MAP NO.: 115 0/1, 115 J/16

ASSESSMENT REPORT X

PROSPECTUS

CONFIDENTIAL X

OPEN FILE

DOCUMENT NO: 093007

MINING DISTRICT: Dawson

TYPE OF WORK: VLF-Electromagnetics
Geochemical Survey

REPORT FILED UNDER: Weaco Resources Ltd.

DATE PERFORMED: July 23, 1990.

DATE FILED: May 22, 1991.

LOCATION: **LAT.:** 63°02'N
LONG.: 138°20'W

AREA: Pyroxene Mountain Area

VALUE $: 10,800.00

CLAIM NAME & NO.: Irish 37 YA88539, Irish 34 YA88536, Irish 49 YA88551, Irish 50 YA88552, Irish 66 YA88568, Irish 68 YA88570, Irish 70 YA88572.

WORK DONE BY: B.G. Richards, P.Eng. Dynamin Engineering Ltd.

WORK DONE FOR: Ron McPhee, Weaco Resources Ltd.

DATE TO GOOD STANDING:

REMARKS: # 115 O & J - Pyroxene Mountain Area
A VLF-EM survey was carried out over a 400 x 400 m area containing anomalous platinum and palladium soil geochemical values. The survey identified a conductor which is either magnetite bearing bedrock or a pyrrhotite-nickel showing. The survey was too small to carry out modelling of the anomally. The soil survey was carried out over the same grid. Twentyfour soil and two rock samples were collected. Results were not plotted or statistically evaluated. Anomalous values 2 to 5 times higher than background values determined by the G.S.C. were returned for Cu, Cr, Ni and Co. The soils also contained 2.37% to 4.04% Fe. The geochem results suggest that the geophysical anomally is probably related to magnetite in the underlying pyroxene stock.

VLF-ELECTROMAGNETIC SURVEY

&

GEOCHEMICAL SURVEY

ON THE

IRISH AND KIPS CLAIMS

N.T.S. 115O/1 & 115J/16

DAWSON MINING DIVISION

LATITUDE:	63° 02' NORTH
LONGITUDE:	138° 20' WEST
OWNER:	RON McPHEE
OPERATOR:	WEACO RESOURCES LTD.
AUTHOR:	B.G. RICHARDS, P.ENG.
SUBMITTED:	MAY 14, 1991

093007

Prepared By:

DYNAMIN ENGINEERING LIMITED
725 - 510 West Hastings Street
Vancouver, British Columbia
V6B 1L8

093007

This report has been examined by the Geological Evaluation Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 10,800.00 .

Robert Dicklick

for Regional Manager, Exploration and Geological Services for Commissioner of Yukon Territory.

VLF-ELECTRO-MAGNETIC SURVEY
&
GEOCHEMICAL SURVEY
ON THE
IRISH GROUP MINERAL CLAIMS
NTS 115O/1 & 115J/16
YUKON TERRITORY

TABLE OF CONTENTS

MAPS

VLF-ELECTROMAGNETIC & GEOCHEMICAL SURVEYS
ON THE
IRISH AND KIPS MINERAL CLAIMS

SECTION 1.0 INTRODUCTION

The last recorded work on this prospect was by David H. Waugh in January 1988. Waugh's program included establishing an extensive grid over the Irish, Kips and Rest Mineral Claims, geochemical and magnetometer surveys, geological prospecting and remote sensing techniques. The geochemical survey conducted over the area presently occupied by the Irish Mineral Claims was successful in delineating two distinctly anomalous platinum-palladium zones in the western part of the survey area between grid lines 10+00W and 20+00W. These geochemical anomalies are on the flanks of an indicated magnetic high and the interpreted magnetic contact. In addition, the interaction of two lineaments interpreted by remote sensing coincides with the area of high geochemical and magnetic response. D.H. Waugh concluded in his January 1988 report that the geology within the area of Pyroxene Mountain and the results of the 1987 survey indicate a very favorable environment for precious metals, particularly gold, platinum and palladium.

As shown on the accompanying claim map, the Pyroxene Mountain area is drained by Mariposa, Scroggie and Walhalla Creeks. Placer activity on these creeks was first reported in 1898 and remained active until 1915. From 1935 to 1937, H.S. Bostock mapped the area and reported in Memoir 218 that "a miner working on a bench of Scroggie Creek below the mouth of Walhalla Creek has been recovering a considerable percentage of platinum with his gold." This

location is geologically close to the ultrabasic intrusive at Pyroxene Mountain which underlies the platinum-palladium geochemical anomalies on the Irish Mineral Claims and could be indicative of a genetic relationship.

The Waugh report of January 1988 recommended further extensive work on the claims, none of which has been conducted to date. The VLF-EM survey and soil sampling which forms the basis of this assessment report was conducted as an aside from the recommendations of the Waugh report.

SECTION 2.0 LOCATION AND ACCESS

The Irish and Kips Mineral Claims are located on the flanks of Pyroxene Mountain, 116 km (72 miles) south and 53 km (33 miles) east of Dawson City in the Yukon Territory (Figure 1). Dawson City is located approximately ~~1471~~ 550 km (~~914~~ miles) by road northwest of Whitehorse on the Klondike Highway.

The property is accessable by a 128 km (79 mile) helicopter flight from Dawson City. The nearest airstrip is located on Scroggie Creek, approximately 16 km (10 miles) to the northwest and is suitable for DC-3 aircraft. A winter tote road originating at the Pelly River Farm follows Walhalla Creek to the north of the property. The overland distance from Pelly Crossing to Pyroxene Mountain via the Pelly River-Walhalla Creek tote road is roughly 20 km (75 miles).

SECTION 3.0 PROPERTY & OWNERSHIP

The Irish claim group is comprised of 150 contiguous quartz claims named Irish 1 to Irish 150. The claims bear record

numbers YA88503 to YA88652 respectively. The Kips claim group is comprised of 112 contiguous quartz claims named Kips 1 to Kips 112. The claims bear record numbers YA88812 to YA88923 respectively. All of the Irish and Kips claims (Figure 2) are held by record in the name of Ron McPhee at the Dawson City Mining Recorder's office and, at the time of writing, are in good standing and have a common expiry date of May 4, 1991.

SECTION 4.0 PHYSIOGRAPHY & OUTCROP

Pyroxene Mountain is the highest point of a 4 km, east-west trending ridge with gentle (11 degree) slopes to the south and west, and slightly steeper (17 degree) slopes to the north and east. Property elevations range from 1,234 meters (4,050 feet) on the west flank of Pyroxene Mountain to 762 meters (2,500 feet) in the valley of an easterly flowing tributary of Alberta creek to the south. The property lies within the Klondike Plateau which is characterized by a gently rolling upland surface.

The north flank of Pyroxene Mountain and western sections of the property are heavily forested to the 1100 meter elevation with spruce, balsam, and pine. The south facing slope of Pyroxene Mountain consists mainly of old forest fire burn with new growth of willow, alder, poplar and birch. Above the 1100 meter elevation, slopes are usually open, moss covered areas with occasional stunted spruce and low growth alder.

Outcrop is lacking in the area and is generally confined to the mountain ridges above the 1100 meter elevation adjacent to the claim group. The area of interest on the property

would require trenching to expose the bedrock. Depth of overburden is expected to be light to moderate. Permafrost conditions exist although the total extent and nature of these conditions is not well known.

The area has a Continental climate characterized by low precipitation and a wide temperature variance. Winters are cold and long but the relatively short summers are usually mild with almost continual daylight during June and July.

Abundant water supplies exist in the form of creeks at lower elevations but water is difficult to locate above the 915 meter elevation in the late summer and fall months.

SECTION 5.0 REGIONAL AND LOCAL GEOLOGY

The regional geology is described in Geological Survey of Canada Memoir 218, Ogilvie Map Area, Yukon and is shown on G.S.C. Map 711A, Ogilvie, 1942. Generally speaking, the property lies within a 129 km (80 mile) wide northwest trending belt of Carboniferous to Permian gneisses and mica schists known as the Big Salmon Metamorphic Complex (formerly known as the Yukon Group). Locally, this complex has been intruded by the Pyroxene Mountain ultrabasic stock which is also of Carboniferous to Permian age. This intrusive is of roughly rectangular shape with an east-west axis 12 km (7.5 miles) long and a north-south width tapering from 4 km (2.5 miles) at its east end to 1.6 km (1 mile) at its west end. The Pyroxene Mountain stock has been intruded by a Cretacious quartz monzonite pluton along its northern and western boundaries.

Geological reconnaissance conducted by D.R. Morgan, P.Eng.

on July 23, 1990 produced the following observations:

The Pyroxene Mountain stock which underlies most of the property is exposed mostly at higher elevations. The outcrop consists of dark greyish green pyroxenite which is made up of an older medium grained phase with foliation parallel to the main east-west axis of the intrusive. This phase is intruded by fresher, greenish black dikelets with very coarse grained pyroxene crystals (up to 3 cm). The attitude of the dikelets vary from 245/45S 500 meters east of Pyroxene mountain to 320/45E 650 meters to its west. No sulphide material or magnetite is visible but two very strong compass anomalies exist as follows (Figure 3):

1. From Pyroxene Mountain to the peak 800 meters to the east the map bearing is 079°, the brunton bearing is 063° for an indicated compass anomally of -16°.

2. From a peak 650 meters west to Pyroxene Mountain the map bearing is 090°, the brunton bearing is 058° for an indicated compass anomally of -32°.

Detailed geology of the Irish or Kips claims is not known due to the absence of exposed bedrock.

SECTION 6.0 VLF-EM & GEOCHEMICAL SURVEYS

6.1 INTRODUCTION

A Very Low Frequency Electromagnetic (VLF-EM) survey and soil sampling were carried out over the area bounded by 500N, 800N, 10+00W and 15+00W. This was the location described in the Waugh report of January 1988 as having the

greatest concentration of anomalous platinum and palladium values, some coincident anomalous gold values and high magnetic relief (Figures 4,5 & 6). As well as being adjacent to the interpreted magnetic contact, the survey area is the intersection of the two lineaments interpreted and described by Waugh.

The VLF-EM survey was employed because it will identify near surface electrically conducting bodies such as massive or semi-massive sulphides and the soil sampling was done to fill in the existing grid and attempt to identify possible pathfinder elements which could help in defining the mineralogy.

The field work was carried out by Mr. B.G. Richards, P.Eng. (VLF-EM Equipment Operator), Mr. W.J. Radvak (soil sampler) on July 23, 1990.

6.2 GRID PREPARATION

The grid lines established by Waugh had a north-south azimuth and the baseline an east-west azimuth. The grid lines had a 200 meter spacing and sample intervals were every 50 meters. The grid lines used for the VLF-EM survey ran east-west and were spaced at 100 meter intervals along the existing grid lines. Compass declination used was 28 degrees east as defined by N.T.S. map sheet 115-O/1.

Stations were flagged and marked every 25 meters along the grid lines using a Topo-chain measuring unit. Slope corrections were made over the steeper grid sections. Tyvex tags with grid coordinates marked with indelible ink were placed every 100 meters along the grid lines. VLF-EM

unit readings were taken at every 25 meter station along the grid lines and soil samples were taken at every 50 meter station. A total of 1.6 kilometers of grid lines were completed.

6.3 INSTRUMENTATION

A Geonics Limited Model EM16, very low frequency electromagnetic (VLF-EM) receiver was used for the VLF-EM survey. The instrument bore Serial Number 8410053 and was manufactured in 1983. Specifications and principles of operation of the instrument are included herein as Appendix II.

6.4 VLF-EM SURVEY PROCEDURE

The survey procedure as is generally recommended in the EM16 Operating Manual was used. The grid was well oriented to cross both the trend of the previously identified soil anomaly and the trend of the lineament which parallels the interpreted magnetic contact.

The grid direction, which was also the read direction, was considered satisfactory to obtain good EM signal coupling with a conductor aligned close to the above mentioned features. Therefore the Fraser Filter technique could be applied with a high degree of confidence.

The two VLF stations selected for the survey as giving good audio output response with satisfactory orientation to provide good coupling were:

Transmitter Location	Station I.D.	Co-ordinates Long./Lat.	Frequency (k-Hertz)	Output (kW)
Lualualei, Hawaii	TX1 (NPM)	158 W 09 21 N 25	23.4	600
Seattle, Washington	TX2 (NLK)	121 W 55 48 N 12	24.8	125

The following table summarizes the salient survey parameters:

Station	*Apparent Azimuth	Grid Azimuth	Read Azimuth	Coupling Angle
Channel 1 (TX1) NPM -	230°	270°/90°	270°	52°
Channel 2 (TX2) NLK -	205°	270°/90°	270°	50°

* Nearest 5°

At each station location the following data was recorded for each of the two transmitter channels:

1. Channel Identification
2. Co-ordinate Location
3. Dip Angle (%)
4. Quadrature

6.5 PRESENTATION OF VLF-EM DATA

The VLF data was plotted two ways. The percent dip angle versus percent quadrature as field recorded was plotted in cross section form (Figure 7). The dip angle data was processed utilizing the filtering method developed by D.C.

Fraser. All dip angle data was treated using the Fraser Filter technique and contoured accordingly (Figures 8 & 9).

The Fraser Filter technique was developed to perform several functions which include:

1. Shifts the phase of the dip angle by 90° so that cross-over and inflection points from positive to negative and vice-versa, are transformed into peaks to permit contouring of anomalies about their apparent axis.

2. Removes the d-c waveform component and attenuates long wave lengths to increase the resolution and positioning of local anomalies.

The technique is straight forward to apply by simple arithmetic and algebraic addition and subtraction operations.

6.6 SOIL SAMPLING PROCEDURE

A total of 24 soil samples and 2 rock samples were taken during the survey. Soil samples were taken from the B horizon wherever possible and were collected in Kraft bags. All samples were returned to Vancouver, B.C. where they were analyzed at ACME Analytical Laboratories, 852 East Hastings. Both the soil and rock samples were submitted for 30 element ICP analysis and the soils alone were assayed for platinum and palladium. No determination of soil pH was made.

6.7 PRESENTATION OF SOIL SURVEY DATA

The objective of the soil survey was to determine whether any pathfinder elements exist which could be used to indicate areas of anomalous platinum and palladium as well as to give a better understanding of the mineralogy of the underlying bedrock.

The small sample population precluded the use of geostatistical methods for determining local threshhold values with any degree of confidence. As a result, the values were not plotted in any form but the assay results are discussed objectively.

