

1987 ASSESSMENT REPORT ON  
THE HAGAS PROPERTY FOR  
PROGOLD RESOURCES LTD.

PART II

OMENICA MINING DIVISION  
BRITISH COLUMBIA

LATITUDE: 54°09'N

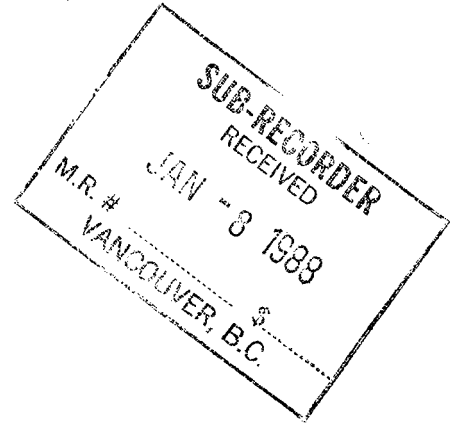
LONGITUDE: 127°01'W

NTS 93L3E

JOHN E. ROBINS  
COOKE GEOLOGICAL CONSULTANTS LTD.

107 - 325 HOWE STREET  
VANCOUVER, B.C. V6C 1Z7

JANUARY 8, 1988



16,872  
Part 2 & 2

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**PACIFIC GEOPHYSICAL LTD.**

**GEOPHYSICAL REPORT  
ON THE  
INDUCED POLARIZATION AND RESISTIVITY SURVEY  
ON THE  
HAGAS CLAIM GROUP**

**OMINECA MINING DIVISION  
BRITISH COLUMBIA**

**FOR**

**COOKE GEOLOGICAL CONSULTANTS LTD.**

**LATITUDE: 54<sup>0</sup>09'N LONGITUDE: 127<sup>0</sup>01'W**

**N.T.S. 93L/3E**

**CLAIMS: HAGAS 1, HAG 2, HAGAS 3-5, HAGAS 76-80, HAGAS 81 FR.  
HAGAS 85, HEM, FROST, FROST II**

**OWNER: PROGOLD RESOURCES LTD. (UNDER OPTION)**

**OPERATOR: COOKE GEOLOGICAL CONSULTANTS LTD.**

**BY**

**PAUL A. CARTWRIGHT, P.Geoph.  
GEOPHYSICIST**

**DATED: December 3, 1987**

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## PART A REPORT

### 1) Introduction

An induced polarization and resistivity survey has been completed on the Hagas claim group, Omineca Mining Division, B.C., at the request of Cooke Geological Consultants Ltd., project managers for Progold Resources Ltd.

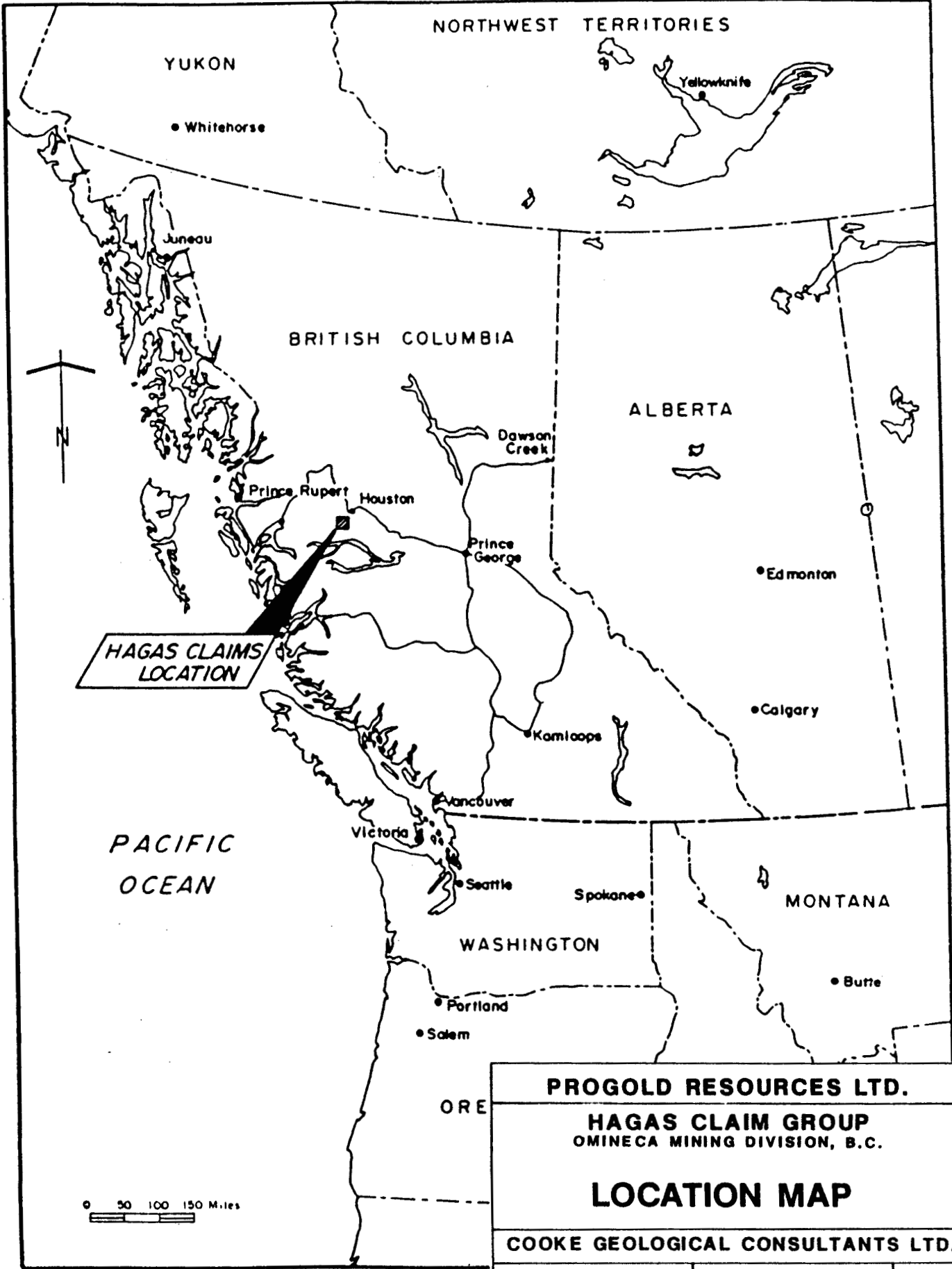
The property is located approximately 32 kilometers southwest of the community of Houston, B.C. Access is via the Morice River Road from Houston to Mile 26 (km 41.6) and then by good logging road for 3 kilometers.

Previous work on the property has included geological mapping; geochemical soil, rock and sediment sampling; trenching and diamond drilling, and interesting silver-copper values have been encountered. Both ground and airborne E.M. and magnetic surveying have been carried out over the property.

The object of the present IP and resistivity survey was to further evaluate the property for the presence of sulphide mineralization similar to that found in the Equity Silver deposit.

A Phoenix model IPV-1 induced polarization and resistivity receiver unit was used, together with a Phoenix Model IPT-1 IP and resistivity transmitter powered by a 1 kw motor-generator. IP effects are recorded as Percent Frequency Effects (P.F.E.) at operating frequencies of 4.0 Hz and 0.25 Hz, while apparent resistivity values are normalized in units of ohm-meters. Dipole-dipole array was utilized to make all of the measurements, using an interelectrode distance of 50 meters. In addition, Line 31+00N was first surveyed using electrode separations of 100, 75 and 25 meters. This initial testing was required in order to optimize the dipole size selected for use on the rest of the grid to be surveyed. Four dipole separations are recorded in every case.

