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REPORT  
ON  
GOWGANDA RESOURCES INC.  
CARSHAW GOLD PROPERTY  
TIMMINS AREA, ONTARIO

by

Jack G. Willars, B.A.Sc., P.Eng.  
Consulting Mining Geologist

New Liskeard, Ontario

October 15, 1982

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REPORT  
ON  
GOWGANDA RESOURCES INC.  
CARSHAW GOLD PROPERTY  
TIMMINS AREA, ONTARIO

INTRODUCTION

Gowganda Resources Inc. owns fifteen contiguous, paten-ted mining claims comprising 646.96 acres which straddle the common boundary between Carman and Shaw Townships in their south parts, in the Porcupine Mining Division of Ontario.

The claims are numbered, as follows:

✓ Carman Township - H.R. 1101 to 03 inclusive, E.D. 366,  
P25577 & 8, P25637 & 8, P20471 to 73 inclusive.

✓ Shaw Township - P8621, P416, P13814, P8299.

An excellent feasibility study by A.S. Bayne dated August 31, 1981, provides valuable detail and historical record of this same claims group.

ACCESSIBILITY

The property is located south east of South Porcupine, Ontario, and is readily accessible by ten miles of excellent gravel road and one mile of improved bush road.

Hydro-electric power lines are within one mile of the property and abundant water is available within one mile of

the shaft location. Equipment, supplies and experienced labour are available in the immediate area.

The terrain is generally flat and covered with glacial deposits of gravel, clay, etc., with vegetation consisting of poplar, birch, spruce and pine.

### HISTORY

In 1922 Shaw Porcupine Mines trenched the surface discovery at intervals over a 700' length on the Shaw Twp. claims, and in 1925 sunk a 143' shaft establishing a level at 125' and completed 210' of drifting and 165' of cross-cutting, at which time operations were suspended for lack of funds.

In 1936 Carman Mines succeeded Shaw Porcupine and in 1939 the surface trenches were check sampled by Pamour Porcupine Mines with favourable results. World War II intervened and nothing more was done until after the cessation of hostilities.

In 1945 Carshaw Porcupine Mines was formed to acquire the Shaw Twp. claims and the protecting Carman Twp. claims to the east. From May 1945 to September 1948, forty-five diamond drill holes totalling 15,332 feet were drilled from surface. During 1950-51 Buffalo-Ankerite Mines extended the 125' level to 920' of drifting drilling twelve short diamond drill holes as assistance in following the ore structure. During late 1981 and the first half of 1982 work was under-

taken as a result of A.S. Bayne's feasibility report. This work and the results are described in the part titled 'Recent Work Program.'

#### GENERAL GEOLOGY

The most prevalent rocks are Keewatin age volcanics which trend N20° E and consist of andesite, rhyolite, tuff and iron formation and dips 60° to 30° easterly. For the most part the rocks on the property are andesites, with amygdaloidal and spherulitic textures, and with a small amount of rhyolite beds occurring in the eastern part of the property.

The rocks contain a concordant bed of gold bearing magnetite-chert banded iron formation up to 40' thick which is exposed on surface on the western or Shaw Twp. claims. The country rocks are altered at both contacts of the iron formation.

The above assemblage of rocks is intruded by east-west and north-south quartz porphyry dikes varying from 3' to 35' in width. A north trending diabase dike, 80' wide and steeply dipping, is located in the west part of the property and cuts across all of the above rocks.

The iron formation consists of both oxide and sulphide iron minerals as well as quartz and chert and contains valuable ore mineral which is gold. Other iron formations are known in the area, one particularly is on the Malga pro-

perty and is located about 700' west of the Carshaw formation and dips easterly into the Carshaw property and is estimated to be below the Carshaw surface formation at 1000'.

#### ECONOMIC GEOLOGY

Gold has been located within an iron formation contained by a series of volcanic rocks. The host iron formation is a typical magnetite-chert banded rock. Pyrite, and glassy quartz bands also occur. Minor accessory minerals observed were hematite, sch elite, tourmaline, galena, sphalerite, chalcopyrite and pyrrhotite. Visible gold was observed in one instance.

The enclosing volcanic rocks have been altered at both contacts of the iron formation to a lighter coloured or bleached phase of the rocks. This indicates hydrothermal action as having taken place. Some faulting underground also had similar intense alteration for up to three feet on both sides.

It is expected that all but the chert quartz is epigenetic and contributes to the concentration of the gold.

Detail sampling of faults, alteration areas, fuchsite patches, intruding quartz did not reveal any significant values in the enclosing volcanic rocks.

In general observations show that the best gold values are obtained where the pyrite is coarse grained ( $\frac{1}{4}$ " to  $\frac{1}{2}$ " size).

Strike faulting was strongly evident along both con-

tacts of the iron formation. This was observed in the surface and underground drilling and the underground workings. Strike faults contrary to the banding were also noted but were not as numerous. Cross faulting was observed infrequently.

The iron formation has been folded and sheared. Contortion of the banding is severe in the shaft and immediately to the south. This area on surface grades good gold values, and underground it appears in the southeast where good gold values also are noted. It is interpreted that a fold or roll in the formation plunges from the shaft to the southeast at an estimated  $30^{\circ}$  and that the gold values are associated with this structure.

The iron formation north of the shaft appears to be mildly bent or folded in the area where the best values and ore widths are observed. This feature is believed to be a factor contributing to the concentration of gold.

The iron formation has been traced on strike for 900' on both surface and underground, and has been traced down dip for 600' easterly. The host iron formation has not been delineated to the north, south or east.

#### RECENT WORK PROGRAM

In November 1981, mining activities were started on the Carshaw Gold Property by Gowganda Resources Inc. Initial work was designed to begin operations as recommended by A.S.

Bayne.

Over two hundred percussion holes were drilled to a vertical depth of forty feet at six foot centres from the shaft to two hundred and twenty-five feet southerly along the iron formation. Examples of analyses of the percussion hole grindings just south of the shaft indicated values of 0.445 oz.Au/ton to a depth of 20', 0.08 to 30', 0.075 to 30', 0.213 to 30' and 0.086 to 30' for various holes. A large rock trench blasted between these results and the shaft to a depth of 30' resulted in 0.167 oz.Au/ton over a true width of 22'. The holes were never blasted since an agreement could not be made with any local mill to treat the broken material. Fifteen surface diamond drill holes totalling 4132' were drilled between older drill holes both north and south of the shaft. Results to the south of the shaft indicated a section of significant gold values from the shaft southerly and easterly down dip along the iron formation, which confirmed and improved the results of earlier drilling results. The full lateral extent was not determined during this program. The Ministry of Natural Resource library is storing the core in Timmins.

Another section of significant gold values was indicated by surface drilling to the north of the shaft. Much porphyry rocks were encountered in the drilling from three to four hundred feet north of the shaft, and shallow drilling did not detect ore values. A new surface rock trench located two hundred



feet north of the shaft resulted in low gold values.

The 143' shaft was dewatered and the 125 foot level was mapped and sampling. North of the shaft a 211.5' section averaged 0.116 oz.Au/ton over a 5' true width. One section of this was an 87'.5 length of 0.181 oz.Au/ton over a 5' true width, and another section was 0.223 oz.Au/ton over a 5' true width.

South of the shaft, significant gold values were located in the foot wall of the iron formation in two places where the formation disappeared into the east wall. This suggested a large fold such as the one indicated near the shaft on surface. The formation in the south drift is folded, faulted and contorted and lies east of the drift.

Underground diamond drilling was initiated to trace the formation in the south drift and to establish the full widths and value in the north drift. Twenty-seven drill holes totalling 1263.5' were drilled. Visible gold was seen in one hole in the North Drift. Using the results of the drilling combined with those of the underground sampling, the following significant gold sections were indicated; North Drift - 217' of 0.185 over 9'.65 true width of which there was 117' of 0.104 over 4'.5 next to 100' of 0.215 over 14'.8 true width. South Drift - 50' of 0.160 over 7' true width and 190' of 0.137 over 6'.35 true width. The core is stored with the Ministry of Natural Resource library in Timmins.

Calculations of grade and tonnages were made combining

the results from all exploration tests. Selecting sections suitable for mining a total of 166,997 tons grading 0.205 oz.Au/ton was established. This represented a 600' length, and 11'.8 average width to a vertical depth of 200'.

The results north of the shaft are cut off by a series of at least six porphyry dikes of various widths from 3' to 30', trending east-west across the iron formation. The formation has not been traced adequately past this point.

South of the shaft the acceptable results appear to plunge in a folded and faulted structure 30° to the southeast. The southerly and easterly extensions of the iron formation have not been delineated.

Sampling of the surface rock dumps resulted, as follows: 973 tons of 0.058 oz.Au/ton, 505 tons of 0.068 oz.Au/ton, 1450 tons of 0.059 oz.Au/ton and 1593 tons of 0.026 oz.Au/ton. Sampling was done by gridding at 5' intervals and grabbing surface rock. While this method is acceptable, a better method may be to backhoe a larger sample across the dumps below the surface. The material has been moved often and may be diluted. Should an opportunity to process this material be made available, it should be considered.

Old trenches 500' east of the shaft were examined and found to contain a quartz vein up to 12" in width with minor pyrite mineralization near its contacts.

At the end of the program the shaft was capped as per Ministry regulations. The capping is removable and the shaft

currently meets safety requirements for this type of work. The program has been terminated and all equipment removed from the property.

SUMMARY AND CONCLUSIONS

Significant gold values have been outlined on the Carshaw Gold Property near Timmins, Ontario. A total of 166,997 tons grading 0.205 oz.Au/ton has been calculated to represent a 600' length and 11'.8 average width to a vertical depth of 200'.

These significant gold values are hosted by a banded magnetite-chert and sulphide iron formation which is locally folded and faulted. The formation has not been adequately delineated to the south and east, nor to the north of transecting porphyry dikes.

A.S. Bayne's feasibility report of August 31, 1981, and recommendations are considered an excellent proposal and when gold prices improve, serious consideration to implement the proposal should be done. A facility to treat the broken material must be made available either by agreement, by leasing or purchasing as the prevailing situation permits.

Regardless of any of the above new gold ore must be located to achieve viability. It is therefore recommended that further exploration be conducted.

RECOMMENDATIONS

It is recommended that an additional program of exploration be conducted to augment the values achieved to date. This search is to be done both north and south of the present existing work.

A description and estimate of costs is:

Line cutting for control from 1000' north to 1000' south - 8.5 miles of east-west picket lines at 100' intervals using the present base line at \$275.00 per mile	= \$	2,337.50
Magnetometer survey at 50' stations - 8 miles at \$300.00 per mile	=	2,400.00
Contingencies	=	262.50
Total	\$	<u>5,000.00</u>

Using the same grid system for close interval surface diamond drilling for exploration combined development purposes plus a maximum 1500' to test the Malga Formation extending into the Carshaw Property - 10,000' of AQWL at \$23.00 per foot	= \$	230,000.00
Supervision and contingencies	=	65,000.00
Total	\$	<u><u>300,000.00</u></u>

It is estimated that \$300,000.00 should be made available to carry out the above program.

Respectfully submitted,



New Liskeard, Ontario  
October 15, 1982


Jack G. Willars, B.A.Sc., P.Eng.  
Consulting Mining Geologist

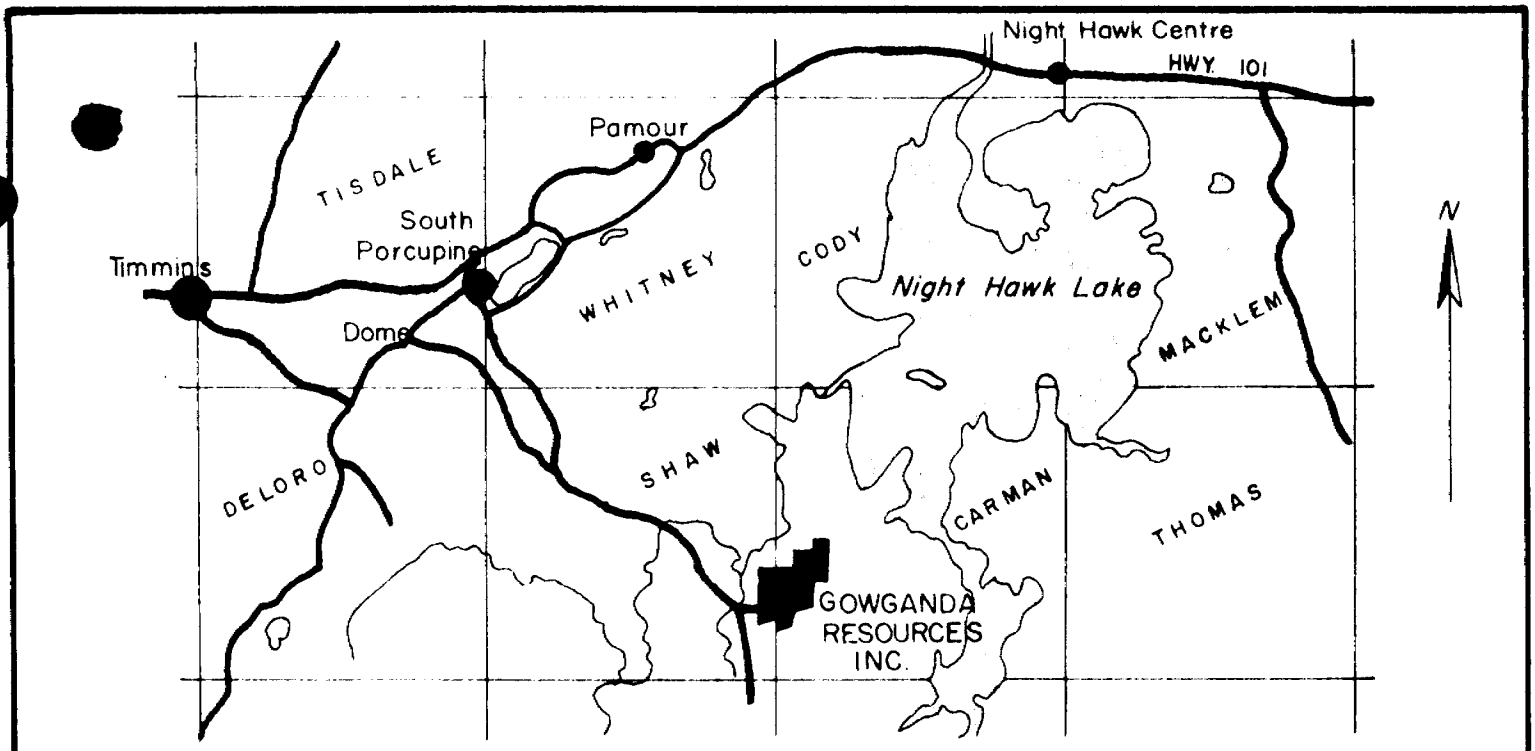
CERTIFICATE

This is to certify that:

1. I am a graduate in Mining Geology from the University of Toronto in 1951, and I hold the degree of Bachelor of Applied Science and I have been practising my profession for the past thirty-one years.
2. I am a member in good standing of the Association of Professional Engineers of Ontario, and am certified as a Consultant, and I reside and hold office 127 Lakeshore Road, New Liskeard, Ontario.
3. I have no direct, indirect or anticipated interest in the properties discussed in this report nor in the securities of Gowganda Resources Inc. or its affiliates.
4. My report is based on personal intimate knowledge of the Carshaw Gold Property during the work program conducted from November, 1981, to the present date.
5. Consent is hereby granted to use this report in its complete form only, in a filing statement, statement of material facts or prospectus by Gowganda Resources Inc.

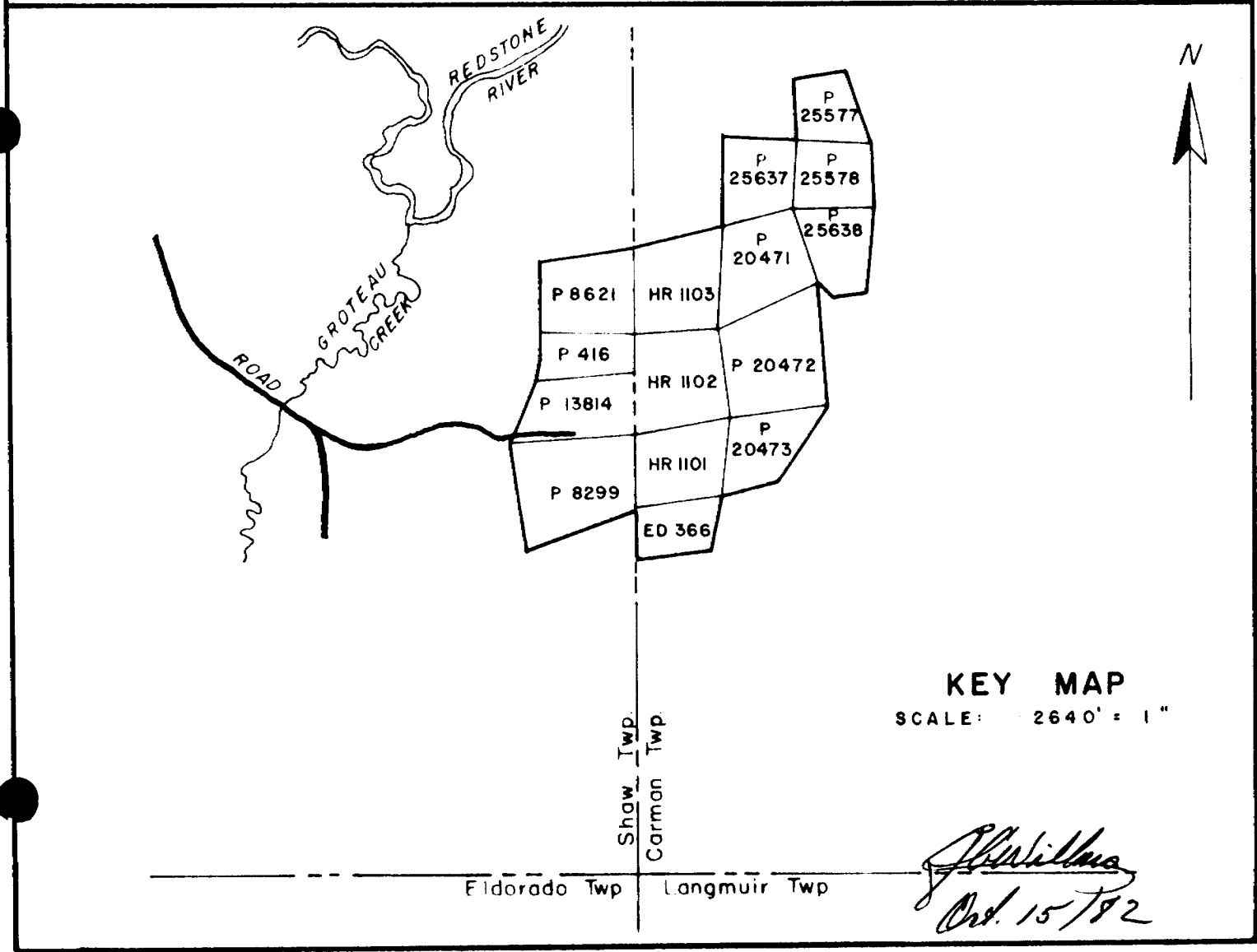
New Liskeard, Ontario  
October 15, 1982

  
Jack G. Willars, B.A.Sc., P.Eng.  
Consulting Mining Geologist



**INDEX MAP**

SCALE 4 MILE = 1 INCH



**KEY MAP**

SCALE: 2640' = 1"

*J. Williams*  
Oct. 15 1982

6'N Surface Base Line  
 5'N N 18° E

NORTH



<u>DUMP</u>	<u>TONS</u>	<u>GRADE</u>	<u>OUNCES</u>
A	973	0.058	56.4
B	505	0.068	34.3
C	1450	0.059	85.6
D	1593	0.026	41.4
	4521	0.048	217.7

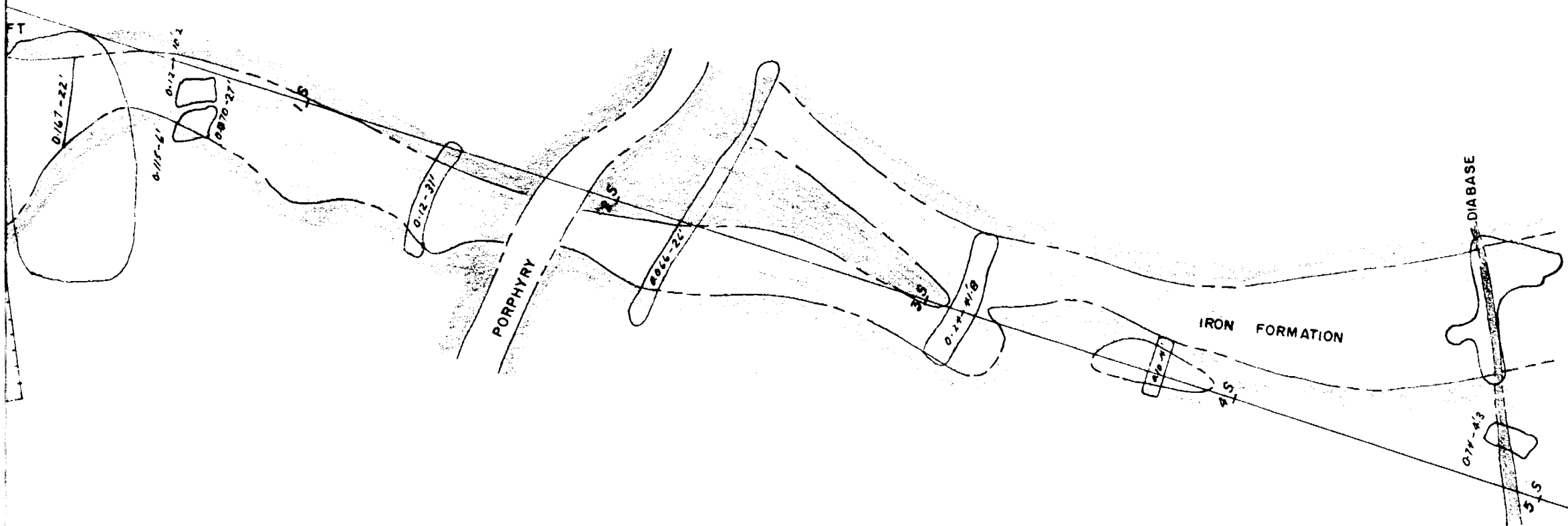


SURFACE PLAN  
GOWGANDA RESOURCES INC.

