



010

...

## REPORT ON THE GEOLOGICAL AND DIAMOND DRILLING PROGRAMS CARMAN AND LANGMUIR TOWNSHIPS PROPERTY N.T.S. 42 A/6 FOR GOLDEN PHEASANT RESOURCES LTD.

Porcupine Mining Division District of Cochrane Ontario

48°22' N Latitude, 81°03' W Longitude

James Wade Engineering Ltd. 501-5734 Yonge Street Willowdale, Ontario MwM 3T3 Roberta Bald, M.Sc., F.G.A.C. Timmins, Ontario February 24, 1989 Project Number: 88-191

OM88-1-C-221

JAMES WADE ENGINEERING LTD.



TABLE OF (



42406SE8448 63.5445 CARMAN

Ø10C

PAGE

	SUM	MARY	(i)			
1.0	.0 INTRODUCTION					
	1.1 1.2 1.3	Property Description	5			
2.0	REGIONAL GEOLOGY ····································					
3.0	PREVIOUS WORK					
4.0	PROPERTY GEOLOGY					
5.0	DIA	MOND DRILLING PROGRAM	17			
6.0		CLUSIONS AND RECOMMENDATIONS	29			
	REF	ERENCES				

CERTIFICATE OF QUALIFICATIONS

### LIST OF FIGURES AND MAPS

FIGURE	1	Location Map	2
FIGURE	2	Claim Location Map	3
FIGURE	3	Property Grid and Drill Hole Location Map	6
FIGURE	4	Regional Geology Map	9
FIGURE	5	Map of Trench Areas	15
FIGURE	6	Diamond Drill Plan: 88-4, 88-5, 88-6 and 88-10	19
FIGURE	7	DDH Section 88-4	20
FIGURE	8	DDH Section 88-5 and 88-10	21
FIGURE	9	DDH Section 88-6	22
FIGURE	10	Diamond Drill Plan 88-7, 88-8, 88-11	24
FIGURE	11	DDH Section 88-7	25
FIGURE	12	DDH Section 88-8, 88-11	26
FIGURE	13	Diamond Drill Plan: 88-9	27
FIGURE	14	DDH Section 88-9	28
MAP	1	Geological Map	in pocket
MAP	2	Compilation Map	in pocket
		LIST OF TABLES AND APPENDICES	

#### TABLE Samples taken during 1988 Trenching 1 13 TABLE 2 **Description of Diamond Drill Holes** 18 APPENDIX L Dumont Hole No. 11 Log **APPENDIX** 11 **Assay Certificates** APPENDIX **Diamond Drill Logs**



## (i)

### SUMMARY

During the fall of 1988, James Wade Engineering Ltd. was commissioned by Ms. A. Nyarady, President of Golden Pheasant Resources Ltd., to carry out an exploration program on the Carman-Langmuir Townships property near Timmins.

The program included geological mapping, geophysics (I.P.) and diamond drilling to delineate and test zones for iron formation hosted gold mineralization mainly in the northern portion of the property. The geophysical survey was described in an earlier report (Gillick, 1988).

Mapping of the northernmost eleven claims of the Golden Pheasant property indicates they are underlain by mafic to intermediate metavolcanic rocks containing two zones of banded iron formation. The volcanics are intruded by an ultramafic body in the east part of the grid. At least two ages of diabase dikes cut the older rocks. Drilling on the property also revealed porphyry dikes and felsic metavolcanic rocks.

The presence on the property of gold-bearing banded iron formation has been confirmed by the geological survey and subsequent diamond drilling program. Assay results as high as 0.2 oz Au/ton from grab samples were obtained during sampling of a blasted outcrop of iron formation on L16+00 N, just west of the baseline. This iron formation was tested by 4 drill holes, one of which was drilled north along strike from the blasted area. It gave a weighted average of 0.185 oz Au/ton over 0.9 m (DDH 88-5). Another iron formation further to the northwest, possibly a separate unit or the faulted continuation of the first one, was tested by 3 drill holes, one of which gave a weighted average of 0.24 oz Au/ton over 1.08 m (DDH 88-8). A total of 1138 meters of BQ core in 8 holes were drilled on the property.

A program consisting of additional trenching and diamond drilling is recommended for the property.



#### **1.0 INTRODUCTION**

Between September 12 and November 8th, 1988 a portion of an eleven claim block of unsurveyed, unpatented claims was geologically mapped by the author, with the help of two assistants: Steve Walasek from September 26 to November 8 and Paul Provencher from September 26 to October 16. The claim group is in the southwestern part of Carman Township, Porcupine Mining Division, about 23 kilometres southeast of the Town of South Porcupine, Ontario. (Figures 1 and 2). The claims are held by Golden Pheasant Resources Ltd. of Vancouver, B.C.

Figure 3 shows the present grid on the property. Prior to 1988, a grid with a north-south baseline had been cut to cover the original 25 claims. In 1988, a grid was cut to the north to cover eleven new claims. The 1988 baseline is oriented at 034 azimuth in order to be in better alignment with the strike of the underlying lithology.

Lines were turned off every 100 metres along the baseline and pickets were placed every 25 metres along the cross lines. In total, 24 km of line were cut in 1988.

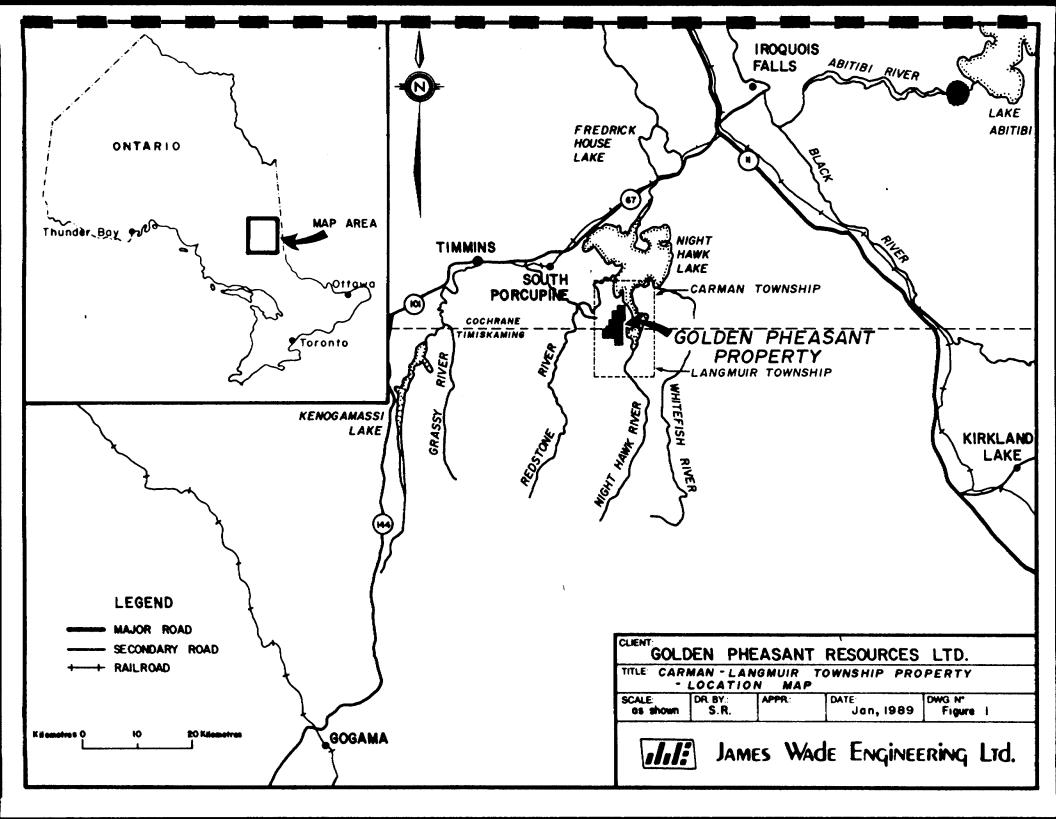
From November 23rd, 1988 to January 13th, 1989, eight holes were drilled on the property by McKnight Diamond Drilling Co. Ltd. of Haileybury. All of the holes were drilled in Carman Township except for hole 88-9 which was drilled in Langmuir Township. A total of 1,138.16 m were drilled.

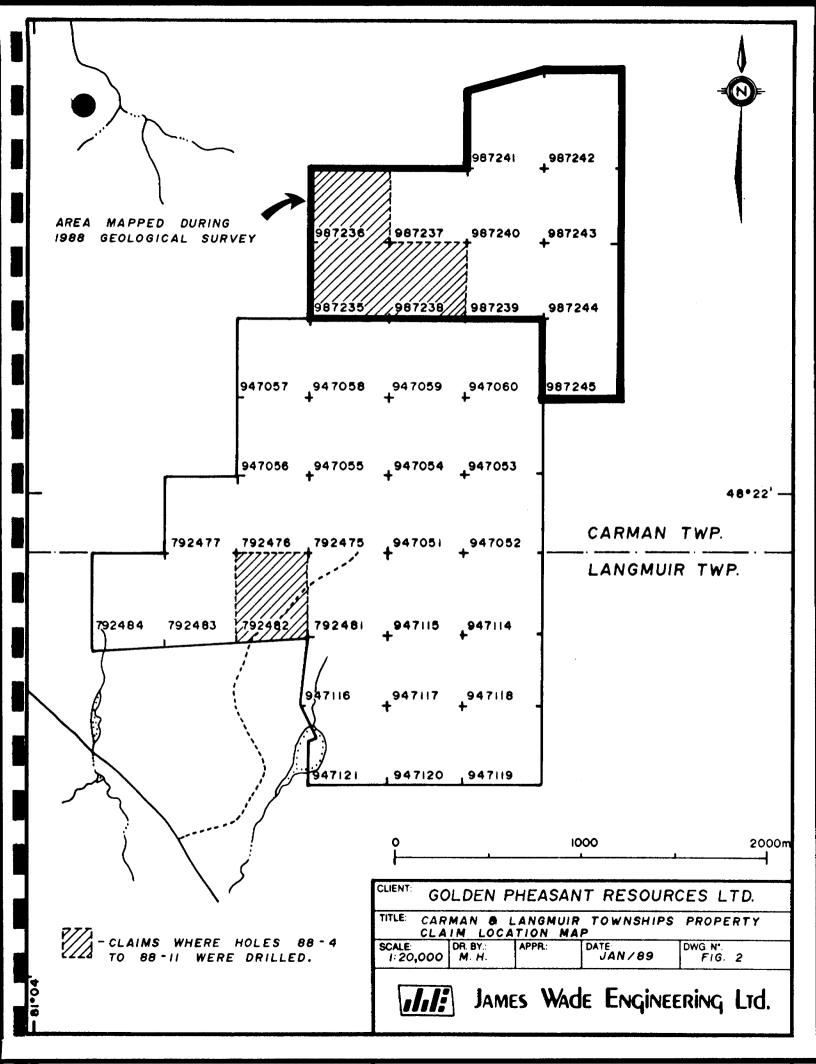
#### 1.1 Property Description

The property straddles the boundary between Langmuir and Carman Townships in the Porcupine Mining Division, Ontario (Figure 2). The property consists of 36 contiguous, unpatented mining claims, 29 of which are wholly owned by Golden Pheasant Resources Ltd. The remaining 7 claims, the MK Gold Property, were optioned from Filo and Kean in 1986.

The following description of the Carman and Langmuir townships property is taken from the prospectus of Golden Pheasant Resources Ltd.

1







#### The MK Gold Property

By an Option Agreement dated the 5th of September, 1986 made between Kevin Filo and Mark Kean, both of #804-246 Roslyn Road, Winnipeg, Manitoba (the "Optionors") and the Issurer, the Issuer acquired an option to earn an undivided 100% interest in and to seven (7) unpatented mineral claims situated in the Langmuir and Carman Townships, in the Porcupine Mining Division, Timmins, in the Province of Ontario, subject to a 1½% net smelter return royalty, and more particularly described as follows:

PERMIT NUMBER	EXPIRY DATE
792475	March 12, 1988
792476	March 12, 1988
792477	March 12, 1988
792481	March 29, 1988
792482	March 29, 1988
792483	March 29, 1988
792484	March 29, 1988

(the "Property")

The Issuer has agreed to pay a total of \$6,000 (which has been paid) and will issue a total of 80,000 common shares to the Optionors on the following basis:

- (a) the issuance of 20,000 common shares upon receipt of this prospectus in the Province of British Columbia;
- (b) the issuance of 10,000 common shares subject to the prior approval of the Vancouver Stock Exchange (the "Exchange") based on the submission of an engineering report acceptable to the Exchange which reviews the first work program on Property since listing and recommends that a second work program be commenced;
- (c) the issuance of 10,000 common shares subject to the prior approval of the Exchange based on the submission of an engineering report acceptable to the Exchange which reviews the second work program on the Property since listing and recommends that a third work program be commenced; and
- (d) the issuance of 40,000 common shares subject to the prior approval of the Exchange based on a feasibility report recommending economic production.

The issuer has staked, at a cost of \$2,920, a further twenty-nine (29) contiguous unpatented mineral claims also located in the Carman and Langmuir Townships and contiguous to the seven (7) optioned claims. Eleven of the twenty-nine (29) claims expire on May 26, 1988 and the remaining eighteen claims expire of September 16, 1988. This brings the total number of claims held by the issuer to thirty-six.



Neither the Directors, any other insiders, nor any company that they are associated with own any contiguous claims.

The wholly owned claims are as follows: P947051 to P947060 inclusive, and P947114 to P947121 inclusive, expiring on September 16, 1989; and P987235 to P987245 inclusive, expiring on May 26, 1989.

#### 1.2 Location and Access

The Golden Pheasant property is located at 48°22' N latitude and 81°03' W longitude in northeastern Ontario, almost 30 kilometres southeast of the city of Timmins. The claim group is located in the southwest quadrant of Carman Township and NW quadrant of Langmuir Township (Figure 1).

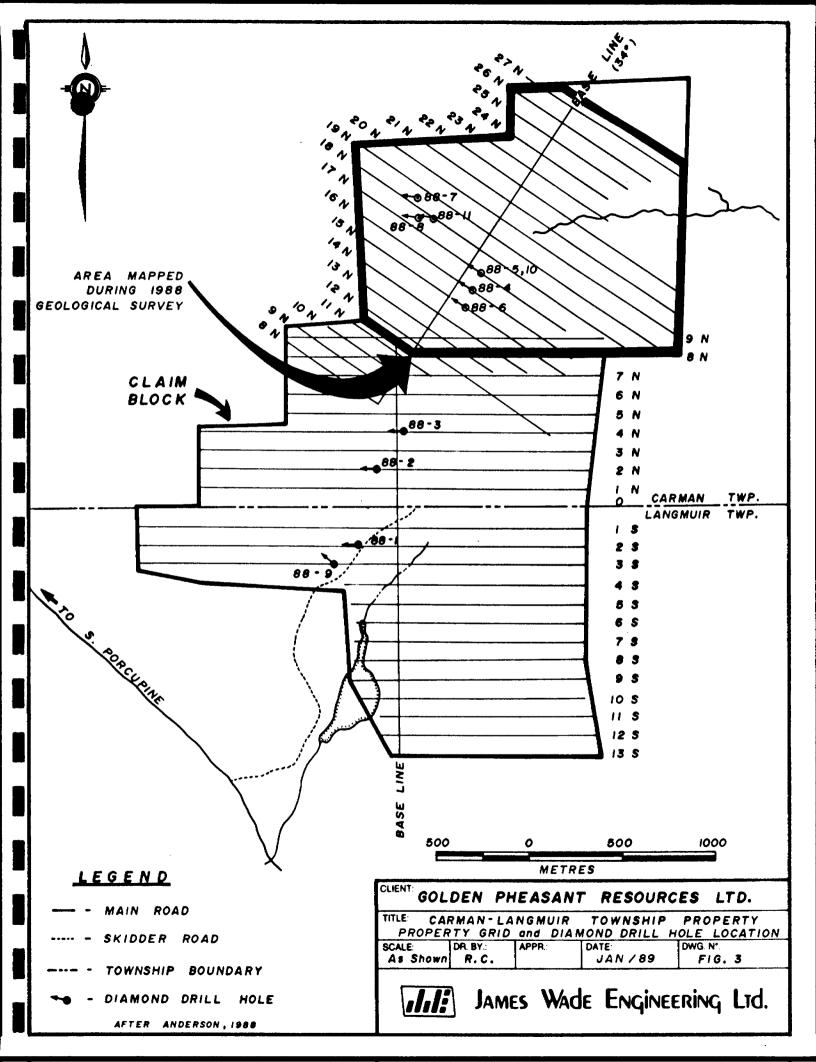
Access to the property is gained by travelling south from South Porcupine on the Tisdale Road and then southeast on an all-weather road towards the Langmuir Mine. The Langmuir Mine road passes approximately a half-mile south of the property and there are numerous trails leading north from the road. The best of the trails is shown in Figure 3. It was along this trail that the diamond drill was mobilized.

It takes roughly one hour to travel from downtown Timmins to the centre of the property.

### 1.3 Topography

Approximately 60% to 70% of the property area is low-lying and covered by swamp or muskeg. Over the remainder of the property, topographic relief is variable ranging from several metres to a maximum of about 20 metres. The relief is relatively abrupt in places, especially over diabase dikes where differential weathering has left the hard dike rock prominently exposed.

Vegetation is generally mixed. Cedar is common in the swampy areas with black spruce, tamarack and balsam fir occurring in the regions of muskeg. Stands of birch, poplar, jack pine and white spruce occur along the ridges and in the dryer parts of the property.





#### 2.0 REGIONAL GEOLOGY AND MINERALIZATION

The Timmins area lies within the Abitibi Volcanic Belt which forms a sub-province of the Superior Province of the Canadian Shield. The belt is characterized by a predominance of Archean metavolcanic/metasedimentary rock types intruded by numerous felsic to ultramafic bodies and transected by several major structural breaks. Six major gold/base metal mining camps are located along this belt making it one of the most productive mining regions in the world.

The Timmins area is located near the western extremity of the Abitibi Belt. Volcanic rocks within this sub-region have been divided into the Tisdale and Deloro groups. The Tisdale group consists of a basal formation of predominantly ultramafic volcanic rocks (komatiites) overlying tholeiitic basalts which in turn are overlain by volcaniclastic rocks of calc-alkaline composition. The Deloro group is composed of andesitic and basaltic flows overlain by dacitic flows and dacitic and rhyolitic pyroclastics. Iron formation commonly occurs near the top of the Deloro group. Both groups are overlain by interlayered and intercalated metasediments consisting of wacke, siltstone and, to a lesser extent, conglomerate. The regional metamorphic grade is lower to middle greenschist facies. Both groups have been intruded by numerous north and north-east trending diabase dikes.

The Destor-Porcupine Fault forms a major structural break in the Timmins area striking northeasterly between the Tisdale group and the Deloro group. The majority of gold deposits in the area are hosted by the lower volcanic rocks of the Tisdale sequence immediately to the north of the Destor-Porcupine Fault.

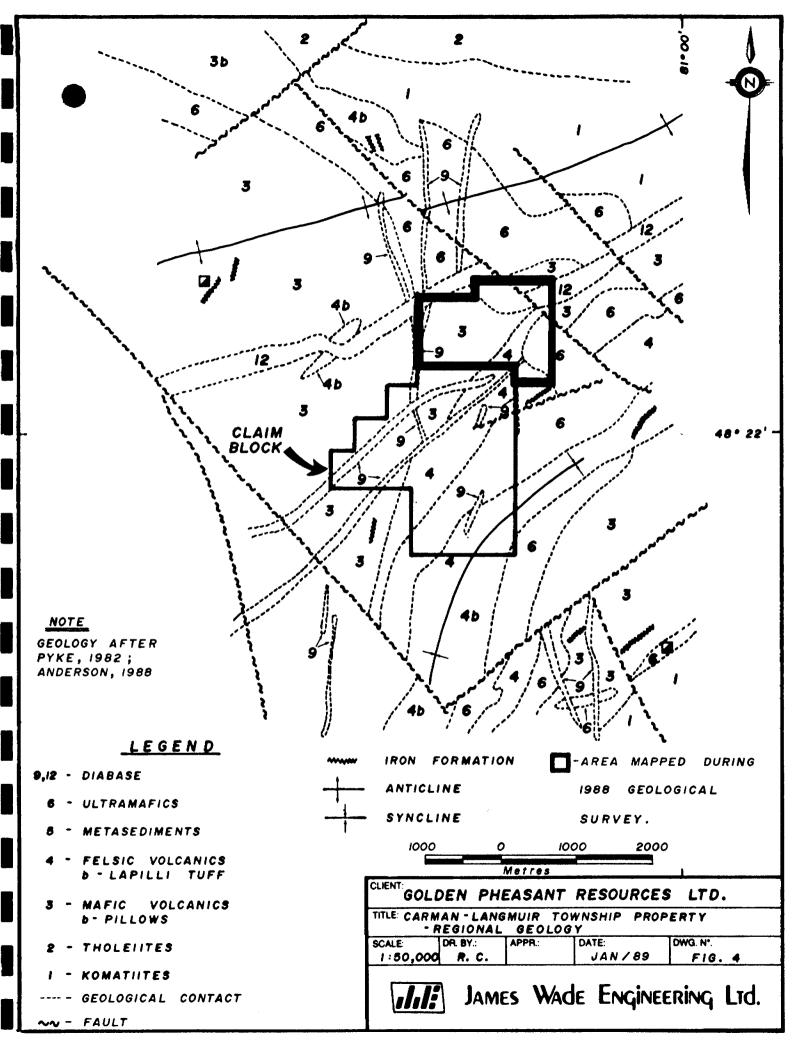
The Shaw Dome forms the main structual feature associated with the Deloro volcanic group. The easterly dip and northerly strike of the rocks on the Golden Pheasant property are due to their location along the eastern margin of the Shaw Dome.



More than 49 gold mines have operated in the Timmins area producing a combined total of over 65 million ounces of gold from ore with an average grade of 0.254 ounces gold per ton. The majority of the gold in the Timmins camp has been hosted by quartz-carbonate veins within volcanic rocks in the lower part of the Tisdale sequence. Most of the deposits are in close proximity to a major structural break (Destor-Porcupine Fault) and in close spatial association with ultramafic volcanic rocks.

Two iron formation-hosted gold deposits are located within the Deloro volcanics about 2.5 kilometres northwest of the Golden Pheasant property. The Carshaw and Malga deposits are reported to have hosted 247,000 tons of ore with a combined average grade of 0.249 ounces gold per ton. Gold mineralization in both these deposits is associated with quartz veining and attendant pyrite replacement of magnetite-rich mesobands. The mineralization appears to have been emplaced by the percolation and precipitation of exotic gold and sulfur bearing hydrothermal solutions within fracture systems formed by the brittle deformation of the iron formation.

The Langmuir Mine, a former nickel producer, is located about 2.5 kilometres southeast of the Golden Pheasant property. Between 1973 and 1977, 1.1 million tons of ore grading 1.5% nickel were mined from this ultramafic hosted deposit.





#### 3.0 PREVIOUS WORK

Although no documented evidence is available in government assessment files indicating work on the Golden Pheasant claims prior to the 1960's, old pits and trenches observed on the property suggest that some work must have been carried out.

In 1962, Dumont Nickel Corporation of Quebec, drilled a single hole (602') on the property in the west central part of present claim 792481. The hole reportedly intersected several bands of siliceous pyrite-bearing iron formation. One of the bands assayed 0.67 ounces gold per ton over a core length of 6 feet. The assessment file, including the drill log, is reproduced in Appendix I.

In 1974, T. K. Dowe drilled a single hole (146') in the northeast corner of present claim 792481. Banded iron formation was intersected near the bottom of the hole. No significant gold assays were reported.

In 1975, Noranda Exploration Co. Ltd. performed magnetometer and electromagnetic surveys on the property in order to assess its base metal potential.

In 1982, Rio Tinto Canadian Exploration Ltd. carried out magnetometer and VLF-EM surveys over the southern part of the present property. One hole was drilled to a depth of 372 feet in the east central part of present claim 792482. The hole reportedly intersected several bands of siliceous iron formation well mineralized (5-10%) with pyrrhotite and pyrite and containing up to several percent chalcopyrite in places. No gold assays were published for this hole.

In 1984/85, J. K. Filo and M. C. Kean staked seven claims covering and surrounding the Dumont drill hole. VLF-EM surveying and geological mapping were carried out.



In 1986, Golden Pheasant Resources Ltd. optioned the Filo-Kean claims. During the latter part of 1986 and early part of 1987, 29 additional claims were staked contiguous to the original block to form the present 36 claims. During the early part of 1987, Golden Pheasant commissioned geophysical surveying (HLEM, magnetometer, IP) and geological mapping over the southern 25 claims of the block.

In the spring of 1988, Golden Pheasant commissioned further work on the property including grid cutting and magnetometer surveying over the eleven northerly claims and IP surveying on selected lines of both the old (1987) and new (1988) grids. In addition, three holes totalling 273 metres were drilled on the property to re-test the Dumont Zone as well as to investigate several IP anomalies believed to represent a possible northward extension of the zone. The 1988 drilling program failed to detect any of the economic gold mineralization indicated by the Dumont Nickel Corporation Hole No. 11. No iron formation was found.



#### 4.0 PROPERTY GEOLOGY

The southern portion of the property was mapped in May, 1987, by four geologists working for R.S. Middleton Exploration Services Inc. (Moore, 1987). The geological report indicates this area is underlain by intermediate Archean metavolcanic rocks intruded by an ultramafic intrusion to the east. Two zones of interflow, banded iron formation were located, locally giving anomalous gold values (380 ppb Au). An easterly trending carbonatized shear zone in porphyritic andesite occurs near the centre of the grid. A few samples were taken but gave only low gold values (60 ppb). Several outcrops of quartz feldspar porphyry occur in the west part of the grid and two ages of diabase dikes cut the older rocks. The dikes trend roughly north-south and north-east and form high, resistant outcrop ridges.

The northern part of the property, that is the eleven claims mapped during the present program, is underlain by mafic to intermediate, locally amygdaloidal and pillowed, calc-alkalic metavolcanic rocks of the Deloro Group (Map 1, back pocket). Two interflow iron formation units were located on the property; iron formation #1 is exposed in outcrop just west of the baseline between L15N and L16N and strikes about 020 AZ; iron formation #2 occurs between L17N and L19N, from 4+50 W to 6+00W and strikes about north-south. A total of 57 samples were assayed for gold, 30 of these were taken during the mapping program and the other 27 during a trenching program. Table 1 lists all samples which contained 100 ppb Au or more.

The metavolcanic sequence is intruded by an ultramafic body in the eastern part of the property. It is only exposed in the southeast corner but it is probably present in the northeast as well, based on magnetic data. Several diabase dikes cut the metavolcanic sequence. These dikes generally strike in northernly and northeasterly directions.