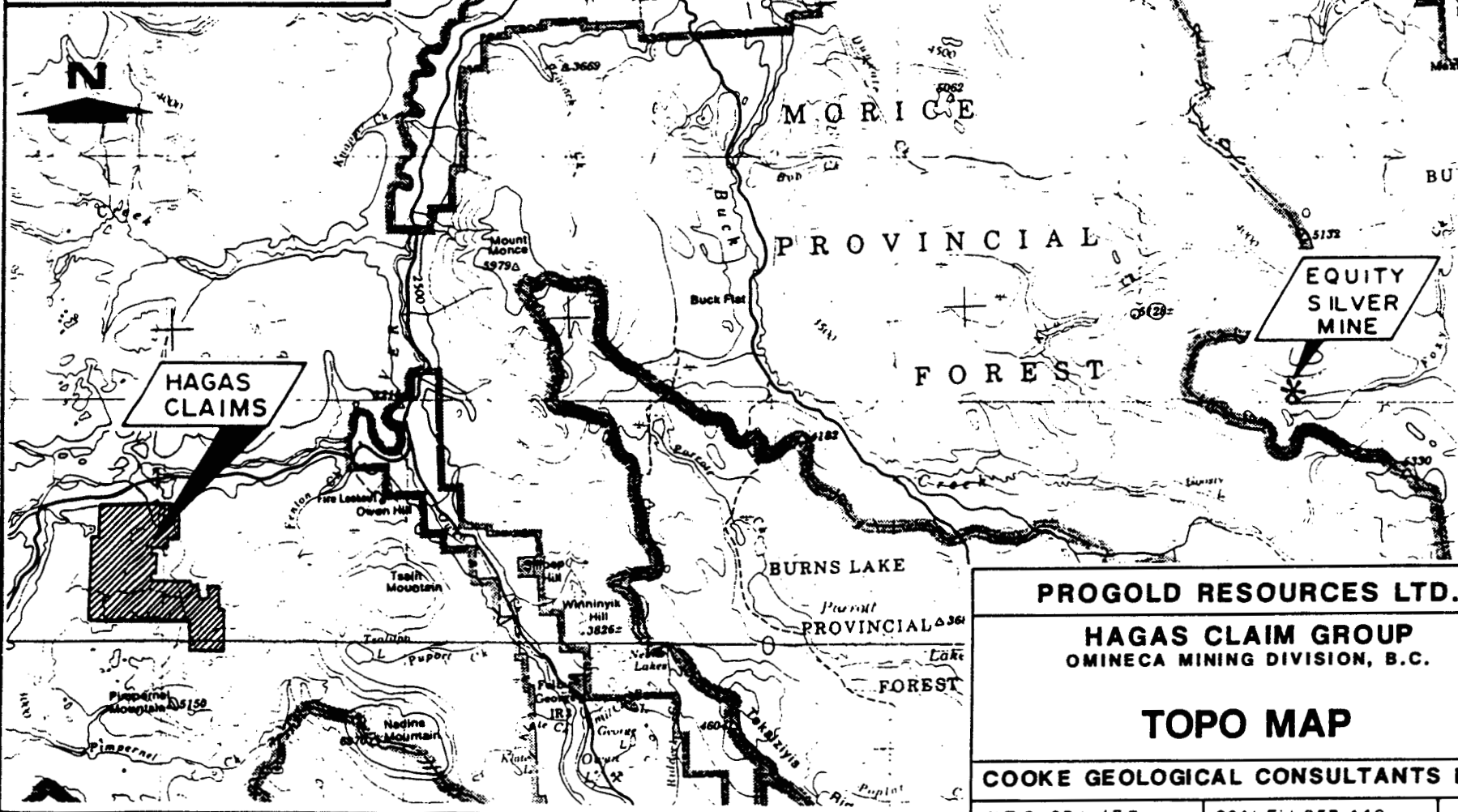
Field work took place during the period August 14, 1987 to September 8, 1987 initially under the direction of Paul A. Cartwright, P.Geoph., and later under the supervision of Kevin Corman (August 17, 1987 to August 28, 1987) and Martin Makulowich (August 29, 1987 to September 8, 1987). Their certificates of qualification are included in this report.



<b>PROGOLD RESOURCES LTD.</b>		
<b>HAGAS CLAIM GROUP</b> OMINECA MINING DIVISION, B.C.		
<b>LOCATION MAP</b>		
<b>COOKE GEOLOGICAL CONSULTANTS LTD.</b>		
N.T.S. 93 L / 3 E	SCALE: AS SHOWN	FIG.
DATE: SEPT. 1987	DRAWN: C.S./dw	1

**EQUITY SILVER  
& HAGAS CLAIMS  
LOCATION MAP**

0 5 Miles



**PROGOLD RESOURCES LTD.**

**HAGAS CLAIM GROUP  
OMINECA MINING DIVISION, B.C.**

**TOPO MAP**

**COOKE GEOLOGICAL CONSULTANTS LTD.**

N.T.S. 93 L / 3E

SCALE: 1:253,440

FIG.

DATE: SEPT. 1987

DRAWN: C.S./dw

2

## 2) Description of Claims

The Hagas claim group is composed of 15 contiguous claims, totalling 95 units. Details are as follows:

Claim No.	Units	Record No.	Expiry Date
Hagas 1	1	108688	17 April 1989
Hag 2	2	5548	13 July 1988
Hagas 3	1	108690	17 April 1989
Hagas 4	1	198691	17 April 1989
Hagas 5	1	108692	17 April 1989
Hagas 76	4	507	22 November 1988
Hagas 77	4	564	14 April 1989
Hagas 78	18	7804	22 August 1988
Hagas 79	3	1161	12 May 1989
Hagas 80	8	1162	12 May 1988
Hagas 81 FR	1	1163	12 May 1988
Hagas 85	18	2073	19 October 1987
HEM	12	826	26 October 1987
Frost	6	6735	17 October 1988
Frost II	15	8690	18 August 1988

Progold Resources Limited is the owner, under option, of the Hagas group of claims. Cooke Geological Consultants Ltd. is the current operator.

## 3) Description of Geology

The following geological description of the property, as well as the preceding claim and introduction information, has been taken from a report written by Chris J. Sampson, P.Eng., for Cooke Geological Consultants Ltd. and dated 28 September 1987.

"The claim group is underlain by Lower Jurassic Hazelton group volcanics and Eocene Back Creek volcanics which have been intruded by an Eocene alkaline gabbro. The geology of the claim group thus closely resembles that on the nearby Equity Silver Mine property where silver-copper orebodies have been mined since 1979."

#### 4) Presentation of Data

The induced polarization and resistivity results are shown on the following data plots in pseudo-section format.

Line	Electrode Interval	Dwg. No.
41+00 N	50 meters	IP-5881-1
39+00 N	50 meters	IP-5881-2
38+00 N	50 meters	IP-5881-3
37+00 N	50 meters	IP-5881-4
36+00 N	50 meters	IP-5881-5
35+00 N	50 meters	IP-5881-6
34+00 N	50 meters	IP-5881-7
33+00 N	50 meters	IP-5881-8
32+00 N	50 meters	IP-5881-9
31+00 N	100 meters	IP-5881-10
31+00 N	75 meters	IP-5881-11
31+00 N	50 meters	IP-5881-12
31+00 N	25 meters	IP-5881-13
30+00 N	50 meters	IP-5881-14
27+00 N	50 meters	IP-5881-15
26+00 N	50 meters	IP-5881-16
25+00 N	50 meters	IP-5881-17
24+00 N	50 meters	IP-5881-18
23+00 N	50 meters	IP-5881-19
22+00 N	50 meters	IP-5881-20



21+00 N	50 meters	IP-5881-21
20+00 N	50 meters	IP-5881-22
19+00 N	50 meters	IP-5881-23
18+00 N	50 meters	IP-5881-24
17+00 N	50 meters	IP-5881-25

Also enclosed with this report are Figure 3 and Figure 4, 1:5,000 scale contoured plan maps of the N=1 PFE and resistivity values collected on the geophysical grid. The definite, probable and possible IP anomalies are indicated by bars, in the manner shown on the legend, on these plan maps. These bars represent the surface projection of the anomalous zones as interpreted from the location of the transmitter and receiver electrodes when the anomalous values were measured. It should be noted that the interpreted anomalies have been derived using all available data, that is, N=1 through N=4.

Since the induced polarization measurement is essentially an averaging process as are all the potential methods, it is frequently difficult to pinpoint the source of an anomaly. Certainly, no anomaly can be located with more accuracy than the electrode interval length; i.e., when using a 50 meter electrode interval, the position of a narrow sulphide body can only be determined to lie between two stations 50 meters apart. In order to definitely locate and fully evaluate a narrow shallow source, it is necessary to use shorter electrode intervals. In order to locate sources at some depth, larger electrode intervals must be used, with a corresponding increase in the uncertainties of location. Therefore, while the center of the indicated anomaly probably corresponds fairly well with the source, the length of the indicated anomaly along the line should not be taken to represent the exact edges of the anomalous material.

The grid information shown on Figures 3 and 4 has been provided by the staff of Cooke Geological Consultants Ltd.

## 5) Discussion of Results

Five zones of anomalous IP effects are interpreted in the data and are illustrated on Figure 3 and Figure 4, plan maps of the contoured N=1 IP effects and resistivity values respectively. Each of the zones are discussed separately below.

### Zone 1

This feature is the most promising of the zones outlined by the present survey. It appears to be composed of moderately resistive material accompanied by moderately anomalous P.F.E. values. The orientation work initially carried out on Line 31+00N suggests this signature to be diagnostic of the target zone. The depth to the top of the body of interest varies somewhat along the trend of the zone, but appears to be a maximum of 35 meters. Although it is weakening to the north, the zone may continue into the untested area west of the surveyed lines. The fact that this feature has yielded intersections of sulphide mineralization in previous drill holes is also encouraging.