SECTION 7.0 SURVEY RESULTS

7.1 SOIL SAMPLING RESULTS

As mentioned previously, no geostatistical analysis was performed on the results of the ICP analysis. Geological Survey of Canada bulletin 280 by R.W. Boyle provides some general guidelines for geochemical prospecting however. Although anomalous values of indicator elements cannot be stated with any assurance since the dispersion and enrichment characteristics of the various elements vary so widely, consistent values 2 or 3 times the average abundance figures should receive attention.

The soil geochemical survey produced copper, chromium, nickel and cobalt values which were consistently 2 to 5 times higher than the average abundance figures given by Boyle for indicators in normal soils.

The two rock samples taken from the survey area returned moderately anomalous values in chromium, nickel and copper based upon the range of content for normal ultramafic rocks.

Of some interest was the high iron content of the soil and rock samples. The range was 2.37% Fe to 4.06% Fe and the arithmetic mean was 3.06% Fe.

The fire assays for gold, platinum and palladium returned values which, with the exception of one palladium assay, were below the local threshold values determined and reported by Waugh in his report of January 1988.

7.2 VLF-EM SURVEY RESULTS

Two independent Very Low Frequency (VLF) Electromagnetic (radio-wave) signals were used as magnetic induction sources in seeking anomalies of conductive material in this survey.

The two signal sources described under section 6.4, VLF-EM Survey Procedure were:

Station 1; Lualualei, Hawaii; 23.4 kHz
Station 2; Seattle, Washington; 24.8 kHz

Both stations were in transmission mode for the survey.

The correlation between the EM data from each of the independent transmitters was reasonable, however the dip angle and quadrature were more easily determined for the Seattle transmitter than for the Hawaii transmitter.

The surveyed area is in an area of high magnetic relief as described by the Waugh report of January 1988 and Aeromagnetic Series, Map #4334G. The VLF anomaly is open to the north and south and corresponds very well with the magnetic anomaly centered at 1200 W and 800 N. This anomaly is adjacent to the interpreted magnetic contact.

A detailed evaluation of the anomalous wave forms and their integral volumetric extent was not attempted due to the limited population of the VLF-EM survey data.

7.3 INTERPRETATION

The results of an EM survey are dependent on the relationship between two variables; the field strength of the transmitter and the conductivity of the survey area. Hence, a transmitter with low field strength will still indicate a fairly strong VLF anomaly in the presence of a good conductor and vice-versa.

VLF-EM response is indicative of either ionic or metalliferous conductors. In all probability, the physiography of the survey area rules out the possibility of an ionic conductor being the cause of the anomaly.

The identified electromagnetic conductors could possibly be the result of one of two things; the mass effect of a large volume of magnetite bearing material subcroping the survey area; or an association of pyrrhotite with the nickel indicated by the soil survey.

Massive magnetite is considered to have a fair to moderate conductivity in association with a high magnetic response.

Less than massive or disseminated magnetite will exhibit a moderate to low magnetic response with an associated low conductivity, or no conductive response at all.

If the VLF anomaly is caused by magnetite, then it can be inferred that the high iron assay response of the soils would be due to the iron component of magnetite.

SECTION 8.0 SUMMARY AND RECOMMENDATIONS

In a report dated January 15, 1988, D.H. Waugh reports the discovery of two distinctly anomalous platinum-palladium zones in the western part of the Irish Mineral Claims. These anomalies are on the flanks of a magnetic high adjacent to the interpreted magnetic contact. This work was never followed up to the writer's knowledge.

The northernmost platinum-palladium soil anomaly, which also had reportedly high associated gold values, was the focus of the soil geochemistry and VLF-EM surveys that are described herein.

This VLF-EM survey has delineated an electrically conductive zone coincident with the significant magnetic anomaly interpreted by Waugh as being a possible expression of titanium-magnetite rich layering or zoning and possible serpentinization of the pyroxenite stock. If this is the case, the conductive zone is in all probability due to this massive magnetite, notwithstanding the possibility of conductive sulphide association.

No correlation or element association was evidenced by the limited amount of geochemical work conducted at this time.

Recommended follow-up work should include:

1. Trenching to bedrock below the geochemical anomalies identified by Waugh. Trenching should be carried out as follows (Figure 10):

Trench	Length	Center of Trench	Bearing of Trench
A	200m	600N - 1+200W	East - West
B	200m	700N - 1+200W	East - West
C	200m	800N - 1+200W	East - West
D	200m	3+25N - 2+000W	N40°E
E	200m	0+00N - 1+615W	N40°E
F	200m	3+80S - 1+300W	N64°E

Bedrock exposed by trenching should be geologically mapped and chip sampled along 4 meter sections. These samples should be analyzed for gold, platinum, palladium, nickel and copper.

2. Contingent on a successful trenching program, follow up diamond drilling would be justified.

SECTION 9.0 COST STATEMENT

9.1 SUMMARY

1. Personnel	5,372.00
2. Field Expenses	2,416.28
3. Room & Board	562.84
4. Sample Analysis	388.40
5. Travel Expenses	1,739.00
6. Geophysical Equipment Rental	200.00
7. Report Reproduction & Drawings	145.00
TOTAL	**$10,823.52**

9.2 PERSONNEL

1. Trip Preparation	
W.J. Radvak	
1 day @ $195.00 per day	195.00
2. Mobilization, Demobilization & Travel July 22 - July 24 Vancouver-Whitehorse-Dawson Return	
B.G. Richards, P.Eng.	
2 days @ $300.00 per day	600.00
D.R. Morgan, P.Eng.	
2 days @ $300.00 per day	600.00
W.J. Radvak	
2 days @ $195.00 per day	390.00
3. VLF-EM Survey, Soil Sampling & Geological Reconnaissance	
B.G. Richards, P.Eng.	
1 day @ $300.00 per day	300.00
D.R. Morgan, P.Eng.	
1 day @ $300.00 per day	300.00
W.J. Radvak	
1 day @ $195.00 per day	195.00
4.A) Data Preparation, Reports & Drawings	
B.G. Richards, P.Eng.	
4 days @ $300.00 per day	1,200.00
D.R. Morgan, P.Eng.	
1.5 days @ $300.00 per day	450.00
B) Plotting & Drafting	
14 hours @ $43.00 per hour	602.00
C) Report Typing & Collation, Drawing Reproduction	
18 hours @ $30.00	540.00
TOTAL	**$5,372.00**

9.3 FIELD EXPENSES

1. Helicopter Rental		2,361.60
2. Field Supplies		54.68
	TOTAL	**$2,416.28**

9.4 ROOM & BOARD

1. Motels		439.25
2. Meals		123.59
	TOTAL	**$562.84**

9.5 SAMPLE ANALYSIS

1. 30 element ICP analysis		104.00
2. Fire Assays		284.40
	TOTAL	**$388.40**

9.6 TRAVEL EXPENSES

1. Airfares 3 @ $569.00		1,707.00
2. Taxis and Parking		32.00
	TOTAL	**$1,739.00**

9.7 GEOPHYSICAL EQUIPMENT RENTAL

1. VLF-EM Unit Rental 4 days @ $50.00 per day		200.00
	TOTAL	**$200.00**

9.8 REPORT REPRODUCTION & DRAWINGS

1. Estimated		145.00
	TOTAL	**$145.00**

SECTION 10.0 - CERTIFICATION OF B.G. RICHARDS, P.ENG.

I, B.G. Richards of 2342 Queens Avenue, West Vancouver, British Columbia hereby certify that:

1. I am a Consulting Engineer and principal in the Company, Dynamin Engineering Limited.

2. I am a graduate of the University of British Columbia with a B.A.Sc. in Mining and Mineral Processing Engineering (1985).

3. I am a member in good standing of the Association of Professional Engineers of British Columbia.

4. I have practiced my profession since graduation to date.

5. This report was prepared by myself.

B.G. Richards, P.Eng.

Dated this 30th day of April 1991
VANCOUVER, BRITISH COLUMBIA

SECTION 11.0 - REFERENCES

1. Boyle, R.W., 1979; The Geochemistry of Gold and Its Deposits: Geological Survey of Canada, Bulletin 280.

2. Fraser, D.C., December 1969; Contouring of VLF-EM Data, Geophysics, Volume XXXIV, No.6.

3. Geonics Limited, June 1983, Operating Manual for EM16, VLF-EM.

4. Morgan, D.R., August 1990; A Geological Report on the IRISH & KIPS Claims, Pyroxene Mountain, Yukon Territory.

5. Watkinson, D.H., PhD, May 1988; Report on the Pyroxene Mountain Claims, Pyroxene Mountain, Yukon Territory.

6. Waugh, D.H., January 1988; Pyroxene Mountain Property, Pyroxene Mountain, Yukon Territory.

APPENDIX I

ASSAY RESULTS

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6
PHONE(604)253-3158 FAX(604)253-1716

DATE RECEIVED: AUG 8 1990

DATE REPORT MAILED: Aug 10/90.

GEOCHEMICAL ANALYSIS CERTIFICATE

Westore Engineering Ltd. FILE # 90-2966R Page 2

703 - 1112 W. Pender St., Vancouver BC V6E 2S1

SAMPLE#	Cu ppm	Ni ppm
800N 1400W	77	27
800N 1300W	57	28
800N 1250W	76	37
800N 1200W	62	57
800N 1150W	102	52
700N 1300W	22	39
700N 1250W	59	67
700N 1200W	71	58
700N 1150W	66	66
700N 1100W	60	70
700N 1000W	98	73
650N 1200W	69	60
600N 1400W	18	34
600N 1300W	26	46
600N 1200W	106	54
600N 1150W	93	51
600N 1100W	77	55
600N 1000W	84	73
500N 1400W	19	27
500N 1300W	20	43
500N 1200W	84	50
500N 1150W	114	42
500N 1100W	80	37
500N 1000W	168	49
STANDARD C	63	73

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Soil Pulp

SIGNED BY. C. Leong. D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

Westore Engineering Ltd. FILE # 90-2966R2

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
800N 1400W	1	81	9	53	.2	27	13	335	2.94	12	5	ND	3	23	.4	2	2	72	.35	.020	8	58	.66	158	.09	2	1.81	.02	.03	2
800N 1300W	1	58	14	43	.1	25	11	222	2.78	6	5	ND	2	21	.2	2	3	79	.38	.024	7	63	.73	143	.08	2	1.56	.02	.03	2
800N 1250W	1	77	9	50	.1	35	18	381	3.22	3	5	ND	1	24	.7	2	3	92	.59	.030	6	98	1.03	134	.08	2	1.39	.03	.03	1
800N 1200W	1	60	4	53	.2	54	19	276	3.46	4	5	ND	1	25	.8	2	2	96	.63	.033	5	128	1.33	109	.07	2	1.39	.03	.03	1
800N 1150W	1	98	2	42	.1	52	14	312	2.37	4	5	ND	1	53	1.0	2	2	59	1.23	.063	6	69	.95	158	.04	3	1.20	.03	.03	1
700N 1300W	1	22	2	41	.1	36	16	331	3.07	5	5	ND	2	21	.4	2	2	83	.40	.024	7	96	.96	145	.08	2	1.44	.02	.03	2
700N 1250W	1	59	11	54	.2	63	24	503	3.41	2	5	ND	1	31	.4	2	3	85	.78	.054	7	125	1.27	166	.06	2	1.63	.02	.03	1
700N 1200W	1	73	4	45	.1	59	22	482	3.20	4	5	ND	1	22	.9	2	2	68	.48	.036	6	117	1.36	134	.07	2	1.36	.02	.03	1
700N 1150W	1	65	5	39	.1	68	21	380	3.10	2	5	ND	1	21	.6	2	2	65	.53	.038	4	146	1.72	87	.06	2	1.26	.03	.03	2
700N 1100W	1	63	4	52	.1	73	22	475	3.11	5	5	ND	1	24	.5	2	2	64	.49	.041	6	134	1.50	123	.07	3	1.43	.03	.03	2
700N 1000W	1	97	7	49	.1	73	22	433	3.11	6	5	ND	1	28	.8	2	2	64	.69	.041	5	155	1.55	118	.06	4	1.43	.03	.03	2
650N 1200W	1	69	7	54	.1	65	22	436	3.14	5	5	ND	1	19	.5	3	2	65	.38	.035	6	129	1.30	102	.07	4	1.26	.02	.03	1
600N 1400W	1	17	2	52	.1	31	13	334	2.89	3	5	ND	2	20	.8	2	3	72	.34	.024	8	75	.79	176	.08	2	1.77	.02	.03	1
600N 1300W	1	24	7	51	.1	40	18	370	3.39	5	5	ND	2	22	.3	2	2	78	.38	.022	8	92	1.01	175	.09	2	1.80	.02	.03	1
600N 1200W	1	105	2	48	.1	54	24	852	3.22	2	5	ND	1	27	.9	2	2	71	.52	.052	8	91	1.17	193	.06	3	1.68	.02	.03	1
600N 1150W	1	90	4	54	.1	50	23	481	3.01	2	5	ND	2	25	.6	2	6	76	.43	.032	7	105	1.05	148	.08	2	1.43	.02	.03	1
600N 1100W	1	70	2	48	.1	50	19	442	3.01	3	5	ND	1	25	.2	2	4	71	.46	.031	8	103	1.05	151	.07	2	1.49	.02	.03	1
600N 1000W	1	75	2	33	.1	70	23	330	2.96	2	5	ND	1	20	.2	2	3	67	.54	.033	3	180	1.83	64	.07	2	1.22	.04	.02	1
500N 1400W	1	19	6	51	.1	26	10	220	2.87	3	5	ND	2	17	.5	2	2	70	.26	.035	8	54	.62	126	.08	2	1.68	.01	.03	1
500N 1300W	1	21	10	40	.1	42	15	242	4.06	3	5	ND	1	16	.3	2	2	119	.28	.020	5	126	.89	139	.10	2	1.84	.02	.03	1
500N 1200W	1	83	2	57	.1	52	17	409	3.09	5	5	ND	1	22	.2	3	4	59	.32	.026	7	73	1.08	171	.08	2	1.59	.02	.03	1
500N 1150W	1	113	2	39	.1	45	16	226	2.56	5	5	ND	1	23	.3	2	3	58	.41	.032	8	85	.98	137	.08	2	1.44	.02	.03	2
500N 1100W	1	79	4	51	.1	37	13	220	2.70	2	5	ND	2	21	.2	2	5	54	.33	.025	8	64	.84	142	.08	2	1.69	.02	.03	1
500N 1000W	1	162	9	57	.1	50	15	333	2.78	4	5	ND	1	28	.5	2	4	54	.52	.039	7	78	.92	167	.06	2	1.59	.02	.03	1
STANDARD C	19	61	40	131	7.2	72	31	1053	3.97	37	16	8	38	53	18.4	16	18	57	.51	.091	37	60	.89	181	.07	35	1.89	.06	.14	12