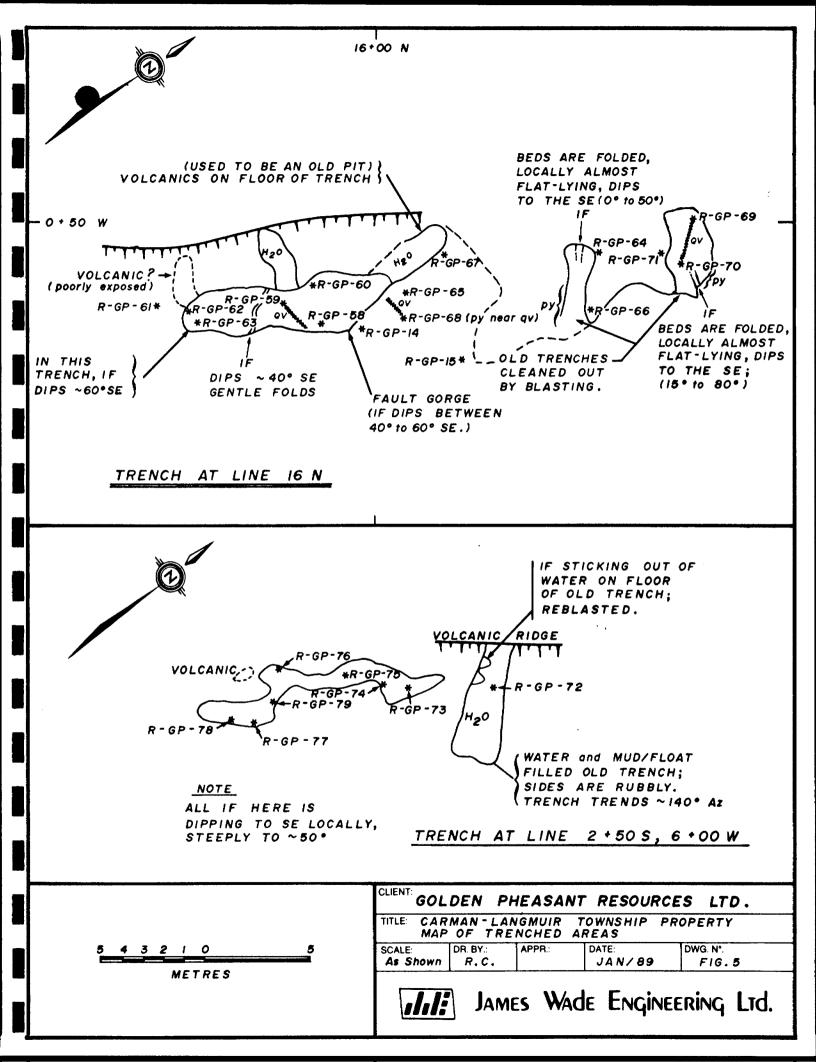


## TABLE 1

# Samples taken during the 1988 mapping and trenching program

FIELD	SAMPLE	LOCATION	ROCK TYPE	Au ppb
R-GP-15	-	L16N, 0+50W	Cherty IF with pyrite	1690/1570
R-GP-32	209	25 m grid N of L17N, 5+00W	Siliceous bands in IF	120
R-GP-34	211	50 m grid S of L16N, 0+50W	IF, all over a small outcrop	630
R-GP-36	213	27 m grid S of L16N, 0+50W	1.3 cm quartz vein cutting IF	1630 to 2240
R-GP-37	214	L16N, 0+50W	Coarse Quartz Layer in IF	790
R-GP-38	215	L16N, 0+50W	Coarse pyrite in mafic IF	330
R-GP-39	216	old trench at L16N, 0+50W	Siliceous IF	340
R-GP-41	218	15.5m SE of L18N,5+25W	Rusty siliceous band in IF	160/140
R-GP-46	222	25m grid S of L19N,5+75W	Siliceous IF	190
Trench san	nples: Iron fe	ormation #1 (L16N,	0+50W)	
R-GP-53	226	loose from blast	coarse quartz vein cutting IF with pyrite	390/620
R-GP-57	230	loose from blast	Cherty IF	2240/2130 (0.06 oz/ton)
R-GP-59	232	from flat outcrop	Chip sample from finely laminated IF, about 2m	270
R-GP-60	233	same location as #232	Quartz veins in IF with pyrite	2150/2400 (0.06 oz/ton)
<b>1</b> ,-			<i>]</i>	

FIELD	SAMPLE	LOCATION	ROCK TYPE	Au ppb	
R-GP-61	234	from flat outcrop	Chip sample from IF with pyrite, about 2m	220	
R-GP-63	236	same location as #234	Quartz vein in IF	530	
R-GP-64	_ 237	old trench	Chip sample in IF with pyrite, about 3m	1280	
R-GP-65	238	old pit	Quartz vein in IF with pyrite	570	
R-GP-66	239	same location as #237	Quartz vein in IF with pyrite	600	
R-GP-67	240	flat outcrop	Chip sample along possible fault gouge in IF	170	
R-GP-69	242	flat outcrop	Chip sample of QV in IF with pyrite, 15 cm	5900 to 8910 (0.20 oz/ton)	
R-GP-70	243	weathered, flat outcrop	Chip sample of same quartz vein as #242, 45 cm	3630/3150 (0.09 oz/ton)	
R-GP-71	244	flat outcrop	Chip sample of folded, flat dipping IF with pyrite, 3	1650 m	
Trench samples: Iron formation between L3S and L2S, near 6+00W					
R-GP-54	227	50 m grid S of L2S, 6+00W	Quartz vein in IF	150	
R-GP-73	246	same as #227	Possible fragmental?	110	





Two areas of banded iron formation were power stripped using explosives to remove the overburden (Figure 6). Iron formation #1 was cleared near L16N, 0+50W and chip and grab samples were taken. Of 16 samples taken, the highest was a 15 cm chip sample along a quartz vein cutting pyrite bearing iron formation which assayed 0.20 oz Au/ton. Another outcrop of banded iron formation was located by S. Walasek during remapping of some outcrops on the 1987 grid between L2S and L3S, at about 6+00W. Of 11 samples taken, only two carried more than 100 ppb Au and the highest was 150 ppb (Table 1).



### DIAMOND DRILLING PROGRAM

From November 23rd, 1988 to January 13th, 1989, eight holes were drilled on the property by McKnight Diamond Drilling Co. Ltd. of Haileybury. All of the holes were drilled in Carman Township except for hole 88-9 which was drilled in Langmuir Township. A total of 1,138.16 meters were drilled. The drill core is stored at 301 Crawford Street, South Porcupine, Ontario.

Table 2 lists some of the more important statistics of the drill holes. Figures 6, 7 and 8 are plans showing the location of the drill holes. Figures 9 through 14 are vertical sections of the drill holes. Appendix III contains the drill logs for holes 88-4 to 8-11. Map 2 (back pocket) is a compilation map showing the diamond drill holes, the I.P. anomalies and the magnetic highs on the geology map.

Drilling revealed the following rock types: locally amygdaloidal, pillowed to massive, mafic to intermediate metavolcanic flows; locally auriferous banded iron formation rarely associated with breccia; possible gabbro; feldspar porphyry; quartz feldspar porphyry; dacite agglomerate; felsic metavolcanic; and diabase dike (Appendix III). The rocks appear to be dipping approximately 45 degrees east to southeast.

Diamond drill holes 88-4, 88-5, 88-6 and 88-10 were drilled to test iron formation #1, near the baseline at L16N. All four holes cut at least two units of iron formation. The highest assay result in hole 88-4 was from the second iron formation unit. It gave 620 to 690 ppb Au over 1.1 m from part of the iron formation unit. The highest assay result in hole 88-5 was from the first iron formation and it gave a weighted average of 0.185 oz Au/ton over 0.9 m.

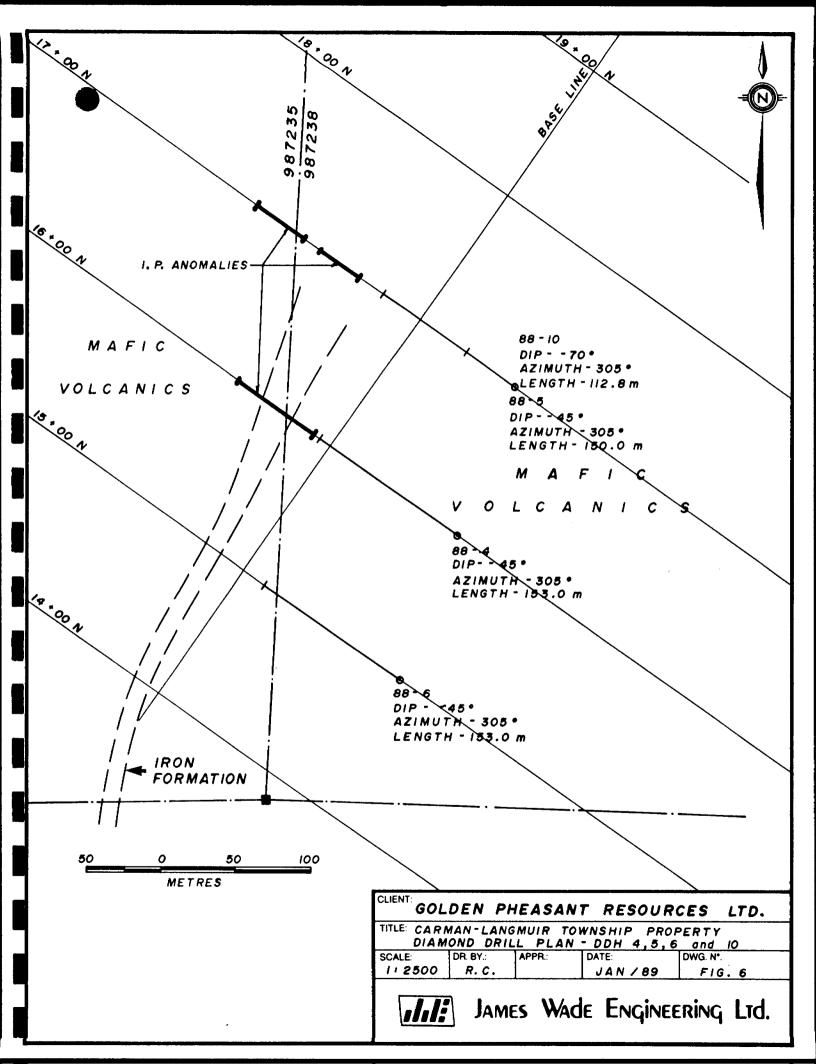
The second iron formation unit was also anomalous in gold but gave only 850 ppb Au over 0.7 m from part of the unit. Low values were found in hole 88-6, with only slightly anomalous gold values from the second iron formation (up to 215 ppb Au). The highest gold value from hole 88-10 was from a pyrite-bearing bleached zone with quartz and tourmaline veins in pillowed, amygdaloidal metavolcanic rocks which gave 1340 to 1430 ppb Au over 1.0 m. Out of three iron formation units found in hole 88-10, two were found to be slightly anomalous in gold: 260 ppb Au from part of the first unit and up to 680 ppb Au from part of the third unit. A steeply dipping diabase dike occurs in all but hole 88-10.

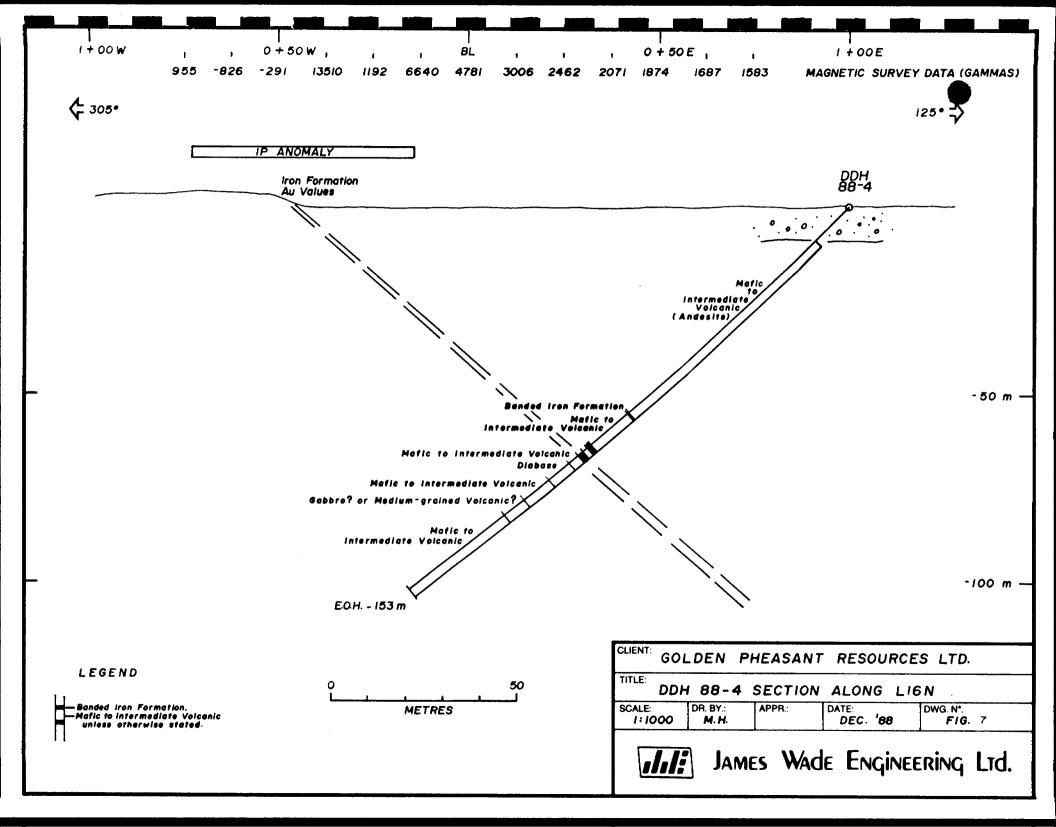


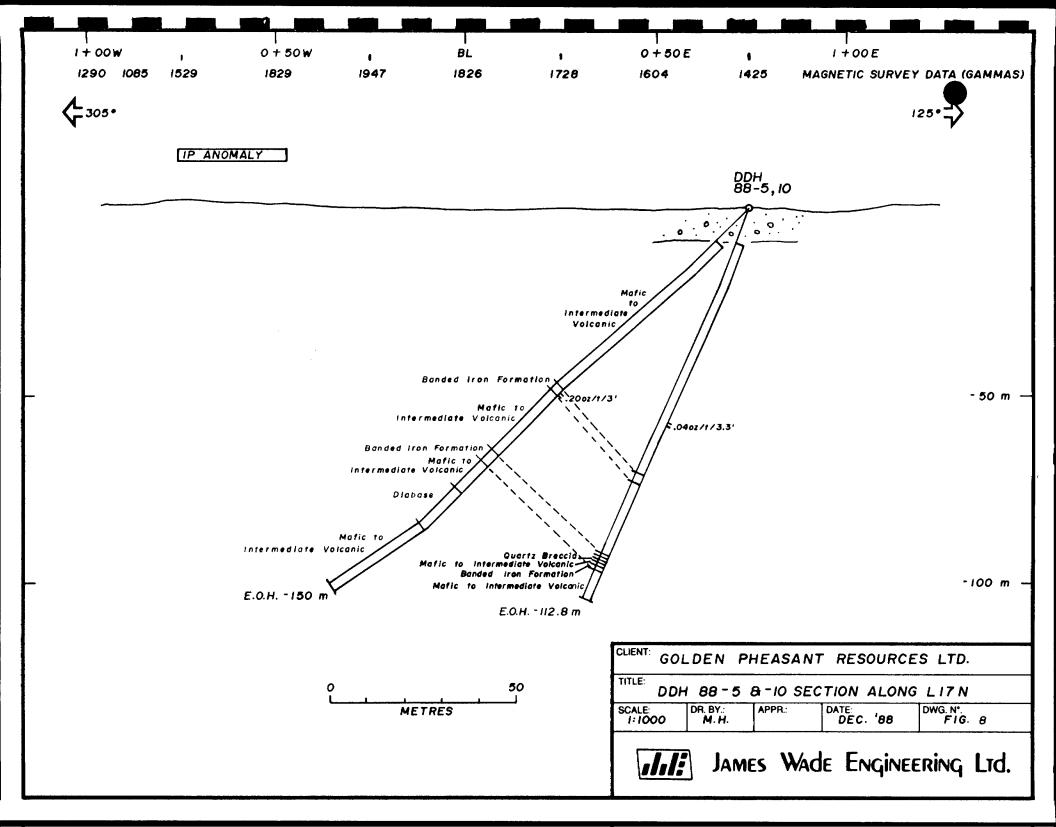
### TABLE 2

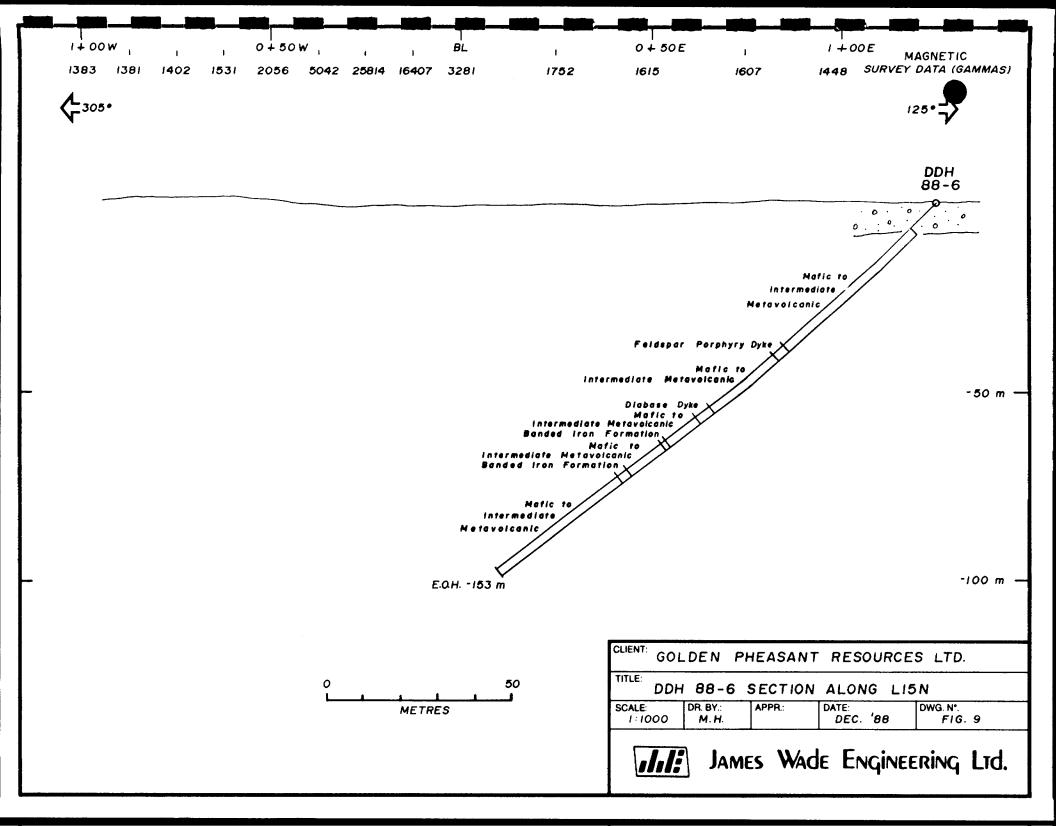
## Description of Diamond Drill Holes 88-4 to 88-11

<u>DDH</u>	CASING	<u>LENGTH</u>	LOC.	DIP	AZM.	STARTED	FINISHED	HIGH AU <u>ASSAY</u>	METERS DRILLED PER CLAIM
88-4	12.80 m	153.01 m	L16+00N, 1+00E	-45°	305°	Nov. 25	Nov. 28	620 ppb over 1.1 m	153 m drilled on P987238
88-5	12.80 m	149.96 m	L17+00N, 0+75E	-45°	305°	Dec. 02	Dec. 07	0.185 oz/ton over 0.9 m	150 m drilled on P987238
88-6	9.75 m	153.01 m	L15+00N, 1+25E	-45°	305°	Dec. 07	Dec. 12	210 ppb over 0.13 m	138 m drilled on P987238 15 m drilled on P987235
88-7	31.09 m	162.15 m	18+50N, 4+25W	-45°	280°	Dec. 12	Dec. 15	310 ppb over 0.24 m	162 m drilled on P987236
88~8	29.57 m	140.82 m	17+60N, 3+80W	-45°	280°	Dec. 15	Dec. 19	0.24 oz/ton over 1.08 m	18 m drilled on P987235 123 m drilled on P987236
88-9	29.57 m	153.01 m	L3+00S, 4+50W	-45°	305°	Dec. 19	Jan. 08	80 ppb over 0.51 m	153 m drilled on P798482
88-10	9.75 m	112.78 m	L17+00N, 0+75E	-70°	305°	Jan. 08	Jan. 10	0.037 oz/ton over 1.0 m	113 m drilled on P987238
88-11	46.33 m	113.39 m	L18+00N, 3+15W	-45°	280°	Jan. 10	Jan. 13	no samples	91 m drilled on P987235 22 m drilled on P987236





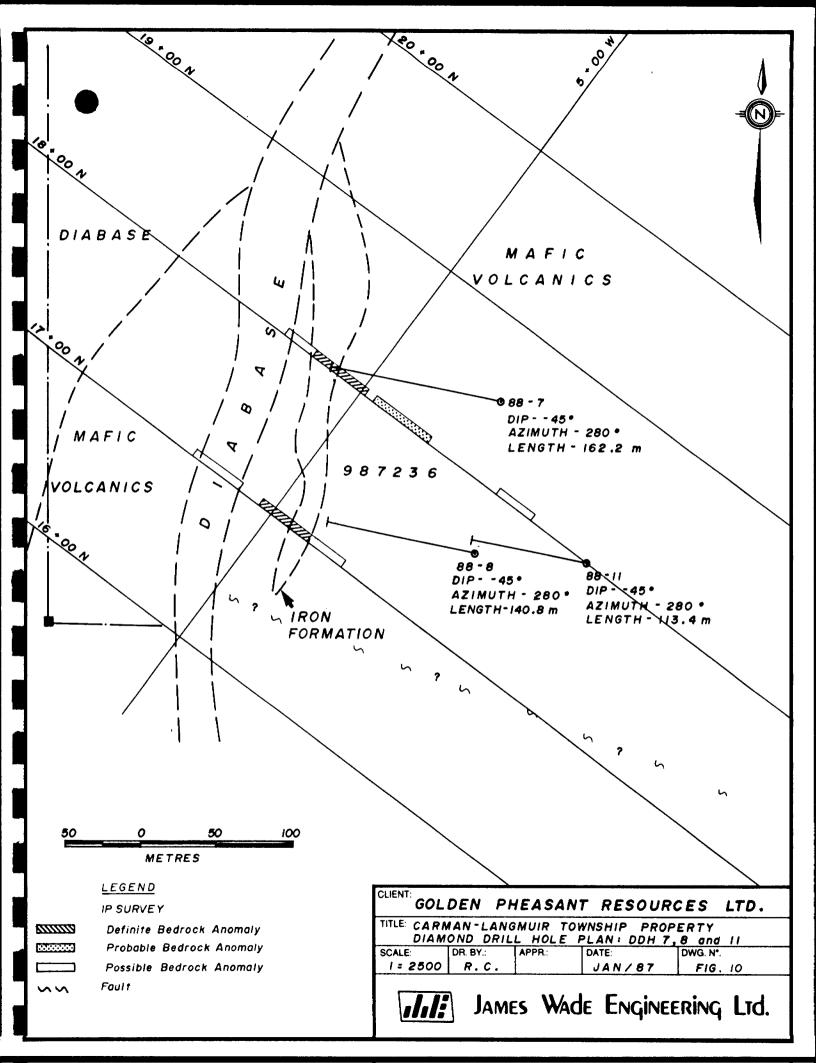


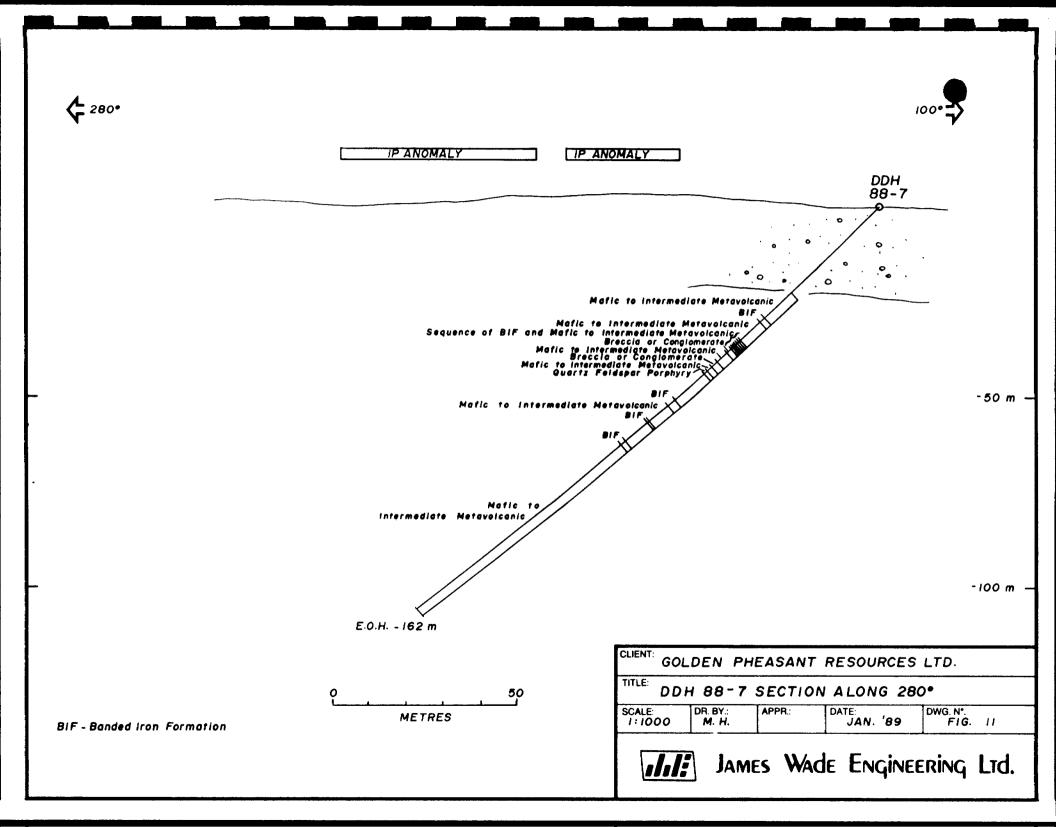


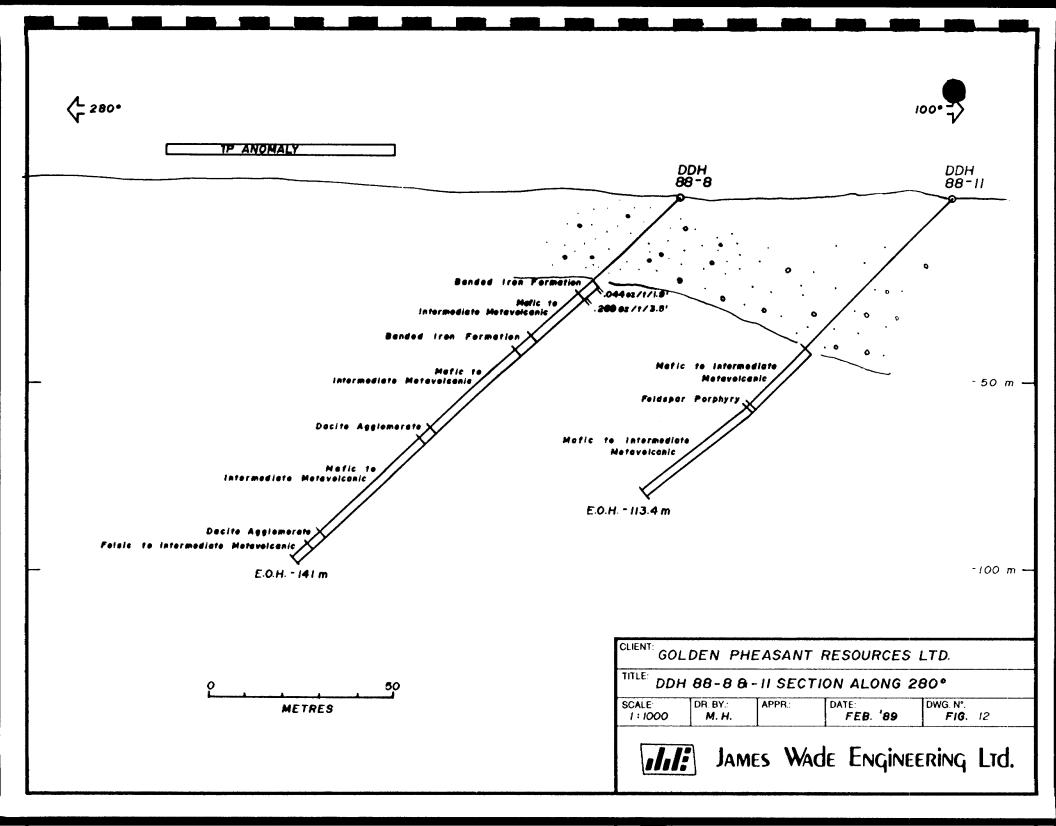


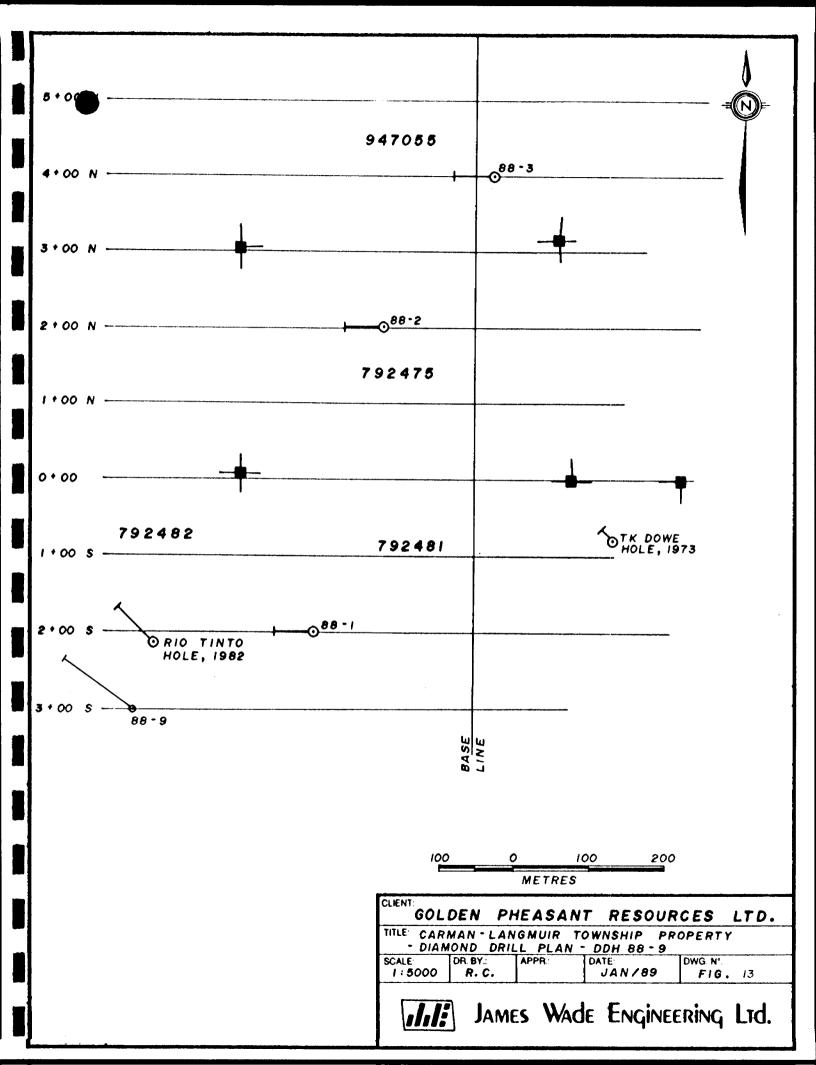
Holes 88-7, 88-8 and 88-11 were drilled to test iron formation #2, occurring between L17N and L19N at about 5+00W. Hole 88-7 shows a 50 m wide zone of alternating volcanic flows and banded iron formation units. The highest gold value was 310 ppb Au from part of an iron formation unit. Hole 88-8 collared in iron formation. This whole unit was anomalous in gold, the lowest value being 250 ppb and the highest giving a weighted average of 0.24 oz Au/ton over 1.08 m. The highest gold value in the second iron formation was 700 to 820 ppb over 0.7 m. Dacite agglomerate and felsic metavolcanic rocks also occur in this drill hole. Hole 88-11 was drilled to test the down dip extension of the high gold values in hole 88-8 but failed to intersect any iron formation. No indication of mineralization was seen in the mafic to intermediate metavolcanic rocks and feldspar porphyry in this hole and therefore no samples were taken. Since no evidence of faulting was observed in hole 88-11, a steepening of the iron formation in hole 88-11.