### Zone 2

Zone 2 is fairly similar in nature to Zone 1 except that the PFE values are lower in magnitude, while the apparent resistivities observed tend to be similar to those recorded in Zone 1. This may be the result of an increase in depth to the source and/or a decrease in the percentage of polarizable material present.

It should be noted that this zone has not previously been tested by diamond drilling and that it remains open to the south.

**Zone 3**

This feature appears to be composed of fairly weakly polarizable material exhibiting fairly high apparent resistivities. The depth to the top of the causative source appears to be within 25 meters of surface. It is felt that this zone is somewhat less anomalous than Zone 1 and Zone 2, although the northern and southern boundaries of the feature remain undefined.

**Zone 4**

Zone 4 is a very narrow trend exhibiting PFE values which are only slightly above the background values. It is felt that they are symptomatic of a weakly polarizable body which appears to be close to surface (less than 25 meters) and of limited depth extent.

**Zone 5**

Zone 5 is similar in nature to Zone 4 in that it appears to be a polarizable body which gives rise to moderately anomalous PFE values. Depth to the top of the source is felt to be on the order of 30 to 40 meters. As with Zone 3, this feature is still open to the north.

**6) Summary and Recommendations**

An IP and resistivity survey has been completed on the Hagas claim group by Pacific Geophysical Ltd. on behalf of Cooke Geological Consultants Ltd., project managers for the property owners, Progold Resources Ltd.

Five zones of anomalous IP effects have been interpreted from the data and are presented on Figure 3 and Figure 4, plan maps of the contoured N=1 IP effects and resistivity values respectively.

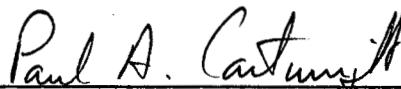
IP Zone 1 has been drilled previously, with encouraging intersections of

massive to semi-massive mineralization being reported in at least two holes. Therefore, it is recommended that additional drilling be carried out to test the source of IP Zone 1 along strike from the area of earlier drilling. A first priority diamond drill hole located on Line 34+00N so as to pass approximately 50 meters beneath Station 875E is recommended to better evaluate the northern part of the zone. The southwestern extent of Zone 1 could best be tested by a second priority diamond drill hole collared in the vicinity of Line 25+00E, Station 925E and drilled  $-45^{\circ}$  northwest for a distance of 125 meters.

Diamond drilling should also be considered to test the source of IP Zone 2, with a hole collared near Line 25+00N, Station 1050E, and drilled at  $-45^{\circ}$  northwest for a distance of approximately 125 meters, on a second priority basis. The southwestern end of IP Zone 2 should also be drilled as a third priority target, by a drill hole situated so as to pass approximately 50 meters beneath Line 19+00N, Station 910E.

Drill testing of IP Zones 3,4 & 5 should await the results of drilling carried out to evaluate the causative sources of IP Zone 1 and IP Zone 2.

**PACIFIC GEOPHYSICAL LTD.**



Paul A. Cartwright, P.Geoph.  
Geophysicist.

Dated: 3 December 1987

**7) Assessment Details**

**Property:** Hagas Claim Group                      **Mining Division:** Omineca  
**Sponsor:** Progold Resources Ltd.                **Province:** British Columbia  
**Location:** 32 km S.W. of Houston, B.C.  
**Type of Survey:** Induced Polarization and Resistivity  
**Operating Days:** 16.5                                **Date Started:** August 14, 1987  
**Consulting Man Days:** 8.0                           **Date Finished:** September 8, 1987  
**Drafting Man Days:** 4.0                             **Number of Stations:** 410  
**Total Man Days;** 28.5                              **Number of Readings:** 2280  
   **Km of Line Surveyed:** 19.55  
**Consultant:**

P.A. Cartwright, 4238 West 11th Avenue, Vancouver, B.C.

**Field Technicians:**

K. Corman, 5711 No. 2 Road, Richmond, B.C.  
M. Makulowich, 669 Valdes Drive, Kamloops, B.C.  
P. Mullan, 1440 Sandhurst Place, West Vancouver, B.C.  
C. Trottier, P.O. Box 1327, Houston, B.C.  
I. Campbell, P.O. Box 1083, Houston, B.C.

**Draughtsman:**

B. Counts, 4131 West 16th Avenue, Vancouver, B.C.

**PACIFIC GEOPHYSICAL LIMITED**

*Paul A. Cartwright*

Paul A. Cartwright, P.Geoph.  
Geophysicist.

Dated: 3 December 1987.

8) **Statement of Costs****Cooke Geological Consultants Ltd.**

Induced Polarization and Resistivity Survey - Hagas Claim Group,  
Omineca Mining Division, British Columbia

**Period:** August 14-16, 1987

**Crew:** K. Corman, P. Mullan, P. Cartwright

**Period:** August 17-24, 1987

**Crew:** K. Corman, P. Mullan

**Period:** August 25-28, 1987

**Crew:** K. Corman, P. Mullan, C. Trottier

**Period:** August 27-September 4, 1987

**Crew:** M. Makulowich, P. Mullan, C. Trottier

**Period:** September 5-8, 1987

**Crew:** M. Makulowich, P. Mullan, I. Campbell

4.0 Operating Days	@ \$1,050.00/day	\$ 4,200.00
16.5 Operating Days	@ \$1,175.00/day	14,687.50
1.5 Bad Weather Days	@ \$750.00/day	1,125.00
1.0 Days @ N/C		-
Mobilization/Demobilization		3,500.00

\$ 23,512.50  
=====

**PACIFIC GEOPHYSICAL LTD.**

*Paul A. Cartwright*

Paul A. Cartwright, P.Geoph.  
Geophysicist.

Dated: 3 December 1987

9) **Certificate**

I, Paul A. Cartwright, of the City of Vancouver, Province of British Columbia, do hereby certify:

1. I am a geophysicist residing at 4238 W. 11th Avenue, Vancouver, B.C.
2. I am a graduate of the University of British Columbia, with a B.Sc. Degree (1970)
3. I am a member of the Society of Exploration Geophysicists, the European Association of Exploration Geophysicists and the Canadian Society of Exploration Geophysicists.
4. I have been practising my profession for 17 years.
5. I am a Professional Geophysicist licensed in the Province of Alberta.
6. I have no direct or indirect interest, nor do I expect to receive any interest, directly or indirectly, in the property or securities of Progold Resources Ltd.
8. Permission is granted to use in whole or in part for assessment and qualification requirements but not for advertising purposes.

**DATED AT VANCOUVER, BRITISH COLUMBIA** this 3rd day of December 1987.

  
Paul A. Cartwright, P.Geoph.

10) **Certificate**

I, Kevin Corman, of Richmond, British Columbia, do hereby certify that:

1. I am a 4th year student of Laval University, Quebec, P.Q.
2. I have been employed as a geophysical crew assistant by Phoenix Geophysics Limited, 200 Yorkland Blvd., Willowdale, Ontario for a period of 4 years.
3. I have been employed as a geophysical crew leader by Pacific Geophysical Ltd., 744 West Hastings Street, Vancouver, B.C., for one year.

**DATED AT VANCOUVER, B.C. this 3rd day of December 1987.**

Kevin Corman  
Kevin Corman *PC*  
*PC*



11) **Certificate**

I, Martin Makulowich, of the City of Kamloops, Province of British Columbia, do hereby certify:

1. I am a geophysical crew leader residing at 669 Valdes Drive, Kamloops, British Columbia.
2. I am presently employed by Pacific Geophysical Ltd. of 224 - 744 West Hastings Street, Vancouver, B.C.
3. I have been practising my vocation about four years.

**DATED AT VANCOUVER, BRITISH COLUMBIA** this 3rd day of December 1987.

Martin Makulowich  
Martin Makulowich. *Per PHE*

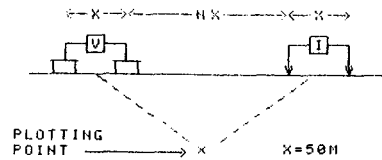


# COOKE GEOLOGICAL

HAGAS PROPERTY

OMINECA N. D. B. C.

