURFACE RIGHTS WITHDRAWN ORDER NO. W-L-22/95 DATED MARCH30/1995. PREVIOUSLY WITHDRAWN UNDER ORDER #NRW 65/83.

NOTICE OF FORESTRY ACTIVITY
THIS TOWNSHIP / AREA FALLS WITHIN THE ELK LAKE MANAGEMENT UNIT AND MAY BE SUBJECT TO FORESTRY OPERATIONS THE MNR UNIT FORESTER FOR THIS AREA CAN BE CONTACTED AT BOX 129 SWASTIKA, ONT. P0K 1T0 705-642-3222

PLAN NO. M.260

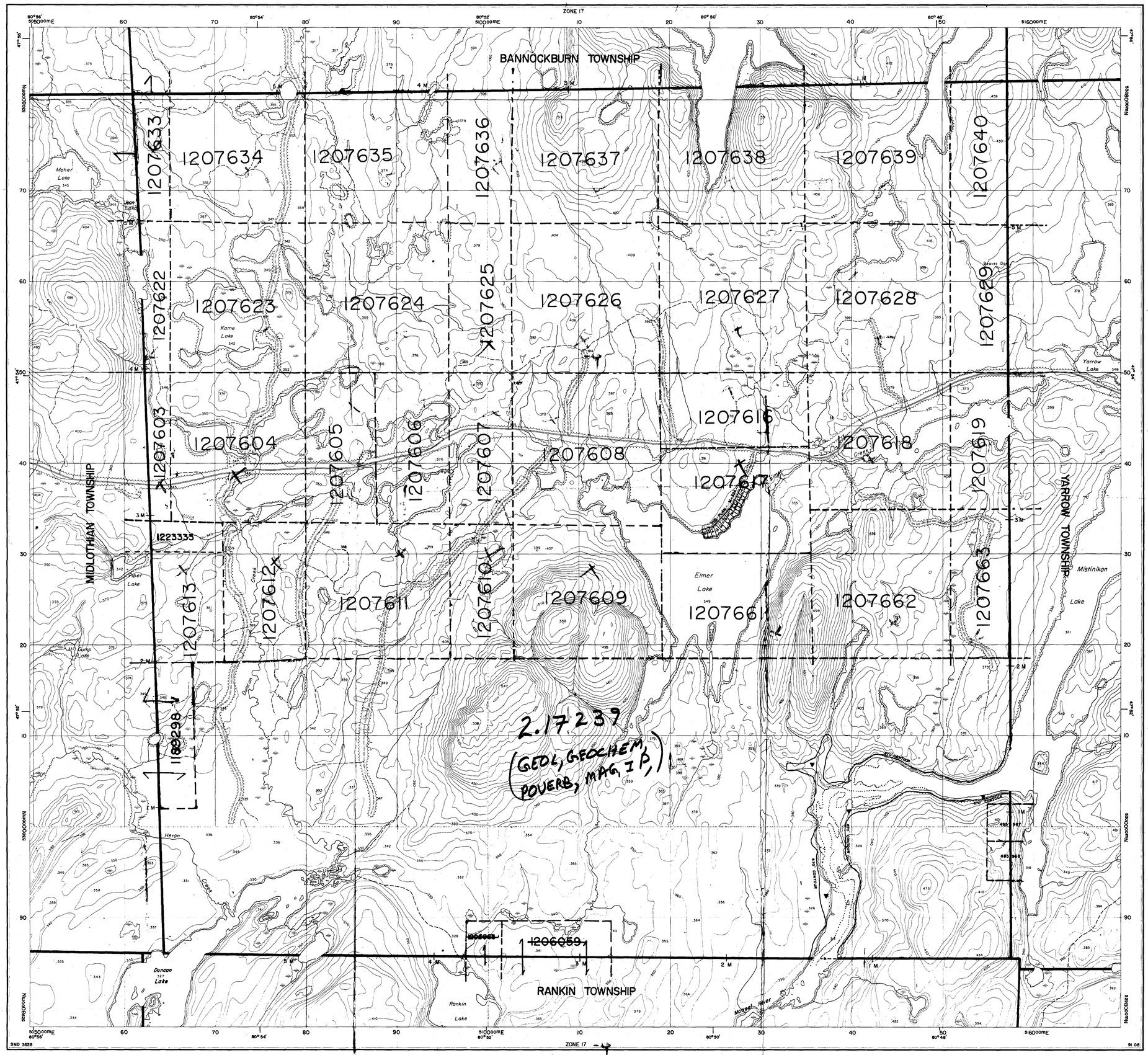
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

CIRCULATED JAN. 31, 1995

RECEIVED ON JUNE 5/95
ARCHIVED APRIL 23/97

2.17239
GEOL, GEOCHEM
POWELL MAG, IP

HE INFORMATION THAT PPEARS ON THIS MAP AS BEEN COMPILED ROM VARIOUS SOURCES, ND ACCURACY IS NOT UARANTEED. THOSE ISHING TO STAKE MIN-G CLAIMS SHOULD CON-ULT WITH THE MINING ECORDER, MINISTRY OF ORTHERN DEVELOP-ENT AND MINES, FOR AD-TIONAL INFORMATION N THE STATUS OF THE NDS SHOWN HEREON.



Ministry of Natural Resources

Ministry of Northern Development and Mines

Ontario

41P15NW0014 2.17239 POWELL

250

INDEX TO LAND DISPOSITION

PLAN

G-3628

TOWNSHIP

DOON

M.N.R. ADMINISTRATIVE DISTRICT

KIRKLAND LAKE

MINING DIVISION

LARDER LAKE

LAND TITLES/REGISTRY DIVISION

TIMISKAMING

2.17239

Scale 1:20 000

1000 Metres 0 1000 2000 Metres

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 Feet

Contour Interval 10 Metres

RECEIVED
MAY - 6 1997
MINING LANDS BRANCH

AREAS WITHDRAWN FROM DISPOSITION

MRO - Mining Rights Only
SRO - Surface Rights Only
M+S - Mining and Surface Rights

Description	Order No.	Date	Disposition	File
~~MRO-26/85~~	~~W.70/83~~	~~26/12/85~~	~~O.N.O.~~	
~~MRO-24/85~~	~~W.73/83~~	~~30/12/85~~	~~W.R.O.~~	
MRO-26/85	W.70/83 REOPENED	4/95	O.N.R.	
MRO-26/85	W.65/83 REOPENED	4/95	O.N.R.	