CARSHAW GOLD PROPERTY

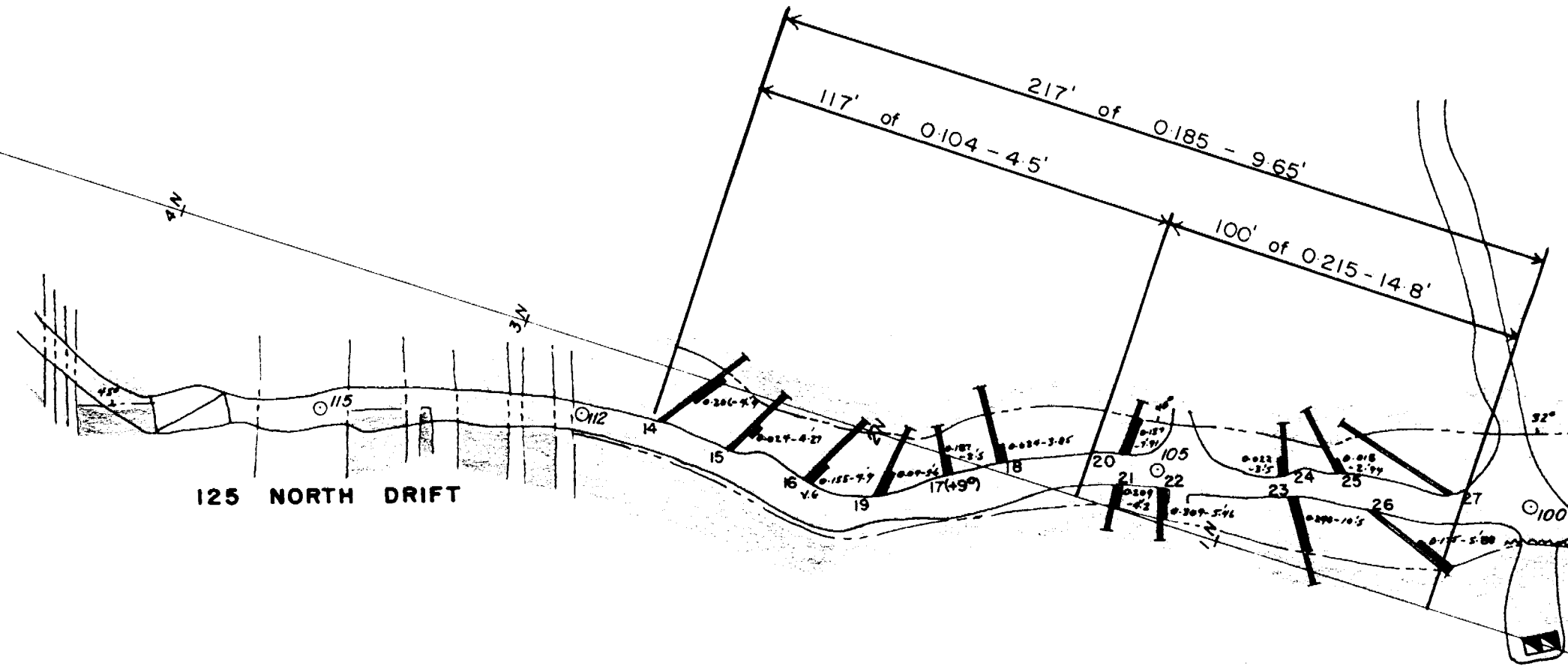
Shaw Twp., Ont.

SCALE: 1"=40'



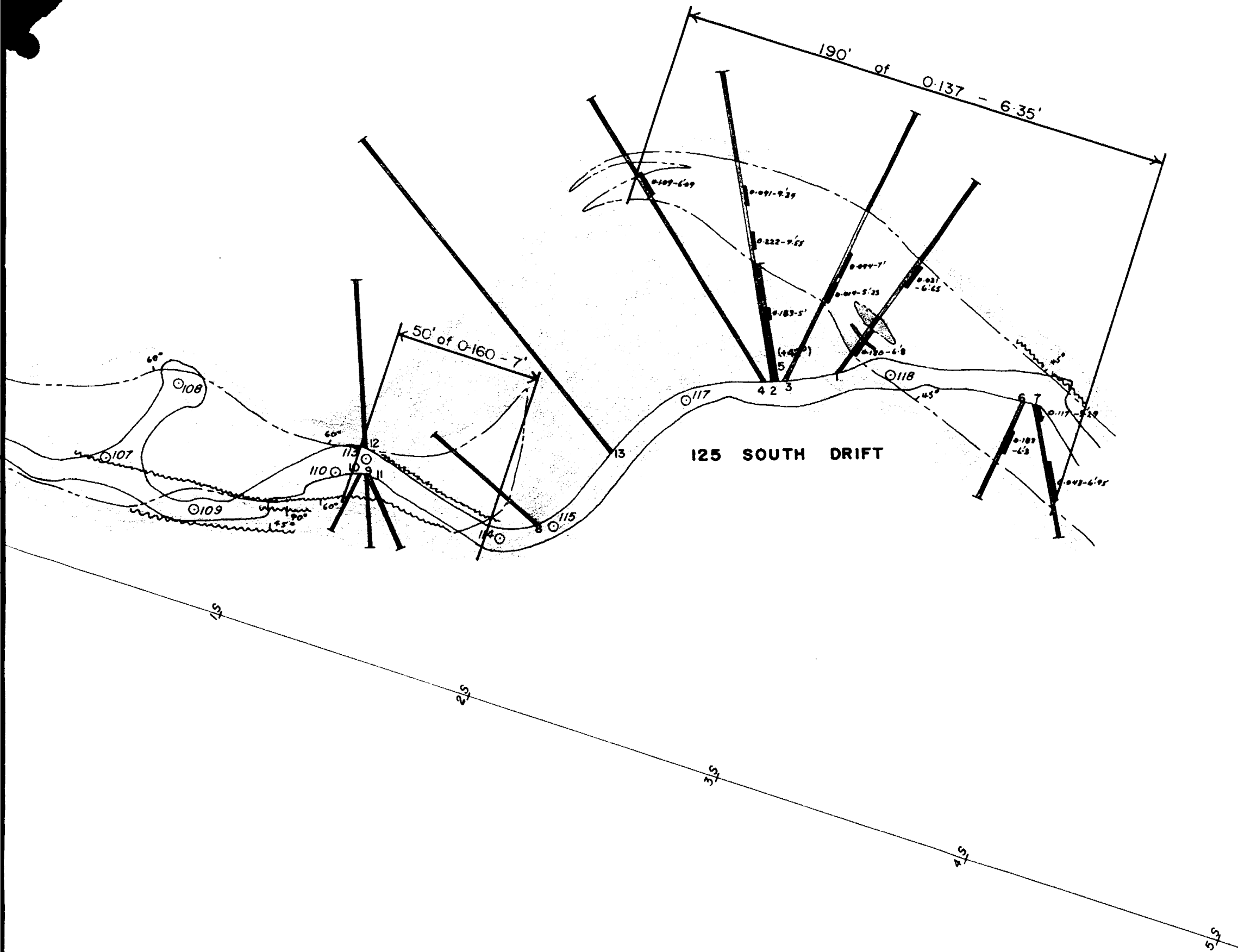
Holes at 0° dip unless otherwise stated.  
Assay results in ounces of gold per ton over true width.  
All result types combined for calculation purposes.

Surface Base Line  
N 18° E



NORTH

GEOLOGY PLAN OF 125' LEVEL  
GOWGANDA RESOURCES INC.  
CARSHAW GOLD PROPERTY  
Shaw Twp., Ont.  
SCALE: 1" = 40'

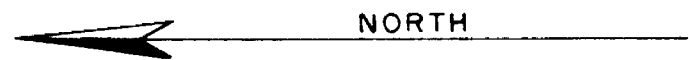
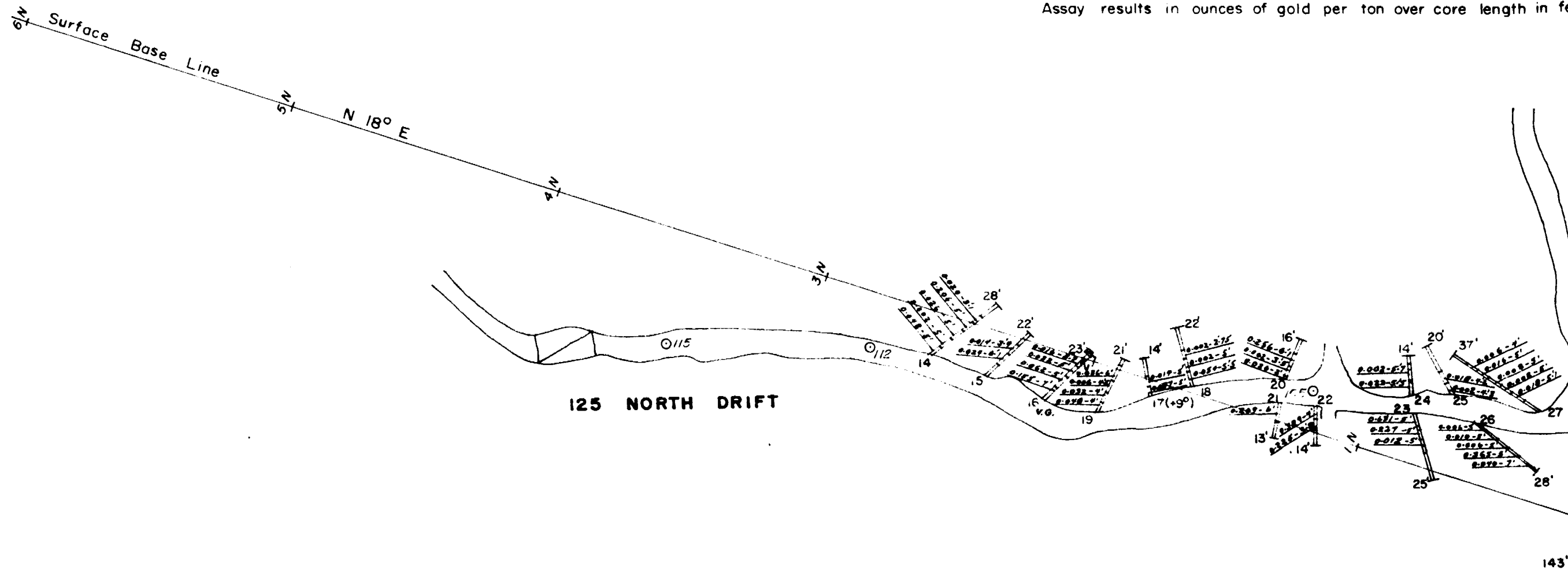


125 SOUTH DRIFT

*G. Willars*  
G. WILLARS

*Oct. 15/82*  
AUG. 1982

Holes at 0° dip unless otherwise stated  
Assay results in ounces of gold per ton over core length in feet



UNDERGROUND DIAMOND DRILLING 1982

PLAN OF 125' LEVEL

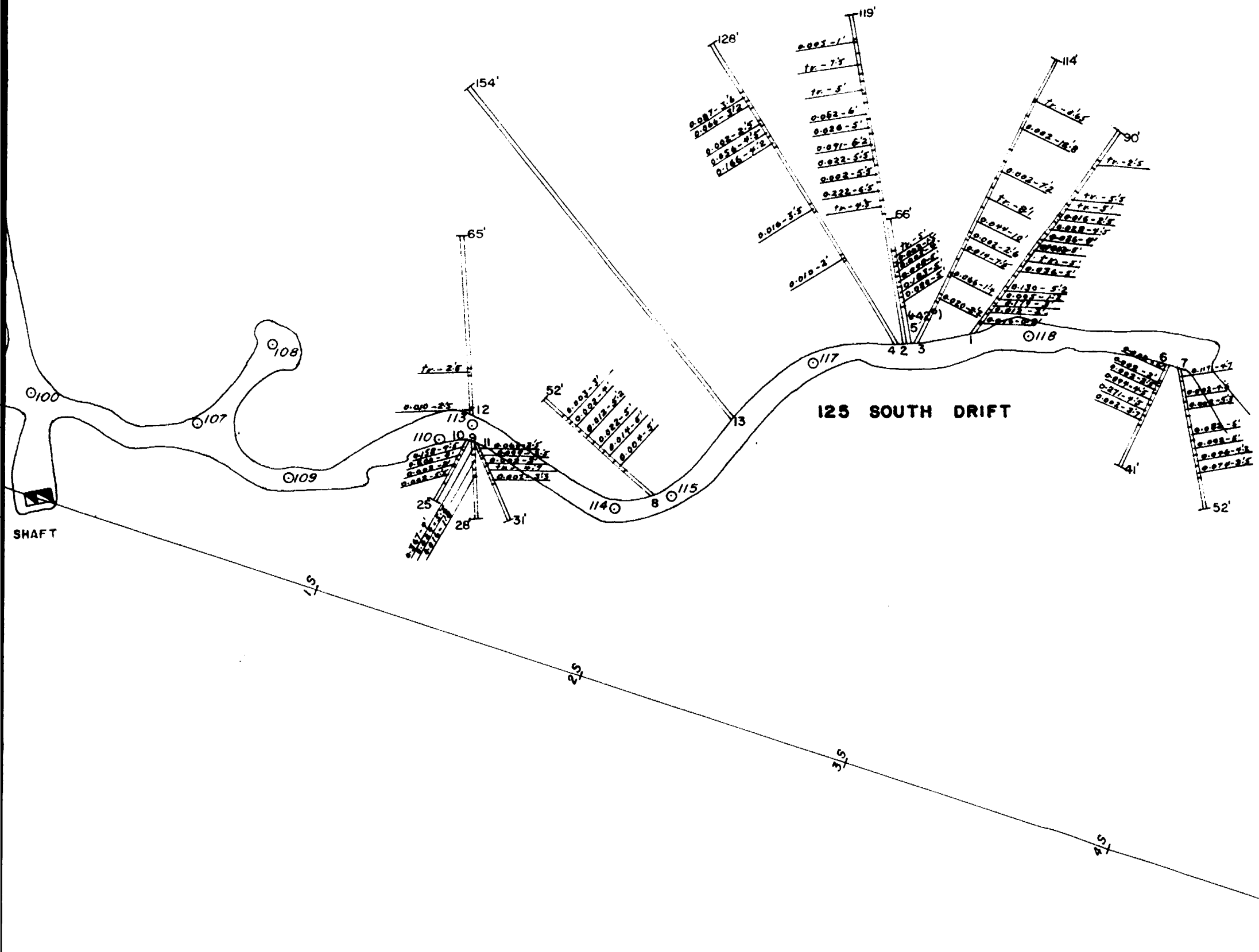
GOWGANDA RESOURCES INC.

CARSHAW GOLD PROPERTY

Shaw Twp., Ont.

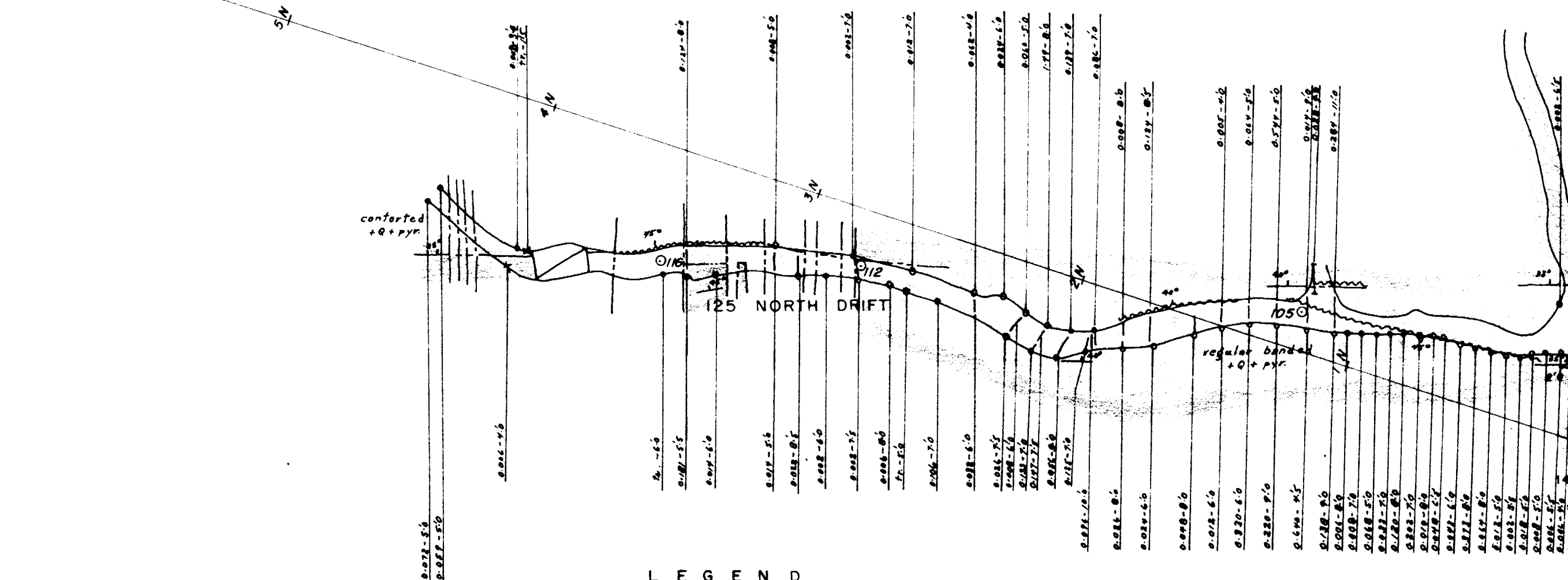
SCALE: 1" = 40'

et.

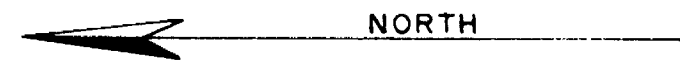
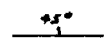

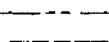
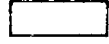

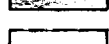
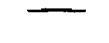

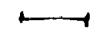
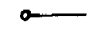
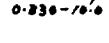



*J. G. Willars* Oct 15/82  
 J. G. WILLARS JULY 1982

s/N Base Line N 16° E



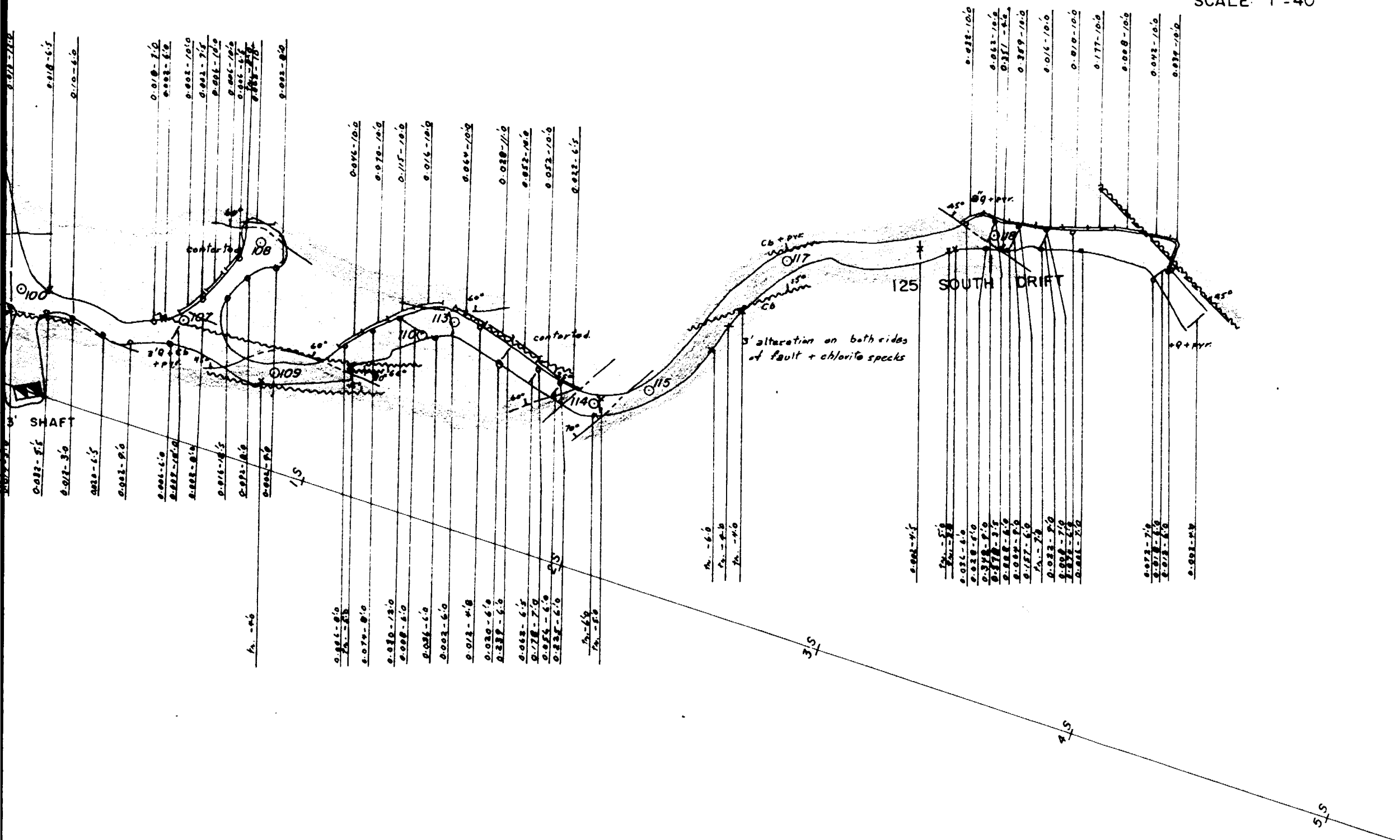
LEGEND

-  NORTH
-  ATTITUDE OF ROCKS AND STRUCTURE
-  FAULT
-  GEOLOGICAL CONTACT
-  PORPHYRY
-  VOLCANIC ROCKS
-  BANDED IRON FORMATION
-  BACK SAMPLE
-  VERTICAL WALL SAMPLE
-  HORIZONTAL WALL SAMPLE
-  WALL + BACK SAMPLE
-  OZ. AU/TON OVER SAMPLE DISTANCE
-  DETAIL SAMPLE

SAMPLING  
PLAN OF 125' LEVEL  
**GOWGANDA RESOURCES INC.**

CARSHAW GOLD PROPERTY  
Shaw Twp., Ont.

SCALE: 1"=40'



*G. Willars*  
G. WILLARS

Oct. 15/82  
MAY 1982



42A06NE8449 63.4168 CARMAN

020

DIAMOND DRILL LOGS



DIAMOND DRILL LOG

82-1

D. D. HOLE NO. 82 - 1

PROPERTY GOWGANDA RESOURCES INC. - Carshaw

PAGE 1

LOCATION Shaw Twp., Ont. Claim P13814

TEST

DEPTH OF HOLE 807'

COLLAR: LAT. 75'S on P.L.

At 300' -55°

STARTED Jan. 23, 1982

DEPT. 50' E of P.L.

At 600' -55°

COMPLETED Jan. 28, 1982

ELEV. Surface

Ministry of Natural Resources

DRILLED BY Barron D.D.