LINE NO. -39+00N



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE   
 PROBABLE   
 POSSIBLE 

FREQUENCY (HERTZ)  
 4 0.0 25  
 RESIS. CONTOURED  
 AT LOGARITHMIC  
 INTERVALS: 1, -1 5  
 -2, -3, -5, -7 5, -10  
 PFE CONTOURED  
 AT 0.25% INTERVALS  
 BETWEEN 0.5% & 5%  
 AND 1.0% INTERVALS  
 BETWEEN 5% & 10%

DWG. NO. -1 P -5881-2  
 DATE SURVEYED AUG SEP 87  
 APPROVED PAC  
 DATE Dec 02/87

## PACIFIC GEOPHYSICAL LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

HAGAS GRID L39+00N		X=50M RHO (OHM-M)															
DIPOLE NUMBER		4	5	6	7	8	9	10	11	12	13	14	15	16			
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INTERPRETATION																	
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N=2	68	70	143	141	209	268	251	257	146	129	112	88	315		N=2		
N=3	59	84	89	141	193	331	283	208	174	145	133	223		N=3			
N=4		85	55	83	121	202	348	289	229	188	150	306		N=4			
N=5															N=5		
N=6															N=6		

HAGAS GRID L39+00N		X=50M PFE															
DIPOLE NUMBER		4	5	6	7	8	9	10	11	12	13	14	15	16			
COORDINATE	800E	900E		1000E		1100E		1200E		1300E		1400E					
INTERPRETATION																	
N=1		.3	.6	.8	.6	.6	.6	.7	.6	.4	.2	.3	.3		N=1		
N=2	.8	.7	1	.9	1	.9	.6	.6	.6	.6	.4	.3	.9		N=2		
N=3	.5	1	.8	.8	1.3	1.1	.8	.6	.7	.4	.5	1.1		N=3			
N=4		1	1	.8	1.4	1.2	.9	.7	.6	.7	.7	1.1		N=4			
N=5															N=5		
N=6															N=6		

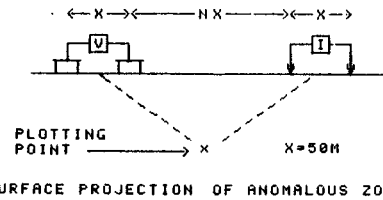
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INTERPRETATION																	
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N=2	12	9.9	7	6.4	4.8	3.1	2.4	2.3	4.1	4.7	3.6	3.4	2.9		N=2		
N=3		8.5	12	9	5.7	6.7	3.3	2.8	2.9	4	2.8	3.8	4.9		N=3		
N=4		12	18	9.7	12	5.9	2.6	3.4	2.6	3.9	4.7	3.6		N=4			
N=5															N=5		
N=6															N=6		

# COOKE GEOLOGICAL

HAGAS PROPERTY

OMINECA M.D./B.C.

LINE NO. -38+00N



DEFINITE   
 PROBABLE   
 POSSIBLE 

FREQUENCY (HERTZ)  
 4.0/0.25  
 RESIS. CONTOURED  
 AT LOGARITHMIC  
 INTERVALS: 1, -1.5  
 -2, -3, -5, -7.5, -10  
 PFE CONTOURED  
 AT 0.25% INTERVALS  
 BETWEEN 0.5% & 5%  
 AND 1.0% INTERVALS  
 BETWEEN 5% & 10%

DWG. NO. -1.P -5081-3  
 DATE SURVEYED AUG/SEP 87  
 APPROVED PAC  
 DATE Dec 02/87

PACIFIC GEOPHYSICAL LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

HAGAS GRID L38+00N		X=50M RHO (OHM-M)														
DIPOLE NUMBER		4	5	6	7	8	9	10	11	12	13	14	15	16		
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INTERPRETATION																
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N=2	75	62	48	65	85	165	206	227	261	158	114	125	113			N=2
N=3	57	41	35	51	104	152	209	348	263	166	132	119			N=3	
N=4		51	35	32	64	89	148	206	222	257	183	119			N=4	
N=5															N=5	
N=6															N=6	

HAGAS GRID L38+00N		X=50M PFE														
DIPOLE NUMBER		4	5	6	7	8	9	10	11	12	13	14	15	16		
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INTERPRETATION																
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N=2	.6	.7	.7	.9	.5	.7	.7	.5	.6	.4	.5	.7	1.8			N=2
N=3	.8	.6	.5	.6	.9	1.2	.8	.4	.7	.5	.4	1.2			N=3	
N=4		.9	.9	.7	1.1	1.1	1.1	.9	.7	.7	.7	1.2			N=4	
N=5															N=5	
N=6															N=6	

HAGAS GRID L38+00N		X=50M METAL FACTOR														
DIPOLE NUMBER		4	5	6	7	8	9	10	11	12	13	14	15	16		
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INTERPRETATION																
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N=2	8	11	14	14	5.9	4.2	3.4	2.2	2.3	2.5	4.4	5.6	16			N=2
N=3	14	15	14	12	8.7	7.9	3.8	1.1	2.7	3	3	10			N=3	
N=4		18	26	22	17	12	7.9	4.4	3.2	2.7	3.8	10			N=4	
N=5															N=5	
N=6															N=6	

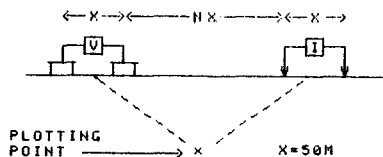


# COOKE GEOLOGICAL

HAGAS PROPERTY

OMINECA M.D./B.C.

LINE NO. -36+00N



SURFACE PROJECTION OF ANOMALOUS ZONE

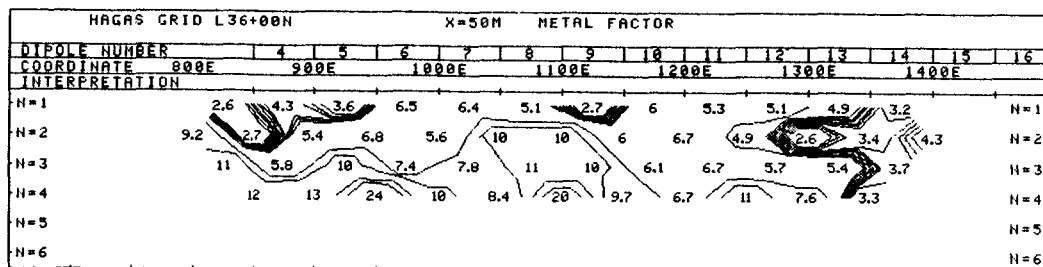
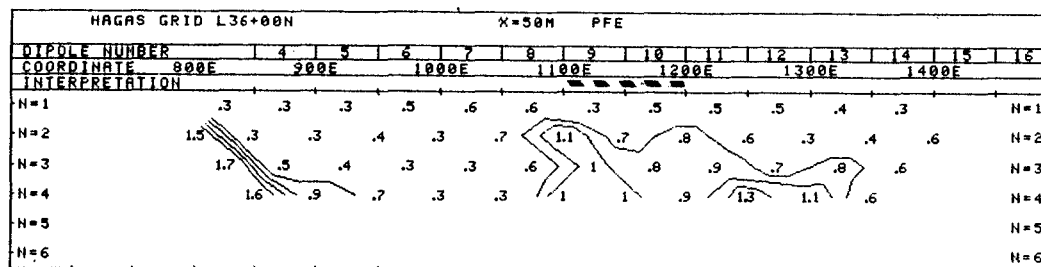
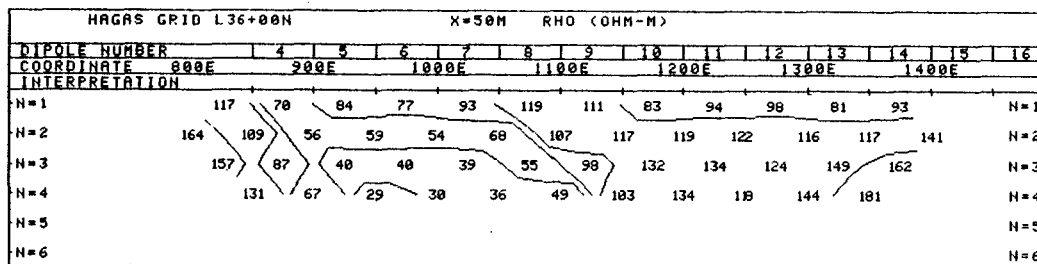
DEFINITE   
 PROBABLE   
 POSSIBLE 

FREQUENCY (HERTZ)  
 4.0/0.25  
 RESIS. CONTOURED  
 AT LOGARITHMIC  
 INTERVALS 1,-1.5  
 -2,-3,-5,-7.5,-10  
 PFE CONTOURED  
 AT 0.25% INTERVALS  
 BETWEEN 0.5% & 5%  
 AND 1.0% INTERVALS  
 BETWEEN 5% & 10%

DWG. NO -I.P -5981-5  
 DATE SURVEYED: AUG/SEP 87  
 APPROVED PAC  
 DATE Dec 02/87

## PACIFIC GEOPHYSICAL LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

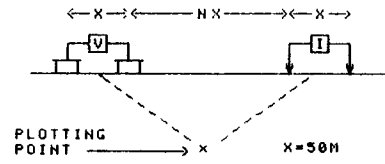


# COOKE GEOLOGICAL

HAGAS PROPERTY

OMINECA M. D. J. B. C.