ORDER NO. O-L-7/95 NER REOPENS W.70/83 APRIL 4/95
ORDER NO. O-L-10/95 REOPENS W.65/83 APRIL 4/95

SYMBOLS

Boundary
- Township, Meridian, Baseline
- Road allowance; surveyed / shoreline
- Lot/Concession; surveyed / unsurveyed
- Parcel; surveyed / unsurveyed
- Right-of-way; road / railway / utility
- Reservation
- Cliff, Pit, Rise
- Contour (20) / Interpolated / Approximate / Depression
- Control point (horizontal)
- Flooded land
- Mine head frame
- Pipeline (above ground)
- Railway; single track / double track / abandoned
- Road; highway, county, township / access / trail, bush
- Shoreline (original)
- Transmission line
- Wooded area

DISPOSITION OF CROWN LANDS

Patent
- Surface & Mining Rights
- Surface Rights Only
- Mining Rights Only

Lease
- Surface & Mining Rights
- Surface Rights Only
- Mining Rights Only

- Licence of Occupation
- Order-in-Council (OC)
- Cancelled
- Reservation (R)
- Sand & Gravel (S&G)

NOTES

L.O. 7601 COVERS FLOODING RIGHTS IN THIS TWP. TO BELOW CONTOUR 870.00' TO H.E.P.C. FILE-12290 Vol. 2

NOTICE OF FORESTRY ACTIVITY

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CIRCULATED AUG. 19, 1992 B.R.B.

THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFOPMATION ON THE STATUS OF THE LANDS SHOWN HEREON.

Map base and land disposition drafting by Surveys and Mapping Branch, Ministry of Natural Resources.

The disposition of land, location of lot fabric and parcel boundaries on this index was compiled for administrative purposes only.

SMD 3628

91 08

DOON TWP.
G-3628

BANNOCKBURN

POWELL

MONTROSE

YARROW

DOON

MIDLOTHIAN

DOON PROPERTY GRID (1996)

DOON TOWNSHIP GRID (1997)

Mount Sinclair Lake

Charlewood Lake

Clarke Lake

Matinikan Lake

Midlothian Lake

Elizabeth Lake

Wame Lake

Lloyd Lake

Elmer Lake

Tower

1207601 1207602 1207603 1207604 1207605 1207606 1207607 1207608 1207609 1207610 1207611 1207612 1207613 1207614 1207615 1207616 1207617 1207618 1207619 1207620 1207621 1207622 1207623 1207624 1207625 1207626 1207627 1207628 1207629 1207631 1207632 1207633 1207634 1207635 1207636 1207637 1207638 1207639 1207640 1207642 1207643 1207644 1207645 1207646 1207647 1207648 1207649 1207650 1207651 1207652 1207653 1207654 1207655 1207656 1207657 1207658 1207659 1207660 1207661 1207663 1207664 1207665 1207666 1207667 1206249 1223333 1189298 1189299

2.17239

260

0 0.5 1.0 1.5 2.0

KILOMETRES

MAP 1

WMC International Limited
Americas Division – Exploration

DOON PROPERTY

Grid Location & Claim Map

COMPILED: CJB	SCALE: 1:20000	PN: 4057
DRAFTED: LWu	REVISION:	PLAN: 4057GRID
DATE: 04 APR 97	DATE:	MAP No.:

MAP 2A

WMC International Limited
Americas Division – Exploration

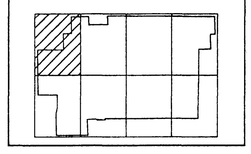
DOON PROPERTY
GEOLOGY

2.17209

COMPILED: CJB	SCALE: 1:5000	PN: 4057
DRAFTED: LWu	REVISION:	PLAN: 4057GLG5
DATE: 03 APR 97	DATE:	MAP No.:

0 100 200 300 400
METRES

KEY MAP



270



LEGEND

PROTEROZOIC

- 14 Mafic Intrusives
- 13 Gowganda Formation
  - a Diamictite
  - b Arkose–Arenite
  - c Siltstone–Mudstone
  - d Laminated Mudstone–Siltstone

ARCHEAN

- 12 Matachewan Diabase
- 11 Silicic Intrusives – Granite, Syenite, Qtz Diorite
- 10 Peridotite and Gabbro
- 9 Timiskaming Sedimentary Rocks
  - a Conglomerate
  - b Arkose Greywacke
- 8 Upper Calc–Alk Volcanic Rocks
- 7 Fe–Rich Tholeiitic Basalt
- 6 CLLB Hosted Sedimentary Roacks
- 5 Mafic Sedimentary Rocks
- 4 Mg–Rich Tholeiitic Volcanic Rocks
- 3 Komatiitic Volcanic Rocks
- 2 Siliceous Sedimentary Rocks
- 1 Lower Calc–Alk Volcanic Rocks

Pine Replant (circa 1988)
Deformation Zone (CLLB)

Bedding
Foliation
Pillows
Glacial Striae
Swamp
Esker
Fault

Mount Sinclair Lake

1207652

Mature Pine Replant

13

1207642

1207643

MONTROSE

Mature Pine Replant

Mature Pine Replant

8

13b

13c

13bc

13b

13b

13b

1207631

13b

MIDLOTHIAN

1207633

13b

Pine Replant

9b

1207632

9b

Maher Lake

13b

13a

13b

80

9b

13b

13b

13b

9b

12

1207620

1207621

1207622

9b

9b

12

13b

85

9

Pine Replant

13b

Mature Pine Replant

MAP 2B

WMC International Limited
Americas Division – Exploration

DOON PROPERTY

GEOLOGY

COMPILED: CJB	SCALE: 1:5000	PN: 4057
DRAFTED: LWu	REVISION:	PLAN: 4057GL05
DATE: 03 APR 97	DATE:	MAP No.:

