

52H09SE0002 2.12313 MARYJANE LAKE

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MINGOLD RESOURCES INC.

UNDERSILL PROJECT

Report on Geology, Geochemistry, VLF-EM-Magnetic Surveys and Diamond Drilling

MARYJANE LAKE AREA EVA TOWNSHIP

THUNDER BAY MINING DIVISION, ONTARIO

NTS 52H/9

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by

BRIAN NELSON

February 10, 1989

Thunder Bay, Ontario



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Table of Contents

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1.	Summary 1
2.	Introduction 1
3.	Location and Access 2
4.	History 2
5.	West Claim Block 5
6.	1988 Exploration Programs5
7.	Claim Data
8.	Regional Geology6
9.	Property Geology10
10.	Mineralization11
11.	Geochemistry11
12.	Geophysics (Magnetic-VLF-EM Survey)12
13.	Diamond Drilling13
14.	Conclusions and Recommendations14
15.	References16
16.	Qualifications

APPENDICES

I	Personnel and Man Days Statistics
II	Report on VLF-EM and Magnetic Survey
III	Drill Data - logs, assays, sections
IV	Analytical Results - Bondar Clegg & Co. Ltd.

LIST OF MAPS

Figure

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1.	Location Map
2.	Property Location and Regional Geology Map4
3.	General Geology of Beardmore-Geradlton Belt7
4.	Claim Map8
5.	Geology Mappocket
6.	Gold Geo-Chem and Sample Location Mappocket

LIST OF TABLES

1.	Claim Data9
2.	1988 Undersill Drilling15
з.	Personnel and Man Days Statistics
	March 10 - Dec. 31, 1988Appendix I

4.	Personnel	and	Man	Day	Statistics
	June	9 -	Dec.	31,	1988Appendix I

1. Summary

From February to December 1988 a successive exploration program was carried out on the Undersill property in Eva Township near Beardmore, Ontario. This program included linecutting, VLF-EM and magnetometer geophysical surveys, till and rock geo-chem sampling, semi-detailed geological mapping, and diamond drilling. Mingold Resources Inc. was the operator. The geophysical surveys were handled by Terraphysics and the drilling was carried out by Northwest Geophysics.

The property consists of 17 contiguous claims bordering the south boundary of the Cryderman-Sand River property located approximately 5 miles northwest of Beardmore Ontario. The rocks underlying the Undersill property are dominated by bedded clastic sediments interbedded with chert-magnetite +/hematite iron formation. Two nearby past producers the Leitch and Sand River mines, are located east-northeast of the property.

Following the spring and summer field surveys 6 drill holes totalling 2152 feet were drilled to test one geo-chem and four VLF-EM targets. The VLF-EM anomalies were explained by sheared to brecciated zones within the clastic sediments. The shear related geo-chem anomaly occurred within mafic intrusive rocks. Gold values greater than 50 ppb were sporadic and did not indicate any significant anomalous zones or trends.

Generally the results obtained from the 1988 program were discouraging.

2. Introduction

The Undersill property is located at the west end of the Beardmore-Geraldton sub-belt. It is geologically similar the past producing Leitch and Sand River gold mines situated within the immediate area. Potentially economic gold bearing zones, the creek vein and No. 16 vein are found north of the property on the Sand River ground. In 1986 the property was purchased by Mingold Resources Inc. from the Goodman Group of Beardmore, Ontario.

3. Location and Access

The property lies within the central portion of Eva Township at 490 37' latitude and 88° 03' longitude within NTS area 52H/9. It is located approximately 5 miles north-west of Beardmore which is situated on the northern route of the Trans Canada Highway (highway 11B) about 110 miles northeast of the city of Thunder Bay, Ontario (see figure 1). Direct access is via highway 580 which leaves highway 11B just east of Beardmore. At Mile 4 along Highway 580, near the old Leitch and Sand River mines, a relatively good bush road heads west traversing the Sand River Property and providing quite good access (see figure 2).

4. <u>History</u>

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The Beardmore-Geraldton gold camp rates among the top five gold camps in the Canadian Shield with production of 4.12 million ounces of gold and 0.25 million ounces of silver (Mason et al, 1986) over the past 50 years from 20 past producers. The larger of these include MacCleod-Cockshutt, Leitch, Little Longlac, Consolidated Mosher, Hard Rock, Magnet Consolidated and Northern Empire Mines.

The greatest period of gold exploration (prior to the present) was in the 1930's and early 1940's when most of the producers were discovered and operated. The claims came to lease in the 1930's but were subsequently allowed to expire. Although there is no lack of information on the adjacent Sand River and Leitch properties, a property search on the Undersill claims revealed no records of any assessment work or any other pertinent information.

Previous work on the property noted during the 1988 mapping program included: 1) trenching of a quartz vein near the south property boundary and 2) a few shallow pits blasted in overburden just south of the chertmagnetite iron formation.





5. West Claim Block

This property was comprised of 7 contiguous claims located on the eastern shore of Lake Nipigon adjacent to High Hill Harbour approximately 1 mile southeast of the Undersill property. The claims are located within the Maryjane Lake claim map (G-80), Thunder Bay Mining Division, District of Thunder Bay, Ontario and are numbered 1011003 to 1011009 inclusive (see figure 3). The option on the claims has been dropped and they have subsequently been restaked.

During the summer of 1988 two days of reconnaissance mapping and soil sampling was carried out along claim lines. The property is extensively overburden covered except for a few ridges of diabase and associated diabase talus slump. Fifteen soil samples were collected but no assay results were obtained because the samples were lost in transit to Bondar-Clegg's lab in Ottawa. Rare rock exposures consisted of massive, medium grained, moderately magnetic Proterozoic diabase, part of the large sill that covers Lake Nipigon. There was no evidence of silicification, alternation, or mineralization.

Nothing significant, unusual or of any economic potential was observed during this mini-reconnaissance survey.

6. <u>1988 Exploration Programs</u>

The 1988 field programs started in late March with 13.12 miles of contract linecutting and geophysics by Terraphysics which included 1.96 miles of baselines (AZ-082°) and 11.16 miles of 400 foot spaced section lines. All lines were picketed at 100 foot intervals. By late April magnetometer and VLF-EM surveys were completed over the property. Semi-detailed geological mapping and geo-chem sampling followed. During the second half of November Northwest Geophysics drilled 6 holes totalling 2152 feet.

7. Claim Data

The property is comprised of 17 contiguous claims within the northeastern portion of the Maryjane Lake claim map (G-80), Thunder Bay Mining Division, District of Thunder Bay, Ontario and are numbered as follows: 990157 to 990166 inclusive and 1021386 to 1021392 inclusive (see figure 4). The claims are held in the name of Mingold Resources Inc. (license No. T-4617) located at P.O. Box 28, Toronto Dominion Centre, Toronto, Ontario M5K 1B8.

8. Regional Geology

The Beardmore-Geraldton sub-belt is situated within an east-west trending isoclinally folded metavolcanic - metasedimentary sequence within the Wabigoon sub-province of the Superior province of the Canadian Shield. The north boundary of the Beardmore-Geraldton sub-belt is marked by the Paint Lake Fault with the Onaman-Tashota meta-volcanic belt to the north. To the south it is bounded by the Quetico sub-province although the precise location of this southerly contact is debatable (see figure 3).

The Beadmore-Geraldton sub-belt consists of an east-west trending interlayered sequence of volcanic and sedimentary rocks. Lithologic units have been transposed into a series of alternating slices of metavolcanics and metasediments within a wrench or mega-shear zone (Mason & White, 86). This broad band of meta volcanics and metasediments stretching from Lake Nipigon 70 miles east to Longlac has been invaded by gabbroic, granitic, granodioritic, and quartz porphyritic sills, dykes and stocks. Thick deposits of till, sand, gravel and clay extensively cover the belt.

Local to Eva Township sedimentary rocks form three east-northeast trending belts consisting predominantly of interbedded greywacke, sandstone, siltstone, and argillite. Relatively thin bands of chert-magnetic +/hematite iron formation are interbedded within the metasediments. Volcanic rocks form two belts paralleling the sediments and consists of massive intermediate to mafic pillowed lavas, amygdaloidal flows and volcanic breccia. Semi-concordant lenticular bodies of diorite intrude both the sediments and volcanics. North trending diabase dykes are common. A large







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MINGOLD RESOURCES INC.

Mining District: Thunder Bay

CLAIM DATA

Claim Hap: Hary Jane Lake (G-80)

	8738PD			-	TRANSPERSED		ASSESSMENT CREDITS (man-days)				TOTAL			RIPIRY	DATE							
CLAIN			RECORDING		1	Hanual	B N	Nag	Geophy	Geol.	Geoches	Drill	Strip	Nechan.	Expend	CREDITS		20	40 dave	40 dave d	40 60 ave day	
WUNDER	BY	DATE	VALS	70	DATE		N	x .	0	Hax.40	Nax. 40		Max 100		Max.60	Max. 200	1988	1989	1990	1991 1	992 19	3
990157	H. Goodman	Apr. 12/87	Apr. 16/87	HRI	Har.29/88	•	34	17			•	•	•			51	X	X		•		_
990158	H. Goodman	Apr. 12/87	Apr. 16/87	HRI	Har.29/80		34	17								51	X	X	•			
990159	N. Goodman	Apr. 12/87	Apr. 16/87	MRI	Nar.29/88		34	17								51	X	X				
990160	H. Goodman	Apr. 12/87	Apr. 16/87	HRI	Har . 29/88		34	- 17								51	X	X				
990161	H. Goodman	Apr. 12/87	Apr. 16/87	MRI	Mar.29/88		34	17								51	X	X				
990162	N. Goodman	Apr. 13/87	Apr. 16/87	HRI	Naz.29/88		34	17	*							51	X	X				
990163	H. Goodman	Apr. 13/87	Apr. 16/87	HRI	Nar.29/88		- 34	- 17								51	X	X				
990164	H. Goodman	Apr. 13/87	Apr. 16/87	HRI	Har.29/88		34	17								51	X	X				
990165	H. Goodman	Apr. 13/87	Apr. 16/87	HRI	Naz.29/88		34	17								51	X	X				
990166	N. Goodman	Apr. 13/87	Apr. 16/87	HRI	War.29/88		34	17								51	X	X				
1021386	N. Goodman	Oct. 13/87	Oct. 15/87	MRI	Nac.29/88		34	17								51	X	X				
1021387	H. Goodman	Oct. 13/87	Oct. 15/87	MRI	Haz.29/88		34	17								51	X	X				1
1021388	H. Goodman	Oct. 13/87	Oct. 15/87	MRI	Har.29/88		34	17								51	X	X				Q
1021389	H. Goodman	Oct. 13/87	Oct. 15/87	MRI	Har.29/88		34	17								51	X	X				ŧ
1021390	H. Goodman	Oct. 14/87	Oct. 15/87	HRI	Nar.29/88		34	17								51	X	X				
1021391	H. Goodman	Oct. 14/87	Oct. 15/87	MRI	Har.29/88		34	17								51	X	X				
1021392	H. Goodman	Oct. 14/87	Oct. 15/87	MRI	Nar.29/88		34	17								51	X	X				

Page 1 of 1

N.T.S. 52H/9

Lat. 49º 37' Long 88º 04'

Date: November 11, 1988

Table - 1

semi-flat overlying sheet of proterozoic diabase covers Lake Nipigon and extends onto the western portion of EVA Township (see figure 2).

9. Property Geology

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The eastern portion of the property is moderately well exposed containing about 40% outcrop while a thick cedar swamp covers the 7 most westerly claims. Fortunately the swamp covered area was of little geological interest since the Archean metasedimentary rocks are capped by a thick sheet of Proterozoic diabase (see figure 5).

A monotonous sequence of bedded clastic metasedimentary rocks dominate. This thick package consists of interbedded argillite, siltstone and sandstone. Foliation parallels bedding striking 080° and dipping steeply north to south to vertical. Observable bedding features were rare due to lack of clean outcrop exposures. Overall the clastic sediments contain a trace to 1% disseminated fine grained pyrite and minor non mineralized white bull quartz.

Inter-bedded within this thick clastic sedimentary pile is a 100 to 300 foot thick chert-magnetite iron formation trending 080° and subvertically dipping. It appears to feather out to the east and is overlain by proterozoic diabase to the west. Along line 60W the iron formation is offset some 300 feet by a NNE trending fault. Near this structure the banded iron formation beds are contorted, folded and kinked to ripped, boudinaged and broken. Generally the iron formation is finely bedded and moderately deformed. It is magnetite rich composed of 75% finely laminated magnetite beds and 25% chert. Frequently the chert is hematite red (jasperitic). Sulphidation is totally lacking within the iron formation and quartz veining near the iron formation-clastic sediment contacts is not mineralized.

A massive moderately magnetic 200 foot thick NNE trending gabbro dyke cross-cuts clastic sediments in the northwest corner of the property south of the Cryderman Creek vein. A semi-flat lying to gently westerly dipping proterozoic diabase sill overlies the sediments west of the above mentioned NS trending gabbroic dyke.

10. Mineralization

The rocks on the property are fresh looking and lack hydrothermal alteration. Mineralization is minimal within the clastic sediments containing only a trace to locally 1 to 2% fine grained to medium grained disseminated pyrite. The banded chert-magnetite +/- hematite iron formation lacks sulphidation. White bull quartz veining is completely barren of sulphides. The only joy encountered was a 3 gram Au per ton grab sample associated with minor pyrite and arsenopyrite mineralization related to the NS trending gabbroic dyke (see figure 6).

11. <u>Geochemistry</u>

A total of 150 soil samples and 26 rock samples were collected and analyzed for Au, Ag, As, Cu, Zn and Pb (see appendix IV). Where possible the till samples were taken at 50 meter spacing along section lines and baselines. Efforts were made to sample locally derived basal till. Lithogeochem sampling was confined to quartz veins, pyritized clastic sediments, and chert-magnetite iron formation. The vast majority of both soil and rock samples assayed <5 ppb Au. Of the 150 soil samples 15 assayed >10 ppb Au and only 3 carrying >100 ppb Au. Six litho samples assayed >10 ppb Au.

Anomalous soil and rock samples were very sporadic and did not define any significant trends. Two small isolated soil gold geo-chem anomalies occur at opposite ends of the property (see figure 6). The anomaly in the northeast corner of the property containing one sample that ran 280 ppb Au while the anomaly in the north west corner is associated with the gabbroic dyke. The only direct elemental association was found in one sample which ran 3029 ppb Au along with 1918 ppb As reflecting the arsenopyrite mineralization in the sample. Base metal analysis did not exhibit any geochem affinity to gold mineralization. Rarely did quartz veining or banded iron formation carry more than background gold values.

12. <u>Geophysics</u>

a) Magnetic Survey

The magnetic technique and data are contained in the appended report by Terraphysics. (see appendix II) A strong east-west trending linear magnetic anomaly traverses the central portion of the property reflecting the chert-magnetic +/- hematite iron formation. A 300 foot offset of this 63,000 to 85,000 gamma anomaly at L60W is interpreted as representing a north-south dextral fault crosscutting the banded iron formation. Isolated magnetic lows occur on the flanks of the iron formation. Consistent flat reading in the 59,000 to 60,000 gamma range characterize the clastic sediments. The contact between the sediments and the Proterozoic diabase sheet to the west is sharply defined by increased magnetics.

b) VLF-EM Survey

The VLF technique and data are contained in an appended report by Terraphysics. Lengthy 1200 to 3000 foot VLF anomalies crudely parallel contact zones of the banded iron formation. These VLF anomalies exhibit the same 300 foot offset as the magnetic anomaly. Numerous shorter EW trending anomalies occur north of BL60N between lines 80W and 100W, the strongest of which are found on lines 80W and 84W.

A second reconnaissance style VLF survey was run between lines 56W and 64W. The purpose of this survey was to delineate any N-S VLF conductors associated with the structure that offsets the banded iron formation. The survey was carried out using compass and pace technique along E-W traverses between L56W and 64W. Transmitting station Annapolis Maryland was used and readings were taken facing west every 100 feet. Five traverses at 300 foot spacing were completed. This mini-survey defined two northerly trending VLF anomalies corresponding to the geologically interpreted fault zone (see figure 5). These VLF conductors may flank a forked fault system.