BEARING N 72° W

RECEIVED

DIP minus 56.5°

CORE SIZE BQWL

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	8'	CASING			oz./ton
8'	43.7'	BASIC VOLCANICS Grey to light green, hard and in part contains amygdules up to 3/8" size of white feldspar. Keewatin age type rocks. Sharp lower contact at 45° to the core axis. Finer grained and bleached near the contact.			
3.7'	80.3'	IRON FORMATION Well banded white quartz alternating with 5 to 10% black magnetite bands. From 43.5'-62.5' is taconite type beds with horse of lava from 52'-53'. Pyrite mineralization increases from 62'-63'. From 63'-65.5' is fine grained porphyry with fine grained white feldspar phenocrysts cutting the core at 85° to its axis. From 80.5'-82' is a fault with breccia at the lower contact and vuggy quartz. Some crenulation. SAMPLES : From 43.5'-47' Banded quartz and magnetite with minor pyrite. From 47'-49' As above with 3% pyrite From 49'-51' As above From 51'-54' Banded quartz and magnetite with 12" volcanics and some pyrite. From 54'-57' Little pyrite in taconite From 57'-60' As above. From 60'-62.5' Taconite with 1/2" & 1/4" quartz bands with some pyrite. From 62.5'-64' Banded magnetite and quartz plus 4% pyrite. From 64'-66' Porphyry dike. From 66'-69' Quartz veining with fair amount of pyrite and some magnetite. From 69'-71.5' Quartz plus some magnetite. Good pyrite. From 71.5'-75.5' Banded taconite with some pyrite and a little quartz. From 75.5'-80.3' Banded sugary quartz with 10% pyrite, little magnetite.	32501 32502 32503 32504 32505 32506 32507 32508 32509 32510 32511 32512 32513	3.5' 2.0' 2.0' 3.0' 3.0' 3.0' 2.5' 1.5' 2.0' 3.0' 2.5' 4.0' 4.8'	trace Au trace Au trace Au trace Au trace Au trace Au trace Au 0.05 Au 0.07 Ag trace Au 0.175 Au 0.07 Ag 0.33 Au 0.06 Ag 0.03 Au 0.195 Au 0.16 Ag
0.3'	127'	BASIC VOLCANICS Bleached and grey coloured, fine grained lavas with amygdules. From 80.3'-93.5' altered softer contact zone. From 117'-119' rusty shear at 90°			

SIGNED

*J. G. Willars*  
JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
27'	204'	BASIC VOLCANICS Dark green coloured matrix rock containing up to 1" size amygdules. ? vesicular top at 139'. From 167'-204' contains sparse large (1"-1½") white quartz amygdules.			oz. Au/ton
04'	282'	BASIC VOLCANICS Much the same as 80.3'-127'. From 274'-275' is a yellow felsite matrix with fine white feldspar grains and ½" white quartz at top contact. Contacts are at 45° to the core axis.			
82'	287'	IRON FORMATION Sparse magnetite bands at 35° to the core axis alternating with red jasper and minor white quartz and lava bands. Some crenulation and contacts are at 45° to the core axis. SAMPLES : From 282'-285' As above, minor pyrite From 285'-287' As above with a pyrite and some quartz.	32514 32515	3.0' 2.9'	trace trace
87'	318'	BASIC VOLCANICS Patches of iron formation in crenulated bands interbanded with volcanic rocks. Sparse pyrite patches. At 313' irregular 2" tuff band which is hard, fine grained, yellow to grey matrix with tiny black fragments (? graphite). Is this a younger lava flow picking up debris over interflow sediments ?			
118'	407'	BASIC VOLCANICS Dark green, medium grained to fine grained, hard rock with ghostly irregular banding and large white quartz amygdules. From 384'-385' resembles white phenocrysts in a fine grained black matrix.			
107'	429'	BASIC VOLCANICS Dark green to black coloured, hard, fine to medium grained, mottled rock with sharp flow contact at 40° to the core axis.			
129'	473'	BASIC VOLCANICS As above at 318'-407'. The large 1"-2" quartz sections could be veins, but unlikely since the section above they are rounded and these could merely be larger quartz ingredients. Ghostly bands and lineations are observed.			

SIGNED



JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST



PROPERTY GONGANDA RESOURCES INC. - Carshaw

PAGE 3

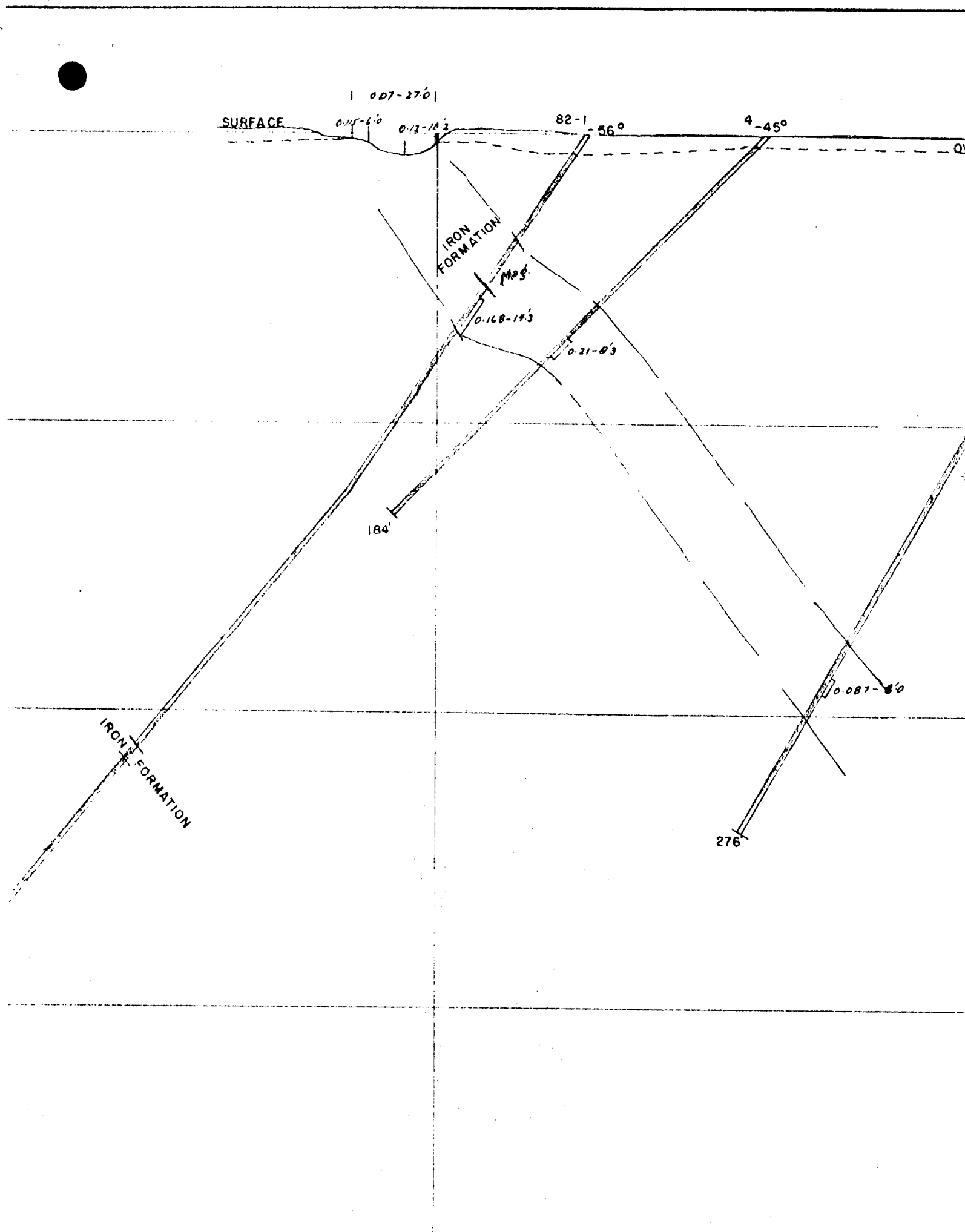
FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
73'	785'	<p>BASIC VOLCANICS</p> <p>Fine grained dark green with 2% fine grained white feldspar grains as mottles. Hard with some specks of chlorite alteration. Homogeneously mottled for the most part.</p> <p>At 526' 1" quartz vein at 20° to core axis.</p> <p>From 541'-542' white quartz-carbonate containing volcanic breccia fragments at 15° to core.</p> <p>At 559' 1/2" pink and white quartz at 45°</p> <p>At 642,5' &amp; 642' 1/2" white quartz at 45°</p> <p>At 657.5' 1/2" mud fault gouge at 45° to core.</p> <p>From 658'-660,2' white quartz-carbonate with volcanic breccia fragments at 40° to core.</p> <p>At 667' 2" fault breccia cemented with quartz and at 50° to the core axis.</p> <p>At 664' 1" pink sheared quartz at 70° to core.</p> <p>At 689' 3/4" white quartz-carbonate shearing at 45° to the core axis.</p> <p>At 690' 1/2" cemented breccia at 45° to core.</p> <p>At 706' vuggy rusty fracture at 60° to core.</p> <p>From 718,5'-721.5 24" quartz-feldspar vein with sheared contacts filled with stringers of quartz-feldspar.</p> <p>At 720' and 730' 1/2" white quartz veins at low angles to the core axis.</p>			
85'	807'	<p>DIABASE</p> <p>Hard, fine grained, mottled dark green coloured rock containing flower like, green-white feldspars up to 1/2" size.</p>			
	807'	END OF HOLE			

SIGNED



JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST





## DIAMOND DRILL LOG

02. 2. 23

D. D. HOLE NO. 82 - 2

PROPERTY GONGANDA RESOURCES INC. - Carshaw

PAGE 1

LOCATION Shaw Twp., Ont. - Claim P13814

TEST

DEPTH OF HOLE 116'COLLAR: LAT. 85' N on B.L.STARTED Feb. 1, 1982DEPT. 50' ECOMPLETED Feb. 2, 1982ELEV. SurfaceDRILLED BY Barron D.D.BEARING N 84.50 WCORE SIZE BQWLDIP minus 45°

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	9'	CASING			oz. Au/ton
9'	45.5'	BASIC VOLCANICS Hard, fine grained, medium green coloured matrix with irregular patches of 1/8" size amygdules. From 36'-45.5' is bleached by alteration.			
5.5'	72'	IRON FORMATION Magnetite bands alternating with sugary quartz bands and chert bands. Rusty vuggy contact at 60° to the core axis. Banded quartz and pyrite at 60° up to 51' with some mild contortion, and from here on narrow magnetite bands start to appear. Taconite iron formation is seen from 51'-64' at a rusty vuggy contact concordant with the banding. From 64'-65.5' 18" barren white quartz. From 65.5'-71' is pyritized sediments with pyrite in both massive and cubic form. Lower contact is a rusty, vuggy band at 60° to the core axis and concordant with the banding. SAMPLES : From 45.5'-48' As above-some pyrite From 48'-50.5' As above-fair pyrite From 50.5'-53' As above-some pyrite From 53'-58' As above-little pyrite From 58'-63' Minor pyrite cubes in taconite. From 63'-67' As above with one 15" quartz band. Minor pyrite. Ghosty banding at 15° to core axis. From 67'-70' Large cube pyrite and quartz - heavy sulphides. From 70'-72' Ghosty banded sediments with minor sulphides.	32516 32517 32518 32519 32520 32521 32522 32523	2.5' 2.5' 2.5' 5.0' 5.0' 4.0' 3.0' 2.0'	trace trace 0.12 trace trace trace 0.03 trace
72'	103.5'	FELSITE PORPHYRY Brownish grey coloured rock with 1% white quartz intrusion. Ghosty white feldspar phenocrysts.			

SIGNED



 JACK G. WILLARS, B. A. SC., P. ENG.  
 CONSULTING MINING GEOLOGIST

## DIAMOND DRILL LOG

D. D. HOLE NO. 82 - 2PROPERTY GONGANDA RESOURCES INC. - CarshawPAGE 2

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
03.5'	112.5'	<p>IRON FORMATION</p> <p>Banded rock at 70° to the core axis. Bands of white quartz, pyrite (massive and cubic), basic lava and magnetite. Some minor contortions. At 106.5' is 3" rusty vug at 90° to the core axis.</p> <p>SAMPLES : From 103.5'-108' Sugary quartz banded with magnetite and pyrite</p> <p>From 108'-112.5' Magnetite and banded white sugary quartz and some pyrite.</p>	32524 32525	4.5' 4.5'	oz. Au/ton  trace trace
12.5'	116'	<p>BASIC VOLCANICS</p> <p>Bleached rock, otherwise resembles above from 9"-45.5'.</p>			
	116'	END OF HOLE.			

SIGNED



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CONSULTING MINING GEOLOGIST

DIAMOND DRILL LOG

D. D. HOLE NO. 82 - 3

PROPERTY GOWGANDA RESOURCES INC. - Garshaw

PAGE 1

LOCATION Shaw Twp., Ont. - Claim P13814  
 COLLAR: LAT. 85° N on B.L.  
 DEPT. 50' E of B.L.  
 ELEV. Surface  
 BEARING N 84.50° W  
 DIP minus 80°

TEST

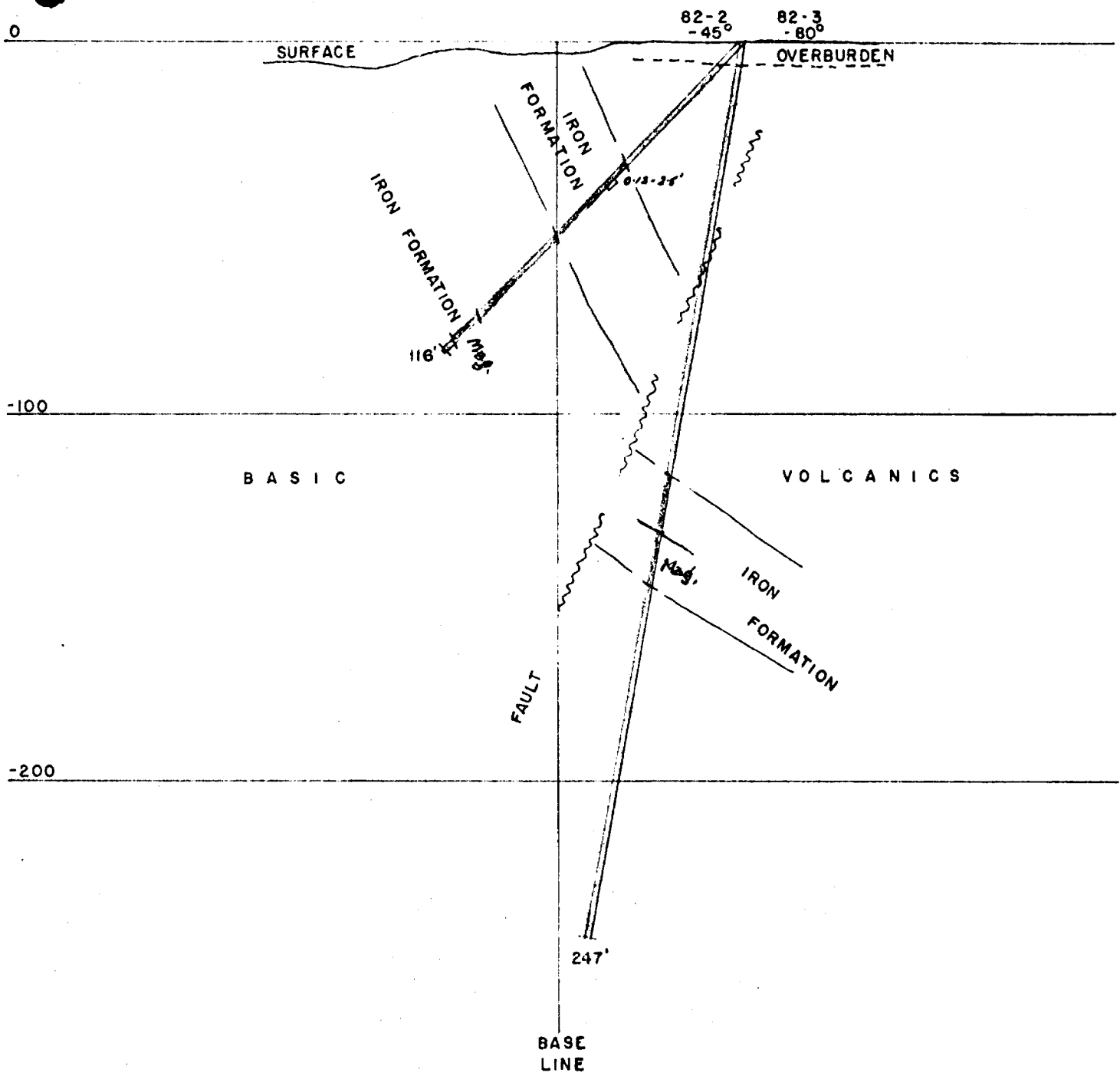
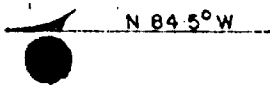
DEPTH OF HOLE 247'  
 STARTED Feb. 2, 1982  
 COMPLETED Feb. 3, 1982  
 DRILLED BY Barron D.D.  
 CORE SIZE BQWL

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	6'	CASING			oz. Au/ton
6'	119'	BASIC VOLCANICS Light green to grey coloured rock with quartz at 25.5'. Bleached by alteration and fine amygdules. From 60.7'-63.2' is barren white quartz at high angles to the core axis as lit-par-lit shear filling. At 90' and 91' there are rusty shears at high angles to the core.			
19'	149.8'	IRON FORMATION Magnetite bands alternating with sugary quartz and chert bands. From 119'-133' is white quartz with ghostly banding and ? tuff bands. Patchy massive pyrite. From 125.5'-126' is a rusty vuggy section. From 133'-149.8' is typical taconite rock with banding at 80° to the core axis. 10% magnetite and silica bands. From 138.3'-139.5' is a short horse of lava rocks or porphyry. From 148.8'-149.8' ghostly banded porphyritic rock with minor pyrite. SAMPLES : From 119'-123' As above-pyritized From 123'-127' Pyrite & banded quartz From 127'-132' Good pyrite banded with quartz. From 132'-137' Banded magnetite and sugary quartz or chert. Some pyr. From 137'-142' As above with minor cubic pyrite. From 142'-146' As above-minor pyrite From 146'-149.8' As above plus banded sediments.	32526 32527 32528 32529 32530 32531 32532	4x 4.0' 4.0' 5.0' 5.0' 5.0' 4.0' 3.8'	trace 0.01 0.03 0.05 0.005 0.02 0.005
49.8'	180'	BASIC VOLCANICS Amygdaloidal lava rocks with ghostly banding to 180'. From 165'-168' is barren white quartz intruding plus several veins at 75° to 80° to the core axis.			
80'	247'	BASIC VOLCANICS Dark green matrix with fine grained yellow-white feldspar flecks homogeneous throughout the matrix and sporadic rounded white quartz amygdules. From 207'-207.8' 3/4" barren white quartz at 15° to core.			

SAMPLE: From 215'-215.5' Quartz vein with fuchsite minor sulphides banded at 80° to core 32533 0.5' trace

SIGNED J. G. Willars  
**JACK G. WILLARS, B. A. SC., P. ENG.**  
 CONSULTING MINING GEOLOGIST

247' END OF HOLE



PROFILE SECTION D.D.H.'S 82-2 & 82-3  
(LOOKING NORTH)

GOWGANDA RESOURCES INC.  
CARSHAW GOLD PROPERTY  
Shaw Twp., Ont.

SCALE 1" = 40'

*J. G. Willars*  
Feb. 9/82



## DIAMOND DRILL LOG

82-425

D. D. HOLE NO. 82 - 4

PROPERTY GOWANDA RESOURCES INC. - Carshaw Property

PAGE 1

LOCATION Shaw Twp., Ont. - Claim B13814

TEST

DEPTH OF HOLE 157'

COLLAR: LAT. 170' N on B.L.

STARTED Feb. 5, 1982.

DEPT. 50' E of B.L.

COMPLETED Feb. 6, 1982

ELEV. Surface

DRILLED BY Barron D.D.

BEARING N 72° W

CORE SIZE BQWL

DIP minus 45°

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	14'	CASING			oz. Au/ton
14'	113'	BASIC VOLCANICS Fine grained, dark coloured rock, green with white mottles in matrix and up to 3/8" size white quartz, well rounded amygdules plus quartz veining with border rims of feldspar. At 42' 1" quartz and feldspar at 15° to the core axis. Vuggy. From 48.5'-49' Quartz vein at 35° which fills a fault. Limonite and fuchsite present. Bleaching and alteration appear from 47'-73'. From 73'-91' is basic volcanics as above but an absence of the larger amygdules. From 91'-113' as 14'-73' but with ghosty banding and bleached.			
13'	128.9'	IRON FORMATION Well abded quartz and pyrite and sediments. From 122'-126' is traditional type taconite at 70° to the core axis. SAMPLES: From 113'-118' quartz veining or bands and pyrite with minor magnetite. From 118'-120' quartz bands with a little pyrite & some magnetite. From 120'-122' quartz bands with fair amount of pyrite. Minor magnetite. From 122'-127' banded magnetite with some 1/2" to 1" quartz bands and some pyrite. From 127'-129' first part is quartz banding with some pyrite - second part is wall rock.	32534 32535 32536 32537 32538	5.0' 2.0' 2.0' 5.0' 2.0'	0.095 0.005 0.01 0.04 trace
28.9'	157'	BASIC VOLCANICS As above at 14'-113' and containing the large 1/2" quartz amygdules. SAMPLE: From 137'-140' quartz stringers in basic volcanics containing some pyrite. From 140'-142' a little quartz with some fine pyrite.	32539 32540	3.0' 2.0'	trace 0.005
157'		END OF HOLE.			

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CONSULTING MINING GEOLOGIST

DIAMOND DRILL LOG

D. D. HOLE NO. 82 - 5

PROPERTY GOWGANDA RESOURCES INC. - Carshaw Property

PAGE 1

LOCATION Shaw Twp., Ont. - Claim P 13814

TEST

DEPTH OF HOLE 227'

COLLAR: LAT. 170° N. on D.L.

STARTED Feb. 6, 1982

DEPT. 50' W of B.L.

COMPLETED Feb. 7, 1982

ELEV. Surface

DRILLED BY Barron D.D.

BEARING N 72° W

CORE SIZE PQMI

DIP minus 80°

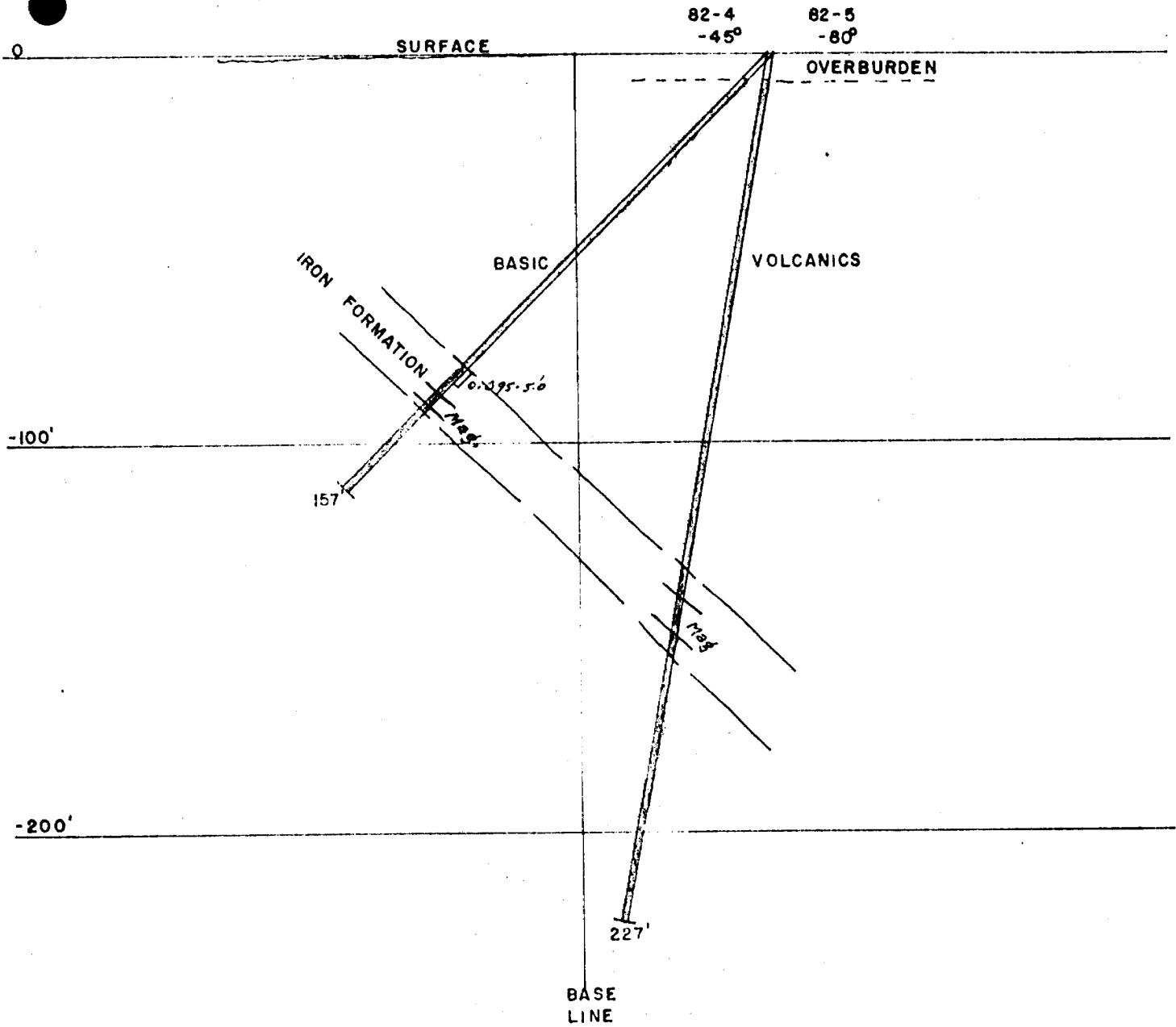
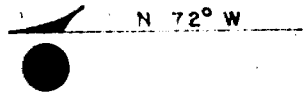
FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	14'	CASING			oz. Au/ton
4'	134'	BASIC VOLCANICS Hard, fine grained mottled green and white rock in the matrix, and containing larger amt gdules of quartz. Some quartz stringer intrusion with minor sulphides. At 12' limonite shear at 80° to core axis and with quartz. At 66.5'-68' is a fine grained phase of the lava rock - ? flow interruption. From 117'-134' is altered by bleaching.			
34'	155.5'	IRON FORMATION From 134'-142' is quartz bands, sediments and pyrite. From 142'-152' is typical taconite. From 152'-155.5' is quartz bands, sediments and pyrite. SAMPLES: From 134'-137' 1/4" to 1" quartz bands and minor pyrite. From 137'-142' as above and with bands of magnetite and fair pyrite. From 142'-147' Taconite From 147'-152' taconite with minor pyrite. From 152'-156' quartz-carbonate bands of 1/4" to 2" widths - minor pyrite	32541 32542 32543 32544 32545	3.0' 5.0' 5.0' 5.0' 4.0'	0.005 0.005 0.005 0.005 0.01
15.5'	227'	BASIC VOLCANICS Altered by bleaching, otherwise same as above at 14'-134'. Some pyritized sections. From 204'-207' is vesicular. From 163'-167' quartz bands and ? carbonate from 1/2" to 3" widths and containing minor pyrite. From 167'-169' fair amount of pyrite cubes. From 170'-172' Som pyrite From 172'-173.8' 1/4" to 1/2" quartz stringers with minor pyrite.	32546 32547 32548 32549	4.0' 2.0' 2.0' 1.8'	0.005 0.005 trace trace
	227'	END OF HOLE.			