KEY MAP

0 100 200 300 400
METRES

41P15NW0014 2.17239 POWELL

280

LEGEND

PROTEROZOIC

- 14 Mafic Intrusives
- 13 Gowganda Formation
  - a Diamictite
  - b Arkose–Arenite
  - c Siltstone–Mudstone
  - d Laminated Mudstone–Siltstone

ARCHEAN

- 12 Matachewan Diabase
- 11 Silicic Intrusives – Granite, Syenite, Qtz Diorite
- 10 Peridotite and Gabbro
- 9 Timiskaming Sedimentary Rocks
  - a Conglomerate
  - b Arkose Greywacke
- 8 Upper Calc–Alk Volcanic Rocks
- 7 Fe–Rich Tholeiitic Basalt
- 6 CLLB Hosted Sedimentary Roacks
- 5 Mafic Sedimentary Rocks
- 4 Mg–Rich Tholeiitic Volcanic Rocks
- 3 Komatiitic Volcanic Rocks
- 2 Siliceous Sedimentary Rocks
- 1 Lower Calc–Alk Volcanic Rocks

Pine Replant (circa 1988)

Deformation Zone (CLLB)

Bedding
Foliation
Pillows
Glacial Striae
Swamp
Esker
Fault

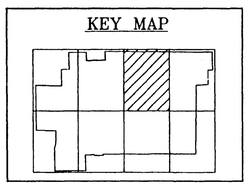
Mature Pine Replant
13
no outcrop
1207654
1207655
Clarke Lake
ESKER on east edge
SAND OUTWASH to the west
1207653
1207652
Mature Pine Replant
Pine Replant
Pond
Lake
1207646
2.17239
1207644
1207645
1207643
13
BANNOCKBURN
Pine Replant
13b
13b
13b
1207634
13d
DOON
1207636
1207633
13b
Pine Replant
30
13b
13c
13b
no outcrop
2.17239
1207622
1207623
1207635
13b
Jean Lake
13b
13b
13d
20
1207624
1207625

2.17239

MAP 2C



290



WMC International Limited
Americas Division – Exploration

DOON PROPERTY

GEOLOGY

COMPILED: CJB	SCALE: 1:5000	PN: 4057
DRAFTED: LWu	REVISION:	PLAN: 4057GLG5
DATE: 03 APR 97	DATE:	MAP No.:

0 100 200 300 400
METRES

LEGEND

PROTEROZOIC

- 14 Mafic Intrusives
- 13 Gowganda Formation
  - a Diamictite
  - b Arkose–Arenite
  - c Siltstone–Mudstone
  - d Laminated Mudstone–Siltstone

ARCHEAN

- 12 Matachewan Diabase
- 11 Silicic Intrusives – Granite, Syenite, Qtz Diorite
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- 7 Fe–Rich Tholeiitic Basalt
- 6 CLLB Hosted Sedimentary Roacks
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- 4 Mg–Rich Tholeiitic Volcanic Rocks
- 3 Komatiitic Volcanic Rocks
- 2 Siliceous Sedimentary Rocks
- 1 Lower Calc–Alk Volcanic Rocks

Pine Replant (circa 1988)
Deformation Zone (CLLB)

Bedding
Foliation
Pillows
Glacial Striae
Swamp
Esker
Fault

Pine, Cedar, Tamarack
no outcrop
1207656
1207657
1207655
BANNOCKBURN
14
1207646
1207649
1207647
1207648
13
DOON
1207637
1207638
1207639
1207636
Mature Pine Replant
1207626
1207627
1207628
1207625
Pine Replant
13a
13b
13bc
13c
13d
15
10
13

Pine, Cedar

no outcrop

13

1207658

1207659

Pine, Cedar

1207660

13

Pine, Cedar

Pine, Cedar

1207649

1207650

1207651

no outcrop

Tower

no outcrop

POWELL

Mixed Forest

1207640

13bc

YARROW

1207639

13c

no outcrop

1207629

Mixed Forest

X 13a

1207628

300

LEGEND

PROTEROZOIC

- 14 Mafic Intrusives
- 13 Gowganda Formation
  - a Diamictite
  - b Arkose–Arenite
  - c Siltstone–Mudstone
  - d Laminated Mudstone–Siltstone

ARCHEAN

- 12 Matachewan Diabase
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- 4 Mg–Rich Tholeiitic Volcanic Rocks
- 3 Komatiitic Volcanic Rocks
- 2 Siliceous Sedimentary Rocks
- 1 Lower Calc–Alk Volcanic Rocks

Pine Replant (circa 1988)

Deformation Zone (CLLB)

Bedding
Foliation
Pillows
Glacial Striae
Swamp
Esker
Fault

0 100 200 300 400
METRES

KEY MAP

WMC International Limited
Americas Division – Exploration

DOON PROPERTY

GEOLOGY

COMPILED: CJB	SCALE: 1:5000	PN: 4057
DRAFTED: LWu	REVISION:	PLAN: 4057GL05
DATE: 03 APR 97	DATE:	MAP No.:

MAP 2D

MIDLOTHIAN

1207620 1207621 1207622 1207601 1207603 1207664 1207665 1206249 1207666 1207667 1207615 1207614 1189299 1189298

Pine Replant

Lipton Lake

Roche Lake

Elizabeth Lake

Larry Lake

Cow Lake

Raglan Lake

Lacoma Lake

Gump Lake

Hoover Lake

Heron Lake

Mature Pine

LEGEND

PROTEROZOIC

- 14 Mafic Intrusives
- 13 Gowganda Formation
  - a Diamictite
  - b Arkose–Arenite
  - c Siltstone–Mudstone
  - d Laminated Mudstone–Siltstone

ARCHEAN

- 12 Matachewan Diabase
- 11 Silicic Intrusives – Granite, Syenite, Qtz Diorite
- 10 Peridotite and Gabbro
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  - a Conglomerate
  - b Arkose Greywacke
- 8 Upper Calc–Alk Volcanic Rocks
- 7 Fe–Rich Tholeiitic Basalt
- 6 CLLB Hosted Sedimentary Roacks
- 5 Mafic Sedimentary Rocks
- 4 Mg–Rich Tholeiitic Volcanic Rocks
- 3 Komatiitic Volcanic Rocks
- 2 Siliceous Sedimentary Rocks
- 1 Lower Calc–Alk Volcanic Rocks