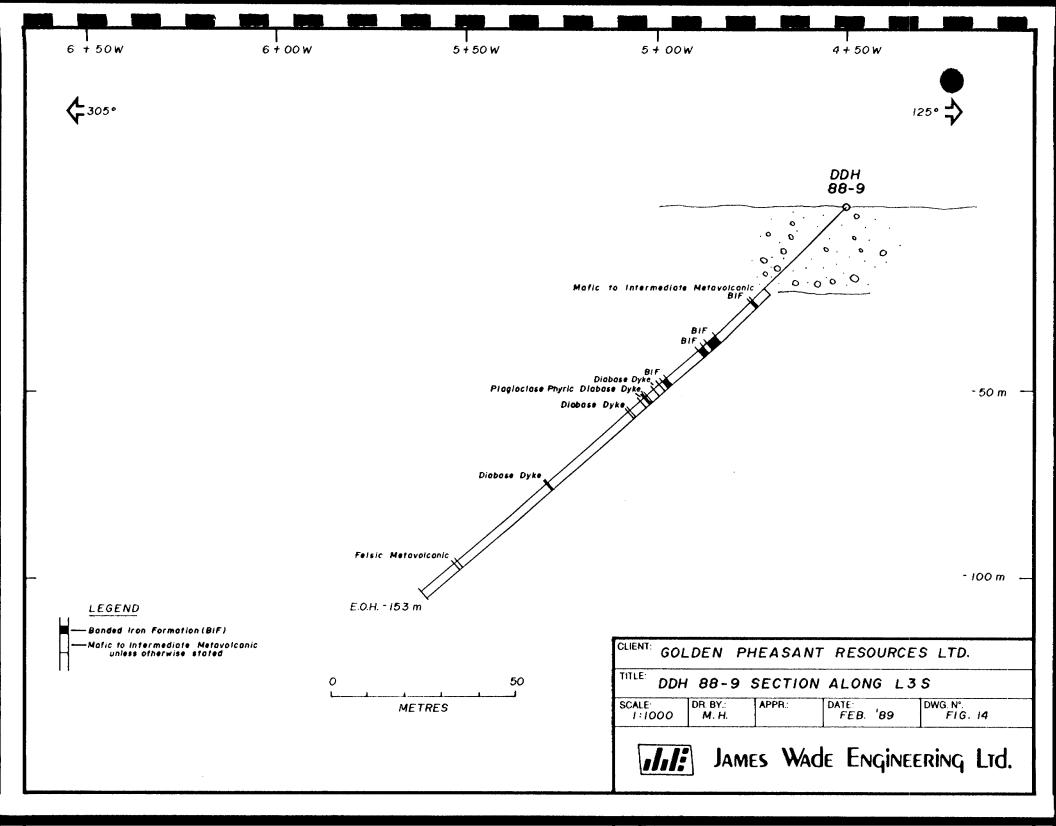
Hole 88-9 was drilled on the 1987 grid to test an iron formation unit found while remapping a few outcrops in the fall of 1988. It was also thought to be in the general area of the old Dumont hole. Three to possibly four iron formation units were intersected in the hole but the highest value was 60 ppb gold. Several narrow diabase sills, roughly parallel to the bedding, occur in the metavolcanic flows, similar to the outcrops mapped. Felsic metavolcanic rocks also occur in this hole.













### 6.0 CONCLUSIONS AND RECOMMENDATIONS

- Gold-bearing iron formation was located during the 1988-1989 drilling program on the Carman-Langmuir Townships property held by Golden Pheasant Resources Ltd.
- 2. Gold is associated with the iron formation, but it does not appear to be uniformly distributed within it. The presence of gold may be related to factors such as cross cutting structural features. Detailed sampling of the stripped area on L16N, 0+50W indicates this might be the case since the highest gold values are from quartz veins cross cutting the iron formation.
- 3. The high gold values in holes 88-5 and 88-8 may be related by a structural feature such as an east-west fault or a large S-fold, such that formation #1 and #2 would be part of the same stratigraphic horizon. Thus, the drill holes would have intersected the iron formation in the fold noses or near the fault zone. However, no proof exists at the moment and this theory should be investigated further by detailed magnetic surveying, power stripping/trenching, detailed mapping and sampling, and further drilling.
- 4. The metavolcanic unit should be prospected and sampled for bleached, pyritic zones with quartz and tourmaline veins similar to the zone sampled in drill hole 88-10 which gave 0.037 oz Au/ton (average 1385 ppb Au).

Roberta Bald



### REFERENCES

ANDERSON, R.J. Summary of 1988 Activities, Carman and Langmuir Townships Property, Volume I - Diamond Drilling, 1988. Allerston Property, Timmins, Ontario. DUMONT, G. H. Assessment File T-690 Dumont Nickel Corporation, 1962. FILO, J. K. Geological Report on the MK Gold Prospect in the Porcupine Mining Division Timmins, Ontario. 1985. FILO, J. K. Geophysical Report on the MK Gold Prospect on Langmuir 1-74. Assessment File 1-1710. Noranda Exploration Co. Ltd. 1975. FYON, J. A., CROCKET, J. H., The Carshaw and Malga Iron-Formation-SCHWARCZ, H. P. Hosted Gold Deposits of the Timmins Area. Ontario Geological Survey Misc. Paper 110 pg. 98 to 110. GILLICK, R. Geophysical Report on the Carman and Langmuir Townships property of Golden Pheasant Resources Ltd., 1988. HODGES, D. G. Report on the Total Field Magnetics Survey on the Carman and Langmuir **Townships Property of Golden Pheasant** Resources Ltd. 1987.



HODGES, D. G. Report on the Electromagnetic and Induced Polarization Surveys on the Carman and Langmuir Townships Property of Golden Pheasant Resources Ltd. 1987. MEUNIER, D. Diamond Drill Log from the property of T. K. Dowe. Assessment File T-1639. 1974. MOORE, A. G. Geological Report on the Property of Golden Pheasant Resources Ltd. in Langmuir and Carman Townships. 1987. ONTARIO GEOLOGICAL SURVEY, **Timmins-Kirkland** Lake, Geological Compilation Series, Map 2205. 1972. PYKE, D. R., Geology of the Timmins Area, District of Cochrane, Ontario Geological Survey, Geological Report 219. Map 2455, scale 1:50,000. 1982. **RIO TINTO EXPLORATION** Timmins, Ontario. Assessment File T-2454. 1982. STEVENSON, R. W. Geological Report on the Carman and Langmuir Townships Property, for Golden Pheasant Resources Ltd. 1987. Golden Pheasant Resources Ltd., Prospectus, 1988.



### **CERTIFICATE OF QUALIFICATIONS**

I, Roberta C. Bald, of the City of Timmins in the District of Cochrane, hereby certify:

- 1. That I reside at 301 Crawford Street, South Porcupine, Ontario.
- 2. That I received an Honours B.Sc. in Geology from Laurentian University in 1975 and M.Sc. in Earth Sciences from the University of Manitoba in 1981.
- 3. That I have practised my profession as geologist since graduation.
- 4. That I do not have any interest, either directly or indirectly, in the claims described in this report.
- 5. That I am the author of this report which is based on geological mapping, core logging and previous James Wade Engineering Ltd. company reports.
- 6. That I am a Fellow of the Geological Association of Canada.
- 7. That I authorize Golden Pheasant Resources Ltd. to use this report for whatever corporate purpose required.

Date at Timmins, Ontario, this 24th day of February, 1989.

Roberta Bald

Roberta Bald, M.Sc., F.G.A.C.

H. DUMONT, CONS. ENG.

.

: •

Ċ

## DUMONT NICKEL CORPORATION

.

.

## ALLERSTON PROPERTY

## Diamond Drill Hole No, 11

Location:	Claim P-49802 - Langmuir Twp., Untario. Line 30-W - Station 9-00 S.
Strike:	$N = 45^{\circ} - W$ .
Dip:	50° at collar.
Length:	602 feet.
Started:	January 25th, 1962.
Finished:	January 31st, 1962.
Drilled by:	J.P. Barube Diamond Drilling Co. Ltd.
Assayed by:	Bourlamaque Assay Office Regid.
Legged by:	G.H. Dumont, P. Eng.
0.0-108.0	Casing.
106.0-110.0	Well silicified banded material. Pyrite bands at 108.3, 108.6, 109.2. Much fine chalco at <u>109.2.</u>
110.0-156.0	Nassive medium-grained carbonatized andesite. 127.5 - H <sup>a</sup> " Atz-carb. str. <u>146.5-147.0</u> Highly carbonatized. Low angle fracture. Diss. Pyrite.
156.0-171.0	<pre>Iron Formation. Highly siliceous in places.</pre>
171.0-204.0	Fine-grained diabase. Vertical contact at 171.0. Contact low angle to core, about 75 <sup>0</sup> N.W. at 204.
204.0-215.5	Nassive fine-grained andosite.
215.5-225.0	Highly silicified iron formation. Well mineralized with pyrite 215.5-221.5.
225.0-270.5	Intermediate Lavas. Amygdaloidal in places. 247.0-249.0 Brecciated. Diss. Pyrite.

ASSESSMENT WORK

G. H. DUMONT, CONS. ENG.

İ

e

2 --

#### D. D. Hole No. 11

	270.5-273.0	Fine-gra	ained b	asic dyk	0.				
	273.0-278.0	lntermed 27		avas. anglo l	" qtz-e	carb-pyr	ito str	inger.	
	278.0-342.0	51 A1 <u>30</u> D1 CB	ightly terod a 8.0-316 ss. fin rbonate	<u>.0</u> fiighl e pyrite	ized. with s y carbo . Scatt	some fin pnatized tered sp	. Chief ecks of	287.0-291 ly ankerite green	
	342.0-349.0	Fine-gr	ained b	asic dyk			م مىر		
	349,0-382,0	25	6.0-357	qtz-carb	grained and a	d basic coarse p N	dyke. yrite.		
	382.0-594.0	Аш 38 39 43	ygdaloi 8.0-389 1.0-391 1.5 -	ີ <sup>ກັ</sup> ງtz-ca	laces. graine	R	R		
	, , ,	43 43 49 50 52	2.0 - 3.2 - 3.7-491	1 4 Fine- 4.4 Fine- 1 qtz-ca 7.0 Fine-	-graine arb. st	* * * * * * d basic ringer.	dyke.		
	594.0-602.0	Lampror	byre.						
			- End	of Hole					
	Samples tal	(en - <u>Assay</u> I	Results						
	Sample No.	Footage	Width	AU OZ	Ar or	<u>Cu %</u>			
	11-108A 11-146	108.0-110.0 146.0-147.0	2.01	0.005 0.01	0.13	0,13			
	11-162	162.5-163.0	0,51	0.005		1.15			
	11-163	163.0-164.5	1.51	0.002		0.20			
	11-167A	167,0-169.0	2.01	0.005					
4		216.0-218.0	2,01	0.55	0.08	0.18			
3	" 11-218A	218,0-220,0	2,01	0,09	0,11	0.27	7	1	
7	M 11-220A	220.0-222.0	2.01	1.36	0.80	0,17	dron	formition	
	11-222A	222.0-224.0	2.01	. 0.01					
	11-247A	247.0-249.0	2,01	0.005					
	11-276 11-308A	275,5-276,5 308,0-310,0	-	Traca				·	
	11-308A 11-310A	)10.0-312.0		0,005		100500	11 - 11 -	11051	
	TT-JINA	0.21C+0+01C+0	< , U '	Trace	1	ASSESS	MENT	WORK	

T-690

G. H. DUMONT, CONS. ENG.

<u>\_\_\_\_\_</u>

<u>ر</u>

્રં

J.

. .

.

•

#### U. D. Hole No. 11

ASSESSMENT WORK

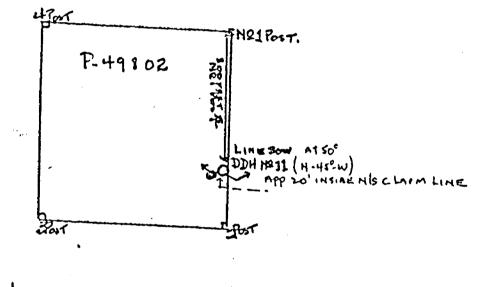
7-690

Sample No.	Footage	Width	AU OL	Ar or	Cu %	KI S	
11-312A	312.0-314.0	2.01	0.005				
11-314A	314.0-316.0	2.01	0.005				
11-332	332.0-533.0	1.01	Trace				
11-359	359.0-		Trace				
11-432A	431.5-433.5	2.01	0.005				
Avorago:	From 216-222	- 0.6	70x Au or + 23	vər 6 fe • @ . 240	et - \$2 3. 122 c	e3.45 (a) 3' ]'- 9 '5	stopen ti

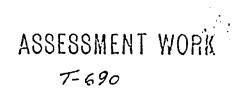
STANLEY NELSON LIC. Nº M-15433 GROUP-LANGMUIR TR

	P.	· P.	P	P.
	49901	49802	49803	49852
l				

.

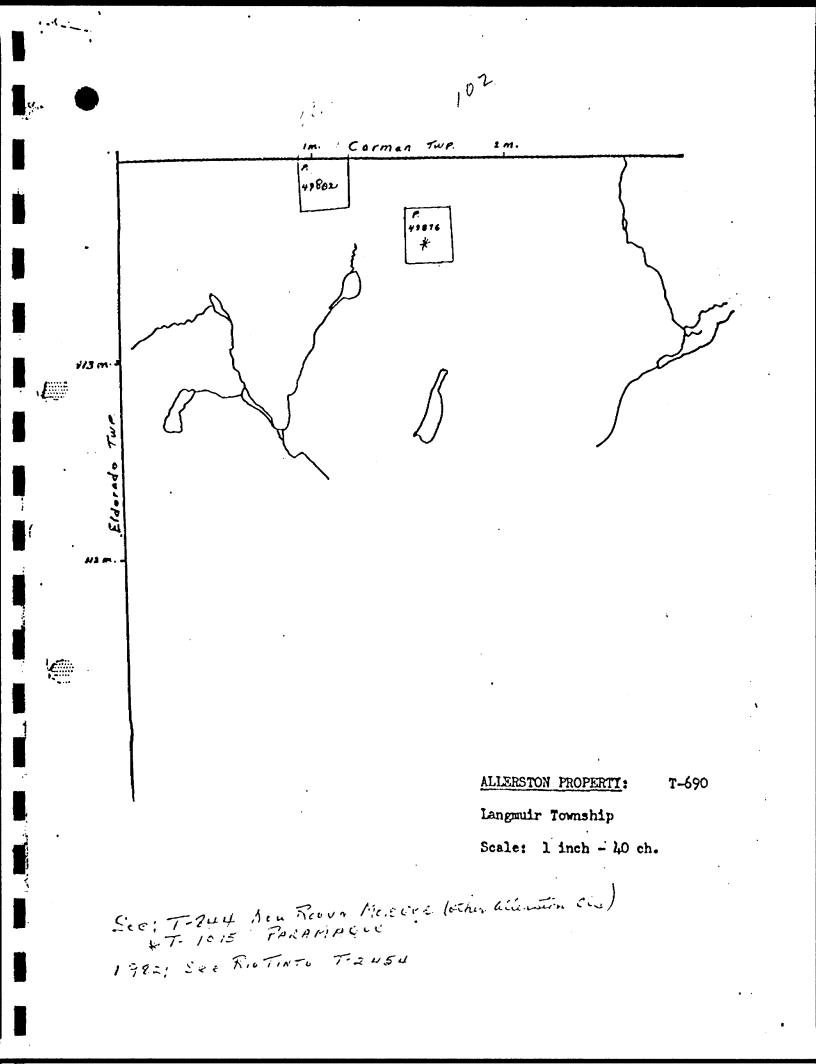


LENGTH OF HOLE (boz FEET, AT 50°) CORE DIAMETER 14 INCH.



Ċ

11





## SWASTIKA LABORATORIES LIMITED

N T PN

5011111

MAPPY

ROCK

P.O. BOX 10, SWASTIKA, ONTARIO POK 1T0 TELEPHONE: (705) 642-3244 FAX: (705) 642-3300 ANAYLTICAL CHEMISTS • ASSAYERS • CONSULTANTS

## **Certificate** of Analysis

73058 Certificate No. Date: Sept. 30, 1988 Received Sept. 27, 1988 6 Rock Samples of Submitted by James Wade Engineering Ltd., Willowdale, Ontario.

SAMPLE NO.	GOLD PPB	SAMPLES FROM
R-GP-5	Ni l	MAPPING PROGRAM.
9	Ni l	·
11	70	(R-GP-5 to 15; # 201 to 302)
12	20	# 201 12 302)
13	40	" 201 FO 302)
15	1690/1570	

Per

G. Lebel - Manager /ns

**ESTABLISHED 1928** 

Established 1928	SWastika Laboratories A Division of Assayers Corporation Ltd.				
Certificate No	73274		n	oateOct.	17, 1988
Received	1988	24	_	ock Samples	
Submitted by Jame	s Wade En	aineerina Itd			
		gineering Ltu	· , WIIIOWUdI	e, Untario.	
PTO ]	. #191				
(ON MAP, Figure 5)	SAMPLE NO	• GOLD PPB	FIELD No.	SAMPLE NO.	GOLD PPB
10	SL-201	Ni l	37	SL-214	790
14	202	Ni l	38	215	330
20	203	Nil	39	216	340
21	204	Ni l	40	217	40
22	205	Ni l	41	218	160/140
23	206	Ni l	42	219	90
26	207	Ni l	43	220	50
29	208	Ni l	44	221	10
.32	209	120	46	222	190
33	210	30	47	223	10
34	211	630	49	224	Nil
35	212	10			
36	213 Second Pul	1860/2240 p 1630/1910			

Per. G. Lebel - Manager /ns

P.O. Box 10, Swastika, Ontario P0K 1T0 Telephone (705) 642-3244 FAX (705)642-3300





## Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

## Certificate of Analysis

Certificate No73331	Date0ct. 21,1988
Received0ct1719887	Rock Samples

Submitted by \_\_lames\_Wade\_Engineering, Willowdale, Ontario.

FIELD No.	SAMPLE NO.	GOLD PPB
52	SL-225	90
53	226	390/620
54	227	150
55	228	Nil
56	229	40
57	230	2240/2130
58	231	50
.*		•

Per. G. Lebel - Manager /ns

**V** -----



Hunter Courter Trans

# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

# Certificate of Analysis

Certificate No. 73416 Received Oct. 23, 1988 Submitted by James Wade En	20 ngineerino. Wi		Date_ Rock	Samples
Proj. #191		riondure, i	Jilaria	).
FIELD NO.	SAMPLE NO.	GOLD PPB		
59	SL-232	270		
60	233	2150/2400		
61	234	220		
62	235	40		
63	236	530		
64	237	1280		
65	238	570		
60	239	600		
67	240	170		
69	242 Second Pulp	6860/8230 5900/8910		
<b>0</b> T	243	3630/3150		
71	244	1650		
72	245	80		
7.3	246	110		
74	247	50		
75	248	30		
76	249	20		
77	250	40		
78	301	10		
79	302	40		

Per. G. Lebel - Manager //ns

P.O. Box 10, Swastika, Ontario POK 1T0 Telephone (705) 642-3244

FAX (705)642-3300



## Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

RECEIVED DED 0 6 1988

## Certificate of Analysis

Certificate No. 73918		DateDec. 2, 1988
Received Dec. 1, 1988	22	Samples of Split Core
Submitted by James Wade Engineering	, Willowdale,	Ontario.

SAMPLE NO.	GOLD PPB
303	Nil
304	Nil
305	Nil/Nil
306	20
307	Nil
308	Nil
309	Nil
310	Nil
311	Nil
312	Nil
313	Nil
314	Nil
315	20
316	Nil
317	20
318	Nil
319	Nil
320	Ni 1
321	Nil
322	620/690
323	290
324	Níl
	1 01 1

Per\_

G. Lebel - Manager /ns





-----

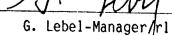
Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

## Certificate of Analysis

Certificate No73999	DateDecember 14, 1988
Received December 11, 1988 22	Samples of Split Core
Submitted byJames Wade Engineering, Willowd	
SAMPLE NO.	GOLD PPB
325	Ni l
326	20
327	Nil
328	Ni l
329	10
330	50
331	30
332	Nil
333 Second Pulp	6170/6450 4800/4390
334	12070/11930
335	90
336	10
337	20
338	20
339	Ni l
340	140
34 1	Nil
342	400
343	140
. 344	850
345	20
346	Nil Color
	Per Hby





-

# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

## Certificate of Analysis

December 16, 1988         21         Samples of Split Core           Submitted by         James Wade Engineering, Willodale, Ontario         Proj.# 191           Samples per Roberta Bald           SAMPLE NO.           SAMPLE NO.         GOLD PPB           347         Nil           348         210/220           349         Nil           350         80/110           351         Nil           352         70           353         30           354         Nil           355         Nil           356         60           357         Nil           358         Nil           360         Nil           361         Nil           362         Nil           363         Nil           364         Nil           365         Nil           363         Nil           364         Nil           365         Nil           364         Nil           365         Nil           366         Nil           367         20	Certificate No. 74052	DateDecember 20, 1988
Submitted by         James Wade Engineering, Willodale, Ontario         Proj.# 191           Samples per Roberta Bald           SAMPLE NO.         GOLD PPB           347         Nil           348         210/220           349         Nil           350         80/110           351         Nil           352         70           353         30           354         Nil           355         Nil           356         60           357         Nil           358         Nil           359         Nil           360         Nil           361         Nil           362         Nil           363         Nil           364         Nil           365         Nil           366         Nil	Received December 16, 1988	21 Samples of Split Core
SAMPLE NO.         GOLD PPB           347         Nil           348         210/220           349         Nil           350         80/110           351         Nil           352         70           353         30           354         Nil           355         Nil           356         60           357         Nil           358         Nil           359         Nil           360         Nil           361         Nil           361         Nil           361         Nil           362         Nil           363         Nil           364         Nil           365         Nil           366         Nil	Submitted by James Wade Engineerir	
SAMPLE NO.         GOLD PPB           347         Nil           348         210/220           349         Nil           350         80/110           351         Nil           352         70           353         30           354         Nil           355         Nil           356         60           357         Nil           358         Nil           359         Nil           360         Nil           361         Nil           361         Nil           361         Nil           362         Nil           363         Nil           364         Nil           365         Nil           366         Nil		
347Ni1348210/220349Ni135080/110351Ni13527035330354Ni1355Ni135660357Ni1358Ni1359Ni1360Ni1361Ni1362Ni1363Ni1364Ni1365Ni1	SAMPLE NO.	GOLD
348       210/220         349       Ni1         350       80/110         351       Ni1         352       70         353       30         354       Ni1         355       Ni1         356       60         357       Ni1         358       Ni1         359       Ni1         360       Ni1         361       Ni1         362       Ni1         363       Ni1         364       Ni1         365       Ni1         364       Ni1         365       Ni1         366       Ni1	347	
349Nil35080/110351Nil3527035330354Nil355Nil35660357Nil358Nil359Nil360Nil361Nil362Nil363Nil364Nil365Nil	348	
350       80/110         351       Nil         352       70         353       30         354       Nil         355       Nil         356       60         357       Nil         358       Nil         359       Nil         360       Nil         361       Nil         362       Nil         363       Nil         364       Nil         365       Nil         366       Nil	349	
352       70         353       30         354       Ni1         355       Ni1         356       60         357       Ni1         358       Ni1         359       Ni1         360       Ni1         361       Ni1         362       Ni1         363       Ni1         364       Ni1         365       Ni1         366       Ni1	350	
353       30         354       Nil         355       Nil         356       60         357       Nil         358       Nil         359       Nil         360       Nil         361       Nil         362       Nil         363       Nil         364       Nil         365       Nil         366       Nil	351	Nil
354       Nil         355       Nil         356       60         357       Nil         358       Nil         359       Nil         360       Nil         361       Nil         362       Nil         363       Nil         364       Nil         365       Nil         366       Nil	352	70
355       Nil         356       60         357       Nil         358       Nil         359       Nil         360       Nil         361       Nil         362       Nil         363       Nil         364       Nil         365       Nil         366       Nil	353	30
356       60         357       Nil         358       Nil         359       Nil         360       Nil         361       Nil         362       Nil         363       Nil         364       Nil         365       Nil         366       Nil	354	Nil
357       Ni1         358       Ni1         359       Ni1         360       Ni1         361       Ni1         362       Ni1         363       Ni1         364       Ni1         365       Ni1         366       Ni1	355	Nil
358       Nil         359       Nil         360       Nil         361       Nil         362       Nil         363       Nil         364       Nil         365       Nil         366       Nil	356	60
359       Nil         360       Nil         361       Nil         362       Nil         363       Nil         364       Nil         365       Nil         366       Nil	357	Ni 1
360       Ni1         361       Ni1         362       Ni1         363       Ni1         364       Ni1         365       Ni1         366       Ni1	358	Nil
361       Ni1         362       Ni1         363       Ni1         364       Ni1         365       Ni1         366       Ni1	359	Nil
362       Ni1         363       Ni1         364       Ni1         365       Ni1         366       Ni1	360	Ni 1
363     Ni1       364     Ni1       365     Ni1       366     Ni1	361	Ni l
364     Nil       365     Nil       366     Nil	362	Nil
365 Nil 366 Nil	363	Nil
366 Nil	364	Nil
	365	Ní l
367 20	366	Nil
	367	20

Per\_ G. Lebel-Manager/rl



Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

## Certificate of Analysis

Received Dec. 21, 1988	24	samples of spl:	it core
Submitted by James Wade	e Engineering Limite	d, Willowdale, Ontario	proj#191
	SAMPLE NO.	GOLD	
	368	PPB 1490/1480	
	369	470	
	370	530	
	371	250	
	372	370	
	373	920	
	374 second pulp	10700/9290 11310/10220	
	375	7820/7230	
	376	80	
	377	490	
	378	210	
	379	270	
	380	700/820	
	381	150	
	382	340	
	383	110	
	384	Nil	
	385	200	
	386	90	
	387	50	
	388	270	
	389	20	
	390	310	<i><b>D</b>III</i>
	391	100 / (	XIA
		Per	helder



# Swastika Laboratories

A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation CEIVED JAN 1 1 1089

## Certificate of Analysis

Certificate No. 74139		DateJan. 4, 1989
Received	8	Samples of Split Core
Submitted by James Wade Engineering	g, Willowdale,	Ontario.