13. Diamond Drilling

Six holes totalling 2152 feet were drilled between late November and early December 1988 (see figure 5). For logs, assay results and cross-sections of the drill holes see Appendix III.

- <u>UND-1</u> drilled the possible downdip extension of a 3029 ppb Au/ton surface grab sample. It intersected a series of alternating gabbroic and diabase dykes and sills. Shearing, silicification, and quartz veining were minimal. The best intersection of 2566 ppb Au over 0.7 ft. in a quartz injected mini-shear zone within diabase was not coincident with the highly anomalous surface grab sample.
- UND-2 drilled a broad east-west trending VLF conductor. Inter-bedded argillite and greywacke, brecciated clastic sediment beds and massive quartz-gabbro were intersected. The broad VLF anomaly appears to be related to the gabbroic sill-sediment contact zone. The best gold assay was 11 ppb Au over 3.0 ft.
- <u>UND-3</u> drilled a strong sharp E-W trending VLF conductor. Interbedded argillite and greywacke containing local quartz veining and minor pyrite were intersected. The strong VLF was caused by a shearbrecciated fault zone (Watson Lake Fault). The best gold assay of 1125 ppb Au over 2.5 ft came from a sheared argillite bed.
- <u>UND-4A</u> drilled 88 feet of inter-bedded iron formation and clastic sediments. The casing shifted and the hole was abandoned.
- <u>UND-4</u> drilled two VLF conductors, one trending BW and one trending NS. An interbedded sequence of chert-magnetite +/-hematite iron formation and clastic sediments was intersected. The banded iron formation lacked sulphidation and guartz veining. The VLF conductors appear to be sheared micaceous to vuggy faulted zones lacking sulphide mineralization. The best gold assay of 10 ppb Au over 3.0 ft occurred at the end of the hole.

<u>UND-5</u>

drilled two VLF conductors, one trending B-W and one trending NNE. An alternating sequence of clastic sediments and chertmagnetite +/- hematite iron formation was intersected. As in hole UND-4 the banded iron formation lacked sulphidation and quartz veining. The cause of the NNE VLF anomaly was not confirmed but it is likely the result of sheared micaceous bedding contacts. The EW trending VLF conductor was probably caused by a vuggy argillitic (fault?) zone. The best gold assay was 1644 ppb Au over 0.5 ft. from a quartz vein hosted by sheared clastic sediments.

14. Conclusions and Recommendations

The results from the 1988 field and drill programs were disappointing. None of the VLF anomalies can be explained by conductive mineralization but rather by a variety of geological and structural features. These include: a broad VLF associated with a quartz-gabbro sill, a strong sharp VLF coincident with an EW trending fault zone (Watson Lake Fault) and VLF conductors related to chloritized sheared to vuggy (fault?) zones.

Extensive surface and core sampling yielded rare and sporadic anomalous gold numbers. No economically significant gold values were obtained and indicator alteration relating to gold mineralization was lacking.

The 1988 exploration programs should fulfill the assessment requirements until 1993 (refer to table 2). It is recommended that a couple of days of follow-up soil geo-chem sampling be carried out to better detail and qualify the 1988 data. This sampling should be carried out within three areas of the property. These include: 1) the NE corner hosting a small soil geo-chem anomaly adjacent to the Cryderman property, 2) proximal to the NS trending gabbroic dyke south of the Cryderman Creek Zone and 3) in the area of the faulted iron formation. This information should confirm or disprove 1) the <u>real</u> existence of the weak geochem anomalies and 2) if any gold mineralization is associated with the NS faulted iron formation once and for all.

The data on the Sand River Property submitted to us by Tom Gledhill on behalf of Cryderman Gold Inc. should be reviewed and evaluated.

1988 UNDERSILL DRILLING

<u>Hole</u>	<u>Basting</u>	Northing	<u>Azimuth</u>	Dip	<u>Length</u> (ft)	Purpose	<u>Comments</u>
UND-1	92+00W	84+00N	1120	-480	392	To test possible downdip extension of surface grab sample assaying 3029 ppb Au	-464 ppb Au/16.7 ft including 2566 ppb Au/ 0.7 ft.
UND-2	88+00W	74+25N	3520	-500	426	To test broad VLF anomaly	-anomaly represents gabbroic sill-sed contact zone -first attempt, hole lost in 110 ft of OB -highest assay 11ppb Au
UND-3	80+00W	72+00N	3520	-500	308	To test strong sharp VLF anomaly	-anomaly reflects fault zone (main break?) -most significant assay 1125 ppb Au/2.5 ft.
UND-4A	62+43W	58+00N	1420	-510	88	To test EW trending VLF anomaly associated with BIF and NS VLF anomaly associated with NS fault zone	Hole lost when casing shifted
UND-4	62+73W	58+23N	1420	-480	400	Same as for 4A, second attempt	Best assay 10ppb/3.0 ft No specific mineraliza- tion or structure intersected that would identify conductors
UND-5	60+00W	56+50N	1420	-480	538	To test NNB trending VLF anomaly and VLF associated with BIF	Best assay 1644 ppb Au/ 0.5 ft - VLF conductor- possibly vuggy section in hole
						Tabl	e - 2

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TOTAL = 2152 feet

15. <u>References</u>

LANGFORD, G. B. 1928 Geology of the Beardmore-Nezah Gold Area, Thunder Bay District; Ontario Department of Mines Annual Report 1928, Volume 37, Part 4, 83-108p.

MASON, J. K. and WHITE, G. D. 1986

Gold Occurrences, Prospects and Deposits of the Beardmore-Geraldton Area, Districts of Thunder Bay and Cochrane; Ontario Geological Survey, Open File Report 5630, Volume 1, 383p.

RENNICK, M. W. 1988

Report on the Cryderman Gold Inc., Sand River Property, Eva Township, Thunder Bay Mining Division, District of Thunder Bay, Ontario, 23p

16. <u>Qualifications</u>

Å

BRIAN NELSON

- Residence: 372 N. Algoma Street, Thunder Bay, Ontario P7A 5B6
- Education: H BSc. Geology Lakehead University 1984
- Experience: 1984-1987 Corporation Falconbridge Copper (Minnova) Inc.
 - 1987- Matt Berry Mines Ltd.
 - 1988- First General Mine Management and Gold Corporation

1988-1989 Mingold Resources Inc.

Brian Nelson supervised the 1988 program on the Undersill property and is the author of this report.

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Note: This page and the following of (all of Appendix I) were added to

APPENDIX I

PERSONNEL AND MAN DAYS STATISTICS

TABLE 3

Personnel Addresses and Man-days worked for Period March 10 to December 31, 1988

<u>Name</u>	<u>Address</u>	<u>Man-Days</u>	Period
Project Superviso	<u>r</u>		
Gerald Bidwell	430 Cartier Court Thunder Bay, Ont. P7E 6A9	9	June 9 - Dec. 31, 1988
<u>Geological Mappin</u>	đ		
Brian Nelson	372 N. Algoma Street Thunder Bay, Ont. P7A 5B6	14	May 26 - June 8, 1988
<u>Geo-chem Sampling</u>			
Dennis Cormack	652 Churchill Dr., Thunder Bay, Ont. P7C 5K6	16	May 26 - June 24, 1988
<u>Compilation</u>			
Brian Nelson	(as above)	2	June 13 - June 14, 1988
Drill Planning &	Reports		
Brian Nelson	(as above)	6	Oct. 31 - Nov. 9, 1988
Drill Supervision	& Core Logging		
Brian Nelson	(as above)	16	Nov. 10 - Nov. 26, 1988
Drafting			
George Fesnack	184 Theresa Street Thunder Bay, Ont. P7A 5P7	5	Sept. 6 - Sept. 16, 1988

Personnel Addresses and Man-Days worked for Period March 10 to December 31, 1988

Name	Address	<u>Man-Days</u>	Period
Core Splitting	•		
Tony Pirez	Highway 11 Jellicoe, Ont. POT 1VO	5	Nov. 28 - Dec. 2, 1988
<u>Drilling</u>			
Northwest Geo	physics Box 3263 Thunder Bay, Ont. P7B 5E8	85	Nov. 10 - Nov. 26, 1988
- total Linecutting - V Magnetic Survey	. of 2065 feet in 5 holes <u>/LF -EM and</u> <u>/s</u>		
Terraphysics	ELTD. R. R. #1 Pass Lake, Ont. POT 1MO	33	March 10 - April 10, 1988
Linecutting VLF-EM Magnetic	= 13.2 miles - 25 = 11.2 miles - 4 = 13.2 miles - 4		

TABLE 3

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TABLE 4

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Personnel Addresses and Man-days Worked for Period June 9 to Dec. 31, 1988

<u>Name</u>	Address	<u>Man-Days</u>	Period
Project Superviso	<u>r</u>		
Gerald Bidwell	430 Cartier Court Thunder Bay, Ont. P7E 6A9	9	June 9- Dec. 31, 1988
<u>Compilation</u>			
Brian Nelson	372 N. Algoma Street Thunder Bay, Ont. P7A 5B6	2	June 13 - June 14, 1988
Drill Plans & Rep	orts .		
Brian Nelson	(as above)	6	Oct. 31 - Nov. 9, 1988
Drill Supervision	& Core Logging		
Brian Nelson	(as above)	16	Nov. 10 - Nov. 26, 1988
<u>Drafting</u>			
George Fesnack	184 Theresa Street Thunder Bay, Ont. P7A 5P7	5	Sept. 6 - Sept. 16, 1988
<u>General Labour</u>			
Dennis Cormack	652 Churchill Dr., Thunder Bay, Ont. P7C 5K6	3	June 22 - June 24
Tony Pirez	Highway 11 Jellicoe, Ont. POT 1VO	5	Nov. 28 - Dec. 2, 1988
Drilling			
Northwest Geoph	ysics Box 3263 Thunder Bay, Ont. P7B 5E8	85	Nov. 10 - Nov. 26, 1988

- total of 2065 feet in 5 holes

APPENDIX II

.

REPORT ON VLF-EM and MAGNETIC SURVEY

REPORT ON A VLF ELECTROMAGNETIC SURVEY

AND MAGNETIC SURVEY

UNDERSILL CLAIMS

MARYJANE LAKE AREA, EVA TOWNSHIP

THUNDER BAY MINING DIVISION, ONTARIO

N.T.S. 52H/9

BY

WILLIAM RICHARDSON June 14, 1988 Thunder Bay, Ontario

Location and Access

The property lies in the central portion of Eva Township at 49° 37' latitude and 88° 03' longitude in N.T.S. area 52H/9.

The claims are 7 kilometers northwest of Beardmore, Ontario. Access from Beardmore is via Highway #580 to the Leitch Mine property and the south along the Sand River Mine road. The Mingold claims are reached via foot from a drill road on the southern portion of the Sand River property.

Property and Ownership

The property consists of 17 contiguous claims in the northeastern portion of the Maryjane Lake claim map (G-80). The claim numbers are TB990157 to 990166 and TB1021386 to 1021392. The assessment covers the entire group.

The claims are held in the name of Mingold Resources Inc. (Licence No. T-4617) located at P.O. Box 28, Toronto Dominion Centre, Toronto, Ontario M5K 1B8.



Geology

The claims lie within the southern portion of the Wabigoon Subprovince in the Beardmore-Geraldton Belt. This belt consists of east-west trending linear sequences of metasedimentary and metavolcanic units.

On the claims a metasedimentary sequence is present. It consists of Archean greywacke, conglomerate, argillite and magnetic hematite chert iron formation. In the western area of the property a Proterozoic diabase sill outcrops. Minor mafic dykes are also present.

The sedimentary units trend at 080° and dip steeply north-south to vertical. Intermittent iron formations indicate off setting of the units by faulting (right-hand) or tight isoclinal folding of the sequence. The Proterozoic diabase is flat-lying and may have a shallow dip to the west. The late mafic dykes trend north to northeasterly and dip vertical.

No economic mineralization has been recorded on the claims. Some old pits have been located along or in the vicinity of the iron formation particularly where quartz veins are present. The neighbouring Sand River and Leitch properties are both past producers. The gold mineralization is in quartz veins parallelling the sedimentary trend (080°) in lenses plunging about 50° to the west. Between 1936 and 1968 the Leitch mine produced 847,291 ounces of gold from 1,022360 tons. The Sand River mine produced 50,000 oz of gold from 157,870 tons.

Linecutting

A grid totalling 13.12 miles of line is located on the property. Base lines at 50 N and 60 N. Section lines are located at 400 foot intervals and picketed at 100 foot intervals.

Ground Magnetic Survey

A total of 13.12 miles of magnetic survey were carried out on the section lines spaced 400 feet apart with readings at 100 foot intervals. A total of 693 readings are located on the enclosed map.

The magnetic data was obtained with a Geometrics G-816 proton magnetometer. Diurnal corrections were made by looping to baseline stations.

Ground VLF Electromagnetic Survey

A total of 11.16 miles of VLF-electromagnetic survey was carried out on the section lines spaced 400 feet apart with reading at 100 foot intervals. A total of 611 readings are located on the enclosed map. Transmitter NSS (Seatle, Washington) was used, with all readings recorded facing north.

A Geonics EM-16 electromagnetic instrument was used for the survey. The instrument is very low frequency receiver which operates in the 15 to 25 kHz band and makes use of radio signals transmitted by components of a communications network operated by the United States Navy. Signals transmitted from vertical antennae produce concentric, horizontal magnetic fields (the primary field) around the antennae. Under the influence of this primary field conductive bodies generate weak, secondary fields which are detected by the instrument.

The EM-16 receiver consists of two receiving coils at 90° to each other and the inputs of these coils are used to measure the secondary field. When the instrument is property oriented the signal from the vertical coil is minimized by tilting and the percentage of the tilt is recorded (in-phase reading). The remaining signal in this coil is balanced out by a measured percentage of the signal in the other coil (out-of-phase reading), after being shifted by 90° in-phase. Normally this coil is parallel to the primary field.

<u>Conclusion</u>

As a result of the VLF survey using the EM-16 and Seattle station anomalous trends crosscutting the section lines were recorded and plotted on the VLF map at 100 ft intervals. VLF signal was generally clear and relatively sharp enabling an accuracy of \pm 1%.

Because of the presence of iron formation extending through the centre of the grid and surfacing in the area of L-64-84 in particular a correlation with geological mapping may indicate a preference to the weaker anomalies not associated with this particular area.

An anomaly 3+75N L-88 may be of interest as it is covered by overburden and not identifiable from surface exploration. It also has no apparent Mag anomaly associated with it unlike the iron formation along BL 60N.

The changes in VLF readings in the area north east part of the grid I believe to reflect the change in topography outcrops and swampy conditions however, another judgement with respect to geology may prove beneficial in determining the importance of this area.

This evaluation of geophysical data is interpreted by myself, Bill Richardson and is not intended to eliminate possibilities of economic mineral occurrences but indeed to inspire further exploratory work to satisfy aspiration of individuals to search more minable ore bodies.

Mag survey was carried out by running the base lines first so that it could be used as a correction for readings on the section lines. The time lapse for readings on the section lines was very short - usually only a few minutes and as a result magnetic drift was very little \pm gammas. In this area where anomalous conditions caused reading variations of several hundred gammas it was felt that this error would have no apparent reflection on the accuracy of the survey.