LINE NO. -35+00N



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE   
 PROBABLE   
 POSSIBLE 

FREQUENCY (HERTZ)  
 4.0; 0.25  
 RESIS. CONTOURED  
 AT LOGARITHMIC  
 INTERVALS. 1, -1.5  
 -2, -3, -5, -7.5, -10  
 PFE CONTOURED  
 AT 0.25% INTERVALS  
 BETWEEN 0.5% & 5%  
 AND 1.0% INTERVALS  
 BETWEEN 5% & 10%

DWG NO. -I F -5881-6  
 DATE SURVEYED: AUG. SEP 87  
 APPROVED: *PMC*  
 DATE: *Dec 02/87*

## PACIFIC GEOPHYSICAL LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

HAGAS GRID L35+00N		X=50M RHO (OHM-M)															
DIPOLE NUMBER		4	5	6	7	8	9	10	11	12	13	14	15	16			
COORDINATE	800E	900E	1000E	1100E	1200E	1300E	1400E										
INTERPRETATION																	
N=1	79	118	81	54	61	93	91	102	104	114	93	95				N=1	
N=2	113	91	113	64	55	71	85	67	84	153	157	129	133			N=2	
N=3	111	99	85	56	56	61	52	47	101	169	106	162				N=3	
N=4	124	80	76	59	50	47	38	55	101	199	213					N=4	
N=5																N=5	
N=6																N=6	

HAGAS GRID L35+00N		X=50M PFE															
DIPOLE NUMBER		4	5	6	7	8	9	10	11	12	13	14	15	16			
COORDINATE	800E	900E	1000E	1100E	1200E	1300E	1400E										
INTERPRETATION																	
N=1	1.7	.7	.3	.6	.3	.7	.5	.9	.7	.6	.7	.3				N=1	
N=2	3.5	2.5	.5	.6	.3	.5	.9	1.7	.6	.7	.6	.8	<1			N=2	
N=3	3.5	2.1	1.2	.7	.8	.7	1.4	.6	.9	1	.5	.8				N=3	
N=4	3.2	2.4	1.3	.9	.7	.1	1.3	.7	1	1	.5					N=4	
N=5																N=5	
N=6																N=6	

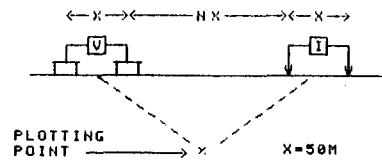
HAGAS GRID L35+00N		X=50M METAL FACTOR															
DIPOLE NUMBER		4	5	6	7	8	9	10	11	12	13	14	15	16			
COORDINATE	800E	900E	1000E	1100E	1200E	1300E	1400E										
INTERPRETATION																	
N=1	22	5.9	3.7	11	4.9	7.5	5.5	8.8	6.7	5.3	7.5	3.2				N=1	
N=2	31	27	4.4	9.4	5.5	7.1	11	25	7.1	4.6	3.6	6.2	<7.5			N=2	
N=3	31	21	14	12	14	11	27	13	8.9	5.9	4.7	4.9				N=3	
N=4	26	30	17	15	14	2.1	34	13	9.9	5	2.4					N=4	
N=5																N=5	
N=6																N=6	

# COOKE GEOLOGICAL

HAGAS PROPERTY

OMINECA M.D. J.B.C.

LINE NO. -34+00N



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE   
 PROBABLE   
 POSSIBLE 

FREQUENCY (HERTZ)  
4.0, 0.25

RESIS. CONTOURED  
AT LOGARITHMIC  
INTERVALS. 1.-1.5  
-2.-3.-5.-7.5.-10  
PFE CONTOURED  
AT 0.25% INTERVALS  
BETWEEN 0.5% & 5%  
AND 1.0% INTERVALS  
BETWEEN 5% & 10%

DWG. NO. -I P. -5881-7

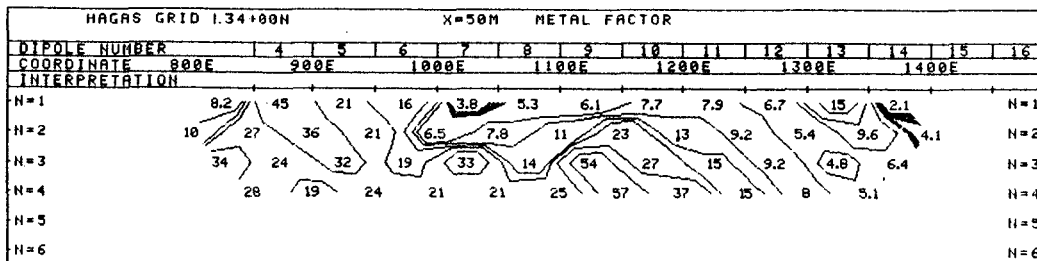
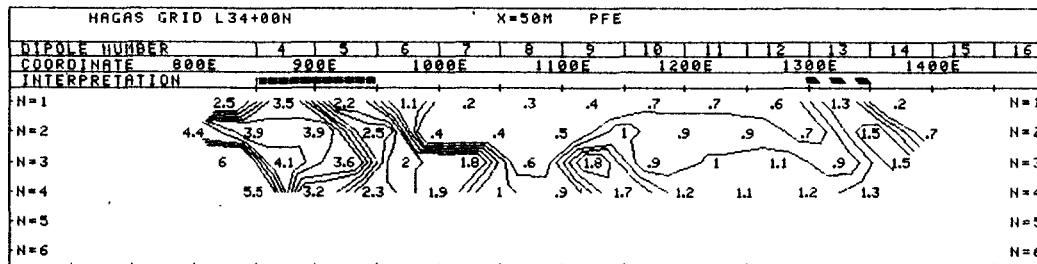
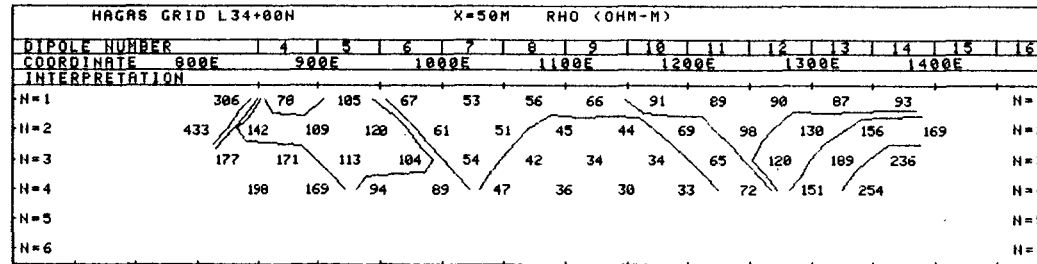
DATE SURVEYED AUG/SEP 87

APPROVED *PAC*

DATE *Dec 02/87*

PACIFIC GEOPHYSICAL LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY





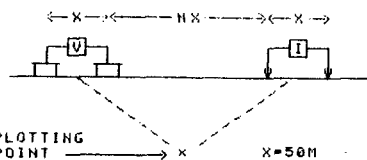


# COOKE GEOLOGICAL

HAGAS PROPERTY

OHINECA H. D. B. C.

LINE NO. -32+00N



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE   
 PROBABLE   
 POSSIBLE 

FREQUENCY (HERTZ)  
 4.0; 0.25  
 RESIS. CONTOURED  
 AT LOGARITHMIC  
 INTERVALS. 1.-1.5  
 -2.-3.-5.-7.5.-10  
 PFE CONTOURED  
 AT 0.25% INTERVALS  
 BETWEEN 0.5% & 5%  
 AND 1.0% INTERVALS  
 BETWEEN 5% & 10%