SAMPLE#	Au ppb	Pt ppb	Pd ppb
800N 1400W	3	45	3
800N 1300W	10	7	10
800N 1250W	3	4	9
800N 1200W	8	9	40
800N 1150W	6	7	11
700N 1300W	6	9	17
700N 1250W	9	16	29
700N 1200W	3	9	14
700N 1150W	3	8	2
700N 1100W	10	13	18
700N 1000W	4	26	32
650N 1200W	3	15	14
600N 1400W	3	6	4
600N 1300W	3	18	10
600N 1200W	3	13	25
600N 1150W	5	6	14
600N 1100W	2	12	18
600N 1000W	1	37	19
500N 1400W	2	5	9
500N 1300W	1	11	7
500N 1200W	8	7	12
500N 1150W	4	11	15
500N 1100W	9	2	16
500N 1000W	5	8	27
STANDARD FA-S	53	53	55

-ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1

GEOCHEMICAL ANALYSIS CERTIFICATE

Westore Engineering Ltd. File # 90-2966R2 Page 1

703 - 1112 W. Pender St., Vancouver BC V6E 2S1

SAMPLE#	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppm	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %	B ppm	Al %	Na %	K %	W ppm
0451	1	507	26	50	.8	179	41	565	3.78	5	5	ND	1	2	.2	2	2	28	.22	.007	2	235	4.87	19	.02	4	.21	.01	.01	1
0452	1	16	42	39	.6	64	17	215	2.26	5	5	ND	1	3	.2	2	2	45	.27	.004	2	338	1.48	17	.04	2	.37	.01	.01	1
[redacted]																														
STANDARD C	18	57	36	133	7.0	73	31	1052	3.96	40	16	7	39	52	18.5	15	21	56	.48	.099	39	60	.88	182	.08	36	1.88	.06	.14	12

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
THIS LEACH IS PARTIAL FOR MN FE SR CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
- SAMPLE TYPE: Rock Pulp

DATE RECEIVED: AUG 15 1990 **DATE REPORT MAILED:** Aug 20/90. **SIGNED BY** C. Leong .D.TOYE, C.LEONG, J.WANG; CERTIFIED B.C. ASSAYERS

✓ ASSAY RECOMMENDED

APPENDIX II

VLF-EM 16
SPECIFICATIONS
&
PRICIPLES OF OPERATION

GEONICS LIMITED
1745 Meyerside Dr. Unit 8 Mississauga, Ontario Canada L5T 1C5

Tel. (416) 676-9580
Telex 06-968688
Cables: Geonics

OPERATING MANUAL
for
EM16 VLF-EM

Revised June, 1983

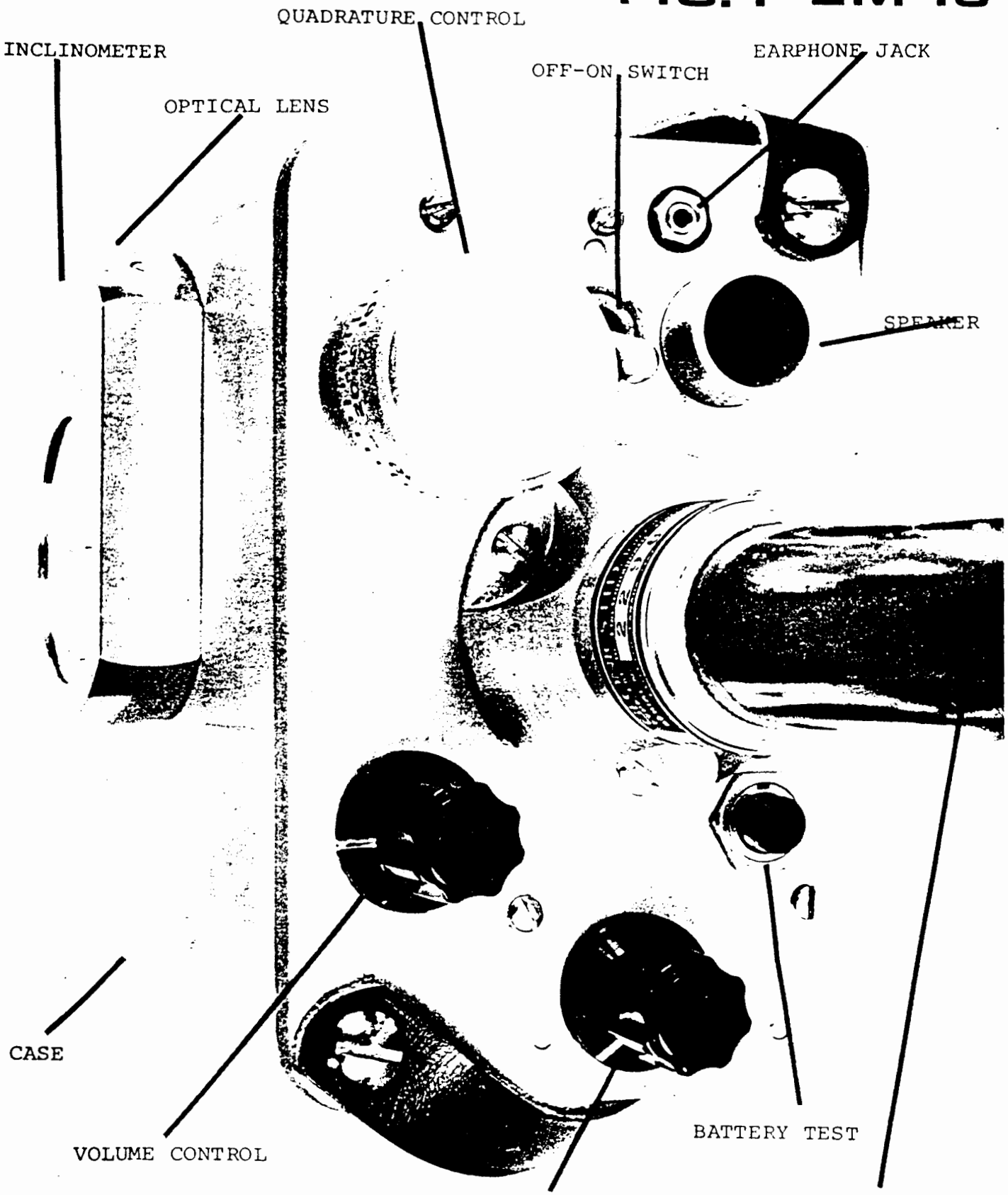
EM16 SPECIFICATIONS

MEASURED QUANTITY	Inphase and quad-phase components of vertical magnetic field as a percentage of horizontal primary field. (i.e. tangent of the tilt angle and ellipticity).
SENSITIVITY	Inphase: ±150% Quad-phase: ± 40%
RESOLUTION	±1%
OUTPUT	Nulling by audio tone. Inphase indication from mechanical inclinometer and quad-phase from a graduated dial.
OPERATING FREQUENCY	15-25 kHz VLF Radio Band. Station selection done by means of plug-in units.
OPERATOR CONTROLS	ON/OFF switch, battery test push button, station selector switch, audio volume control, quadrature dial, inclinometer.
POWER SUPPLY	6 disposable 'AA' cells.
DIMENSIONS	42 x 14 x 9cm
WEIGHT	Instrument: 1.6 kg Shipping: 5.5 kg

CAUTION

EM16 CLINOMETER MAY BE DAMAGED BY EXPOSURE TO TEMPERATURES BELOW -30° C

FIG. 1 EM 16


QUADRATURE CONTROL
INCLINOMETER
EARPHONE JACK
OFF-ON SWITCH
OPTICAL LENS
SPEAKER
CASE
VOLUME CONTROL
BATTERY TEST
STATION SELECTOR
HANDLE-VERTICAL
& HORIZONTAL COIL

PRINCIPLES OF OPERATION

The VLF-transmitting stations operating for communications with submarines have a vertical antenna. The Antenna current is thus vertical, creating a concentric horizontal magnetic field around them. When these magnetic fields meet conductive bodies in the ground, there will be secondary fields radiating from these bodies. (See Figures 3 & 4). This equipment measures the vertical components of these secondary fields.

The EM16 is simply a sensitive receiver covering the frequency band of the VLF-transmitting stations with means of measuring the vertical field components.

The receiver has two inputs, with two receiving coils built into the instrument. One coil has normally vertical axis and the other is horizontal.

The signal from one of the coils (vertical axis) is first minimized by tilting the instrument. The tilt-angle is calibrated in percentage. The remaining signal in this coil is finally balanced out by a measured percentage of a signal from the other coil, after being shifted by 90°. This coil is normally parallel to the primary field,(See instrument Block Diagram - Figure 2).

Thus, if the secondary signals are small compared to the primary horizontal field, the mechanical tilt-angle is an accurate measure of the vertical real-component, and the compensation ¶/2-signal from the horizontal coil is a measure of the quadrature vertical signal.

Some of the properties of the VLF radio wave in the ground are outlined by Figures 4 thru 9.

ACCOMPANYING NOTES FOR FIGURES 2 - 9

FIGURE 2 is the block diagram of the EM16. The diagram is self-explanatory. Both the coils (reference and signal coil) are housed in the lower part of the handle. The directions of the axis of the coils are as follows: The reference coil axis is basically horizontal and is kept more or less parallel to the primary field during measurement. The signal coil is at right angles to the reference coil and its axis is, of course, vertical.

The signal amplifier has the two inputs, one connected to the signal coil and one to the reference channel. By tilting the coils, the operator minimizes the signal from the signal (vertical axis) coil. Any remaining signal is reduced to zero by the quadrature control in the reference channel. The signal amplifier has zero output

FIGURE 2 Continued...

when both input signals are equal in amplitude and phase. Thus, the setting of the quadrature control for minimum output from the receiver indicates the relative amount of the quadrature signal of the vertical coil. The measured value does not depend on the absolute value of the signal, only the relative values are measured.

FIGURE 3 shows the proper planning of survey in relation to the direction of strike and primary field, direction of survey lines etc.

FIGURE 4 explains the time delay (phase lag) ϕ of travelling electromagnetic wave above and in the conductive ground. The amplitude of the wave in the ground is also attenuated.

FIGURE 5 shows on the left the physical direction of the primary (H_x) and secondary (H_z) field vectors in relation to conductive ground and target. The location of secondary current distribution in the target is shown schematically. We see that most current concentration is in the upper edge of the good conductor. The return secondary current is more spread due to the diminishing primary field in the conductive rock. On the right, the time vectors show the retarded phase of H_x in the target and the phase advance of the secondary field H_z compared to H_x. We must remember that the H_z will have additional phase lag when it penetrates back towards the surface.

This figure shows a positive real component of the H_z while the quadrature remains negative.

FIGURE 6 This graph shows the primary field attenuation in nepers, relative amplitude and phase lag in radians of the primary field as function of depth and conductivity of the ground. This graph is for 20 kHz.

FIGURE 7 shows the maximum obtainable amplitude H_z from a sphere or horizontal cylinder as a function of the radius-to-depth ratio. The schematic on the left shows the depth determination for the spherical or cylindrical target.

FIGURE 7 Continued...

The equation for the phase shift and attenuation of the primary field in conductive material, where $\sigma/\varepsilon\omega >> 1$ is as follows:

$$\alpha = \beta = \sqrt{\frac{\omega\mu\sigma}{2}}$$

where α = attenuation, nepers/m
β = phase lag, radian/m
$\omega = 2\pi f$
μ = magn. permeability $= 4\pi \times 10^{-7}$

σ = mhos/m

FIGURE 8 This graph gives the amplitude and phase shift of the field (in conductive media) as function of skin depth, $\delta = 1/\alpha$.

This equation gives the skin-depth in meters for certain conductivity and frequency. Normalize this to one, and the graph in Figure 8 gives the amplitude and phase shift of the wave at any relative depth.

FIGURE 9 The vertical field from a long wire source is plotted here. A vertical semi-infinite sheet target would be simulated this way. In practice it hardly works accurately due to the spread of the secondary current in the target because of the finite conductivity and the attenuation and phase shift of the primary field as function of depth.