SIGNED \_\_\_\_\_

*Jack G. Willars*

JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST





**PROFILE SECTION D.D.H.'S 82-4 & 82-5**  
(LOOKING NORTH)

**GOWGANDA RESOURCES INC.**

CARSHAW GOLD PROPERTY  
Shaw Twp., Ont.

SCALE: 1" = 40'

*J. G. Willars*  
Feb 9/82

J. G. WILLARS FEB. 1982

## DIAMOND DRILL LOG

82-627

D. D. HOLE NO. 82 - 6

PROPERTY GOWANBA RESOURCES INC. - Carshaw Property

PAGE 1

LOCATION Shaw Twp., Ont. - Claim M13814

TEST

DEPTH OF HOLE 187'COLLAR: LAT. 250' N. on B.L.STARTED Feb. 7, 1982DEPT. 50' E. of B.L.COMPLETED Feb. 8, 1982ELEV. SurfaceDRILLED BY Barron D.D.BEARING N 72° WCORE SIZE BQWLDIP minus 45°

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	20'	CASING			oz. Au/ton
20'	121'	BASIC VOLCANICS Matrix is a hard, fine grained, mottled green and white rock with quartz stringers at 45° and 60° to the core axis. Some limonite stain. SAMPLE: From 33'-34.4' quartz stringers and fuchsite. From 36.7'-40' 1/2" to 2" quartz veins with some pyrite. From 42'-43.7' porphyritic lava rocks with 1/2" to 1" quartz stringers and some pyrite. From 64'-69' is bleached and has limonite on some fractures. From 77'-99' is well fractured at low angles to the core axis with much limonite staining. At 92' is a FAULT with quartz seams and limonite. Area or section is incipiently brecciated. At 85' 4" brilliant green, fine grained fuchsite. The rock is bleached near the lower contact.	32551 32552 32553	1.4' 3.3' 1.7'	trace 0.005 trace
21'	134.5'	IRON FORMATION Well banded quartz and sedimentary bands with some pyrite bands. No magnetite detected. SAMPLES: From 121'-124.4' quartz bands with a amount of pyrite. From 124.4'-127' as above. From 127'-129.5' quartz bands with rusty fracture planes and a little pyrite. From 129.5'-132' 1/2" to 5" quartz bands with a fair amount of pyrite. From 132'-135' 1/2" to 5" quartz bands with some pyrite.	32554 32555 32556 32557 32558	3.4' 2.6' 2.5' 2.5' 3.0'	0.05 0.035 0.01 0.175 0.015
34.5'	187'	BASIC VOLCANICS As above, chiefly, but with altered and structured sections containing some pyrite. Ghosty banding at 45° to the core axis. Up to 1/2" size quartz and feldspar well rounded amygdules. SAMPLES: From 140'-141' porphyritic lava with some quartz, fracturing, little pyrite	32559	1.0'	trace

SIGNED



JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST

DIAMOND DRILL LOG

D. D. HOLE NO. 82 - 6

PROPERTY GOWGANDA RESOURCES INC. - Garshaw Property

PAGE 2

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		From 149.6'-153' quartz veining with $\frac{1}{4}$ " to 3" widths and containing a fair amount of pyrite.	32560	3.4'	oz. Au/ton trace
		From 155'-157' $\frac{1}{2}$ " to $\frac{3}{4}$ " veins of quartz which contain some fine pyrite.	32561	2.0'	trace
187'		END OF HOLE.			

SIGNED \_\_\_\_\_



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CONSULTING MINING GEOLOGIST



DIAMOND DRILL LOG

D. D. HOLE NO. 82 - 7

PROPERTY GOWGANDA RESOURCES INC. - Carshaw Property

PAGE 1

LOCATION Shaw Twp., Ont. - Claim F13814

TEST

DEPTH OF HOLE 227"  
 STARTED Feb. 8, 1982  
 COMPLETED Feb. 9, 1982  
 DRILLED BY Barron D.D.  
 CORE SIZE BQWL

COLLAR: LAT. 250' N on R.L.  
 DEPT. 50' W. of B.L.  
 ELEV. Surface  
 BEARING N 72° W  
 DIP minus 80°

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	10'	CASING			oz. Au/ton
0	155'	BASIC VOLCANICS Matrix of hard, fine grained, dark green with white mottles rock and up to 1/8" amygdules of quartz with narrow feldspar rims. From 10' - 21.5' is bleached. At 15' 4" translucent quartz at 40° to the core axis with brown carbonate associated. At 21'-21.5' narrow quartz vein with yellow-white feldspar. From 47.5' on the rock alternates from bleached to semi-bleached with same type of veining as above. At 47.8' is minor brecciation. At 54' 1" limonite in quartz at 40° to core and at 55' is 6" white barren quartz at 60° to the core axis. SAMPLE: From 69'-71' shearing and brecciation at 60° to the core axis with quartz and carbonate plus pyrite cubes. At 107' the rock gets finer grained and is ? flow change-- as at 126.5'-127'. At 77.5' broken core - ? FAULT (15" on each wall is rusty oxidation. From 142'-155' is altered to a light grey colour and contains patches of pyrite mineralization. Ghosty banding is at 60° to the core axis. A rusty fault is at 155' and is concordant with the banding.	32562	2.0'	trace
55'	180.3'	IRON FORMATION From 155'-164.5' is well banded white quartz and pyrite at 60° to the core axis, with some mafic minerals and crystalline vug at 158.5'. From 164.5'-165.3' typical taconite with pyrite. From 165.3'-170' well banded as above at 155'-164.5' -- some narrow tuff bands (yellow/brown hard, fine grained rock) From 170'-177.0' taconite with pyrite. From 177'-180.3' tuffaceous and banded minor sulphides. SAMPLES: From 155'-160' 1/2" to 6" quartz bands with fair amount pyrite. From 160'-165' 1/4" to 5" quartz bands with fair amount of pyrite.	32563 32564	5.0' 5.0'	0.085 0.02

SIGNED \_\_\_\_\_

*Jack G. Willars*  
**JACK G. WILLARS** B. A. SC., P. ENG.  
 CONSULTING MINING GEOLOGIST

PROPERTY GOWGANDA RESOURCES INC. - Carshaw PropertyPAGE 2

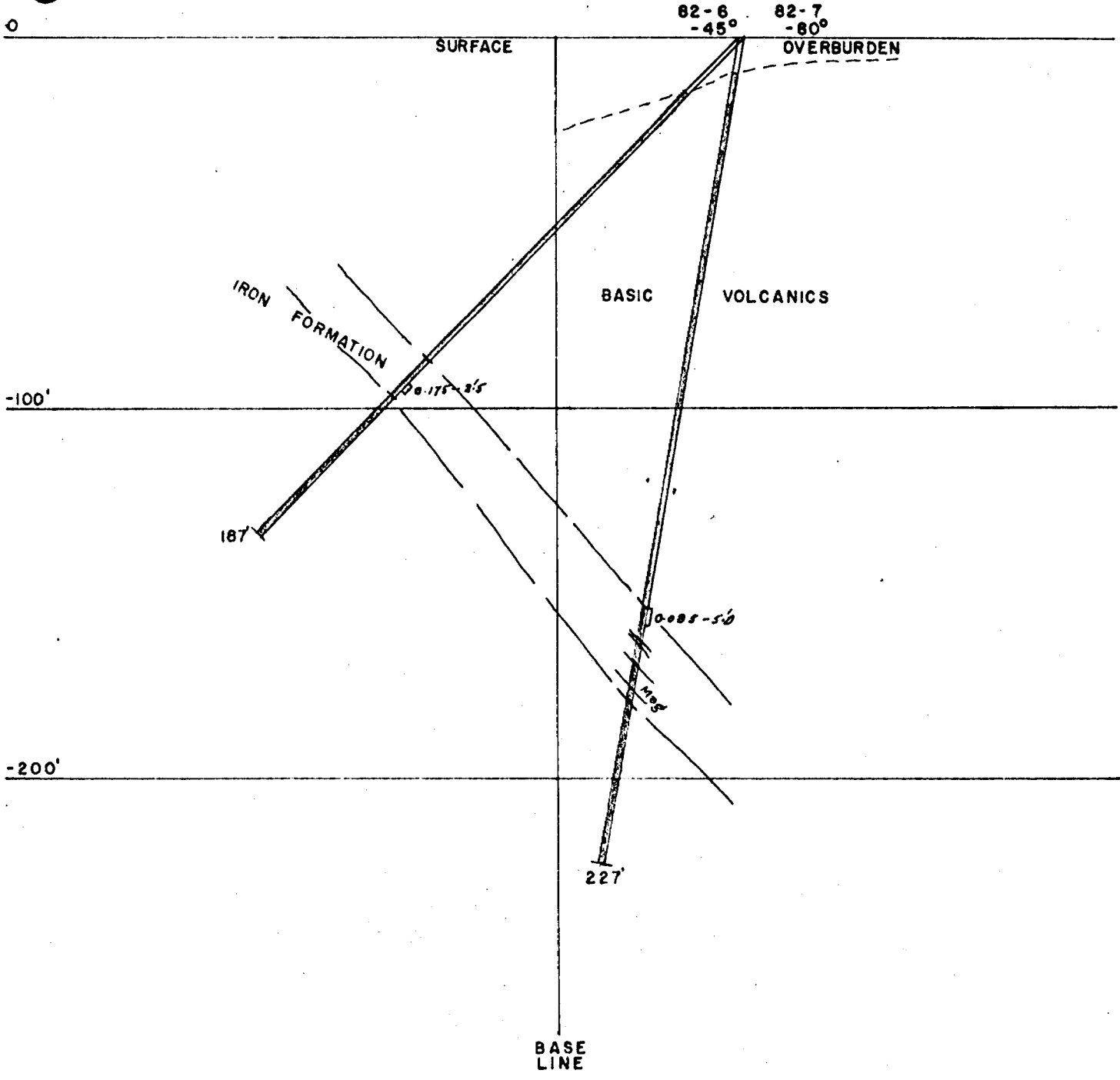
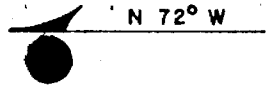
FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		From 165'-171.5' $\frac{1}{2}$ " to 2" bands of quartz with minor magnetite and minor pyrite bands.	32565	6.5'	0.005
		From 171.5'-177' banded taconite with some $\frac{1}{2}$ " to $\frac{3}{4}$ " quartz bands and minor pyrite.	32566	5.5'	0.02
		From 177'-180.3' $\frac{1}{16}$ " to $\frac{1}{2}$ " quartz bands and minor pyrite.	32567	3.3'	0.005
0.3'	207'	BASIC VOLCANICS Altered amygdaloidal lava rocks with considerable pyrite in ghostly bands. Incipient brecciation. SAMPLES: From 180.3'-185' wall rock pyritized	32568	4.7'	trace
		From 185'-189' as above	32569	4.0'	trace
07'	227'	BASIC VOLCANICS Amygdaloidal lava as above with sparse well rounded white quartz amygdules up to $\frac{1}{2}$ " size.			
	227'	END OF HOLE.			

SIGNED \_\_\_\_\_



JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST





**PROFILE SECTION D.D.H.'S 82-6 & 82-7**  
 (LOOKING NORTH)

**GOWGANDA RESOURCES INC.**  
 CARSHAW GOLD PROPERTY  
 Shaw Twp., Ont.

SCALE: 1" = 40'

*J. G. Willard*  
 Feb. 9/82



## DIAMOND DRILL LOG

82-829

D. D. HOLE NO. 82 - 8

PROPERTY COMGANDA RESOURCES INC. - Carshaw Property

PAGE 1

LOCATION Shaw Twp., Ont. - Claim M13814

TEST

DEPTH OF HOLE 207'COLLAR: LAT. 350' N. of B.L.STARTED Feb. 10, 1982DEPT. 50' E. of B.L.COMPLETED Feb. 11, 1982.ELEV. SurfaceDRILLED BY Barron D.D.BEARING N 220°CORE SIZE BQWLDIP minus 80°

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	12'	CASING			oz. Au/ton
12'	207'	<p>FUCHSITE PORPHYRY</p> <p>Hard, fine grained yellow-brown matrix with 1/8" size phenocrysts. At 25' 6" rusty vuggy fault.</p> <p>From 25'-36' is porphyritized lava rocks.</p> <p>From 36'-207' is chiefly as above.</p> <p>Some quartz veining and some fuchsite in places.</p> <p>From 179'-186' is an inclusion of altered lava.</p> <p>At 158' is a rusty fault.</p> <p>SAMPLES: From 90'-93.5' is fuchsite in altered porphyry and containing sparse pyrite</p> <p>From 93.5'-97' is quartz and fuchsite plus sparse pyrite grains.</p>	32570	3.5'	trace
			32571	3.5'	trace
	207'	END OF HOLE.			

SIGNED



JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST



DIAMOND DRILL LOG

D. D. HOLE NO. 82 - 9

PROPERTY GOWGANDA RESOURCES INC. - Carshaw Property

PAGE 1

LOCATION Shaw Twp., Ont. - Claim F13814

TEST

DEPTH OF HOLE 305'

COLLAR: LAT. 350' N on B.L.

STARTED Feb. 17, 1982

DEPT. 50' E

COMPLETED Feb. 19, 1982

ELEV. Surface

DRILLED BY Barron D.D.

BEARING S 68° W

CORE SIZE BQWL

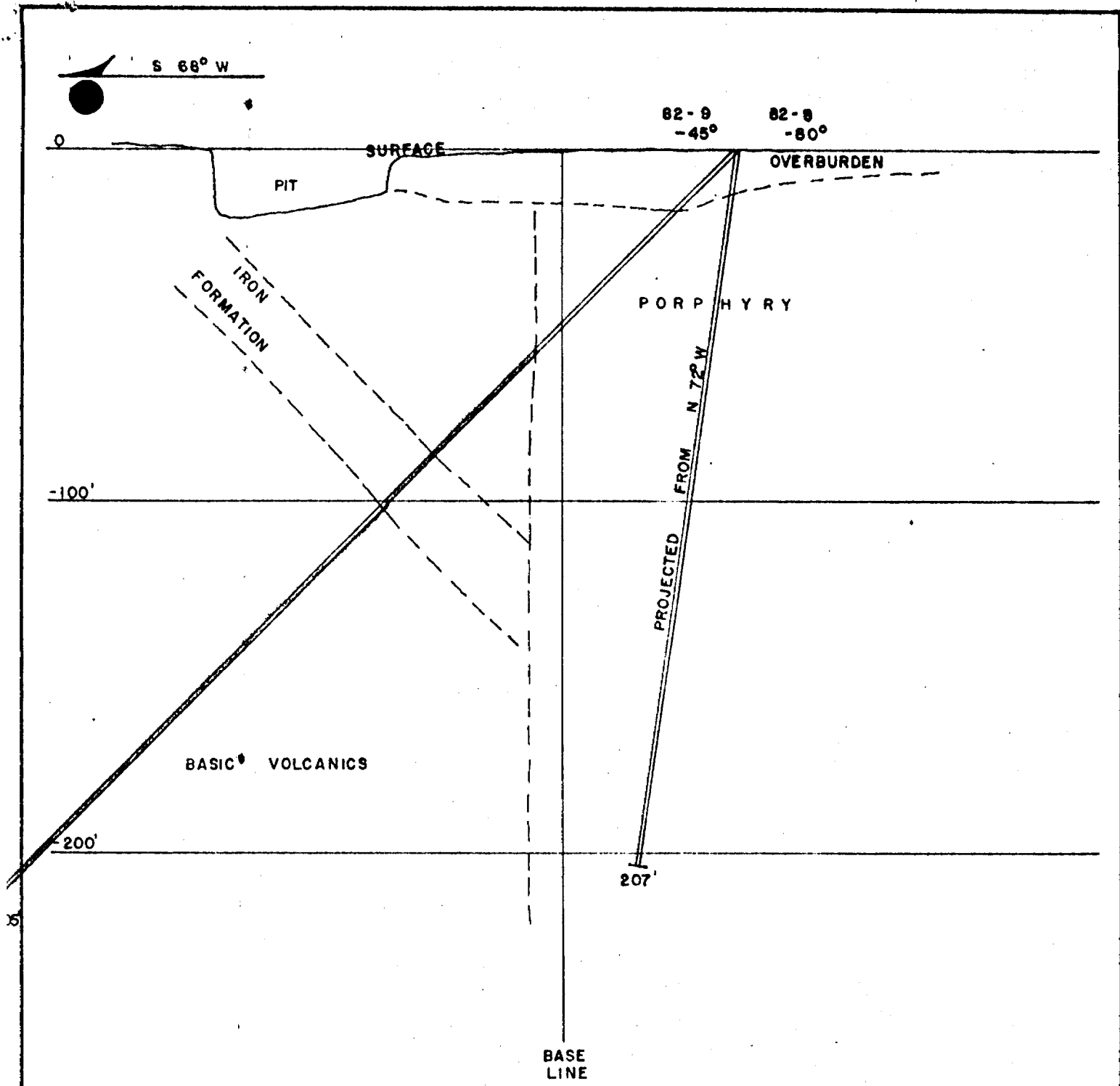
DIP minus 45°

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	26'	CASING			oz. Au/ton
26'	82'	POPHYRY Hard, fine grained, light yellow to grey white rock containing phenocrysts.			
32'	134'	BASIC VOLCANICS As in previous holes. At 134' - a very bad fault which was cemented.			
35'	154.7'	IRON FORMATION SAMPLE: From 114.3'-116' Puchsite + light pyrite	32572	1.7'	trace
		SAMPLES : From 134'-137' quartz banding with no magnetite and a fair amount of pyrite.	32573	3.0'	0.01
		From 137'-140' as above	32574	3.0'	0.02
		From 140'-143.6' as above	32575	3.6'	trace
		From 143.6'-145' not taken - dike.			
		From 145'-150' quartz banding with very fine pyrite	32576	5.0'	trace
		From 150'-154.7' quartz-calcite banding with some pyrite and magnetite bands 1"-2" wide with some pyrite.	32577	4.7'	trace
54.7'	305'	BASIC VOLCANICS Dark green, medium grained, dioritic matrix with amygdules. Patches of fine grained tuff or felsite material. Some pyritic sections. Some vesichular sections. SAMPLE : From 297'-302' Quartz veining of 1/2" to 2" widths with some pyrite.	32578	5.0'	
305'		END OF HOLE.			

SIGNED \_\_\_\_\_

*J. Willars*  
JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST





**PROFILE SECTION D.D.H.'S 82-8 & 82-9**  
 (LOOKING NORTH)

**GOWGANDA RESOURCES INC.**

CARSHAW GOLD PROPERTY  
 Shaw Twp., Ont.