SAMPLE	NO.	GOLD PPB
392		70
393		20
394		10
395		20
396		190/260
397		10
398		Nil
399		Nil

Per

G. Lebel - Manager /ns



# Swastika Laboratories A Division of Assayers Corporation Ltd. 18 RECEIVED JAN 2 3 1989

Assaying - Consulting - Representation

## Certificate of Analysis

Certificate No	74213		DateJan. 18, 1989
Received Jan.	16, 1989	22	Samples of Split Core
Submitted by	James Wade Engineering,	Willowdale,	Ontario.

SAMPLE NO.	GOLD PPB
400	80
401	30
402	60
403	Nil
404	10
405	40
406	20
407	30
408	30
409	50
410	40
411	1340/1430
412	10
413	20
414	Nil
415	20
416	260/260
417	30
418	10
419	20
499	20
500	10
	h. 11

Per\_ G. Lebel - Manager /ns





#### Swastika Laboratorieseiveo JAN 2 6 1989 A Division of Assayers Corporation Ltd.

Assaying - Consulting - Representation

## Certificate of Analysis

Certificate No74236		DateJan. 23, 1989
Received Jan.18, 1989	9	Samples of Split Core
Submitted byJames Wade Engineering,	Willowdale,	Ontario.

SAMPLE	NO.	GOLD PPB
420		40
421		10
422		230
423		40
424		560/680
425		400
426		40
427		40
428		50

Per\_ G. Lebel - Manager /ns



NAME OF 1	
	88-4 LENGTH 153 metres BO Core
LOCATION	L16+00N, 1+00E (175 m N and 128 m E of post #3 P987238)
	DEPARTURE
ELEVATION	AZIMUTH ZIMUTH
STARTED NO	wember 25, 1988 FINISHED November 28, 1988
EOOTACE (m	

1

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
46.3 m	-43°				f
92 m	-39:5°				
137.8 m					
			1		

HOLE NO. 88-4 SHEET NO. 1055

. . .

REMARKS 88-1 to 88-3 earlier

program

LOGGED BY R. Bald

om	To	DESCRIPTION		04	SAMPL		AU ASSAYS				
0	12.2	CASING IN OVERBURDEN	No.	Sulph ides	From	tage(r To	n) Total	% ppb	% oz/te		
2.2	79.6	MAFIC TO INTERMEDIATE VOLCANIC (Andesite)									
		Fine to medium grained, dark green, hard; locally contains white very small plagioclase crystals; contains about 1% overall quartz ± carbonate veinlets <0.6 cm wide, generally threadlike and randomly oriented; contains trace fine to coarse grained pyrite locally; contains local carbonate or quartz or chlorite filled amygdules from 0.25 to 0.6 cm in diameter, round to ellipsoid to rarely coalescing and rarely zoned, amygdules occur in patches, possibly indicating plllow margins?; local chlorite ± quartz rich, brecciated zones may indicate pillow interstices.									
		From 38.0 m to 42.7 m unit contains large, ellipsoid to irregular shaped amygdules filled with white carbonate or carbonate and quartz, up to 3.2 cm long by 1.3 cm wide.									
		From 52.9 to 53.0 m, 2% medium to coarse-grained pyrite.									
		Local quartz $\pm$ carbonate $\pm$ epidote $\pm$ pink carbonate veins (irregular, possibly pillow interstices?) locally with medium to coarse grained pyrite: up to 3.8 cm wide at 54.7, 56.2, 57.8 and from 57.9 to 58.3 m; local patches of pyrite in the volcanics occur from 55.5 to 58.2 m (medium to coarse grained cubes).	309 310 311		54.6 56.1 57.7	54.9 56.3 58.3	0.3 0.2 0.6	Nii Nii Nii			
		Increase in amygdules from 57.6 to 61.3 m (up to 15% in patches)									
		Quartz-pink carbonate-epidote vein at low angle to core axis occurs from 61.2 to 61.7 m with fine dusting of pyrite in patches.	312		61.2	61.7	0.5	NII			
		From 61.9 to 62.0 m is purplish tinged altered amygdaloidal volcanic with quartz filled round amygdules and fine grained disseminated pyrite, about 5%.	313		61.9	62.0	0.1	NI			
		From 62.0 to 63.7 m : porous, vuggy, soft, possible biotite-bearing medium to coarse-grained section with pink carbonate blobs; possibly a lamprophyre dike? or altered fault zone in volcanics? Contacts appear to be gradational.									

1

NAME OF PROPERTY\_\_\_\_\_Golden Pheasant

HOLE NO. \_\_\_\_\_\_\_ SHEET NO. \_\_\_\_\_ 2 OF 5

EOOTA		DESCRIPTION	<b> </b>		ŞAMPL			AU	ASSA	<u>YS</u>
From	To	DESCRIPTION	No.	Sulph ides	From	tage(m   To		% ppb	75	oz/ton
		Very large amygdules similar to 38.0 to 42.7 m from 63.7 to 71.5 m. Possible lamprophyre dike similar to 62.0 to 63.7 m from 65.7 to 66.0 m; lower contact sharp at 80° to core axis, in contact with fine to medium grained amygdaloidal volcanic. Red-brown alteration with 2% fined grained dusting of pyrite from 66.1 to 66.4 m. Unit becomes fine-grained, massive from 71.5 m, locally light green (possibly bleached?) Local coarse-grained pyrite crystals. Quartz-carbonate breccia or vein from 77.8 to 77.9 m @ 70° to core axis. Patches of fine to coarse grained pyrite from 79.0 to 79.3 m with a large cube up to 1.3 cm in diameter (about 2-3% pyrite overall)	303 304 305 306	idés		78.3	Total 0.6 0.7 0.3 0.3	NII NII NII 20		
		Quartz breccia with dark green, soft chloritic matrix between angular fragments (in situ) brecciation) with patches of medium to coarse grained pyrite in chloritic matrix, from 79.3 to 79.5 m. From 79.5 to 79.6 m: dark green chloritic material, fine-grained, massive Sharp contact with next unit.								
79.6	79.9	BANDED IRON FORMATION Alternating magnetic iron oxide bands and siliceous cherty bands; local thin pyrite bands also (approximately 1-2% overall) mixed with siliceous material; banding at 65° - 70° to core axis. Lower contact sharp, parallel to banding.	307		79.6	79.9	0.3	NII		

1

NAME OF PROPERTY Golden Pheasant

HOLE NO. \_\_\_\_\_\_ 88-4\_\_\_\_\_ SHEET NO. \_\_\_\_ 3 of 5

OOTAC		DECODIDION		· · · · · · · · · · · · · · · · · · ·	SAMPL	E		AU ASSAYS				
rom	Το	DESCRIPTION	No.	Sulph ides	E oo	tage(m	ų		7,	bz/to		
79.9	92.8	MAFIC TO INTERMEDIATE VOLCANIC	- #	ides	From	To	Total	ppb	+			
	-	Similar to 12.2 to 79.6 m Possible carbonate crystals from 81.0 to 81.7 m, small, disseminated. Chlorite-rich from 82.3 to 83.0 m, soft. Lower contact sharp.	308		79.9	80.6	0.7	NII				
92.8	93.1	BANDED IRON FORMATION	314		97.4	92.8	0.4	Nil		1		
		1% pyrrhotite; banding at 90° to core axis.	315			93.1	0.3	20				
93.1	93.3	MAFIC TO INTERMEDIATE VOLCANIC										
		Similar to 12.2 to 79.6 m	316		93.1	93.3	0.2	NII				
93.3	93.7	BANDED IRON FORMATION										
		1% pyrite, banding at 80° - 90° to core axis.	317		93.3	93.7	0.4	20				
93.7	95.5	MAFIC TO INTERMEDIATE VOLCANIC			1	ĺ						
		Similar to 12.2 to 79.6 m; Quartz breccia from 94.0 to 94.8 m (with some pyrrhotite and minor pyrite in chlorite-rich matrix ); also quartz breccia from 95.3 to 95.5 m. From 94.8 to 95.3 m, unit appears carbonatized and cut by randomly oriented dark grey quartz veinlets.	318 319 320 321		93.7 94.0 94/8 95.3	94.0 94.8 95.3 95.5	0.3 0.8 0.5 0.2	NII NII NII NII				
95.5	97.2	BANDED IRON FORMATION										
		Well banded, locally finely laminated with local thin chalcopyrite and pyrrhotite bands.	322 323		95.5 96.6	96.6 97.2	1.1 0.6	620 290	690			
				2								
ļ												

1

NAME OF PROPERTY\_\_\_Golden Pheasant

HOLE NO. \_\_\_\_\_\_ 88-4 \_\_\_\_\_ SHEET NO. \_\_\_\_ 4 OF 5

EOOTAC	ÇE(m)		1		SAMPL	F.		A	ASSA	VC
From	To	DESCRIPTION	No.	Sulph ides		tage(m	)  Total	ppb	7. 7.	pz/ton
97.2	100.3	MAFIC TO INTERMEDIATE VOLCANIC	324		97.2	97.8	0.6	Nil	<u> </u>	<u> </u>
		Similar to 12.2 to 79.6 m								
		Local small white amygdules. Lower contact sharp at 40° to core axis, diabase chilled against volcanic, volcanic is baked (dark grey-black, hard) within approximately 1.5 m of contact.								
100.3	107.7	DIABASE								
		Fine to medium grained with local greenish plagioclase phenocrysts up to 3cm long, randomly oriented.								
		Unit is cut by approximately 2% threadlike carbonate $\pm$ epidote veinlets, randomly oriented.								
		Unit is massive, with diabasic texture, slightly magnetic.								
		Sharp lower contact at 40° to core axis, diabase is chilled.								
107.7	115.8	MAFIC TO INTERMEDIATE VOLCANIC Baked throughout; local small amygdules. Gradational lower contact.								
115.8	122.3	GABBRO? OR MEDIUM-GRAINED VOLCANIC?								
		Medium-grained, dark green, ophitic texture; possible carbonate crystals locally; massive; no amygdules seen.								
		Gradational contact noted by appearance of amygdules in fine-grained matrix compared to medium grained, massive texture of "gabbro".								
Í										
1	l								l	

1

#### NAME OF PROPERTY\_Golden Pheasant

ΕΟΌΤΑΟ	E(m)	HOLE	NO8	88-4		\$не	ET NO	<u>5 o</u>	f 5	
From	То	DESCRIPTION			ŞAMPL			_AU	ASSA	YS
			No.	Sulph ides	Eoo From	tage(m To	) Tota I		•	pz/ton
122.3	153.0	MAFIC TO INTERMEDIATE VOLCANIC								
		Local large (>2.5 cm long) amygdules and local sections containing light grey carbonate crystals, disseminated (to approximately 139 m).								
		Quartz-carbonate vein from 135.1 to 135.2 m at 30° to core axis; light grey, translucent with zones of chlorite throughout; no sulphides seen. Large amygdules (<3.8 cm long) from 145.4 to 148.4 m.	325		153.0	153.3	0.3	Nil		
153.0		END OF HOLE								
		12.8 m (42 feet) of Casing left in hole.								
							ľ			
							ß			

.

NAME OF I	PROPERTY	GOLDEN PHEA	SANT - CAI	RMAN TW	Ρ.
HOLE NO.		LENGTH	150.0 m		
LOCATION	<u>L17N, 0+75E</u>	(272 m E and 16	6 m E of Po	st 3 P9872	38)
LATITUDE _	B	DEPARTURE			
ELEVATION	-	AZIMUTH	305°		-450
STARTED _[	December 2, 19	88 FINISHED	ecember 7,	1988	45
EQOTAGE (m					

1

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
45.7m	-410		<u>-</u>	·	<b> </b>
92.0m	-46°				1
150.0 m	-340				

REMARKS BO core

LOGGED BY \_\_\_\_\_ R. Bald

DESCRIPTION CASING IN OVERBURDEN MAFIC TO INTERMEDIATE METAVOLCANICS Probably andesite; amygdaloidal; similar to unit in DD Hole 88-4. Possible biotite-bearing lamprophyre dike from 23.8 m to 24.3 m, brownish grey with black specks; sharp chilled upper and lower contacts at 40° and 50° to core axis respectively. From 48.5 to 49.8 m: magnetite-bearing section, locally with amygdules; magnetite is fine-grained, disseminated crystals except near 48.8 m where there may be a narrow (<15 cm) lean iron formation unit, brecciated and deformed; trace pyrite. Local short sections of fine to coarse grained pyrite disseminated in amygdaloidal	No.	Sulph ides	<u>From</u>	49.1	n)   Tota   	<u>фр</u> р 20		oz/ton
MAFIC TO INTERMEDIATE METAVOLCANICS Probably andesite; amygdaloidal; similar to unit in DD Hole 88-4. Possible biotite-bearing lamprophyre dike from 23.8 m to 24.3 m, brownish grey with black specks; sharp chilled upper and lower contacts at 40° and 50° to core axis respectively. From 48.5 to 49.8 m: magnetite-bearing section, locally with amygdules; magnetite is fine-grained, disseminated crystals except near 48.8 m where there may be a narrow (<15 cm) lean iron formation unit, brecciated and deformed; trace pyrite. Local short sections of fine to coarse grained pyrite disseminated in amygdules is to be an	326							
Probably andesite; amygdaloidal; similar to unit in DD Hole 88-4. Possible biotite-bearing lamprophyre dike from 23.8 m to 24.3 m, brownish grey with black specks; sharp chilled upper and lower contacts at 40° and 50° to core axis respectively. From 48.5 to 49.8 m: magnetite-bearing section, locally with amygdules; magnetite is fine-grained, disseminated crystals except near 48.8 m where there may be a narrow (<15 cm) lean iron formation unit, brecciated and deformed; trace pyrite. Local short sections of fine to coarse grained pyrite disseminated in amygdules; it is	326		48.5	49.1	0.6	20		
Possible biotite-bearing lamprophyre dike from 23.8 m to 24.3 m, brownish grey with black specks; sharp chilled upper and lower contacts at 40° and 50° to core axis respectively. From 48.5 to 49.8 m: magnetite-bearing section, locally with amygdules; magnetite is fine-grained, disseminated crystals except near 48.8 m where there may be a narrow (<15 cm) lean iron formation unit, brecciated and deformed; trace pyrite. Local short sections of fine to coarse grained pyrite disseminated in arrowd bid to	326		48.5	49.1	0.6	20		
From 48.5 to 49.8 m: magnetite-bearing section, locally with amygdules; magnetite is fine-grained, disseminated crystals except near 48.8 m where there may be a narrow (<15 cm) lean iron formation unit, brecciated and deformed; trace pyrite.	326		48.5	49.1	0.6	20		
narrow (<15 cm) lean iron formation unit, brecciated and deformed; trace pyrite.	326		48.5	49.1	0.6	20		
Local short sections of fine to coarse grained pyrite disseminated in any sector to the	l.					1	]	
volcanic from 49.8 m to 55.6 m.								
Possible lean iron formation similar to 48.8 m from 51.6 m to 51.7m, deformed; also very short section (<2.5 cm) near 53.9 m.	327		57,15	51.R	0.3	Nil		
Possible biotite bearing lamprophyre from 55.6 m to 56.5 m.								
Dark, pyrite-bearing amygdaloidal volcanic from 56.5 m to 56.9 m: altered by lamprophyre?	328		56.5	56.9	0.4	Nil		
From 66.8 m to lower contact, unit contains increasing amount of carbonate crystals disseminated throughout.								
From 67.8 m to lower contact: local concentrations of fine to coarse-grained pyrite in curvilinear zones (possible pillow interstices), locally almost massive pyrite.								
Lower contact ground.	329		67.8	68.9	1.1	10		
	Possible blotite bearing lamprophyre from 55.6 m to 56.5 m. Dark, pyrite-bearing amygdaloidal volcanic from 56.5 m to 56.9 m: altered by lamprophyre? From 66.8 m to lower contact, unit contains increasing amount of carbonate crystals disseminated throughout. From 67.8 m to lower contact: local concentrations of fine to coarse-grained pyrite in curvilinear zones (possible pillow interstices), locally almost massive pyrite.	Possible blotite bearing lamprophyre from 55.6 m to 56.5 m. Dark, pyrite-bearing amygdaloidal volcanic from 56.5 m to 56.9 m: altered by lamprophyre? From 66.8 m to lower contact, unit contains increasing amount of carbonate crystals disseminated throughout. From 67.8 m to lower contact: local concentrations of fine to coarse-grained pyrite in curvilinear zones (possible pillow interstices), locally almost massive pyrite.	Possible blotite bearing lamprophyre from 55.6 m to 56.5 m. Dark, pyrite-bearing amygdaloidal volcanic from 56.5 m to 56.9 m: altered by lamprophyre? From 66.8 m to lower contact, unit contains increasing amount of carbonate crystals disseminated throughout. From 67.8 m to lower contact: local concentrations of fine to coarse-grained pyrite in curvilinear zones (possible pillow interstices), locally almost massive pyrite.	Possible blotite bearing lamprophyre from 55.6 m to 56.5 m. Dark, pyrite-bearing amygdaloidal volcanic from 56.5 m to 56.9 m: altered by lamprophyre? From 66.8 m to lower contact, unit contains increasing amount of carbonate crystals disseminated throughout. From 67.8 m to lower contact: local concentrations of fine to coarse-grained pyrite in curvilinear zones (possible pillow interstices), locally almost massive pyrite.	Possible blotite bearing lamprophyre from 55.6 m to 56.5 m. Dark, pyrite-bearing amygdaloidal volcanic from 56.5 m to 56.9 m: altered by lamprophyre? From 66.8 m to lower contact, unit contains increasing amount of carbonate crystals disseminated throughout. From 67.8 m to lower contact: local concentrations of fine to coarse-grained pyrite in curvilinear zones (possible pillow interstices), locally almost massive pyrite.	Possible blotite bearing lamprophyre from 55.6 m to 56.5 m.Dark, pyrite-bearing amygdaloldal volcanic from 56.5 m to 56.9 m: altered bylamprophyre?From 66.8 m to lower contact, unit contains increasing amount of carbonate crystalsFrom 67.8 m to lower contact: local concentrations of fine to coarse-grained pyritein curvilinear zones (possible pillow interstices), locally almost massive pyrite.Lower contact ground.	Possible blotite bearing lamprophyre from 55.6 m to 56.5 m. Dark, pyrite-bearing amygdaloidal volcanic from 56.5 m to 56.9 m: altered by lamprophyre? From 66.8 m to lower contact, unit contains increasing amount of carbonate crystals disseminated throughout. From 67.8 m to lower contact: local concentrations of fine to coarse-grained pyrite in curvilinear zones (possible pillow interstices), locally almost massive pyrite. Lower contact ground.	Possible blotite bearing lamprophyre from 55.6 m to 56.5 m.         Dark, pyrite-bearing amygdaloidal volcanic from 56.5 m to 56.9 m: altered by         328         56.5

1

NAME OF PROPERTY\_\_\_Golden Pheasant - Carman Twp.\_\_\_\_\_

EOOTA	CE(m)		<b>Y</b>					T			4
From	То	DESCRIPTION		70	SAMPL			L_AU	ASSA	<u>Ys                                    </u>	1
riom	10		No.	Sulph	Eool	age(m	<u>}</u>	₹.	Į	pz/ton	
68.9	71.2	BANDED IRON FORMATION	330	idés	From 68,9	To 69.2	Total 0.3	<u>ppb</u> 50	ppb		
		Banding generally at 70° - 80° to core axis, locally deformed, folded.					0.5	50			
		Finely banded section from 68.9 m to 69.2 m with light grey-white cherty bands, pyrite-rich bands (5% overall) and dark green chlorite-rich bands, locally containing pyrite.									
		From 69.2 m to 69.6 m: similar to above but mafic-chlorite component is up to 75%.	331		69.2	69.6	0.4	30			
		From 69.6 m to 70.0 m: possible silicified amygdaloidal mafic volcanic (quartz amydgules clearly observed).	332		69.6	70.0	0.4	Nil			
			333		70.0	70.7	0.7	6170 4800	6450	.180	. 1 <b>8</b> 8 . 128
		From 70.0 m to 70.7 m: mainly white quartz containing bands of chloritic material and magn <del>i</del> tite bands with about 3% overall pyrite as medium to coarse-grained crystals disseminatedwithin quartz or along bands; from 70.4 m to 70.5 m is a mafic (chlorite and minor magnetite) section with approximately 2% pyrite.									. 120
		From 70.7 m to 70.9 m: banded magnetite, chert and chlorite material, approximately 1% fine to coarse-grained pyrite.	334		70.7	70.9	0.2	12070	11930	.352	.348
		From 70.9 m to 71.2 m: grey, hard material, possible chert? or silicified host rock (volcanic?) lower contact gradational.	335		70.9	71.2	0.3	90			
71.2	93.6	MAFIC TO INTERMEDIATE VOLCANIC									
		Similar to 12.2 m to 68.9 m, bleached to light greenish grey to approximately 75 m.									
		Rare amyodules; possibly a massive flow.									
		Possible tourmaline ribbons in quartz and carbonate veins: <1.3 cm at 80.2 m to 80.5 m (cutting core at low angle) and at 81.9 m (also low angle to core axis) <2.5 cm wide, somewhat irregular.	336 <sub>.</sub>		81.8	82.1	0.3	10			
		From 92.7 m to 93.6 m, unit becoming very chlorite-rich and containing carbonate crystals and local quartz veining.									1
		Lower contact sharp at 75° to core axis.	337		93.0	93.6	0.6	20			
		Lower contact sharp at 75° to core axis.	337		93.0	93.6	0.6	20			

From

93.6

97.6

107.9

117.7

150.0

NAME OF PROPERTY Golden Pheasant Carman Twp.

88-05 SHEET NO. 3 of 3 HOLE NO. ..... FOOTAGE (m) SAMPLE AU ASSAYS DESCRIPTION То No. Sulph Ecotage(m) bz/ton idés rom To Total ppb 97.6 **BANDED IRON FORMATION** Quartz breccia with trace pyrite from 93.6 m to 94.0 m 338 93.6 94.0 0.4 20 339 94.0 94.6 0.6 Nil 2% to 3% pyrrhotite in siliceous material from 94.6 m to 95.1 m. 340 94.6 95.1 0.5 140 341 95.1 95.7 0.6 Nil Magnetite-rich and siliceous bands from 95.7 m to 97.6 m with pyrrhotite and pyrite 342 95.7 96.3 0.6 400 and trace chalcopyrite (locally 10% sulphides); locally finely laminated. 343 96.3 96.9 0.6 140 344 96.9 97.6 0.7 850 07.9 MAFIC-INTERMEDIATE METAVOLCANIC 345 97.6 98.3 0.7 20 Similar to 71.2 m to 93.6 m Baked from 101.2 m to lower contact. Lower contact sharp at 50° to core axis; diabase chilled. 17.7 DIABASE Similar to Hole 88-4 Sharp lower contact at 50° to core axis; diabase chilled near contact. Note: drillers report "3' mud" between 382' and 392' tags but there is 10' of core in box. 150.0 MAFIC-INTERMEDIATE METAVOLCANIC Similar to 97.6 m to 107.9 m; baked from upper contact to approximately 125 m. 134.9 135.5 346 0.6 Nil Large amygdules from 128.3 m

Quartz and chlorite vein from 134.9 m to 135.5; no sulphides seen.

42' (12.8 m) of Casing left in hole.

END OF HOLE

NAME OF PROPERTY CARM	AN .TOWNSHIP - GOLDEN PHEASANT
HOLE NO, <u>88-6</u>	LENGTH 153.0m (502 feet)
LOCATION L15N, 1+25E (79)	m N and 90 m E of #3 post P987238)
	DEPARTURE
ELEVATION	_ AZIMUTH _305° AZ DIP45°
STARTED December 7, 1988	FINISHED December 12, 1988

.

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
45,72	-42°				<u>†</u>
<u>45,72</u> 91 <b>.</b> 44	-37.5°				1
137.16				· · · · · · · · · · · · · · · · · · ·	1
					1

R. Bald

LOGGED BY

FOOTA	CE(m)		r							
From	To	DESCRIPTION		Sulph	AMPLE For	tage(m	) Tota l	ppb	ASSA %	vs oz/ton
0	9.75	CASING IN OVERBURDEN							1	-
9.75	55.30	MAFIC TO INTERMEDIATE METAVOLCANIC								
		Similar to hole 88-4; amygdaloidal. Lower contact sharp at 40° to core axis, next unit chilled against contact.								
55.30	58.90	FELDSPAR PORPHYRY DYKE								
		Grey, hard, massive; consists of approx. 15% to 20% beige feldspar crystals up to 5 mm long, randomly oriented, equant to lath shaped crystals in a fine-grained, grey matrix; unit is cut by about 5% quartz $\pm$ carbonate $\pm$ chlorite veins up to 3 cm wide, randomly oriented locally containing fine to coarse grained pyrite; pyrite also occurs elsewhere in feldspar porphyry as fine to medium grained disseminated crystals. Lower contact sharp at 40° to core axis, but somewhat irregular.	361 362 363 364 365		55.78	55.78 56.07 57.0 58.0 58.90	0.29 0.93 1.0	Nil Nil Nil Nil Nil		
58.90	80.96	MAFIC TO INTERMEDIATE METAVOLCANIC								
80.96	85.79	Similar to 9.45 - 55.30. Possible biotite bearing lamprophyre dyke from 76.64 to 80.96, similar to hole 88-4 but containing pink carbonate crystals. Upper contact of lamprophyre is sharp but irregular; lower contact sharp at 45° to core axis, lamprophyre chilled near contact. DIABASE DYKE								
		Plagioclase phyric (green plagioclase crystals up to 1 cm diameter; rare <1% plagioclase phenocrysts) ; similar to DD Hole 88-4. Lower contact sharp at approx. 60° to core axis.	•							
85.79	95.72	MAFIC TO INTERMEDIATE METAVOLCANIC								
		Similar to 58.90 to 80.96 m. Lamprophyre from upper contact to 86.03 m. Metavolcanic baked to approx. 87.5 m.								

NAME OF PROPERTY Carman Township

HOLE NO. 88-6

2 of 3

ΔΤΟΩ	GE(m)				SAMPL	E		AL	ASSA	VS
-rom	То	DESCRIPTION	No.	Sulph ides		tage(m	) Tota I	ppb	ppb	pz/ton
95.72	97.06	BANDED IRON FORMATION								
		From upper contact to approx. 96.30 m, unit is banded with approx. 70% siliceous (cherty) bands and about 5% fine to coarse grained pyrite along bands. In general, unit is locally finely laminated (magnetite and cherty bands, black and white) at approx. 60° to 85° to core axis (mostly almost 90°). Mainly magnetite and dark green mafic bands from approx. 96.80 to lower contact.	355 356 357		95.10 95.72 96.30	96.30	0.58	Nil 60 Nil		
97.06	108.27	MAFIC TO INTERMEDIATE METAVOLCANIC								
		Similar to 58.90 m to 80.96 m. Grey, massive, fine grained. Quartz + minor carbonate + minor tourmaline? needles + approx. 1% fine to coarse grained pyrite veinlets, irregular and at various angles to core axis but mainly at low angles, from approx. 98.60 to 99.36 m. Narrow zone of massive magnetite filling in between chlorite rich fragments? (Possible pillow margin?) at 104.39 m with pink alteration from approx. 104.31 to 105.28 m locally with up to 3% fine grained disseminated pyrite.	358 359 360 366 347		98.19 98.57 104.31	98.15 98.57 99.36 105.28	0.42 0.79 0.97	Nil Nil Nil Nil		
08.27	111.35	BANDED IRON FORMATION								
		Magnetite and chert bands with 1 - 2% pyrrhotite and pyrite along carbonate veinlets (cross cutting bedding) and along edges of some cherty bands from 108,27 to 108.40 m.	348		108.27	108.40	0.13	210	220	
		From 108.40 to 108.80 m: Medium grained massive grey unit with disseminated carbonate crystals and some disseminated magnetite crystals.	349		108.40	108.80	0.4	Nil		
		From 108.80 to 109.26 m: Locally finely laminated magnetite and cherty bands with approx. 2-3% pyrrhotite (and trace chalcopyrite) as thin bands parallel to bedding or as "matrix" between siliceous fragments in quartz breccia near lower contact.	350		108.80	109.26	0.46	80	110	
		From 109.26 - 110.02 m: Similar to 108.4 to 108.8 m with local quartz + minor carbonate veins up to approx. 3 cm wide at approx. 90° to core axis.	351 <sub>.</sub>		109.26	10.02	0.76	Nil		
1										
	ļ		ų					r i		

NAME OF PROPERTY\_\_\_Carman Township

HOLE NO. 88-6 SHEET NO. 3 OF 3 FOOTACE(m) SAMPLE AU ASSAYS From To DESCRIPTION Sulph ides From | To |Total No. z/ton 1% % ppb From 110.02 to 111.35 m: Locally finely laminated magnetite and siliceous bands 352 110.02111.0 0.98 70 with local pyrite bands near upper contact and disseminated to blobs of pyrrhotite 353 111.0 111.35 0.35 30 new lower contact; from approx. 111 m to lower contact, unit is mainly siliceous and cut by quartz veinlets (at low angle to core axis; quartz is grey to translucent, and contains locally <1% fine grained pyrite). 111.35 153.0 MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 9.45 to 55.30 m. Quartz + minor carbonate vein with approx. 1% fine 354 111.35111.76 0.41 Nil to medium grained disseminated pyrite; vein from 134.36 m to 134.51 m. 134.36134.51 0.15 367 20 h53.0 END OF HOLE 9.75 m (32 feet) of casing left in hole.