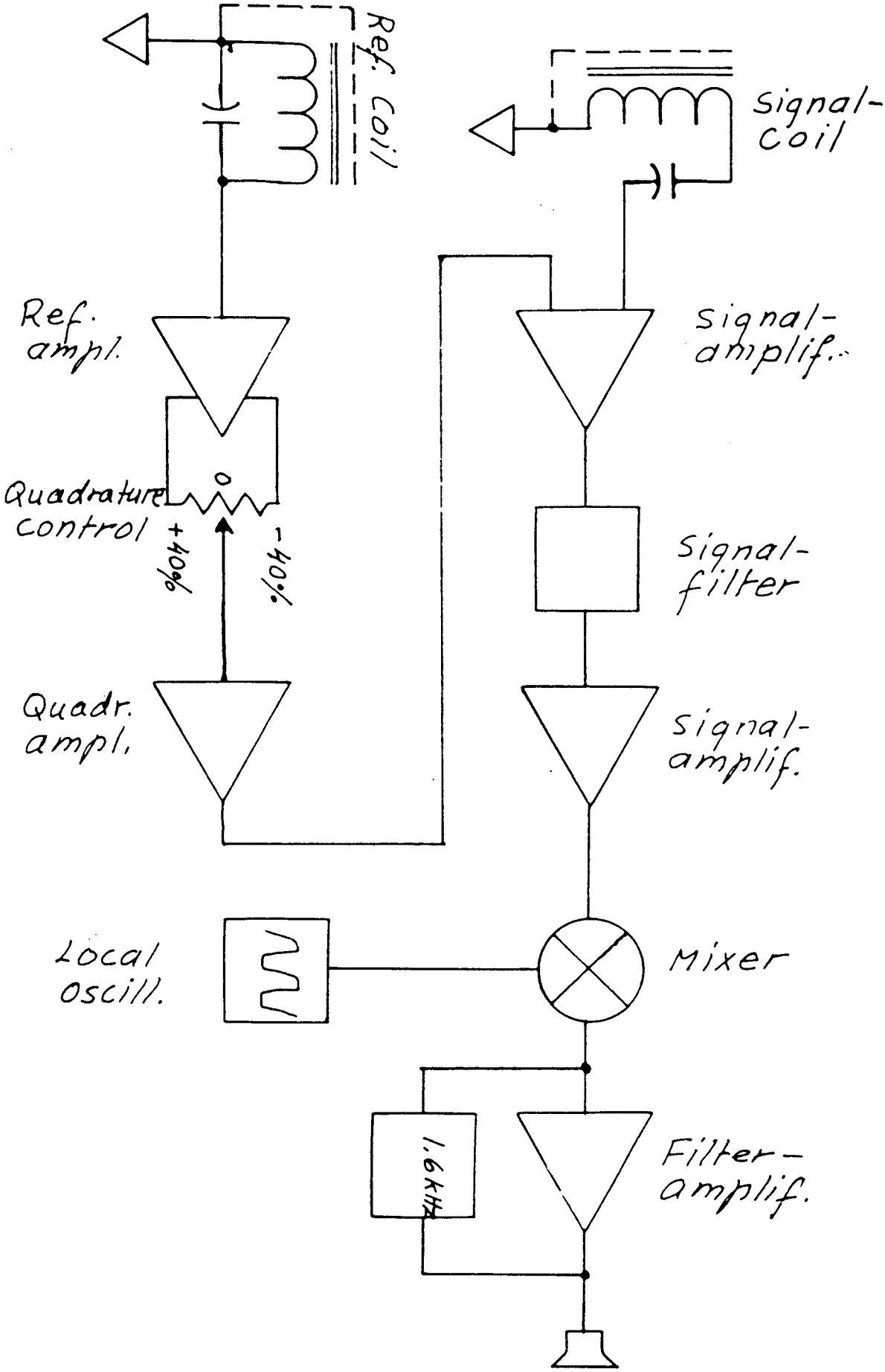
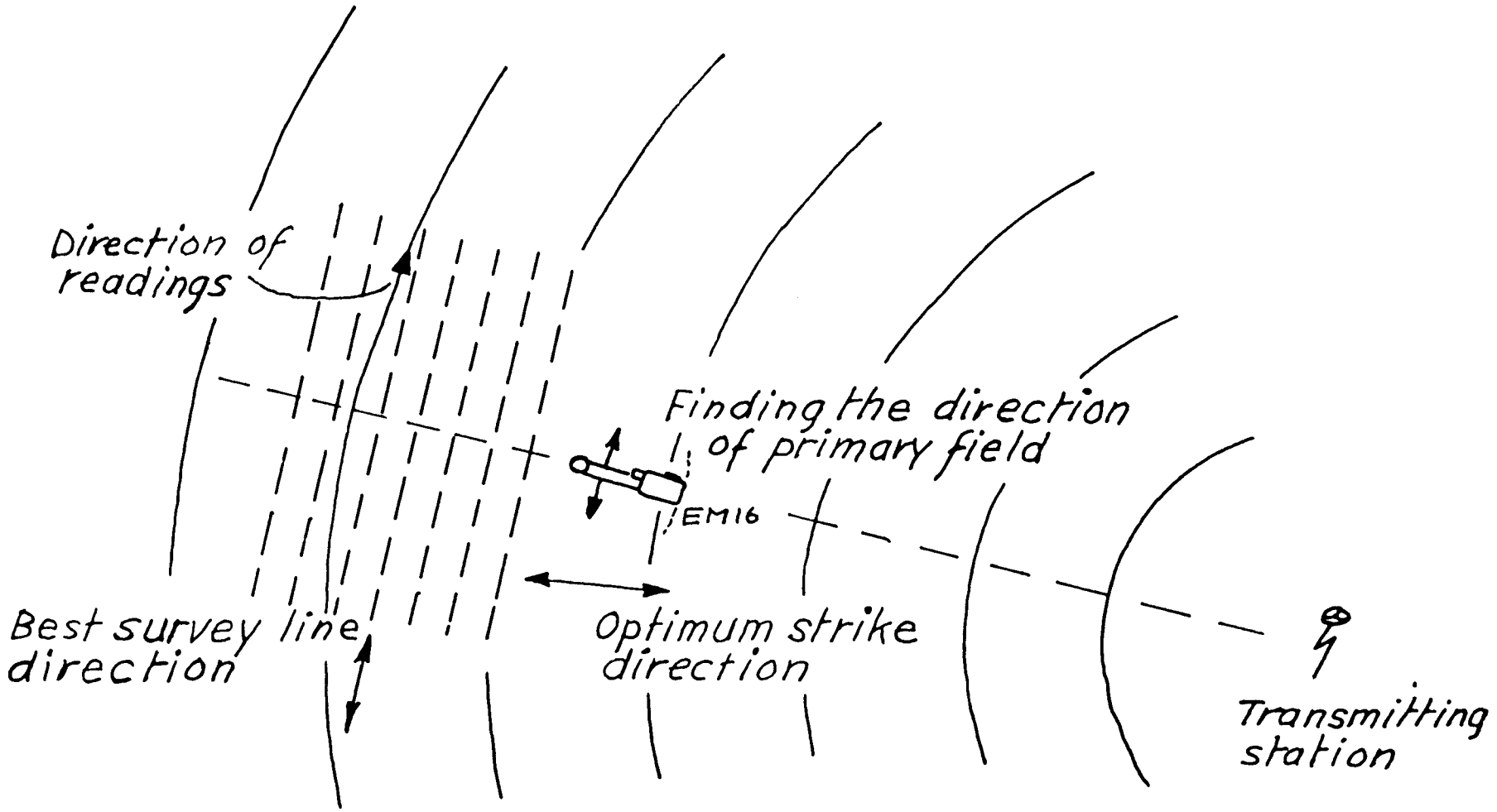


FIG. 2

EM16 VLF-EM
Block Diagram
GEONICS LTD.



Planning of survey

FIG. 3

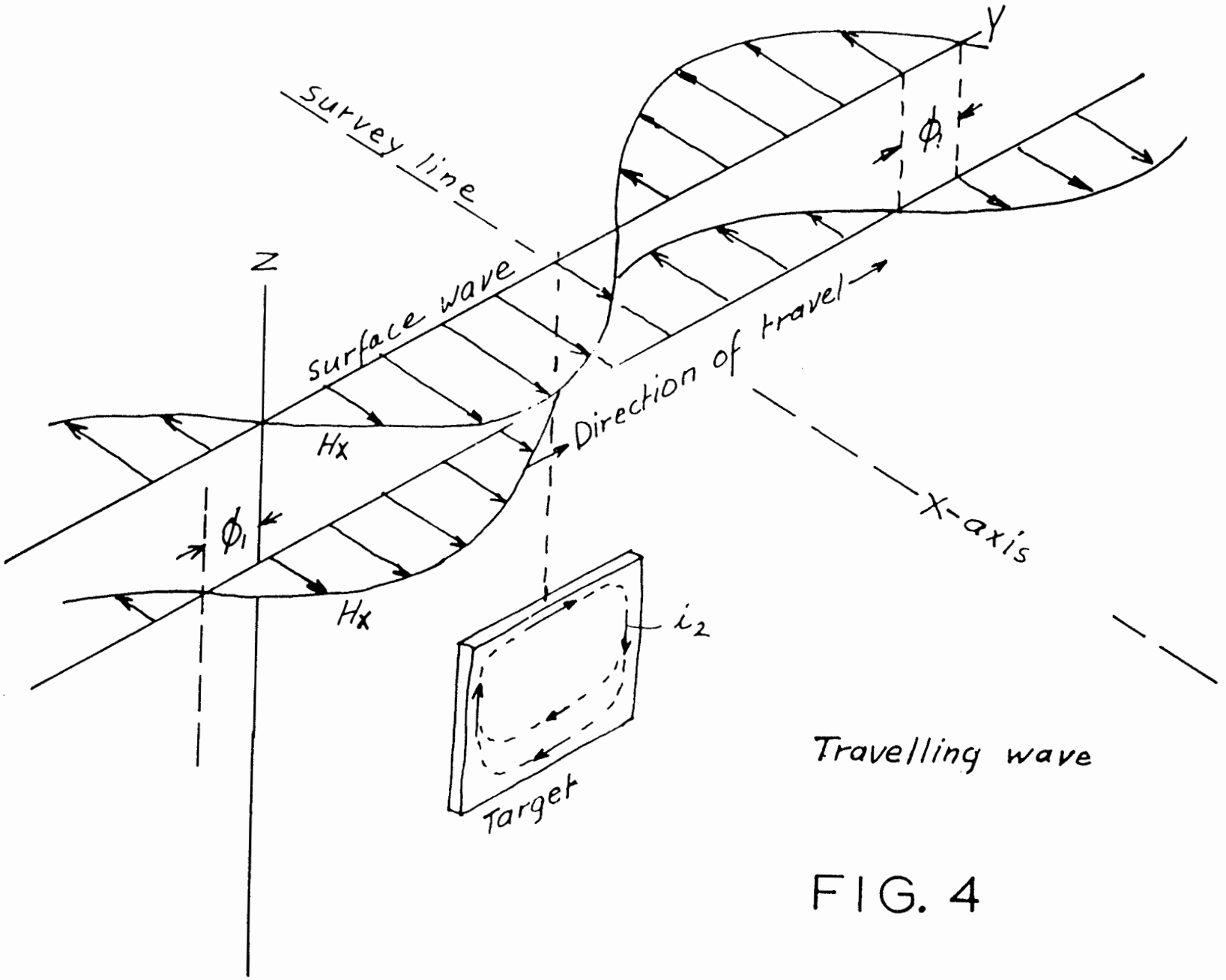
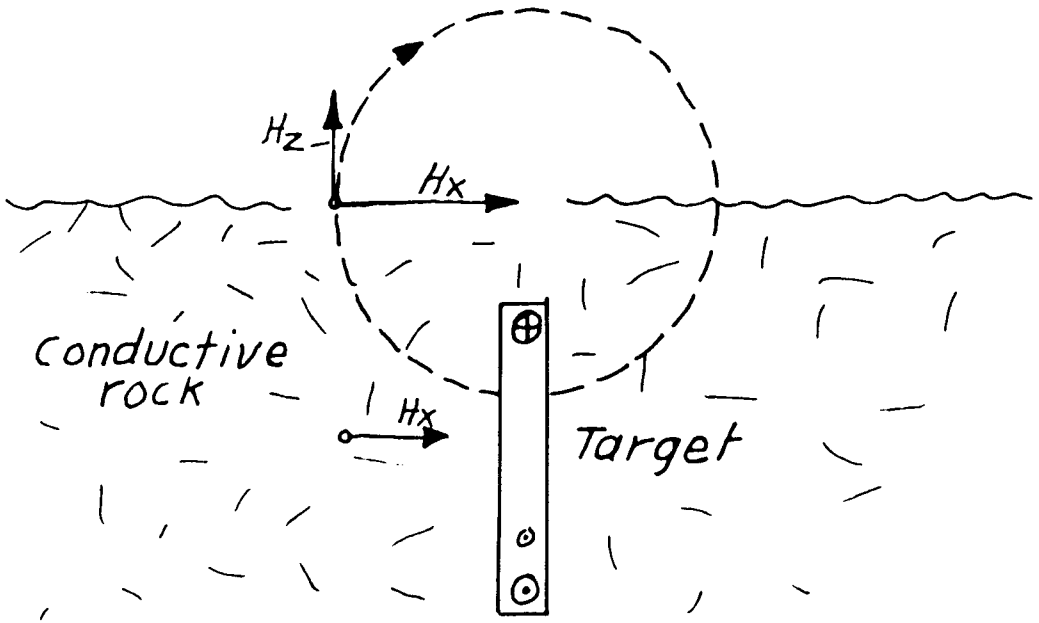

Y
Survey line
Z
surface wave
Direction of travel
X-axis
H_x
ϕ_1
H_x
i_2
Target
Travelling wave