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Ministry of Northern Development and Mines

Geophysical-Geological-Geochemical Technical Data Statement

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TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) <u>VLF Electromagnetic and Magnetic</u>	
Township or Area <u>Maryjane Lake (G-80)</u>	MINING CLAIMS TRAVERSED
Claim Holder(s) Mingold Resources Inc., Box 28	List numerically
Toronto Dominion Centre, Toronto, Ont. 3	
Survey Company Terraphysics Ltd. M5K 1B8	тв 990157
Author of Report William Richardson	(prefix) (number) 990158
Address of Author Pass Lake, Ontario POT 2MO	
Covering Dates of Survey March 10, 1988 to avil 14, 1988	990159
Total Miles of Line Cut 13.12 miles	990160
	990161
SPECIAL PROVISIONS 400 ft. spacing DAYS CREDITS REQUESTED Combusinel Per claim	990162
Geophysical 40	990163
ENTER 40 days (includes	000164
line cutting) for first	
survey. –Radiometric	
additional survey using Coolorical	990166
same grid.	1021386
AIRBORNE CREDIIS (Special provision credits do not apply to airborne surveys)	1021387
(enter days per claim)	1021388
DATE: June 15/58 SIGNATURE: 4 A Frihandum	1021389
	1021390
Per Geol	1.021.391
Previous Surveys	1021392
File No. Type Date Claim Holder	
	••••••
	TOTAL CLAIMS17
ka7 (A5/12)	

APPENDIX III

DRILL DATA - LOGS, ASSAYS, SECTIONS

MINGOLD RESOURCES INC. Bastern District

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PROJ	BCT: UNDERSILL	DRILL HOLE	Page 1 of 4				
CO-ORDINATES: COLLAR ELEV.: AZIMUTH: ANGLE:	92+00W 84+00N 1120 -480	CLAIM NO.: Core Size: Date Started: Completed:	TB 990165 BQ Nov. 11, 1988 Nov. 13, 1988	LOGGED BY: DRILLED BY: SECTION: DEPTH:	Brian Nelson Northwest Geophysics Off Bection 392.0 Pt.	HOLE SURVEYS Depth dip 347' -400	(CORRECTED) DIRECTION (Acid)
RBMARK8:				0.B L.C N.A	overburden lost core not sampled		
B 19 (9 11)	وبمرجع والمرابقة والمتحدث والمتحدث والمتحدث والمرجع والمتحد والمتحد والمتحد والمتحد والمتحد والمتحد والمتحد	فالمتبسيس المتقاب المتجار والمتحال والمتحال والمتحال والمتحال والمتحال والمتحال والمتحال والمتح			6 4 1 / A F G		

DEPTH		BUCK WADE	DRCCPIDTION	<u> </u>		ILL P		ADDAID		
FROM	TO	ROCK IIFS		No.	PRON	TO	WIDTH	Au ppb		
0.0	15.5	Overburden	Sand, mud, & Boulders	0.B.	0.0	15.5	15.5			
15.5 68.0	Diabase	Grey, fine grained to finer medium grained, massive to locally weakly foliated (sheared) \$60 to \$0° to CA -overall quite hard, porphyritic, overall 20%	N.A. 60101	15.5 17.0	17.0 20.0	1.5 3.0	<5/<5/	5		
			2 mm to 2-3 cm beige to white anhedral quartz-feldspar cluster (crystals); generally the larger the crystals the greater the concentration, up	N.A.	20.0	37.0	17.0			
				60102	37.0	40.0	3.0	9/<5/1		
	to 50% large ghosty remnant crystals. -moderate to strongly magnetic, 10% to locally 20% small mm scale magnetite crystals disseminated throughout, trace fine grained disseminated pyrite plus narrow mm scale pyrite veinlets -minor 3mm to 2 to 3 cm scale quartz veining, minor bleby to narrow stringery pyrite associated with QVa veining erratic a various angles to core angle Comment: may not be diabase, instead altered contac zone of gabbro.	N.A.	40.0	68.0	28.0					
68.0	71.4	Sheared Diabase	-Grey, fine grained, hard with a mottled weakly sheared appearance -Shearing @ 70° to core axis and defined by parallel alignment of flattened guartz-feldspar crystals within plane of shearing -minor 2 to 5 mm scale white guartz veining predominantly sub-parallel to shearing -weakly sheared equivalent to preceding unit	60103	68.0	71.4	3.4	160/14	/172	
71.4	73.4	Quartz	-50% erratic grey-white quartz-veining and 50% very	60104	71.4	72.1	0.7	2596/2	36	
		veining	<pre>rine grained dark grey nost. 71.4 - 72.1 Quartz vein - white-grey refractured</pre>	60105	72.1	73.6	1.5	724/81 :	:/936	
-73.4	77.8	Diabase	Grey, fine grained, hard, massive and locally porphyritic	60106	73.6	77.8	4.2	95/107	89	

Date: November 14, 1988

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PROJECT: UNDERSILL

Date: November 14/88

Page 2 of 4

DEPTH				SAMPLE				λββλΥβ		
FROM	TO	ROCK TIPE	DESCRIPTION	No.	PROM	TO	WIDTH	Au ppb		
77.8	81.2	Quartz Vein	White-grey erratic brecciated vein containing 30 to 40% very erratic grey to black magnetite rich inclusions (veinlike) - minor disseminated med. grained pyrite (1-2% pyrite) - irregular upper and lower contacts Does not appear as one vein but more of a stockwork of guartz veining	60107	77.8	81.2	3.6	908/90	/901	
81.2	100.0	Diabase	Dark greeny-grey, very fine grained, hard, massive with a local weak porphyritic texture - local ghosty white 3mm to 3 cm ameboid spots (different from quartz-feldspar crystal's spots) - weak to moderate magnetite - rare 1 to 3 mm stringer pyrite - <5% erratic grey 3 mm to 2 cm wide quartz veins - contact at 90.5 not very convincing (gradational) - appears to be just another phase of diabase 90.5 - 100.0 quartz-feldspar porphyritic texture dominant with 35% 1 to 5 mm scale anhedral quartz-feldspar clusters - at 98.1 - mini fault offsets veinlet by 2 to 3 mm (vein 90° to core axis, fault parallel to core axis)	60108 60109 60110 60111	81.2 84.5 90.5 95.5	84.5 90.5 95.5 100.0	3.3 6.0 5.0 4.5	135/16 9/9/11 5/<5/<5 <5	/157	
100.0	126.4	Gabbro- Diabase?	Grey to greeny grey, medium grained to fine grained, hard and massive with a pseudo-blotchy texture - locally clustered with mm scale anhedral feldspar crystals -strongly magnetic (10% to 20% fine grained mm scale magnetite crystals - quartz rich - 30 to 40% interstial quartz - trace to 1% fine grained disseminated pyrite Comment: possibly classified as a Quartz Gabbro 117.8 - 119.8 fine grained phase of unit 124.1 - 124.6 mini shear \$60° to core axis, narrow zone contains cm scale irregular grey quartz vein with minor associated bleby pyrite	60112 N. Л. 60113	100.0 105.0 124.9	105.0 124.9 126.4	5.0 19.9 1.5	<5 <5		
126.4	131.4 187.1	Contact Zone (Sheared Gabbro- Dlabase) Quartz Gabbro (Diabase)?	 Grey, fine grained hard and weakly sheared at 70 to 80° to core axise strongly magnetic minor 2 to 5 mm scale quartz veining, minor bleby pyrite associated with veining sharp upper and lower contacts € 60° to core axis Greeny-grey, medium grained to finer medium grained, predominantly massive, locally porphyritic porphyritic sections contains up to 20% 1 to 5 mm 	60114 N. λ.	126.4 131.4	131.4 187.1	5.0 55.7	<5		
			chalky white quarts-feldspar clusters - quartz rich, up to 50% interstrial (matrix) quartz							

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Date: Nov. 14, 1988

Page 3 of 4

DEPTH		DOOK BYDB	DRAD IDRIAN	SAMPLE				λεελγε		
PROM	TO	ROCK TIPE	DESCRIPTION	No.	FROM	TO	WIDTH	Au ppb	1	
			- 15% tiny <mm crystals<br="" magnetite="" scale="">-local epidote as narrow veining 4 as matrix component 140.4 - 141.5 mini-shear zone, weak to medium sheared fabric 8 70° to core axis</mm>	60115 60116	187.1 190.3	190.3 195.5	3.2 5.2	<5 <5		
			At 145.5 1.5 cm wide quartz-epidote and minor	60117	195.5	200.5	5.0	<5		
			hematite (red mineral) veinlet @ 70° 6 to core axis	60118	200.5	205.0	4.5	<5		
		•	Annual second the model of an analysis and have	60119	205.0	207.0	2.0	<5		
187.1	223.5	Gabbro	massive, lacking porphyritic texture	60120	207.0	211.0	4.0	<5		
			- overall grain size decreases while epidotization	60121	211.0	215.0	4.0	<5		
			increases downhole through unit - moderately magnetic	60122	215.0	220.0	5.0	12		
			 trace fine grained disseminated pyrite trace fine grained disseminated pyrite 187.1 to 206.0 greeny-grey medium grained massive guartz gabbro cut by 5 to 8% erratic 5 mm to 10 cm wide guartz-feldspar (+ carbonate?) veining containing minor fine grained disseminated pyrite 206.0 to 223.0 grey to epidote-green bleached, fine grained to finer medium grained and very hard; light green epidote bleached zones on a 10-30 cm scale 5% irregular 1 to 3 cm scale guartz- feldspar veining and blotching appears to be finer grained, epidot- ized and more silicified equivalent of (187.1 - 206.0) 	60123	220.0	223.0	3.5	6		
223.5	228.6	Silicified Gabbro	grey medium grained, massive and very hard - very slight reddish tinge (hematite stain?) - 2 to 3% fine grained pyrite disseminated throughout - moderate to weakly magnetic	60124	223.5	228.6	5.1	33		
228.6	235.5	Breccia	Hedium grained sub-angular leuco-gabbro fragments	60125	228.6	232.0	3.4	147		
		Zone	 suspended in a grey siliceous cement overall 50% fragments, 50% inter-fragment silia fragments exhibit weak hematitic staining and are moderately magnetic 3 to 5% fine grained disseminated to bleby pyrite plus minor mm scale stringer pyrite contact at 235.3 marked by 3 cm wide white quarts vein sub parallel to core axis. 	60126	232.0	235.5	3.5	191		
235.5	267.5	Altered	Greeny-grey, medium grained, massive and very hard	60127	235.5	240.0	4.5	29		
<u>s</u>		(Spotted)	with a distinctive mafic spotted texture	60128	240.0	241.0	1.0	48		
		Gabbro	crystals (spots), intensity and size of chloritic	60129	241.0	246.0	5.0	51		
			spots decreases downhole through unit - locally moderately magnetic	60130	246.0	251.0	5.0	28		

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DRILL HOLE NO. UND-1

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Date: Nov. 14, 1988

Page 4 of 4

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DRILL HOLE NO. UND-1

BAMPLE ASSAYS DEPTH ROCK TYPE DESCRIPTION No. WIDTH Au ppb FROM PROM TO TO 60131 251.0 256.0 5.0 23 - minor bleby pyrrhotite sharp contact at 267.5 @ 50° to core axis 60132 256.0 261.0 5.0 49 240.5 40% large 2 to 2 cm pyrrhotite blebs and 60133 261.0 minor pyrite 266.0 5.0 73 60134 266.0 267.5 1.5 179 267.5 324.5 Quartz Orey to slightly greenish, medium grained, massive Gabbro and hard 60135 267.5 270.5 3.0 13 - locally moderately magnetic N. A. 270.5 316.0 45.5 - trace, very fine grained disseminated pyrite - 30 to 40% 1 to 2 mm scale amphibolite crystals set 60136 316.0 319.0 <5 3.0 in a fine grained guartz feldspar ground mass N. A. 319.0 336.7 17.7 - 10% tiny, 2mm scale glassy tabular crystals (quartz?) or colourless amphibole 324.5 336.7 Diabase Grey, fine grained, massive and hard Dyke - locally containing sub-rounded to irregular coarse grained guartz-feldspar amphibole spots on a 5 mm to 3 cm scale - locally weakly magnetic - trace fine grained disseminated pyrite Sharp but somewhat irregular contact at 324.5 8 700 to 80° to core axis More of a gradational contact at 336.7 336.7 392.0 Quartz 60137 336.7 341.7 5.0 5 Grey to greeny grey, medium grained, massive and hard B.O.H. Gabbro - moderately magnetic N. A. 341.7 354.0 12.3 - trace disseminated fine grained pyrite 336.7 to 356.0 1 to 5 foot sections containing up 60138 354.0 356.0 2.0 <5 to 20% goldy coloured mica (biotite) N. A. 356.0 392.0 36.0 At 354.6 1 cm wide light grey felsic dykelet cutting gabbro at 75° to core axis 1

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PROJECT	: UNDERSILL	DRILL HOLE	NO. UND-2			Date: Nov. 2 Page 1 of	2, 1988 2
CO-ORDINATES: 88 74	+00W +25N	CLAIN NO.:	TB 990165	LOGGED BY:	Brian Nelson	HOLE SURVEYS Depth dip	(CORRECT
COLLAR ELEV.:	20	DATE STARTED:	Nov. 13, 1988	SECTION:	88+00W	316 ft - 490	
ANGLE: -5	00	COMPLETED:	Nov. 16, 1988	DEPTH:	426 ft.		
REMARKS: First h	ole on setup lost -	casing shifted	in OB (length	110') OB - N.A	overburden not sampled		

DEI	PTH	BOCK WYDE	DROOD TOPTON		BAN	(PLE			ASSAYS	
FROM	TO	ROCK TIPE	DESCRIPTION	No.	FROM	ŤO	WIDTH	Au ppb		
0.0	100.0	Overburden		О. В.	0.0	100.0	100.0			
100.0	185.0	Sediment	Light to dark grey, fine grained, hard and well bedded	Ν. λ.	100.0	136.0	36.0			
		(Argillite)	Alternate very fine grained dark grey argillite and	60139	136.0	137.0	1.0	<5		
			finer medium grained lighter grey clastic beds,	N. A.	137.0	153.0	16.0			
			scale, generally the finer grained beds are thinner	60140	153.0	156.0	3.0	5		
			Bedding at 50° to core axis	N. A.	156.0	180.0	24.0			
			Trace local disseminated pyrite Very minor mm to cm scale quartz veining	60141	180 0	185.0	5.0	75		
			At 136.8 -cm scale guartz vein sub-parallel to core axis, minor associated blebs to stringer pyrite Core blocky and broken Note: Boxes 1 and 2 dumped		100.0	205.0				
185.0	209.5	Pseudo-	Grev, fine grained to medium grained, hard, locally	60142	185.0	188.0	3.0	<5		
		Brecciated	well bedded. Bedding attitude guite variable from 50°	60143	188.0	191.0	3.0	<5		
		Sediment	to core axis to sub-parallel to core axis (less		100.0		5.0			
			of core axis)							
			Zone intruded by 5% erratic mm to locally cm scale grey white quartz veining, lighter grey silicified appearance associated with quartz veining Minor disseminated to bleby pyrite throughout Upper and lower contacts quite sharp at 30° to 45° to core axis							
			191.5 to 197.5 medium grained mass sediment bed	60144	191.0	197.5	6.5	<5		
			contains a sheared argillite bed at 194.0, bed sheared at 10 to 159 to	60145	197.5	200.0	2.5	<5		
			core axis	60146	200.0	200.5	0.5	<5		
			200.0 to 200.5 5% mm scale threads of pyrite 200.5 to 203.7 3 to locally 10% bloby pyrite in	60147	200.5	203.7	3.2	<5		
			breccia, silicified quartz injection	60148	203.7	206.0	2.3	<5		
			zone	60149	206.0	209.5	3.5	<5		
209.5	218.0	Inter-	Grey, fine grained, massive and hard	60150	209.5	214.0	4.5	<5		
-		mediate	- weakly magnetic	60151	214.0	218.0	4.0	<5		
		Sync	medium fine grained pyrite							
-			- very minor erratic guartz-carbonate ? veining							
			good intrusive contacts. Possibly either a	! .						ŀ
			massive sediment bed carrying minor magnetite	((l
			or silicified fine grained gabbro dyke.						I	