Pine Replant (circa 1988)

Deformation Zone (CLLB)

Bedding · Foliation · Pillows · Glacial Striae · Swamp · Esker · Fault

0 100 200 300 400 METRES

2.17239

310

41P15NW0004 2.17239 POWELL

WMC International Limited
Americas Division – Exploration

DOON PROPERTY

GEOLOGY

COMPILED: CJB	SCALE: 1:5000	P/N: 4057
DRAFTED: LWu	REVISION:	PLAN: 4057GLG5
DATE: 03 APR 97	DATE:	MAP No.:

MAP 2E

KEY MAP

no outcrop

1207628

1207629

1207618

1207619

1207622

1207663

no outcrop

no outcrop

13b

13c

13c,qvn

13a

13da

13ad

13abc

13ac

Pine Replant

13bc

13bc,qv

13ca

Mistinikan

Lake

YARROW

2.17289

320

41P15NW0014 2.17289 POWELL

LEGEND

PROTEROZOIC

- 14 Mafic Intrusives
- 13 Gowganda Formation
  - a Diamictite
  - b Arkose–Arenite
  - c Siltstone–Mudstone
  - d Laminated Mudstone–Siltstone

ARCHEAN

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  - a Conglomerate
  - b Arkose Greywacke
- 8 Upper Calc–Alk Volcanic Rocks
- 7 Fe–Rich Tholeiitic Basalt
- 6 CLLB Hosted Sedimentary Roacks
- 5 Mafic Sedimentary Rocks
- 4 Mg–Rich Tholeiitic Volcanic Rocks
- 3 Komatiitic Volcanic Rocks
- 2 Siliceous Sedimentary Rocks
- 1 Lower Calc–Alk Volcanic Rocks

Pine Replant (circa 1988)

Deformation Zone (CLLB)

Bedding
Foliation
Pillows
Glacial Striae
Swamp
Esker
Fault

0 100 200 300 400
METRES

KEY MAP

WMC International Limited
Americas Division – Exploration

DOON PROPERTY

GEOLOGY

COMPILED: CJB	SCALE: 1:5000	PN: 4057
DRAFTED: LWu	REVISION:	PLAN: 4057GLG5
DATE: 03 APR 97	DATE:	MAP No.:

MAP 2H

DOON

1207622 1207623 1207624 1207625 1207606 1207605 1207603 1207604 1223333 1207612 1207611 1207613 1207614 1207610 1207607 1189298

Kame Lake

Leahy Lake

Poplar, Birch

Pine Replant

Fault Lake

2.17239

LEGEND

PROTEROZOIC

- 14 Mafic Intrusives
- 13 Gowganda Formation
  - a Diamictite
  - b Arkose–Arenite
  - c Siltstone–Mudstone
  - d Laminated Mudstone–Siltstone

ARCHEAN

- 12 Matachewan Diabase
- 11 Silicic Intrusives – Granite, Syenite, Qtz Diorite
- 10 Peridotite and Gabbro
- 9 Timiskaming Sedimentary Rocks
  - a Conglomerate
  - b Arkose Greywacke
- 8 Upper Calc–Alk Volcanic Rocks
- 7 Fe–Rich Tholeiitic Basalt
- 6 CLLB Hosted Sedimentary Roacks
- 5 Mafic Sedimentary Rocks
- 4 Mg–Rich Tholeiitic Volcanic Rocks
- 3 Komatiitic Volcanic Rocks
- 2 Siliceous Sedimentary Rocks
- 1 Lower Calc–Alk Volcanic Rocks

Pine Replant (circa 1988)

Deformation Zone (CLLB)

Bedding · Foliation · Pillows · Glacial Striae · Swamp · Esker · Fault

330

41P15NW0014 2.17239 POWELL

KEY MAP

0 100 200 300 400 METRES

WMC International Limited
Americas Division – Exploration

DOON PROPERTY

GEOLOGY

COMPILED: CJB	SCALE: 1:5000	PN: 4057	
DRAFTED: LWu	REVISION:	PLAN: 4057GL05	
DATE: 03 APR 97	DATE:	MAP No.:	

MAP 2F

1207626 1207628 1207625 1207627 1207616 1207607 1207617 1207618 1207608 DOON 1207609 1207622 1207610 1207661

Pine Replant

Elmer Lake

no outcrop

GOWGANDA FORMATION

Relief = 200m

LEGEND

PROTEROZOIC

- 14 Mafic Intrusives
- 13 Gowganda Formation
  - a Diamictite
  - b Arkose–Arenite
  - c Siltstone–Mudstone
  - d Laminated Mudstone–Siltstone

ARCHEAN

- 12 Matachewan Diabase
- 11 Silicic Intrusives – Granite, Syenite, Qtz Diorite
- 10 Peridotite and Gabbro
- 9 Timiskaming Sedimentary Rocks
  - a Conglomerate
  - b Arkose Greywacke
- 8 Upper Calc–Alk Volcanic Rocks
- 7 Fe–Rich Tholeiitic Basalt
- 6 CLLB Hosted Sedimentary Roacks
- 5 Mafic Sedimentary Rocks
- 4 Mg–Rich Tholeiitic Volcanic Rocks
- 3 Komatiitic Volcanic Rocks
- 2 Siliceous Sedimentary Rocks
- 1 Lower Calc–Alk Volcanic Rocks

Pine Replant (circa 1988)

Deformation Zone (CLLB)

Bedding; Foliation; Pillows; Glacial Striae; Swamp; Esker; Fault

2.17239

340

KEY MAP

0 100 200 300 400 METRES

WMC International Limited
Americas Division – Exploration

DOON PROPERTY

GEOLOGY

COMPILED: CJB	SCALE: 1:5000	PN: 4057
DRAFTED: LWu	REVISION:	PLAN: 4057GLG5
DATE: 03 APR 97	DATE:	MAP No.:

MAP 2G

2.17239

1207622

1207623

Kome Lake

1207624

1207625

1207626

1207603

1207604

1207605

1207606

1207607

1207608

1207609

1207610

1207611

1207612

1207613

1207614

1223333

MIDLOTHIAN Twp.