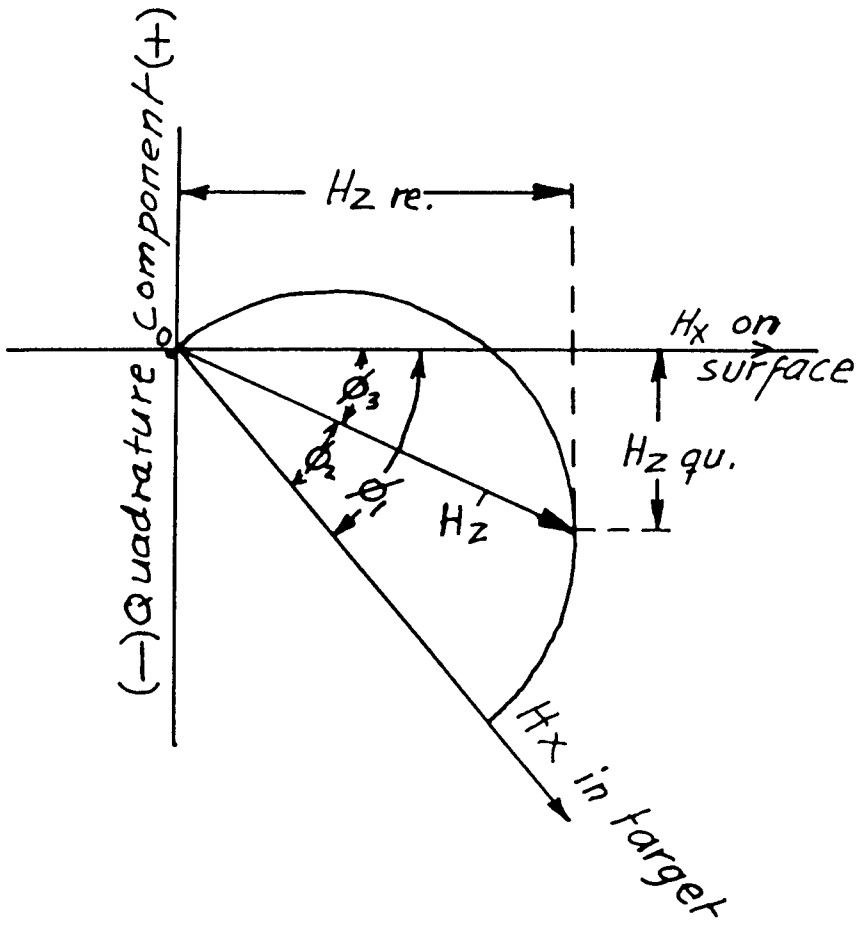
FIG. 4



Directional vectors

H_x = primary field

H_z = sec. field, vert. component



Time vectors

Conductive target in conductive medium

FIG. 5

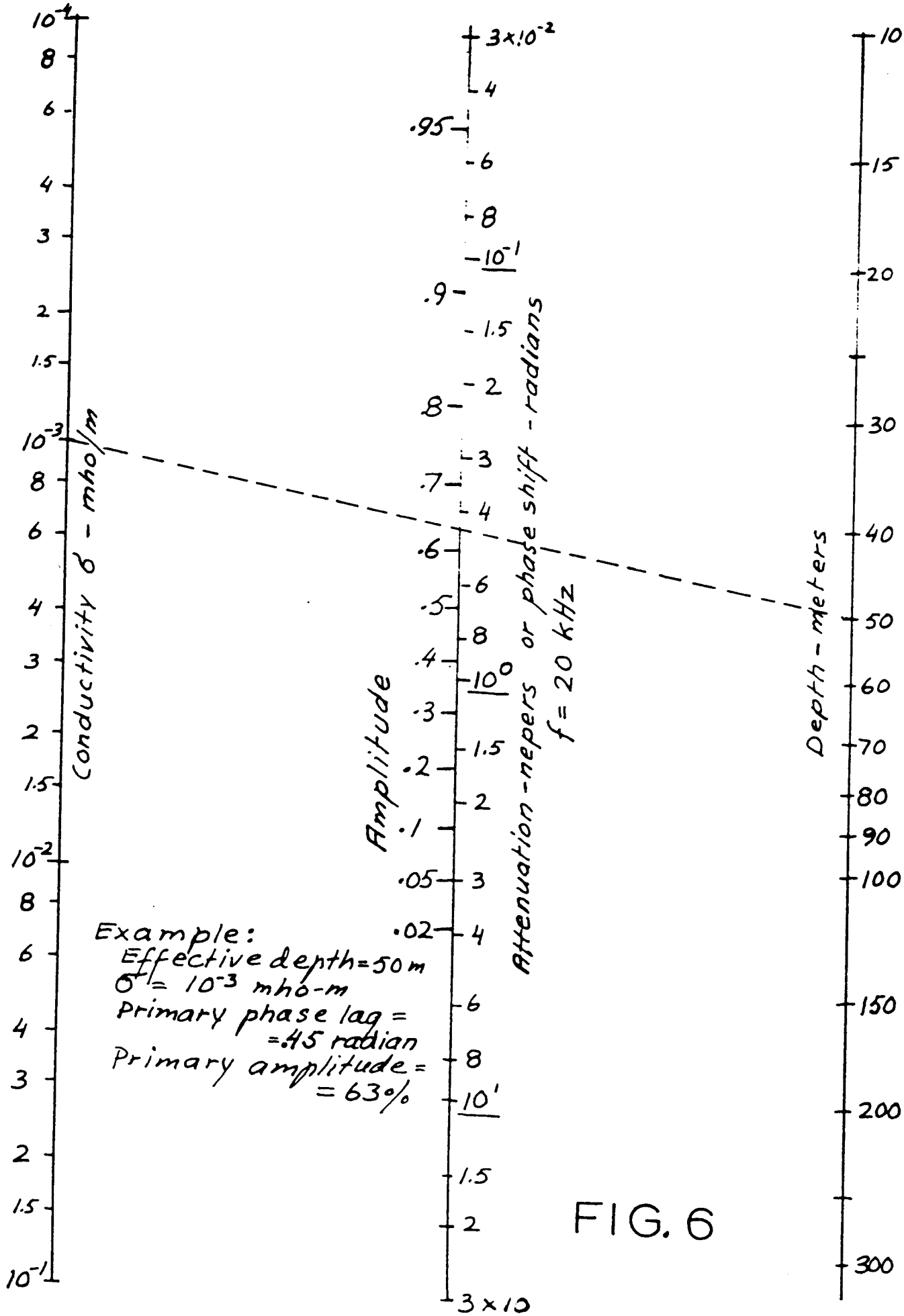
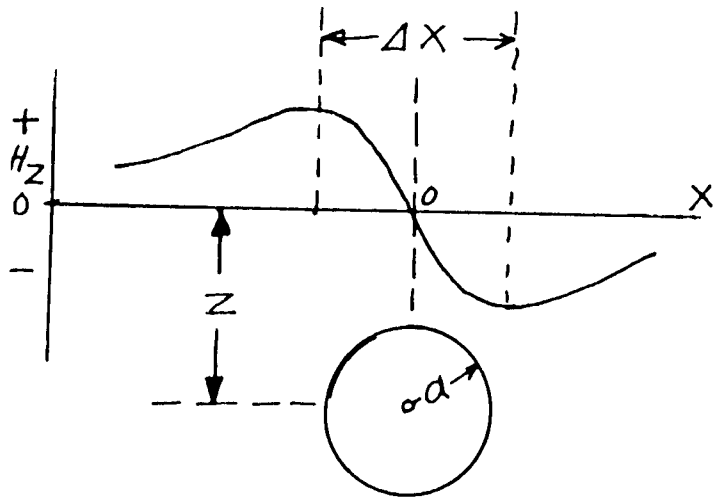

Conductivity σ - mho/m
Amplitude
Attenuation - nepers or phase shift - radians
f = 20 kHz
Depth - meters
Example:
Effective depth = 50 m
σ = 10⁻³ mho-m
Primary phase lag =
= .45 radian
Primary amplitude =
= 63%

FIG. 6



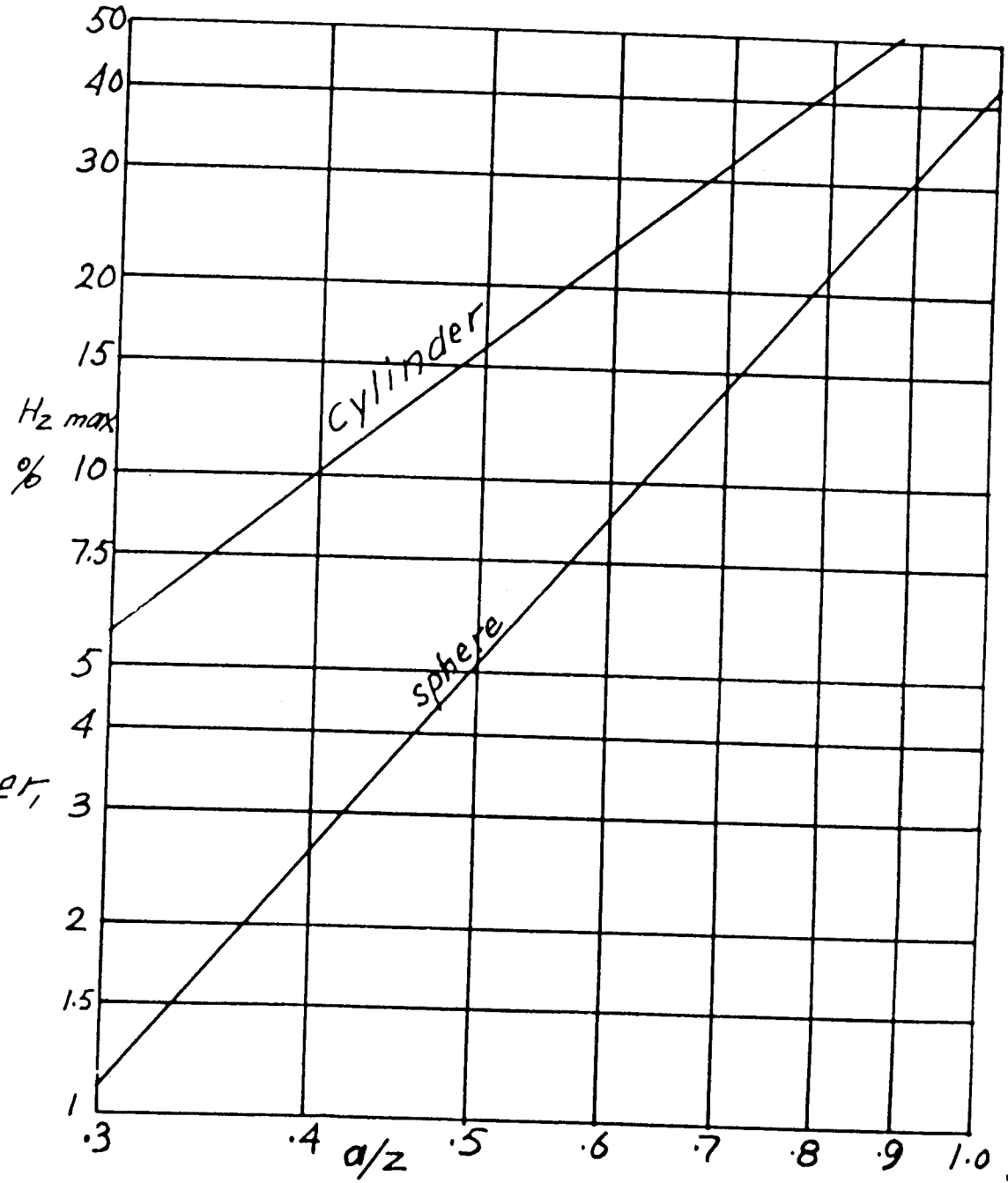
Long cylinder or sphere in horizontal field $H_x = 1$

Depth $Z = 1.16\ \Delta X$ for cylinder,

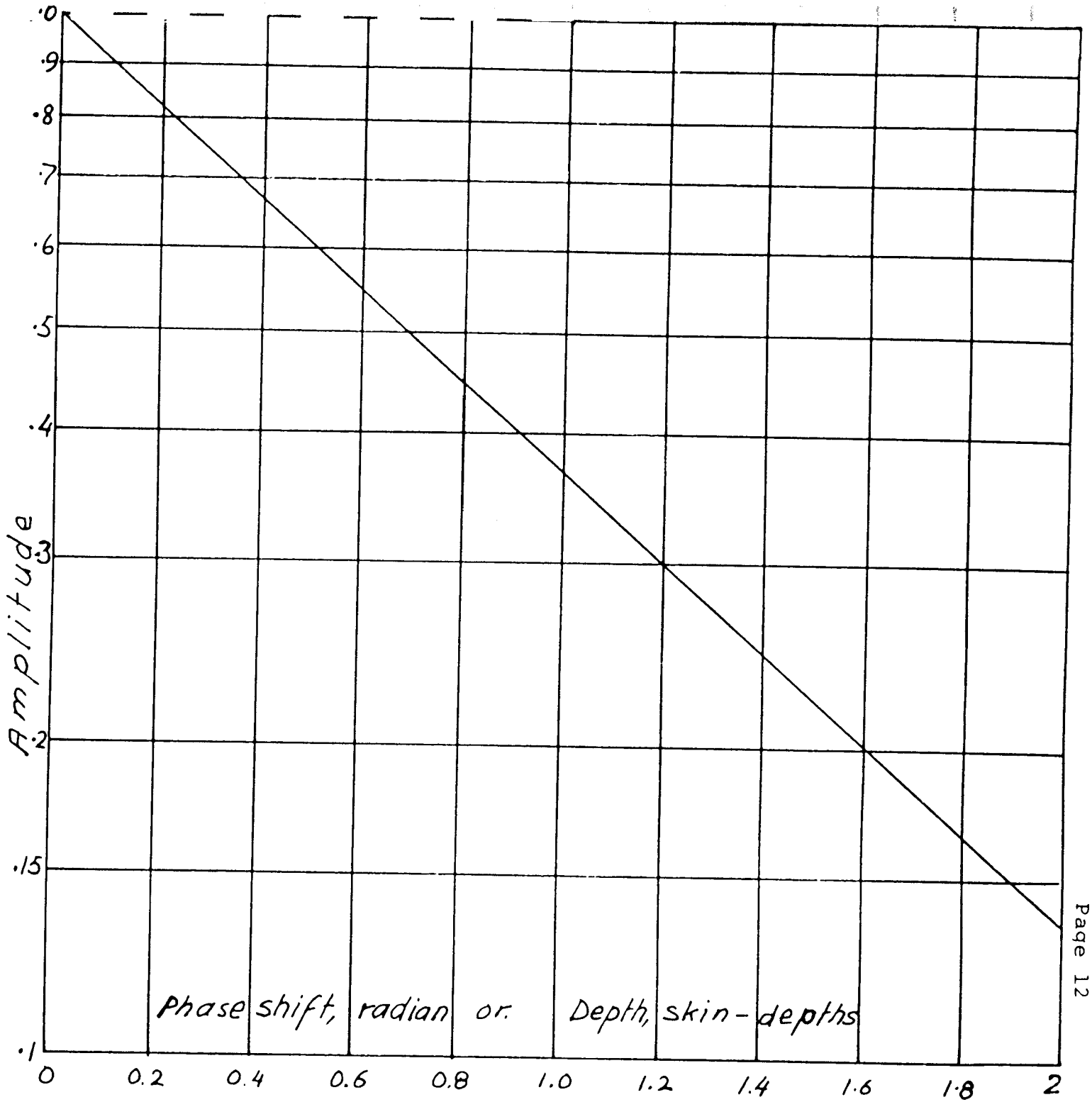
$Z = \Delta X$ for sphere

$\sigma = \infty$

FIG. 7



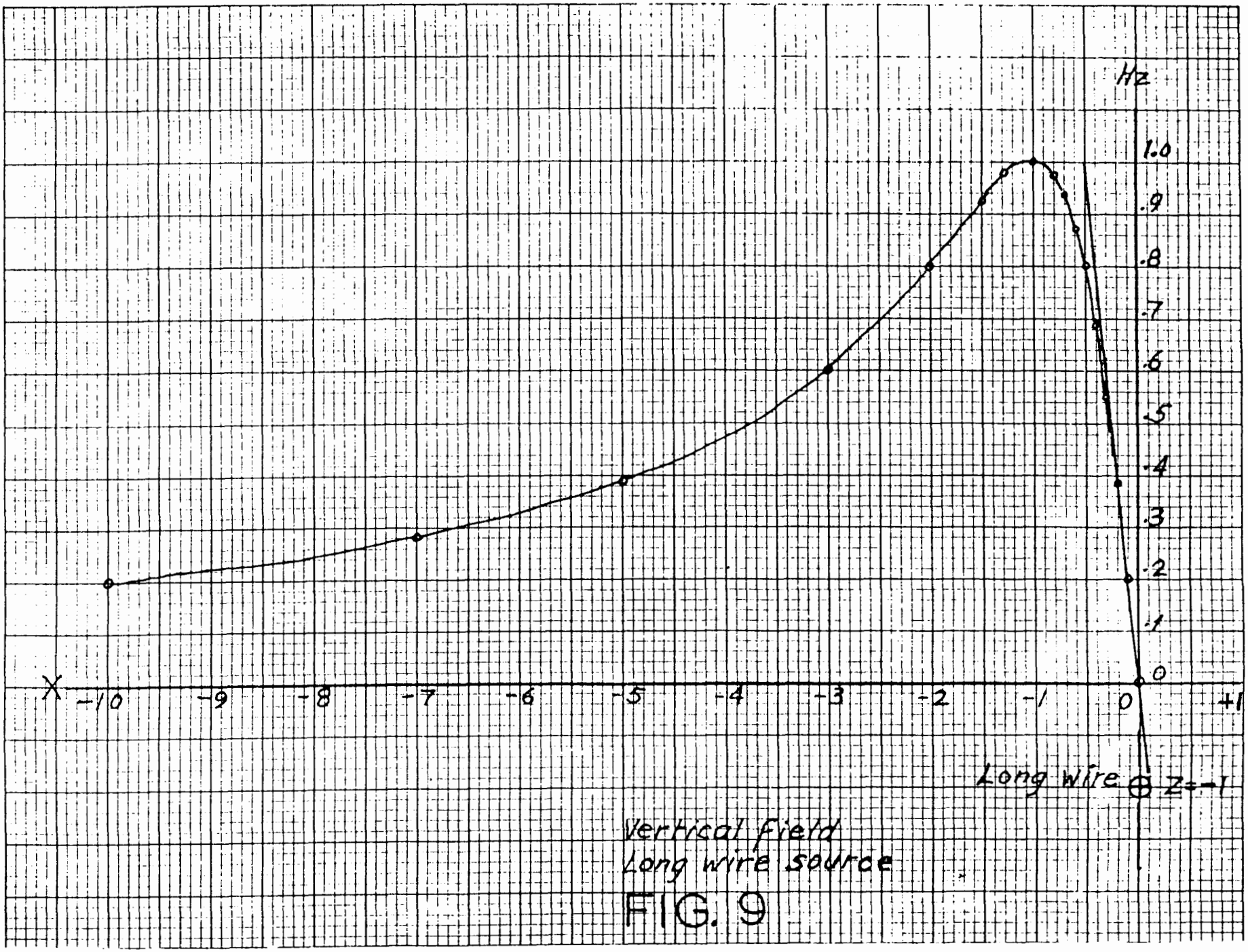
Maximum available anomaly from a sphere and cylinder



Primary field in conductive rock.