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DRILL HOLE NO. UND- 2

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Date: Nov. 22, 1988

Page 2 of 2

DEI	°тн	BOCK TYPE	DP90D1DTION	SAMPLE					ASSAYS	
FROM	TO	RUCK TIPE	DEDCRIFITON	No.	FROM	TO	WIDTH	Au ppb		
218.0	225.3	Altered Sediment	Pseudo brecciated-quartz-carbonate injected zone Grey, heterogeneous and bleached, remnant mm to cm scale bedding sub-parallel to 25° to core axis Overall 20% erratic, 3 mm to 1 cm scale white quartz carbonate veining and blotching	60152 60153	218.0 221.0	221.0 225.3	3.0 4.3	<5 6		
225.3	236.2	Contact Zone	<pre>Hinor <1% mm scale stringer to fine grained disseminated pyrite Contact at 225.3 marked by blocky broken core Fine grained mafic (gabbro) dykes containing inclusions of or intruding bleached silicified sediment (same as section 218.0 - 225.3) Contact at 225.3 marked by broken core Sharp intrusive contact at 236.2 @ 55° to core axis 225.3 - 231.0 Hafic Dyke Greeny-grey, fine grained massive and hard, locally speckled with 15% mm scale mafic crystals; weakly magnetic, trace mm scale veiny pyrite;</pre>	60154	225.3	231.0	5.7	<5		
			Broken core at 231.0 can't get attitude of contact 231.0 - 236.2 Predominantly bleached sediment containing 6" and 1' wide mafic dykes contacts at 80° to core axis	60155 60156	231.0 233.0	233.0 236.2	2.0 3.2	<5 <5		
236.2	426.0 E.O.H.	Gabbro	Greeny-grey, medium grained to coarse grained, massive,homogeneous containing 25 to 30% black	60157 N. A.	236.1 240.2	240.2 236.0	4.0 22.8	7		
			- weak to moderately magnetic - minor local 2 to 6" scale very coarse grained levco gabbroic gones - appear veinlike	60158 N. A.	236.0 266.0	266.0 279.0	3.0 13.0	<5		
		leuco gabbroic zones - appear veinlike recrystalization the result of guartz-feldspar injection		60159 N. A.	279.0	283.0 300.6	4.0 17.6	<5		
			 - gradational grain size coarsening in first 30 ft of unit downhole, chill of gabbroic intrusion 	60160 N. A.	300.6 303.3	303.3 323.0	2.7 19.7	<5		
			236.2 to 241.0 - blocky broken core 300.6 to 303.3 silicified zone or intermediate	60161 N. A.	323.0 326.0	326.0 338.0	3.0 12.0	5		
			and massive containing 10% flattened mafic clots and 20%	60162 N. A.	338.0 341.0	341.0 363.0	3.0 22.0	<5		
	mm to cm scale feldspathi blotches; trace fine grai disseminated pyrite; cont	blotches; trace fine grained disseminated pyrite; contacts	60163 N. A.	363.0 366.0	366.0 376.0	3.0 10.0	7			
			AGENTA BUGALED SUD DLOKED	60164 N. A.	376.0 379.0	379.0 403.0	3.0 24.0	7		
				60165 N. A.	403.0	406.0	3.0 17.0	11		
				60166	423.0	426.0	3.0	7		

			NO UND-2			
PROJ	BCT: UNUERBILL	DKIED HVEB	NO. 0ND-3			Page 1 of 4
CO-ORDINATES:	80+00W	CLAIM NO.:	TB 990165	LOGGED BY:	Brian Nelson	HOLE SURVEYS (CORRECTED)
COLLAR ELEV.:	72+00N 0.0	CORE SIZE:	BQ	DRILLED BY:	Northwest Geophysics	DEPTH DIP DIRECTION 308' -45°
AZIMUTH:	3520	DATE STARTED:	Nov. 16/88	SECTION:	80+00W	
ANGLE:	-500	COMPLETED:	Nov. 18/88	DEPTH:	308 ft.	•

REMARKS:

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DE	PTH		DESCRIPTION							ASSAYS	
FROM	TO	RUCK TIPE		DESCRIPTION	No.	PROH	TO	WIDTH	Au ppb		
0.0	29.5	Overburden			O. B.	0.0	29.5	29.5			
29.5	201.5	Clastic Sediment	Grey to slightly medium grained, sections - locally bedded - shearing (like axis - overall 5% whi veining sub-pi erratic cross - moderate to 1 35.5 to 36.0	y greenish grey, fine grained to finer generally hard with local altered soft d 0 50° to core axis sly at bedding contacts) 0 45° to core ite stringer guartz and minor carbonate arallel to bedding - foliation and 25% cutting stringers ocally strong sericite mini shear in sediment and guartz injection; 3% disseminated fine grained to medium grained pyrite	N. A. 60167	29.5	34.5 37.5	5.0	6		
			37.5 to 38.4	Quartz veln - 2 to 3 cm wide white	60168	37.5	38.4	0.9	7		1
				quartz and minor carbonate vein	60169	38.4	41.4	3.0	•		
				irregularly trending sub-parallel to core axis; trace disseminated pyrite	N. A.	41.4	58.2	16.8	-		l
			58.2 to 60.7	Sericite-chlorite mini shear contain-	60170	58.2	60.7	2.5	1125		
				ing 10% mm to cm scale quarts veining predominantly parallel to shearing @ 55 to 60° to core axis; minor disseminated pyrite	60171	60.7	67.2	6.5	5		
			67.2 to 69.7	Sericite-chlorite altered zone; minor irregular guartz veining; 3% coarse grained disseminated bleby pyrite	60172	67.2	69.7	2.5	31		
	1		71.6 to 73.5	Sericite-chlorite altered zone; minor	60173	69.7	73.5	3.8	20		
	1			1 to 3 mm scale white quartz veins;	60174	73.5	78.0	4.5	10		
				coarse grained bleby pyrite	60175	78.0	84.0	6.0	27		
			93.4 to 94.5	40% semi-concordant to crosscutting	60176	84.0	88.0	4.0	<5		
				3mm to 3 cm wide white guartz and	60177	88.0	92.5	4.5	97		Ì
				grained disseminated pyrite	60178	92.5	95.0	2.5	21		

Date: December 7, 1988

Date: December 7, 1988 Page 2 of 4

PROJECT: UNDERSILL

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DRILL HOLE NO. UND-3

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DE	PTH TO	ROCK TYPE		DESCRIPTION	No	BAN	1PLE	UTATU	Au pph	ASSAYS	
FROM			96.7 to 98.3	Well banded (bedded?) section, 25%	60179	95.0	96.7	1.7	(5		·
				5mm to cm scale siliceous bands or	60180	96.7	98.3	1.5	(5		1
				concordant guartz veins; banding # 45°	60181	98.3	104.0	5.7	75		
				quartz veins on a 3 to 5 mm scale;			20110				
				trace disseminated medium grained pyrite							1
			104.0 - 111.5	20% 1 to 5 mm scale white guartz	60182	104.0	108.0	4.0	<5		
				veining predominantly #45° to 50° to core axis is sericitic sediment: minor	60183	108.0	111.5	3.5	<5		
				erratic splotchy quartz veining;	60184	111.5	116.0	4.6	<5	i i	
				2 to 3% medium grained disseminated	60185	116.0	121.0	5.0	5		
			111 5 - 150.0	altered clastic mediment, moderate	N.A.	121.0	138.5	2.8		i l	
			111.0 100.0	sericite; 2-3% 1 mm to 1 cm scale	60186	138.5	140.5	2.0	13		
				greyish white quartz veining; 1% medium grained disseminated pyrite	N. J.	140.5	150.0	9.5			~
			150.0 - 153.0	5% 2 to 5 mm scale erratic white quartz veining; 1% disseminated pyrite	60187	150.0	153.0	3.0	<5		
			153.0 - 157.5	intensely altered sediment; very strong sericite; 15% erratic mm to 3 cm scale white quartz veining, <1% disseminated medium grained pyrite	60188	153.0	157.5	4.5	<5		
			157.5 - 160.0	30% 1 to 5 mm scale white erratic quartz veining; trace disseminated pyrite	60189	157.5	160.0	2.5	5		
			163.0 - 196.5	10 to 15% very erratic mm to cm scale	60190	160.0	163.0	3.0	5		
				white guartz veining; trace to 1%	60191	163.0	167.0	4.0	5		
				weakly foliated # 55° to core axis	60192	167.0	171.0	4.0	<5		
				188.5 - 189.5 blocky broken core	N. A.	171.0	182.3	11.3			
2				195.5 - 196.5 15% erratic mm scale quartz veining	60193	182.3	184.8	2.5	<5		
			196.5 - 201.5	sheared to brecciated sediment:	N. A.	184.8	192.5	7.7			
				gradation from moderately altered	60194	192.5	196.5	4.0	9		
				(sericitic sediment) to sheared bracciated-quarts injected mediment:	60195	196.5	201.5	5.0	9		
				outer limit of fault contact; 5%							
				erratic quartz veining; trace disseminated pyrite: no sharp contacts							
				starting to get appearance of light honey brown mineral as mm stringers							
6.5	220.0	Breccisted	Grav. fina cra	ined to medium grained have to ast	60196	201 5	205 F		30		į
		Shear Zone	and very heter	ogeneous from sub-rounded to angular	60190	205.5	210 5	5.0	20		
			0.5 to 1.0 cm	scale relict grey sediment fragments	60190	200.5 210 £	216 5	5.0	37		l
			zones containi	ng flattened sediment fragments in	60100	610.9 916 E	220 0	5.0	20		[
			sericite (L to core axis	W ratio # 4:1) - shearing at 50° to	00133	*T3'2	220.0	4.5	20		

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DRILL HOLE NO. UND-3

Date: December 7, 1988

Page 3 of 4

DEF	PTH				SAN	iple		388878		
PROM	TO	ROCK TYPE	DESCRIPTION	No.	FROM	TO	WIDTH	Au ppb		
			 very minor quartz veining 1 to 2% trace disseminated fine grained pyrite, patchy local silicification Both upper and lower contacts gradational over 1 to 2 ft. 201.5 - 202.2 30 to 40% soft honey brown mineral (sericite)? 							
220.0	240.7	Fault Zone	Sheared fault breccia, grey to greeny grey and	60200	220.0	225.0	5.0	7		
			narrow 4 to 6" sub-zones that are hard (weakly	60220	225.0	230.0	5.0	5		
			siliceous); overall - angular to flattened (sheared)	60202	230.0	235.0	5.0	17		
			naid grey felict sediment fragments suspended in a very soft matrix: matrix of sericite +/- carbonate	60203	235.0	240.7	5.7	19		
240.7	308.3 Б.О.Н.	Sediment	<pre>very soft matrix; matrix or sericite +/- carbonate minor local mm scale stringers to light green mineral; trace disseminated pyrite; local very blocky broken sections; shearing at 40 to 55° to core axis 220.0 - 225.0 blocky, broken, very crumbly core 223.0 - 223.5 blocky crumbly section Grey to greeny grey fine grained to finer medium grained and generally hard clastic sediment contain- ing numerous narrow 6" to 3' wide brecciated to sheared quartz +/- carbonate flooded sub-zones. Overall <5% narrow 1 to 5 mm scale white quartz veining; trace disseminated fine grained to medium grained pyrite; lack of any sediment features or bedding contact.</pre>							
			240.7 to 254.7 fine grained hard grey sediment 5% 1 to 5 mm scale erratic grey white guartz veining; core guite blocky and broken; local shearing = 30° to core axis	N. A.	240.7	254.7	14.0			
			254.7 - 256.3 Quartz injected brecciated shear zone 30% erratic quartz veining; crumply like main flat zone up hole; undefined contacts	60204	254.7	256.3	1.6	68		
			256.3 - 264.0 blocky broken core	N. A.	256.3	288.0	31.7			
•		;	264.0 - 288.0 grey fine grained to finer medium grained sediment; <5% 1 to 5 mm scale erratic white quartz veining; trace disseminated pyrite 275.0 - 0.3 ft section of quartz injected shear, associated sheared sericite and chlorite * 20° to core axis							

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DRILL HOLE NO. UND - 3

Date: December 7, 1988

Page 4 of 4

DE	PTH	BOOK RVDR	DB6CD I D#I ON		<u>8 A</u>	1PLB			ASSAYS	
PROM	TÓ	RUCK TIPE	DASCRIPTION	No.	PROM	TO	WIDTH	Au ppb		
			288.0 - 289.5 Quartz carbonate injected mini shear mini shear-breccia zone; 15 - 20% stockwork white guartz veining; <5% yellow (carb?); sharp upper and lower contacts at 35° to core axis	60205	288.0	289.5	1.5	13		
			290.8 - 291.3 40 - 50% guartz and yellow carb? veining over section; veining at # 60° to core axis	N. A.	289.5	293.5	4.0	·		-
		•	293.5 - 295.0 moderate guartz-carbonate flooding	60206	293.5	296.0	2.5	7		
			At 295.9 2 cm wide white guartz vein cuts sediments at 80° to core axis	N. A.	296.0	303.3	7.3			
			At 296.5 3 to 4 cm wide sericite mini shear, strong shearing at 20° to core axis				,			
			At 304.0 mini shear at 20° to core axis off-sets mm scale white guartz veins with 2 cm displacement; trace very fine grained disseminated pyrite associated with shear	60207	303.3	308.3	5.0	5		
	308.0	End of Hole								
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PROJ	ECT: UNDERSILL	DRILL HOLE	NO. UND - 4A			Page: 1 of	2
CO-ORDINATES:	62+43W	CLAIM NO.:	TB 990161	LOGGED BY:	Brian Nelson	HOLE SURVEYS	(CORRECTED)
COLLAR ELEV. :	58+00N 0.0	CORE SIZE:	BQ	DRILLED BY:	Northwest Geophysics	DEPTH DIP	DIRECTION
AZIMUTH:	1420	DATE STARTED:	Nov. 22/88	SBCTION:	Off Section		
ANGLE :	-510	COMPLETED:	Nov. 22/88	DEPTH:	88 ft.		

REMARKS: Hole not completed, either casing or drill shifted

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DE	PTH	DOGK BYDD		SAMPLE				λŝŝλyŝ		
PROM	TO	RUCK TIPE	DESCRIPTION	No.	PROM	10	WIDTH	Au ppb		
0.00	11.00	Overburden		0. B.	0.0	11.0	11.0			
11.00	12.00	Hagnetite Hematitic Chert Iron Formation	Banded magnetite - hematitic chert on a 0.5 cm scale -core blocky and broken (drill induced)	N. A.	11.0	28.0				
12.00	25.80	Clastic Sediment	Grey to greeny-grey, generally finer medium grained with local fine grained sericite and chlorite sheared zones - local mini shears at 0 to 30° to core axis - minor 1 mm to 0.5 cm irregular white guartz- carbonate veining at * 60° to core axis - overall trace fine grained disseminated pyrite, locally up to 5% pyrite over 5 to 10 cm sharp contact at 25.80 @ 30° to core axis		,					
25.80	40.00	Hagnetite Hematitic Chert Iron Formation	Alternate grey black and red beds on a 2mm to 0.5 cm scale; bedding generally @ 20 to 30° to core axis; beds frequently offset by mini-faults filled with specular hematite Overall 60% magnetite beds, 30% hematite-chert beds and 10% stockwork specular hematite veining Very minor 1 to 2mm scale white carbonate veining Lack of sulphide mineralization	60277 N. A.	28.0 31.0	31.0 40.0	3.0 9.0	<5		
			29.30 to 30.30 - clastic sediment-bed # 40° to core axis							
40.00	50.90	Clastic Sediment	Grey, finer medium grained to fine grained, massive to brecciated and hard Approximately half unit massive and half brecciated Upper and lower contacts brecciated along with a central 2 to 3' wide brecciated section Brecciated sections contain 30 to 50% 2 mm to 1 cm scale grey angular to sub-rounded siliceous fragments set in strongly chlorite +/- sericite cement - minor 1 to 2% erratic white 1 to 5mm scale guartz veinlets and blotches - trace to 1% fine grained disseminated pyrite - brecciated upper and lower contacts	60278 N. A.	40.0	46.0 50.9	6.0 4.9	5		

Date: February 20, 1989

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DRILL HOLE NO. UND - 4A

Date: February 20, 1989

Page 2 of 2

DEP	TH			SAMPLE			λββλΥβ			
PROH	TO	ROCK TIPE	DESCRIPTION	No.	PROH	TO	WIDTH	Au ppb		
50.90	56.50	Brecciated Quartz Veining	White to grey brecciated quartz veining in dark green stockwork chlorite; 50% quartz vein, 50% chlorite - minor white carbonate inclusions in quartz - lack of sulphide mineralization	60279 60280	50.9 52.9	52.9 56.5	2.0 3.6	<5 <5		
			50.90 to 52.90 - 75% quartz vein, 25% chlorite 52.90 to 55.50 - brecciated inter-vein sediment - chloritic 55.55 to 56.50 - 50% quartz vein, 50% chloritic				•			
56.50	66.00	Brecciated -Pseudo Brecciated Sediment	Grey to greeny grey, brecciated to pseudo brecciated and soft - strong chlorite - 1% fine grained disseminated pyrite - local minor 2 cm x 0.5 cm guartz lozenges	60281	56.5	62.2	5.7	5		
			62.20 to 63.20 - very strong chlorite	60282	62.2	63.2	1.0	<5		
			- 5% fine grained disseminated to bleby pyrite 63.20 to 66.00 - blocky-broken, chloritic core	N. A.	63.2	73.0	9.8			
66.00	88.00	Clastic Sediment	Grey to greeny-grey, finer - medium grained to fine grained and quite soft - 5% very erratic white 1 mm to 1 cm scale quarts- carbonate veining - 1% fine grained to medium grained disseminated pyrite - moderate sericite	60283	73. 0	78.0	5.0	<5		
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PROJ	ECT: UNDERSILL	DRILL HOLE NO. UND-4		Date: February 17, 1989 Page 1 of 4
CO-ORDINATES:	62+73W	CLAIM NO.: TB 990161	LOGGED BY: Brian Nelson	HOLE SURVEYS (CORRECTED)
COLLAR ELEV.:	+9.0 ft	CORE SIZE: BQ	DRILLED BY: Northwest Geophysics	DEPTH DIP DIRECTION
AZINUTH:	1420	DATE STARTED: Nov. 23, 1988	SECTION: Off Section	308 £t -36°
ANGLE :	-480	COMPLETED: Nov. 26, 1988	DBPTH: 400.0 ft.	