DOON Twp.

A

A'

B

B'

C

C'

60 E 62 E 64 E 66 E 68 E 70 E 72 E 74 E 76 E 78 E 80 E 82 E 84 E 86 E 88 E 90 E 92 E 94 E 96 E 98 E 100 E 102 E 104 E 106 E 108 E 110 E

BL300+00N

TL290+00N

LEGEND

IP Anomaly		Resistivity Anomaly
	Extent of Surveyed Line	
POSSIBLE		POSSIBLE
PROBABLE		PROBABLE
DEFINITE		DEFINITE
	Magnetic Contact	
	Extent of Surveyed Line	
	Grid Line	
	Magnetic Contact	
	Magnetic Dyke	
	Resistivity Contact	
	Resistivity Low	
	Fault	

0 100 200 300 400
METRES

WMC International Limited
Americas Division – Exploration

DOON PROPERTY
Geophysical Anomaly Compilation and Data Interpretation

COMPILED: RT	SCALE: 1:5000	PN: 4057	
DRAFTED: LWu	REVISION:	PLAN: 4057GPHY	
DATE: 01 APR 97	DATE:	MAP No.:	

Figure GPX-3

1207632

1207633

1207631

1207621

1207622

1207620

1207664

1207601

1207665

1206249

1207666

1207603

1207667

1223333

MIDLOTHIAN

1207615

1207614

1207613

1189299

1189298

Maher Lake

Jean Lake

Roche Lake

Elizabeth Lake

Cow Lake

Larry Lake

Raglan Lake

Locoma Lake

CR104265 / -7777

CR104266 / -7777

CR104268 / 2

CR104269 / -7777

CR104270 / -7777

CR104271 / -7777

CR104272 / -9998

CR104273 / -7777

CR104274 / -7777

CR104275 / -7777

CR104276 / 79

CR104277 / -7777

CR104278 / -7777

CR104279 / -7777

CR104280 / 12

CR104281 / 34

CR104282 / 48

CR104283 / 5

CR104284 / 14

CR104285 / 5

CR104286 / -7777

CR104287 / 9

CR104288 / -7777

CR104289 / -7777

CR104290 / 5

CR104291 / 38

CR104292 / 38

CR104293 / -7777

CR104294 / -7777

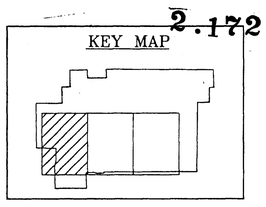
CR104295 / -7777

CR104296 / -7777

CR104297 / -7777

2.17239

KEY MAP



LEGEND

SAMPLE NUMBER / Au (ppb)
(30g FA/AA)

NOTE: <-77777> Au value denotes NIL
<-99999> Au value denotes { NOT ANALYZED / THIN SECTION MADE

0 100 200 300 400
METRES

360

417134W0014 2.17239 POWELL

WMC International Limited
Americas Division – Exploration

DOON PROPERTY

LITHOGEOCHEMISTRY

Sample Locations and ppb Au

COMPILED: AC	SCALE: 1:5000	PN: 4057
DRAFTED: JWu	REVISION:	PLAN: 4057ROCK
DATE: 02 APR 97	DATE:	MAP No.:

MAP 3A

WMC International Limited
Americas Division – Exploration

DOON PROPERTY

LITHOGEOCHEMISTRY

Sample Locations and ppb Au

COMPILED: AC	SCALE: 1:5000	PN: 4057
DRAFTED: LWu	REVISION:	PLAN: 4057ROCK
DATE: 02 APR 97	DATE:	MAP No.:

MAP 3B

0 100 200 300 400
METRES

LEGEND

SAMPLE NUMBER / Au (ppb)
(30g FA/AA)

NOTE: <-7777> Au value denotes NR
<-9999> Au value denotes NOT ANALYZED THIN SECTION WADE

KEY MAP

41P15NW0014 2.17239 POWELL

370

1207634
1207635
1207636
1207637
1207623
1207624
1207625
1207626
1207604
1207605
1207606
1207607
1207608
1223333
1207612
1207613
1207611
1207610
1207609
DOON

Kame Lake
Leahy Lake
Fault Lake

MAP 3C

WMC International Limited
Americas Division – Exploration

DOON PROPERTY

LITHOGEOCHEMISTRY

Sample Locations and ppb Au

COMPILED: AC	SCALE: 1:5000	PN: 4057
DRAFTED: LWu	REVISION:	PLAN: 4057ROCK
DATE: 02 APR 97	DATE:	MAP No.:

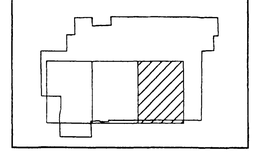
0 100 200 300 400
METRES

LEGEND

x SAMPLE NUMBER / Au (ppb)
(30g FA/AA)

NOTE: <-7777> Au value denotes NIL
<-9999> Au value denotes } NOT ANALYZED
THIN SECTION MADE

KEY MAP



419150MW0014 2.17239 POWELL

380

1207637
1207638
1207639
1207626
1207627
1207628
1207616
1207608
1207617
1207618
1207609
1207661
1207622

QR104484 / -7777
QR104440 / -7777
QR104427 / 9

Elmer
Lake

DOON

MONTROSE TWP.

MIDLOTHIAN TWP.