DWG. NO. -1 P -5881-9

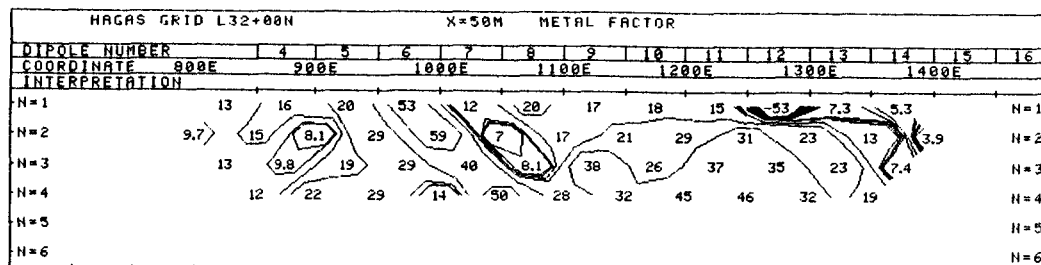
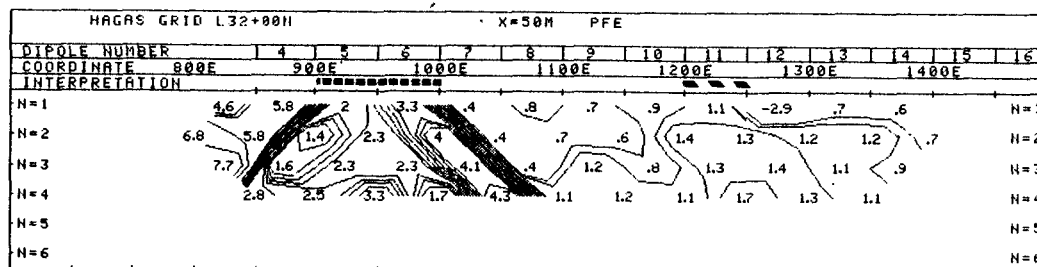
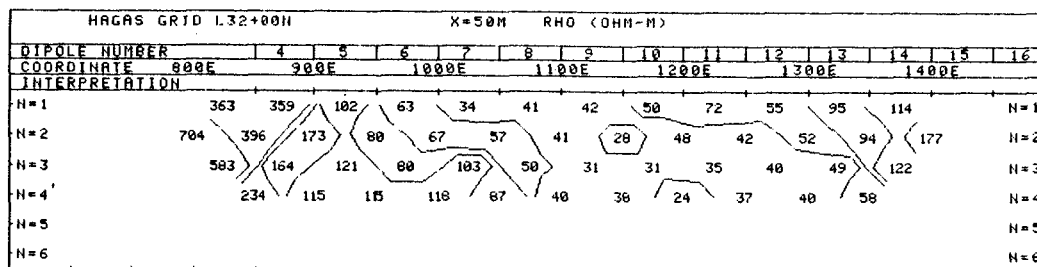
DATE SURVEYED AUG/SEP 87

APPROVED *PWC*

DATE *Dec 02/87*

## PACIFIC GEOPHYSICAL LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

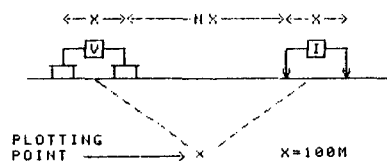


# COOKE GEOLOGICAL




HAGAS PROPERTY

OHINECA N. D. B.C.

LINE NO. -31+00N



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE   
 PROBABLE   
 POSSIBLE 

FREQUENCY (HERTZ)  
4.0; 0.25

RESIS. CONTOURS  
AT LOGARITHMIC  
INTERVALS. 1, -1.5  
-2, -3, -5, -7.5, -10  
PFE CONTOURED  
AT 0.25% INTERVALS  
BETWEEN 0.5% & 5%  
AND 1.0% INTERVALS  
BETWEEN 5% & 10%

DWG NO -I.P -5881-10

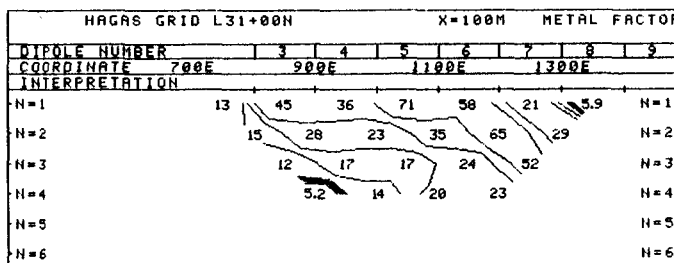
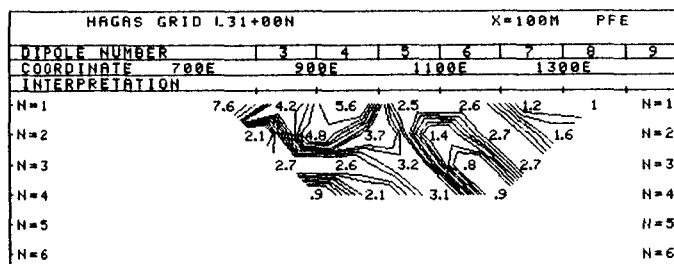
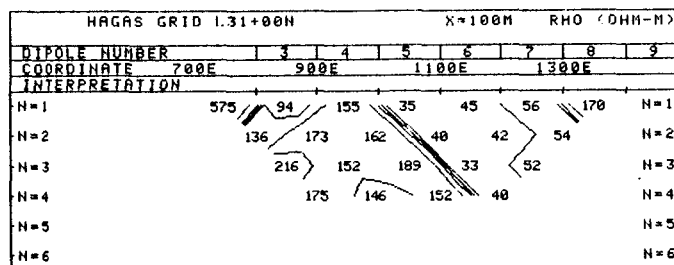
DATE SURVEYED AUG/SEP 87

APPROVED *PAC*

DATE *Dec 02/87*

## PACIFIC GEOPHYSICAL LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY





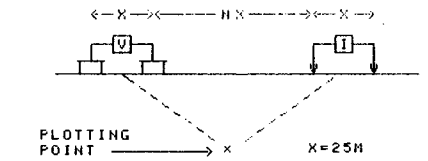


# COOKE GEOLOGICAL

HAGAS PROPERTY

OHINECA M D ,B.C.

LINE NO. -31+00N



SURFACE PROJECTION OF ANOMALOUS ZONE

DEFINITE   
 PROBABLE   
 POSSIBLE 

FREQUENCY (HERTZ)  
 4.0; 0.25  
 RESIS. CONTOURED  
 AT LOGARITHMIC  
 INTERVALS: 1, -1.5  
 -2, -3, -5, 7, 5, 10  
 PFE CONTOURED  
 AT 0.25% INTERVALS  
 BETWEEN 0.5% & 5%  
 AND 1% INTERVALS  
 BETWEEN 5% & 10%

DWG. NO. -I.P. -5881-13  
 DATE SURVEYED AUG-SEP 87  
 APPROVED PAC  
 DATE Dec 62/87

## PACIFIC GEOPHYSICAL LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

HAGAS GRID L31+00N		X=25M										RHO (OHM-M)		
DIPOLE NUMBER		6	7	8	9	10	11	12	13	14	15			
COORDINATE	875E	925E	975E	1025E	1075E	1125E								
INTERPRETATION														
N=1	98	17	8.5	14	17	36	26	34	50	48	N=1			
N=2	81	91	20	22	24	27	29	36	53	39	N=2			
N=3	92	70	100	43	31	32	20	36	50	43	N=3			
N=4	83	83	73	209	54	39	23	24	48	41	N=4			
N=5												N=5		
N=6												N=6		

HAGAS GRID L31+00N		X=25M										PFE		
DIPOLE NUMBER		6	7	8	9	10	11	12	13	14	15			
COORDINATE	875E	925E	975E	1025E	1075E	1125E								
INTERPRETATION														
N=1	2.2	6	.4	.4	1.4	3.4	2.6	6	.2	.7	N=1			
N=2	5.4	2.9	9	.4	1.3	3.6	4.5	4.2	1.5	.6	N=2			
N=3	5.4	5.6	3.6	1.3	1.5	3	3.8	4.3	4.8	2.6	N=3			
N=4	6.6	4.8	6	4.3	2.9	2.9	2.5	3	4.3	5.2	N=4			
N=5												N=5		
N=6												N=6		

HAGAS GRID L31+00N		X=25M										METAL FACTOR		
DIPOLE NUMBER		6	7	8	9	10	11	12	13	14	15			
COORDINATE	875E	925E	975E	1025E	1075E	1125E								
INTERPRETATION														
N=1	22	34	47	28	81	95	101	18	4	15	N=1			
N=2	66	32	46	19	55	136	156	117	28	15	N=2			
N=3	58	80	36	31	48	95	190	118	95	60	N=3			
N=4	79	58	82	21	54	74	109	125	90	128	N=4			
N=5												N=5		
N=6												N=6		





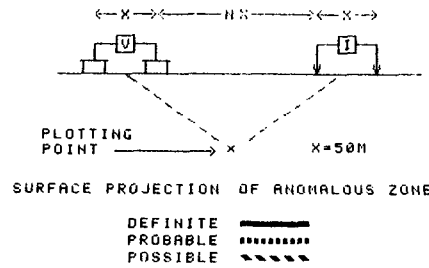


# COOKE GEOLOGICAL

HAGAS PROPERTY

OMINECA H. D. B. C.