REMARKS: Drilling BW and NS VLF anomalies as well as chert-magnetic iron formation

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DEI	PTH		DRAAD T DRTAN		BAN	PLE			ASSAYS	
PROM	TO	RUCK TIPE	DESCRIPTION	No.	FROM	TO	WIDTH	Au ppb		
0.00	3.20	Chert- Magnetite Iron Pormation	 Black to grey, hard finely bedded chert magnetite iron formation plus interbedded clastic sediment 1 to 5 mm scale beds folded (contorted) with bedding at 30° to core axis locally pitted due to near surface weathering major component is fine grained magnetite somewhat sheared contact at 3.2	О. В. N. A.	0.00 3.20	3.2 20.0	3.2 16.8			
3.20	15.10	Clastic Sediment	<pre>Grey, finer medium grained, moderately soft containing 5% erratic 1 to 3mm scale white quartz-carbonate veinlets - moderate sericite - local concentrations up to 5% of tiny magnetite crystals - sharp contact at 15.10 @ 45° to core axis</pre>							
15.10	42.80	Magnetite Hematitic Chert Iron Formation	Alternating black to grey mm to cm scale magnetite rich and cherty beds, local sections (gradually increasing downhole through unit) containing up to 50% red 2mm to 1 cm wide hematitic chert beds crosscutting specular hematite veins on a 1 to 3 mm scale associated with the red hematitic chert. Beds appear to be sheared (rotated) towards the core axis plane, locally beds weakly folded to broken. Bedding predominantly at # 40° to core axis - 5% mm to cm scale guartz-carbonate veining, veining erratic and predominantly crosscutting - minor interbedded clastic sediments and argillite on 4" to 1.5 ft. scale - lack of sulphide mineralization - sharp contact at 42.8 @ 45° to core axis	60253 N. λ.	20.0 23.0	23.0 52.0	3.0 29.0	<5		
42.80	70.50	Clastic Sediment	Greeny-grey, fine grained and moderately hard - 50% tiny blue to white quartz grains suspended in a very fine grained light green ground mass - 5% very erratic 1 to 5mm scale white quartz-carbonate veining - weakly magnetic - 1 to 2% very fine grained disseminated pyrite - sharp contact at 70.5 @ 50° to core axis - cm scale magnetite lozenges floating in medium grained sediment near 70.5 contact	60254 N. A.	52.0 55.0	55.0 70.5	3.0 15.5	<5		

Date: February 17, 1989

Page 2 of 4

DEF	TH				BAN	PLE			ASSAYS	
PROM	TO	ROCK TYPE	DESCRIPTION	No.	PRON	10	WIDTH	Au ppb		
70.50	89.30	Magnetite Hematite	Very similar to section 15.1 to 42.8 - guartz-carbonate veining is less common and mainly	60255	70.5	73.0	2.5	<5		
		Chert Iron	confined to within 3 to 4 ft of the uphole contact	N. A.	73.0	82.0	9.0	_		
		Formation	- 1 to 3mm scale specular hematite veinlets crosscut	60256	82.0	85.0	3.0	<5		
			- bedding contacts at 30 to 50° to core axis	N. A.	85.0	106.0	21.0			
			87.50 to 88.00 - 50% banded-blotchy white guartz- carbonate veining							
89.30	118.40	Clastic	Very similar to section 42.80 to 70.50							
		Sediment	- grey, fine medium grained and weakly magnetic - 5% erratic 2mm to 1 cm scale guartz-carbonate veining	60257	106.0	111.0	5.0	<5		
			- trace to 1% very fine grained disseminated pyrite - sharp contact at 89.3 & 509 to core axis	N. A.	111.0	123.0	12.0			
			- broken core marks 118.4 contact							
118.40	178.60	Magnetite Rematitic	Very similar to sections 15.10 to 42.80 and 70.50 to 89.30							
		Chert Iron	- appears to have a somewhat higher hematite chert and	60258	123.0	126.0	3.0	<5		
		Formation	specular hematite content than previous sections	N. A.	126.0	135.0	9.0			
			- 5% concordant and crosscutting mm to cm white to grey	60159	135.0	138.0	3.0	<5		
			quartz and quartz-carbonate vaining - bedding quite variable from 30 to 609 to core axis	N. A.	138.0	162.0	24.0			
			144.80 to 145.90 - clastic sediment bed containing	60260	162.0	166.0	4.0	<5		
			40% 5 mm to 2 cm scale quarts veining	М. Л.	166.0	173.6	7.6			
	Ì		165.20 to 165.70 - interbedded clastic sediment	60261	173.6	178.6	5.0	<5		
			- sharp upper and low contacts @ 450 to core axis							
178.60	400.00	Clastic	Interbedded finer, medium grained clastic sediment	60262	178.6	181.6	3.0	<5		
	B .O.H.	Sediment	and minor very fine grained argillite - guite massive and hard	N. A.	181.6	202.5	20.9			
			- overall minor 1 to 2% erratic white to grey 1 to 5mm							
			scale quartz veining - trace to 1% fine grained to medium grained							
			disseminated pyrite							
			- sharp contact at 178.0 \oplus 30° to core exis							
			1 to Jam scale							
			 sharp upper and low contacts at 20° to core axis 							
			181.60 to 187.00 - blocky broken core - strong chlorite +/- sericite							
			203.20 to 204.70 - brecclated- pseudo brecclated	60263	202.5	205.5	3.0	<5		
			argillite; greeny-grey soft with diffuse contacts; questionable breccia: trace disseminated medium	а -						1
			grained pyrite							

PROJECT: UNDERSILL

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DRILL HOLE NO. UND-4

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Date: February 17, 1989

Page 3 of 4

DEPTH				821	PLE		F	ASSAYS	
PROM TO	ROCK TIPE	DESCRIPTION	No.	PROH	70	WIDTH	Au ppb		
		205.10 to 210.2 - argillite, fine grained, local weak vuggy texture -5% erratic mm scale white quartz- carbonate veinlets -minor cm scale guartz veinlets @ 60 to 80° to core axis -contact at 210.2 @60° to core axis	60264 N. λ.	205.5 210.5	210.5 217.0	5.0 6.5	<5		
		210.20 to 227.20 -finer medium grained to medium grained clastic sediment -1% medium grained disseminated pyrite	60265 N. λ.	217.0 220.0	220.0 236.1	3.0 16.1	<5	· · · ·	
		227.20 to 228.60 -argillite, soft, very fine grained -strong sericite +/- chlorite -very sharp contact at 227.70 @ 30° to core axis At 236.60 - 5mm splash of chalcopyrite	60266	236.1	237.6	1.5	<5		
		252.50 to 261.00 -medium grained clastic sediment	N. A.	237.6	255.0	17.4			
		containing local 2" to 3' wide very	60267	255.0	258.0	3.0	<5		
		fine grained micaceous(ser +/- chl) argillite (or possibly sheared bad-	60267	258.0	261.0	3.0	(5		
		ding contacts) at *50° to core axis -overall 5% erratic 2mm to 2 cm scale white guartz veining -1% medium grained disseminated pyrite -local mini faults offset guartz veins by up to 1 cm -local vuggy guartz-carbonate veining	Ν. λ .	261.0	273.0	12.0			
		At 260.80 - 2 to 3mm wide pyrite stringer parallels bedding contacts @ 45° to core axis							
		273.00 to 276.50 -minor local vuggy guartz-carbonate	60269	273.0	276.5	3.5	<5		
		veining on a lmm to 2 cm scale -trace disseminated pyrite	N. A.	276.5	287.0	11.5			
		287.00 to 287.70 -3cm wide guartz carbonate veining	60270	287.0	287.7	0.7	<5		
		-contains 25% coarse grained disseminated pyrite	N. A.	287.7	295.0	7.3			
		295.20 to 296.50 -50% sheared argillite containing 3mm to cm scale white quartz- veining parallel to shearing @ 45° to core axis -disseminated to bleby pyrite associated with quartz veining	60271 N. A.	295.0 297.0	297.0 326.5	2.0 29.5	<5		
		At 327.70 -0.5 cm wide white quartz vein \$65° to core axis, contains 40 to 50% coarse grained bleby pyrite	60272 N. A.	326.5 331.5	331.5 346.0	5.0 14.5	<5		

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DRILL HOLE NO. UND - 4

PROJECT: UNDERSILL

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DRILL HOLE NO. UND - 4

Page 4 of 4

DE	PTH	0004		SAMPLE			λssλy			
PROM	TO	RUCK TIPE	DESCRIPTION	No.	FROM	TO	WIDTH	Au ppb		
			- vein occurs at bedding contact between finer medium grained clastic sediment and very fine grained argillite (sericite and chlorite) clastic-clastic sheared bedding contacts							
			At 330.80- 60% coarse grained 0.5 cm scale	60273	346.0	350.0	4.0	<5		
			pyrite blebs and cubes over 2 cm in massive chlorite +/- sericite	Ν. λ.	350.0	364.0	14.0			
			At 357.80-2 cm wide white guartz vein	60274	364.0	368.0	4.0	<5		
			375.00 to 400.00- blocky broken core	60275	384.0	368.0	4.0	<5		
			-looks drill induced - (fault rock?) -minor 2mm to 2 cm scale quartz-	N. J.	388.0	397.0	9.0			
			-minor 2mm to 2 cm scale guarts- carbonate veining -overall trace to 1% medium grained disseminated pyrite -locally up to 5% disseminated pyrite over 5 to 10 cm 397.00 to 397.30-4 cm wide guartz-carbonate vein parallels core axis, brecciated 1-2 cm scale chloritic fragments form downhole contact zone 397.30 to 400.00-fault (intrusive) breccia -heterogeneous zone, mixture brecciated fragments & sediment -breccia consists of fine grained 2 mm to 1 cm scale angular chloritic fragments set in fine grained sericite and carbonate cement -lack of sulphides	60276	397.0	400.0	3.0	10		

PROJECT: UNDERSILL	DRILL HOLE NO. UND - 5		Date: February 27, 1989 Page 1 of 8
CO-ORDINATES: 60+00W 56+50N COLLAR FLEV : 0.0	CLAIM NO.: TB 990161 Core size: BQ	LOGGED BY: Brain Nelson DRILLED BY: Northwest Geophysics	HOLE SURVEYS (CORRECTED) Depth dip direction 538 ft _ 310
AZIMUTH: 1420	DATE STARTED: Nov. 19/88 Completed: Nov. 22/88	SECTION: Off Section DEPTH: 538.0 ft.	

REMARKS: Drilling NNE trending VLF anomaly and chert-magnetite iron formation.

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DE	PTH	BOCK TYPE	DRGCD T D#T ON	SAMPLE				λέξλης		
FROM	TO	ROCK TIPE	DESCRIPTION	No.	FROM	TO	WIDTH	Au ppb		
0.00	49.00	Overburden		O.B.	0.0	49.0	49.0			
49.00	181.20	Sediment	Interbedded medium grained clastic sediment and sericitic argillite	N.A.	49.0	76.0	27.0			
			Grey, fine grained to medium grained predominantly hard with local narrow soft sericitic zones (shears) - narrow shears on a 10 to 20 cm scale with shearing							
			 - rare bedding contacts between fine grained and medium grained (quartz grain rich) beds - overall 1 to 3% 1 mm to 2 cm scale white erratic 							
			<pre>quartz veining - overall trace to 1% fine grained to medium grained disseminated pyrite</pre>					-		
			49.0 to 129.7 - predominantly medium grained clastic sediment interbedded with narrow sericitic argillite At 55.5 - sharp contact between uphole medium							
			grained sediment and fine grained sediment - contact 035° to core axis - strong sericite near contact - weakly sheared contact							
			62.0 to 62.7 - mini shear in fine grained sediment - shearing 0 25 to 30° to core axis - strong sericite and minor mm scale guartz veining parallel to shearing - 1% disseminated fine grained pyrite							
			At 73.6 - 1 cm wide white quartz vein cuts fine grained sediment @ 45° to core axis							
			75.9 to 76.2 - mini sericite -chlorite shear plus minor blue-grey guartz-veining parallel to shearing @ 25° to core axis - trace - 1% disseminated pyrite	60208 N. A.	76.0 80.0	80.0 99.8	4.0 19.8	6	-	
			At 79.6 - 2 cm wide guartz vein @ 70º to core axis							

Date: February 27, 1989

Page 2 of 8

PROJECT: UNDERSILL

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DRILL HOLE NO. UND - 5

DEPTH			1	SA	IPLE		l	ASSAYS	
PROM	TO ROCK TYPE	DESCRIPTION	No.	FROM	TO	WIDTH	Au ppb		
		At 80.8 - Sharp bedding contact between fine grained and medium grained sediment, contact @ 45 to 50° to core axis - hint of fining uphole (Younging to north)							
		86.7 to 87.5 - massive fine grained sericite (argil- lite bed?) trace disseminated pyrite							
		99.8 to 101.0 - sheared argillite? bed - strong sericite and chlorite - minor 0.5 cm scale white quartz veining parallel to shearing @ 35° to core axis - 1% medium grained disseminated pyrite associated with quartz vein	60209	99.8	104.3	4.5	<5		
		104.3 to 105.1 - guartz vein	60210	104.3	105.1	8.0	<5	[]	
		 white quartz containing 10% veining rediment inclusions 	60211	105.1	108.0	2.9	<5	[]	
		- trace fine grained disseminated	N. A.	108.0	116.0	8.0			
		pyrite - sharp contacts at 40 to 45° to core	60212	116.0	120.0	4.0	6		
		axis	N. A.	120.0	130.7	10.7			
		129.7 to 135.7 - Argillite - very fine grained, soft	60213	130.7	135.7	5.0	<5		
		and grey, strong sericite - <1% 2 to 3mm scale white quartz veins @ 60° to core axis - 1% medium grained disseminated pyrite	N. A.	135.7	145.1	9.4			
		135.7 to 142.2 - Interbedded Argillite - clastic sediment on a 1 to 3 ft scale - sharp bedding contacts at 45 - 50° to core axis - trace to 1% fine grained to medium grained disseminated pyrite							
		142.2 to 148.1 - Argillite	60214	145.1	148.1	3.0	<5		
		 strong sericite locally banded @ 40° to core axis medium grained to coarse grained bleby to cubic pyrite within 6" of downhole contact sharp contact at 148.1 @ 45° to core axis 	N. A.	148.1	158.5	10.4			
		148.1 to 178.1 - Interbedded clastic sediment and	60215	158.5	161.5	3.0	5		
		- bedding on a 6" to 3' scale	N. A.	161.5	176.0	14.5			
		- argillite beds well foliated due to	60216	176.0	179.0	3.0	7		
		- bedding contacts and foliation at 45° to core axis	N. A.	179.0	181.2	2.2			