WMC Property

Lipton Lake

Lloyd Lake

Lloyd Lake

Roche Lake

Elizabeth Lake

Cow Lake

Larry Lake

Ragan Lake

United Asbestos Road

Premier Exploration Option

204373 169
204602 505
204318 23600
204339 * 125
204604 1030
204317 * 121
204319 784
204338 * 22
204366 4900
204367 * 49
204316 * 87
204334 1420
204320 288
204316 * 479
204335 2740
204361 1060
204372 * 59
204371 * 12
204336 1880
204337 56
204362 * 266
204314 * 33
204321 396
204333 * 334
204364 * 244
204313 2100
204332 3050
204369 * 114
204344 1300
204322 4120
204603 * 110
204368 * 125
204331 1040
204345 * 266
204370 3520
204323 1040
204363 * 236
204346 1200
204330 16300
204358 756
204347 * 59
204357 * 127
204329 814
204328 885
204359 * 180
204348 * 15
204324 65700
204360 * 99
204374 * 178
204349 * 129
204327 5380
204359 * 243
204350 847
204325 700
204351 * 169
204326 1720
204352 2040
204377 940
204378 315
204601 891
204375 * 171
204376 * 244
204343 * 306
204356 * 39
204355 * 155
204342 * 460
204354 * 59
204341 * 714
204340 * 149
204353 * 7

WMC PROPERTY
MAP 4(A)
Scale 1:150000

WMC SURFACE TILLS (1995+1996)

HMC Gold (ppb)

30 g INAA

- 0 - 249
- 250 - 499
- 500 - 999
- 1000 - 2499
- >= 2500

Sample ID ■ HMC Au (ppb)

Trails
Roads
Rivers
Lakes
Townships
WMC Property Boundary

N

1:5000

200 0 200 400
Meters

2.17239

MAP #4A

DOON - PROJECT 4057

SURFACE TILL SAMPLE LOCATIONS AND GOLD GEOCHEMISTRY

41P15NW0014 2.17239 POWELL

390

DRAWN BY: AC
DATE: MARCH 31, 1997
SCALE: 1:5 000
NTS: 41-P/15
ZONE: 17
NAD: 27

2.17239

MIDLOTHIAN TWP.

DOON TWP.

Blake, *et al.* Option

Raven Resources Option

United Asbestos Road

Leahy Lake

Fault Lake

Piper Lake

Duncan Creek

DRC-95-01 *
204618 / 64
204619 / 25
204620 / 5
204621 / 107
204622 / 15
204623 / 25
204624 / 7
204625 / 7
204626 / 184
204627 / 78
204628 / 80

DRC-95-02 *
204615 / 253
204616 / 271
204617 / 59

DRC-95-03
204629 / 1320
⊠ 204630 / 5740
204631 / 2660

DRC-95-04 ⊠
204608 / 215
204609 / 147
204610 / 1100
204611 / 126
204612 / 1020
204613 / 64
204614 / 127

DRC-95-05
204632 / 1750
204633 / 511
204634 / 445
204635 / 269
204636 / 942
204637 / 142
204638 / 174
204639 / 431
204640 / 142
204641 / 160

DRC-95-06 ⊠ 204607 / 73
204605 / 699
204606 / 170

DRC-95-07 * 204642 / 41

DRC-95-08 □ (Lost)

DRC-95-09 ⊠ 204643 / 2180

204389 * 57
204390 ■ 584
204387 * 31
204388 * 413
204379 * 100
204380 * 441
204381 * 159
204391 * 350
204384 ■ 5630
204385 * 131
204386 * 33
204383 ■ 1270
204382 ■ 815

2.17239

WMC SURFACE TILLS (1995+1996)

HMC Gold (ppb)
30 g INAA

- · 0 - 249
- ▪ 250 - 499
- ▪ 500 - 999
- ■ 1000 - 2499
- ■ >= 2500

Sample ID ■ HMC Au (ppb)

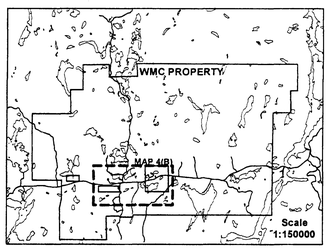
WMC RC TILLS (1995)

HMC Gold (ppb)
30 g INAA

- · 0 - 249
- ▪ 250 - 499
- ⊠ 500 - 999
- ⊠ 1000 - 2499
- ⊠ >= 2500

RC HOLE ID ⊠ SAMPLE ID / HMC Au (ppb)

Trails
Roads
Rivers
Lakes
Townships
WMC Property



N

1:5000

200 0 200 400
Meters

MAP #4B **DOON - PROJECT 4057**

SURFACE TILL\RC HOLE SAMPLE LOCATIONS AND GOLD GEOCHEMISTRY

41P15NW0014 2.17239 POWELL

400

DRAWN BY: AC
DATE: MARCH 31, 1997
SCALE: 1:5 000
NTS: 41-P/15
ZONE: 17
NAD: 27

LEGEND

~~17239~~ Magnetic Dyke

Magnetic Stratigraphic Marker

Air Photo Lineaments

Faults

EM-Anomaly Trend
EM-Anomaly (undifferentiated)