SCALE: 1" = 40'

*J. G. Willars Feb 23/82*  
 J. G. WILLARS FEB. 1982

## DIAMOND DRILL LOG

82-10

D. D. HOLE NO. 82 - 10

PROPERTY GOWGANDA RESOURCES INC. - Carshaw Property

PAGE 1

LOCATION Shaw Twp., Ont. - Claim P13814

TEST

DEPTH OF HOLE 397'COLLAR: LAT. 350' N on B.L.STARTED Feb. 19, 1982.DEPT. 294' E of B.L.COMPLETED Feb. 21, 1982ELEV. SurfaceDRILLED BY Barron D.D.BEARING N 72° WCORE SIZE BQWLDIP minus 75°

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	14'	CASING			oz. Au/ton
14'	17'	BASIC VOLCANICS Altered dark green rock with many varieties of texture, but chiefly porphyritic			
17'	47'	BASIC VOLCANICS Contact zone near the porphyry rocks. Salmon coloured, granitoid textured and intruded by quartz veinlets.			
47'	103.5'	PORPHYRY Felsite matrix, very fine grained, very hard, light grey to white containing fine grained quartz phenocrysts. and some feldspar phenocrysts. From 82'-155' very fractured and rusty fault area. Sharp lower contact at 35° to the core axis.			
3.5'	126'	BASIC VOLCANICS Contact zone as above at 17'-47'			
26'	250'	BASIC VOLCANICS Dark green, fine grained matrix with irregular <del>XXXXXX</del> amygdules At 162' 4" ? pillow rim Coarse grained phases in sections of the core.			
50'	310.5'	BASIC VOLCANICS Bleached light grey, hard, fine grained rock with top contact at 15° to core axis. 1" mud fault at contact. Amygdules present in core. The above part is from 285'-310.5'. Up to 285' the rock is a hard, fine grained, dark matrix containing closely packed and numerous amygdules.			
0.5'	345.5'	IRON FORMATION SAMPLES : From 310.5'-316' quartz banding ½" to 3", some magnetite and with fair pyrite. From 316'-320' ½"-2" quartz banding with some pyrite-very little magnetite. From 320'-325' 2.5' quartz plus 2.5' magnetite banding - fair pyrite.	32579 32580 32581	5.5' 5.0' 5.0'	0.005 0.005 0.285

SIGNED


  
 JACK G. WILLARS, B. A. SC., P. ENG.  
 CONSULTING MINING GEOLOGIST

## DIAMOND DRILL LOG

D. D. HOLE NO. 82 - 10PROPERTY GONGANDA RESOURCES INC. - Carshaw PropertyPAGE 2

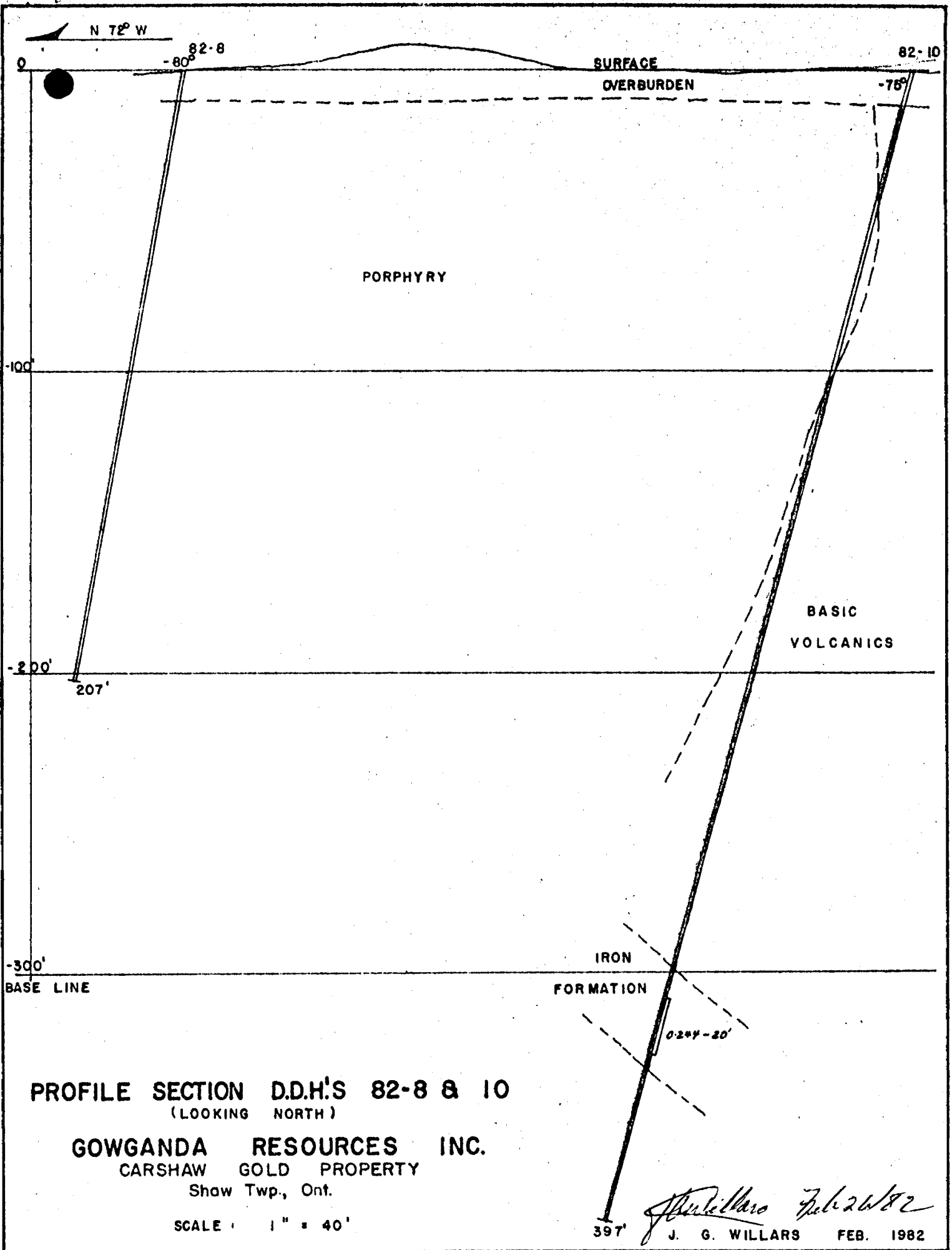
FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		From 325'-330' chert and pyrite and magnetite banded at 45° to core axis. Average pyrite content.	32582	5.0'	oz. Au/ton 0.50
		From 330'-335' 10% magnetite banded with white chert, sparse pyrite.	32584	5.0'	0.065
		From 335'-340' chiefly white quartz with 7% pyrite and in part tuff.	32585	5.0'	0.125
		From 340'-345.5' light brown cherty rock with little or no pyrite.	32586	5.0'	trace
45.5'	397'	BASIC VOLCANICS Altered porphyritic or dioritic matrix with up to $\frac{1}{8}$ " quartz amygdules.			
	397'	END OF HOLE.			

SIGNED



JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST





**PROFILE SECTION D.D.H'S 82-8 & 10**  
(LOOKING NORTH)

**GOWGANDA RESOURCES INC.**  
 CARSHAW GOLD PROPERTY  
 Shaw Twp., Ont.

SCALE: 1" = 40'

*J. G. Willars Feb 26 1982*  
 J. G. WILLARS FEB. 1982

## DIAMOND DRILL LOG

82-11 #12

D. D. HOLE NO. 82 -11

PROPERTY GOVANDA RESOURCES INC. -Garshaw Property

PAGE 1

LOCATION Shaw Twp., Ont. - Claim P8299

TEST

DEPTH OF HOLE 307'COLLAR: LAT. 143°S on B.L.STARTED Feb. 21, 1982DEPT. 47°ECOMPLETED Feb. 23, 1982ELEV. SurfaceDRILLED BY Barron D.D.BEARING N 51° WCORE SIZE BQWLDIP minus 40°

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	12'	CASING			oz. Au/ton
12'	46.3'	BASIC VOLCANICS Medium grained, dark green coloured, porphyritic matrix containing sparse amygdules.			
6.3'	77'	IRON FORMATION At 53'-54' vuggy fault. SAMPLES : From 46.3'-51' 2% pyrite with white chert. Minor magnetite. Banding at 45° to core axis. Narrow basic lava sections. From 51'-56' 30% magnetite in bands up to 2" wide. 5% pyrite From 56'-61' Some contorted and faulted banding at 45° to core axis on average. Some tuff. Little or no pyrite. From 61'-66' Magnetite and quartz bands that are faulted and mildly contorted. Minor fine grained pyrite content. From 66'-72' Narrow bands of quartz and magnetite at 70° to the core axis. 15% pyrite in cube and massive form. From 72'-77' 3% magnetite bands with white quartz at 70° to core axis Spotty large pyrite cubes.	32587	4.7'	0.024
			32588	5.0'	2.55*
			32589	5.0'	0.005
			32590	5.0'	0.005
			32591	6.0'	0.040
			32592	5.0'	0.062
7'	307'	BASIC VOLCANICS Resembles above at 12'-46.3'. From 77'-89' is incipiently brecciated volcanic rocks. From 89'-158' is dioritic to porphyritic matrix with sparse amygdules up to 1/2" size, plus quartz veinlets and containing roundish rock fragments (?agglomerate) as well as large amygdules. The porphyritic phase alternates with fine grained phases. At 275' and 278' the rock is vuggy and contains pyrite cubes.			
	307'	END OF HOLE. * checked			

SIGNED

  
 JACK G. WILLARS, B. A. SC., P. ENG.  
 CONSULTING MINING GEOLOGIST


DIAMOND DRILL LOG

D. D. HOLE NO. 82 - '12

PROPERTY GOMGANDA RESOURCES INC. - Carshaw Property

PAGE 1

LOCATION Shaw Twp., Ont. - Claim D8299

TEST

DEPTH OF HOLE 177'

COLLAR: LAT. 43'S on B.L.

STARTED Feb. 23, 1982

DEPT. 47' E of B.L.

COMPLETED Feb. 24, 1982

ELEV. Surface

DRILLED BY Barron D.D.

BEARING N 51° W

CORE SIZE BQWL

DIP minus 90°

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	10'	CASING			oz. Au/ton
0'	63'	BASIC VOLCANICS Dark grey, fine grained, hard matrix with amygdules up to 3/8" size and bleaching near the contact.			
63'	96.1'	IRON FORMATION From 63'-71' is the sulphide phase, From 71'-84' is the oxide phase with banding at 60° to the core axis. From 84'-90' is half oxide phase and half sulphide phase. From 90'-96' is 65% oxide phase and 35% sulphide phase. SAMPLES : From 63'-67' quartz banding at 60° to core axis 4% pyrite. No magnetite. From 67'-72' 2% magnetite with white chert and minor pyrite in bands at 80° to core axis. From 72'-77' 40% magnetite in bands at 60° to core axis. From 77'-82' 6" horse of country rock - chiefly magnetite. 1% pyrite From 82'-85' 12" horse of country rock plus taconite. No pyrite. From 85'-90' Heavy sulphides with rusty fault at top of sample section. From 90'-96.1' Quartz and magnetite banding with 5% pyrite at angles of 45° and 75° to the core axis.	32593	4.0'	0.032
			32594	5.0'	0.005
			32595	5.0'	0.008
			32596	5.0'	0.005
			32597	3.0'	0.005
			32598	5.0'	0.44*
			32599	6.0'	0.024
96.1'	177'	BASIC VOLCANICS Dark green, fine grained matrix with amygdules and some quartz stringer intrusion. Some fine grained and some coarse grained phases. At 105' 10" white quartz, fuchsite, rusty banding at 45° to core axis. At 115' 8" broken up core with rusty fault zone. At 118' 4" resembling above. At 119" same but at 5° angle to core axis. At 122' vuggy rusty fault section. From 118' to 132' is bleached section of rock.			
	177'	END OF HOLE. * checked			

SIGNED

*J. G. Willars*  
**JACK G. WILLARS, B. A. SC., P. ENG.**  
 CONSULTING MINING GEOLOGIST



## DIAMOND DRILL LOG

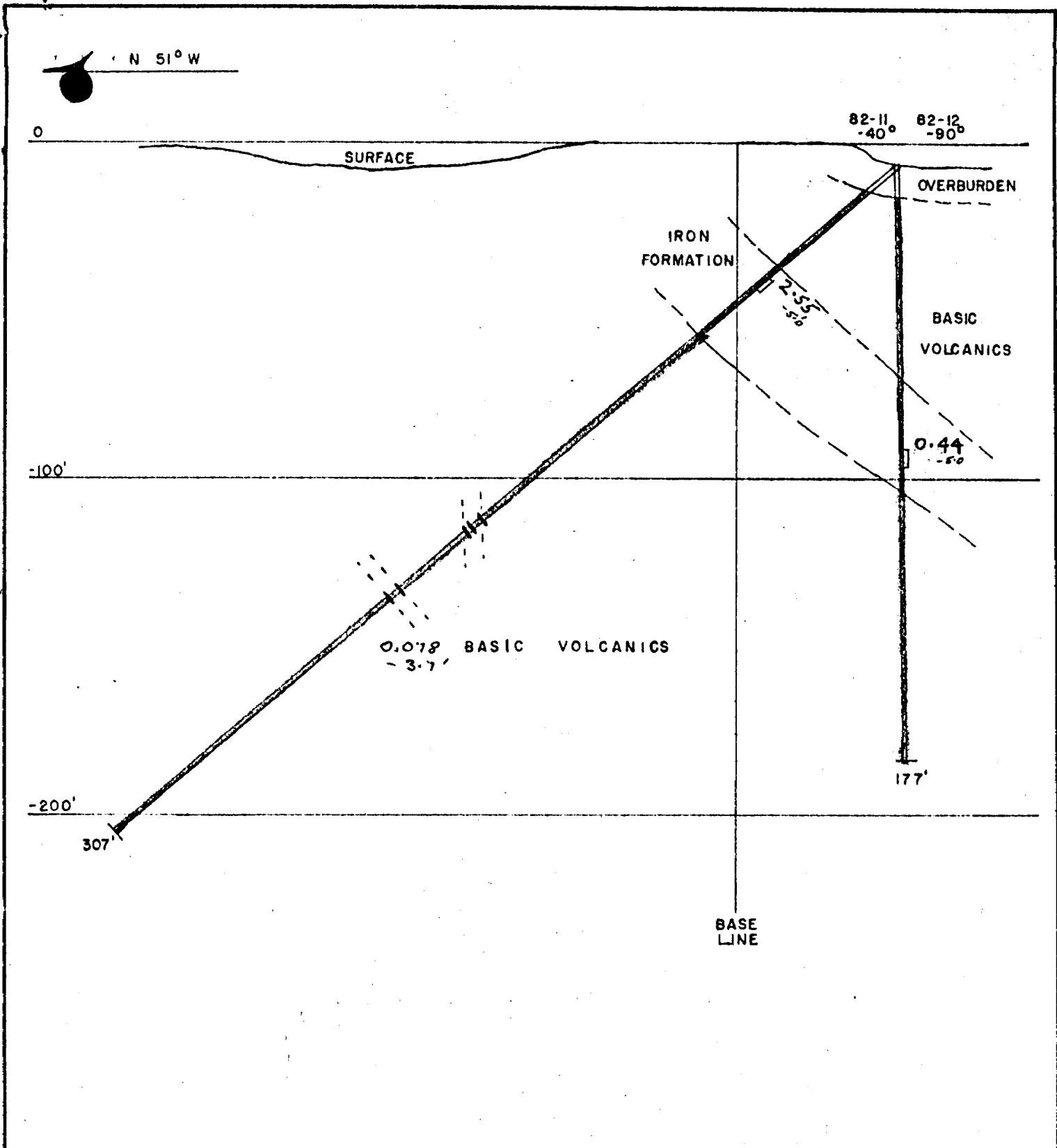
D. D. HOLE NO. 82 -12PROPERTY GOMCANDA RESOURCES INC. - Carshaw PropertyPAGE 2

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		ADDITIONAL SAMPLING :			oz. Au/ton
		From 111'- 116' Rusty fault zone with quartz veining and some pyrite.	32624	5.0'	0.005
		From 118'-119.4' Rusty fault zone	32625	1.4'	0.005
		From 134'-137.7' Quartz veining with a fair amount of pyrite.	32626	3.7'	0.078

SIGNED \_\_\_\_\_



**JACK G. WILLARS, B. A. SC., P. ENG.**  
CONSULTING MINING GEOLOGIST



**PROFILE SECTION D.D.H'S 82-11 & 82-12**  
 (LOOKING NORTH)

**GOWGANDA RESOURCES INC.**

CARSHAW GOLD PROPERTY

Shaw Twp., Ont.

SCALE: 1" = 40'

*J. G. Willars Feb 26/82*  
 J. G. WILLARS FEB 1982

## DIAMOND DRILL LOG

82-13

D. D. HOLE NO. 82 - 13

PROPERTY COMGANDA RESOURCES INC. - Carshaw Property

PAGE 1

LOCATION Shaw Twn., Ont. - Claim P8299

TEST

DEPTH OF HOLE 137'COLLAR: LAT. 270' S on B.L.STARTED Mar. 1, 1982.DEPT. 70" E. of B.L.COMPLETED Mar. 2, 1982ELEV. SurfaceDRILLED BY Barron D.D.BEARING N 72° WCORE SIZE BQWLDIP minus 45°

ROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	24'	CASING			oz. Au/ton
24'	31.7'	BASIC VOLCANICS Bleached siliceous rock containing up to $\frac{1}{2}$ " size amygdules.			
1.7'	68"	IRON FORMATION From 31.7'-37.7' is a sulphide phase. From 37.7' to 44.3' is an oxide phase. From 44.3' to 48' is fine grained amygdaloidal lava. From 48' to 59' is an oxide phase with up to 1" magnetite bands and little pyrite. From 59'-65' is a sulphide phase, and 65'-68' is silicified banded rocks. SAMPLES : From 31.7'-36.7' Small fault on rusty zone between 31.7'-33.7' and quartz banding with a fair amount of pyrite. From 36.7'-40' Some quartz banding with pyrite. Some magnetite. At 37.4' is a rusty fault zone. From 40'-44' Banded magnetite with small amount of pyrite. From 48'-53' Banded magnetite with some pyrite. From 53'-58' As above plus quartz at 54.5' & 55.9' with some pyrite. From 58'-62' Banded magnetite and quartz ( $\frac{1}{2}$ " to 1") with a fair amount of pyrite. From 62'-64.7' 6" quartz + pyrite 1.4' syenite, 8" quartz + pyrite	32601	5.0'	0.110
			32602	3.3'	0.016
			32603	4.0'	0.024
			32604	5.0'	trace
			32605	5.0'	0.005
			32606	4.0'	0.010
			32607	2.7'	0.036
68'	102'	BASIC VOLCANICS Bleached amygdaloidal lava with amygdules up to $\frac{1}{2}$ " size. SAMPLE : From 77.7'- 82.7' quartz veining of 1" to 6" widths with fair pyrite.	32608	5.0'	0.005
02'	124'	BASIC VOLCANICS As above, but not bleached and normal. At 102' and 107'-109' and 123' there is brilliant green fuchsite sections. At 124' is a rusty vuggy fault. SAMPLE : At 103'- 105.1' Quartz veins 103'-104' with fair pyrite.	32609	2.1'	0.005

SIGNED



JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST

DIAMOND DRILL LOG

D. D. HOLE NO. 82 - 13

PROPERTY GOWGANDA RESOURCES INC. - Carshaw Property

PAGE 2

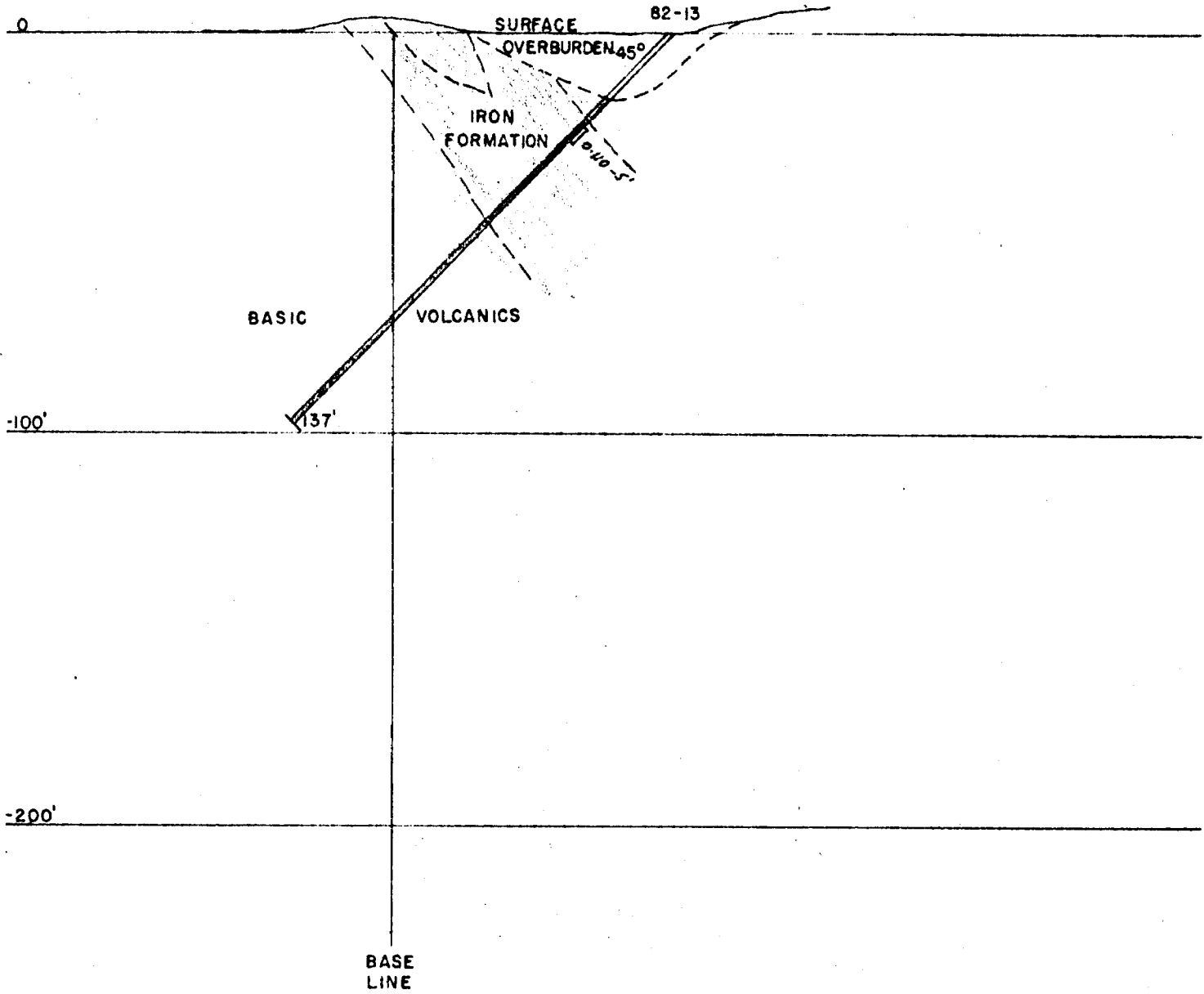
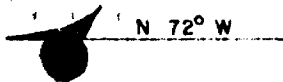
FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		The rock from 102'-124' contains wide (up to 18") bands of tuff and narrow sulphide bands.			oz. Au/ton
24'	137'	BASIC VOLCANICS Fine grained bleached amygdaloidal lava rocks. SAMPLE : From 131.4'-134' quartz in fractures containing some pyrite.	32610	2.6'	trace
	137'	END OF HOLE.			

SIGNED \_\_\_\_\_



JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST





**PROFILE SECTION D.D.H. 82-13**  
(LOOKING NORTH)  
**GOWGANDA RESOURCES INC.**  
CARSHAW GOLD PROPERTY  
Shaw Twp., Ont.