Depth, phase shift, amplitude

FIG. 8



Vertical field
Long wire source

FIG. 9

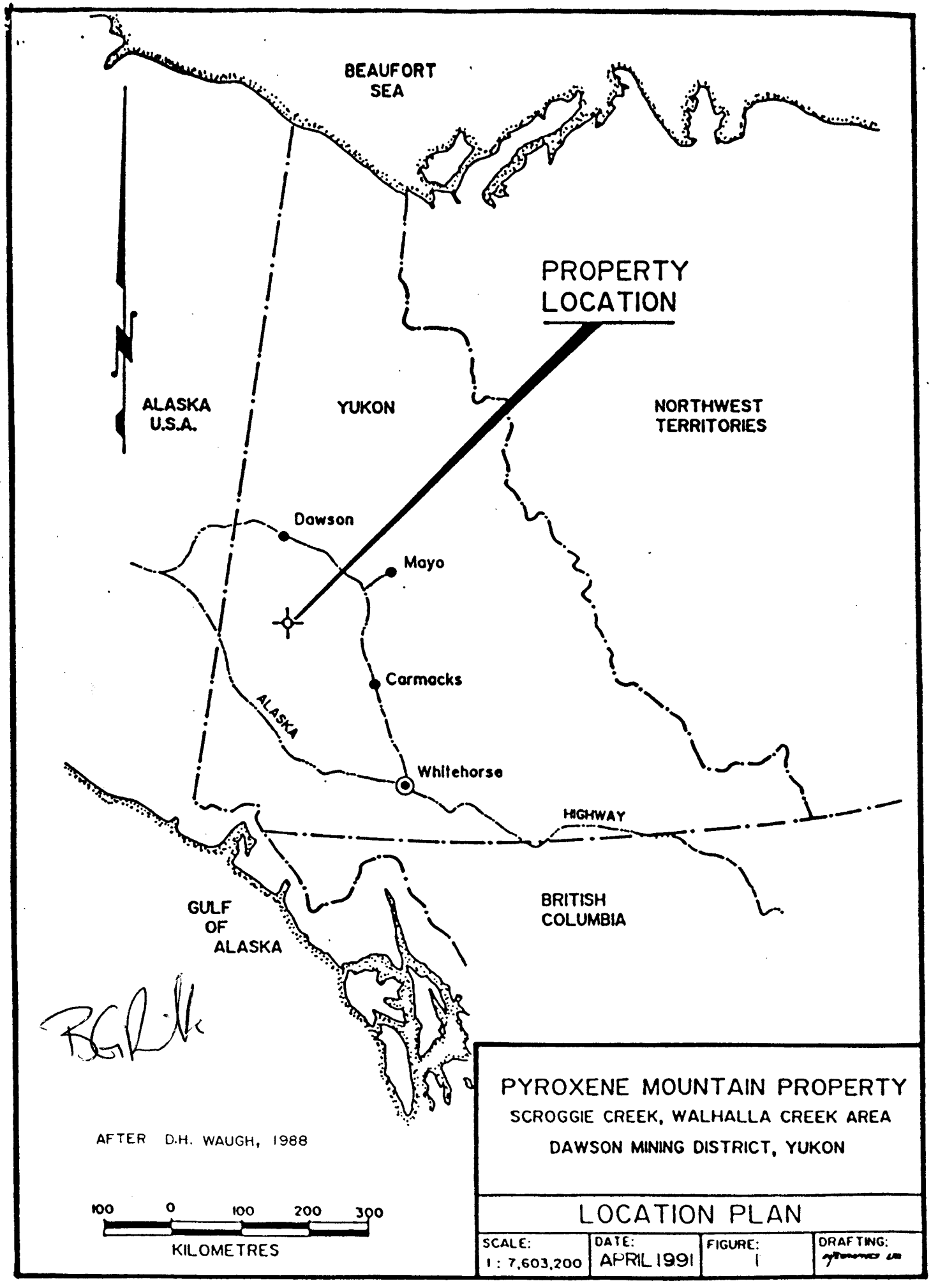
SELECTION OF THE STATION

The magnetic field lines from the station are at right angles to the direction of the station. Always select a station which gives the field approximately at right angles to the main strike of the ore bodies or geological structure of the area you are presently working on. In other words, the strike of geology should point to the transmitter. (See Figure 3). Of course, $\pm 45^{o}$ variations are tolerable in practice.

Tuning of the EM16 to the proper transmitting station is done by means of plug-in units inside the receiver. The instrument takes two selector-units simultaneously. A switch is provided for quick switching between these two stations.

To change a plug-in unit, open the cover on top of the instrument, and insert the proper plug. (Figure 10) Close the cover and set the selector switch to the desired plug-in.

On the following pages is a variety of information on the most commonly used (i.e. reliable) VLF Transmitters including transmission frequency, geographical location and their scheduled maintenance periods.



PYROXENE MOUNTAIN PROPERTY

SCROGGIE CREEK, WALHALLA CREEK AREA

DAWSON MINING DISTRICT, YUKON

LOCATION PLAN

SCALE:	DATE:	FIGURE:	DRAFTING:
1 : 7,603,200	APRIL 1991	1	

DYNAMIN ENGINEERING LIMITED

WEACO RESOURCES LTD.

PYROXENE MOUNTAIN & SURROUNDING AREA

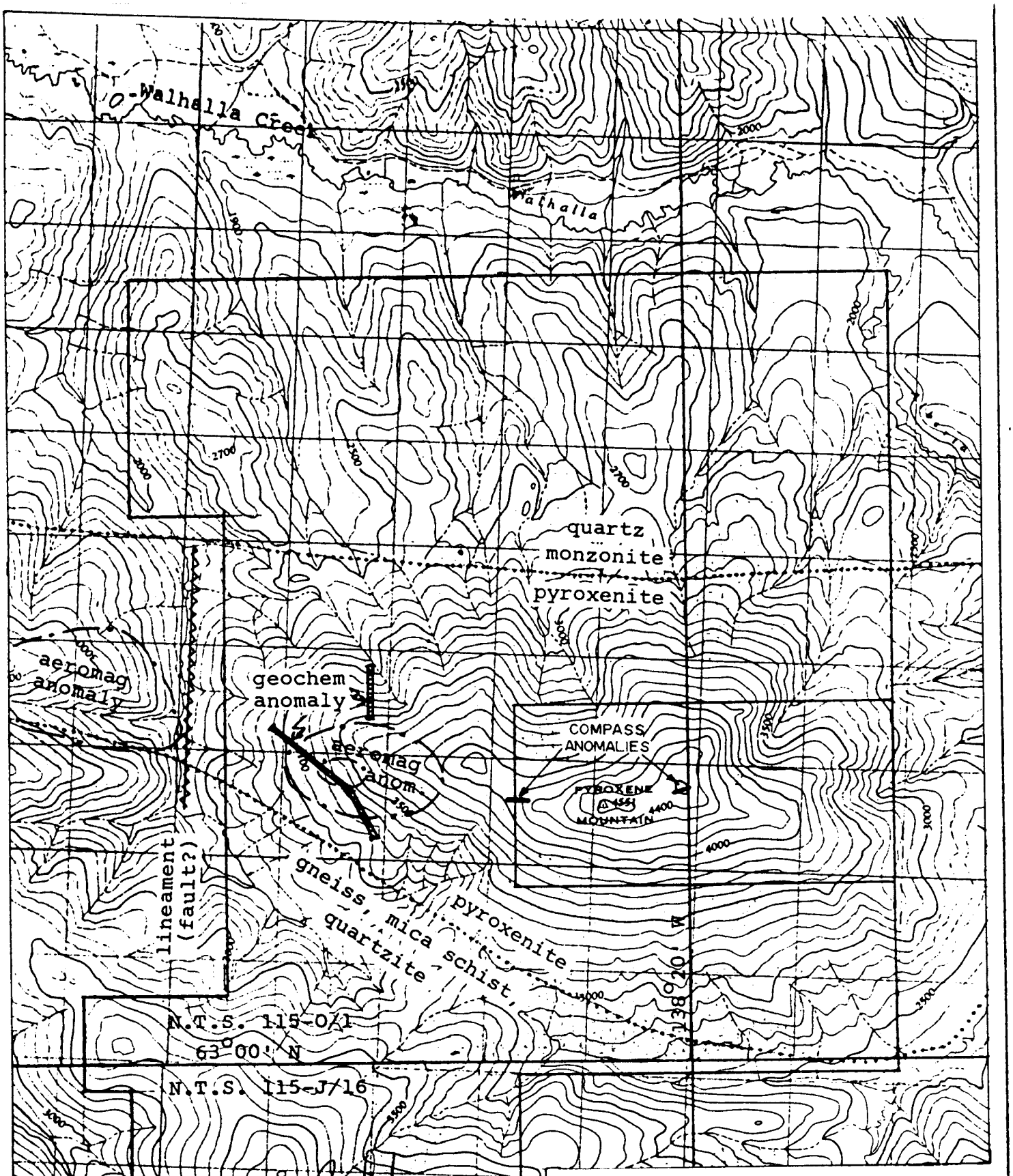
DWG 23

CLAIM MAP

DAWSON MINING DISTRICT, YUKON **093007**

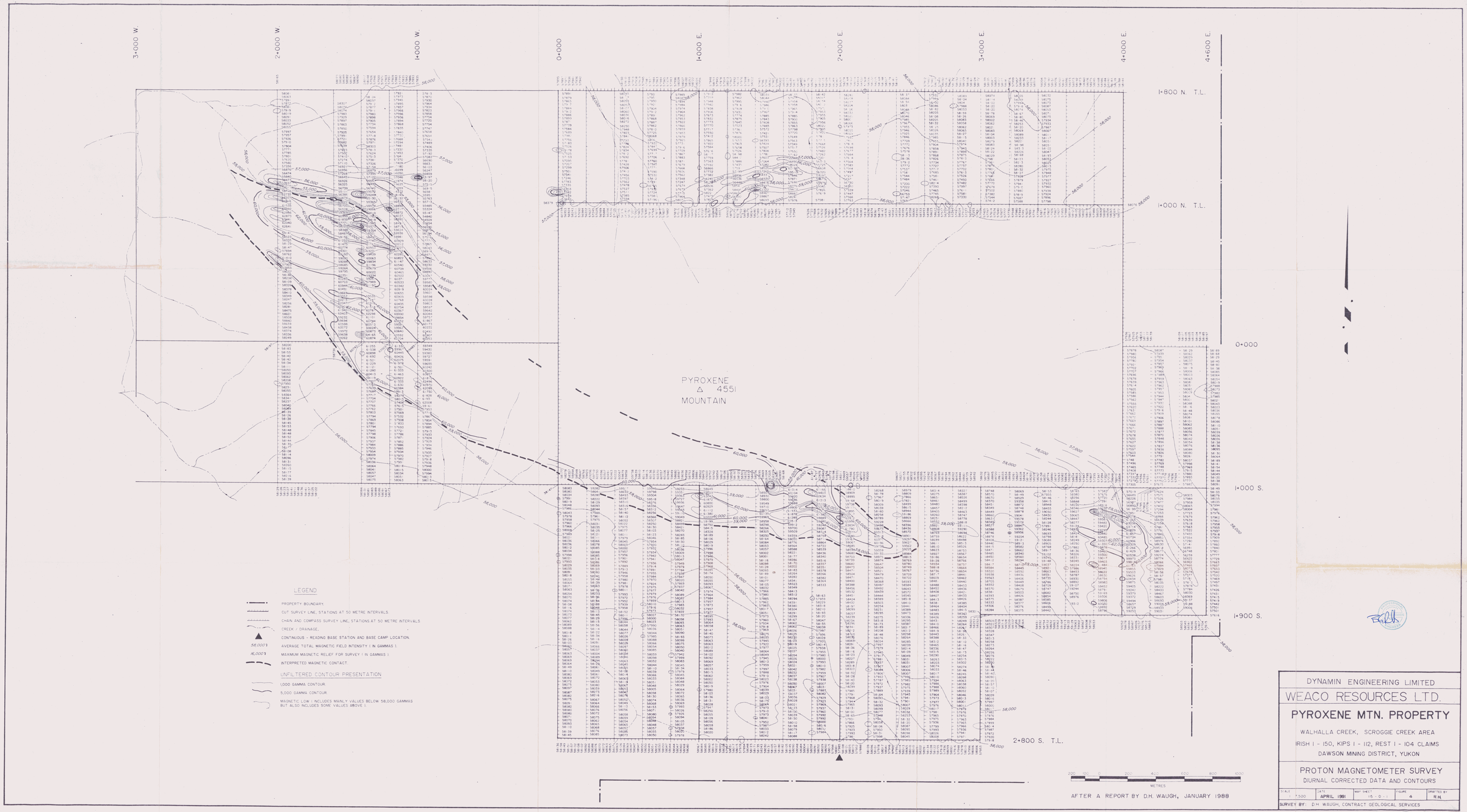
SCALE	DATE	MAP SHEET	FIGURE	DRAFTED BY
app. 1:30,315	APRIL 1991		2	

MAP# 115P/15, 115J/16 (338)



WEACO RESOURCES LTD Pyroxene Mountain, Yukon	
GEOLOGY OF THE PROPERTY	
Scale: 1: 50,000	FIGURE:
Date: APRIL 1991	3
DYNAMIN ENGINEERING LIMITED	

AFTER D.R. MORGAN, P.ENG., AUGUST 1990



AFTER A REPORT BY D.H. WAUGH, JANUARY 1988

DYNAMIN ENGINEERING LIMITED

WEACO RESOURCES LTD.