Slumberger Sounding Site

Proposed Sounding Site

41915MI0014.2.17239 POWELL

410

0 0.5 1.0 1.5 2.0

KILOMETRES

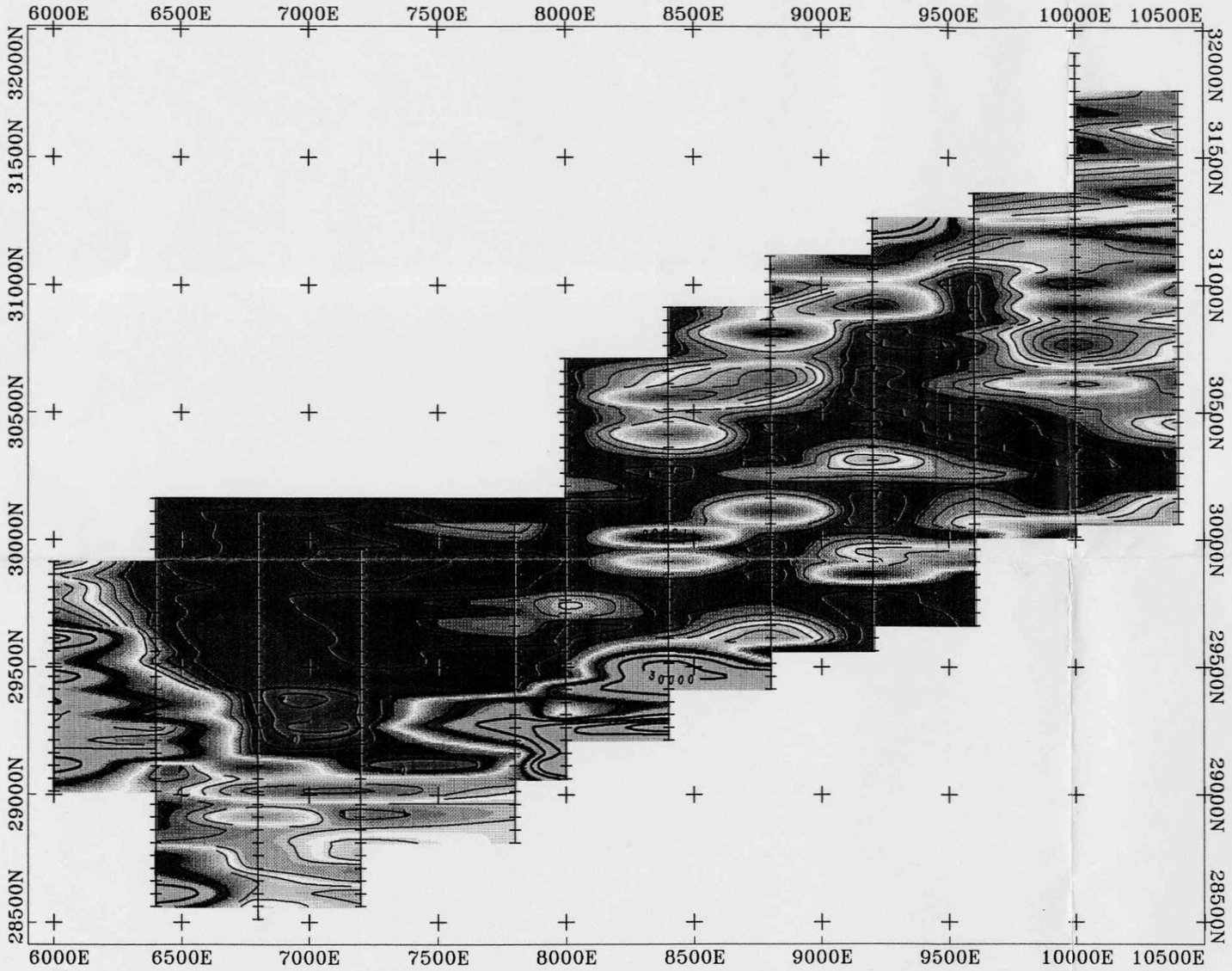
WMC International Limited
Americas Division – Exploration

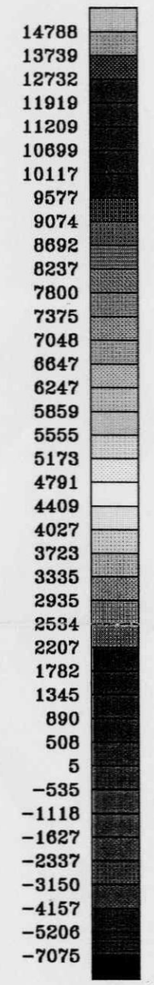
DOON PROJECT

Geophysical Data
Interpretation

COMPILED: CJB,RT	SCALE: 1:20000	PN:	4057
DRAFTED: LWu	REVISION:	PLAN:	DOONGPHY
DATE: 31 MAR 97	DATE:	MAP No.:	

MAP #5





Resistivity
(Ohm.m)



Scale 1:20000

250 0 250 500 750 1000 1250 1500
(metres)

420
41P15NW0014 2.17239 POWELL
2.17239
RECEIVED
MAY - 6 199
MINING LANDS BR

(Figure 5) Plate 1

WMC INTERNATIONAL LTD.
DOON PROJECT DOON TWP., ONTARIO NTS: 41P/15
RESISTIVITY (n=2) CONTOUR MAP Contour Levels: 1000, 10000 mV/V
JVX LTD (Ref. 9682, Feb 1997)

1207622

1207623

1207624

1207625

1207626

1207603

1207604

1207605

1207606

1207607

1207614

1207612

1207608

1207609

1207611

1207610

1207613

Kame Lake

TL290+00N

BL300+00N

MIDLOTHIAN Twp.

DOON Twp.