SCALE: 1" = 40'

*J. G. Willars* Mar. 15/82  
J. G. WILLARS MAR. 1982

## DIAMOND DRILL LOG

82-1A

D. D. HOLE NO. 82 - 14

PROPERTY GOWGANDA RESOURCES INC. - Garshaw Property

PAGE 1

LOCATION Shaw Twp., Ont. - Claim P 8299

TEST

DEPTH OF HOLE 227'COLLAR: LAT. 385' S. on B.L.STARTED Mar. 3, 1982DEPT. 194' E of B.L.COMPLETED Mar. 6, 1982ELEV. SurfaceDRILLED BY Barron D.D.BEARING N 72° WCORE SIZE BQWLDIP minus 40°

ROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	16'	CASING			oz. Au/ton
6'	54'	BASIC VOLCANICS Dioritic type volcanic rocks, hard, medium grained mottled rock sealed with irregular quartz seams in incipiently brecciated fracturing from 16'-40' Rusty fractures as occur near surface. SAMPLES : From 45'-45.7' Quartz vein with some pyrite. 32611 0.7' trace From 48'-50.4' Carbonate vein with some pyrite. 32612 2.4' 0.005			
4'	117'	BASIC VOLCANICS As in previous holes. This rock grades into a fine grained amygdaloidal lava with some amygdules up to $\frac{1}{2}$ " in size. Regular rock with very little fracturing. SAMPLES : From 60'-62.6' Quartz-carbonate vein with fault. Pyrite 32613 2.6' 0.004 From 64.3'-65.5' Quartz vein with some pyrite and a fault. 32614 1.2' trace			
17'	132'	BASIC VOLCANICS As above, but bleached by silica alteration.			
32'	197'	IRON FORMATION From 132'-145.3' is quartz banding with sulphide banding at 80° to the core axis. From 154.3'-147' is bleached amygdaloidal lava. From 147'-169' is the oxide phase with magnetite bands at 45° to the core axis, but some at 5° showing severe contortion. From 149'-150' is pink feldspar. From 169'-174' is the oxide phase mainly and some quartz and sulphide banding. From 174'-197' is alternating bands of tuff and bleached silicified amygdaloidal lava. SAMPLES : From 132'-137' quartz bands with pyrite. 32615 5.0' 0.072 From 137'-142' quartz bands with pyrite bands. 32616 5.0' 0.030 From 142'-145.3' quartz bands and fair amount pyrite bands plus a porphyry dike at 145'. 32617 3.3' 0.004 From 147'-152' 1"-3" quartz bands with very poor pyrite. 32618 5.0' 0.022			

SIGNED



JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST

## DIAMOND DRILL LOG

D. D. HOLE NO. 82 - 14

PROPERTY GOWGANDA RESOURCES INC. - Carshaw Property

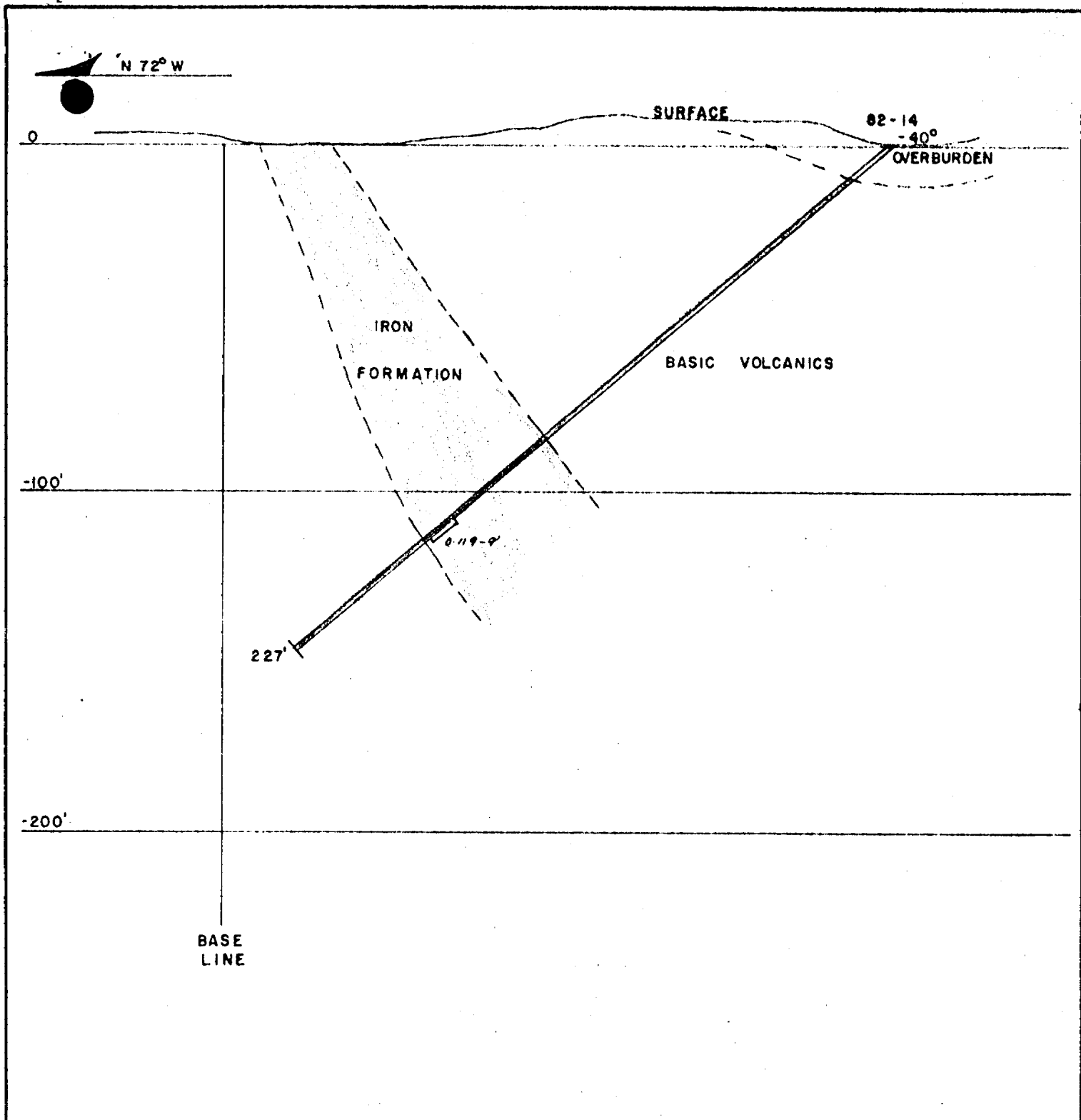
PAGE 2

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		From 152'-157' Some magnetite banding with fair amount pyrite banding.	32619	5.0'	oz. Au/ton 0.066
		From 157'-162' Magnetite banding with poor pyrite.	32620	5.0'	0.016
		From 162'-167' Magnetite banding and quartz and pyrite banding.	32621	5.0'	0.006
		From 167'-172' quartz bands up to 1" wide with fair pyrite. Some magnetite banding.	32622	5.0'	0.117
		From 172'-176' quartz banding with fair pyrite.	32623	4.0'	0.122
97'	227'	BASIC VOLCANICS Dark green, fine grained, hard, matrix with $\frac{1}{4}$ " size amygdules plus minor quartz veinlets.			
	227'	END OF HOLE.			

SIGNED



JACK G. WILLARS, B. A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST



**PROFILE SECTION D.D.H. 82-14**  
(LOOKING NORTH)

**GOWGANDA RESOURCES INC.**  
CARSHAW GOLD PROPERTY  
Shaw Twp., Ont.

SCALE: 1" = 40'

*J. G. Willars Mar 15/82*  
J. G. WILLARS MAR. 1982



## DIAMOND DRILL LOG

82-15

D. D. HOLE NO. 82 - 15

PROPERTY GOWANDA RESOURCES INC. - Carshaw Property

PAGE 1

LOCATION Carshaw Twp., Ont. - Claim F13814

TEST

DEPTH OF HOLE 407'COLLAR: LAT. 2850' N on P.L.STARTED Mar. 6, 1982DEPT. 325' E of P.L.COMPLETED Mar. 8, 1982ELEV. SurfaceDRILLED BY Barron D.D.BEARING N 72° WCORE SIZE BOWLDIP minus 75°

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	6'	CASING			oz. Au/ton
6'	176'	BASIC VOLCANICS From 6'-21' is contorted alteration of medium grained dioritic lava rocks. At 17' - 8" quartz with fuchsite and sulphide oxidation. Rock grades from 21' to 100' to a medium green coloured fine grained matrix containing sparse amygdules up to 1/4" size and minor quartz intrusions. From 100'-176' grades into similar rock type with alternating fine grained and coarse grained phases, and with irregular sections of banding - ?pillows.			
76'	227'	BASIC VOLCANICS As in previous holes - a green matrix with amygdules and irregular quartz veinlets. At 176' 6" rusty irregular banded fault. At 187.5'-189.5' Altered sheared section. From 217'-227' is a light coloured grey, bleached rock as the above.			
227'	275'	PORPHYRY Light grey colour, very hard, fine grained rock with 1/8" white feldspar phenocrysts.			
275'	312'	BASIC VOLCANICS As above - amygdular, but bleached by porphyry.			
312'	320'	PORPHYRY Fresh looking porphyry rocks as above with sharp contacts at 35° to the core axis.			
320'	321'	BASIC VOLCANICS As above.			
321'	339'	IRON FORMATION From 321'-325.5' is contorted quartz banding and minor magnetite bands. Fault at 322'. From 325.5'-327' is a narrow porphyry band. From 327' - 330.5' is banded amygdaloidal lava with 6" taconite at 327.5'. From 330.5'-339' is taconite banded at 80° to the core axis.			

SIGNED

  
**JACK G. WILLARS, B. A. SC., P. ENG.**  
 CONSULTING MINING GEOLOGIST


## DIAMOND DRILL LOG

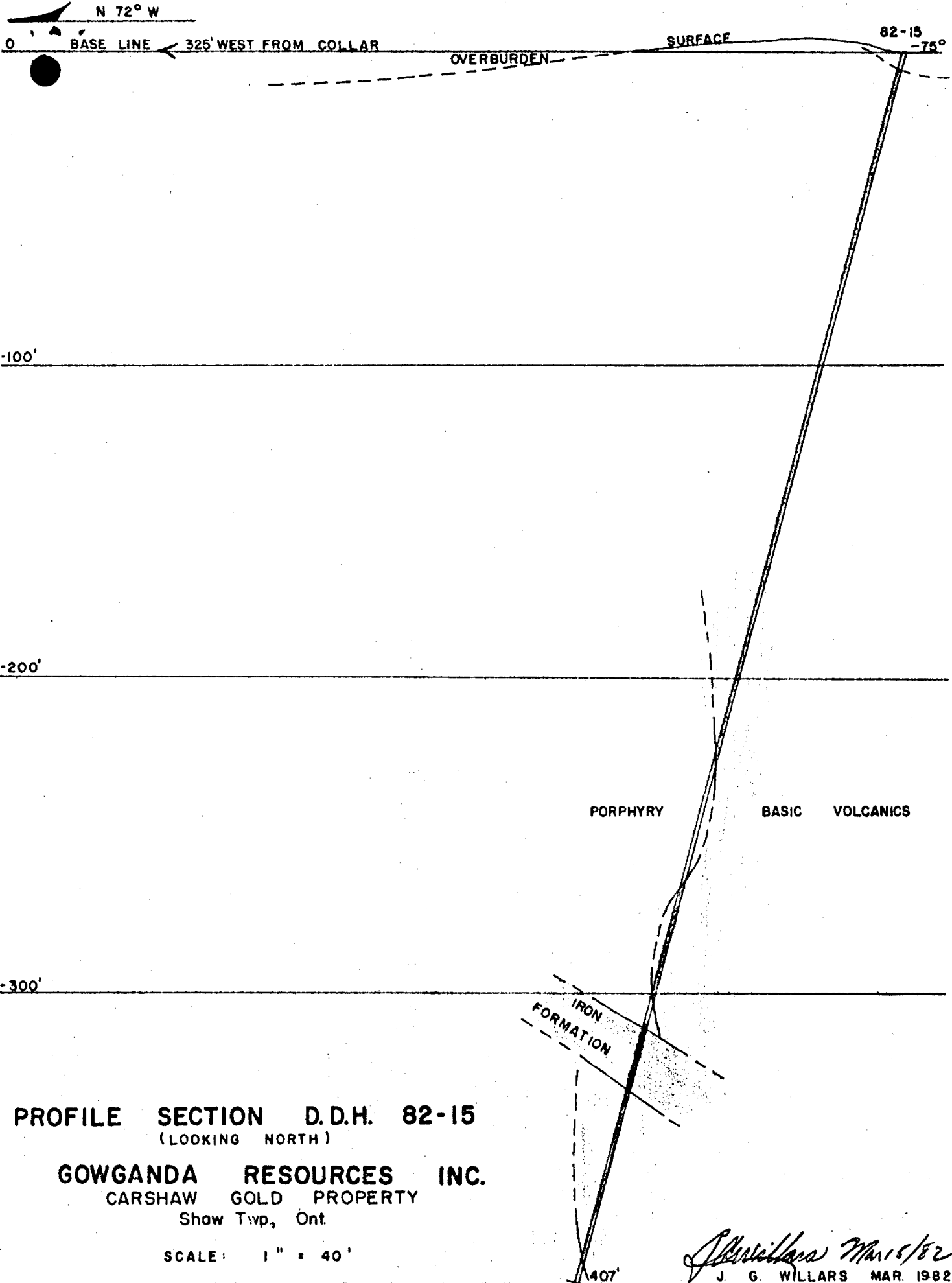
D. D. HOLE NO. 82 - 15PROPERTY GOWGANDA RESOURCES INC. - Carshaw PropertyPAGE 2

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		SAMPLES : From 321'-325' Quartz banding with minor pyrite and minor magnetite	32651	4.0'	0.005
		From 325'- 330.7' Porphyry and lava plus 6" fuchsite, quartz and pyrite	32652	5.7'	trace
		From 330.7'- 335' Taconite plus minor pyrite. 50% magnetite and 50% quartz.	32653	4.3'	0.005
		From 335'-339' taconite with 70% magnetite - little or no pyrite.	32654	4.0'	0.005
		From 339'-342' bleached and pyritized wall rock.	32655	3.0'	trace
339'	401'	BASIC VOLCANICS Bleached amygdaloidal lava with minor irregular pyrite near the contact.			
401'	407'	PORPHYRY Fine grained, light grey, very hard rock containing 1/8" size amygdules.			
	407'	END OF HOLE.			

SIGNED



JACK G. WILLARS, B.A. SC., P. ENG.  
CONSULTING MINING GEOLOGIST



**PROFILE SECTION D.D.H. 82-15**  
(LOOKING NORTH)

**GOWGANDA RESOURCES INC.**  
CARSHAW GOLD PROPERTY  
Show Twp., Ont.

SCALE: 1" = 40'

*J. G. Willars* Mar 15/82  
J. G. WILLARS MAR. 1982



# BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187,

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 16977

DATE: August 5, 1982

SAMPLE(S) OF: Rock(6)

RECEIVED: August 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

*from new pit north of road*

<u>Sample No.</u>	<u>Oz. Gold</u>	<u>Oz. Silver</u>
F33551	0.050	0.03
F33552	0.082	0.04
F33553	0.008	Trace
F33554	0.010	0.02
F33555	0.042	0.04
F33556	0.026	0.02

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

BELL-WHITE ANALYTICAL LABORATORIES LTD.

PER 

OM82-5-C-56



Ministry of  
Natural  
Resources

Temiskaming  
Testing  
Laboratories

P.O. Box 799  
Presley St.  
Cobalt, Ontario

Tel: 679-8313

Report Number

CB 5844

Laboratory Report

Date July 26, 1982.

Issued To: Gowanda Resources Inc., c/o Jack Willars, Box 160, 127 Lakeshore Ave.,  
New Liskeard, Ont.

Sample Number	Gold Oz. Per Ton	Gold Value Per Ton	Silver Oz. Per Ton
Lot "A"	0.058		
"B"	0.068		
"C"	0.059		
"D"	0.026		

RECEIVED  
JUL 29 1982  
RESULTS

"Samples may be contaminated in regards to silver content."

Fees Received Charged Invoice #02225.

*D.L. Leach*

Manager

Except by special permission, reproduction of these results must include any  
qualifying remarks made by this ministry with reference to any sample.



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## Certificate of Analysis

NO. 10658

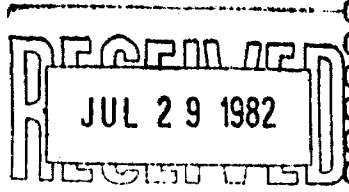
DATE: July 21, 1982

SAMPLE(S) OF: Core(20)

RECEIVED: July 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>
F33514	0.209**
5	0.389**
6	0.225**
7	0.631**
8	0.227**
9	0.012
F33520	0.022
1	0.002*
2	0.018
3	0.002*
4	0.006
5	0.010
6	0.006
7	0.365**
8	0.040
9	0.018
F33530	0.002*
1	0.008
2	0.016
3	0.006



\* Estimated.

\*\* Checked.

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

BELL-WHITE ANALYTICAL LABORATORIES LTD.

PER



# BELL - WHITE ANALYTICAL LABORATORIES LTD.

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HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 15985

DATE: July 19, 1982

SAMPLE(S) OF: Core(18)

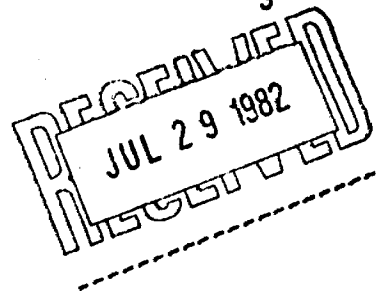
RECEIVED: July 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>	<u>Sample No.</u>	<u>Oz. Gold</u>
F32996	0.024	F33505	0.002*
7	0.014	6	0.002*
8	0.155**	7	0.048
9	0.062	8	0.032
F33000	0.032	9	0.006
F33501	0.016	F33510	0.036
2	0.187**	1	0.026
3	0.014	2	0.002*
4	0.054	3	0.256**

\* Estimated.

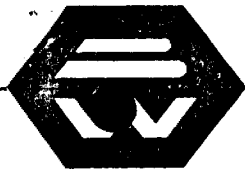
\*\* Checked.



IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

BELL-WHITE ANALYTICAL LABORATORIES LTD.

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# BELL-WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187,

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 15651

DATE: July 13, 1982

SAMPLE(S) OF: Core(5)

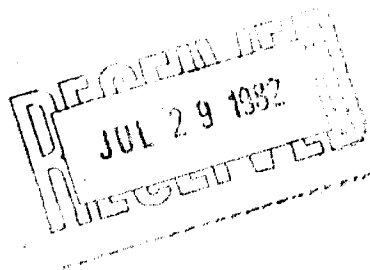
RECEIVED: July 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>
F32991	0.048
2	0.002 *
3	0.026
4	0.206 **
5	0.020

\* Estimated.

\*\* Checked.



IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

BELL-WHITE ANALYTICAL LABORATORIES LTD.

PER





# BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187,

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 15175

DATE: July 7, 1982

SAMPLE(S) OF: Core(32)

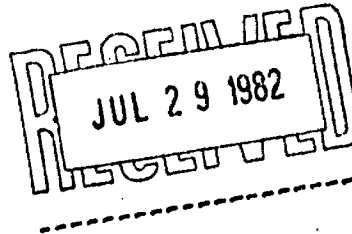
RECEIVED: July 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>	<u>Sample No.</u>	<u>Oz. Gold</u>
F32953	0.117**	F32975	0.158**
4	0.002*	6	0.600**
5	0.002*	7	0.002*
6	0.082	8	0.002*
7	0.002*	9	0.066
8	0.046	F32980	0.099**
9	0.014	1	0.002*
F32966	0.004	2	Trace
7	0.014	3	0.002*
8	0.022	4	0.010
9	0.012	5	Trace
F32970	0.002*	6	0.166**
1	0.002*	7	0.056
2	0.367**	8	0.002*
3	0.024	9	0.066
4	0.016	F32990	0.087**

\* Estimated.

\*\* Checked.



ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

BELL-WHITE ANALYTICAL LABORATORIES LTD.

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# BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187, HAILEYBURY, ONTARIO TEL: 672-3107

## Certificate of Analysis

NO. 14968

DATE: July 1, 1982

SAMPLE(S) OF: Core(8)

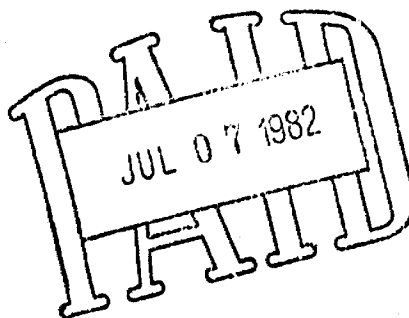
RECEIVED: June 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>
F32945	0.002*
6	Trace
7	0.002*
8	0.002*
9	0.002*
F32950	0.094
1	0.271 **
2	0.002*

\* Estimated.

\*\*Checked.



ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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P.O. BOX 187.

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 14883

DATE: June 29, 1982

SAMPLE(S) OF: Rock(18) Sludge(5)

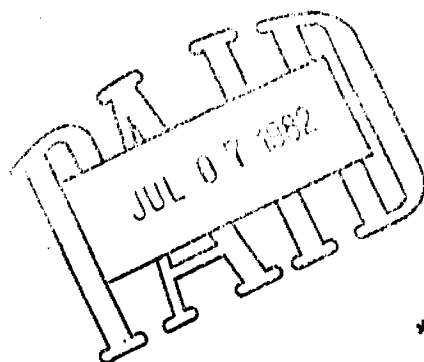
RECEIVED: June 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>
F32922	Trace
3	0.005
4	0.020
5	0.066
6	0.014
7	0.044
8	Trace
9	0.002*
F32930	0.002*
1	0.002*
2	Trace
3	0.010
4	0.006
5	0.005
6	0.070
7	0.002*
8	0.042
9	0.008
F32940	0.020
1	0.020
2	0.183**
3	0.048
4	0.005

\* Estimated.

\*\* Checked.



IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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TEL: 672-3107

## Certificate of Analysis

NO. 14634

DATE: June 23, 1982.

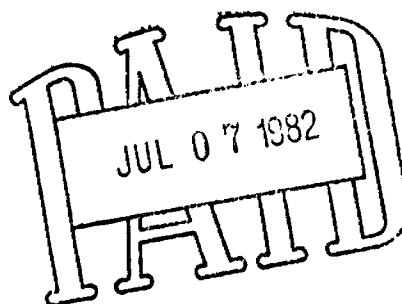
SAMPLE(S) OF: Core(21)

RECEIVED: June 1982.

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>
F 32901	0.016
2	0.012
3	0.179*
4	0.130*
5	0.036
6	Trace
7	0.002**
8	0.036
9	0.028
F 32910	0.016
1	Trace
2	Trace
3	Trace
4	Trace
5	0.222*
6	0.002**
7	0.022
8	0.091
9	0.026
F 32920	0.062
1	Trace

\* Checked.  
\*\* Estimated.



ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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P.O. BOX 187,

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 14011

DATE: June 4, 1982

SAMPLE(S) OF: Rock(31)

RECEIVED: June 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>	<u>Sample No.</u>	<u>Oz. Gold</u>
F32829	Trace	F32845	0.070
F32830	0.060	6	0.010
1	0.008	7	0.702 *
2	0.026	8	0.012
3	1.49 *	9	0.018
4	0.147 *	F32850	0.026
5	0.133 *	1	0.351 *
6	0.139 *	2	0.036
7	0.056	3	0.028
8	0.086	4	0.032
9	0.135 *	5	0.076
F32840	Trace	6	0.088
1	0.006	7	0.030
2	Trace	8	Trace
3	Trace	9	0.002 **
4	0.120 *		

\* Checked.

\*\* Estimated.

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187,

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 14005

DATE: June 1, 1982

SAMPLE(S) OF: Rock(28)

RECEIVED: June 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>	<u>Sample No.</u>	<u>Oz. Gold</u>
F32801	0.351**	F32815	0.124**
2	0.002*	6	0.014
3	Trace	7	0.008
4	Trace	8	0.014
5	Trace	9	0.022
6	Trace	F32820	0.002*
7	Trace	1	0.002*
8	Trace	2	0.002*
9	Trace	3	0.006
F32810	0.002*	4	0.012
1	0.018	5	0.106**
2	0.008	6	0.062
3	Trace	7	0.032
4	0.181**	8	0.024

\* Estimated.

\*\* Checked.

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# BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187.

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 13836

DATE: May 21, 1982

SAMPLE(S) OF: Rock(23)

RECEIVED: May 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>
F32741	0.020
2	0.239 *
3	0.178 *
4	0.062
5	0.225 *
6	0.056
7	0.036
8	0.578 *
9	0.342 *
F32750	0.028
1	0.157 *
2	0.064
3	0.008
4	0.008
5	0.022
6	Trace
7	0.074
8	0.006
9	0.012
F32760	0.018
1	0.072
2	0.026
3	0.059

\* Checked.

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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HAILEYBURY, ONTARIO

TEL: 672-3107

**Certificate of Analysis**

NO. 13534

DATE: May 19, 1982

SAMPLE(S) OF: Rock(44)

RECEIVED: May 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.