PYROXENE MTN. PROPERTY

WALHALLA CREEK, SCROGGIE CREEK AREA
IRISH 1 - 150, KIPS 1 - 112, REST 1 - 104 CLAIMS
DAWSON MINING DISTRICT, YUKON

PROTON MAGNETOMETER SURVEY

DIURNAL CORRECTED DATA AND CONTOURS

SCALE	DATE	MAP SHEET	FIGURE	DRAFTED BY
1 : 7,500	APRIL 1991	15 - 0 - 1	4	R.H.

SURVEY BY: D.H. WAUGH, CONTRACT GEOLOGICAL SERVICES

MAP # 11541, 115 3/16

339

093007

DWG 94

3+000 W. 2+000 W. 1+000 W. 0+000 1+000 E. 2+000 E. 3+000 E. 4+000 E. 4+600 E.

1+800 N. T.L.

1+000 N. T.L.

0+000

1+000 S.

1+900 S.

2+800 S. T.L.

PYROXENE
△ 4551
MOUNTAIN

LEGEND

- PROPERTY BOUNDARY
- CUT SURVEY LINE, STATIONS AT 50 METRE INTERVALS.
- CHAIN AND COMPASS LINE, STATIONS AT 50 METRE INTERVALS.
- CREEK / DRAINAGE
- 50 METRE SAMPLE INTERVAL
- Pt/Pd/Au (PPB) 55, 4, <5 — FIRE ASSAY OF 1596 SOIL SAMPLES AND 1 ROCK SAMPLE 1 LOCATED AT 0+650N / 1+200W).
- 25 — DENOTES INSUFFICIENT SAMPLE FOR ANALYSIS.
- CONTOUR INTERVAL 25 PPB.
- 100 — 100 PPB OR GREATER CONTOUR.
- NOTE : DETECTION LIMIT FOR PALLADIUM IS 2 PPB.

PALLADIUM VALUES

- 25-49 PPB Pd
- 50-74 PPB Pd
- 75-99 PPB Pd
- > 100 PPB Pd

METRES

AFTER A REPORT BY D.H. WAUGH, JANUARY 1988

PLATINUM, PALLADIUM, GOLD VALUES (PPB)

WEACO RESOURCES LTD.

PYROXENE MTN. PROPERTY

WALHALLA CREEK, SCROGGIE CREEK AREA

IRISH 1 - 150, KIPS 1 - 112, REST 1 - 104 CLAIMS

DAWSON MINING DISTRICT, YUKON DWG 25

SOIL ASSAY RESULTS D93007

PALLADIUM CONTOURS

SCALE	DATE	MAP INDEX	FIGURE	DRAFTED BY
1:500	APRIL 1991	-75 D 11	5	RH

D.H. WAUGH, CONTRACT GEOLOGICAL SERVICES

MAP #1159, 115 5/16 (340)

3+000 W. 2+000 W. 1+000 W. 0+000 1+000 E. 2+000 E. 3+000 E. 4+000 E. 4+600 E.

1+800 N. T.L.

1+000 N. T.L.

0+000

PYROXENE
△ 4551
MOUNTAIN

1+000 S.

1+900 S.

2+800 S. T.L.

LEGEND

- PROPERTY BOUNDARY
- CUT SURVEY LINE, STATIONS AT 50 METRE INTERVALS
- CHAIN AND COMPASS LINE, STATIONS AT 50 METRE INTERVALS
- CREEK / DRAINAGE
- 50 METRE SAMPLE INTERVAL
- Pt/Pd/Au PPB: / Au 4.5 — FIRE ASSAY OF 1596 SOIL SAMPLES AND 1 ROCK SAMPLE (LOCATED AT 0+650N / 1+200W).
- 23 — DENOTES INSUFFICIENT SAMPLE FOR ANALYSIS.
- 25 — CONTOUR INTERVAL 25 PPB.
- 100 — 100 PPB OR GREATER CONTOUR

PLATINUM VALUES

- 25-49 PPB Pt.
- 50-74 PPB Pt.
- 75-99 PPB Pt.
- ↘ 100 PPB Pt.

* NOTE : DETECTION LIMIT FOR PLATINUM IS 15 PPB.

ANOMALOUS GOLD VALUES

- 25-99 PPB Au.
- 100-199 PPB Au.
- 200-9,999 PPB Au.
- ↘ 10,000 PPB Au.

* NOTE : DETECTION LIMIT FOR GOLD IS 5 PPB.

METRES

AFTER A REPORT BY D.H. WAUGH, JANUARY 1988

PLATINUM, PALLADIUM, GOLD VALUES (PPB)

WEACO RESOURCES LTD.

PYROXENE MTN. PROPERTY

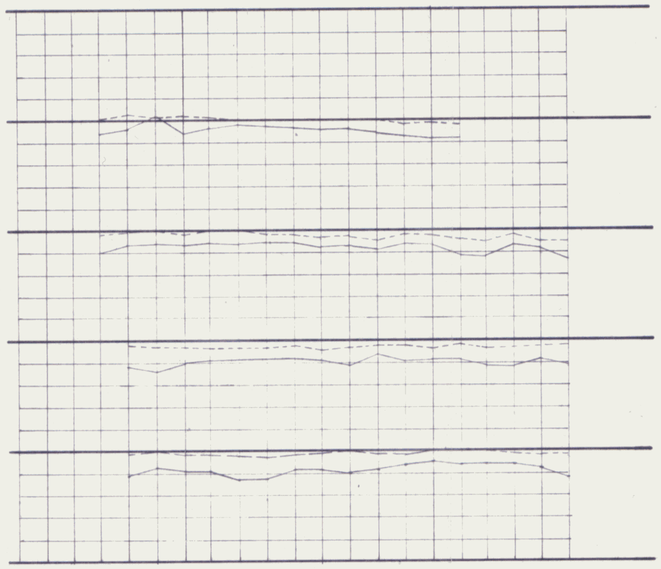
WALHALLA CREEK, SCROGGIE CREEK AREA
IRISH 1 - 150, KIPS 1 - 112, REST 1 - 104 CLAIMS
DAWSON MINING DISTRICT, YUKON

SOIL ASSAY RESULTS
PLATINUM CONTOURS
WITH GOLD HIGHLIGHTS DWG 86

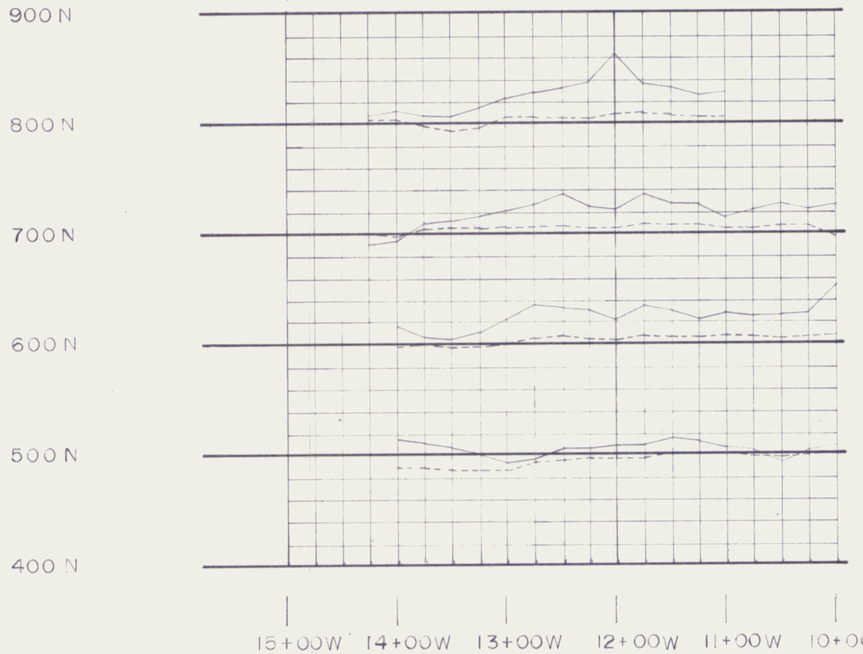
SCALE	DATE	MAP SHEET	FIG. NO.	DRAFTED BY
1:500	APRIL 1991		6	R.H.

SURVEY BY: D.H. WAUGH, CONTRACT GEOLOGICAL SERVICES

MAP #1159, 115 3/16 (341) 093007

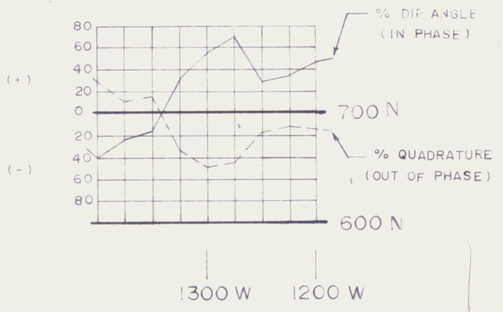


STATION 1
LUALUALEI, HAWAII
(STN NPM), 23.4 kHz



STATION 2
SEATTLE, WASHINGTON
(STN NLK), 24.8 kHz

LEGEND



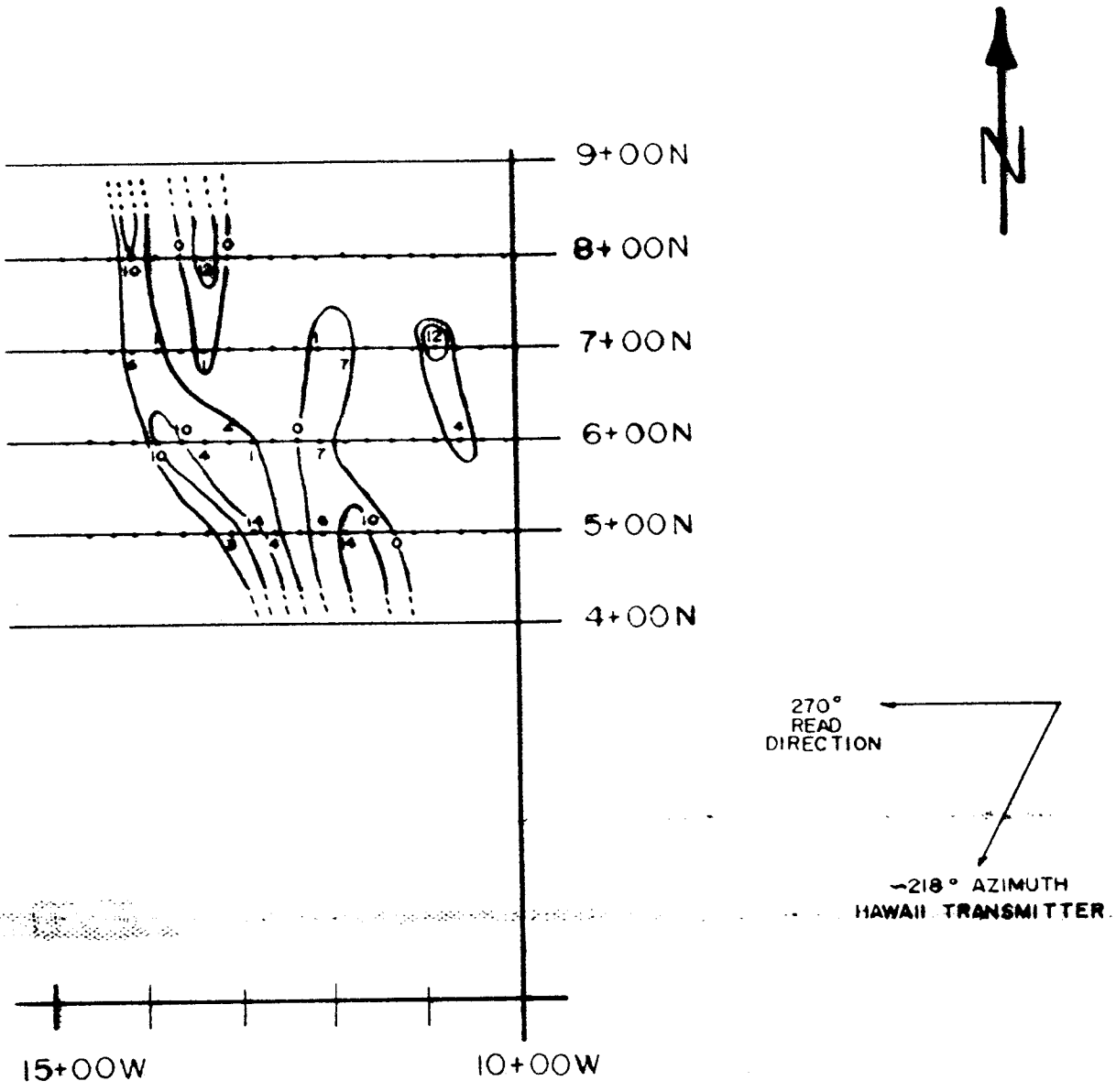
DYNAMIN ENGINEERING LIMITED

WEACO RESOURCES LTD.