1223335

2.17239

430

0 125 250 375 500 METRES

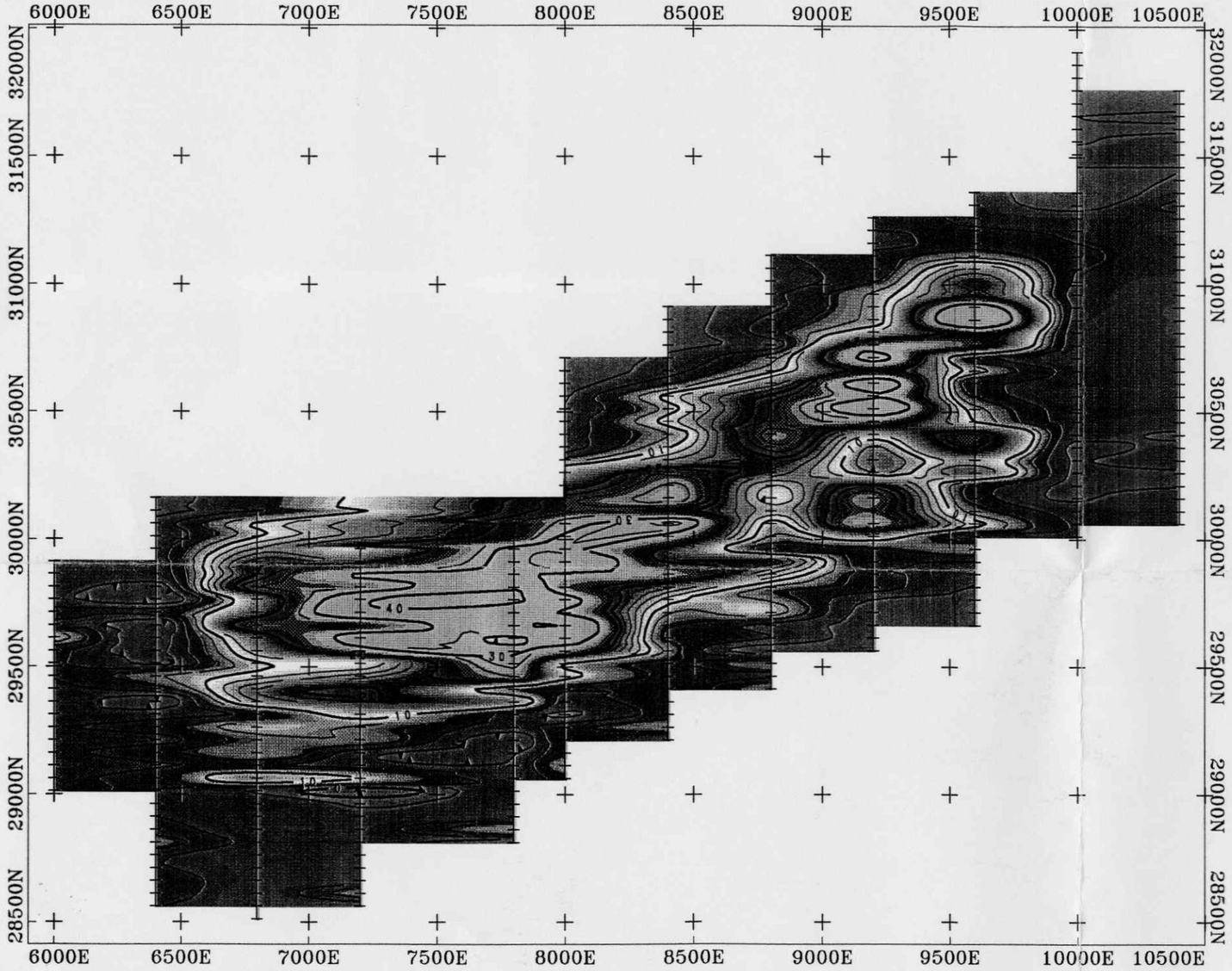
WMC International Limited
Americas Division – Exploration

DOON PROJECT
Resistivity Contour Map
(n= 2)
Surveyed by: JVX Ltd.,Ref.9682
March 1997

COMPILED: CJB	SCALE: 1:5000	PN: 4057
DRAFTED: LMu	REVISION:	PLAN: 4057GPHY
DATE: 6 MAR 97	DATE:	MAP No.: Plate 2

(Figure 6)

440



27.05
25.34
23.70
22.38
21.23
20.40
19.45
18.57
17.75
17.13
16.39
15.68
14.99
14.45
13.80
13.15
12.52
12.02
11.40
10.78
10.16
9.53
9.04
8.41
7.76
7.11
6.57
5.88
5.17
4.43
3.81
2.99
2.11
1.16
0.33
−0.82
−2.15
−3.78
−5.49
−8.53

Chargeability
(mV/V)

Scale 1:20000

250 0 250 500 750 1000 1250 1500
(metres)

41P15NW0014 2.17239 POWELL

RECEIVED
MAY - 6 1997
MINING LANDS BRANCH
2.17239

(Figure 7) Plate 3

WMC INTERNATIONAL LTD.
DOON PROJECT DOON TWP., ONTARIO NTS: 41P/15
CHARGEABILITY (M7, n=2) CONTOUR MAP Contour Levels: 2, 10 mV/V
JVX LTD (Ref. 9682, Feb 1997)

1207622
1207623
1207624
1207625
1207626
1207604
1207605
1207606
1207607
1207608
1207611
1207612
1207610
603
1223333
Exme
Lake
TL290+00N
BL300+00N
Twp.
MIDLOTHIAN
DOON
Twp
6000E 6200E 6400E 6600E 6800E 7000E 7200E 7400E 7600E 7800E 8000E 8200E 8400E 8600E 8800E 9000E 9200E 9400E 9600E 9800E 10000E 10200E 10400E
31800N 31600N 31400N 31200N 31000N 30800N 30600N 30400N 30200N 30000N 29800N 29600N 29400N 29200N 29000N 28800N 28600N
60 E 62 E 64 E 66 E 68 E 70 E 72 E 74 E 76 E 78 E 80 E 82 E 84 E 86 E 88 E 90 E 92 E 94 E 96 E 98 E 100 E 101 E 102 E 104 E 106 E 108 E 110 E

WMC International Limited
Americas Division – Exploration

DOON PROJECT

2.17239

COMPILED: CJB	SCALE: 1:5000	PN:	4057
DRAFTED: LWu	REVISION:	PLAN:	4057GPHY
DATE: 5 MAR 97	DATE:	MAP No.:	

N

Scale 1:5000
100 0 100 200 300
(meters)

450

(Figure 8) Plate 4

WMC INTERNATIONAL LTD.

DOON PROJECT
DOON TWP., ONTARIO
NTS: 41P/15

CHARGEABILITY (N=2) CONTOUR MAP
Contour Levels: 2, 10 mV/V

JVX LTD (Ref. 9882, Feb 1997)

1207622

1207623

1207624

1207625

1207626

603

1207604

1207605

1207606

1207607

1207608

1207609

1207610

1207611

1207612

1207613

1223333

Kane Lake

MIDLOTHIAN TWP.

DOON TWP.

BL300+00N

BL290+00N

WMC International Limited
Americas Division - Exploration

DOON PROJECT

2.17239

COMPILED: CJB	SCALE: 1:5000	PN: 4057
DRAFTED: LWu	REVISION:	PLAN: 4057GPHY
DATE: 5 MAR 97	DATE:	MAP No.:

Scale 1:5000

100 0 100 200 300 (meters)

460

(Figure 9) Plate 5

WMC INTERNATIONAL LTD.

TOTAL FIELD MAGNETICS PROFILE MAP
DOON PROJECT
DOON TWP., ONT., NTS: 41P/15

Profile Plot Scale: 200 nT/cm
Base Value 57500 nT

JVX LTD. (Ref.9682, Feb.1997)