#### NAME OF PROPERTY <u>GOLDEN PHEASANT - CARMAN TOWNSHIP</u> HOLE NO. <u>88-7</u> LENGTH <u>162,15 m (532 feet)</u>

LOCATION \_\_\_\_\_\_\_\_ 18+50N, 4+25W (295 m S and 213 m W from Post 1 P987236)
LATITUDE \_\_\_\_\_\_\_ DEPARTURE \_\_\_\_\_\_\_
ELEVATION \_\_\_\_\_\_\_ AZIMUTH \_\_280° AZ \_\_\_\_\_\_ DIP \_\_45°
STARTED \_\_\_\_\_\_\_ December 12, 1988 \_\_\_\_\_\_ FINISHED \_\_\_\_\_\_ December 15, 1988

1

FOOTAGE meters	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
45.72	-43°				1
92.05	-40°				[
137.77	-38.5	0			1

HOLE NO. \_\_\_\_\_\_ SHEET NO. \_\_\_\_\_

REMARKS BO Core

LOGGED BY R. Bald

EOOTA				S	AMPLE	-		I AU	ASSA	YŞ
From	To	DESCRIPTION	No.	Sulph	From	tage(m	) Total	ppb	9%	oz/tor
0	32.39	CASING IN OVERBURDEN		+J <b>DE</b> S				ppo-		<b> </b>
32,39	41.91	MAFIC TO INTERMEDIATE METAVOLCANIC								
		Similar to hole 88-4; amygdaloidal. Lower contact sharp at 70° to core axis.						1		
41.91	43.31	BANDED IRON FORMATION								
		From 41.91 to 42.40 m: quartz-carbonate breccia with chlorite rich material also and approximately 1% to 2% pyrite and pyrrhotite.	389		41.91	42.40	0.49	20		
		From 42.40 to 42.64 m: very deformed and folded finely laminated iron formation with cherty bands between thinner mafic bands carrying approximately 5% overall fine grained pyrrhotite and fine to coarse grained pyrite.	390		42.40	42.64	0.24	310		
		From 42.64 to 43.31 m: chopped up and deformed cherty beds "floating" in a green chlorite rich matrix containing approximately 3% fine to coarse grained pyrite and local pyrrhotite stringers.	391		42.64	43.28	0.64	100		
43.31	51.11	MAFIC TO INTERMEDIATE METAVOLCANIC								
		Similar to 32.39 to 41.91 m								
51.11	51.24	BANDED IRON FORMATION								
		Cherty bands alternating with pyrite and pyrrhotite bands; generally deformed, folded, but core angles vary from 60° to 90° to core axis.	392		51.11	51.24	0.13	70		
51.24	52.52	MAFIC TO INTERMEDIATE METAVOLCANIC								
		Similar to 32.39 to 41.91 m								

1

NAME OF PROPERTY\_\_\_\_\_Carman Township

EOOTACE(m)					SAMPLE					
From	То	DESCRIPTION	No.	Sulph Eootag			) Tota I	dad	ASSA %	pz/ton
52.52	52.70	BANDED IRON FORMATION								<b>†</b>
		Similar to 51.11 to 51.24 m	393		52.52	52,70	0.18	20		
52.70	53.07	MAFIC TO INTERMEDIATE METAVOLCANIC						1		
		Similar to 32.39 to 41.91 m						[		
53.07	53.16	BANDED IRON FORMATION						1		
		Similar to 51.11 to 51.24 m	394		53.07	53.16	0.09	10		
53.16	53.25	MAFIC TO INTERMEDIATE METAVOLCANIC								ļ
		Similar to 32.39 to 41.91 m								
53.25	55.50	BRECCIA OR CONGLOMERATE?								
		Grey to greenish grey; fine grained near upper contact (sharp at 70° to core axis), soft, containing small cherty fragments in a soft, greenish matrix consisting of chlorite and carbonate and quartz(?); the size of cherty fragments increases downhole to up to 3 cm long, subangular to subrounded. (possible greywacke matrix containing soft sediment deformed lean iron formation). Lower contact sharp at approximately 90° to core axis.								
55,50	59.03	MAFIC TO INTERMEDIATE METAVOLCANIC								
		Similar to 32.39 to 41.91 amygdaloidal. Possibly containing zones of "greywacke" similar to fine-grained sections of 53.25 to 55.50 m.								
59.03	61.73	BRECCIA OR CONGLOMERATE								
		Similar to 53.25 to 55.50 m but cherty fragments are much larger (up to 13 cm) and matrix is more chlorite rich (dark green, locally foliated in variable directions); locally this unit appears deformed with some folded cherty "fragments" (possibly soft sediment deformation?) Lower contact sharp at approximately 70° to core axis.								
								}		
1	ł	1	N	1	1.	Į	1	li i	l	

1

NAME OF PROPER Garman Township

HOLE NO. \_\_\_\_\_\_88-7 SHEET NO. 3 OF 4 EOOTAGE(m)SAMPLE AU ASSAYS DESCRIPTION From To Footage(m) rom | To |Total No. Sulph bz/ton From ppb idės 61.73 62.86 MAFIC TO INTERMEDIATE METAVOL CANIC Similar to 32.39 to 41.91 m: rare small amygdules seen. Lower contact sharp at 70° to core axis. 62.86 63.86 QUARTZ FELDSPAR PORPHYRY (?) Grey, medium-grained, with feldspar and rare quartz crystals in massive, grey, 395 62.86 63.86 20 1.0 soft matrix; some irregular quartz veining with possible tourmaline and trace pyrite. Lower contact sharp at approximately 60° to core axis. 63.86 74.82 MAFIC TO INTERMEDIATE METAVOLCANIC Flow or Tuff? Similar to 55.50 to 59.03 m. Locally finely laminated, locally medium-grained with possible carbonate amygdules? Definite amygdaloidal volcanic from 70.06 m to lower contact (sharp at approximately 50° to core axis, parallel to bedding of next unit). 74.82 76.05 BANDED IRON FORMATION Alternating bands of grey cherty material, black magnetite and dark green chlorite 396 74.82 76.05 1.23 260 with local pyrrhotite and minor chalcopyrite bands parallel to bedding or along cross cutting carbonate veinlets; trace fine grained pyrite near lower contact. Generally bedding is at 60° to 70° to core axis; minor faulting seen but no folding. Lower contact sharp at approximately 70° to core axis, parallel to bedding. 76.05 82.67 MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 32.39 to 41.91 m. Abundant amygdules. Lower contact sharp but masked by quartz veining.

١

1

NAME OF PROPERTY\_\_\_\_Carman Jownship\_\_\_\_\_

HOLE NO. 88-7\_\_\_\_\_\_ SHEET NO. 4 OF 4

.

Έ(m)		1			~		T	100 -	
То	DESCRIPTION	No.				<u> </u>		1	ys bz/ton
			ides	From	To	Total	ppb	<u> </u>	pz/ton
83.07	BANDED IRON FORMATION								
	Similar to 74.82 to 76.05 m but not finely laminated and somewhat deformed; only trace pyrrhotite. Lower contact, core is broken into small pieces.	397		82.67	83.07	0.40	10		
91.24	MAFIC TO INTERMEDIATE METAVOLCANIC								
	Similar to 32.39 to 41.91 m; amygdules; becoming light grey downhole. Lower contact sharp but masked by carbonate veining.								
92.52	BANDED IRON FORMATION	•							
-	Similar to 74.82 to 76.05. Bedding 70° to core axis. Approximately 2% pyrrhotite as bands parallel to bedding and medium grained pyrite near lower contact. Lower contact sharp at45° to core axis, parallel to iron formation bedding (45° for about last 30 cm of unit)	398 399		91.24 92.05	92,05 92.52	0.81 0.47	Nil Nil		
62.15	MAFIC TO INTERMEDIATE METAVOLCANIC								
	Similar to 32.39 to 41.91 m with abundant, locally large amygdules. Possible fine-grained black diabase dike? from 154.44 to 154.58 m plagioclase phyric (large, greenish plagioclase crystals)								
	END OF HOLE								
	32.39 m (106 feet) of casing left in the hole.								
Í									
								İ	
		1							
	To 83.07 91.24 92.52	ToDESCRIPTION83.07BANDED IRON FORMATIONSimilar to 74.82 to 76.05 m but not finely laminated and somewhat deformed; only trace pyrrhotite. Lower contact, core is broken into small pieces.91.24MAFIC TO INTERMEDIATE METAVOLCANICSimilar to 32.39 to 41.91 m; amygdules; becoming light grey downhole. Lower contact sharp but masked by carbonate veining.92.52BANDED IRON FORMATIONSimilar to 74.82 to 76.05. Bedding 70° to core axis. Approximately 2% pyrrhotite as bands parallel to bedding and medium grained pyrite near lower contact. Lower contact sharp at45° to core axis, parallel to iron formation bedding (45° for about last 30 cm of unit)52.15MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 32.39 to 41.91 m with abundant, locally large amygdules. Possible fine-grained black diabase dike? from 154.44 to 154.58 m plagioclase phyric (large, greenish plagioclase crystals)END OF HOLE	ToDESCRIPTIONNo.83.07BANDED IRON FORMATION Similar to 74.82 to 76.05 m but not finely laminated and somewhat deformed; only trace pyrrhotite. Lower contact, core is broken into small pieces.39791.24MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 32.39 to 41.91 m; amygdules; becoming light grey downhole. Lower contact sharp but masked by carbonate veining.39792.52BANDED IRON FORMATION Similar to 74.82 to 76.05. Bedding 70° to core axis. Approximately 2% pyrrhotite as bands parallel to bedding and medium grained pyrite near lower contact. Lower contact sharp at45° to core axis, parallel to iron formation bedding (45° for about last 30 cm of unit)398 39952.15MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 32.39 to 41.91 m with abundant, locally large amygdules. Possible fine-grained black diabase dike? from 154.44 to 154.58 m plagioclase phyric (large, greenish plagioclase crystals) 	To       DESCRIPTION       No.       Sulph Sulph ides         83.07       BANDED IRON FORMATION       397         Similar to 74.82 to 76.05 m but not finely laminated and somewhat deformed; only trace pyrrhotite. Lower contact, core is broken into small pieces.       397         91.24       MAFIC TO INTERMEDIATE METAVOLCANIC       397         Similar to 32.39 to 41.91 m; amygdules; becoming light grey downhole. Lower contact sharp but masked by carbonate veining.       398         92.52       BANDED IRON FORMATION       398         Similar to 74.82 to 76.05. Bedding 70° to core axis. Approximately 2% pyrrhotite as bands parallel to bedding and medium grained pyrite near lower contact. Lower contact sharp at45° to core axis, parallel to iron formation bedding (45° for about last 30 cm of unit)       398         52.15       MAFIC TO INTERMEDIATE METAVOLCANIC       399         Similar to 32.39 to 41.91 m with abundant, locally large amygdules. Possible fine-grained black diabase dike? from 154.44 to 154.58 m plagioclase phyric (large, greenish plagioclase crystals)       For thole         END OF HOLE       END OF HOLE       Image: contact sharp sharp attack diabase dike?	To       DESCRIPTION       No.       Sulph From         83.07       BANDED IRON FORMATION       Similar to 74.82 to 76.05 m but not finely laminated and somewhat deformed; only trace pyrrhotite. Lower contact, core is broken into small pieces.       397       82.67         91.24       MAFIC TO INTERMEDIATE METAVOLCANIC       Similar to 32.39 to 41.91 m; amygdules; becoming light grey downhole. Lower contact sharp but masked by carbonate veining.       397       82.67         92.52       BANDED IRON FORMATION       Similar to 74.82 to 76.05. Bedding 70° to core axis. Approximately 2% pyrrhotite as bands parallel to bedding and medium grained pyrite near lower contact. Lower contact sharp at45° to core axis, parallel to iron formation bedding (45° for about last 30 cm of unit)       398       91.24         52.15       MAFIC TO INTERMEDIATE METAVOLCANIC       Similar to 32.39 to 41.91 m with abundant, locally large amygdules. Possible fine-grained black diabase dike? from 154.44 to 154.58 m plagioclase phyric (large, greenish plagioclase crystals)       91.24         52.15       END OF HOLE       END OF HOLE       54.44 to 154.58 m plagioclase phyric (large, greenish plagioclase crystals)       54.54 to 154.58 m plagioclase phyric (large, greenish plagioclase crystals)	To     DESCRIPTION     No.     Sulph Ides     Footage (m From       83.07     BANDED IRON FORMATION     Similar to 74.82 to 76.05 m but not finely laminated and somewhat deformed; only trace pyrrhotite. Lower contact, core is broken into small pieces.     397     82.67     83.07       91.24     MAFIC TO INTERMEDIATE METAVOLCANIC     Similar to 32.39 to 41.91 m; amygdules; becoming light grey downhole. Lower contact sharp but masked by carbonate veining.     398     398     398       92.52     BANDED IRON FORMATION     Similar to 74.82 to 76.05. Bedding 70° to core axis. Approximately 2% pyrrhotite as bands parallel to bedding and medium grained pyrite near lower contact. Lower contact sharp at45° to core axis, parallel to iron formation bedding (45° for about last 30 cm of unit)     398     399     91.24     92.05       52.15     MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 32.39 to 41.91 m with abundant, locally large amygdules. Possible fine-grained black diabase dike? from 154.44 to 154.58 m plagioclase phyric (large, greenish plagioclase crystals)     398     399     92.05     92.52	To       DESCRIPTION       No.       Sulph Sulph Ides       Footage (m) From       Footage (m) To         83.07       BANDED IRON FORMATION       Similar to 74.82 to 76.05 m but not finely laminated and somewhat deformed; only trace pyrrhotite. Lower contact, core is broken into small pieces.       397       82.67       83.07       0.40         91.24       MAFIC TO INTERMEDIATE METAVOLCANIC       Similar to 32.39 to 41.91 m; amygdules; becoming light grey downhole. Lower contact sharp but masked by carbonate veining.       398       398       91.24       92.05       0.81         92.52       BANDED IRON FORMATION       Similar to 74.82 to 76.05. Bedding 70° to core axis. Approximately 2% pyrrhotite as bands parallel to bedding and medium grained pyrite near lower contact. Lower contact sharp at45° to core axis, parallel to iron formation bedding (45° for about last 30 cm of unit)       398       399       91.24       92.05       0.81         52.15       MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 32.39 to 41.91 m with abundant, locally large amygdules. Possible fine-grained black diabase dike? from 154.44 to 154.58 m plagioclase phyric (large, greenish plagioclase crystals)       92.05       92.52       0.47         END OF HOLE       END OF HOLE	To     DESCRIPTION     No.     Support     Fromtage(m)     AU       83.07     BANDED IRON FORMATION     Similar to 74.82 to 76.05 m but not finely laminated and somewhat deformed; only trace pyrrhotite. Lower contact, core is broken into small pieces.     397     82.67     83.07     0.40     10       91.24     MAFIC TO INTERMEDIATE METAVOLCANIC     Similar to 32.39 to 41.91 m; amygdules; becoming light grey downhole. Lower contact sharp but masked by carbonate veining.     398     91.24     92.05     0.81     Nil       92.52     BANDED IRON FORMATION     Similar to 74.82 to 76.05. Bedding 70° to core axis. Approximately 2% pyrrhotite as bands parallel to bedding and medium grained pyrite near lower contact. Lower contact sharp at45° to core axis, parallel to iron formation bedding (45° for about last 30 cm of unit)     398     91.24     92.05     0.41     Nil       52.15     MAFIC TO INTERMEDIATE METAVOLCANIC     Similar to 32.39 to 41.91 m; amygdules, locally large amygdules. Possible fine-grained black diabase dike? from 154.44 to 154.58 m plagioclase phyric (large, greenish plagioclase crystals)     398     91.24     92.05     0.47     Nil	To     DESCRIPTION     No.     Sulphat     Contage (m)     AU ASSA       83.07     BANDED IRON FORMATION     Similar to 74.82 to 76.05 m but not finely laminated and somewhat deformed; only trace pyrrhotite. Lower contact, core is broken into small pieces.     397     82.67     83.07     0.40     10       91.24     MAFIC TO INTERMEDIATE METAVOLCANIC     Similar to 32.39 to 41.91 m; amygdules; becoming light grey downhole. Lower contact sharp but masked by carbonate veining.     397     82.67     83.07     0.40     10       92.52     BANDED IRON FORMATION     Similar to 74.82 to 76.05. Bedding 70° to core axis. Approximately 2% pyrrhotite as bands parallel to bedding and medium grained pyrite near lower contact. Lower contact sharp at45° to core axis, parallel to iron formation bedding (45° for about last 30 cm of unit)     398     91.24     92.05     0.81     Nil       52.15     MAFIC TO INTERMEDIATE METAVOLCANIC     Similar to 32.39 to 41.91 m with abundant, locally large amygdules. Possible fine-grained black diabase dike? from 154.44 to 154.58 m plagioclase phyric (large, greenish plagioclase crystals)     398     91.24     92.05     0.81     Nil

NAME OF	PROPERTY GOLDEN PHEASANT - CARMAN TOWNSHIP
HOLE NO.	88-8 LENGTH (462 feet) 140.8 meters
LOCATION	17+60N, 3+80W (53 m N and 304 m E from Post 4 P987235)
LATITUDE .	DEPARTURE
ELEVATION	AZIMUTH 280° AZ DIP45°
	December 15, 1988 FINISHED December 19, 1988

1

FOOTAGE meters	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
45.7 m	-41.5°				1
91.44m	-44.0°				1
137,16r	n -43,5	0			

HOLE NO. 88-8 SHEET NO. 1 of 2

REMARKS BQ Core

LOGGED BY \_ R. Bald

FOOTA	CE (m)		[	S	AMPL	E		I AU	ASSA	YS	1
From	To	DESCRIPTION	No.	Sulph Jdes	From	otage(m	) Total	daal		oz/ton	1
0	31.85	CASING IN OVERBURDEN					- otar				
31.85	37.28	BANDED IRON FORMATION		ļ							
		From 31.85 m to 32.44 m: magnetite rich, deformed beds, folded; disseminated magnetite and magnetite stringers; local very coarse-grained pyrite (near 31.85 m).	368		31.85	32.44	0.59	1490	1480	.044	
		From 32.44 m to 34.41 m: mainly quartz milky white to grey with approximately 90% to 95% quartz overall; local chlorite and/or pyrite rich host rock inclusions (?) about 2% pyrite overall; both contacts are irregular but sharp.	369 370 371		32.44 33.13 33.80		0.69 0.67 0.61	530		.015 .015 <.01	
		From 34.41 m to 37.28 m: finely laminated cherty bands and magnetite rich bands; faulting and folding seen, core angle vary from approximately 50° to 0° to core axis; unit contains about 5% pyrite throughout with local short sections of almost massive pyrite (some very coarse-grained, up to 2 cm diameter cubes), and also pyrhotite as thin bands parallel to bedding, mainly occuring in mafic beds; mainly cherty from 36.81 m to 37.28 m with approximately 5% fine to coarse grained pyrite associated with subparallel darker grey zones (possible very thin mafic beds?) Lower contact sharp at 55° to core axis.	372 373 374 375		34.41 35.24 36.20 36.81	36.20 36.81	0.83 0.96 0.61 0.47	920 10700 11310	9290 10220 7230	.330	.272 .298 .210
37.28	53.78	MAFIC TO INTERMEDIATE METAVOLCANIC Grey with dark green spots (possible stretched amygdules?); local carbonate crystals, disseminated; amygdaloidal. Lower contact sharp at 55° to core axis, parallel	376		37.28	37.60	0.32	80		<.01	   
53.78	59.40	to bedding of next unit. BANDED IRON FORMATION Black magnetite and cherty looking siliceous bands (white to grey to yellowish) from 1mm to approximately 20 cm thick; with about 2% to 3% sulphides overall (pyrrhotite along mafic bands and local chalcopyrite; local very coarse-grained pyrite cubes). Bedding at 50° to 70° to core axis (small scale faulting and only minor folding seen). Lower contact sharp at 60° to core axis.	377 378 379 380 381 382 383		53.78 54.67 55.47 56.30 57.0 58.0 58.81	55.47 56.30 57.0 58.0 '58.81	0.89 0.80 0.83 0.70 1.0 0.81 0.59	210 270 700 150 340	820	.015 <.01 <.01 .02 <.01 .01 .01	

NAME OF PROPERTY Carman Township

SHEET NO. 2 of 2 HOLE NO. 88-8 FOOTACE (m) SAMPLE AU ASSAYS DESCRIPTION From To Sulph Footage(m) om | To |Total No. bz/ton ides From 1 ppb 59.40 90.70 MAFIC TO INTERMEDIATE METAVOLCANIC Amygdaloidal: similar to 37.28 to 53.78 m. Bleached from upper contact to 384 59.40 60.21 0.81 Nil approximately 59.75 m. Silicified zones containing patches of pyrrhotite and minor chalcopyrite and coarse-grained pyrite (about 5% sulphides overall); from 60.21 m 200 385 60.21 60.82 0.61 <.01 to 60.82 m and 62.44 to 62.58 m. Fine to medium grained disseminated carbonate crystals from approximately 63.0 m to approximately 64.5 m. Lower contact gradational. 90.70 94.64 DACITE AGGLOMERATE Light green - cream coloured fine grained matrix containing approximately 10% quartz phenocrysts (locally subhedral) and some round ones (possibly amygdules?) with about 10% dark green specks (chlorite? fine grained, randomly oriented); unit is locally cut by randomly oriented translucent quartz veinlets; trace pyrrhotite and pyrite; massive center and fragments near both contacts. Lower contact gradational. 94.64 130.89 MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 59.40 to 90.70 m, 6" grind at 342' tag. Lower contact gradational. 130.89 135.0 DACITE AGGLOMERATE Similar to 90.70 to 94.64 m, but fewer dacite fragments (about 10% to 20% fragments in a mafic to intermediate matrix, very similar to 94.64 to 130.89 m). Lower contact gradational over approximately 1 cm. 135.0 140.82 FELSIC TO INTERMEDIATE METAVOLCANIC (?) Khaki to light grey coloured, hard, massive, fine-grained with dark grey black 386 136.32 136.85 0.53 90 <.01 threadlike veinlets (possibly tourmaline ?) randomly oriented; unit contains up to 387 136.85 137.41 0.56 50 <.01 2% fine to coarse grained disseminated pyrite and rare bright green spots (fuchsite? 499 137.41 138.40 0.99 20 or chlorite?); unit is cut by approximately 5% overall quartz veinlets, randomly 500 138.40 139.79 1.39 10 oriented. 388 139.79 140.82 1.03 270 <.01 140.82 END OF HOLE 105' (31.85 m) of casing left in hole. Hole stopped short because drillers ran out of water.

NAME OF PROPERTY	GOLDEN PHEASANT - LANGMUIR TOWNSHIP
	LENGTH502 feet (153.01 m)
LOCATION 13+005, 4	+50W (234 m E and 108 m N of #3 post claim P792482)
	DEPARTURE
ELEVATION	AZIMUTH ALE -45°
STARTED December 2	1, 1988 FINISHED January 8, 1989
FOOTACE	

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
95.1	-41.5°				<u> </u>
	- <b>41.</b> 0°				

HOLE NO. \_\_\_\_\_\_ SHEET NO. 1 of 5\_\_\_

REMARKS <u>BQ Core</u>

13 samples

LOGGED BY \_\_\_\_\_\_ R, Bald

ĴΕ(m)		SAMPLE						AU ASSAYS			
То	• DESCRIPTION		Sulph					0%	oz/to		
29,57	CASING							1	+		
30.89	BOULDERS										
	Granitoid, felsic volcanic and one large (82 cm long) houlder of gabbro.										
35.27	MAFIC TO INTERMEDIATE METAVOLCANIC										
	Fine to medium grained, dark grey with local rare plagioclase phenocrysts (<2 mm) and rare possible carbonate? filled amygdules; local zones of medium to coarse grained pyrite; core is very blocky, fractured. Lower contact possibly faulted? (first piece of core from next unit shows slickensides) but core is broken and jumbled.										
36.16	LEAN BANDED IRON FORMATION?										
×	Cherty, greyish beds alternating with dark grey to dark green mafic beds (not magnetic); from 35.27 to 35.78 m unit contains approximately 2% subhides (>1.5% pyrite as fine grained masses occurring along fractures in cherty material or as fine to coarse grained disseminated crystals; <0.5% blobs of chalcopyrite in fractures).	400 401		35.27 35.78	35.78 36.17	0.51 0.38	80 30				
	Gradational lower contact; core angles approximately 80° to 90° to core axis.										
10 10		•									
	Medium grained grey with dark green chloritic spot (<3 mm long) which may be anygdules (rarely they appear to be zoned) or possible fragments (tuffaceous) or altered mafic minerals in a mafic intrusive rock; massive; local fine grained carbonate crystals disseminated throughout. Definite zoned amygdules near 48 m, up to 3 mm long. Lower contact ground.										
	29.57 30.89 35.27	<ul> <li>29.57 CASING</li> <li>30.89 BOULDERS</li> <li>Granitoid, felsic volcanic and one large (82 cm long) houlder of gabbro.</li> <li>35.27 MAFIC TO INTERMEDIATE METAVOLCANIC</li> <li>Fine to medium grained, dark grey with local rare plagioclase phenocrysts (&lt;2 mm) and rare possible carbonate? filled amygdules; local zones of medium to coarse grained pyrite; core is very blocky, fractured. Lower contact possibly faulted? (first piece of core from next unit shows slickensides) but core is broken and jumbled.</li> <li>16.16 LEAN BANDED IRON FORMATION?</li> <li>Cherty, greyish beds alternating with dark grey to dark green mafic beds (not magnetic); from 35.27 to 35.78 m unit contains approximately 2% sulnhirds (&gt;1.5% pyrite as fine grained masses occurring along fractures in cherty material or as fine to coarse grained disseminated crystals; &lt;0.5% blobs of chalcopyrite in fractures).</li> <li>Gradational lower contact; core angles approximately 80° to 90° to core axis.</li> <li>9.19 MAFIC TO INTERMEDIATE METAVOLCANIC?</li> <li>Medium grained grey with dark green chloritic spot (&lt;3 mm long) which may be arygdules (rarely they appear to be zoned) or possible fragments (tuffaceous) or altered mafic minerals in a mafic intrusive rock; massive; local fine grained carbonate crystals</li> </ul>	29.57       CASING         30.89       BOULDERS         Granitoid, felsic volcanic and one large (82 cm long) houlder of gabbro.         35.27       MAFIC TO INTERMEDIATE METAVOLCANIC         Fine to medium grained, dark grey with local rare plagioclase phenocrysts (<2 mm) and rare possible carbonate? filled amygdules; local zones of medium to coarse prained pyrite; core is very blocky, fractured. Lower contact possibly faulted? (first piece of core from next unit shows slickensides) but core is broken and jumbled.	To       DESCRIPTION       No.       Suiph Jdes         29.57       CASING       SUBP       Jdes         30.89       BOULDERS       Granitoid, felsic volcanic and one large (82 cm long) houlder of gabbro.       State       State         35.27       MAFIC TO INTERMEDIATE METAVOLCANIC       Fine to medium grained, dark grey with local rare plagioclase phenocrysts (<2 mm) and rare possible carbonate? filled amygdules; local zones of medium to coarse grained pyrite; core is very blocky, fractured. Lower contact possibly faulted? (first piece of core from next unit shows slickensides) but core is broken and jumbled.	To       DESCRIPTION       No.       Supprime         29.57       CASING         30.89       BOULDERS         Granitoid, felsic volcanic and one large (82 cm long) houlder of gabbro.         35.27       MAFIC TO INTERMEDIATE METAVOLCANIC         Fine to medium grained, dark grey with local rare plagioclase phenocrysts (<2 mm) and rare possible carbonate? filled amygdules; local zones of medium to coarse grained pyrite; core is very blocky, fractured. Lower contact possibly faulted?	To       DESCRIPTION       No.       Suitch       Footage (m)         29.57       CASING       Jdds       From 10         30.89       BOULDERS       Granitoid, felsic volcanic and one large (82 cm long) houlder of gabbro.       Jdds       Jdds<	To       DESCRIPTION       No.       Supprime       Footace(m)         29.57       CASING       Ides       From       To Total         30.89       BOULDERS       Granitoid, felsic volcanic and one large (82 cm long) houlder of gabbro.       Solution       Solution	To       DESCRIPTION       No.       Sulph From 10       Encatage(m) From 10       ppb         29.57       CASING       1048       From 10       Total ppb         30,89       GOULDERS       Granitoid, felsic volcanic and one large (82 cm long) houlder of gabbro.       1048       From 10       From 10       ppb         15.27       MAFIC TO INTERMEDIATE METAVOLCANIC       Fine to medium grained, dark grey with local rare plagioclase phenocrysts (<2 mm) and rare possible carbonater filled anygdules; local zones of medium to coarse grained diseminated privile; core is very blocky, fractured. Lower contact possibly faulted? (first piece of core from next unit shows slickensides) but core is broken and jumbled.	To       DESCRIPTION       No.       Sulph From 10 Total pot       Potage (m) From 10 Total pot         29.57       CASING         30.89       GOULDERS         Granitoid, felsic volcanic and one large (82 cm long) boulder of gabbro.         15.27       MAFIC TO INTERMEDIATE METAVOLCANIC         Fine to medium grained, dark grey with local rare plagioclase phenocrysts (<2 mm) and rare possible carbonate filled anygdules; local zones of medium to coarse grained prite; core is very blocky, fractured. Lower contact possibly faulted? (first piece of core from next unit shows slickensides) but core is broken and jumbled.		