VLF-EM 093007

% DIP ANGLE / % QUADRATURE

DRAWN BY: BGR	SCALE: 1:4000
FIGURE: 7	DATE: APRIL 1991



LEGEND

32 LOCATION & MAGNITUDE OF FILTERED DATA POINT.

NOTES

1. CONTOUR INTERVAL = 10 INTEGER UNITS OF FRASER FILTERED DIP ANGLE VALUES.

DYNAMIN ENGINEERING LIMITED

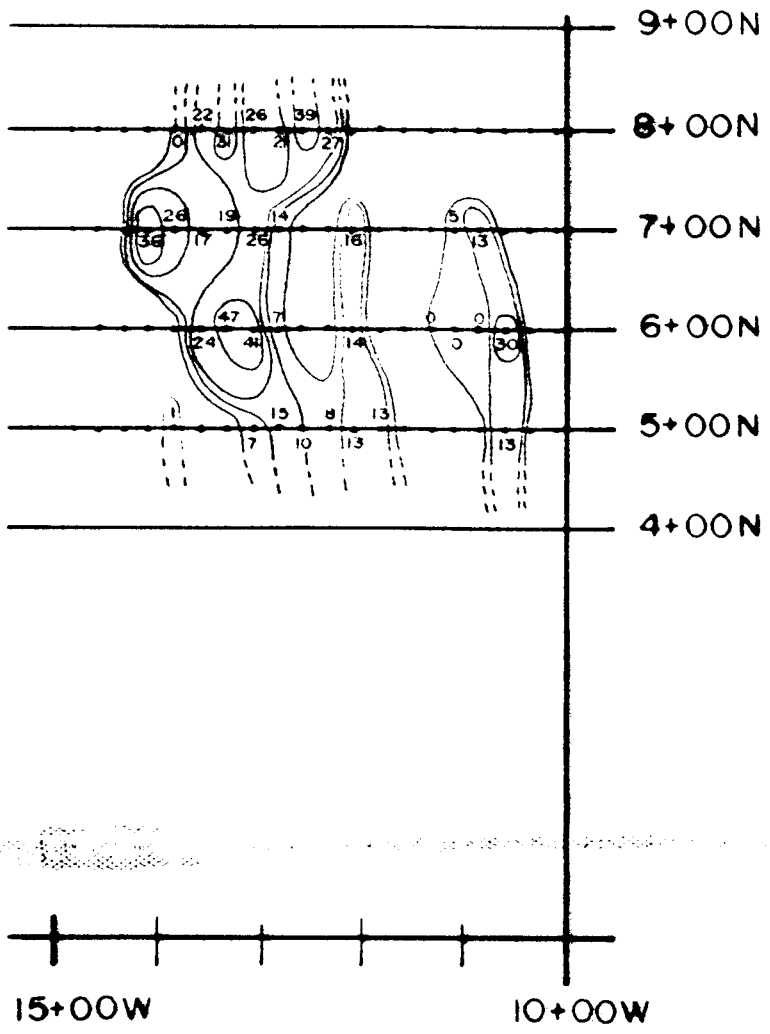
WEACO RESOURCES LTD.

STATION I
VLF-EM SURVEY 093007

FRASER FILTERED CONTOURS

IRISH CLAIMS, PYROXENE MOUNTAIN

DRAWN BY: BGR	SCALE: 1:7500
FIGURE: 8	DATE: APRIL 1991



270° READ DIRECTION

~140° AZIMUTH SEATTLE TRANSMITTER

LEGEND

x LOCATION & MAGNITUDE OF FILTERED DATA POINT.

NOTES

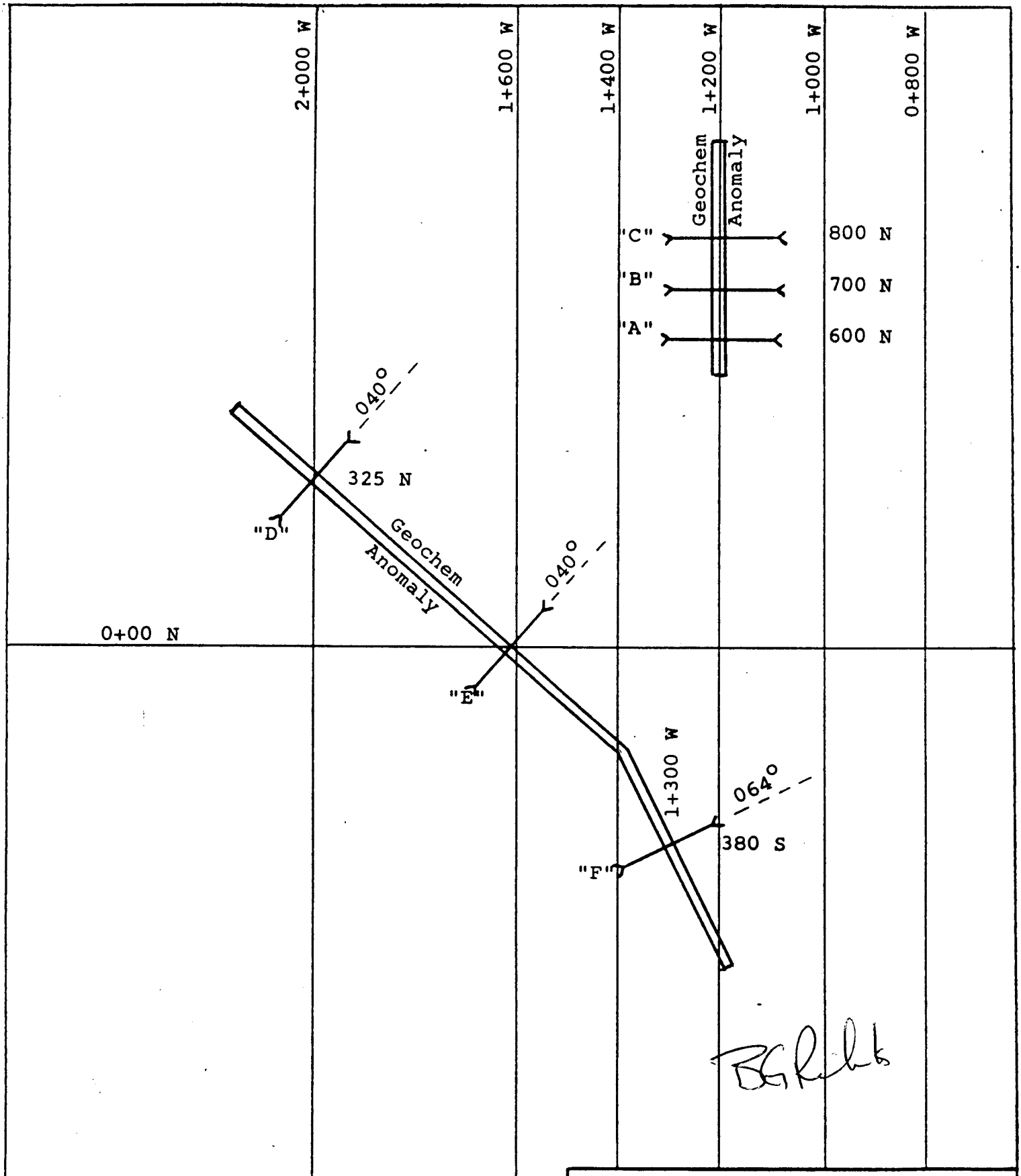
1. CONTOUR INTERVAL = 10 INTEGER UNITS OF FRASER FILTERED DIP ANGLE VALUES.

DYNAMIN ENGINEERING LIMITED

WEACO RESOURCES LTD.

STATION 2
VLF-EM SURVEY 093007
FRASER FILTERED CONTOURS
IRISH CLAIMS, PYROXENE MOUNTAIN

DRAWN BY: BGR	SCALE: 1:7500
FIGURE: 9	DATE: APRIL 1991



AFTER D.R. MORGAN, P.ENG., AUGUST 1990

WEACO RESOURCES LTD
Pyroxene Mountain, Yukon

RECOMMENDED TRENCH LOCATIONS

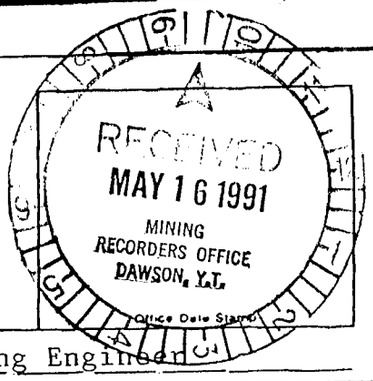
Scale: 1:10,000

Date: APRIL 1991

DYNAMIN ENGINEERING LIMITED

FIGURE: 10

DATE APPLIED: QA 08696-597



Indian and Northern Affairs Canada / Affaires indiennes et du Nord Canada

APPLICATION FOR A CERTIFICATE OF WORK
FORM 4 (SEC. 53)
YUKON QUARTZ MINING ACT

▶ This form required in duplicate with sketch showing location of work

I, (name) William Joseph Radvak, occupation Mining Engineer

of (postal address) #703 - 1112 West Pender St. Vancouver, B.C. V6E 2S1

make oath and say that:

1. I am the ~~owner or~~ agent of the owner, of the mineral claim(s) to which reference is made herein.

2. I have done, or caused to be done, work on the following mineral claim(s).
(Here list claims on which work was actually done by number and name)

Irish 37	YA88539
34	YA88536
49	YA88551
50	YA88552
66	YA88568
68	YA88570
70	YA88572

situated at Walhalla Creek Area Claim Sheet No 115 O/1 & J/16

in the Dawson Mining District, to the value of at least $10,800.00 dollars,

since the First day of July 19 90.

to represent the following mineral claims under the authority of Grouping Certificate No. DA025860-866
(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

Please Renew the following to May 4, 1992:

Irish 5 - Irish 16,	YA88507 - YA88518
Irish 21 - Irish 84,	YA88523 - YA88586
Irish 89 - Irish 104,	YA88591 - YA88606
Kips 57 - Kips 60	YA88868 - YA 88871
Kips 71 - Kips 74	YA88882 - YA88885
Kips 85 - Kips 92	YA88896 - YA88903

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.

Report and Cost Statement Enclosed

Sworn before me at Vancouver, British Columbia

this 14th day of May, 1991

MABEL C. EASTWOOD
Barrister & Solicitor
#610 - 1112 WEST PENDER ST.
VANCOUVER, B.C. V6E 2R9
TEL : 689-1636

Notary Public

W. J. Radvak
Owner or Authorized Agent

MRP 5(127-22 (6-86)

Canada

DYNAMIN ENGINEERING LIMITED

2342 Queens Avenue
West Vancouver, B.C. V7V 2Y6
(604) 926-6591

19 November 1991

FOR TRANSMISSION BY FACSIMILE TO: (403) 993-5701

Attention: Ms Marion Dejean, Mining Recorder

Indian and Northern Affairs Canada
Dawson City, Yukon

093007

Re: Cost Statement for Assessment Work - Pyroxene Mountain

Dear Ms Dejean,

Further to your telephone conversations with Mr. Bill Radvak, we submit the following revised cost statement for your consideration. The following changes have been made:

1. The airfare portion of the travel expenses has been adjusted to approximate that portion which occurred within the Yukon.

2. Field expenses now includes a second helicopter trip which took place on September 14, 1990. The trip was made to examine different access routes to the property as well as to check permafrost conditions on site. The carrier was Trans North and the invoiced amount was $1,332.00.

3. Room and board charges now include expenses incurred on the september trip. The additional amount of $456.35 has not been broken down to accommodation and meals but is simply a total.

4. The additional personnel charge is for the trip made in september by Mr. B.G. Richards, P.Eng.

You will notice that the expenditures for the project now total $12,254.87 which is approximately $1400 more than the original cost statement. We assume that the claims not covered under the application for assessment are now open. If by some chance they are still in limbo pending your receiving this revised cost statement perhaps Mr. McPhee would like to apply the "surplus funds" to other

claims or save the expenditures for future use in a PAC (Portable Assessment Credit) account, if Yukon has such a thing.

I hope that this will suffice for your immediate purposes. If you have any further questions please contact the writer at 687-4665 during business hours. Thank you for your attention to this matter and we apologize for the delay.

Yours truly,
DYNAMIN ENGINEERING LIMITED

B.G. Richards, P.Eng.
President

BGR/sew

Recommended follow-up work should include:

1. Trenching to bedrock below the geochemical anomalies identified by Waugh. Trenching should be carried out as follows (Figure 10):

Trench	Length	Center of Trench	Bearing of Trench
A	200m	600N - 1+200W	East - West
B	200m	700N - 1+200W	East - West
C	200m	800N - 1+200W	East - West
D	200m	3+25N - 2+000W	N40°E
E	200m	0+00N - 1+615W	N40°E
F	200m	3+80S - 1+300W	N64°E

Bedrock exposed by trenching should be geologically mapped and chip sampled along 4 meter sections. These samples should be analyzed for gold, platinum, palladium, nickel and copper.

2. Contingent on a successful trenching program, follow up diamond drilling would be justified.

SECTION 9.0 COST STATEMENT

9.1 SUMMARY

1. Personnel	6,272.00
2. Field Expenses	3,748.28
3. Room & Board	1,019.19
4. Sample Analysis	388.40
5. Travel Expenses	482.00
6. Geophysical Equipment Rental	200.00
7. Report Reproduction & Drawings	145.00
TOTAL	**$12,254.87**

BGR

9.2 PERSONNEL

1. Trip Preparation	
W.J. Radvak	
1 day @ $195.00 per day	195.00
2. Mobilization, Demobilization & Travel July 22 - July 24 Vancouver-Whitehorse-Dawson Return	
B.G. Richards, P.Eng.	
2 days @ $300.00 per day	600.00
D.R. Morgan, P.Eng.	
2 days @ $300.00 per day	600.00
W.J. Radvak	
2 days @ $195.00 per day	390.00
3. VLF-EM Survey, Soil Sampling & Geological Reconnaissance	
B.G. Richards, P.Eng.	
1 day @ $300.00 per day	300.00
D.R. Morgan, P.Eng.	
1 day @ $300.00 per day	300.00
W.J. Radvak	
1 day @ $195.00 per day	195.00
4. Access Route Reconnaissance	
B.G. Richards, P.Eng	
3 days @ $300.00 per day	900.00
5.A) Data Preparation, Reports & Drawings	
B.G. Richards, P.Eng.	
4 days @ $300.00 per day	1,200.00
D.R. Morgan, P.Eng.	
1.5 days @ $300.00 per day	450.00
B) Plotting & Drafting	
14 hours @ $43.00 per hour	602.00
C) Report Typing & Collation, Drawing Reproduction	
18 hours @ $30.00	540.00
TOTAL	**$6,272.00**

9.3 FIELD EXPENSES

1. Helicopter Rentals		3,693.60
2. Field Supplies		54.68
	TOTAL	**$3,748.28**

9.4 ROOM & BOARD

1. Motels		895.60
2. Meals		123.59
	TOTAL	**$1,019.19**

9.5 SAMPLE ANALYSIS

1. 30 element ICP analysis		104.00
2. Fire Assays		284.40
	TOTAL	**$388.40**

9.6 TRAVEL EXPENSES

1. Airfares: Whitehorse - Dawson 3 @ $150.00 (estimated)		450.00
2. Taxis and Parking		32.00
	TOTAL	**$482.00**

9.7 GEOPHYSICAL EQUIPMENT RENTAL

1. VLF-EM Unit Rental 4 days @ $50.00 per day		200.00
	TOTAL	**$200.00**

9.8 REPORT REPRODUCTION & DRAWINGS

1. Estimated		145.00
	TOTAL	**$145.00**