LINE NO. -26+00N

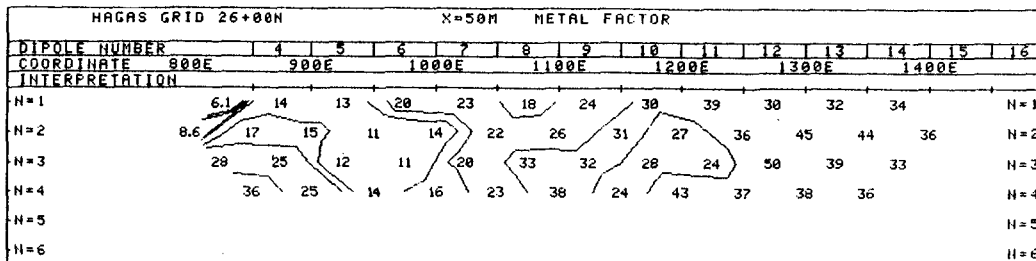
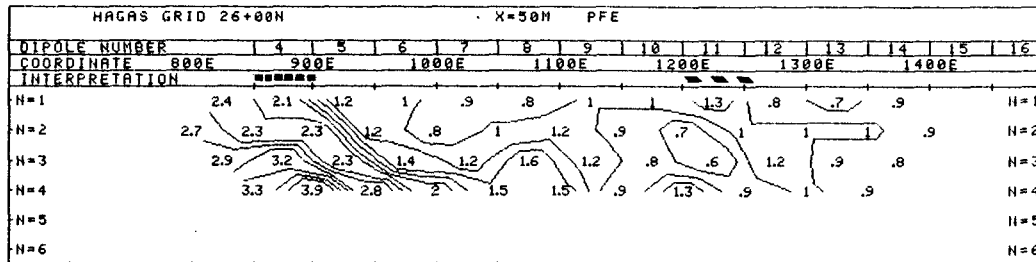
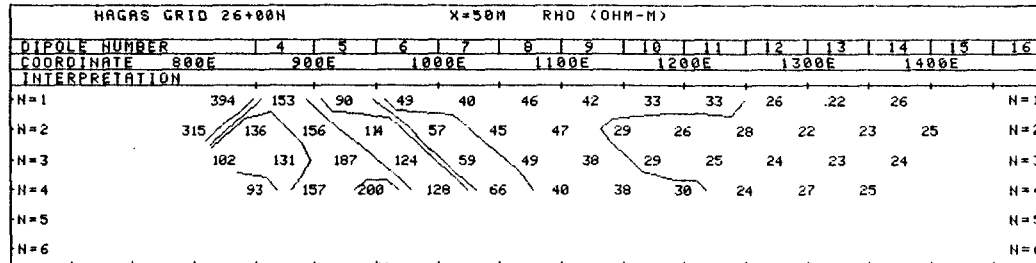


FREQUENCY (HERTZ)  
4.0:0.25  
RESIS. CONTOURED  
AT LOGARITHMIC  
INTERVALS 1,-1 5  
-2,-3,-5,7 5,10  
PFE CONTOURED  
AT 0.25% INTERVALS  
BETWEEN 0.5% & 5%  
AND 1% INTERVALS  
BETWEEN 5% & 10%

DWG NO -I.P -5881-16  
DATE SURVEYED: AUG. SEP 87  
APPROVED: PAC  
DATE: Dec 02/87

## PACIFIC GEOPHYSICAL LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY







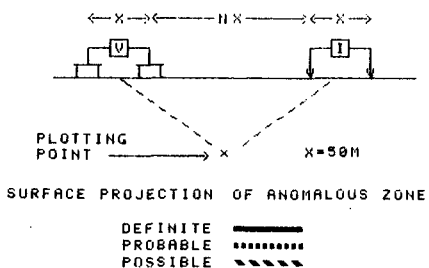


# COOKE GEOLOGICAL

HAGAS PROPERTY

OMIHECA N.D. 1B C.

LINE NO. -22+00N



FREQUENCY (HERTZ)  
4.0/0.25  
RESIS. CONTOURED  
AT LOGARITHMIC  
INTERVALS. 1,-1 5  
-2,-3,-5,7 5,10  
PFE CONTOURED  
AT 0.25% INTERVALS  
BETWEEN 0.5% & 5%  
AND 1% INTERVALS  
BETWEEN 5% & 10%

DWG NO. -I.P. -5881-20  
DATE SURVEYED AUG-SEP 87  
APPROVED PAC  
DATE Dec 02/87

PACIFIC GEOPHYSICAL LTD.

INDUCED POLARIZATION AND RESISTIVITY SURVEY

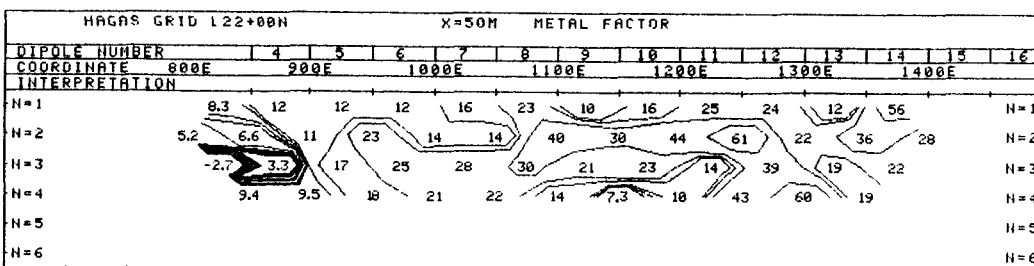
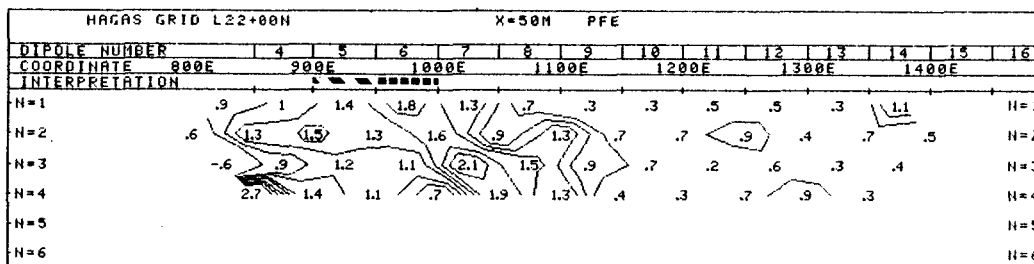
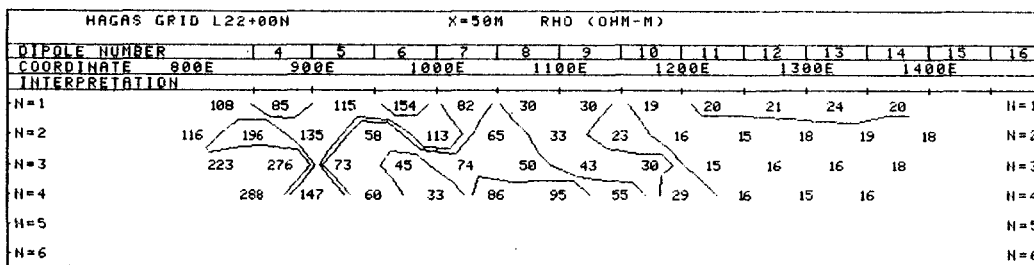