NAME OF PROPERTY\_\_\_\_\_\_ Golden Pheasant HOLE NO.\_\_\_\_\_\_ 88-9\_\_\_\_\_\_\_ SHEET NO.\_\_\_\_ 2 of 5\_\_\_\_\_\_

EOOTA	ĢE (m)				SAMPL	E		AU	ASSA	YS
From	То	DESCRIPTION	No.	Sulph ides	Eoo From	tage(m	) Total	]	2%	pz/ton
49.19	52.23	BANDED IRON FORMATION	402	TOPS	49.19	50.42	1.23	<u>орь</u> 60		1
		Black iron oxide bands alternating with white cherty looking bands; banding approximately 90° to 80° to core axis; pyrite and rare chalcopyrite locally, up to approximately 1%; local chloritic sections, dark green; cherty section from 50.42 to 50.75 with approximately 1% chalcopyrite in fractures. Fine grained, dark greenish grey volcanic section from 50.75 to 50.97 m but possibly core got jumbled by drillers?	403 404 · 405 406		50.42 50.75 50.97 51.91	50.97 51.91	0.33 0.22 0.94 0.32	Nil 10 40 20		
		From 50.97 to 51.91 m: unit contains approximately 5% overall sulphides, pyrrhotite and lesser chalcopyrite as wispy bands and fracture filling. Cherty and small amounts of sulphides in section from 51.91 to 52.23 m. Lower contact sharp at approximately 85° to core axis volcanic looks sheared near contact.								- - - -
52.23	53.46	MAFIC TO INTERMEDIATE METAVOLCANIC								
		Foliated with locally very abundant carbonate filled amygdules, zoned in a very fine grained greenish-grey to dark khaki matrix. Lower contact ground.								
53.46	55.20	BANDED IRON FORMATION					1			
		From 53.46 to 54.58 m: black, magnetic, fine grained to coarse grained, massive (no banding) with zones of disseminated pyrrhotite crystals near 53.65 m and coarse grained, massive silicate minerals (black, equant, possibly amphibole?) from approximately 53.90 m to approximately 54.25 m.	407		53.46	54.58	1.12	30		
		From 54.58 m to 55.20; banded to finely laminated similar to 49.19 to 52.23 m; <1% pyrrhotite and chalcopyrite; banding at 55° to core axis. Lower contact at 55° to core axis, parallel to banding.	408		54.58	55.20	0.62	30		
55.20	66.70	MAFIC TO INTERMEDIATE METAVOLCANIC								
		Dark greenish grey, fine grained, massive, no amygdules seen; cut by approximately 2% threadlike up to 1 cm wide randomly oriented carbonate veinlets, rarely containing chalcopyrite (approximately <1%). Lower contact ground.								
66.70	67.95	BANDED IRON FORMATION								
		Similar to 49.19 to 52.23 m; banding at 80° to 90° to core axis; less than 1% sulphides overall (pyrite); locally, cherty sections have greenish tinge. Lower contact ground.	409 410					50 40		

NAME OF PROPERTY\_\_\_\_\_Golden Pheasant

HOLE NO. \_\_\_\_\_\_\_ SHEET NO. \_\_\_\_\_ 3 of 5 EOOTAGE (m) SAMPLE AU ASSAYS DESCRIPTION From То No. Sulph Ecotage(m) bz/ton ides From | To |Tota| 67.95 69.07 MAFIC TO INTERMEDIATE METAVOLCANIC Amygdaloidal with large (up to 2 cm long) amygdules filled with carbonate in dark green mafic matrix; local coarse grained pyrite crystals. Lower contact sharp at 55° to core axis, next unit chilled at contact. 69.07 71.21 DIABASE DYKE Dark green to black, massive, fine grained; locally magnetic; cut by randomly oriented threadlike veinlets of carbonate and epidote, making core blocky. Lower contact sharp at 50° to core axis, diabase chilled against next unit. 71.21 73.43 MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 67.95 to 69.07 m with amygdules up to 4 cm long; local magnetic section from 71.42 to 71.56 m containing stringers and blobs of black magnetite in a carbonatized (?) zone, possibly a pillow margin? Unit becomes baked within 0.5 m of contact. Contact sharp at approximately 80° to core axis, diabase. 73.43 73.90 PLAGIOCLASE PHYRIC DIABASE DYKE Similar to 69.07 m to 71.21 m; also contains green euhedral plagioclase phenocrysts up to 8 mm; magnetic. Lower contact sharp at 60° to core axis. 73.90 74.16 MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 71.21 to 73.43 m; baked, dark coloured. Lower contact sharp at 35° to core axis, cross cutting foliation of volcanic. 74.16 75.87 PLAGIOCLASE PHYRIC DIABASE DYKE Similar to 73.43 to 73.90 m; not magnetic. Lower contact sharp at 40° to core axis, bleached to khaki colour within approximately 10 cm of contact.

NAME OF PROPERTY\_\_\_\_Golden Pheasant\_\_\_\_

HOLE NO. \_\_\_\_\_88-9 SHEET NO. 4 of 5 EQOTACE(m) SAMPLE AU ASSAYS DESCRIPTION From To No. Sulph Ecotage(m) bz/ton From | To |Total ides 75.87 79.29 MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 73.90 to 74.16 m, with possible gabbro from 77.46 m to 79.29 m. Lower contact approximately 20° to core axis but somewhat brecciated. 79.29 80.07 DIABASE DYKE Similar to bleached section near lower contact of dyke from 74.16 to 75.87 m; non magnetic. 80.07 108.52 MAFIC TO INTERMEDIATE METAVOL CANIC Similar to 75.87 to 79.29 with some medium grained sections which look like gabbro and some fine grained sections containing carbonate filled amygdules. Rare chalcopyrite filled fracture seen in amygdaloidal section. Lower contact sharp at approximately 60° to core axis but somewhat irregular. 108.52 108.74 DIABASE DYKE Locally magnetic; similar to 69.07 to 71.21 m; diabase chilled against other units. Lower contact sharp at approximately 40° to core axis but somewhat irregular. 108.74 140.18 MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 80.07 to 108.52 m but no chalcopyrite seen. Narrow diabase dykes cut the metavolcanic unit as follows: From 116.43 to 116.65 m: contacts at 35° to 40° to core axis; From 121.07 to 121.75 m: contacts at approximately 40° to core axis; From 123.29 to 123.60 m: contacts at 50° to core axis; diabase is similar to 108.52 to 108.74 m, locally magnetic diabase dykes also from 126.38 to 126.45.

NAME OF PROPERTY\_\_\_\_Golden Pheasant

HOLE NO. \_\_\_\_\_\_\_\_ SHEET NO. \_\_\_\_\_\_ 5 of 5

EOOTA					SAMPL	E		AU	ASSA	YS
From	То	DESCRIPTION	No.	Sulph	From	age(m To	) Tota I	, pob	25	oz/ton
		From 126.75 to 126.80 m: containing a green plagioclase phenocryst;								
		From 128.40 to 128.53; from 130.87 to 131.60; from 134.72 to 134.85; from 135.34 to 135.83 m;								
		Diabase dykes as follows:						ļ		
		From 138.13 to 138.55: plagioclase phyric;								
		From 138.75 to 139.39: plagioclase phyric;								
		Lower contact gradational over approximately 1 cm.								
140.18	141.74	FELSIC METAVOLCANIC								
		Similar to hole 88-8. Khaki coloured with black threadlike, randomly oriented veinlets (possibly tourmaline?); local rare possible fuchsite spots; unit contains approximately 1 - 2% overall pyrite as fine to locally coarse grained disseminated crystals. Cut by a narrow, bleached plagioclase phyric diabase dyke from 140.66 to 140.71 m. Lower contact graditional over 1 cm but approximately 40° to core axis.	427 428			140.82 141.74		40 50		
141.74	153.01	MAFIC TO INTERMEDIATE METAVOLCANIC								1
		Similar to 108.74 to 140.18 m. Diabase dykes as follows:								
		From 143.93 to 144.11 m								
		From 144.76 to 144.87 m: plagioclase phyric;							1	
		From 145.45 to 145.59 m: plagioclase phyric;						1		
		From 146.87 to 148.66 m: plagioclase phyric;								
		From 150.83 to 151.11 m: 151.43 to 151.66 m; and 151.96 to 152.35 m.								
153.01		END OF HOLE								
		97 FEET (29.57 m) OF CASING LEFT IN HOLE.								

NAME OF PR	OPERTY GOLDEN PHEASANT - CARMAN TOWNSHIP
HOLE NO. 88	8-10 LENGTH 370 feet (112.78 metres)
LOCATION L	17+00N, 0+75E (adjacent to hole 88-5) (272 m N and 166 m E of
	3 page of P987238 DEPARTURE
ELEVATION	AZIMUTH DIP
	NUARY 8, 1989 FINISHED JANUARY 10, 1989

POOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
42.75	-66°				
91.44	-67°				

HOLE NO. <u>88-10</u> SHEET NO. <u>1 of 3</u> REMARKS <u>BQ Core</u> 16 samples

LOGGED BY R. Bald

FOOTA	GE (m)			S	AMPLE			I AU	ASSA	/S	1
From	To	DESCRIPTION	No.	Sulph	From	tage(m	) Total	opo	1	oz/ton	1
0	9.75	CASING							1 100		
9.75	76.20	MAFIC TO INTERMEDIATE METAVOLCANIC									
		Amygdaloidal with carbonate and/or quartz filled amygdules up to 2 cm long; similar to other holes (DDH 88-5). Local brecciated zones (e.g. near 40.40 m) possible pillow interstices? Rare patches of coarse grained pyrite. Probable pillows from approxmiately 60 m. Bleached zones containing up to 3% fine to coarse grained disseminated pyrite and locally having a salmon pink tinge and quartz and/or tourmaline veins (<2 cm wide and randomly oriented); from 60.57 to 63.17; from 65 30 to 65.51; from 65.59 to 65.75; from 66.57 to 66.89 m. From 68.25 m, unit contains	411 412 413		60 <b>.6</b> 7 61.57 62.32	62.32 63.17	1.0 0.75 0.85	1340 10 20	1430	,039	042
		contains local medium grained, grey bands with sharp contacts generally at approximately 40° to core axis, from 1 cm to 17 cm wide, massive; within amygdaloidal pillowed mafic-intermediate flows. Local parallel cooling cracks seen (e.g. near 72.25 m). Lower contact sharp at 50° to core axis.	414 415		65.30 65.55		0.25 0.20	Nil 20			
76.20	78.95	BANDED IRON FORMATION					1				
		From 76.20 m to 76.48 m: variable directions of bedding, some beds look folded and deformed; consists of approximately 10% sulphides (pyrrhotite and pyrite as wispy beds parallel to bedding) and cherty material.	416		76.20	76.48	0.28	260	260		
		From 76.48 to 76.81 m: more chloritic beds with some black oxide beds alternating with cherty white-grey beds; contains about 3% pyrite as fine to coarse grained cyrstals along mafic beds.	417		76.48	76.81	0.33	30			
		From 76.81 m to 78.23: similar to units described from 68.25 m, medium grained possibly greywacke component of iron formation? or mafic volcanic? Locally contains up to approximately 2% very fine grained pyrite disseminated; sharp contacts.	418		76.81	78.23	1.42	10			
1		From 78.23 to 78.95m: about 1% pyrite in banded black and white iron formation; this section contains more magnetite beds that other sections; banding at 60 - 75° to core axis, minor faulting. Lower contact sharp at 60° to core axis.	419		78.23	78.95	0.72	20			

NAME OF PROPERTY\_\_\_\_Golden Pheasant\_\_\_\_\_

HOLE NO. \_\_\_\_88-10 2 of 3 SHEET NO. EQOTAGE (m) SAMPLE AU ASSAYS DESCRIPTION From To From To Total No. Sulph 0% bz/ton ides ppb 78.95 100.10 MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 9.75 to 76.20 m; containing about 20% carbonate crystals from approximately 94.50 m to lower contact. Lower contact sharp at 75° to core axis, parallel to bedding of next unit. 100.10 101.03 BANDED IRON FORMATION 420 100.10101.03 0.93 40 Bedding from 80° to 40° to core axis; alternating bands of black magnetite rich bands and grey to white cherty looking bands; unit contains about 1% - 2% pyrite overall, as disseminated crystals in the cherty material or as bands parallel to the bedding. Lower contact ground. 101.03 101.76 MAFIC TO INTERMEDIATE METAVOLCANIC Similar to 9.75 to 76.20 m. Lower contact ground. 421 101.03 101.76 0.73 10 101.76 102.63 QUARTZ BRECCIA (IRON FORMATION?) 422 101.76 102.63 0.87 230 Grey with light grey-white cherty fragments (in situ brecciation) with about 5% pyrrhotite and pyrite as fracture filling and disseminated fine to coarse grained pyrite crystals; mostly quartz with approximately 5% chlorite rich host rock inclusions from approximately 102.33 to lower contact (no sulphides seen in this quartz). Lower contact slightly ground but may be approximately 60° to core axis. 102.63 103.40 MAFIC TO INTERMEDIATE METAVOLCANIC 423 102.63 103.40 0.77 40 Similar to 101.03 to 101.76 m; locally unit is silicified along margins of quartz and carbonate veinlets, randomly oriented, no sulphides seen. Lower contact broken.

NAME OF PROPERTY\_\_\_\_Golden Pheasant

HOLE NO. \_\_\_\_\_\_\_\_\_\_\_\_\_\_

SHEET NO.

ΕΟΟΤΑ	CF(m)	HOLE	NO. 88-10				EET NO	3 of	3	
From	To	DESCRIPTION			SAMPL			L_AU	ASSA	Ys
			No.	Sulph ides	From	tage(m To	) Total	ppb	ppb	z/ton
103.40	04.85	BANDED IRON FORMATION	424		103.40	104.24	0.84		680	
		Banding from 40° to 60° to core axis; black magnetite and light grey-white cherty bands cut by quartz and carbonate veinlets, randomly oriented; unit contains approximately 5% overall pyrite as fine to coarse grained disseminated crystals and along mafic bands and fractures; locally unit is brecciated, faulted slightly; pyrrhotite blobs near lower contact. Lower contact sharp at 40° to core axis.	425		104.24	104.85	0.61	400		
104.85	12.78	MAFIC TO INTERMEDIATE METAVOLCANIC				1				
		Similar to 101.03 to 101.76 m. Local patches of coarse-grained pyrite (e.g. 107.00 m to 107.47 m approximately 4% pyrite overall). Large quartz and carbonate filled amygdules (>2 cm long). Blocky near end of hole.	426		107.00	107.47	0.47	40		
112.78		END OF HOLE								
		32 FEET OF CASING LEFT IN HOLE								
l										

Υ.

NAME OF	PROPERTY GOLDEN PHEASANT - CARMAN TOWNSHIP
HOLE NO.	<u>.88-11</u> LENGTH <u>.113.39 m (372 feet)</u>
	L18+00N, 3+15W; (380 m E and 49 m N of #4 post of P987235
LATITUDE _	DEPARTURE
	AZIMUTH _ 280° AZ DIP45°
STARTED	January 10, 1989 FINISHED January 13, 1989

FOOTAGE	DIP	AZIMUTH	FOOTAGE	DIP	AZIMUTH
45.72	-46°				
113.39	-38.5°				

HOLE NO. 88-11\_\_\_ SHEET NO. 1 of 1\_\_\_

REMARKS BO Core

No Samples

LOGGED BY R. Bald

FOOTA	GE(m)			S	AMPLE	-		I AU	ASSA	YS
From	То	DESCRIPTION	No.	% Sulph ides	Foo	tage(m	) Total	9%		oz/ton
0	46.33	CASING	-	L.Joes_			lotar	<u> </u>		'
46.33	55.50	POSSIBLE OVERBURDEN?								
		Definite boulders (granite, gabbro, volcanic) from 46.33 to approximately 47.50 m, then some core (broken) to approximately 49.0 m; then from 49.0 m to approximately 55.50 m, boxes contain rock chips and ground short pieces of core possibly casing was not in bedrock (chips are gabbro, mafic volcanic and felsic volcanic).								
55.50	76.60	MAFIC TO INTERMEDIATE METAVOLCANIC								
		Fine to medium grained, locally slightly bleached with chlorite spots; locally appears to be a gabbro. Trace pyrite as fine to coarse grained crystals. Foliated at 30° to 60° to core axis. Local carbonate filled amygdules. Local zones of carbonate veinlets, randomly oriented, threadlike to approximately 5 mm wide. Lower contact sharp at 45° to core axis.								
76.60	77.52	FELDSPAR PORPHYRY								]
		Grey, medium grained with greenish to white plagioclase phenocrysts in a fine grained grey matrix. Hard; broken core with carbonate threadlike veinlets at low angles to core axis (core breaks along these veinlets). Trace medium grained pyrite crystals, Lower contact broken and vague.								
77.52	113.39	MAFIC TO INTERMEDIATE METAVOLCANIC								
		Similar to 55.50 to 76.60 m. Local possible plagioclase crystals (andesite).								
113.39		END OF HOLE								
		152 FEET (46.33 m) OF CASING LEFT IN HOLE								



42A06SE8448 63.5445 CARMAN

020

REPORT

ON

INDUCED POLARIZATION SURVEYING

ON THE

CARMAN & LANGMUIR TOWNSHIPS PROPERTY

PORCUPINE MINING DIVISION

0F

GOLDEN PHEASANT RESOURCES LTD.

November, 1988

R. E. Gillick, MSc. ROBERT E. GILLICK & ASSOCIATES LTD. for JAMES WADE ENGINEERING LTD.

0 M88 1 . C . 221

E

TABLE OF CO

q



020C

		Page
1.0	SUMMARY	1
2.0	INTRODUCTION	2
3.0	PROPERTY DESCRIPTION, LOCATION AND ACCESS	2
	Figure No. 1 - Property Location Map	3
	Figure No. 2 - Claim Sketch	4
4.0	TOPOGRAPHY AND VEGETATION	5
5.0	PREVIOUS WORK	5
6.0	REGIONAL GEOLOGY AND ECONOMIC MINERALIZATION	7
7.0	PROPERTY GEOLOGY	8
8.0	DESCRIPTION OF INDUCED POLARIZATION SURVEY	10
9.0	RESULTS AND INTERPRETATION	11
10.0	CONCLUSIONS AND RECOMMENDATIONS	18
11.0	REFERENCES	20

# APPENDICES

A	CERTIFICATE OF QUALIFICATIONS	Back	of	report
В	TECHNICAL DATA STATEMENT	11	17	11

# TABLE OF CONTENTS (Cont'd)

# LIST OF DRAWINGS

100

DRAWING No. 1:	IP COMPILATION MAP (North Grid	) In map pocket
DRAWING No. 2:	IP PSEUDOSECTION - LINE 26 N	17 17 17
DRAWING No. 3:	IP PSEUDOSECTION - LINE 24 N	82 82 82
DRAWING No. 4:	IP PSEUDOSECTION - LINE 22 N	17 88 88
DRAWING No. 5:	IP PSEUDOSECTION - LINE 21 N	T\$ \$\$ T\$
DRAWING No. 6:	IP PSEUDOSECTION - LINE 20 N	18 <del>81</del> 18
DRAWING No. 7:	IP PSEUDOSECTION - LINE 19 N	19 19 18
DRAWING No. 8:	IP PSEUDOSECTION - LINE 18 N	17 17 17
DRAWING No. 9:	IP PSEUDOSECTION - LINE 17 N	17 17 17
DRAWING No.10:	IP PSEUDOSECTION - LINE 16 N	18 88 89
DRAWING No.11:	IP PSEUDOSECTION - LINE 13 N	18 89 99
DRAWING No.12:	IP PSEUDOSECTION - LINE O	18 19 88
DRAWING No.13:	IP PSEUDOSECTION - LINE 1 S	9 <b>8</b> 99 99
DRAWING No.14:	IP PSEUDOSECTION - LINE 3 S	19 19 19

#### 1.0 SUMMARY

Induced polarization anomalies located near the west ends of lines 20 N, 19 N, 18 N and 17 N are believed to represent zones of sulfide mineralization associated with iron formation. These zones are considered to be high priority gold targets and prospecting, trenching and diamond drilling is recommended.

Three anomalies located on the property may represent zones of sulfide mineralization associated with faulting and/or geologic contacts. These zones are considered to be second priority gold targets and further investigation by means of prospecting, trenching, geochemistry and drilling is recommended.

Eight anomalies, believed to represent sulfide and/or magnetite mineralization within mafic or ultramafic intrusives, were also located. These zones are not considered to warrant further investigation at this time.

Mineralized trends, presumed to represent the zones drilled by Dumont and Rio Tinto in 1962 and 1982, respectively, were delineated on several lines on the south grid. One of the zones (Dumont), reportedly, assayed 0.67 ounces gold per ton over a core length of 6 feet in 1962. Both these zones have undergone only very limited drill investigation and are considered to be prime gold targets. Further drilling, both along strike and at depth, is recommended for both zones.

#### 2.0 INTRODUCTION

The following report describes induced polarization surveying carried out during October, 1988, over parts of the Carman-Langmuir property of Golden Pheasant Resources Ltd. in the Timmins area of northern Ontario.

## 3.0 PROPERTY DESCRIPTION, LOCATION AND ACCESS

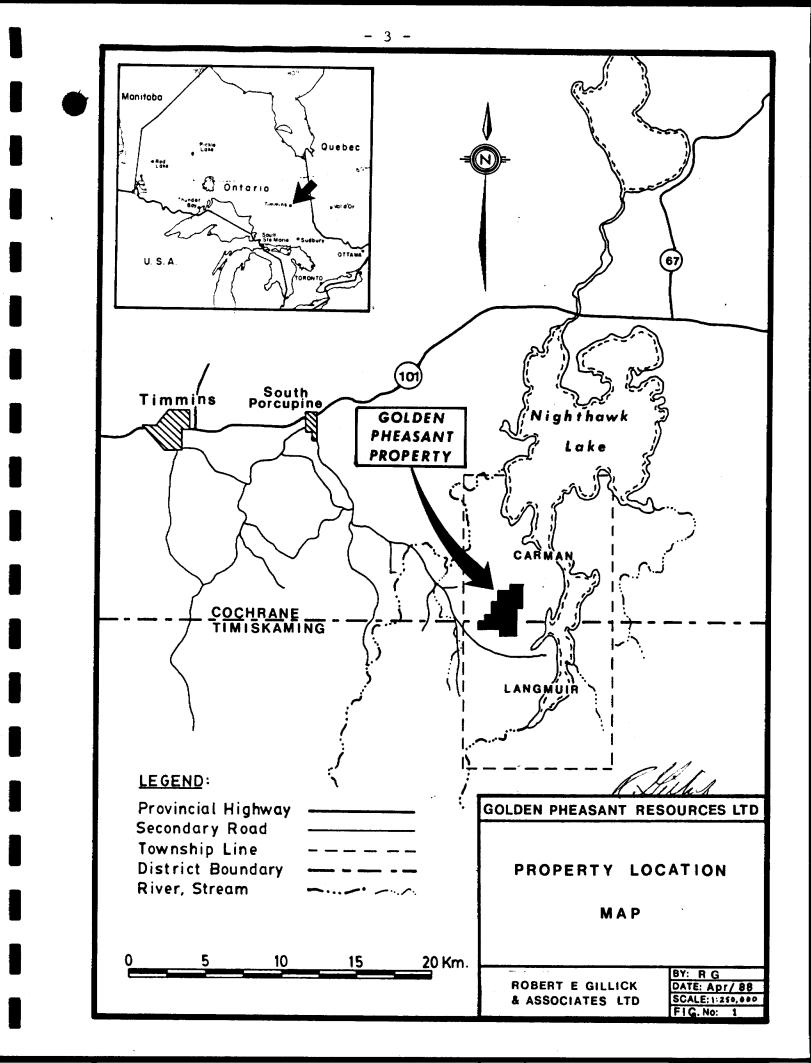
...

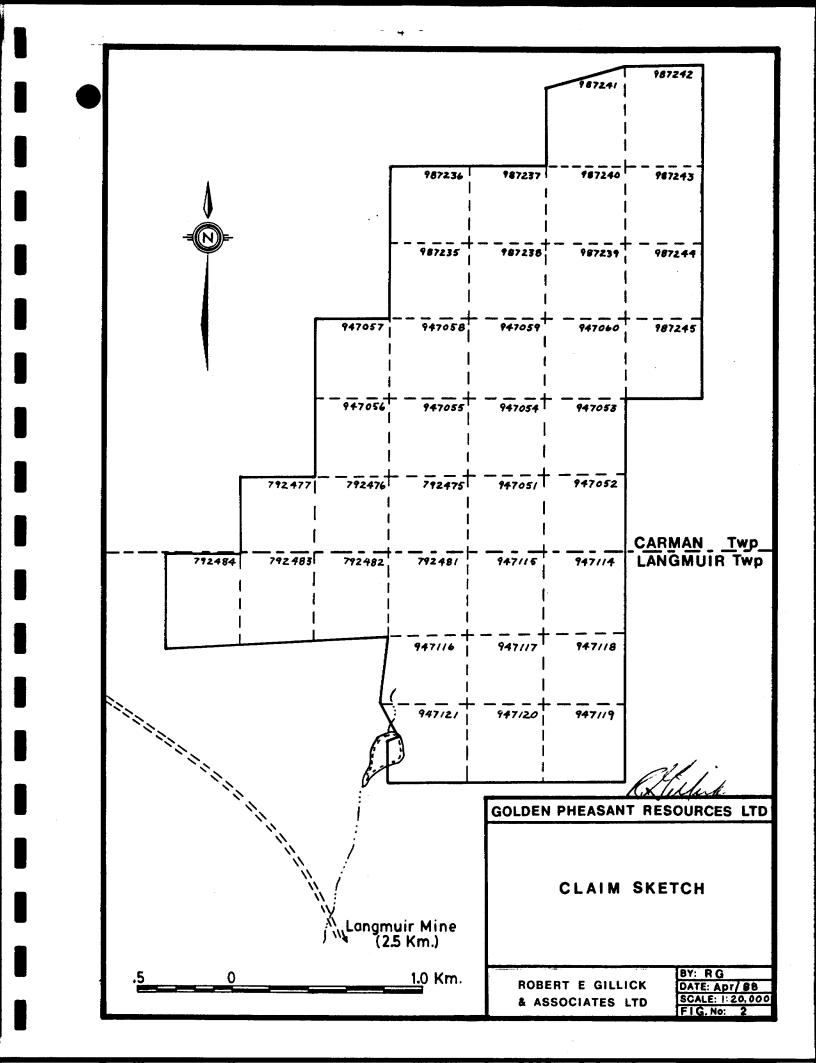
The Carman-Langmuir property of Golden Pheasant Resources Ltd. consists of a block of 36 contiguous unpatented mining claims located approximately 25 kilometres southeast of the municipality of Timmins in northern Ontario. The claim block is located in the southwest quadrant of Carman Township and northwest quadrant of Langmuir Township (Fig. No. 1).