PROJECT: UNDERSILL

DRILL HOLE NO. UND - 5

Date: February 27, 1989

Page 3 of 8

DEF	PTH	BOCK TYDE	DB9CDTD#TAN		8 A)	1PLE			ASSAYS	
FROM	TO	ROCK TIFE	DESCRIPTION	No.	FROM	TO	WIDTH	Au ppb		
			178.1 to 180.6 - clastic sediment bed (excellent example of medium grained sediment) - 50% mm scale quartz grains set in a fine grained moderately sericitic ground mass - displays a gradational fining? uphole through unit (tops to north?) - very sharp upper and lower contacts at 50° to core axis				•			
181.20	186.30	Iron Formation	Black to grey, fine grained hard and very well bedded on a 5 mm to 2 cm scale, alternate very fine grained magnetite beds and fine grained to finer medium grained grey cherty to clastic sediment beds, 60% magnetite beds, 40% clastic or cherty sediment beds - bedding @ 45° to core axis - minor 1 to 3 mm scale white concordant quartz veining - trace very fine grained disseminated pyrite	60217	181.2	186.3	5.1	<5		
186.30	193.10	Clastic Sediment	Greeny-grey, finer medium grained and moderately hard - contains a couple of 5 mm to 3 cm wide magnetite beds, bedding contacts 0 50° to core axis - minor 1 to 3mm scale erratic white guartz veining - trace fine grained disseminated pyrite - sharp contact at 193.1 0 45° to core axis	60218 N. A.	186.3 189.3	189.3 195.5	3.0 6.2	5		
193.10	201.50	Iron Formation	 Black to grey, fine grained, hard and well bedded Iron Formation interbedded with 6" to 1' scale clastic sediment beds (85% brecciated iron formation, 15% clastic sediment beds) sharp bedding contacts @ 45 to 50° to core axis overall 50 to 70% very fine grained magnetic 2% erratic 1 to 5 mm scale white guartz veining trace disseminated fine grained pyrite 193.1 to 194.1 - very finely bedded iron formation, 							
			bedding on a 1 to 2 mm scale @ 50° to core axis 194.1 to 195.2 - clastic sediment plus 10% weakly contorted magnetite beds - contact at 195.2 @ 50° to core axis						•	
•			 195.2 to 198.1 - well bedded iron formation on a mm to cm scale, alternate magnetite rich and chert? or clastic sediment beds sharp bedding contact at 50° to core axis; 1 - 2% erratic white 1 to 2 mm scale guartz-carbonate veinlets mini-faulting sub-parallel to 45° to core axis offsets bedding on a mm to cm scale; trace disseminated pyrite 	60219 N. A.	195.5 198.5	198.5 203.5	3.0 5.0	<5		

PROJECT: UNDERSILL

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DRILL HOLE NO. UND - 5

Date: February 27, 1989

Page 4 of 8

DE	PTH	DOCK TVDP	DPCCDIDTION		871	(PLE			ASSAYS	
FROM	TO	ROCK TIPE	DEPORTFITON	No.	FROM	TO	WIDTH	Au ppb		
•			198.1 to 201.5 - contorted-brecciated mixture of magnetite iron formation and clastic sediment, 3 - 5% white guartz- carbonate velning at 20° to core axis; mini-faulting noted - bedding rotated towards core axis bedding at # 30° to core axis							
201.50	206.30	Clastic Sediment	Greeny-grey, fine grained, quite hard containing 10 to 15% mm to cm scale contorted black magnetite beds, trace disseminated pyrite - very minor white mm scale quartz-carbonate veining - gradational contact at 201.5 - sharp contact at 206.3 @ 50° to core axis	60220	203.5	207.5	4.0	<5		
206.30	211.30	Iron Formation	Interbedded magnetite iron formation and clastic sediment 75% magnetite iron formation, 25% clastic sediment beds. Bedding contacts at 50 to 60° to core axis; magnetite iron formation finely bedded on a 1 to 2 mm scale. Unit contains a 6" wide bed and 1.5 ft wide bed of clastic sediment; overall trace fine grained disseminated pyrite; 2 to 3% erratic 1 to 3 mm scale quartz-carbonate veining; local red hematitic beds; contact at 211.3 @ 55° to core axis							
			At 208.0 - 3 cm wide quarts vein associated with magnetite-clastic bed contact, minor disseminated pyrite	60221 60222	207.5 208.5	208.5 211.3	1.0 2.8	<5 <5		
211.30	273.30	Interbedded Magnetite Iron Formation and Clastic Sediment	Predominantly # 60%, greeny grey clastic sediment - argillite interbedded with 20% individual black 1 to 5" scale magnetite sections - sharp bedding contact from 50 to 65° to core axis - overall magnetite lean section - magnetite sections composed of mm scale beds - local mini faulting sub-parallel to core axis - minor (1%) mm to cm scale white to grey erratic quartz veining - trace fine grained disseminated pyrite	N. A.	211.3	264.0	53.0			
•			233.8 to 235.5 - interbedded argillite and mm to cm scale black fine grained magnetite beds - 60% argillite, 40% magnetite - bedding @ 45° to core axis 235.5 to 242.9 - medium grained clastic sediment - very minor bedded magnetite - minor erratic 1 mm to 1 cm scale grey-white guartz veining 242.9 to 246.4 - bedded magnetite rich section - bedding @ 40-60° to core axis - locally mini-folding (contorting) of beds; overall 40% magnetite, 60% sediment; trace disseminated medium grained cubic pyrite							

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Date: February 27, 1989

Page 5 of 8

DEI	PTH	DOCK RVDP			8 A 1	(PLB			ASSAYS	
PROM	TO	RUCK TIPE	DESCRIPTION	No.	FROM	TO	WIDTH	Au ppb		
			243.5 - 243.8 - 30% 2 to 3 mm scale guartz-carb veining parallel to bedding @ 60° to core axis							
			246.4 to 254.0 - Finer medium grained clastic sediment; very minor mm to cm scale erratic guartz-carbonate veining - trace to 1% fine grained disseminate pyrite; sharp contact at 254.0 @ 45° to core axis							
			254.0 to 256.2 - argillite, strong sericite - 2 cm wide magnetite bed at 254.0 contact							
			256.2 to 259.5 - clastic sediment bed - trace fine grained disseminated pyrite							
			259.5 to 273.2 - interbedded magnetite rich and argillite beds on a mm to a 20 cm scale - bedding contacts at 40 to 55° to							
			core axis - 3% very erratic white quartz- carbonate veining - locally 1 to 3mm stringer pyrite associated with veining							
			At 264.5 - 1 to 2 mm scale specular hematite beds, mm scale disseminated pyrite beds hosted by magnetite beds	60223 60224	264.0 266.0	266.0 267.5	2.0 1.5	<5 <5		
			At 272.0 - mm spec of chalcopyrite	60225	267.5	273.2	5.7	<5		
273.2	300.2	Vuggy Argillite	Vuggy mini-faulted argillite - vuggy sections on a 1 to 5 ft scale - overall 3% white to grey folded, faulted erratic	60226	273.2	277.5	4.3	<5		
			grey quartz, 5% 1 to 3 cm scale coarse grained white quartz-carbonate veining - veining sub-parallel to 45° to core axis At 275.0 - coarse grained vuggy quartz- carbonate vein trends sub-parallel (15°) to core axis	σ. Α.	211.3	300.0	2.5			
			277.5 to 280.8 -3% 1 to 3mm erratic guartz-carbonate veining 280.8 to 281.6 evences eaction	60227	280 B	284 8	4.0	5		
			281.6 to 294.3 -fine grained sediment containing 2 to 3% mm to 3 cm scale erratic guartz carbonate veining 292.0 to 294.3 -blocky broken core 294.3 to 300.3 -vuggy section	N. A.	284.8	294.3	9.3			
			-10 to 15% erratic 1mm to 3 cm scale coarse grained vuggy quartz- carbonate veining							
			Comment: This vuggy section likely fault induced, possibly VLF conductor							

Date: February 27, 1989

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DRILL HOLE NO. UND - 5

Page 6 of 8

DEF	>TH	BOCK TYDE	NPSCPIPTION		<u>sa</u>	IPLE			ASSAYS	
PROM	TO	RUCK TIPE	DBBCKIFIION	No.	FROM	TO	WIDTH	Au ppb		
300.3	305.2	Hagnetite Hematite Iron Formation	Alternate black to dark grey magnetic beds and red hematitic chert beds - bedding on a 3mm to 10cm scale at 40° to core axis - locally bedding folded and sub-parallel to core axis - hematitic chert beds tend to be boudinaged and broken - 3% erratic 1 to 3mm scale white guartz-carbonate veinlets - trace pyrite - At 300.3 contact core broken sharp contact at 305.2 @ 50° to core axis	60229	300.3	305.2	4.9	<5		
305.2	309.4	Argillite	Greeny - grey, very fine grained soft moderately foliated @ 55° to core axis - strong sericite and chlorite - local minor pyrite 305.0 to 308.0 - 10% 2mm x 2 cm pyrite lenses (boudinaged veins) parallel to foliation 308.0 to 308.7 - banded magnetic-hematitic chert iron formation - sharp contact at 309.4 @ 55° to core axis	60230 N. A.	305.2 308.0	308.0 339.0	2.8 31.0	<5		
309.4	335.0	Clastic Sediment	Greeny grey, finer medium grained and hard locally containing 3" to 1 ' scale bedded magnetite iron formation - very minor 2 mm to 5 mm quartz carbonate veining at 30° to 80° to core axis - sharp contact at 335.0 @ 45° to core axis 318.4 to 319.3 - magnetite iron formation and fine grained specular hematite - bedding on a 1 to 2 mm scale at 55° to core axis 323.2 to 324.0 - magnetite iron formation containing one 3 to 5mm wide quartz (chert) hematite vein (bed?) parallel to bedding @ 55° to core axis 325.0 to 326.0 - interbedded magnetite iron formation and clastic sediment, minor boudinaged hematitic-chert beds							
335.00	364.10	Magnetite Hematite Chert Iron Pormation	Black to grey to red, fine grained, hard and well banded (bedded) at 30 to 40° to core axis; overall 80% magnetite beds and 20% hematitic chert beds. -bedding generally on a 1 to 5 cm scale; hematitic chert beds tend to be broken (boudinaged) and locally contorted, fine grained specularite associated with hematitic beds. -bedding at low angle to core axis (30° or less) result of shearing and rotating toward plane of core							

Date: February 27, 1989

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DRILL HOLE NO. UND - 5

Page 7 of 8

DE	TH				SA	PLE			ASSAYS	
PROM	TO	ROCK TYPE	DBSCRIPTION	No.	PRON	TO	WIDTH	Au ppb		
			axis (tectonic induced bedding orientation) -very minor interbedding of clastic sediment	60231 N. A.	339.0 342.5	342.5	3.5	<5		
			-sharp contact at 364.1 940° to core axis 349.5 to 351.5 - 20% very erratic to blotchy white	60232	349.5	351.5	2.0	<5		
			1 to 3 cm scale carbonate veining	N. A.	351.5	361.0	9.5			
364.1	372.6	Clastic	Greeny-grey, finer medium grained and hard containing	60233	361.0	364.0	3.0	<5		
		Sediment	<pre>2% 1 mm to 1 cm scale erratic quartz carbonate veining; trace fine grained disseminated pyrite - contact at 372.6 @ 50° to core axis 371.6 to 372.6 - blocky broken core - looks drill induced</pre>	N. A.	364.0	392.0	28.0			
372.6	405.6	Magnetite Hematite Chert Iron Formation	Bedded magnetite - hematitic chert on 3 mm to 2 cm scale; strong bedding and foliation fabric @ 50° to core axis; very similar to section 335.0 to 364.1 - minor interbedded clastic sediment on a 2 to 4" scale; sharp contact at 405.6 @ 55° to core axis							
			386.8 to 387.3 - brecclated iron formation	60234	392.0	397.0	5.0	<5		
			- 20% very erratic stockwork	60235	397.0	402.0	5.0	<5		
			while carbonate verning $202.5 \pm 404.0 = 2 \pm 6.52$ and 40.1 on early white	60236	402.0	405.6	3.6	<5		
			guartz veining parallel to bedding at 50° to core axis; trace medium grained disseminated pyrite						-	
405.6	538.0	Sheared	Grey, finer medium grained, hard and well banded to	60237	405.6	410.6	5.0	<5		
	E.O.H.	Clastic	sheared @ 55 to 60° to core axis	60238	410.6	415.4	4.B	17		
		Sectment	scale; light grey bands predominantly siliceous	60239	415.4	420.0	4.6	6		
			- minor erratic to concordant white guartz veining	60240	420.0	425.0	5.0	<5		
			disseminated pyrite trains parallel to shearing - locally up to 5% disseminated pyrite over 10 cm sections	60241	425.0	428.0	3.0	36		
			At 427.8 - very irregular 2 to 3 cm scale white carbonate vein							
			428.0 to 432.0 - mm scale contorted bedding at low angle to core axis; 5 to 10% erratic blue-grey guarts veining - 2 to 3% fine grained to medium grained disseminated pyrite	60242	428.0	432.0	4.0	270		
•			432.0 to 433.3 - quartz vein - white to locally blueish grey - 5% irregular inclusions of sediment - trace pyrite - broken contacts	60243	432.0	433.3	1.3	238		

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Date: February 27, 1989

Page 8 of 8

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PROM	70	ROCK TYPE	DESCRIPTION	No.	FROM	10	WIDTH	Au pob	1.007.10	
			433.6 to 434.6 - guartz vain - grey to purpleish - 20% inclusions of sediment host - trace disseminated pyrite - irregular contacts							
			 463.1 to 463.5 - quartz vein - bluey grey - sheared? vein, black banded crystals aligned sub-parallel to core axis - sharp upper and lower contacts at 50° to core axis 492.5 to 494.5 - 5% 2mm to 2 cm bluey grey quartz veining, trace pyrite 520.9 to 521.2 - quartz vein, white, 20% wispy inclusions of host - sharp contacts at 60° to core axis 	60248 N. A. 60249 N. A. 60250 N. A. 60251 60252 N. A.	463.0 463.5 492.5 506.0 508.0 520.9 522.4 527.4	463.5 492.5 494.5 506.0 508.0 520.9 522.4 527.4 538.0	0.5 29.0 2.0 11.5 2.0 12.9 1.5 5.0 10.6	1644 8 5 <5 <5		

APPENDIX IV

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ANALYTICAL RESULTS - BONDAR CLEGG & CO. LTD.

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APR - 3 1989

MINING LANDS SECTION



May 30, 1988

Bondar-Clegg is pleased to offer the following analytical services:

Soil Samples

Sample Preparation

1. The entire field sample will be dried at 60 oC.

2. The dried material will be screened for the -80 mesh particle fraction.

3. The -80 mesh fraction will be homogenized, bagged and labelled.

Geochemical Analysis

1. Determination of Au using Fire Assay Lead Collection-Flame Atomic Absorption measurement, test sample weight of 30 g, detection level of 5 ppb.

2. Determination of Ag, Cu, Pb, Zn and As using a HNO3/HCl extraction-Direct Current Plasma Emission measurement, detection levels of 0.5, 1, 1, 1 and 5 ppm.

Rock Samples

Sample Preparation

1. The entire field sample will be reduced to -10 mesh using Jaw and Cone Crushers.

2. A 300 g representative split of the -10 mesh material will be obtained using a Jones Riffle Splitter.

3. The representative split will be pulverized to -150 mesh using a ring and puck pulverizer.

4. The pulverized material will be homogenized, bagged and labelled.

Geochemical Analysis

1. Determination of Au using Fire Assay Lead Collection-Flame Atomic Absorption measurement, test sample weight of 30 g, detection level of 5 ppb.

2. Determination of Ag, Cu, Pb, Zn and As using a HNO3/HCl extraction-Direct Current Plasma Emission measurement, detection levels of 0.5, 1, 1, 1 and 5 ppm.