<u>Sample No.</u>	<u>Oz. Gold</u>	<u>Sample No.</u>	<u>Oz. Gold</u>
F32697	0.046	F32719	Trace
8	0.070	F32720	0.002*
9	0.115**	1	0.284**
F32700	0.016	2	0.544**
1	0.064	3	0.220**
2	0.028	4	0.064
3	0.052	5	0.330**
4	0.052	6	0.005
5	0.022	7	0.012
6	0.032	8	0.048
7	0.062	9	0.124**
8	0.359**	F32730	0.024
9	0.016	1	0.008
F32710	0.010	2	0.026
1	0.117**	3	0.096
2	0.008	4	0.032
3	0.042	5	0.012
4	0.034	6	0.020
5	0.002*	7	0.002*
6	0.002*	8	0.018
7	0.006	9	0.006
8	0.006	F32740	0.010

\* Estimated.

\*\* Checked.

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# BELL - WHITE ANALYTICAL LABORATORIES LTD.

P.O. BOX 187.

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 13263

DATE: May 12, 1982

SAMPLE(S) OF: Rock(39)

RECEIVED: May 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>	<u>Sample No.</u>	<u>Oz. Gold</u>
F32658	0.014	F32678	0.014
9	0.006	9	0.028
F32660	0.006	F32680	Not legible
1	Not legible	1	0.002 *
2	0.018	2	0.002 *
3	0.002 *	3	0.016
4	0.012	4	0.092
5	0.064	5	0.002 *
6	0.373 **	6	0.002 *
7	0.042	7	0.006
8	0.048	8	0.002 *
9	Not legible	9	0.002 *
F32670	0.202 **	F32690	0.006
1	0.120 **	1	0.074
2	0.032	2	0.030
3	0.068	3	0.008
4	0.008	4	0.036
5	0.006	5	0.002 *
6	0.138 **	6	0.012
7	0.640 **	A.	0.008
		B.	0.008
		C.	0.010

\* Estimated.

\*\* Checked.

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HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 12199

DATE: April 30, 1982

SAMPLE(S) OF: Rock(2)

RECEIVED: April 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Silver</u>
F32656	0.870 *
F32657	0.062

\* Checked.

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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P.O. BOX 187.

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 5887

DATE: March 12, 1982

SAMPLE(S) OF: Core(31)

RECEIVED: March 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>	<u>Sample No.</u>	<u>Oz. Gold</u>
F32601	0.110 *	F32617	0.004
2	0.016	8	0.022
3	0.024	9	0.066
4	Trace	F32620	0.016
5	0.005	1	0.006
6	0.010	2	0.117 *
7	0.036	3	0.122 *
8	0.005	4	0.005
9	0.005	5	0.005
F32610	Trace	6	0.078
1	Trace	F32651	0.005
2	0.005	2	Trace
3	0.004	3	0.005
4	Trace	4	0.005
5	0.072	5	Trace
6	0.030		

\* Checked.

DATE RECEIVED	MAR 18 1982
CHECKED FOR ACCURACY	<i>[Signature]</i>
APPROVED FOR SHIPMENT	<i>[Signature]</i>
LABORATORY	MAR 10 1982
LABORATORY #	000128

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE, GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

BELL-WHITE ANALYTICAL LABORATORIES LTD.

PER *[Signature]*



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P.O. BOX 187.

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 4609

DATE: March 1, 1982

SAMPLE(S) OF: Core(13)

RECEIVED: February 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>
F32587	0.024
8	2.55 *
9	0.005
F32590	0.005
1	0.040
2	0.062
3	0.032
4	0.005
5	0.008
6	0.005
7	0.005
8	0.44 *
9	0.024

\* Checked.

DATE RECEIVED	MAR 18 1982
CHECKED FOR ACCURACY	<i>Chs</i>
APPROVED FOR PAYMENT	<i>Chs</i>
DATE	MAR 18 1982
CHEQUE NO.	000128

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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P.O. BOX 187.

HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 4164

DATE: February 23, 1982

SAMPLE(S) OF: Core(7)

RECEIVED: February 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>
F32579	0.005
F32580	0.005
F32581	0.285 *
F32582	0.50 *
F32584	0.065 *
F32585	0.125 *
F32586	Trace

\* Checked.

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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TEL: 672-3107

## Certificate of Analysis

NO. 4163

DATE: February 22, 1982

SAMPLE(S) OF: Core(7)

RECEIVED: February 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>
F32572	Trace
3	0.01
4	0.02
5	Trace
6	Trace
7	Trace
8	Trace

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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P.O. BOX 187, HAILEYBURY, ONTARIO TEL: 672-3107

## Certificate of Analysis

NO. 3796

DATE: February 12, 1982

SAMPLE(S) OF: Core(2)

RECEIVED: February 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>
F32570	Trace
F32571	Trace

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 2916

DATE: February 2, 1982

SAMPLE(S) OF: Core(4)

RECEIVED: January 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

Sample No.

Oz. Silver

32508

0.07

32510

0.07

32511

0.06

32513

0.16

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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HAILEYBURY, ONTARIO

TEL: 672-3107

## Certificate of Analysis

NO. 2677

DATE: January 29, 1982

SAMPLE(S) OF: Core(15)

RECEIVED: January 1982

SAMPLE(S) FROM: Mr. J. G. Willars, Gowganda Silver Mines Ltd.

<u>Sample No.</u>	<u>Oz. Gold</u>
32501	Trace
2	Trace
3	Trace
4	Trace
5	Trace
6	Trace
7	Trace
8	0.06 *
9	Trace
32510	0.175 *
1	0.33 *
2	0.03
3	0.195 *
4	Trace
5	Trace

\* Checked.

IN ACCORDANCE WITH LONG-ESTABLISHED NORTH AMERICAN CUSTOM, UNLESS IT IS SPECIFICALLY STATED OTHERWISE GOLD AND SILVER VALUES REPORTED ON THESE SHEETS HAVE NOT BEEN ADJUSTED TO COMPENSATE FOR LOSSES AND GAINS INHERENT IN THE FIRE ASSAY PROCESS.

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## DIAMOND DRILL LOG

D. D. HOLE NO. 82-U-1

PROPERTY GOWGANDA RESOURCES INC.-Carshaw

PAGE 1

LOCATION Carshaw Twp., Ont. Claim P13814

TEST

DEPTH OF HOLE 90'COLLAR: LAT. 298'S on Surface B.L.STARTED June 18, 1982.DEPT. 162'E of Surface B.L.COMPLETED June 19, 1982.ELEV. 125' LevelDRILLED BY Barron D.D.BEARING S 54° ECORE SIZE EXTDIP 0° - Flat

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
0	9.6'	BASIC VOLCANICS Altered by bleaching. Amygdules present. SAMPLE: From 6.2'-7' = Quartz fracturing with pyrite.	32901	0.8'	0.016 Au
9.6'	15'	IRON FORMATION Magnetite bands. SAMPLES: From 10'-12' = Quartz fracturing with pyrite and some magnetite. From 12'-15' = Quartz veining with pyrite and magnetite banding.	32902	2'	0.012 Au
			32903	3'	0.179 Au
15'	16.2'	BASIC VOLCANICS Light green with fine grained amygdules. Very fine seams. SAMPLE: From 15'-16.2' = Volcanics - barren.	32935	1.2'	0.005 Au
16.2'	21.2'	IRON FORMATION SAMPLE: From 16.2'-21.4' = Bands of iron at 60° to core axis. Impure, incipiently brecciated quartz-carbonate. Pyrite from 18'-20'.	32904	5.2'	0.130 Au
21.2'	26.5'	BASIC VOLCANICS Very contorted contact.			
26.5'	53'	IRON FORMATION Very contorted. Occasional banding at 0° to core axis. Narrow bands of volcanics interbedded. SAMPLES: From 26.5'-31' = Contorted iron formation. Fine grained pyrite for 2' at start. Banding at 0° to core axis. From 31'-36' = Iron formation with banding at 0° to core axis. From 36'-41' = Banded iron formation at 45° to core axis. 8" horse volcanics at 38'. Sparse pyrite. From 41'-45' = Iron bands at 60° to core axis. Sparse pyrite. From 45'-50.5' = Quartz plus pyrite in altered volcanics. From 50.5'-53' = 12" iron formation plus pyritized volcanics.	32905	4.5'	0.036 Au
			32906	5'	Tr. Au
			32907	5'	0.002 Au
			32908	4'	0.036 Au
			32909	5.5'	0.028 Au
			32910	2.5'	0.016 Au

SIGNED



 JACK G. WILLARS, B. A. SC., P. ENG.  
 CONSULTING MINING GEOLOGIST

FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		D.D. HOLE NO. 82-U-1 Cont'd.			oz. Au/ton
53'-	90'	BASIC VOLCANICS 53'-64'. Quartz veining plus pyrite. 64'-90'. Bleached core. Coarse grained amygdules up to 1/4". Iron formation from 74.5'-75' and from 77.4'-78'. SAMPLES: From 53'-58.5'= Altered volcanics with 3% pyrite. From 58.5'-64'= Altered volcanics with 3% pyrite. From 74.5'-77'= Pyrite and volcanics plus iron formation.	32911 32912 32913	5.5' 5.5' 2.5'	Tr. Au Tr. Au Tr. Au
	90'	END OF HOLE.  *****  Collar: Lat. 277'S on Surface B.L. Dep. 151'E of Surface B.L. Bearing N 80° E Dip 00° Flat			
					D.D. HOLE NO. 82-U-2 Started June 19, 1982. Completed June 21, 1982. Depth 119'
0	47'	BASIC VOLCANICS Quartz-carbonate alteration. Bleached amygdules. Brown ghosty bands at 45° to core axis. Splashes of massive pyrite - pyrite cubes up to 1/2".			
47'	87'	IRON FORMATION Banding from 60° varying to 35° to core axis interbedded with quartz bands. From 58'-63.5' is altered volcanics. Ground core from 59.5'-60.5'. SAMPLES: From 47'-51.5'= Banded iron formation at 45° to core axis plus pyrite. From 51.5'-58'= Banded iron formation at 45° and 30° to core axis plus quartz and pyrite. From 58'-63.5'= Altered volcanics and possible pyrite. Ground core from 59.5'-60.5'. From 63.5'-69'= Iron formation and altered volcanics plus quartz. From 69'-75.2'= Banded iron formation at 35° to core axis and quartz plus pyrite. Ground core from 75.2'-76'. From 76'-81'= Iron formation and altered volcanics plus quartz and pyrite.	32914 32915 32916 32917 32918 32919	4.5' 6.5' 5.5' 5.5' 6.3' 5'	Tr. Au 0.222 Au 0.002 Au 0.022 Au 0.091 Au 0.026 Au

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		D.D. HOLE NO. 82-U-2 Cont'd.			oz. Au/ton
47'	87'	IRON FORMATION SAMPLES: From 81'-87' = 50/50 iron formation and volcanics. Some quartz with pyrite.	32920	6'	0.062 Au
87'	119'	BASIC VOLCANICS Ghosty bands at contact. SAMPLES: From 90'-95' = Altered volcanics plus pyrite and quartz plus pyrrhotite. From 100'-107.5' = Quartz veining with fair pyrite and pyrrhotite. From 109.5'-110.5' = Quartz veining with some pyrite. 115'-119' Section of ?PORPHYRY? Soft medium grained, medium grey, well altered rock with amygdules. Quartz filled contact at 15° to core axis.	32921 32922 32923	5' 7.5' 1'	Tr. Au Tr. Au 0.005 Au
	119'	END OF HOLE.  *****			
		Collar: Lat. 280°S on Surface B.L. Dep. 153°E of Surface B.L. Bearing S 64° E Dip 0° - Flat	D.D. HOLE NO. 82-U-3 Started June 21, 1982. Completed June 23, 1982. Depth 114'		
0	34.9'	BASIC VOLCANICS Bleached or altered to a light grey colour containing amygdules with altered rims. Rusty seams at 8'. Ghosty banding at 60° to 70° to core axis. SAMPLES: From 17.8'-20' = Quartz veining with some pyrite. From 27.6'-29' = Quartz veining with some pyrite.	32924 32925	2.2' 1.4'	0.020 Au 0.066 Au
34.9'	73.6'	IRON FORMATION Banding at very low angles to core axis in some sections, and at 45° to core axis in others; all showing contortions. Sections of volcanics from 42.4'-45' and from 63.1'-66.4'. From 50.1'-50.2' seams with scheelite were observed. SAMPLES: From 34.9'-42.4' = Magnetite with some quartz fracturing and some pyrite. From 42.4'-45' = Volcanic dyke with some pyrite cubes.	32926 32929	7.5' 2.6'	0.014 Au 0.002 Au

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		D.D. HOLE NO. 82-U-3 Cont'd.			oz. Au/ton
34.9'	73.6'	IRON FORMATION SAMPLES: From 45'-55' = Magnetite with quartz veining from .1" to .5" wide. Fair pyrite. From 55'-63.1' = Magnetite with quartz fracturing and some pyrite. From 66.4'-73.6' = Magnetite with quartz fracturing. Some coarse and fine pyrite.	32927 32928 32930	10' 8.1' 7.2'	0.044 Au Tr. Au 0.002 Au
73.6'	114'	BASIC VOLCANICS Light grey colour with fine grained amygdules. Ghosty bands at 50° to core axis. SAMPLES: From 78.6'-91.4' = Quartz veining with some fine and coarse pyrite plus pyrrhotite. From 98.4'-99.05' = Quartz fracturing 1/2" to 1" wide with pyrite and some volcanics.	32931 32932	12.8' 0.65'	0.002 Au Tr. Au
	114'	END OF HOLE.  *****  Collar: Lat. 273'S on Surface B.L. Dep. 149'E of Surface B.L. Bearing N 58° E Dip 0° - Flat			
					D.D. HOLE NO. 82-U-4 Started June 23, 1982 Completed to 77' June 24, 1982 Completed to 128' on July 4, 1982 Depth 128'
0	59.5'	BASIC VOLCANICS Light to medium grey colour with rounded amygdules, changing to a light grey colour. Sections of ghosty banding at 60° to 70° to core axis. Sections of amygdules suspiciously resembling pebbles - rims of all are altered with some carbonates (very fine effervescence). Pyrite cubes in quartz from 36'-38'. Sections of quartz veining and pyrite from 56'-59.5' and at 10° to core axis. SAMPLES: From 36'-38' = Quartz plus pyrite cubes in volcanics. From 56'-59.5' = Quartz plus pyrite cubes at contact.	32933 32934	2' 3.5'	0.010 Au 0.006 Au
59.5'	77'	BASIC VOLCANICS Well altered and bleached. Sharp contact at 10° to core axis. Medium grey, medium grained, schistose.			

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		D.D. HOLE NO. 82-U-4 Cont'd.			0Z. Au/ton
77'	84.9'	BASIC VOLCANICS Bleached volcanics with faint or ghostly banding at 20° to 40° to core axis.			
84.9'	93.5'	IRON FORMATION Contorted banding and some banding at 45° to core axis. SAMPLES: From 84.8'-89' = Taconite with quartz and pyrite. Tourmaline and scheelite present.	32986	4.2'	0.166 Au
		From 89'-93.5' = Contorted bands of magnetite, quartz-carbonate plus pyrite.	32987	4.5'	0.056 Au
93.5'	100.8'	BASIC VOLCANICS With quartz stringers at low angles to core axis. Medium green colour - faint banding at very low angles to core axis. Sample: From 93.5'-96' = Volcanics with quartz plus pyrite and faint banding at low angles to core axis.	32988	3.5'	0.002 Au
100.8'	104'	IRON FORMATION Banding at 40° to core axis. Some quartz and pyrite. SAMPLE: From 100.8'-104' = Iron formation at 40° to core axis with quartz and pyrite bands.	32989	3.2'	0.066 Au
104'	107.6'	BASIC VOLCANICS Bleached, with some pyrite. Sharp contact - 2" quartz vein at 40° to core axis. SAMPLE: From 104'-107.6' = Bleached volcanics with pyrite.	32990	3.6'	0.087 Au
107.6'	128'	BASIC VOLCANICS Porphyritic lava. Hard, fine grained, white to grey rock with very fine grained phenocrysts. Bleached quartz-carbonate alteration with minor green fuchsite. Sparse one-eighth inch blebs of pyrite.			
	128'	END OF HOLE.			

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		Collar: Lat. 277'S on Surface B.L. Dep. 151'E of Surface B.L. Bearing N 80° E Dip Plus 42°	D.D. HOLE NO. 82-U-5 Started June 25, 1982 Completed June 28, 1982 Depth 66'		oz. Au/ton
0	25'	BASIC VOLCANICS Medium grained, light grey rock. Some quartz-carbonate alteration. Fine grained to medium grained altered amygdaloidal lavas. Amygdules up to 1/4" size with faint altered rims.			
25'	44.5'	IRON FORMATION Bands of magnetite and quartz at 75° to core axis. SAMPLES: From 24'-29' = 25'-26' is taconite - balance is quartz plus pyrite plus possible volcanics. From 29'-34' = Quartz plus pyrite and sparse taconite at small angles to core axis. From 34'-39' = Minor magnetite bands at 75° to core axis. Balance is quartz plus pyrite. From 39'-43' = Magnetite bands at 80° to core axis. Quartz stringers and sparse pyrite. Quartz plus scheelite at 42.5'. From 43'-44.5' = Iron plus quartz and fine pyrite at 45° to core axis.	32941 32942 32943 32944 32945	5' 5' 5' 4' 1.5'	0.020 Au 0.183 Au 0.048 Au 0.005 Au 0.002 Au
44.5'	66'	BASIC VOLCANICS With iron formation from 47'-48.5' and from 51'-51.5' and from 56'-57.5'. SAMPLE: From 44.5'-50.5' = Partly volcanics, partly iron banding at 45° to core axis.	32946	6'	Tr. Au
	66'	END OF HOLE.			

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		Collar: Lat. 369'S on Surface B.L. Dep. 173'E of Surface B.L. Bearing N 66° W Dip 0° - Flat	D.D. HOLE NO. 82-U-6 Started June 28, 1982. Completed June 29, 1982. Depth 41'		oz. Au/ton
0	23.2'	IRON FORMATION SAMPLES: From 0-6' = Iron formation at 45° to core axis plus quartz and fine pyrite. From 6'-8' = Light grey cherty bands at 60° to core axis. Little or no pyrite. From 8'-10.5' = Little pyrite in iron formation at 60° to core axis. Regular banding. From 10.5'-15' = 3 to 5% pyrite in quartz-carbonate in iron formation at a 60° angle to core axis plus some contortion. Banding is faulted. From 15'-19.5' = 3 to 5% pyrite (large cubes) in quartz carbonate. Section of volcanics from 16.7'-17.8'. From 19.5'-23.2' = Volcanic section from 19.5'-20.5' followed by iron formation banded at 30° to core axis with minor pyrite.	32947 32948 32949 32950 32951 32952	6' 2' 2.5' 4.5' 4.5' 3.7'	0.002 Au 0.002 Au 0.002 Au 0.094 Au 0.271 Au 0.002 Au
23.2'	41'	BASIC VOLCANICS Bleached, hard, light grey, altered mottled volcanic rocks with a few barren quartz-carbonate stringers.			
	41'	END OF HOLE  *****			
		Collar: Lat. 374'S on Surface B.L. Dep. 173'E of Surface B.L. Bearing S 80° W Dip 0° - Flat	D.D. HOLE NO. 82-U-7 Started June 28, 1982. Completed June 30, 1982. Depth 52'		
0	40'	IRON FORMATION From 0-4.7' is very fine banding at 80° to core axis with narrow quartz and magnetite bands. Some glassy quartz plus pyrite. Altered bleached amygdaloidal lavas with ghostly banding at 55° to core axis. from 4.7'-8.1'.			

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		D.D. HOLE NO. 82-U-7 Cont'd.			oz. Au/ton
0-	40'	IRON FORMATION From 8.1'-13' magnetite bands at 75° to core axis that are faulted and chunky. Very broken up and ground core. Some quartz and pyrite. From 18.1'-22.3' is light green, fine grained, amygdaloidal lava. There is magnetite banding along the core near the end. SAMPLES: From 0-4.7' = Quartz veining 1" to 4" wide with magnetite. Fair pyrite. From 8.1'-12.7' = Magnetite and some pyrite. 80% broken and ground core. From 12.7'-18' = Quartz veining. Fair pyrite from 12.7'-13.5'. From 13.5'-14.5' some pyrite. From 14.5'-18' some quartz fracturing-very little pyrite. From 22.3'-27.3' = Magnetite banding. Quartz fracturing from .1' to 1' wide. Fair amount of fine and coarse pyrite. From 27.3'-32.3' = Magnetite banding. Quartz fracturing. Some fine pyrite. From 32.3'-36.5' = Magnetite banding and quartz veining from .1' to 1' wide. Some pyrite. From 36.5'-40' = Magnetite banding with quartz veining from .1' to 1.5' wide. Some pyrite.	32953 32954 32955 32956 32957 32958 32959	4.7' 4.6' 5.3' 5' 5' 4.2' 3.5'	0.117 Au 0.002 Au 0.002 Au 0.082 Au 0.002 Au 0.046 Au 0.014 Au
40'	52'	BASIC VOLCANICS Bleached rock with dark green mottles of chlorite. From 43'-44' is a section of iron formation at 30° to core axis. Hole finishes in sugary quartz with minor pyrite.			
	52'	END OF HOLE.			

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		Collar: Lat. 206'S on Surface B.L. Dep. 70' E of Surface B.L. Bearing N 42° E Dip 0° - Flat	D.D. HOLE NO. 82-U-8 Started June 30, 1982. Completed July 1, 1982. Depth 52'		oz. Au/ton
0	14.8'	BASIC VOLCANICS Medium hard to hard schistose, very light grey rock. Very altered volcanics.			
14.8'	44'	IRON FORMATION From 15'-20' sparse magnetite bands with quartz carbonate bands at 40° to core axis. From 16.5'-18' there are narrow bands of chalcopyrite. From 16'-18' there are pyrite cubes. From 20'-24' is quartz plus pyrite plus pyrrhotite. At 26' is a rusty fault, vuggy with pyrite and quartz at 30° to core axis. At 28.5' there is a 1" pyrrhotite band with quartz. From 31'-32' the banding is contorted. There is 12" of ground core from 36'-37.5'. Seams at 43'-44'. In the remainder of the hole the banding is at 45° to core axis.			
		SAMPLES: From 14.8'-19.8' = Some magnetite banding with quartz veining from .1' to 1.2' wide. Good pyrite.	32966	5'	0.004 Au
		From 19.8'-24.8' = Little magnetite with quartz veining from .5" to 1.5' wide. Fair pyrite.	32967	5'	0.014 Au
		From 24.8'-29.8' = At 25.5' is a fault at 30° to core axis followed by contorted banding. Quartz plus minor pyrite.	32968	5'	0.022 Au
		From 29.8'-36' = Contorted banding with quartz-carbonate and minor pyrite. Fault at 31'. 12" of ground core at 36'-37'.	32969	6.2'	0.012 Au
		From 37'-41' = Average banding at 45° to core axis plus some contortion. Quartz plus pyrite.	32970	4'	0.002 Au
		From 41'-44' = Average banding at 45° to core axis with some contorted quartz plus pyrite.	32971	3'	0.002 Au
44'	52'	BASIC VOLCANICS Light grey, medium hard, with fine grained amygdules.			
	52'	END OF HOLE.			