The claims comprising the property are as follows (Fig. No. 2):

	<u>Claim Number</u>		<u>Recording Date</u>
Р	792475 - 792477	(3)	March 12, 1984
Р	792481 - 792484	(4)	March 29, 1984
Ρ	947051 - 947060	(10)	September 16, 1986
Ρ	947114 - 947121	(8)	September 16, 1986
Р	987235 - 987245	(11)	May 26, 1987
	Т	otal 36 (	Claims

The property is accessible by an all-season gravel road from the town of South Porcupine located on Highway 101 to the north. By proceeding southeastwards along the gravel road for about 18 kilometres and then taking the Langmuir Mine branch road for an additional 5 kilometres, one passes within approximately 700 metres of the southern part of the property. From this point, the claims are accessible on foot or by snowmachine. The property can also be reached by helicopter from Timmins.





## 4.0 TOPOGRAPHY AND VEGETATION

Approximately 60% to 70% of the property area is low-lying and covered by swamp or muskeg. Over the remainder of the property, topographic relief is variable ranging from several metres to a maximum of about 20 metres. The relief is relatively abrupt in places, especially over diabase dikes where differential weathering has left the hard dike rock prominently exposed.

Vegetation is generally mixed. Cedar is common in the swampy areas with black spruce, tamarack and balsam fir occurring in the regions of muskeg. Stands of birch, poplar, jack pine and white spruce occur along the ridges and in the dryer parts of the property.

## 5.0 PREVIOUS WORK

Although no documented evidence is available in government assessment files indicating work on the ground covered by the Golden Pheasant claims prior to the 1960's, old pits and trenches observed on the property suggest that some work may have been carried out.

In 1962, Dumont Nickel Corporation of Quebec, drilled a single hole (602') on the property in the west central part of present claim 792481. The hole reportedly intersected several bands of siliceous pyrite-bearing iron formation. One of the bands assayed 0.67 ounces gold per ton over a core length of 6 feet.

In 1974, T. K. Dowe drilled a single hole (146') in the northeast corner of present claim 792481. Banded iron formation was intersected near the bottom of the hole. No significant gold assays were reported.

In 1982, Rio Tinto Canadian Exploration Ltd. carried out magnetometer and VLF-EM surveys over the southern part of the present property. One hole was drilled to a depth of 372 feet in the east central part of present claim 792482. The hole reportedly intersected several bands of siliceous iron formation well-mineralized (5-10%) with pyrrhotite and pyrite and containing up to several percent chalcopyrite in places. No gold assays were published for this hole.

In 1984/85, J. K. Filo and M. C. Kean staked seven claims covering and surrounding the Dumont drill hole. VLF-EM surveying and geological mapping were carried out.

In 1986, Golden Pheasant Resources Ltd. optioned the Filo-Kean claims. During the latter part of 1986 and early part of 1987, 29 additional claims were staked contiguous to the original block to form the present 36 claims. During the early part of 1987, Golden Pheasant commissioned geophysical surveying (HLEM, magnetometer, IP) and geological mapping over the southern 25 claims of the block.

In the spring of 1988, Golden Pheasant commissioned further work on the property including grid cutting and magnetometer surveying over the eleven northerly claims and IP surveying on selected lines of both the old (1987) and new (1988) grids. In addition, three holes totalling 273 metres were drilled on the property to re-test the Dumont zone as well as to investigate several IP anomalies believed to represent a possible northward extension of the zone. In the fall of 1988, geological mapping and prospecting were carried out over the 11 northerly claims of the property.

## 6.0 REGIONAL GEOLOGY AND ECONOMIC MINERALIZATION

The Timmins area lies within the Abitibi Volcanic Belt which forms a sub-province of the Superior Province of the Canadian Shield. The belt is characterized by a predominance of Archean metavolcanic/metasedimentary rock types intruded by numerous felsic to ultramafic bodies and transected by several major structural breaks. Six major gold/base metal mining camps are located along this belt making it one of the most productive mining regions in the world.

The Timmins area is located near the western extremity of the Abitibi Belt. Volcanic rocks within this sub-region have been divided into the Tisdale and Deloro groups. The Tisdale group consists of a basal formation of predominantly ultramafic volcanic rocks (komatiites) overlying tholeiitic basalts which in turn are overlain by volcaniclastic rocks of calc-alkaline composition. The Deloro group is composed of andesitic and basaltic flows overlain by dacitic flows and dacitic and rhyolitic pyroclastics. Iron formation commonly occurs near the top of the Deloro group. Both groups are overlain by interlayered and intercalated metasediments consisting of wacke, siltstone and, to a lesser extent, conglomerate. The regional metamorphic grade is lower to middle greenschist facies. Both groups have been intruded by numerous north and north-east trending diabase dikes.

The Destor-Porcupine Fault forms a major structural break in the Timmins area striking northeasterly between the Tisdale group and the Deloro group. The majority of gold deposits in the area are hosted in the lower volcanic rocks of the Tisdale sequence immediately to the north of the Destor-Porcupine Fault.

The Shaw Dome forms the main structural feature associated with

- 7 -

the Deloro volcanic group. The easterly dip and northerly strike of the rocks on the Golden Pheasant property are due to their location along the eastern margin of the Shaw Dome.

More than 49 gold mines have operated in the Timmins area producing a combined total of over 65 million ounces of gold from ore with an average grade of 0.254 ounces gold per ton. The majority of the gold in the Timmins camp has been hosted in quartz-carbonate veins within volcanic rocks in the lower part of the Tisdale sequence. Most of the deposits are in close proximity to a major structural break (Destor-Porcupine Fault) and in close spatial association with ultramafic volcanic rocks.

Two iron formation-hosted gold deposits are located within the Deloro volcanics about 2.5 kilometres northwest of the Golden Pheasant property. The Carshaw and Malga deposits are reported to have hosted 247,000 tons of ore with a combined average grade of 0.249 ounces gold per ton. Gold mineralization in both these deposits is associated with quartz veining and attendant pyrite replacement of magnetite-rich mesobands. The mineralization appears to have been emplaced by the percolation and precipitation of exotic gold- and sulfur-bearing hydrothermal solutions within fracture systems formed by the brittle deformation of the iron formation.

The Langmuir Mine, a former nickel producer, is located about 2.5 kilometres southeast of the Golden Pheasant property. Between 1973 and 1977, 1.1 million tons of ore grading 1.5% nickel were mined from this ultramafic-hosted deposit.

### 7.0 PROPERTY GEOLOGY

The southeast portion of the Golden Pheasant property is underlain by ultramafic intrusive rock identified as serpentinized

- 8 -



dunite or peridotite. Most of the western and northern parts of the 1987 gridded portion of the property are underlain by intermediate volcanics intercalated with thin mafic flows. Several outcrops of quartz-feldspar porphry occur in the west near line 1+00 N at approximately 10+00 W. A large east-west trending carbonatized zone has been identified at 0+25 S, 4+00 W. Large diabase intrusives transect the property in both northerly and northeasterly directions.

Two zones of siliceous oxide iron formation were delineated during the 1987 mapping program. One zone is located between lines 1+00 N and 2+00 N at 1+50 W and the second zone strikes northeasterly across lines 5+00 N and 6+00 N at 9+00 E. The iron formation is reported to exhibit intense local folding and contain variable quantities of sulfide mineralization. The hole drilled by Dumont in 1962 is believed to have intersected the western zone of iron formation indicating it to be composed of two separate bands, the westernmost band being auriferous and 'well-mineralized' with pyrite.

Geological mapping and geophysical surveying of the northern part of the Golden Pheasant property have identified a northsouth striking diabase dike near the western property boundary and also diabase intrusives underlying claims 947059 and 947060.

Two zones of oxide facies iron formation within volcanic rocks have been identified on the northern claims at:

- 1) Line 16+00 N, 0+50 W
- 2) Line 19+00 N, 6+00 W; Line 17+00 N, 4+75 W

The north northeasterly strike of the first of these zones suggests that it may represent a continuation of the same iron formational horizon intersected by the Dumont drill hole 1600 metres to the south southwest.

#### 8.0 DESCRIPTION OF INDUCED POLARIZATION SURVEY

Between the dates of October 19 and October 30, 1988, inclusive, induced polarization surveying was carried out over selected lines on the Carman-Langmuir property. Prior to commencement of the survey, 8.85 kilometres of winter-cut grid lines and baseline were cleaned out to facilitate survey mobility and, hence, improve survey production.

The personnel involved in the work were as follows:

R.	Gillick	N.Bay, Ont.		(Line preparation) (IP survey)
Ρ.	Butler	Ottawa, Ont.	Oct. 12-15 Oct. 19-30	(Line preparation) (IP survey)
Μ.	Sigouin	N. Bay, Ont.	Oct. 19-39	(IP survey)

The lines surveyed using the IP method were the following:

Line		8+00 W - 0+00 8+00 W - 1+75	800 E 975	metres
Line Line	0	8+00 W - 1+75 8+00 W - 2+00	E 1000	**
	13 N	4+00 W - 3+00		11
Line		6+50 W - 4+50		11
Line Line	17 N 18 N	7+00 W - 1+00 8+00 W - 4+00	E 800 E 1200	11
Line		8+50 W - 2+00	E 1000	17
Line	20 N	7+00 W - 1+50	E 850	11
Line		5+75 W - 1+00	E 675	**
Line		4.50 % 2.00	E 600	11
Line Line		1+50 W - 4+00 2+75 W - 5+50	E 550 E 825	**

The line coverage of the survey totalled 10.175 kilometres over a period of 10 production days giving an average production of approximately 1.02 kilometres per day.

The IP survey was performed using a dipole-dipole electrode array with an a-spacing of 25 metres. N-separations of 1, 2, 3 and 4 were read.

- 10 -



The instrumentation used during the survey consisted of an EDA IP-2 time-domain receiver in conjunction with a Phoenix IPT-1 motor generator-driven transmitter capable of delivering up to 1 kilowatt of power. The transmitter was set to a 2 second on/ 2 second off reversing polarity duty cycle. The EDA receiver was used to monitor the primary voltage (Vp: the voltage measured during the 'on' part of each transmitted cycle) and 4 'slices' of the decaying residual voltage (M1,M2,M3,M4: voltages measured during the 'off' part of each transmitted cycle). The receiver was set to a delay time of 160 milliseconds and the integration times for the 4 slices were 120, 220. 420 and 820 milliseconds, respectively. Measurements at each station were averaged over a sufficient number of cycles to obtain an acceptable signal-to-noise ratio. All measurements were stored in the internal memory of the IP-2 along with computed values of apparent resistivity and 'total' chargeabiltiy (defined as M = [120M1 + 220M2 + 420M3 + 820M4] / 1580). Data was dumped to a printer at the end of each survey day.

#### 9.0 RESULTS AND INTERPRETATION

Results of the induced polarization survey are presented in pseudosection form in Drawings 2 through 14. A plan map showing the IP anomalies and extent of line coverage on the north grid is presented in Drawing 1.

The IP anomalies have been categorized as follows:

#### i) DEFINITE BEDROCK ANOMALY

This is an anomaly which has a known geological source as proven by drilling and/or surface geology, or, an anomaly whose signature AND correlation with other geophysical and/or geological data indicate a bedrock source even though the exact nature of the source is unknown. - 12 -



#### ii) PROBABLE BEDROCK ANOMALY

This is an anomaly whose signature OR correlation with other geophysical/geological data suggests a bedrock source.

#### iii) POSSIBLE BEDROCK ANOMALY

This category includes generally low amplitude chargeability anomalies with poor signatures and weak or nil correlation with other data.

A line by line description of the induced polarization results follows:

#### Line 26 N (Drawing No. 2) -

A sharp, moderate amplitude chargeability anomaly centred at 4+75 E is responsive at n-separations of 3 and 4 suggesting a depth to the top of the anomalous zone of 20 - 40 metres. The anomaly appears to correlate with a slight increase in apparent resistivity and may be associated with a weakly-defined magnetic low. The anomaly signature and strength of the response suggest a narrow zone of disseminated sulfides, perhaps related to faulting, may be the anomalous source.

A number of other low amplitude, generally poorly-defined chargeability responses are located on line 26 N. These latter anomalies exhibit no associated resistivity responses and weak correlation with magnetics. Although weak zones of disseminated sulfides cannot be ruled out as the sources of these anomalies, it is suggested that data supporting their gold potential (eg. by means of soil geochemistry) be established before any of these zones are drilled.

#### Line 24 N (Drawing No. 3) -

Two relatively broad, well-formed, moderate amplitude chargeability anomalies centred at 2+30 E and 3+50 E, respectively,



exhibit flanking correlation with magnetic highs. Neither of the anomalies have corresponding anomalous resistivity.

The similar signatures over the two zones suggest similar anomalous sources. The breadth of the responses and their location within a region of enhanced magnetic activity may indicate a lithological source such as diabase or serpentinite containing elevated levels of disseminated pyrite and/or magnetite as the polarizable material.

The low background resistivities, even at the higher n-separations, can be explained by the masking effect of the relatively conductive (< 100 ohm-m.) surficial cover.

Line 22 N (Drawing No. 4) -

No significant chargeability anomalies were located on this line.

An apparent resistivity low centred at approximately 3+10 W corresponds with a fault previously interpreted from magnetic data.

#### Line 21 N (Drawing No. 5) -

A single moderate amplitude chargeability anomaly has been located at the western extremity of this line centred at approximately 5+00 W. The response is associated with higher apparent resistivities and a weak, narrow, flanking resistivity low to the east. A diabase intrusive has been mapped just to the west of the anomalous zone.

The chargeability anomaly may represent a zone of disseminated sulfide mineralization within the wall rock on the west side of a fault/contact.

#### Line 20 N (Drawing No. 6) -

Anomalous chargeabilities at the western extremity of this line are interpreted as representing two separate zones centred at 6+40 W and 5+85 W, respectively.

The westernmost zone exhibits moderate amplitude chargeabilities ranging up to 18 mV/V associated with sharply elevated apparent resistivities. The anomaly appears to be associated with a diabase intrusive suggesting that the anomalous polarizable material may be disseminated pyrite and/or magnetite within the intrusive rock itself.

The second anomaly, centred at 5+85 W, has been distorted somewhat by the anomalous response to the west, however, it appears to represent a narrow zone producing moderate chargeabilities of increasing amplitude with increasing 'n'. The zone exhibits direct correlation with a sharp narrow magnetic high and possible flanking correlation with apparent resistivity lows to both the east and west. The chargeability anomaly may represent a zone of disseminated/stringer sulfide mineralization associated with a fault/contact and possibly associated with a narrow band of iron formation.

#### Line 19 N (Drawing No. 7) -

A sharp, moderate amplitude chargeability anomaly centred at 6+05 W exhibits flanking correlation with low resistivities to the east. The anomaly is also associated with a sharp dipolar magnetic feature and located just to the north of an outcropping ridge of iron formation. The chargeable response may represent a zone of sulfidized iron formation or sulfide mineralization immediately adjacent to iron formation. The resistivity data further suggests that the zone may be in close spatial association with a contact and/or fault.



Several weaker less-developed chargeability responses centred at 6+70 W and 7+40 W, respectively, are believed to be associated with diabase, possibly representing disseminated pyrite and/or magnetite within intrusive rock.

## Line 18 N (Drawing No. 8) -

A narrow, well-developed chargeability anomaly centred at 5+15 W exhibits moderate to high amplitude and shows direct correlation with a sharp resistivity low. The anomaly is associated with a narrow magnetic ridge and is believed to represent sulfidized iron formation or sulfide mineralization immediately adjacent to iron formation. The apparent resistivity low suggests that the sulfide mineralization may be of an electrically continuous form (eg. stringers or veins) or that it is in close spatial association with a porous structure such as a fault or shear. The resistivity data further suggests the presence of a geologic contact in the vicinity of the mineralization.

A second chargeability anomaly immediately to the east of the zone described above exhibits flanking correlation with a sharp resistivity low to the west. The anomaly may represent sulfide mineralization within wall rock on the east side of a fault/ contact.

A broad chargeability anomaly centred at approximately 6+55 W is associated with a region of elevated resistivity and high magnetic response. The anomaly is believed to be due to sulfide and/or magnetite mineralization within a mafic intrusive.

## Line 17 N (Drawing No. 9) -

A sharp low-amplitude chargeability response centred at 0+65 W is associated with a dipolar magnetic trend. The anomaly is believed to represent a north northeasterly trending continuation of a zone of sulfidized iron formation mapped to the south.

A narrow moderate amplitude chargeability anomaly centred at 4+85 W exhibits flanking correlation with a resistivity low to the east. The anomaly is also associated with a dipolar magnetic trend believed to represent iron formation. The chargeable response may represent sulfide mineralization associated with the iron formation. The resistivity data suggests the presence of a fault/contact at or immediately to the east of the mineralized zone.

A weak poorly-developed chargeability anomaly centred at 5+45 W is believed to represent sulfide and/or magnetite mineralization associated with mafic intrusive rock.

### Line 16 N (Drawing No. 10) -

Only a short section (6+50 W - 4+50 W) of this line was surveyed with the IP method and no anomalies were located. Judging by the trend of chargeability anomalies located on lines 17 N, 18 N and 19 N and the magnetic trend associated with these anomalies, a continuation of the sulfide/iron formation zone delineated to the north may intersect line 16 N beyond the eastern extremity of the surveyed portion of this line.

## Line 13 N (Drawing No. 11) -

Three low-amplitude, weakly-formed chargeability anomalies are centred at 3+40 W, 2+10 W and 1+10 W, respectively. All of these anomalies are associated with high apparent resistivity. The westernmost of this anomalous trio is believed to be associated with a north-south trending diabase dike and possibly represents sulfide and/or magnetite mineralization within the dike rock. The other two anomalies may represent zonations of elevated sulfide content within volcanic rocks possibly associated with silicification.



A very weak chargeability response centred at 0+10 E appears to correlate with a linear north northeasterly striking magnetic trend which is believed to delineate iron formation. The IP anomaly may represent sparse sulfide mineralization associated with the same iron formational horizon located on line 16 N at 0+50 W.

A narrow, low-amplitude chargeability anomaly centred at 1+95 E is believed to arise from sulfide and/or magnetite mineralization within a diabase intrusive.

## Line 0 (Drawing No. 12) -

A moderate-amplitude, well-formed chargeability anomaly centred at 2+25 W is associated with moderately elevated resistivity. This anomaly may represent a continuation of the silicified, sulfidized and, reportedly, auriferous iron formation drilled by Dumont in 1962 further to the south.

Weaker chargeability responses flanking the zone described above are centred at 1+65 W and 2+95 W, respectively. Anomaly signatures indicate deeper-seated polarizable zones associated with lower resistivities. These zones may consist of disseminated sulfides related to faulting/shearing and/or contact features and may not have been intersected during previous drilling.

#### Line 1 S (Drawing No. 13) -

A low-amplitude chargeability response centred at approximately 2+25 W may represent a continuation of the 'Dumont' zone believed to be located at 2+70 W on line 2 S and striking north northeast.

Two moderate-amplitude chargeability anomalies centred at 4+55 W and 4+08 W, respectively, are associated with resisti-



vity lows. The resistivity data suggests that these anomalies may be located near a geologic contact with possible attendant faulting or shearing. The anomalies may represent the same mineralized horizon(s) intersected by Rio Tinto in 1982 described as "several bands of siliceous iron formation, wellmineralized (5-10%) with pyrrhotite and pyrite and containing up to several percent chalcopyrite in places".

Line 3 S (Drawing No. 14) -

A low amplitude chargeability anomaly centred at approximately 5+85 W exhibits flanking correlation with a resistivity low to the east. The anomaly may represent an extension of the mineralized iron formational horizon intersected by Rio Tinto and described above. The flanking resistivity low suggests the presence of faulting.

#### 10.0 CONCLUSIONS AND RECOMMENDATIONS

 The following anomalies, located on the north grid of the Carman-Langmuir property, are interpreted as representing zones of sulfide replacement within iron formation or sulfide mineralization in close association with iron formation. Using the Carshaw/Malga type deposit as a model, these zones are considered to be high priority gold targets.

Line 20 N, 5+85 W Line 19 N, 6+05 W Line 18 N, 5+15 W Line 17 N, 4+85 W Line 13 N, 0+10 E(?) Line 17 N, 0+65 W

These zones probably represent a single horizon.

2) The following anomalies may represent sulfides associated with faulting, shearing and/or possible geologic contacts. These zones are also considered to have gold potential. Line 26 N, 4+75 E

Line 21 N, 5+00 W Line 18 N, 4+65 W

3) The following anomalies are believed to be due to sulfide and/or magnetite mineralization within mafic or ultramafic intrusive rocks and are not considered to warrant further investigation at this time.

Line 24 N, 2+30 E 3+50 E Line 20 N, 6+40 W Line 19 N, 6+70 W 7+40 W Line 18 N, 6+55 W Line 17 N, 5+45 W Line 13 N, 3+40 W

It is recommended that all anomalous IP zones in category 1, above, be thoroughly prospected, trenched and drilled. Anomalous zones in category 2 are considered second priority gold targets and should be investigated on surface where possible and by means of diamond drilling where necessary.

Limited IP coverage on the south grid of the property has confirmed IP zones located previously which are believed to represent two sulfide-bearing iron formations drilled by Dumont and Rio Tinto in 1962 and 1982, respectively. Both of these zones of iron formation have undergone only very limited investigation by diamond drilling. One of the zones (Dumont, 1962), reportedly, assayed 0.67 ounces gold per ton over a core length of 6 feet. Both of these zones should be further investigated both along strike and at depth by means of diamond drilling.

Respectfully submitted

Robert E. Gillick, MSc. ROBERT E. GILLICK & ASSOCIATES LTD.

## 11.0 REFERENCES

- R. E. Gillick, 1988, Report on Magnetometer and Induced Polarization Surveys on the Carman & Langmuir Townships Property of Golden Pheasant Resources.
- R. Bald, 1988, Preliminary Geology Map, Carman & Langmuir Townships Property - North Grid.
- R. J. Anderson, 1988, Summary of 1988 Activities, Carman & Langmuir Townships Property, Volume 1 -Diamond Drilling.

# APPENDIX A

# CERTIFICATE OF QUALIFICATIONS

## CERTIFICATE OF QUALIFICATIONS

This is to certify that:

- 1) I am a consulting geophysicist with an office at 114 Willingdon Drive, North Bay, Ontario.
- 2) I hold a BSc.in Mathematics from Dalhousie University and an MSc. Diploma in Applied Geophysics (1979) from McGill University.
- 3) I have been working in the Mineral Exploration and Mining Industry for the past 13 years.
- 4) I am an associate member of the Society of Exploration Geophysicists.
- 5) I have no direct or indirect interest in the property described in this report.

Dated at North Bay, Ontario, this  $\geq 1^{sr}$  day of  $\mathcal{XOU}$ ,  $19\mathcal{BS}$ .

Lullek

R. E. Gillick.

# APPENDIX B

# TECHNICAL DATA STATEMENT

1

1

ľ



# **Ministry of Natural Resources**

File\_

## GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

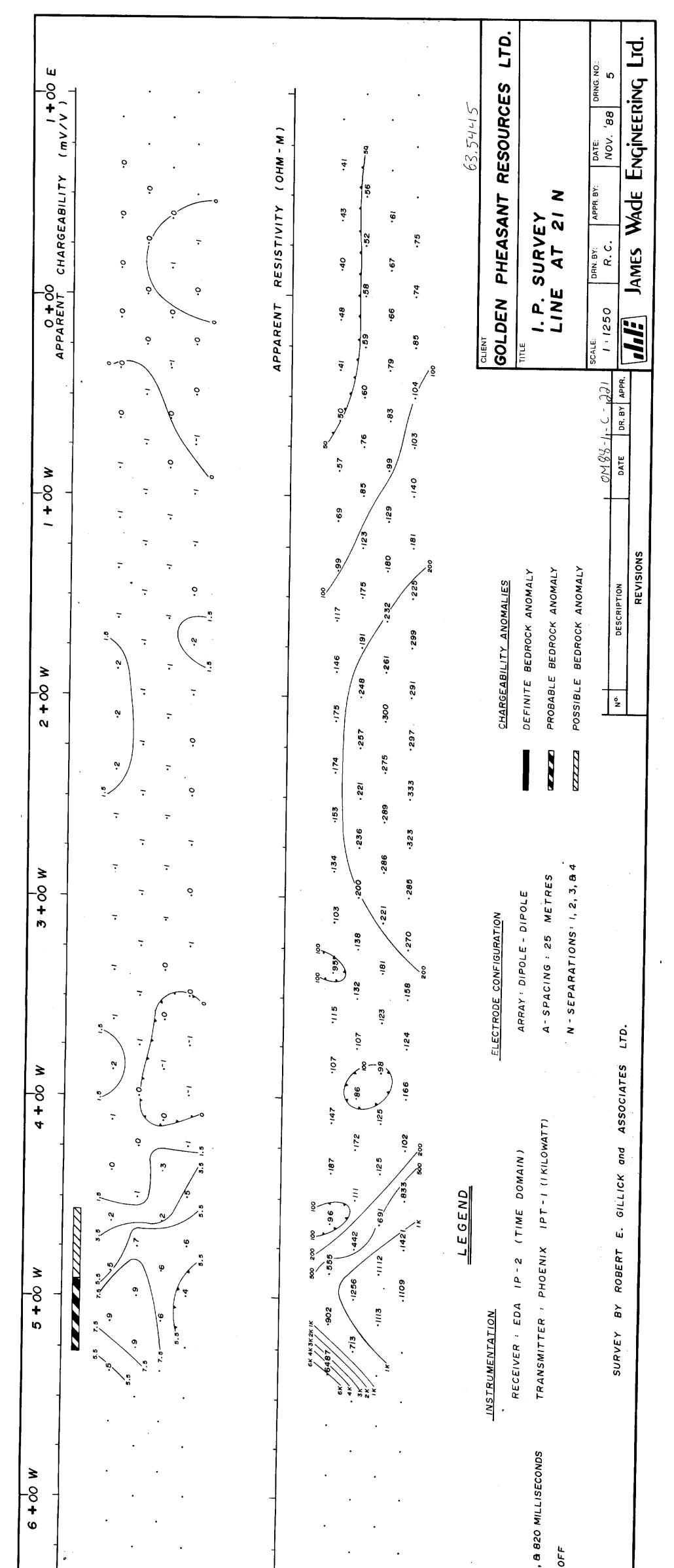
#### TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) INDUCED POL	ARIZATION	
Township or Area CARMAN & LA	NGMUIR TOWNSHIPS	MINING CLAIMS TRAVERSED
Claim Holder(s) GOLDEN PHEA	SANT RESOURCES LTD.	List numerically
Survey Company ROBERT E. GI	LLICK & ASSOCIATES LTD.	P 987235
Author of Report ROBERT E. GI	LLICK	(prefix) (number) P 987236
Address of Author 114 WILLINGI		P 987237
Covering Dates of Survey_Oct. 19	)-30,1988, inclusive	
Total Miles of Line Cut	(incluting to orner)	P 987238
		P 987240
SPECIAL PROVISIONS	DAYS	P 987241
CREDITS REQUESTED	Geophysical <sup>per claim</sup>	P 987243
ENTER 40 days (includes	-Electromagnetic	P 987243
line cutting) for first	-Magnetometer	P 947058
survey.	-Radiometric	Р 792475
ENTER 20 days for each	Other	P 987241 P 987243 P 947058 P 792475 P 792476
additional survey using same grid.	Geological	
	Geochemical	P 792481
AIRBORNE CREDITS (Special provisio		P 792482
Magnetometer Electromagne (enter day	tic Radiometric	
DATE: Alau 21 188 SIGNAT		
DATE: <u>21 / 88</u> SIGNAT	Author of Report or Agent	
	_	
Res. Geol Qualific	cations	-
Previous Surveys File No. Type Date	Claim Holder	
······		
		TOTAL CLAIMS