Bondar-Clegg & Company Ltd. 5420 Canotek Road Ottawa, Tio K1J 8X5 (613) 749-2220 Telex 053-3233



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	REPORT: 088-5	1271.0]			, P	ROJECT: 253	PAGE 1	
	Sample Number	element Units	Cu PPh	Zn PPN -	РЬ РҮМ	As PPM	Au PPB	Ag PPM			
	UK8 1001		24	52	13	17	73	0.1		<u></u>	
	UNU 1002		13	29	11	7	(5	0.1			
1	UND 1003		14	36	12	12	8	<0.1			
	UND 1004		13	14	5	7	(5	<0.1			
	UNU 1005		15	36	21	14	<5	<0.1		······	
	UNU 1006		17	32	12	4	(5	(0.1			
	UND 1007		13	27	4	<2	(5	<0.1			
	UND 1008		17	40	13	9	(5	<0.1			
			ס וו	44. 44.	12	4 4	10	V.2 20 1			
			11	4J	14	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- 15	(0.1			
	UNO 1011		5	14	5	<2	<5	<0.1			
	UNU 1012		10	26	13	11	(5	(0.1			
1 1 1	UND 1013		10	20 51	1/	5	()	V•1			
	UND 1014		20	51 16	41	134	/5	(0.1			
				10	10	<u>ح</u>	<u> </u>	(0.1			
	UND 1016		20	34	26	73	(5	<0.1			
	UND 1017		31	58	27	65	6	0.1			
	UNU 1018		31	20	9	4	(5	0.1			
	UNU 1019		31	34	12	12	<5	0.1			
	UND 1020		40	112	17	55	(5	<0.1			
	UND 1021		35	65	10	43	<5	<0.1		······································	
	UNU 1022		12	32	13	5	28	<0.1			
	UND 1023		36	56	14	8	<\$	<0.1			
	UNU 1024		8	21	11	4	(5	<0.1			
	UND 1025		43	17	11	18	7	<0.1			
	UNU 1026		15	26	13	6	(5	0.2		,	
	UND 1027		4	10	13	2	<5	<0.1			
	UNL: 1028		11	18	9	2	(5	<0.1			
	UND 1029		20	65	18	10	5	<0.1			
	UND 1030		16	36	19	4	6	0.1			
	UND 1031		37	72	23	24	(5	<0.1			
	UNE 1032		16	15	9	2	3	<0.1			
行	UND 1033		10	13	8	(2	(5	<0.1			
	UNI: 1034		7	20	12	2	 C>	0.1			
Í 🛛	UND 1035		15	19	8	4	(5	<0.1			
	UN1/ 1036		51	41	Ş	5	්	(0.1			
	UND 1037		24	36	14	7	(5	<0.1			
	UND 1038		37	79	31	34	250	(0.1			
	UND 1039		5	14	5	2	12	<0.1			
	UND 1040		16	24	8	6	(5	<0.1			

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	RLPORT: 088-51	1271.0]			. [PRUJECT: 253	PAGE 2	· · · · · · · · · · · · · · · · · · ·
	Sami'le Number	ELEMENT UNITS	Cu Pi'N	2ri PPN ·	Pt PPM	As PPM	Au PPB	Ag PPM			
	UNU 1041		10	24	7	2	<u> </u>	(0.1			
	UND 1042		17	19	10	8	<5	<0.1			
	UND 1043		20	26	6	6	(5	(0.1			
	UND 1044		13	11	2	2	<5	<0.1			
	UN1 1045		37	413		74	15	0.1	······		
54.5 54.5	UND 1046		33	29	12	7	(5	<0.1			
	URE 1047		17	37	12	2	(5	<0.1			
	UND 1048		12	27	5	2	<5	<0.1			
-	UNL 1049		7	24	10	(2	6	(0.1			
	UND 1050		4	23	6	3	(5	<0.1			<u> </u>
	UNU 1051		33	32	9	9	(5	(0.1	<u> </u>		
	UND 1052		11	21	S	Å	5	<0.1			
	UNU 1053		11	17	3	4	(5	(0.1			
	UND 1054		12	20	6	3	<5	<0.1			
	UND 1055		10	22	5	4	(5	(0.1			
-	LINI) 1056		15	.30	8	2	12	(0.1			
	UNU 1057		47	66	10	13	6	(0.1		•	
in i	UND 1058		88	31	5	8	(5	(0.1			
	UNU 1059		11	25	6	2	(5	(0.1			
	UND 1060		8	27	5	26	5	<0.1	•		
	UNU: 1061	······································	11	30	5	22	51	(0.1			
	UND 1062		17	43	8	2	(5	(0.1			
	UNU 1063		13	39	7	4	6	(0.1			
ŀ	UND 1064		11	38	6	2	<5	<0.1			
	UND 1065		7	24	6	2	(5	<0.1			
	UND 1066		27	52	10	0	(5	(0.1			
	UNU 1067		27	34	6	2	(15	0.1			
	UND 1068	,	14	59	5	3	10	<0.1			
	UNU 1069		90	107	11	12	(5	0.1			
	UND 1070		у	25	5	4	<5	<0.1			
	UN1 1071		23	40	7	Ŕ	<u>(5</u>	(0.1	·····		
	UNB 1072		18	30	, 5	2	(5	(0.1			
	UNU 1073		17	- 71	10	5	12	(0.1			
	UND 1074		9	38	6	3	(5	(0.1			
	UND 1075		9	32	5	9	(5	$\langle 0.1 \rangle$			
	(INO 1076		1.7		'7	<u>^</u>	(5	(0.1			
_	1077		22	30 77	12	т Б	6	20.3			
	UND 1078		12	61	•# 7	12	(5	(0.1			
	UKU 1079		6	19	5	4	5	(0.1			
_	. UND 1080		60	36	10	6	8	<0.1			
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KIJ 8X (613) 749-2220 Telex 053-	3233			B	DNDAR	CLEGG	-		Lab Report
REPORT: 088-51	271.0]			P	ROJECT: 253	PAGE 3
Sample Number	element Units	Cu PPM	2n PPN	Pb PPM	As PPM	Au PFB	Ag PPK		
UND 1081		71	87	9	13	102	<0.1		
UND 1082		21	41	7	5	(5	<0.1		
UND 1085		63	159	6	51	7	<0.1		
UNG 1005	<u></u>	130	159	4	9	(5	<0.1		
UN1 1086		44	128	7	8	(5	(0.1		
UND 1087		46	54	5	9	5	(0.1		
UND 1089		8	29	10	J Ý	<5	<0.1		
UN11 1090	···	15	24	6	6	(5	<0.1	<u></u>	
UND 1091		36	45	9	11	<5	<0.1		
UNU 1092		19	27	5	9	(5 (5	<0.1		
UND 1093		16	27	4 13	10	5	(0.1		•
UND 1095		28	40	22	6	<5	<0.1	<u></u>	
UNU 1096		19	40	7	4	(5	(0.1	<u></u>	<u></u>
UND 1097		32	29	3	7	<5	<0.1		
UND 1098 UND 1099		16 37	41 81	12 21	3	7 (5	(0.1		
UNU 1100		24	22	12	13	(5	<0.1		
UND 1101	·····	11	24	9	12	<5	<0.1		
UND 1102		49	16	4	7	6	<0.1		
(IN) 1104		13	22 40	9	12	<5 /5	<0.1 0.1		
UND 1105		8	22	5	5	<5	<0.1		
UNU 1106	<u> </u>	18	21	9	12	6	(0.1		
UND 1107		17	26	5	8	<5	0.1		
UNU 1108		5 5	28 22	14	7	(5)	(0.1		
UNU 1110		12	23	9	10	13	(0.1		
UND 1111		15	12	9	9	6	<0.1		
UND 1112		19	32	12	10	(5	0.1		
UNE 1113 1801 1114		19	66 26	12	16 2	6	<0.1		
UND 1115		34	72	16	17	12	<0.1		
UNU 1116		9	18	6	10	5	<0.1		
UND 1117		9	1473 1241	11	10	(5	(0.1		
UNI 1118		50 •) A	37 50	10	46	7 /r	0.1		
UND 1115		24 58	83	44 6	44 33	() (5	<0.1 <0.1		
						-		······································	

Bondar-Clegg & Company Ltd. 5420 Canotek Road Ortanio K11 Ves (613) 749-2220 Telex (053-3233



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REPORT:	088-51271.0]			[PROJECT: 253	PAGE 4	
Sample Number	llement UN ITS	сы .??М	2n Pl:M	Рь Ppn	as . Pin	Au PPB	Ag PPN	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
UNU	1121	28	55	9	3	6	(0.1			
UND	1122	15	61	y	4	(5	<0.1			
UNU	1123	14	61	9	3	5	(0.1			
UND	1124	B	30	4	2	<5	<0.1			
UND	1125	3	12	3	2	(5	(0.1			
UND	1126	53	:39	3	3	75	0.1			
UND	1127	67	128	5	3	G	0.2			
UND	1128	15	62	9	2	5	0.1			
Und	1129	9	39	2	2	6	(0.1			
UND	1130	19	49	8	3	(5	(0.1			
UNU	1131	7	32	5	(2	Ğ	<0.1			
UND	1132	16	71	8	3	<5	<0.1		an a	, m
UND	1133	12	42	8	2	5	(0.1	•		
UND	1134	14	42	1	3	<5	<0.1			
UNU	1135	19	61	9	2	(5	<0.1			
UND	1136	21	30	4	2	(5	(0.1			<u> </u>
UND	1107	32	49	12	14	8	(0.1			
und	1138	12	51	7	(2	(5	(0.1			
UNU	1139	18	28	6	2	6	0.1			
UND	1140	18	21*	14 ³	2	(5	<0.1	···	•	
UNU	1141	25	62	4	4	6	<0.1			
UND	1142	18	55	6	4	14	(0.1			
UND	1143	. 22	70	11	2	G	<0.1			
UND	001681	6	13	<0.1	5	21	128			
UND	001682	5	16	⊲0.1	3	2	<5			
UND	001683	7	15	<0.1	• 4	4	<5			
UND	001684	14	28	0.1	5	18	<5			
· _ •	· · · ·	•.							•	
· UN	V 2105	- 21	30	<0.1	9	111	<5		•	
UN	U 2104	4	19	<0.1	7	4	<5			
i)s j	1 1102	39	24	<u><0.1</u>	5	7	<5			

Bondar-Clegg & Company Ltd. 3420 Canotek Road Ortana, Ontario K1995 (613) 749-2220 Telex (053-3233



Geochemical Lab Report

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REPURT: 08	8-51272.0						P	(UJECT: 253	PAGE 1
Sample Number	elekent Units	Cu · PPN	27 PPN		<u>ер</u> 114	- As PPN	au PPB		· · · · · · · · · · · · · · · · · · ·
62210		14		<0.1	12	.4	14		•
62211		19	11	<0.1	(2	3	(5		
62212		7	11	<0.1	<2	6	(5		
62213		6	4	(0.1	(2	3	(5	s,	
52214		11	30	<0.1	11	49	81		
62215		7	10	(0.1	(2	-2	8		
62216		11	21	<0.1	<2	2	5		
62217		15	6	(0.1	(2	2	(5		
62218		7	9	<0.1	<2	<2	(5		
62219		6	5	<0.1	. (2	(2	(5		
62220		6	3	(0.1			0		
62221		10	18	(0.1	(2	4	0		
62222		6	5	<0.1	(2	13	(5		
62223		18	9	(0.1	2	4	6		
62224		12	6	<0.1	<2	<2	<5		
62225		9	13	0.1	11		3		
62226		9	6	<0.1	10	(2	(G		
67227		137	13	0.1	3	· 44	41		
64648		92	38	0.4	6	1418	3029		
62229		17	. 19	(0.1	3	7	11		
62230		10		<0.1	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	10			
62231		5	3	0.1	(2	2	()		
62232		32	16	0.2	4	4		•	
. 6 <i>2233</i>		8	4	0.1	<2	<2	(3		
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		<0 1	2		14		
D2424		20	10	20.1	L K	93	65		
02423		100	70	1011	5				
······									
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### Geochemical Lab Report

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-22021: 089-	54102.0								N-]4	PAUE	
SAMPLE Number	ELEMENT UNITS	Ou PPH	Zn PPM	40 P2#	70 99,0	As 22+	Au PPB	ru fen Dog	Au iew 293		
60101		25	26	<0.1	4	51	<5	رې د	<5		
60102		24	20	<0.1	2	4Û	9	<5	12		
60103 60104		20	29	U.1 A 1	2	24 56	100 2565	147 2536	· 112		
60105		50	28	<0.1	3	89	724	812	936		
60105		21	19	<0.1	2	95	\$5	107	ěŠ		
60.07		16	35	<0.1	3	32	116	568	901 •27		
-501£00 -501€0		:7	)1 12	×0.1 <6.3	$\dot{\mathbf{a}}$	/3 ;55	132	191 0	17		
60110		9	13	<0.1	2	103	5	<u> </u>	<5	• •	
60111		ş	21	<0.1	ż	20	\$				
60112		:2	26	0.1	4	20	< <u>5</u>				
60113		18	17	<0.1	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		<5 				
00114 60115		10	10	<0.1 <0.1	2	10 12	3			•	
00115		00	17	<b>N</b> 11							
00110		35	19	<0.1		20	<5 .E				
00117 50119		12	13 10	<0.1	· · /	24	() ()		1).	N407	
60339		25	18	<0.1	2	20 72	ंदर्ड			OCKSILL	
60120		10	19	<0.1	3	;;	<5			, 	
60121		15	17		3	32	<5			11	
60122		13	17	<0.1	2	191	12			OND-1	
60123		31	14	<0.1	3	75	6			· .	
0U124 60:25		28	14	<u.1< td=""><td>2</td><td>190 783</td><td>55 127</td><td></td><td></td><td></td><td></td></u.1<>	2	190 783	55 127				
		30		<u>`V.1</u>		164					
60126		73	40	<0.1	. 3	300	191				
00127 60129		34 70	3/ 10	<0.1	2	100 110	29				
60128		37	29	<0.1	2	252	51	•			
60130	•	16	33	<0.1	3	298	28				
60131		24	40	<0.1	?	163	23				
60132		90	39		2	73	45				
60.33		117	32	<0.1	3	25	73				
00134		171	34 50	<0.1		364	1/9				
. 00133			72	1011	, 						
60.35		40	20	<0.1	<2	3	<5				
60137		157	80	<0.1	3	9	5				
60130		164		2 Å 1	<u></u>	E	) E				

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Ar-Clegiz & Company Ltd. A Canotek Road Atawa, Ontario K1J 83 (613) 797-220 Telex 053-3233

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	K1J 87 (613) 7477-220 Telex 0	53-3233				BONDA	R-CLEG	G		Lab Re	роп
	a:0.0a1: 038-	54101.0						{	i)[[]": N)a[	34;5 .	
	Sa=ple Number	ELEMENT UNITS	ិដ ១;>»	Zn PPr	Aq PPH	بر در	As Dia	Aı) 22.3			
	60139	<u> </u>	205	\$2	<0.1	?	12	<5		• <u>•</u> ••••••••••••••••••••••••••••••••••	
	80140 50141		52 54	34 17	<0.1	0 4	25 77	<b>১</b> ১১			
	60142		42	37	<0.1	4	23	<5			
	60143		38	32	<u>    (0,1                                </u>	6	20	\$			
	60144		51	28	<0.1	4	17	5	<u></u>		
	60145		33	33	<0.1	3	21	<5			
	60146 60147		357 00	15	<0.1	6 6	14	<5 (5			
	60148		47	23	<0.1	3	4)	<5			
	50130		72	20	(ก) เ	۵	18				
	60150		62	11	().1	2	11	<5			
	60151		44	12	·0.1	1	17	<5	140-2		
	60152 60153		73 16	15 194	<0.1 <0.1	5	16 21	<5 5	0		
	60154 60155		35 31	20	<0.1 <0.1	6 2	10 11	ং ব			
	60155		24	13	0.1	2	ġ	<5		·	
	60157		230	29	લે.	2	5	7			
	00158		234	53		5	1	<5		·····	
	60159		182	45	<0.1	2	26	<5			÷
	60160 60161		<b>פל</b> אנל	1/5	<0.1	5/	) > 4	() 5			
	60162		209	43	<0.1	5	9	<5			
	60.63		296	62		14	6	1			
	60164		253	53	Q.1	. 1	7	1			
	60165		362	75	<0.1	6	6	11			
	60165		292	- 14	$\frac{(0.1)}{(0.1)}$	10	<u> </u>				
	60168		95	30	· <0.1	4	11	ĩ			
	60169		32	38	0.1	3	15	9			
	60170		44	101	<0.1	35	1295	1125			
	60171 SA172		53	36	(0.1	8	163	5	3		
	60173		7] Ro	00 64	<0.1	5 3	41 30	51 20	UND		
-	20190	· · · · · · · · · · · · · · · · · · ·	13	33	/8.1		1.4	4.8			
	60174 60175		50 86	53 79	<0'1 2011	2	14 23	27			
	60176		34	34	0.i	2	15	<5			
	60177		*2	27	0.2	2	22	97 21			
	001/8	····	20	21							
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Jar-Clegg & Company Ltd. 40 Canotek Road Jitawa, Jario KIJ 8X5 (613) 749-2220 Telex 053-3233