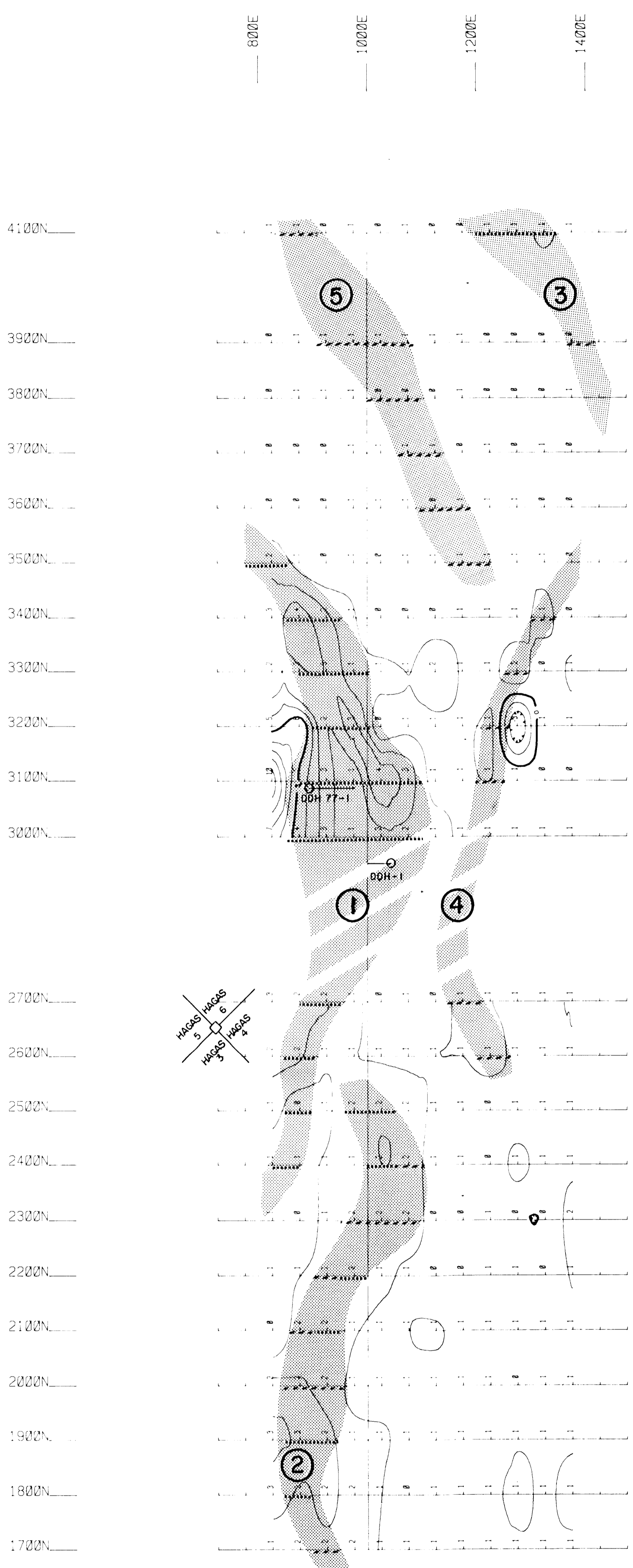
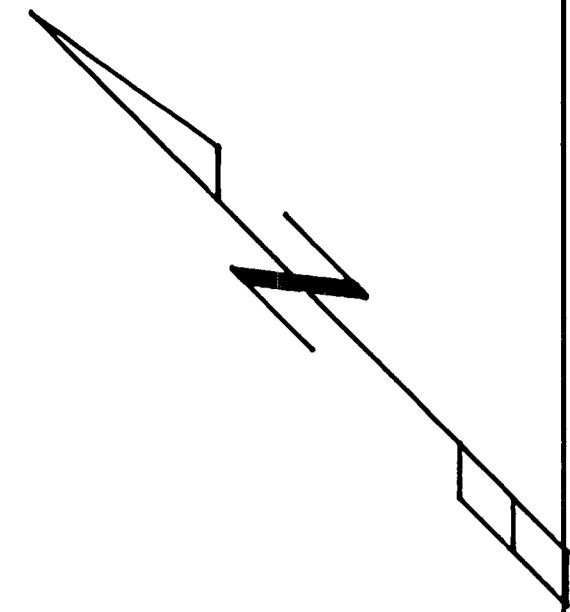




Fig. 3

Scale 1:5000

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PART 2 OF 2  
 GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

16,872

To accompany geophysical report by P. Cartwright, P. Geoph.

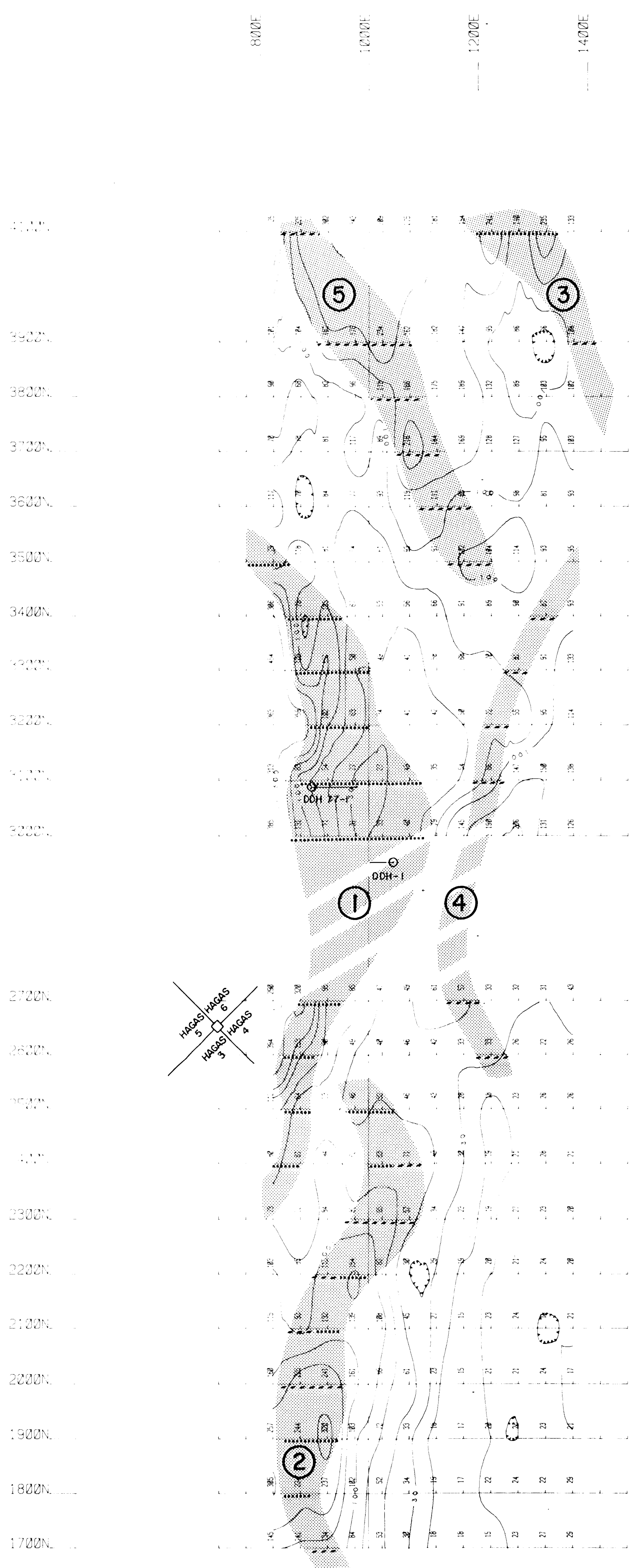
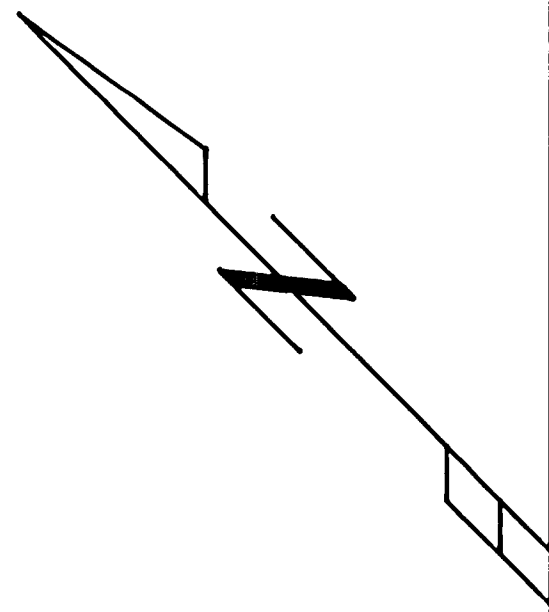
ANOMALY CLASS. :Definite ———  
 :Probable - - - - -  
 :Possible .....  
 Outline Of Anomalous IP Zone [shaded area]  
 Contour Interval : 1% PFE  
 (1 pass through a 9 pt. Hanning Filter.)  
 (1 pass through a 3 pt. Hanning Filter.)  
 Dipole-Dipole Array X=50m N=1

**COOKE GEOLOGICAL CONSULTANTS**

**INDUCED POLARIZATION SURVEY**  
 ( FILTERED CONTOUR PRESENTATION )

PROJECT: HAGAS PROPERTY PROJECT # : PG87HP  
 BASELINE AZIMUTH : 45 Deg.

SCALE = 1: 5000      DATE : 9/16/87  
 SURVEY BY : K.C./M.M.      NTS : 93L/3  
 FILE: MPVAIC00  
 Pacific Geophysical Ltd.



PART 2 OF 2  
 GEOLOGICAL BRANCH  
 ASSESSMENT REPORT

16,872

To accompany geophysical report by R. Cartwright, P. Geoph.

ANOMALY CLASS. :Definite ———  
 :Probable .....  
 :Possible - - - - -

Outline of Anomalous (P. Zone) [shaded area]

Contour Interval: 1, 2, 3, 5, 7, 10, 15 ohm etc  
 (1 pass through a 9 pt. Hanning Filter.)  
 (1 pass through a 3 pt. Hanning Filter.)

Dipole-Dipole Array X=50m N=1

100m 50m 2m 100m 200m

**COOKE GEOLOGICAL CONSULTANTS**

**RESISTIVITY SURVEY**  
 (FILTERED CONTOUR PRESENTATION)

PROJECT: HAGAS PROPERTY PROJECT #: PG87HP  
 BASELINE AZIMUTH: 45 Deg.

SCALE = 1: 5000 DATE: 9/16/87  
 SURVEY BY: K.C./M.M.M. NTS: 93L/3  
 FILE: MPV18C00  
 Pacific Geophysical Ltd.