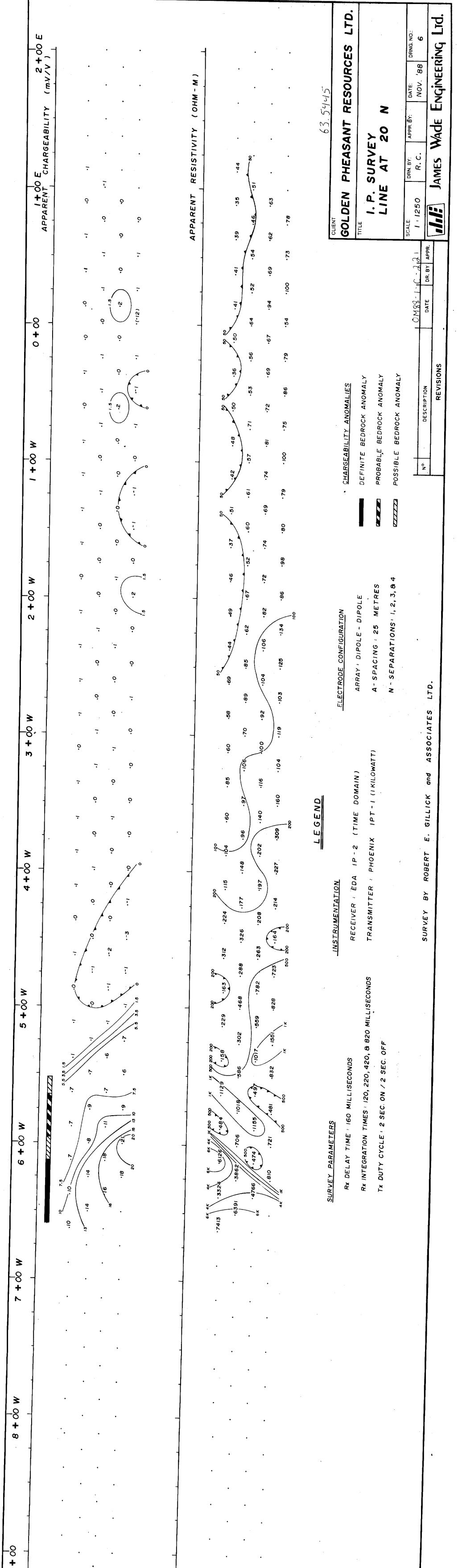
OFFICE USE UNLY

# GEOPHYSICAL TECHNICAL DATA

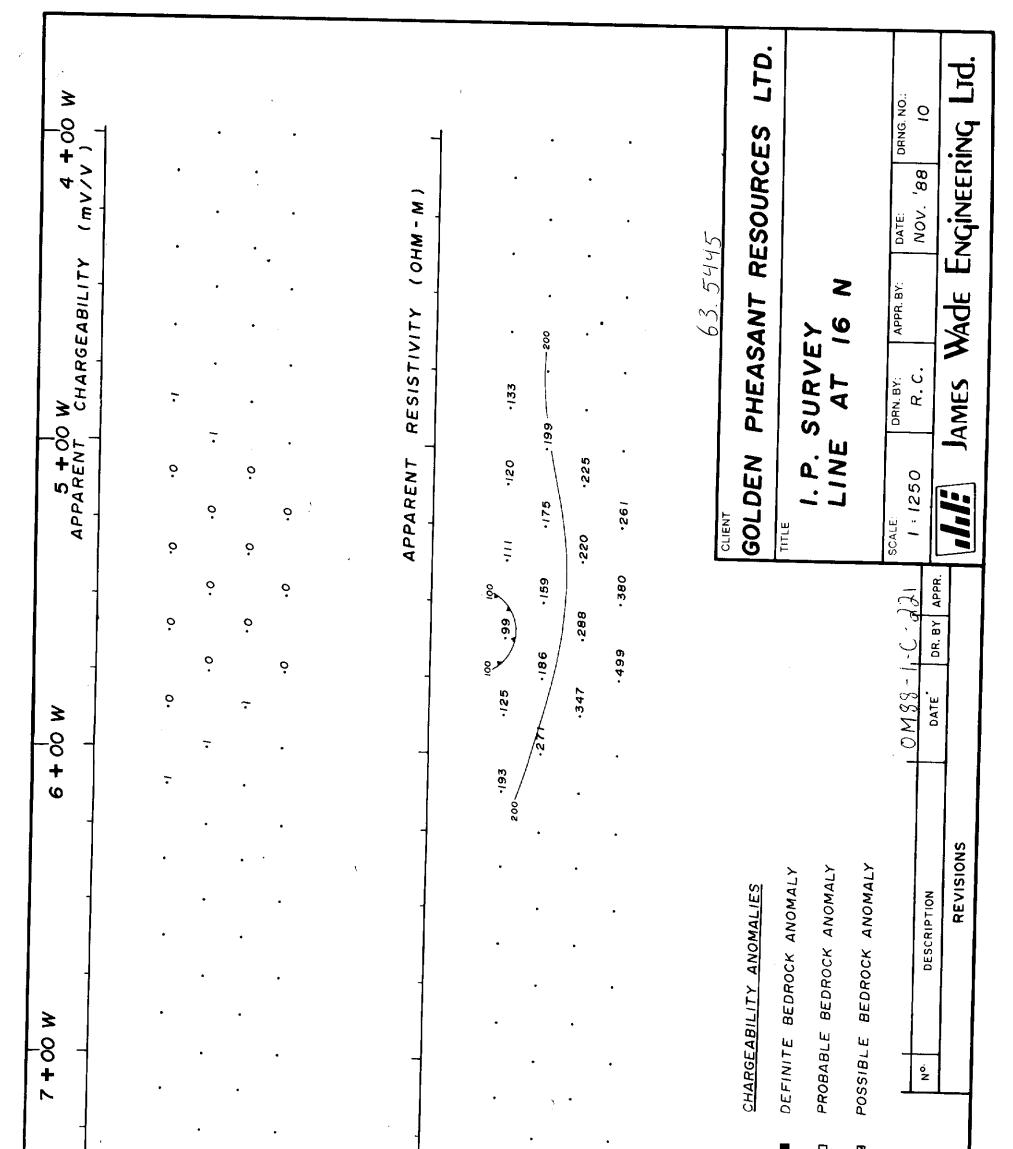
Numb	ber of Stations		Numbe	r of Readings	
	on interval				
	le scale		-	-	
	our interval				
Conte					n 1997
_ Ins	strument				
2	curacy – Scale constant				
Dir	urnal correction method	<b></b>		·····	
Bas	se Station check-in inter-	val (hours)			
Bas	se Station location and v	alue			
	<u></u>	·			
Ins ارد	strument				
Ins Coi Coi Aco Me Free	il configuration				
Co	il separation		·	·	
Ac	curacy				
Me	ethod:				🗆 Parallel line
J Fre	equency	·	(enacify VI E station)		
	rameters measured				
Ins	strument				
Sca	ale constant		4		
	orrections made				
		<u></u>			****
Zi Ba	se station value and loca	tion	····	·····	
<del></del>					
Ele	evation accuracy				·····
	-				
Ins	strument <u>Receiver</u> :	EDA IP-2;	Transmitter:	Phoenix IPT-1	
Me	ethod 🚯 Time Domain	n		Frequency Domain	
Pa	rameters – On time	2 seconds		Frequency	
				Range	
i	– Delay time _	160 millisecon	nds		
	- Integration t	ime <u>120, 220. 420</u> ,	820 millisec	onds	
Po	JWCI	lowatt			
Ele	ectrode arrayD	ipole-dipole			
Ele	ectrode spacing2	5 metres		· · · · · · · · · · · · · · · · · · ·	
	pe of electrodeS	teel stake			



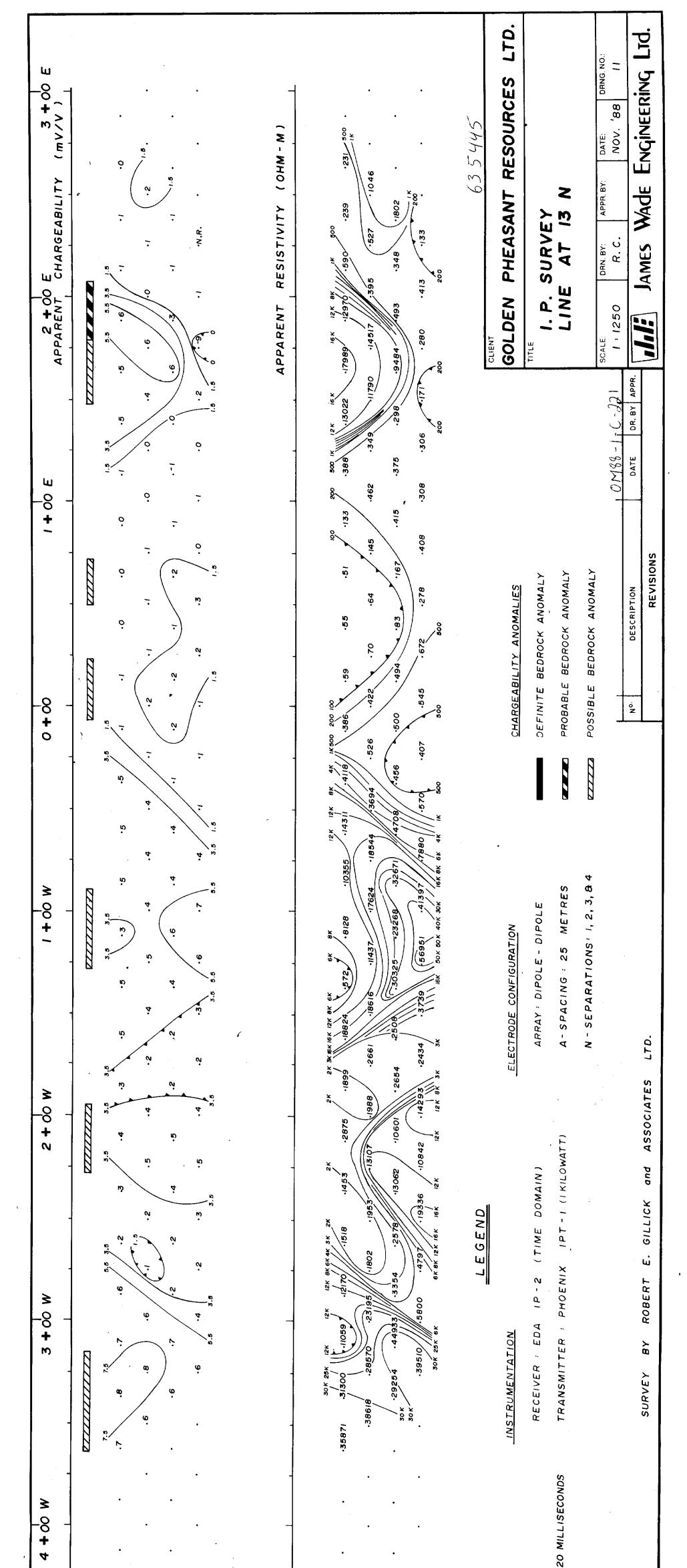
00+		-00 - -0 -	-00 - +	-00 +	x -00 + 7
Ц		•			
S = S N = 3			•	· · · ·	· · · · · · · · · · · · · · · · · · ·
S = 4 .	· · · · · · · · · · · · · · · · · · ·	· . · . · .	· · · ·	· · · ·	
		·			
		•	•		
E = N	· · · · · · · · · · · · · · · · · · ·	•			
S = 4 .		•	· · · ·	· · ·	· · · ·
	<u>APPARENT CHARGEABILITY</u> CONTOURED AT 0, 1.5, 3.5, 5.5, 7.5, 10, 13, 16, 20, 24, 28, 8 32 mV/V			SUR	SURVEY PARAMETERS
	<u>APPARENT RESISTIVITY</u> CONTOURED AT 50, 100, 200, 500, 1K, 2K, 3K, 4K, 6K, 8K, 12K, 16K, 20K, 25K, 30K, 8 40K 0HM-M				RX DELAY TIME : 160 MILLISECONDS RX INTEGRATION TIMES : 120, 220, 420, 8 6 TX DUTY CYCLE : 2 SEC. ON / 2 SEC. OFF
42a065E8448 63.5445 CARMAN	Seg				



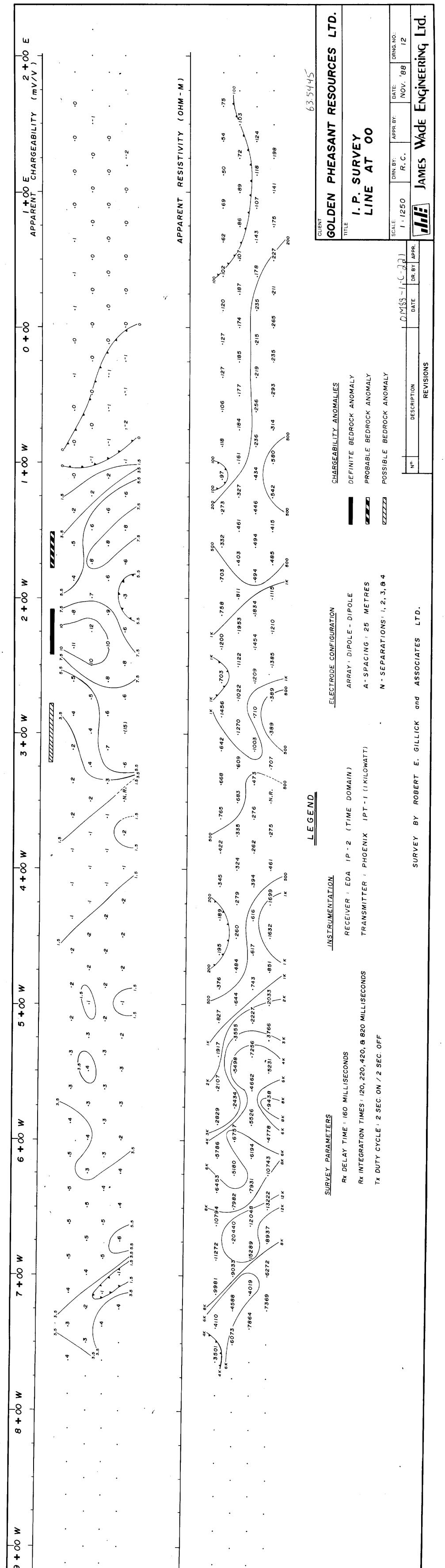
00 <b>+</b>	00+ 	
N = 2 · ·		
د . د	•	
N = 4 .	• • • • • • • • • • • • • • • • • • • •	•
		-
N = 2 · · · · · · · ·	•	
۲	•	
N = 4 .	•	
· ·		
	<u>APPARENT CHARGEABILITY</u> CONTOURED AT 0, 15, 35, 55, 75, 10, 13, 16, 20, 24, 28, 8 32 mV/V	
	<u>APPARENT RESISTIVITY</u> CONTOURED AT 50, 100, 200, 500, 1K, 2K, 3K, 4K, 6K, 8K, 12K, 16K, 20K, 25K, 30K, <b>B</b> 40K 0HM - M	Ŷ
424065E8448 63.5445 CARMAN	270	



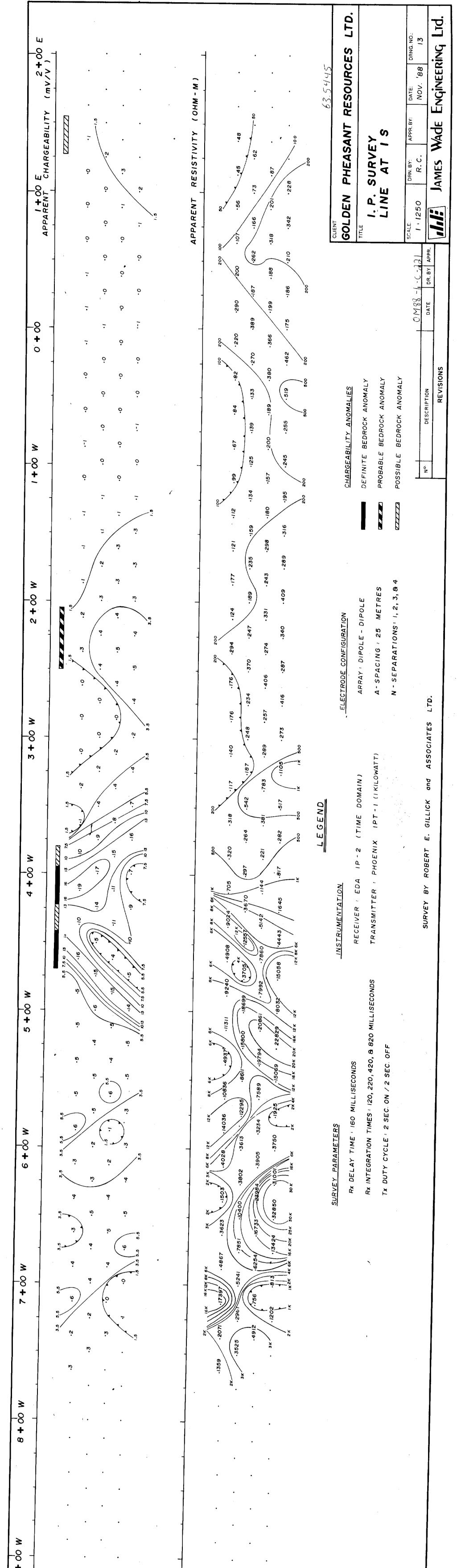
M 00+ 8		ELECTRODE CONFIGURATION ARAY : DIPOLE - DIPOLE A- SPACING : 25 METRES A - SEPARATIONS : 1, 2, 3, 84	LTD.
		LEGEND INSTRUMENTATION RECEIVER : EDA IP - 2 (TIME DOMAIN) TRANSMITTER : PHOENIX IPT - 1 (IKILOWATT)	SURVEY BY ROBERT E. GILLICK and ASSOCIATES
		<u>SURVEY PARAMETERS</u> Rx DELAY TIME * 160 MILLISECONDS Rx INTEGRATION TIMES * 120, 220, 420, 8 820 MILLISECONDS Tx DUTY CYCLE * 2 SEC ON / 2 SEC. OFF	
		APPARENT CHARGEABILITY CONTOURED AT 0, 1.5, 3.5, 5.5, 10, 13, 16, 20, 24, 28, B 32 mV/V APPARENT RESISTIVITY CONTOURED AT 50, 100, 200, 1K, 2K, 3K, 4K, 6K, 8K, 12K, 16K, 20K, 25K, 30K, B 40K 0HM-M	Sas



	00 •		-00 +	-00 - +	7 + 00 W	6 + 00 W	5 + 00 W	4
	•							-
Seo		• •	•	•				
Sedentine and solution of the	11	•	• • • •		•	• • •	•	•
ALE CONTORED AT 0, 12, 13, 16, 20, 24, 26, 9 U 2 m / / / / / / / / / / / / / / / / / /		•		•	• • •	•	•	
Image: Internet i		1		9				•
APPARENT CHARGEARULTY         CONTOURED AI 0, 15, 35, 56, 75, 10, 13, 16, 20, 24, 28, 6, 32 m/ / V         APPARENT CONTOURED AI 0, 15, 35, 56, 75, 10, 13, 16, 20, 24, 28, 6, 32 m/ / V         APPARENT CONTOURED AI 0, 15, 35, 56, 75, 10, 13, 16, 20, 24, 28, 6, 32 m/ / V         APPARENT FEGISTURY         CONTOURED AI 0, 15, 35, 56, 75, 10, 13, 16, 20, 24, 28, 6, 32 m/ / V         APPARENT FEGISTURY         CONTOURED AI 0, 15, 35, 56, 14, 124, 154, 154, 154, 154, 154, 154, 154, 15				-	-	-		
APPARENT CHARGEABILITX         CONTOURED AT 0, 15, 35, 75, 10, 13, (6, 20, 24, 28, 8, 32 m/ / V         APPARENT RESISTIVITY         CONTOURED AT 00, 100, 200, 100, 200, 100, 200, 10, 200, 10, 200, 10, 200, 10, 200, 10, 200, 10, 200, 10, 200, 10, 200, 10, 200, 10, 200, 10, 200, 10, 10, 10, 10, 10, 10, 10, 10, 10,								-
APPARENT CHARGEARLITY CONTOURED AT 0, 15, 15, 55, 75, 10, 13, 16, 20, 24, 28, 8 32 m// V ENTOURED AT 0, 10, 13, 16, 20, 24, 28, 8 32 m// V CONTOURED AT 50, 100, 200, 500, 1K, 2K, 3K, 1K, 16K, 12K, 16K, 12K, 16K, 12K, 16K, 12K, 12K, 16K, 12K, 12K, 16K, 12K, 12K, 16K, 12K, 12K, 12K, 16K, 12K, 12K, 12K, 16K, 12K, 12K, 16K, 12K, 12K, 12K, 16K, 12K, 12K, 12K, 16K, 12K, 12K, 12K, 12K, 12K, 12K, 12K, 12	· · · · · · · · · · · · · · · · · · ·	• • •			•	•		
AFARENT CHARGEABULTY CONTOURED AT 0, 15, 35, 55, 75, 10, 13, 16, 20, 24, 28, 8.32 mV/V AFARENT RESISTIVITY CONTOURED AT 50, 100, 200, 500, 1K, 2K, 3K, 4K, 6K, 8K, 12K, 16K, 20K, 25K, 30K, 8.40K 0HM-M	• • • 11	•		•	• • • •		· · · ·	•
APPARENT CHARGEABILITY         CONTOURED AT 0, 1.5, 3.5, 5.5, 7.5, 10, 13, 16, 20, 24, 28, 8 32 m/ / V         APPARENT RESISTIVITY         CONTOURED AT 50, 100, 200, 500, 1K, 2K, 3K, 4K, 6K, 8K, 12K, 16K, 20K, 25K, 30K, 8 40K 0HM-M		•				•	•	
APPARENT CHARGEABILITY       CONTOURED AT 0, 1.5, 3.5, 5.5, 7.5, 10, 13, 16, 20, 24, 28, 8.32 mV/V         CONTOURED AT 0, 1.5, 3.5, 5.5, 7.5, 10, 13, 16, 20, 24, 28, 8.32 mV/V         AFPARENT RESISTIVITY         CONTOURED AT 50, 100, 200, 1K, 2K, 3K, 4K, 6K, 8K, 12K, 16K, 20K, 25K, 30K, 8.40K 0HM-M         CONTOURED AT 50, 100, 200, 1K, 2K, 3K, 4K, 6K, 8K, 12K, 16K, 20K, 25K, 30K, 8.40K 0HM-M								
APPARENT RESISTIVITY CONTOURED AT 56, 100, 200, 500, 1K, 2K, 6K, 8K, 12K, 16K, 20K, 25K, 30K, 8 40K 0HM-M		<u>ABILITY</u> 0, 1.5, 3.5, 5.5,	13, 16, 20, 24, 28, B 32 mV/V				SURVEY PARAMETERS	
APPARENT RESISTIVITY CONTOURED AT 50, 100, 200, 500, 1K, 2K, 3K, 4K, 6K, 12K, 16K, 20K, 25K, 30K, 8 40K 0HM-M         20K, 25K, 30K, 8 40K 0HM-M							RX DELAY TIME : 160 MILLISECONDS	(0
		APPARENT RESISTIVITY CONTOURED AT 50, 100, 20K, 251	2K, 3K, 0HM - M				RX INTEGRATION TIMES - 120, 220, 420 TX DUTY CYCLE - 2 SEC. ON / 2 SEC.	0, 8 820 . OFF
	42A06SE8448 63.5445 CARMAN	082						

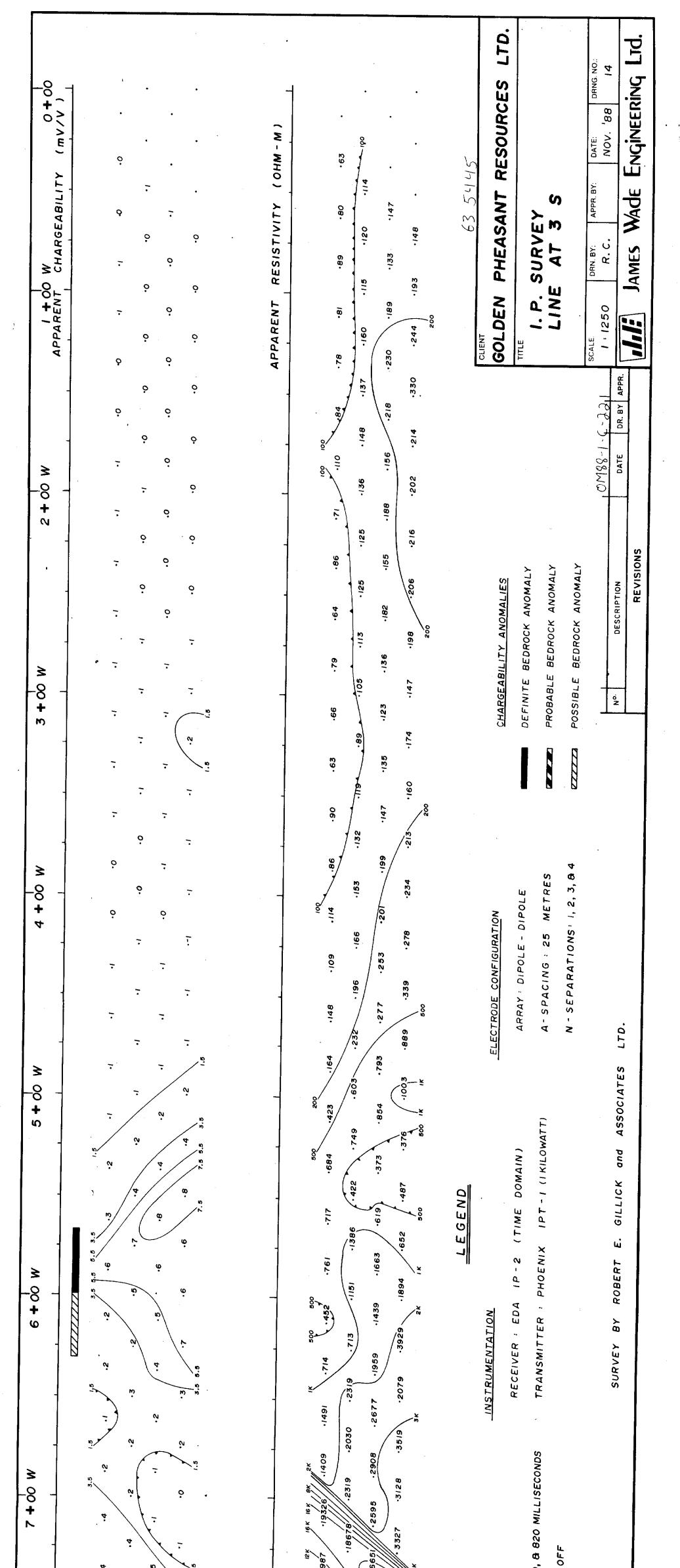


00+	-00 - +			-00 +			0
£					1		
· · · · · · · · · · · · · · · · · · ·			•	•		•	•
	•	•				•	
N = 3	•	•		•	٠		•
N = 4 · · · ·	•	•	•		·	•	
		·					
		:					
	-						
						·	
(	•	•	•		•		•
· · · · · · · · · · · · · · · · · · ·	•	•			•	•	
» » »				•	•	•	•
N = 4 · · · ·	•	•	•				
	APPARENT CI	HARGEARU ITV					
	CONTOURED	_	5.5,	75, 10, 13, 16, 20, 24,	28,	B 32 mV / V	
	APPARENT RES CONTOURED	<u>815TIVITY</u> AT 50, 100, 20K, 25H	200, 500, IK, ¢, 30K, <b>8</b> 40K	<, 2K, 3K, 4K, K OHM - M	6К, 8К,	IZK, I6K,	
		·					
424065E8448 63.5445 CARMAN	300						



00+	-00 - +	6 -0 +	+
N = 2 · ·	•	•	
N = 3	· · ·	•	-
N = 4 · · ·		· · ·	
			·
		( 	
	· · · · ·		
N = 2 · · · .	•	•	
		•	
N = 4 .		· · ·	·
	APPARENT CHARGEABILITY CONTOURED AT 0, 1.5, 3.5, 5.5, 75, 10,	10, 13, 16, 20, 24, 28, 8 32 mV/V	
·	<u>APPARENT RESISTIVITY</u> CONTOURED AT 50, 100, 200, 500, 1K, 20K, 25K, 30K, <b>8</b> 40K	2K, 3K, 4K, 6K, 8K, 12K, 16K, ohm - m	
42405E8448 63.5445 CARMAN	ŝ		
	מופ		

<u>0</u>



		<b>•</b> •	M 00 + 01	W 00 + 6	8 + 00 W
	· · · ·				
N = 2 · · · · · · · · · · · · · · · · · ·		- - -	· . · · ·	· · · · · · · · · · · · · · · · · · ·	     
N = 4 .		•		· · · ·	s; · ·
					3.5
N = 1 · · · · · · · · · · · · · · · · · ·			•	•	193255 - 193255 - 19387
		· · ·	•	•	∕ <u></u> §§(
<b>7</b> = <b>4</b>		• •	•	• • • • •	20 K 16K 4K
	<u>APPARENT CHARGEABILITY</u> CONTOURED AT 0, 1.5, 3.5, 5.5, 75, 10, 13, 16, 20, 24, 28,	, 8 32 mv/v			SURVEY PARAMETERS
	00.200 500 1K 2K 1K 2K 2				Rx DELAY TIME : 160 MILLISECONDS Rx INTEGRATION TIMES : 120, 220,420,88
	20K, 25K, 30K, 8 40K 0HM - M	BK, I2K, I6K,			Tx DUTY CYCLE: 2 SEC. ON / 2 SEC. OFF
42005569448 63.5445 CARMAN	320				