# Geochemical Lab Report

	0.101.0						. <u>Tu</u>		. 3640	
SAMPLE AUMBER	ELEPENT UNITS	Cu PP4'	Zn PPN	Aq PP4	Рб РР <del>1</del>	As 224	Au 998			
60179		30	34	0.2	4	;;	-5		. ·	
60180		21	30	<0.2	2	17				
00181 40102		50	34	0.1	5	42	<u>دې</u>			
60183		>> 77	34	0.2 0.3	5	42	< <u>5</u>			
60184		43	26	Ú.i	4	:	<5			
60185		55	37	0.2	7	42	5			
60186		39	83	છે.1	5	ėIJ	13			
60187		44	26	0.3	4	35	<5			
00188	·	<u></u>	1/2	<0.1		:0	<u> </u>			
60189 60160		58	28	0.1	Ó	33 22	5			
60190		35	29	0.2 <0.1	3	5. 67	5	1.10-3		
60192		35	28	0.1	3	36	<\$	040		
60193	·····	67	37	<0.1	1	33	<5			
60194	<u> </u>	÷0	29	<0.1	5	34	9			
60195		35	40	Ů.2	10	32	9			
60196		39	45	0.1	Ó	30	20			
63197		44	48	<0.1	6	4	37			
00198		44	()	<u> </u>	<u> </u>		10			در میکنورین
60199		45	70	<0.1	15	17	20			
60ZCO		20 20	69 15	<0.1	18	32	/ 5			
60201		32 78	13	<0.1	5	27	17		•	
60203		67	16	0.1	4	35	- 19			
60204		19	12	<0.1	. 2	29	68			
60205		29	12	<0.1	3	28	13			
60205		55	9	0.1	.temas 5	20	1			
60207		22	10	<0.1	- 5	13	5	,		
	***************************************									
								•		
	- <u></u>									
<u></u>								•••	· • · · · · ·	
							ę	1		
		•						-		
<u></u>		81 - mg - 12197 784 amperia.m					î.			
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Geochemical Lab Report

	REPORT: 088-	54195.0							ROJECT:	UNDERSILL LAKE	PAGE	1	
	SAMPLE	ELEMENT UNITS	Ni PPK	Cu PPM	Zn PPK	Aq PPN	PD PPN	as Ppn	NU PP8				
	60208			49	37	0.3	6	23	6				
)	60209			74	39	0.5	17	26	<5				
	6021U 60211			69	20	U.Z	8	1					
•	60211				59	<b>U₀</b> ¶ '	- 1111 - <b>1</b>		9				
						V4.3		····. ··· 46	···· •				
	60213			60	305	0.5	166	48	<5				
	60214 60215			64	6/	<0.1	9	68	<b>S</b>				٠
	00213			04 70	)/ (5	0.2	У 0	23	2				
	60210			47	03 45	0.2	0 6	0	~ ~				
				•1					~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
	60218			43	43	0.4	5	<2	5		•		
	60219			16	21	0.2	б	<2	ৎ				
	60220			73 ·	35	0.3	5	3	< ব				
	60221			6	25	0.3	6	2	<5		5		
l	60222			8	23	0.3	6	4	<u> </u>	UND			
. –	60223			16	22	0.1	-6	6	<5				
; ,	60224			18	18	0.5	6	43					
J	60225			69	27	0.3	5	15	ৎ				
	60226			34	29	0.1	6	8	ও				
_	60227			13	31	0.1	1	19	<5				
	60228			3	28	0.2	6	11	ব				
	60229			11	19	0.4	6	15	<5				
19 <b>1</b>	60230			46	28	0.1	6	6	<				
	60231			3	б	0.5	- 4	7	ও				
	60232			8	9	0.2	9	4	\$				
-	60233			3	6	0.3	- 5	6	ढ				
	60234			10	13	0.1	5	2	5				
	60235			21	11	0.2	5	3	<5				
	60236			8	.15	0.2	5	3	ব				
	60237			65	49	0.1	6	53	\$				
	60238			70	38	<0.1	5	62	17				
	60239			77	30	0.3	4	51	6				
_	60240			59	24	0.1	4	50	\$				
	60241			52	23	0.4	5	74	36				
	60242			60	18	0.2	4	916	270				
·····	60243			15	9	0.1	3	1480	238				
	60244			40	10	<0.1	Š	824	71				
	60245			55	26	0.1	4	264	10				
	60246			52	24	0.3	6	129	5				
·	60247			40	22	0.4	б	37	7				
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# Geochemical

REPORT: 088-	54195.0						l	ROJECT: U	IDERSILL LAKE	PAGE 2	
SAMPLE NUNBER	ELEMENT UNITS	Ni PPN	Cu PPN	Zn PPN	Ag PPN	Pb PPN	As PPN	Au PP8			
60248 60249 60250 60251 60252			35 38 26 28 43	11 27 22 16 24	0.6 0.4 0.5 <b>8.2</b> 0.2	7 6 5 5 5	360 290 103 _1024 59	1644 8 5 85 <5	UND-S		
60253 60254 60255 60256 60256 60257			1 3 1 2 4	9 31 11 9 25	<0.1 <0.1 0.1 0.5 0.2	5 5 5 5 5 5	4 7 <2 4 4				•
60258 60259 60260 60261 60262			3 2 1 1 9	7 12 12 8 19	0.1 0.1 <0.1 0.1 0.1	3 3 4 2 5	7 7 10 9 6				
60263 60264 60265 60266 60266			21 64 459 93 163	35 34 31 29 32	<0.1 <0.1 0.5 0.1 0.2	4 5 5 4 4	40 27 57 24 45	<b>उ</b> उ उ उ	UND-4		
60268 60269 60270 60271 60272	· · ·		11 152 2730 45 56	33 28 28 37 39	<0.1 0.2 0.3 <0.1 <0.1	4 5 4 6	101 30 28 16 8	ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ ଓ			
60273 60274 60275 <u>60276</u> 60277			44 76 79 13 2	30 27 40 47 20	0.2 0.1 0.1 0.2 0.3	5 5 4 6 4	12 14 17 10 5	ৎ ও ৩ 10 ৩			
60278 60279 60280 60281 60282			2 2 2 6 8	31 18 28 26 32	0.1 0.2 <0.1 0.1 0.5	6 3 4 2 5	5 4 5 11	5 <5 <5 5 :5	UN2 4A		
00763			4	55	0.2	3	· î.	-5	÷		*****



52H09SE0002 2.12313 MARYJANE LAKE

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Ministry of Northern Development and Mines

Ministère du Développement du Nord et des Mines

June 13, 1989

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Mining Lands Section 3rd Floor, 880 Bay Street Toronto, Ontario M5S 1Z8

Telephone: (416) 965-4888

Your file: W8904-142 Our file: 2.12313

Mining Recorder Ministry of Northern Development and Mines 435 James Street South P.O. Box 5000 Thunder Bay, Ontario P7C 5G6

Dear Sir:

Re: Notice of Intent dated May 9, 1989 Geological, Geochemical Survey and Expenditures submitted on Mining Claims TB 990157 et al in Mary Jane Lake Area.

The assessment work credits, as listed with the above-mentioned Notice of Intent, have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours sincerely,

W.R. Cowan

Provincial Manager, Mining Lands Mines & Minerals Division

D. KDK:eb Enclosure

> cc: Mr. G.H. Ferguson Mining and Lands Commissioner Toronto, Ontario

> > Brian Nelson Thunder Bay, Ontario



Resident Geologist Thunder Bay, Ontario

Mingold Resources Inc. Toronto, Ontario

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,如此是我们,我们们们就是我们就是我们们,我们就是我们的我们就是我都是我们。"他们就能想到这一些,我们们们也是我们的,也能能能让你们的,我们们能能了一个,我们们就是我们们的,我们们就是我们们的,我们们就

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いたいとうないないない。 しんかんしょう せんしゅう あまたい ないかかい しゅうしん しんかい しゅうしん しょうせい しょうしょう しょうしょう しょうしょう しょうしょう しょうしょう

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Ministry of Northern Development and Mines

Technical	Assessment
Work Cree	dits

Date May 9, 1989 W8904-142

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MINGOLD RESOURCES INC.	
MARY JANE LAKE AREA	
Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical	· · · · · · · · · · · · · · · · · · ·
Electromagnetic days	
Magnetometer	TB 990157 to 66 incl. $i^{>}$ 1021389 to 92 incl.
Radiometric days	
Induced polarizationdays	
Other days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological days	
Geochemical7days	
Man days 🗌 🛛 Airborne 🗌	
Special provision 🗌 Ground 🗋	
Credits have been reduced because of partial coverage of claims.	
Credits have been reduced because of corrections to work dates and figures of applicant.	
Special credits under section 77 (16) for the following mir	ning claims
to credits have been allowed for the following mining clai	ms insufficient technical data filed
TD 1021206 to 00 incl	
10 1021300 10 00 11101.	
(14 technical days X 7 ≠ 98 di	ivided by 14 claims = 7 days)

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical +80; Geologocal +40; Geochemical +40; Section 77(19) +60.

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Ministry of Northern Development and Mines

Techr	nical	Assessment
Nork	Cred	dits

May 9, 1989

File 2.12313 Mining Recorder's Report of W8904-142

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MARY JANE LAKE AREA	
Type of survey and number of Assessment days credit par claim	Mining Claims Assessed
Geophysical	
Electromagnetic days	TB 990157 to 66 incl. $1^{\circ}$
Magnetometer days	1021386 to 92 incl. 7
Radiometric days	
Induced polarization days	
Other days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological 20days	
Geochemical deys	
Man days 🗍 🔹 Airborne 🗌	
Special provision 🗙 Ground 🔀	
Credits have been reduced because of partial coverage of claims.	
Credits have been reduced because of corrections to work dates and figures of applicant.	
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ecial credits under section 77 (16) for the following mining c	laims
credits have been allowed for the following mining claims	
not sufficiently covered by the survey	icient technical data filed
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Ministry of Technical Assessment and Mines Work Credits

			File
			2.12313
Date	May 9,	1989	Mining Recorder's Report of Work No. W8904-142

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MARY JANE LAKE AREA	
Type of survey and number of	Mining Claims Assessed
Geophysical	
Electromagnetic days	\$6193.50 spent on analyses of surface and D.D. Core samples taken from Mining Claims:
Magnetometer days	TR 000157 to 66 incl
Radiometric days	1021389 to 92 incl. $A$
Induced polarization	
Other days	
Section 77 (19) See "Mining Claims Assessed" column	
Geological days	
Geochemical days	
Man days 🗋 Airborne 🗌	
Special provision  Ground	
Credits have been reduced because of partial coverage of claims.	
Credits have been reduced because of corrections to work dates and figures of applicant.	413 days credit allowed which may be grouped in accordance with section 76(6) of the Mining Act.
secial creats under section 77 (16) for the following min	
o credits have been allowed for the following mining clai	ms
not sufficiently covered by the survey	insufficient technical data filed

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Ministry of	Report of W	ork	DL	Instructions: -	- Please type or prin	nt.
Northern Developme	NO deschamical a	Geologica	Contraction of the second	- Note: -	<ul> <li>If number of mit exceeds space on the Only days credit</li> </ul>	hing claims traverse his form, attach a lis s calculated in th
	142 M		And Mining Act		"Expenditures" see in the "Expend.	ction may be entere Days Cr." column
Type of Survey(s)				Township	of Area	
GEOLOGY, SOIL GE	O-CHEMICAL			EVA	-TOWNSHIP	<b>F 8 0 1</b>
MINGOLD RESOURCE	s inc.		2313		T 4617	
Address						<u>,</u>
Box 28, Toronto Survey Company	Dominion Centre	e, Toro	nto, Ontario M5K	, 1B8 irvey (from & to)	Total Mi	les of line Cut
	\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$	NE LINELE AV	Day M	6. Yr. Day	Mo. TYr.	ن در ۲۵۰۹ میلیند. ۱۳۹۹ کاری ۲۹۹۹ - ۲۹۹۹ میلاد میلاد
Name and Address of Author (c Brian Nelson, Mi	of Geo-Technical report) ngold Resource:	s Inc.	935 Cobalt Cresce	nt. Thunde	r Bay, Ontari	0 P78 574
Credits Requested per Each	Claim in Columns at r	right	Mining Claims Travers	ed (List in num	erical sequence)	0 170 524
Special Provisions	Geophysical	Days per Claim	Mining Claim Prefix Number	Expend. Days Cr.	Mining Cla Prefix Nu	im Expend mber Days Cr
For first survey:	Electromagnetic		TB 990157	18.4		
includes line cutting)	- Magnetometer ,		990158	18.4		
For each additional survey:	Radiometric		990159	18.4		
using the same grid:	- Other		990160	18.4		
Enter 20 Days (10) each)	Geological	20	990161	18.4		
	Geochemical		990162	18 /		
Man Days	Geophysical	Days per	000163	10.4		
Complete reverse side	- Electromagnetic	Claim	990103	10.4		
and enter total(s) here	Magnetometer		990164	18.4		
	- Radiometric		990165	18.4		
	Other		990166	18.4		
	Other		1021386	18.4		
	Geological	5.8	1021387			
Airborne Credits	Geochemical	Days per	1021388	18.4		
		Claim	1021389	18.4	<b>6</b>	
Note: Special provisions credits do not apply	Electromagnetic		1021390	18.4	<b>H</b>	
to Airborne Surveys.	Magnetometer		1021391	18.4	:	
	Radiometric		1021392	18.4		
EXpenditures (excludes power Type of Work Performed	er stripping)	7			REC	EIVED
Assaying-Surface &	Drill Core Sa	mples				
Performed on Claim(s) Claims listed to r	ight				APR	3 1989
Calculation of Expenditure Davi	s Credits				MINING LA	NDS SECTION
Total Expenditures	Γ Daγi	Fotal Credits				
\$ 6,193.50	+ 15 = 4	13			Total number of m	ining
nstructions					report of work.	
Total Days Credits may be an choice. Enter number of days	oportioned at the claim h s credits per claim selecte	older's	For Office U	se Only		
in columns at right.			Recorded			
Date Re	prded Holder or Agent (S	Signature)	751 Pate Appro	ved as neconded	Branon Dia ec for	al A.
Musch 23/69	mbred / jan ft	<u>~</u>			Sill server	the formation
I hereby certify that I have a	personal and intimate kr	nowledge of	the facts set forth in the Ren	ort of Work anne	xed hereto, having per	formed the work

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S on Lake Nipigon to E.P.C. (1930. Elle 12198. From 855 contour to H.E.P.C.	PUPLAR PUINT 6-110
SAND - GRANEL T.C. Pit No. 754 Cravel: File 187827 S. M.T.C. Pit 2010 File 133687 G. GNORRY Permit	TB         TB<
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	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$
	Ораннови         Ораннови
49°30'	14' 13' 12' 11' 10' 5' 6' 6' 6' 6' 6' 6' 6' 6' 6' 6' 6' 6' 6'

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