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		Collar: Lat. 138°S on Surface B.L. Dep. 69° E of Surface B.L. Bearing 0° S 87° W Dip 0° - Flat	D.D. HOLE NO. 82-U-9 Started July 1, 1982. Completed July 2, 1982. Depth 28'		oz. Au/ton
0	9.5'	IRON FORMATION From 4'-5' is a fault zone. The section from 5'-9.5' is faulted and contorted with some volcanic fragments. SAMPLES: From 0-4' = Banded iron formation at 70° to core axis. Quartz and pyrite. From 4'-9.5' = Iron formation plus faulted sections.	32972 32973	4' 5.5'	0.367 Au 0.024 Au
9.5'	28'	BASIC VOLCANICS From 9.5'-11.3' are rusty faulted sections bleached to light grey colour - amygdaloidal lavas with barren quartz stringers. SAMPLE: From 9.5'-11.3' = Rusty, faulted volcanic rock.	32974	1.8'	0.016 Au
	28'	END OF HOLE.  *****			
		Collar: Lat. 138°S on Surface B.L. Dep. 69° E of Surface B.L. Bearing 0° N 62° W Dip 0° - Flat	D.D. HOLE NO. 82-U-10 Started July 2, 1982. Completed July 2, 1982. Depth 25.5'		
0	8.5'	IRON FORMATION With faulting from 4.5'-8.5'. SAMPLES: From 0-4.5' = Magnetite iron formation at 45° to core axis. From 4.5'-8.5' = Heavy pyrite in banded sections.	32975 32976	4.5' 4'	0.158 Au 0.600 Au
8.5'	25.5'	BASIC VOLCANICS Ground core from 11.5'-14' and from 16.5'-18'. SAMPLES: From 8.5'-11.5' = Volcanics with fuchsite. From 14'-19.5' = Rusty, vuggy, fault section. Ground core from 16.5'-18'.	32977 32978	3' 5.5'	0.002 Au 0.002 Au
	25.5'	END OF HOLE.			

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		Collar: Lat. 138'S on Surface B.L. Dep. 69' E of Surface B.L. Bearing 0° S 66° W Dip 0° - Flat	D.D. HOLE NO. 82-U-11 Started July 2, 1982. Completed July 2, 1982. Depth 31'		oz. Au/ton
0	9'	IRON FORMATION Contorted iron formation with quartz plus pyrite. Some banding at 60° to core axis. SAMPLES: From 0-3.5' = White quartz banding with magnetite at 80° to core axis. Some pyrite. From 3.5'-6' = Heavy pyrite in iron formation. From 6'-9' = Iron formation with quartz plus pyrite.	32979 32980 32981	3.5' 2.5' 3'	0.066 Au 0.099 Au 0.002 Au
9'	31'	BASIC VOLCANICS From 11'-17' is rusty, vuggy faulting, quartz plus pyrite. Ground core from 13.2'-16.5' and from 16.5'-17'. SAMPLES: From 9'-11.7' = Volcanics. From 11.7'-13.2' is ground core. From 13.2'-16.5' = Faulted volcanics with quartz and pyrite.	32982 32983	2.7' 3.3'	Tr. Au 0.002 Au
	31'	END OF HOLE.  *****			
		Collar: Lat. 135'S on Surface B.L. dep. 78' E of Surface B.L. Bearing 0° N 87° E Dip 0° - Flat	D.D. HOLE NO. 82-U-12 Started July 3, 1982. Completed July 3, 1982. Depth 65'		
0	18'	BASIC VOLCANICS Bleached. From 0-2.5' there are quartz stringers plus minor pyrite. From 14.5'-17' is a rusty fracture zone with pyrite. SAMPLES: From 0-2.5' = Quartz veining plus minor quartz. From 14.5'-17' = Rusty fracture zone with pyrite	32984 32985	2.5' 2.5'	0.010 Au Tr. Au
18'	65'	BASIC VOLCANICS Mottled green/white, amygdaloidal lava. From 24.5'-35' is rusty fracturing and from 56'-56.5' is barren quartz.			

65' END OF HOLE.

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		Collar: Lat. 225'S on Surface B.L. . 106'E of Surface B.L. Bearing    N 51° E Dip        0° - Flat	D.D. HOLE NO. 82-U-13 Started     July 5, 1982. Completed  July 7, 1982. Depth      154'		oz. Au/ton
0	2.8'	BASIC VOLCANICS Bleached white/light grey, fine grained amygdaloidal lava. Faint banding at 45° to core axis. Last 12" is rusty looking.			
2.8'	21'	BASIC VOLCANICS Light to dark green colour with ghostly banding or incipient schist at 45° to 60° to core axis. Some quartz-carbonate alteration. Minor fuchsite and chlorite. Occasional round quartz remnants. Ground core from 20.5'-21'.			
21'	44'	BASIC VOLCANICS Bleached, altered volcanics. Possible fault at contact at 21'. From 40'-41' is oxidized fuchsite plus alteration. Ground core from 41'-44'.			
44'	56'	BASIC VOLCANICS Dark green lava with very fine grained amygdules.			
56'	115'	LAMPROPHYRE Fine grained, chilled contact grading to medium grained, crystalline, white feldspar in dark green matrix plus fine grained mica. From 88.6'-88.9' is a section of quartz plus pyrite plus chlorite plus magnetite with a contact at 35° to core axis. A section from 99.5'-99.8' = same as 88.6'-88.9'. Bottom contact grading from 97'-115' is very fine grained with quartz plus pyrite.			
115'	154'	BASIC VOLCANICS Dark green with irregularly spaced 1/4" white amygdules. From 115'-116' is a rusty, red, vuggy zone. Magnetic. Possible fault. At 118' there is pyrite plus quartz plus magnetite. From 120'-121' is another rusty, vuggy zone. Possibly another fault.			
	154'	END OF HOLE.			

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		Collar: Lat. 258'N on Surface B.L. Dep. 15' W of Surface B.L. Bearing S 36° E Dip 0° - Flat	D.D. HOLE NO. 82-U-14 Started July 8, 1982. Completed July 8, 1982. Depth 28'		oz. Au/ton
0	23.1'	IRON FORMATION SAMPLES: From 0-5' = From 0.1'-0.5' is quartz. Remainder is fine grained, grey chert with pyrite cubes to $\frac{1}{8}$ " and minor magnetite bands at 45° to core axis. Some white chert. From 5'-10' = White and grey chert with minor volcanic bands. Faint banding at 45° to core axis. Pyrite cubes up to $\frac{1}{4}$ ". From 10'-15' = Quartz plus volcanic bands at 45° to 60° to core axis. 1.5% pyrite. From 11.5'-12' is a rusty, vuggy fault. From 15'-20' = Broken core. Cave. Cherty quartz plus glassy quartz and 1.5% pyrite. Possible minor sphalerite and scheelite. Ground core from 15.8'-17.3'. From 20'-23.1' = Sugary, cherty, quartz banding with glassy quartz at 60° to core axis. 1.5% pyrite.	32991 32992 32993 32994 32995	5' 5' 5' 5' 3.1'	0.048 Au 0.002 Au 0.026 Au 0.206 Au 0.020 Au
23.1'	28'	BASIC VOLCANICS Bleached, fine grained, amygdaloidal volcanics.			
	28'	END OF HOLE.  *****			
		Collar: Lat. 237'N on Surface B.L. Dep. 16' W of Surface B.L. Bearing S 43° E Dip 0° - Flat	D.D. HOLE NO. 82-U-15 Started July 9, 1982. Completed July 9, 1982. Depth 22'		
0	22'	BASIC VOLCANICS From 0-6' is bleached, fine grained, amygdaloidal lavas. Ground core from 1'-4'. There is a rusty fault at 6'. From 6'-9.3' is glassy quartz plus pyrite. From 9.3'-12.1' is bleached lavas. From 16'-22' is light grey, bleached lava.			

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
					oz. Au/ton
		D.D. HOLE NO. 82-U-15 Cont'd.			
0	22'	BASIC VOLCANICS			
		SAMPLES: From 6'-12.1' = Volcanics. Some pyrite	32996	6.1'	0.024 Au
		From 12.1'-16' = Glassy quartz with	32997	3.9'	0.014 Au
		minor pyrite banding at 35° to core axis. Minor magnetite.			
	22'	END OF HOLE.			
		*****			
		Collar: Lat. 213'N on Surface B.L.	D.D. HOLE NO. 82-U-16		
		Dep. 19' W of Surface B.L.	Started July 12, 1982.		
		Bearing S 45° E	Completed July 12, 1982.		
		Dip 0° - Flat	Depth 23'		
0	20.2'	IRON FORMATION			
		At 0' glassy, opaque quartz with one-sixteenth			
		inch visible gold. From 1.7'-3.5' is a fault			
		zone with 2' of ground core.			
		SAMPLES: From 0-7' = Quartz plus pyrite plus	32998	7'	0.155 Au
		minor magnetite at 45° to core axis			
		From 7'-12' = Quartz plus pyrite and	32999	5'	0.062 Au
		minor magnetite. Splashes of lava			
		rocks.			
		From 12'-17' = Sugary and glassy quartz	33000	5'	0.032 Au
		plus pyrite. Fault at 14'.			
		From 17'-20.2' = Quartz veining with	33501	3.2'	0.016 Au
		minor pyrite and magnetite.			
20.2'	23'	BASIC VOLCANICS			
		Bleached, fine grained, amygdaloidal lavas.			
		Contact at 45° to core axis.			
	23'	END OF HOLE.			
		*****			

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		Collar: Lat. 178°N on Surface B.L. Dep. 6' W of Surface B.L. Bearing N 81° E Dip Plus 9°	D.D. HOLE NO. 82-U-17 Started July 12, 1982. Completed July 12, 1982. Depth 14'		oz. Au/ton
0	10'	IRON FORMATION SAMPLES: From 0-5' = Quartz with minor pyrite and magnetite banding at 45° to core axis. Some banding at 70° to core axis. Faults at 2.5' and 3.3'. From 5'-10' = Quartz with minor pyrite bands at 45° to core axis.	33502 33503	5' 5'	0.187 Au 0.014 Au
10'	14'	BASIC VOLCANICS Altered lava section - faint banding at 45° to core axis.			
	14'	END OF HOLE.			
*****					
		Collar: Lat. 165°N on Surface B.L. Dep. 3' E of Surface B.L. Bearing N 76° E Dip 0° - Flat	D.D. HOLE NO. 82-U-18 Started July 13, 1982. Completed July 13, 1982. Depth 23'		
0	13.25'	IRON FORMATION SAMPLES: From 0-5.5' = Magnetite and quartz banding at 40° to 45° to core axis plus up to 1/4" cubes of pyrite. From 0-1.2' is a fault zone. From 5.5'-10.5' = Sugary and glassy quartz bands. Some magnetite and pyrite cubes up to 1/4". From 10.5'-13.25' = Quartz with chlorite spotting and minor pyrite. Incipiently <del>banded</del> <i>brecciated</i> lava.	33504 33505 33506	5.5' 5' 2.75'	0.054 Au 0.002 Au 0.002 Au
13.25'	23'	BASIC VOLCANIC LAVAS.			
	23'	END OF HOLE.			

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*J. Willars*

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		Collar: Lat. 195'N on Surface B.L. Dep. 17' W of Surface B.L. Bearing S 63° E Dip 0° - Flat	D.D. HOLE NO. 82-U-19 Started July 13, 1982. Completed July 13, 1982. Depth 21'		oz. Au/ton
0	18.2'	IRON FORMATION SAMPLES: From 0-4' = Quartz and magnetite banding at 50° to core axis with minor pyrite. From 4'-8' = Minor magnetite bands and sugary quartz at 50° to core axis. Minor pyrite. From 8'-12.5' = Sugary quartz plus fine grained pyrite. Fault at 11'. More pyrite from fault, east. From 12.5'-18.2' = Quartz-pyrite banding at 45° to 60° to core axis. Contorted with light grey, bleached lavas at 45° to core axis.	33507 33508 33509 33510	4' 4' 4.5' 5.7'	0.048 Au 0.032 Au 0.006 Au 0.036 Au
18.2'	21'	BASIC VOLCANICS Bleached, light grey, fine grained, amygdaloidal lavas.			
	21'	END OF HOLE.  *****			
		Collar: Lat. 133'N on Surface B.L. Dep. 15' E of Surface B.L. Bearing S 69° E Dip 0° - Flat	D.D. HOLE NO. 82-U-20 Started July 14, 1982. Completed July 14, 1982. Depth 16'		
0	11.3'	IRON FORMATION SAMPLES: From 0-2' = Banding at 35° to 45° to core axis. Some quartz and pyrite in bleached lavas. From 2'-5.5' = Altered lavas with pyrite cubes. Banding at 40° to core axis. From 5.5'-11.3' = Slightly magnetic. Quartz and pyrite banding at 45° to core axis.	33511 33512 33513	2' 3.5' 5.8'	0.026 Au 0.002 Au 0.256 Au
11.3'	16'	BASIC VOLCANICS Ghosty banding in light grey, fine grained, amygdaloidal lava. From 14.5'-15' is an iron formation section with quartz and minor pyrite.			
	16'	END OF HOLE.			

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
		Collar: Lat. 132°N on Surface B.L. Dep. 6' E of Surface B.L. Bearing 0° N 80° W Dip 0° - Flat	D.D. HOLE NO. 82-U-21 Started July 14, 1982. Completed July 14, 1982. Depth 13'		oz. Au/ton
0	6'	IRON FORMATION SAMPLE: From 0-6' = Magnetite and quartz banding at 45° to core axis. Minor pyrite except from 2'-3' = 7% pyrite. Contact at 80° to core axis.	33514	6'	0.209 AU
6'	13'	BASIC VOLCANICS Light grey lavas with dark green chlorite spots.			
	13'	END OF HOLE.  *****			
		Collar: Lat. 120°N on Surface B.L. Dep. 9' E of Surface B.L. Bearing 0° Due West Dip 0° - Flat	D.D. HOLE NO. 82-U-22 Started July 15, 1982. Completed July 15, 1982. Depth 14'		
0	7.8'	IRON FORMATION SAMPLES: From 0-4' = Magnetite and quartz banding. Some pyrite. From 4'-7.8' = Sugary quartz with 5% good looking pyrite.	33515 33516	4' 3.8'	0.389 Au 0.225 Au
7.8'	14'	BASIC VOLCANICS Typical.			
	14'	END OF HOLE.  *****			
		Collar: Lat. 85°N on Surface B.L. Dep. 18°E of Surface B.L. Bearing 0° S 75° W Dip 0° - Flat	D.D. HOLE NO. 82-U-23 Started July 15, 1982. Completed July 15, 1982/ Depth 25'		
0	15'	IRON FORMATION SAMPLES: From 0-5' = Quartz and magnetite banding at 80° to 0° to core axis. Good pyrite up to 1/4" cubes.	33517	5'	0.631 Au

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT	
		D.D. HOLE NO. 82-U-23 Cont'd.				oz. Au/ton
0	15'	IRON FORMATION SAMPLES: From 5'-10' = Minor magnetite banding with ghosty quartz at 45° and 0° to core axis. Quartz-carbonate with pyrite and pyrrhotite. From 10'-15' = Sugary quartz and magnetite at 45° to core axis. Minor pyrite. Contact at 45° to core axis.	33518 33519	5' 5'	0.227 Au 0.012 Au	
15'	25'	BASIC VOLCANICS Light green, amygdaloidal lavas.				
	25'	END OF HOLE.				
*****						
		Collar: Lat. 88°N on Surface B.L. Dep. 23°E of Surface B.L. Bearing N 88° E Dip 0° - Flat		D.D. HOLE NO. 82-U-24 Started July 15, 1982. Completed July 15, 1982. Depth 14'		
0	11.2'	IRON FORMATION SAMPLES: From 0-5.5' = Glassy quartz, minor magnetite. Some 1/4" pyrite cubes. Minor pyrrhotite. Banding at 45° to core axis. From 5.5'-11.2' = Sugary and glassy quartz with 1/4" pyrite cubes. Minor magnetite.	33520 33521	5.5' 5.7'	0.022 Au 0.002 Au	
11.2'	14'	BASIC VOLCANICS Light grey, fine grained, amygdaloidal lava.				
	14'	END OF HOLE.				
*****						
		Collar: Lat. 74°N on Surface B.L. Dep. 28°E of Surface B.L. Bearing N 61° E Dip 0° - Flat		D.D. HOLE NO. 82-U-25 Started July 16, 1982. Completed July 16, 1982. Depth 20'		
0	8.5'	IRON FORMATION SAMPLES: From 0-4.2' = Quartz-carbonate veining plus minor pyrite cubes in lava section.	33522	4.2'	0.018 Au	

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FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
					oz. Au/ton
		D.D. HOLE NO. 82-U-25 Cont'd.			
0	8.5'	IRON FORMATION SAMPLES: From 4.2'-8.5' = Quartz-carbonate veining with minor pyrite, magnetite, and pyrrhotite.	33523	4.3'	0.002 Au
8.5'	20'	BASIC VOLCANICS Light grey, fine grained lavas with barren quartz veining. Pyrite cubes in the rock.			
	20'	END OF HOLE.			
*****					
		Collar: Lat. 62°N on Surface B.L. Dep. 21°E of Surface B.L. Bearing 0° S 39° W Dip 0° - Flat			
			D.D. HOLE NO. 82-U-26 Started July 16, 1982. Completed July 16, 1982. Depth 28'		
0	27'	IRON FORMATION SAMPLES: From 0-5' = Magnetite banding with sugary and glassy quartz at 45° to flat to core axis = contorted. 2.5% pyrite. From 0-2' magnetite, minor pyrite. From 2'-5' is quartz with good pyrite. From 5'-10' = quartz with minor pyrite from 5'-8.7'. From 8.7'-10' is magnetite and quartz banding at 45° to 0° to core axis. Minor pyrite. From 10'-15' = Magnetite at contorted angles from 10'-12.5'. From 12.5'-15' is quartz plus 2.5% pyrite and some pyrrhotite. From 15'-20' = Quartz plus magnetite banding at 40° to 60° to core axis. 3% pyrite - good looking section. From 20'-27' = Quartz plus magnetite banding. Good pyrite from 25'-27'.	33524	5'	0.006 Au
			33525	5'	0.010 Au
			33526	5'	0.006 Au
			33527	5'	0.365 Au
			33528	7'	0.040 Au
27'	28'	BASIC VOLCANICS Light grey, fine grained, amygdaloidal lavas.			
	28'	END OF HOLE.			

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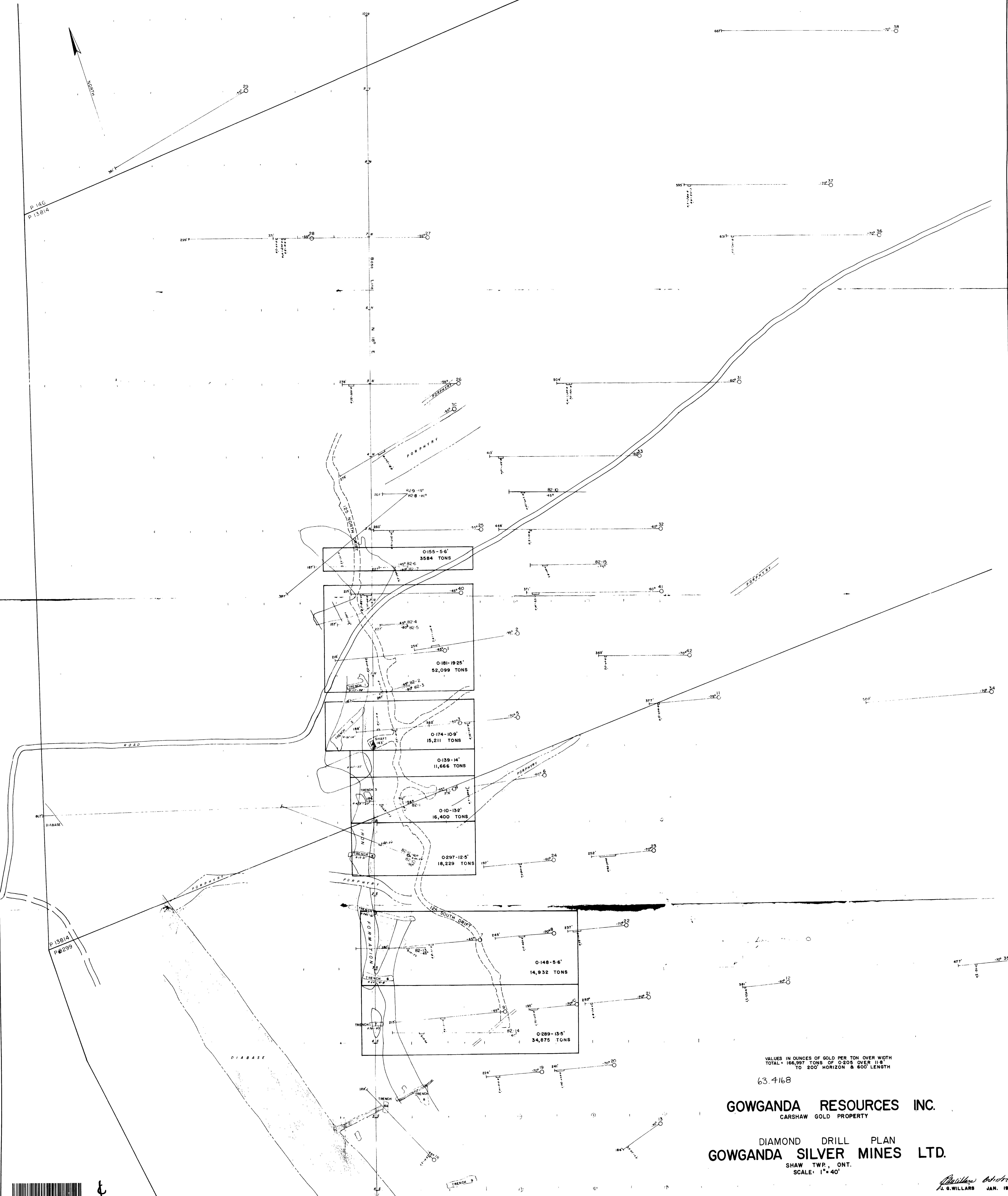
FROM	TO	DESCRIPTION	SAMPLE NO.	CORE LENGTH	ASSAY RESULT
					oz. Au/ton
		Collar: Lat. 42°N on Surface B.L. Dep. 32°E of Surface B.L. Bearing n 34° E Dip 0° - Flat	D.D. HOLE NO. 82-U-27 Started July 16, 1982. Completed July 17, 1982. Depth 37'		
0	6.9'	BASIC VOLCANICS Light grey lavas. A section from 2.3'-3.2' is silicified with pyrite.			
6.9'	31'	IRON FORMATION SAMPLES: From 6.9'-12' = Sugary quartz plus pyrite cubes. Vuggy quartz-carbonate with pyrite and pyrrhotite. From 12'-17' = <del>Incipiently</del> <sup>Irregularly</sup> banded quartz - ghostly banding at 45° to core axis. Good pyrite and some pyrrhotite. From 17'-22' = 30% glassy quartz with minor magnetite. Minor pyrite cubes and some pyrrhotite. From 22'-27' = Banding mostly along core at 0° to 5° to core axis. Quartz plus 3% pyrite plus pyrrhotite and minor chalcopyrite. From 27'-31' = Quartz banding at 5° to core axis plus pyrrhotite and 5% pyrite. Minor lavas. Contact at 31' is at 30° to core axis.	33529 33530 33531 33532 33533	5.1' 5' 5' 5' 4'	0.018 Au 0.002 Au 0.008 Au 0.016 Au 0.006 Au
31'	37'	BASIC VOLCANICS Light grey, fine grained, amygdaloidal lavas.			
	37.	END OF HOLE.			

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VALUES IN OUNCES OF GOLD PER TON OVER WIDTH  
 TOTAL - 166,937 TONS OF 0.205 OVER 118'  
 TO 200' HORIZON & 600' LENGTH

63.4168

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*J. O. Willars* Oct 1972  
 J. O. WILLARS JAN. 1968



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